## VEGETATION MONITORING AT THE EAGLE GOLD PROJECT INCLUDING SOIL SAMPLING AT D-2B AND D-4B, 2019

(Section 12 of the EMSAMP, Version 2019-02)

For



Submitted by



November 2019

### TABLE OF CONTENTS

Table	of Contents	.i
List of	Tables and Figures	.i
1.0	INTRODUCTION	1
2.0	METHODS	1
3.0	RESULTS	4 9 3
4.0	DISCUSSION 1	5
5.0	REFERENCES1	6

Appendix A	Vegetation Tissues Data, 2019
Appendix B	Photographs, 2019

Appendix C Soil Data

### LIST OF TABLES

### Table

## Page

Location and Description of Vegetation Sites	1
Foliar Samples Collected Per Plot	9
Selected Metal Concentrations (mg/kg) Per Tissue Type	10
Comparison of Metal Concentrations (mg/kg) 2018 and 2019	12
Particle Size and Texture	14
Plant Available Nutrients	14
Range of Results Compared to CCME and Yukon Guidelines for Soils	15
	Location and Description of Vegetation Sites Foliar Samples Collected Per Plot Selected Metal Concentrations (mg/kg) Per Tissue Type Comparison of Metal Concentrations (mg/kg) 2018 and 2019 Particle Size and Texture Plant Available Nutrients Range of Results Compared to CCME and Yukon Guidelines for Soils

## LIST OF FIGURES

## Figure

## Page

1	Location of Vegetation Sites
2	Vegetation Monitoring Plot Layout
3	Graphical Representation of the Range of Metals in Vegetation Tissues11

#### 1.0 INTRODUCTION

The vegetation monitoring program has been designed to evaluate changes to metal deposition and uptake within vegetation during the construction and operational phases of the Project. Specifically, metal burden in and on plant tissues is measured annually during the growing season of each year to help identify whether any trends may be attributed to the Project. The 2019 survey is the second year of the program.

The Environmental Monitoring, Surveillance and Adaptive Management Plan (EMSAMP), Version 2019-02, indicates four areas located within the Project area for the establishment of permanent vegetation plots. These sites are also the locations for the Soils Program and the dust fall installations.

#### 2.0 METHODS

Four sites were established in each of the identified quadrants with initial assessments and collections completed in early August 2018 (Laberge, 2018a). Two of these original sites (D-1 and D-3) were assessed and sampled again on July 11, 2019. Due to construction requirements, alternate sites for D-2 (approximately 70 m from original site) and D-4 (approximately 300 m south of the original site) were established and sampled as D-2B on July 10, 2019 and D-4B on July 12, 2019, respectively.

Descriptions and locations are detailed in Table 1 and displayed on Figure 1. The coordinates of each site represent the centre point of that site. Four corner points were then established in cardinal directions 10 metres from the centre. The plot layout is represented in Figure 2. Each of these five points were identified with fluorescent painted half-inch diameter rebar, 50 cm long. Circle plots of one-meter radius, were flagged around each rebar. The EMSAMP states that foliar samples of willow, sedge, bluejoint and northern rough fescue are to be collected within these two-meter diameter plots. As each of these four vegetation sites are located in different ecosystem units, not all species were present at each site and substitutions were made where applicable.

TABLE 1         LOCATION AND DESCRIPTION OF VEGETATION SITES					
Site #	ite # NAD 83 Zone 8W Aspect		Aspect	Elevation (m)	Site Description
One #	Easting	Northing	Aspect Elevation (iii)		one Description
D-1	463550	7100803	level	1417	Potato Hills near climate station
D-2B	458256	7100972	west	791	Upslope of the air quality station and the camp climate station, south side of Eagle Cr
D-3	460598	7099079	south west	1356	Top of Eagle Pup near the over-the-top road
D-4B	458279	7097731	east	751	On the west side of the access road south of the Haggart Cr culverts and the power line

New disposable nitrile gloves were worn for each collection and tissues were placed in resealable plastic bags. Where possible, separate samples were collected for willow leaves and the current season's growth of twigs. Willow foliar samples were collected from each quadrant. Due to their presence at most of the plots, and the fact they also have reasonable surface area for dust deposits, dwarf birch leaves were also sampled. Sedge and bluegrass were not present in collectable quantities at any of the sites. Fescue biomass was sufficient for collection at sites D-1, D-2B and D-3.





Legend:	egend:		Strata Gold		EAGLE GOLD PROJECT YUKON TERRITORY	
•	Vegetation sample plot locations; painted ½ inch rebar to locate centre and corner plots; foliar samples collected every other year.			Vegetation and Plot L	Soil Monitoring ayout	
	Soil sampling locations, surface horizon between	Projection:	Drawn By:	Date:	Figure:	
	0 and 0.5 m depths; one sample every other year.	N/A	SS	2014/07/02	2	

A total of 53 foliar samples were collected and kept cool until delivered to the ALS laboratory in Whitehorse, Yukon. After the samples were logged in, they were frozen and shipped to the ALS lab in Burnaby, BC, for analysis. The foliar samples were homogenized and sub-sampled prior to hotblock digestion with nitric and hydrochloric acids, in combination with the addition of hydrogen peroxide. Metals were analyzed using collision cell inductively coupled plasma-mass spectrometry. Analysis for mercury was done by atomic fluorescence or atomic absorption spectrophotometry.

Soil samples were collected as per the protocols detailed in the EMSAMP (2019-02) for D-2B and D-4B on July 12, 2019 to provide initial soil characterization. Specifically, one soil sample was collected from each site, 2.5 m in from the north plot as indicated by "Year 1" on Figure 2. Samples were collected with a stainless steel trowel from a depth of 0 to 0.5 m below the litter layer. Samples were transferred into clean glass jars for metal analysis and into resealable plastic bags for the remaining analyses. New nitrile gloves were worn prior to sampling to prevent cross-contamination between sites. Samples were kept cool until delivered to the ALS lab/depot in Whitehorse, Yukon. Samples were analyzed for pH, metals, and available nitrite, nitrate, phosphate and potassium.

#### 3.0 RESULTS

#### 3.1 Description of the Vegetation Sites

The four roughly 200m<sup>2</sup> established sites lie within two ecological zones; the Subalpine Zone where the elevation is greater than 1225 masl and the Forested Zone which includes the treed areas on the mountain slopes and the valley bottoms (Stantec, 2011b). D1 and D3 are located in the Subalpine Zone and D-2B and D-4B are in the Forested Zone. Selected photographs of the sites are presented in Appendix B.

#### D-1

D-1 is situated approximately 30 meters west of the Potato Hills Climate station upgradient of significant Project infrastructure. Stantec (2011b) conducted ecosystem mapping throughout the Eagle Gold Project area in 2009. The polygon that contains D-1 is classified as 50% Dwarf Birch and Lichen, 40% Dwarf Birch and Northern Rough Fescue and 10% Subalpine Fir, Dwarf Birch, Crowberry and Lichens (Stantec, 2011b, Appendix 11, Part 1).

Within the 14 meter square boundary of D-1, as observed in 2018, dwarf birch was the dominant species followed by willow. Tree species were solitary sporadic subalpine fir as well as one white spruce. There was exposed rock and talus throughout the site with the majority encrusted with lichen. A diversity of forbs was noted. The following plants were identified within D-1:

Common Name	Scientific Name
Subalpine Fir	Abies lasiocarpa
White Spruce	Picea glauca
Dwarf Birch	Betula glandulosa
Willow	Salix sp
Diamond Leaf Willow	Salix pulcha
Willow	Salix richardsonii
Labrador Tea	Rhododendron groenlandicum
Northern Labrador Tea	Rhododendron tomentosum
Low Bush Cranberry	Vaccinium vitis-idaea
Blueberry	Vaccinium uliginosum

Common Name	Scientific Name
Arctic White Heather	Cassiope tetragona
Crowberry	Empetrum nigrum
Colt's Foot	Petasites frigidus var. sagittatus
Lupine	Lupinus arcticus
Mountain Sagewort	Artemisia norvegica
Anemone	Anemone narcissiflora
Richardson's Anemone	Anemone richardsonii
Labrador lousewort	Pedicularis labradorica
Sudeten lousewort	Pedicularis sudetica
Spike Trisetum	Trisetum spicatum
Altai fescue	Festuca altaica
Bryum family moss	Bryacea sp. – Pohlia nutans?
Heron bill moss	Dicranum sp. – D. acutifolium?
Red-stemmed feather moss	Pleurozium schreberi
Haircap moss	Polytrichum sp.
Arctic butterfingers lichen	Dactylina arctica
Star reindeer lichen	Cladina stellaris
Grey reindeer lichen	Cladina rangiferina
Club lichen	Cladonia spp
Arctic kidney lichen	Nephroma arcticum
Alpine foam lichen	Stereocaulon alpinum
Rockstripe lichen	Umbilicaria torrefacta
Green crusticose lichen	Aspicilia caesiocinerea
Common freckle pelt lichen	Peltigera aphthosa
Caribou horn tumbleweed lichen	Masonhalea richardsonii

#### D-2B

D-2B was re-established in the Forested Zone east of the camp weather station on the south side of Eagle Creek, approximately 70 m south of the original D-2. Stantec (2011b) classified the polygon where D-2B is located as 80% Black spruce, Labrador Tea and Feathermoss and 20% Subalpine Fir, Crowberry and Lichen.

Tree species found within the boundary of site D-2B consisted of white spruce, trembling aspen, balsalm poplar and paper birch, which is consistent with the D-2 site located approximately 70 m away. Willows were the dominant shrub species. Equisetum and grasses were the dominant ground cover. Forbs and other shrubs were also present. Fox scat was observed in the plot.

The following plants were identified at D-2B:

Common Name	Scientific Name
Balsam poplar	Populus balsamifera
Trembling aspen	Populus tremuloides
White spruce	Picea glauca
Alaska paper birch	Betula neoalaskana
Green alder	Alnus viridis
Kinnikinnick	Arctostaphylos uva-ursi
Black crowberry	Empetrum nigrum

Common Name	Scientific Name
Diamond Leaf Willow	Salix pulchra
Scouler's Willow	Salix scouleriana
Felt-leaf willow	Salix alaxensis
Little-tree willow	Salix arbusculoides
Grey-leaved willow	Salix glauca
Blueberry willow	Salix myrtillifolia
Dwarf Birch	Betula glandulosa
Labrador Tea	Rhododendron groenlandicum
Low Bush Cranberry	Vaccinium vitis-idaea
Bog blueberry	Vaccinium uliginosum
Prickly rose	Rosa acicularis
Soapberry	Shepherdia canadensis
Alpine milk-vetch	Astragalus alpinus
Fireweed	Chamerion angustifolium
Alpine sweet-vetch	Hedysarum alpinum
Arctic sweet coltsfoot	Petasites frigidus
Wintergreen	Pyrola sp.
Small tofieldia	Tofieldia pulsilla
Common horsetail	Equisetum arvense
Dwarf scouring-rush	Equisetum scirpoides
Small sedge	Carex sp.
Altai fescue	Festuca altaica
Fire moss	Ceratadon purpureus
Step moss	Hylocomium splendens
Red-stemmed feather moss	Pleurozium schreberi
Star reindeer lichen	Cladina stellaris
Grey reindeer lichen	Cladina rangiferina
Club lichen	Cladonia spp.
Crinkled snow lichen	Flavocetraria nivalis
Common freckle pelt lichen	Peltigera apthosa
Alpine foam lichen	Stereocaulon alpinum

#### D-3

D-3 is located in a subalpine setting above Platinum Gulch accessed by the over-the-top road. The ecosystem classification in the polygon where D-3 is situated is 50% Dwarf Birch and Northern Rough Fescue, 40% Dwarf birch and Lichen, and 10% Subalpine Fir, Dwarf Birch, Crowberry and lichens (Stantec, 2011b).

As observed in 2018, within the boundaries of D-3, dwarf birch was the dominant species with scattered subalpine fir and white spruce. Willows, berry bushes, lichens and moss were also present.

The following plants were identified at D-3:

Common Name	Scientific Name
Subalpine Fir	Abies lasiocarpa
White Spruce	Picea glauca

Common Name	Scientific Name
Grey-leaved Willow	Salix glauca
Diamond Leaf Willow	Salix pulchra
Dwarf Birch	Betula glandulosa
Low Bush Cranberry	Vaccinium vitis-idaea
Blueberry	Vaccinium uliginosum
Crowberry	Empetrum nigrum
Labrador tea	Rhododendron groelandicum
Labrador Lousewort	Pedicularis labradorica
Anemone	Anemone narcissiflora
Mountain sagewort	Artemisia norvegica
Caespitose fleabane	Erigeron caespitosus
Labrador lousewort	Pedicularis labradorica
Altai fescue	Festuca altaica
Woodrush	Luzula parviflora
Glow moss	Aulacomnium palustre
Broom moss	Dicranum sp. – D. acutifolium?
Haircap moss	Polytricum sp
Red-stemmed feather moss	Pleurozium schreberi
True Iceland lichen	Cetraria islandica
Club lichens	Cladonia spp.
Crinkled snow lichen	Flavocetraria nivalis
Arctic kidney lichen	Nephroma arcticum
Star reindeer lichen	Cladina stellaris
Caribou horn	Masonhalea richardsonii
Common freckle pelt lichen	Peltigera aphthosa

#### D-4B

D-4B is located in the Forested Zone downstream of the Haggart Creek culverts on the west side of the road just past the power line in an undisturbed area of the natural forest. The ecosystem classification in the polygon in which D-4B is situated is 60% subalpine fir, crowberry and lichens, 30% black spruce, Labrador tea and feathermoss and 10% Alaska paper birch, white spruce and willow (Stantec 2011b). This is somewhat different to the classification of D-4, which was located in the Haggart Creek floodplain, and classified as river/creek system with gravel bars and 20% as an ecosystem type of White Spruce and Horsetail.

Alaska paper birch, white spruce, black spruce and trembling aspen were the tree species identified within the boundaries of plot D-4B. Many species of shrubs dominated the site notably willows and dwarf birch. Moss and lichens were common.

The following plants were identified at D-4B:

Common Name	Scientific Name
Alaska paper birch	Betula neoalaskana
White spruce	Picea glauca
Black spruce	Picea mariana
Trembling aspen	Populus tremuloides
Green alder	Alnus viridis

Common Name	Scientific Name
Red bearberry	Arctos rubra
Glandular scrub birch	Betula glandulosa
Water birch	Betula occidentalis
Shrubby cinquefoil	Dasiphora fruticose
Black crowberry	Empetrum nigrum
Labrador tea	Rhododendron groenlandicum
Prickly rose	Rosa acicularis
Arctic willow	Salix arctica
Barclay's willow	Salix barclayi
Bebb's willow	Salix bebbiana
Grey-leaved willow	Salix glauca
Blueberry willow	Salix myrtillifolia
Diamond leaved willow	Salix pulchra
Small cranberry	Vaccinium oxycoccos
Bog blueberry	Vaccinium uliginosum
Lowbush cranberry	Vaccinium vitis-idaea
Arctic lupine	Lupinus arcticus
Tall bluebells	Mertensia paniculate
Labrador lousewort	Pedicularis labradorica
Arctic sweet coltsfoot	Petasites frigidus
Hooded ladies' tresses	Spiranthes romanzoffiana
Small tofieldia	Tofieldia pulsilla
Common horsetail	Equisetum arvense
Dwarf scouring rush	Equisetum scirpoides
Woodland horsetail	Equisetum sylvaticum
Bristly club-moss	Lycopodium annotinum
Polar grass	Arctagrostis latifolia
Bigelow sedge	Carex consimilis
Glow moss	Aulacomnium palustre
Bryum family moss	Bryacease sp. – Pohlia nutans?
Broom mosses	Dicranum spp.
Red-stemmed feather moss	Pleurozium schreberi
Haircap moss	Polytricum sp.
Narrow-leaved peat moss	Sphagnum angustifolium?
Warnstorf's peat moss	Sphagnum warnstorfii?
Golden fuzzy fen moss	Tomenthypnum nitens
True Iceland lichen	Cetraria islandica
Grey reindeer lichen	Cladina rangiferina
Star reindeer lichen	Cladina stellaris
Club lichens	Cladonia spp.
Crinkled snow lichen	Flavocetraria nivalis
Candy lichen	Icmadophila ericetorum
Reindeer tumbleweed lichen	Masonhalea richardsonii
Arctic kidney lichen	Nephroma arcticum
Common freckle pelt lichen	Peltigera apthosa
Undulating pelt lichen	Peltigera neopolydactyla

#### 3.2 2019 Metals Data in Vegetation

Foliar samples were collected from each site and where possible from each of the five plots at each site (Table 2). Willows were collected from most of the plots, followed by dwarf birch. The majority of the willows were *Salix pulchra*, diamond leaf willow, and this species was present at all of the sites. There was insufficient biomass for individual samples of fescue (*Festuca altaica*) from each plot so collections were made throughout the sites D-1 and D-3. Due to the relocation of plots D-2 and D-4, two species that were not sampled in 2018 were collected in 2019; paper birch and equisetum.

	TABLE 2	2 FOLIAR SAMPLES COLLECTED PER PLOT, 2019							
SITE #	PLOT #	WILLOW LEAVES	WILLOW TWIGS	DWARF BIRCH LEAVES	EQUISETUM	FESCUE	PAPER BIRCH LEAVES	PAPER BIRCH TWIGS	
	Centre	V	V	V		site			
	North	V	V	V		ted ut s			
D-1	East	V	v	V		llec			
	South	V	v	V		Onic			
	West	V	V	V		thr			
	Centre	V	v			V			
	North	V	v		v				
D-2B	East						V	V	
	South	V		V					
	West	V	v						
	Centre	V	V	V		ite			
	North	V	v	V		ted ut s			
D-3	East	V		V		gho			
	South	V		V		ouç Ouç			
	West	V	v	V		thı			
	Centre			V	V				
	North	V	V		v				
D-4B	East	V		V					
	South	V	v						
	West	V		V					
# of in san	ndividual nples:	18	13	14	3	3	1	1	

The analytical reports for monitored vegetation species and plots are presented in Appendix A. Samples were analyzed for a suite of 34 metals including mercury.

The range of concentrations of each parameter for all vegetation types per site is summarized in Table A-1 (in Appendix A). There are no territorial or federal guidelines regarding metal concentrations in vegetation with respect to wildlife consumption (e.g., moose and/or caribou). For reference, Stantec (2011b) compared the 2009 Eagle Gold foliar data to the dietary tolerances for beef cattle (Puls, 1994). These toxic values have also been included in Table A-1. For the

majority of the metals compared against these same dietary tolerances, concentrations in the 2019 foliar samples were well below these levels. The exception to this was manganese and selenium. Dwarf birch leaves from the east and north plots at D-1 and the east plot at D-3 slightly exceeded the low end of the manganese toxic threshold of 2000 mg/kg (analytical report, Appendix A). This was a similar result as noted in the 2018 sampling program. The toxic threshold for selenium was exceeded in one equisetum tissue sample collected from the north plot of D-2B, however all other selenium samples within the D-2B plot were well below the selenium guideline. In comparison, selenium concentrations in the 2018 samples were well below the toxic threshold. Barium does not have a toxic threshold, however a concentration of 20 mg/kg was considered high by Puls (1994). This value was exceeded in many of the foliar samples collected from all of the sites in both 2018 and 2019.

Potential emissions related to the gold recovery process include the metals arsenic, cadmium, chromium, mercury and lead (EMSAMP, 2019-02). These metals have been averaged per vegetation type for the five collection plots at each site and compared to the beef cattle dietary tolerances as above (Table 3).

TABLE 3         SELECTED METAL CONCENTRATIONS (mg/kg) PER TISSUE TYPE									
Plot #	Tissue	N	Arsenic	Cadmium	Chromium	Lead	Mercury		
D1	Dwarf Birch	5	0.136	0.174	0.101	0.070	0.0053		
D2	Dwarf Birch	1	1.28	0.123	0.200	0.262	0.0055		
D3	Dwarf Birch	5	0.835	0.149	0.178	0.297	0.0056		
D4B	Dwarf Birch	3	1.035	0.137	0.182	0.234	0.0061		
D2	Equisetum	1	0.583	1.03	0.135	0.107	0.0053		
D4B	Equisetum	2	0.545	0.803	0.147	0.086	0.0070		
D1	Fescue	1	0.104	0.0770	0.173	0.143	ND		
D2	Fescue	1	1.28	0.0779	0.292	0.208	ND		
D3	Fescue	1	0.669	0.0390	0.474	0.334	ND		
D2	Paper Birch leaves	1	1.88	0.464	0.394	0.464	0.0058		
D2	Paper Birch twigs	1	0.514	0.771	0.155	0.174	ND		
D1	Willow leaves	5	0.167	2.066	0.105	0.113	0.0067		
D2	Willow Leaves	4	1.65	3.56	0.208	0.324	0.0064		
D3	Willow leaves	5	1.267	1.761	0.259	0.377	0.0071		
D4B	Willow leaves	4	1.00	1.61	0.173	0.171	0.0058		
D1	Willow twigs	5	0.132	2.406	0.255	0.194	ND		
D2	Willow twigs	3	1.00	2.74	0.393	0.213	ND		
D3	Willow twigs	3	1.03	1.05	0.392	0.347	ND		
D4B	Willow twigs	2	0.876	0.852	0.242	0.155	ND		
Toxicity three	esholds for beef cattle (I	Puls, 1994):	>10	50 - 500	>40	>100	N/A		
ND = not	detected N/A = not ap	plicable							

The above data was sorted from lowest concentration to highest and charted on Figure 3 to help assess potential relationships between tissue type and location. Mercury was not charted due to the high number of non-detections. Tissues collected from D-1 had the lowest concentration of arsenic with similar values per tissue type. The greatest concentration of arsenic was documented in paper birch leaves (N=1) sampled for the first time in 2019 from the newly established site of D-2B. Slightly higher concentrations than this were reported in some single collections of willow leaves but when these were averaged per site, the overall concentration for that tissue type was

lowered. Levels were also high in the other tissue types collected at D-2B with the exception of equisetum. These results are similar to that reported for the 2018 sampling program. Although there is not a toxic threshold for arsenic, the value given in Table 3 and Table A-1 indicates a normal or adequate concentration; all concentrations were less than this.

Cadmium concentrations were very low in the fescue and dwarf birch tissues unrelated to the site they were collected from. The highest levels of cadmium were documented in the willow leaves collected from D-2B. Willow leaves and twigs from the other sites also had higher levels. However, these values are consistent with the findings from 2018 and are very low and well below the referenced toxic level (Table A-1).

Chromium and lead concentrations varied somewhat but there was no site nor tissue type that had consistently higher or lower concentrations, and as in 2018 none of the concentrations exceeded the toxic levels for beef cattle dietary tolerance.

Mercury levels were very low in the tissues at all of the sites (no exceedances) and were not detected in any of the willow or paper birch twigs or in the fescue tissues.

#### VEGETATION MONITORING AT EAGLE GOLD PROJECT, 2019

FIGURE 3











#### 3.3 Previous Vegetation Data

The 2019 data can only be compared to 2018 data from the sites D-1 and D-3 as the other two sites were re-established in 2019. Concentrations were similar between the two years for arsenic, cadmium and mercury (Table 4). Levels of chromium and lead were consistently higher in the various tissues in 2019 than in 2018, although not by a great deal.

TABLE 4       COMPARISONS OF METAL CONCENTRATIONS (mg/kg) 2018 AND, 2019										
Plot #		Tissue	Ν	Arsenic	Cadmium	Chromium	Lead	Mercury		
	2019	Dwarf Birch	5	0.136	0.174	0.101	0.070	0.0053		
	2018	Dwall Blich	5	0.187	0.187	ND	0.055	0.0054		
	2019	Foscuo	1	0.104	0.0770	0.173	0.143	ND		
D1	2018	T escue	5	0.113	0.055	0.073	0.108	ND		
	2019	Willow loaves	5	0.167	2.066	0.105	0.113	0.0067		
	2018	WIIIOW leaves	5	0.187	1.758	ND	0.082	ND		
	2019	Willow Twigs	5	0.132	2.406	0.255	0.194	ND		
	2018		5	0.135	1.948	ND	0.154	ND		
	2019	Dwarf Birch	5	0.835	0.149	0.178	0.297	0.0056		
	2018	Dwall Blich	5	0.410	0.188	ND	0.066	0.005		
20	2019	Willow loaves	5	1.267	1.761	0.259	0.377	0.0071		
05	2018	WIIIOW leaves	1	0.551	1.05	ND	0.132	0.0055		
	2019	Willow twigs	3	1.03	1.05	0.392	0.347	ND		
	2018	vviiiovv twigs	1	0.311	1.03	0.068	0.102	ND		
ND = no	t detected									

In 2009, Stantec (2011b) had foliar tissues collected in the Eagle Gold study area analyzed for metal concentrations. Unfortunately, none of the nine sites sampled correlate to the sites established under the EMSAMP. Cantest completed the analyses and used much higher detection limits than the current study. The method detection limits (MDL) have decreased over time providing more precision for the lower concentrations of metals which are reported in the 2018 and 2019 tables. Complete comparisons therefore cannot be made as non-detected parameters in 2009 can now be detected. Of detected parameters in both studies, the greatest arsenic concentrations reported in the 2009 study occurred in grasses collected from a slope off the access road near Platinum Gulch, with a concentration of 0.4 mg/kg (Stantec, 2011b). This is lower than several of 2019 samples. Reported cadmium levels were much lower in the tissues sampled in 2009 than in 2018 and 2019.

#### 3.4 Soil Analyses

Soil samples were collected from the re-established sites of D-2B and D-4B to provide initial baseline characterization for these areas and represents Year 1 (see Figure 2). Permafrost was encountered beneath the 12 cm moss layer at D-4B.

The two soil samples were analyzed for a range of parameters. The analytical report is presented in Appendix C.

The soil samples were sieved and based on the distribution of grain size less than 2mm, texture was determined (Table 5). The texture of the soil at both sites was classified as silt loam.

TABLE 5 PAR	PARTICLE SIZE AND TEXTURE								
Site	D-2B	D-4B							
Date Sampled	July 12, 2019	July 12, 2019							
% Sand (2.0mm - 0.05mm)	41.2	20.2							
% Silt (0.05mm - 2um)	54.7	58.9							
% Clay (<2um)	4.1	20.9							
Texture	Silt loam	Silt loam							

Nutrients and available plant nutrients were analyzed and summarized in Table 6. The soil at D-4B had a much greater total nitrogen content than D-2B. All available plant nutrients were below detection except for potassium. Potassium is a primary nutrient used in large quantities by plants. The range of 80 to 250 ppm is where plant growth is optimal (Legg, unknown year of publication). The soil at D-4B fell within this range.

TABLE 6PLANT AVAILABLE NUTRIENTS										
Site	D-2B	D-4B								
Date Sampled	July 12, 2019	July 12, 2019								
Nutrients										
Total Nitrogen %	0.025	1.12								
Plant Available Nutrients										
Nitrate+Nitrite-N (mg/kg)	<2.0	<5.0								
Nitrate-N (mg/kg)	<2.0	<5.0								
Nitrite-N (mg/kg)	<0.80	<2.0								
Available Phosphate-P (mg/kg)	<2.0	<4.0								
Available Potassium (mg/kg)	47	96								

The soil samples were also analyzed for pH and a suite of 36 metals (Table C-1, Appendix C). The soil at D-2 was alkaline (8.23) and slightly acidic at D-4B (6.00). Of the 36 elements analyzed, boron and tin were not detected.

The most recent Canadian Council of Ministers of the Environment (CCME) guidelines, which include new guidelines from 2018, and the Yukon Contaminated Sites Regulations for agriculture and parklands were tabulated and compared to the concentrations found in the soils at D-2B and D-4B (Table 7). Arsenic, at D-2B, was the only parameter that exceeded the recommended guidelines, highlighted in red. This is most likely attributed to the naturally high arsenic found in the mineralized zones throughout the region (Stantec 2011a). The remaining elements met all of the guidelines and concentrations were very low.

TABLE 7	RANGE OF R AND PAR	ESULTS CO KLAND GUIE	MPARED TO DELINES FOR	CCME AND	YUKON AGR SOILS	ICULTURE
	CCME	(mg/kg)	Yukon CS	SR (mg/kg)		
Element	Agriculture	Parkland	Agriculture	Parkland	- D-2B	D-4B
Antimony (Sb)	20	20	20	20	2.32	3.44
Arsenic (As)	12	12	15	15	32.8	5.17
Barium (Ba)	750	500	750	500	348	327
Beryllium (Be)	4	4	4	4	0.31	0.30
Cadmium (Cd)	1.4	10	1.5	1.5	0.380	0.418
Chromium (Cr)	64	64	50	60	18.8	6.18
Cobalt (Co)	40	50	40	50	8.81	3.86
Copper (Cu)	63	63	90	90	27.9	25.9
Lead (Pb)	70	140	100	100	12.6	8.43
Mercury (Hg)	6.6	6.6	0.6	15	0.0329	0.146
Molybdenum (Mo)	5	10	5	10	1.01	0.66
Nickel (Ni)	45	45	150	150	24.3	12.8
Selenium (Se)	1	1	2	1	0.32	0.86
Silver (Ag)	20	20	20	20	0.15	0.58
Thallium (TI)	1	1	2		0.088	0.054
Tin (Sn)	5	50	5	50	<2.0	<2.0
Uranium	23	23			0.600	0.998
Vanadium (V)	130	130	200	200	33.8	8.55
Zinc (Zn)	250	250	150	150	66.8	20.3
			ND = not detected			

#### 4.0 DISCUSSION

The levels of metals found in the foliar samples collected in 2019 represent the second year assessment for sites D-1 and D-3 and baseline conditions for sites D-2B and D-4B. The data gives a general idea of the metal burden (uptake in tissues as well as through dust deposition) in various species in different ecological zones. Arsenic is potentially a parameter of concern in the Eagle Gold Project area. The 2018 and 2019 soil samples indicate high naturally occurring levels of arsenic in the area. Arsenic is associated with the gold bearing anomalies in the district and these baseline concentrations reflect the natural mineralization of the Project area. Arsenic soil concentrations exceeded the CCME and CSR guidelines in the select samples collected in 2018 (Laberge, 2018b) and in 2019 (Appendix C). However, these relatively high soil concentrations are not reflected as relatively high in the plant tissues. This incongruity may be related to the bioavailability associated with arsenic speciation.

The toxicity of arsenic to biota depends upon the speciation with inorganic forms generally thought to be more toxic than organic forms. Arsenate [As(V)] is the dominant form of arsenic in aerobic soils (Meharg et al, 2002). It is similar to the macronutrient phosphate and creates toxicity in plants by competing with phosphate. Processes within the plant convert arsenate to the more toxic arsenite [As(III)]. Trivalent arsenic (arsenite) is 5 to 10 times more toxic than pentavalent arsenic (arsenate). Elemental arsenic is non-toxic. There was no visible sign of stress in any of the vegetation in the plant tissues. Investigations into the speciation of arsenic in plant tissues have shown more than one species present (Meharg et al, 2002). Therefore, the arsenic present in

the soil may not be bioavailable to plants or the availability may be limited by the mycelium associated with the vegetation types, which effectively screen out toxins at the root hairs.

#### 5.0 REFERENCES

- Canadian Council of Ministers of the Environment (CCME). 2007. Canadian sediment quality guidelines for the Protection of Aquatic Life. Canadian Council of Ministers of the Environment, Winnipeg, Manitoba
- Laberge Environmental Services. 2018a. Vegetation Monitoring at the Eagle Gold Project, 2018. Prepared for Victoria Gold Corp.
- Laberge Environmental Services. 2018b. Soil Monitoring at the Eagle Gold Project, 2018. Prepared for Victoria Gold Corp.
- Legg, J. Agri-Foods Laboratories. Topsoil Report Ranges. Guelph, Ontario.
- Meharg, A.A., J. Harley-Whitaker. 2002. Arsenic uptake and metabolism in arsenic resistant and nonresistant plant species. New Phytologist. 154: 29-43.
- Puls, R. 1994. Mineral Levels in Animal Health: Diagnostic Data, 2nd Edition. Sherpa International, Clearbrook, B.C.
- Stantec Consulting Ltd. 2011a. Appendix 5, Baseline Environmental Report: Surficial Geology, Terrain and Soils. Prepared for Victoria Gold Corp. Project # 1231-10377.
- Stantec Consulting Ltd. 2011b. Appendix 11, Baseline Environmental Report: Vegetation, Parts 1 and 2. Prepared for Victoria Gold Corp. Project # 1231-10377.
- StrataGold Corporation. 2019. Eagle Gold Project Environmental Monitoring, Surveillance and Adaptive Management Plan. Version 2019-01.

Yukon Government. Environment Act - Yukon Contaminated Sites Regulations, OIC2002/171.

## **APPENDIX A**

## **VEGETATION TISSUES DATA**

- TABLE A-1
- ANALYTICAL REPORT, JULY 2019

Table A-1       Range of Detected Metals (mg/kg) in all Tissue Types						
Metal	Lowest Detection Limit	D-1	D-2	D-3	D-4B	Toxic
Aluminum (Al)-Total	2.0	10.4 to 54.3	19.7 to 88.7	37.6 to 213.0	11.6 to 70.6	>1200
Antimony (Sb)-Total	0.010	0.011 to 0.491	0.027 to 0.123	0.026 to 0.230	0.015 to 0.081	
Arsenic (As)-Total	0.020	0.066 to 0.334	0.514 to 1.950	0.366 to 2.020	0.369 to 1.410	>10*
Barium (Ba)-Total	0.050	19.2 to 129.0	27.3 to 128.0	13.7 to 126.0	9.8 to 67.8	>20**
Beryllium (Be)-Total	0.010	0.016 to 0.029	not detected	0.012 to 0.028	not detected	
Bismuth (Bi)-Total	0.010	not detected	not detected	0.013 to 0.087	0.010 to 0.051	
Boron (B)-Total	1.0	2.1 to 7.2	2.3 to 24.9	1.5 to 6.3	3.1 to 21.1	>200
Cadmium (Cd)-Total	0.0050	0.0770 to 3.1100	0.0779 to 4.8900	0.0390 to 3.4000	0.0393 to 3.5000	50 - 500
Calcium (Ca)-Total	20	1860 to 7280	2850 to 23400	1650 to 8560	4220 to 17100	
Cesium (Cs)-Total	0.0050	0.0227 to 0.2960	0.0133 to 0.0861	0.0303 to 0.2760	0.0119 to 0.4330	
Chromium (Cr)-Total	0.050	0.057 to 0.527	0.135 to 0.638	0.088 to 0.550	0.088 to 0.269	>40
Cobalt (Co)-Total	0.020	0.127 to 5.900	0.055 to 2.190	0.180 to 6.070	0.071 to 0.884	>30
Copper (Cu)-Total	0.10	2.8 to 5.1	3.7 to 7.9	1.2 to 5.3	1.3 to 7.2	>100
Iron (Fe)-Total	3.0	29.3 to 94.0	73.8 to 294.0	68.7 to 388.0	58.6 to 181.0	>4000
Lead (Pb)-Total	0.020	0.064 to 0.380	0.107 to 0.464	0.125 to 0.618	0.051 to 0.273	>100
Lithium (Li)-Total	0.50	not detected	not detected	not detected	not detected	
Magnesium (Mg)-Total	2.0	904.0 to 2400.0	776.0 to 5580.0	720.0 to 2880.0	1420.0 to 5150.0	
Manganese (Mn)-Total	0.050	353.0 to 2490.0	27.5 to 1290.0	183.0 to 2420.0	44.6 to 1190.0	2000 - 4000
Mercury (Hg)-Total	0.0050	0.0050 to 0.0073	0.0053 to 0.0067	0.0056 to 0.0079	0.0054 to 0.0078	
Molybdenum (Mo)-Total	0.020	0.020 to 0.134	0.031 to 0.951	0.033 to 0.187	0.040 to 0.288	10 - 20
Nickel (Ni)-Total	0.20	0.91 to 7.84	1.11 to 7.45	0.98 to 11.30	0.28 to 2.85	>1500
Phosphorus (P)-Total	10	1530 to 2700	1170 to 5690	845 to 4440	1220 to 2090	
Potassium (K)-Total	20	5470 to 15000	3500 to 32500	3290 to 19400	6290 to 36600	
Rubidium (Rb)-Total	0.050	8.690 to 41.400	1.390 to 30.900	5.770 to 38.900	2.070 to 86.700	
Selenium (Se)-Total	0.050	not detected	0.050 to 26.700	0.051 to 0.075	0.060 to 0.186	5 - 20
Sodium (Na)-Total	20	31.0 to 31.0	22.0 to 42.0	not detected	not detected	
Strontium (Sr)-Total	0.050	6.67 to 61.00	9.98 to 63.90	5.08 to 78.90	10.70 to 56.70	>2000
Tellurium (Te)-Total	0.020	not detected	not detected	not detected	not detected	
Thallium (TI)-Total	0.0020	not detected	0.0020 to 0.0066	0.0022 to 0.0044	0.0026 to 0.0026	
Tin (Sn)-Total	0.10	0.12 to 1.18	0.16 to 0.30	0.10 to 0.11	0.10 to 0.10	
Uranium (U)-Total	0.0020	0.0021 to 0.0035	0.0029 to 0.0114	0.0036 to 0.0175	0.0026 to 0.0162	
Vanadium (V)-Total	0.10	0.000 to 0.000	0.100 to 0.160	0.120 to 0.360	0.120 to 0.140	
Zinc (Zn)-Total	0.50	30.7 to 160.0	24.0 to 120.0	21.2 to 120.0	27.5 to 196.0	>5000
Zirconium (Zr)-Total	0.20	not detected	0.380 to 0.380	not detected	not detected	
<ul> <li>* There is no actual toxic value</li> <li>** There is no actual toxic value</li> </ul>	e, only what is c e. only what is c	considered normal or adequate in the referenced t considered high in the referenced table.	able.			



STRATAGOLD CORPORATION ATTN: Hugh Coyle Suite 1000 - 1050 W. Pender St Vancouver BC V6E 3S7 Date Received:15-JUL-19Report Date:29-AUG-19 13:07 (MT)Version:FINAL

Client Phone: 604-682-5122

# Certificate of Analysis

### Lab Work Order #: L2309774

Project P.O. #: Job Reference: C of C Numbers: Legal Site Desc: NOT SUBMITTED EAGLE GOLD 1 of 5, 2 of 5, 3 of 5, 4 of 5, 5 of 5 Victoria Gold Corp.

Woods

Hilary Woods Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700 ALS CANADA LTD Part of the ALS Group An ALS Limited Company

Environmental 💭

www.alsglobal.com

**RIGHT SOLUTIONS** RIGHT PARTNER

L2309774 CONTD.... PAGE 4 of 16 29-AUG-19 13:07 (MT) Version: FINAL

	Sample ID	L2309774-3	L2309774-4	L2309774-5	L2309774-6	L2309774-7
	Description Sampled Date	11-JUL-19	11-JUL-19	11-JUL-19	11-JUL-19	11-JUL-19
	Sampled Time	D1 - CENTRE,	D1 - CENTRE,	D1 - CENTRE,	D1 - EAST,	D1 - EAST,
		WILLOW LEAVES	WILLOW TWIGS	DWARF BIRCH	WILLOW LEAVES	WILLOW TWIGS
Grouping	Analyte					
TISSUE						
Metals	Aluminum (Al)-Total (mg/kg)	46.3	18.8	14.8	54.3	33.6
	Antimony (Sb)-Total (mg/kg)	0.012	0.012	0.013	0.018	0.491
	Arsenic (As)-Total (mg/kg)	0.197	0.103	0.162	0.271	0.334
	Barium (Ba)-Total (mg/kg)	72.8	129	19.2	88.9	109
	Beryllium (Be)-Total (mg/kg)	0.025	<0.010	<0.010	0.029	<0.010
	Bismuth (Bi)-Total (mg/kg)	<0.010	<0.010	<0.010	<0.010	<0.010
	Boron (B)-Total (mg/kg)	3.7	7.2	2.9	2.4	4.7
	Cadmium (Cd)-Total (mg/kg)	2.70	3.11	0.186	3.04	2.86
	Calcium (Ca)-Total (mg/kg)	6630	5750	3530	7280	4420
	Cesium (Cs)-Total (mg/kg)	0.235	0.219	0.0550	0.194	0.156
	Chromium (Cr)-Total (mg/kg)	<0.050	0.248	0.122	0.183	0.527
	Cobalt (Co)-Total (mg/kg)	4.96	2.12	0.288	5.90	1.94
	Copper (Cu)-Total (mg/kg)	4.48	4.07	4.44	3.37	3.38
	Iron (Fe)-Total (mg/kg)	74.4	45.2	55.9	69.3	94.0
	Lead (Pb)-Total (mg/kg)	0.194	0.380	0.066	0.122	0.291
	Lithium (Li)-Total (mg/kg)	<0.50	<0.50	<0.50	<0.50	<0.50
	Magnesium (Mg)-Total (mg/kg)	1870	1270	1550	2400	1150
	Manganese (Mn)-Total (mg/kg)	1230	541	1640	941	404
	Mercury (Hg)-Total (mg/kg)	0.0064	<0.0050	<0.0050	0.0071	<0.0050
	Molybdenum (Mo)-Total (mg/kg)	0.095	0.048	0.030	0.100	0.080
	Nickel (Ni)-Total (mg/kg)	7.09	5.52	3.98	7.84	5.33
	Phosphorus (P)-Total (mg/kg)	2110	1860	2060	2450	1550
	Potassium (K)-Total (mg/kg)	11200	7250	6730	10400	5470
	Rubidium (Rb)-Total (mg/kg)	36.4	39.2	14.5	22.8	19.9
	Selenium (Se)-Total (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Sodium (Na)-Total (mg/kg)	<20	<20	<20	<20	31
	Strontium (Sr)-Total (mg/kg)	48.5	41.8	6.67	61.0	34.0
	Tellurium (Te)-Total (mg/kg)	<0.020	<0.020	<0.020	<0.020	<0.020
	Thallium (TI)-Total (mg/kg)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	Tin (Sn)-Total (mg/kg)	0.15	0.12	<0.10	<0.10	1.18
	Uranium (U)-Total (mg/kg)	<0.0020	<0.0020	<0.0020	0.0021	0.0035
	Vanadium (V)-Total (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10
	Zinc (Zn)-Total (mg/kg)	105	160	76.7	76.8	122
	Zirconium (Zr)-Total (mg/kg)	<0.20	<0.20	<0.20	<0.20	<0.20

L2309774 CONTD.... PAGE 5 of 16 29-AUG-19 13:07 (MT) Version: FINAL

	Sample ID	L2309774-8	L2309774-9	L2309774-10	L2309774-11	L2309774-12
	Description Sampled Date	11-JUL-19	11-JUL-19	11-JUL-19	11-JUL-19	11-JUL-19
	Sampled Time	D1 - EAST,	D1 - WEST,	D1 - WEST,	D1 - WEST,	D1 - SOUTH,
		DWARF BIRCH	WILLOW LEAVES	WILLOW TWIGS	DWARF BIRCH	WILLOW LEAVES
Grouping	Analyte					
TISSUE						
Metals	Aluminum (Al)-Total (mg/kg)	13.4	28.0	14.8	23.2	30.8
	Antimony (Sb)-Total (mg/kg)	0.012	0.012	0.020	0.022	0.013
	Arsenic (As)-Total (mg/kg)	0.120	0.131	0.087	0.167	0.139
	Barium (Ba)-Total (mg/kg)	46.7	32.0	49.1	35.5	30.0
	Beryllium (Be)-Total (mg/kg)	<0.010	0.018	<0.010	<0.010	0.016
	Bismuth (Bi)-Total (mg/kg)	<0.010	<0.010	<0.010	<0.010	<0.010
	Boron (B)-Total (mg/kg)	4.9	2.7	6.2	5.8	2.4
	Cadmium (Cd)-Total (mg/kg)	0.163	1.43	1.64	0.244	1.45
	Calcium (Ca)-Total (mg/kg)	4070	5980	4270	4510	5300
	Cesium (Cs)-Total (mg/kg)	0.0533	0.134	0.0704	0.0227	0.166
	Chromium (Cr)-Total (mg/kg)	0.097	0.065	0.165	0.127	0.068
	Cobalt (Co)-Total (mg/kg)	0.463	3.37	1.13	0.543	4.38
	Copper (Cu)-Total (mg/kg)	4.63	2.96	2.78	4.56	4.86
	Iron (Fe)-Total (mg/kg)	60.6	65.3	35.6	68.0	66.5
	Lead (Pb)-Total (mg/kg)	0.082	0.068	0.067	0.072	0.114
	Lithium (Li)-Total (mg/kg)	<0.50	<0.50	<0.50	<0.50	<0.50
	Magnesium (Mg)-Total (mg/kg)	1700	1840	1100	1890	1920
	Manganese (Mn)-Total (mg/kg)	1820	856	353	2490	971
	Mercury (Hg)-Total (mg/kg)	0.0057	0.0073	<0.0050	0.0051	0.0056
	Molybdenum (Mo)-Total (mg/kg)	0.025	0.103	0.063	0.035	0.071
	Nickel (Ni)-Total (mg/kg)	3.98	4.18	3.06	4.31	4.73
	Phosphorus (P)-Total (mg/kg)	2570	1940	1530	2440	2240
	Potassium (K)-Total (mg/kg)	8350	8780	5900	6960	13500
	Rubidium (Rb)-Total (mg/kg)	16.4	20.6	20.4	8.69	37.0
	Selenium (Se)-Total (mg/kg)	<0.050	<0.050	< 0.050	<0.050	<0.050
	Sodium (Na)-Total (mg/kg)	<20	<20	<20	<20	<20
	Strontium (Sr)-Total (mg/kg)	10.7	40.8	34.0	10.4	29.6
	Tellurium (Te)-Total (mg/kg)	<0.020	<0.020	<0.020	<0.020	<0.020
	Thallium (TI)-Total (mg/kg)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	Tin (Sn)-Total (mg/kg)	<0.10	<0.10	0.14	<0.10	<0.10
	Uranium (U)-Total (mg/kg)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	Vanadium (V)-Total (mg/kg)	<0.10	<0.0020	<0.0020	<0.0020	<0.0020
	Zinc (Zn)-Total (mg/kg)	138	41.8	87.2	160	83.6
	Zirconium (Zr)-Total (mg/kg)	<0.20	<0.20	<07.2 <0.20	~0.20	~0.20
		<b>NU.20</b>	NU.20	<b>NU.20</b>	NU.20	~0.20

L2309774 CONTD.... PAGE 6 of 16 29-AUG-19 13:07 (MT) Version: FINAL

Description Sampler Tau Child         11-JUL-19         11-JU		Sample ID	L2309774-13	L2309774-14	L2309774-15	L2309774-16	L2309774-17																																																																																																																																																								
Sampled Time Circuit 0         Dit Sourth Nation Tracks           Metals         Autimum (Ni) Tratk (mg/kg)         -0.010		Description Sampled Date	11-JUL-19	11-JUL-19	11-JUL-19	11-JUL-19	11-JUL-19																																																																																																																																																								
Grouping         Analyte         Million Trails         Million Trails         Million Trails         Million Trails         Million Trails           TISSUE         Aluminum (Al)-Total (mg/kg)         10.4         16.9         36.0         12.5         13.4           Antimory (Bi)-Total (mg/kg)         0.066         0.138         0.095         0.072         0.093           Barlum (Bi)-Total (mg/kg)         65.7         53.0         37.6         64.9         46.6           Berglium (Be)-Total (mg/kg)         -0.010 <td< th=""><th></th><th>Sampled Time</th><th>D1 - SOUTH</th><th>D1 - SOUTH</th><th>D1 - NORTH</th><th>D1 - NORTH</th><th>D1 - NORTH</th></td<>		Sampled Time	D1 - SOUTH	D1 - SOUTH	D1 - NORTH	D1 - NORTH	D1 - NORTH																																																																																																																																																								
Grouping         Analyse         Image: Constraint of the second s		Client ID	WILLOW TWIGS	DWARF BIRCH	WILLOW LEAVES	WILLOW TWIGS	DWARF BIRCH																																																																																																																																																								
TISSUE         result         result <thresult< th=""> <thresult< th=""> <thresult< th="" th<=""><th>Grouping</th><th>Analyte</th><th></th><th></th><th></th><th></th><th></th></thresult<></thresult<></thresult<>	Grouping	Analyte																																																																																																																																																													
Metails         Aluminum (A)-Total (mg/kg)         10.4         16.9         36.0         12.5         13.4           Antimory (Sb)-Total (mg/kg)         -0.010         0.018         -0.010         0.011         -0.010           Arsenic (As-)Total (mg/kg)         0.066         0.138         0.095         0.072         0.0933           Bartum (Ba)-Total (mg/kg)         56.7         53.0         37.6         64.9         46.6           Beryllium (Be)-Total (mg/kg)         -0.010         -0.010         -0.010         -0.010         -0.010         -0.010           Bismuth (B)-Total (mg/kg)         -0.010         -0.010         -0.010         -0.010         -0.010         -0.010           Bismuth (B)-Total (mg/kg)         -0.010         -0.010         -0.010         -0.010         -0.010           Cadmium (Ca)-Total (mg/kg)         1.76         0.142         1.71         2.06         0.137           Cadmium (Ca)-Total (mg/kg)         1.16         0.0516         0.296         0.055         -0.050           Cobatt (Co)-Total (mg/kg)         1.59         0.406         3.63         12.6         0.233           Cobatt (Co)-Total (mg/kg)         2.93         63.5         63.1         3.52         47.4	TISSUE		_																																																																																																																																																												
Antimory (Sb)-Total (mg/kg)         -0.010         0.018         -0.010         0.011         -0.010           Ansanic (As)-Total (mg/kg)         56.7         53.0         37.6         64.9         46.6           Berylium (Be)-Total (mg/kg)         -0.010	Metals	Aluminum (Al)-Total (mg/kg)	10.4	16.9	36.0	12.5	13.4																																																																																																																																																								
Arsenic (As)-Total (mg/kg)         0.066         0.138         0.095         0.072         0.093           Barium (Ba)-Total (mg/kg)         56.7         53.0         37.6         64.9         46.6           Borylium (Bc)-Total (mg/kg)         -0.010         -0.017         -0.66         0.233         0.176         -0.650         -0.50         -0.50         -0.50         -0.50         -0.50         -0.56         -0.50         -0.50         -0.50         -0.50         -0.50         -0.50         -0.50         -0.50         -0.50         -0.50         -0.50         -0.50		Antimony (Sb)-Total (mg/kg)	<0.010	0.018	<0.010	0.011	<0.010																																																																																																																																																								
Barium (Ba)-Total (mg/kg)         56.7         53.0         37.6         64.9         46.6           Beryllum (Be)-Total (mg/kg)         -0.010		Arsenic (As)-Total (mg/kg)	0.066	0.138	0.095	0.072	0.093																																																																																																																																																								
Benyllum (Be)-Total (mg/kg)         <0.010		Barium (Ba)-Total (mg/kg)	56.7	53.0	37.6	64.9	46.6																																																																																																																																																								
Bismuth (B)-Total (mg/kg)         <0.010		Beryllium (Be)-Total (mg/kg)	<0.010	<0.010	0.018	<0.010	<0.010																																																																																																																																																								
Boron (B)-Total (mg/kg)         5.6         5.6         5.6         3.1         4.6         4.0           Cadnium (Ca)-Total (mg/kg)         1.76         0.142         1.71         2.66         0.137           Calcium (Ca)-Total (mg/kg)         0.131         0.0516         5910         3810         4110           Casium (Ca)-Total (mg/kg)         0.131         0.0516         0.203         0.176           Chomium (Cr)-Total (mg/kg)         1.59         0.406         3.63         1.26         0.230           Copper (Cu)-Total (mg/kg)         3.85         5.10         3.74         4.10         4.90           Iron (Fe)-Total (mg/kg)         0.077         0.064         0.068         0.157         0.067           Lithium (L)-Total (mg/kg)         0.050         <0.50         <0.50         <0.50         <0.50           Magnesium (Mg)-Total (mg/kg)         1210         1440         1840         917         2240           Manganese (Mn)-Total (mg/kg)         2050         0.0050         0.0072         <0.0050         <0.050           Manganese (Mn)-Total (mg/kg)         263         3.51         4.67         3.03         3.68           Phosphorus (P)-Total (mg/kg)         2663         3.51         4.52		Bismuth (Bi)-Total (mg/kg)	<0.010	<0.010	<0.010	<0.010	<0.010																																																																																																																																																								
Cadmium (Cd)-Total (mg/kg)         1.76         0.142         1.71         2.66         0.137           Calcium (Ca)-Total (mg/kg)         3240         4150         5910         3810         4110           Cesium (Cs)-Total (mg/kg)         0.131         0.0516         0.296         0.233         0.176           Chronium (Cr)-Total (mg/kg)         0.181         0.057         40.050         0.155         <0.800           Cobatt (Co)-Total (mg/kg)         1.59         0.406         3.63         1.26         0.230           Copper (Cu)-Total (mg/kg)         3.85         5.10         3.74         4.10         4.90           Iron (Fe)-Total (mg/kg)         0.077         0.064         0.088         0.157         0.067           Lithium (Li)-Total (mg/kg)         0.077         0.064         0.088         0.157         0.067           Lithium (Li)-Total (mg/kg)         0.050         0.050         0.0072         <0.050         <0.50           Manganese (M)-Total (mg/kg)         1210         1440         1840         917         2240           Manganese (M)-Total (mg/kg)         0.660         0.0050         0.0072         <0.0050         <0.050           Mortury (Hg)-Total (mg/kg)         0.61         0.263		Boron (B)-Total (mg/kg)	5.6	5.6	3.1	4.6	4.0																																																																																																																																																								
Calcium (Ca)-Total (mg/kg)         3240         4150         5910         3810         4110           Cesium (Cs)-Total (mg/kg)         0.131         0.0516         0.296         0.203         0.176           Chromium (Cr)-Total (mg/kg)         0.181         0.057         <0.050         0.155         <0.050           Cobait (Co)-Total (mg/kg)         3.85         5.10         3.74         4.10         4.90           Iron (Fe)-Total (mg/kg)         29.3         63.5         63.1         35.2         47.4           Lead (Pb)-Total (mg/kg)         0.077         0.064         0.068         0.157         0.067           Lithium (L)-Total (mg/kg)         0.077         0.064         0.068         0.157         0.067           Magnesium (Mg)-Total (mg/kg)         420         1440         1840         917         2240           Manganese (M)-Total (mg/kg)         40050         0.0050         0.0072         <0.050         <0.050           Manganese (M)-Total (mg/kg)         0.041         0.020         0.933         0.044         0.034           Mickel (N)-Total (mg/kg)         2.63         3.51         4.67         3.03         3.68           Phosphorus (P)-Total (mg/kg)         2.63         3.51         3		Cadmium (Cd)-Total (mg/kg)	1.76	0.142	1.71	2.66	0.137																																																																																																																																																								
Cesium (Cs)-Total (mg/kg)         0.131         0.0516         0.296         0.203         0.176           Chromium (Cr)-Total (mg/kg)         0.181         0.057         <0.050         0.155         <0.050           Cobalt (Co)-Total (mg/kg)         1.59         0.406         3.63         1.26         0.230           Copper (Cu)-Total (mg/kg)         29.3         63.5         63.11         35.2         47.4           Lead (Pb)-Total (mg/kg)         0.077         0.064         0.068         0.157         0.67           Lithium (Li)-Total (mg/kg)         <0.50         <0.50         <0.50         <0.50         <0.50         <0.50           Magnesium (Mg)-Total (mg/kg)         1210         1440         1840         917         2240           Manganese (Mn)-Total (mg/kg)         420         1960         1010         420         2060           Molybdenum (Mo)-Total (mg/kg)         <0.0050         0.0050         0.0072         <0.0050         <0.050           Molybdenum (Mo)-Total (mg/kg)         2.63         3.51         4.67         3.03         3.68           Phosphorus (P)-Total (mg/kg)         1560         2270         2600         20020         <0.050         <0.050           Selenium (Se)-Total (mg/kg) </th <th></th> <th>Calcium (Ca)-Total (mg/kg)</th> <th>3240</th> <th>4150</th> <th>5910</th> <th>3810</th> <th>4110</th>		Calcium (Ca)-Total (mg/kg)	3240	4150	5910	3810	4110																																																																																																																																																								
Chromium (Cr)-Total (mg/kg)         0.181         0.057         <0.050		Cesium (Cs)-Total (mg/kg)	0.131	0.0516	0.296	0.203	0.176																																																																																																																																																								
Cobalt (Co)-Total (mg/kg)         1.59         0.406         3.63         1.26         0.230           Copper (Cu)-Total (mg/kg)         3.85         5.10         3.74         4.10         4.90           Iron (Fe)-Total (mg/kg)         29.3         63.5         63.1         35.2         47.4           Lead (Pb)-Total (mg/kg)         0.077         0.064         0.068         0.157         0.067           Lithium (Li)-Total (mg/kg)         <0.50         <0.50         <0.50         <0.50         <0.50         <0.50           Marganese (Mn)-Total (mg/kg)         1210         1440         1840         917         2240           Marganese (Mn)-Total (mg/kg)         <0.050         0.0050         0.0072         <0.0050         <0.0050           Morganese (Mn)-Total (mg/kg)         <0.050         0.0050         0.0072         <0.0050         <0.0050           Morganese (Mn)-Total (mg/kg)         2.63         3.51         4.67         3.03         3.68           Phosphorus (P)-Total (mg/kg)         1560         2270         2700         1600         2600           Potassium (K)-Total (mg/kg)         <0.050         <0.050         <0.050         <0.050         <0.050         <0.050         <0.050         <0.050		Chromium (Cr)-Total (mg/kg)	0.181	0.057	<0.050	0.155	<0.050																																																																																																																																																								
Copper (Cu)-Total (mg/kg)         3.85         5.10         3.74         4.10         4.90           Iron (Fe)-Total (mg/kg)         29.3         63.5         63.1         35.2         47.4           Lead (Pb)-Total (mg/kg)         0.077         0.064         0.068         0.157         0.067           Lithium (Li)-Total (mg/kg)         0.077         0.064         1840         917         2240           Manganese (Mn)-Total (mg/kg)         1210         1440         1840         917         2240           Manganese (Mn)-Total (mg/kg)         420         1960         1010         420         2060           Morcury (Hg)-Total (mg/kg)         0.041         0.020         0.033         0.044         0.034           Nickel (Ni)-Total (mg/kg)         2.63         3.51         4.67         3.03         3.88           Phosphorus (P)-Total (mg/kg)         1560         2270         2700         1600         2600           Potassium (K)-Total (mg/kg)         29.8         15.1         32.5         26.9         19.6           Selenium (Se)-Total (mg/kg)         <0.050         <0.050         <0.050         <0.050         <0.050         <0.050           Sodium (Na)-Total (mg/kg)         <0.020         <0.020		Cobalt (Co)-Total (mg/kg)	1.59	0.406	3.63	1.26	0.230																																																																																																																																																								
Iron (Fe)-Total (mg/kg)29.363.563.135.247.4Lead (Pb)-Total (mg/kg)0.0770.0640.0680.1570.067Lithium (L)-Total (mg/kg)<0.50<0.50<0.50<0.50<0.50<0.50Magnesium (Mg)-Total (mg/kg)1210144018409172240Manganese (Mn)-Total (mg/kg)420196010104202060Mercury (Hg)-Total (mg/kg)<0.0500.00500.0072<0.0050<0.0050Molybdenum (Mo)-Total (mg/kg)0.0410.0200.0930.0440.034Nickel (Ni)-Total (mg/kg)2.633.514.673.033.68Phosphorus (P)-Total (mg/kg)15602270270016002600Potassium (K)-Total (mg/kg)29.815.132.526.919.6Selenium (Se)-Total (mg/kg)<0.050<0.050<0.050<0.050<0.050Sodium (Na)-Total (mg/kg)<20<20<20<20<20<20Strontium (Sr)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Tellurium (Te)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Thallium (T)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Tellurium (U)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Tellurium (U)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Total (mg/kg)<0.020<0.020<0.020<		Copper (Cu)-Total (mg/kg)	3.85	5.10	3.74	4.10	4.90																																																																																																																																																								
Lead (Pb)-Total (mg/kg)         0.077         0.064         0.068         0.157         0.067           Lithium (L)-Total (mg/kg)         <0.50         <0.50         <0.50         <0.50         <0.50         <0.50           Magnesium (Mg)-Total (mg/kg)         1210         1440         1840         917         2240           Manganese (Mn)-Total (mg/kg)         420         1960         1010         420         2060           Mercury (Hg)-Total (mg/kg)         <0.0050         0.0050         0.0072         <0.0050         <0.0050           Molybdenum (Mo)-Total (mg/kg)         0.041         0.020         0.093         0.044         0.034           Nickel (Ni)-Total (mg/kg)         2.63         3.51         4.67         3.03         3.68           Phosphorus (P)-Total (mg/kg)         1560         2270         2700         1600         2600           Potassium (K)-Total (mg/kg)         29.8         15.1         32.5         26.9         19.6           Selenium (Se)-Total (mg/kg)         <0.050         <0.050         <0.050         <0.050         <0.050         <0.050           Sodium (Na)-Total (mg/kg)         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020		Iron (Fe)-Total (mg/kg)	29.3	63.5	63.1	35.2	47.4																																																																																																																																																								
Lithium (L)-Total (mg/kg)<0.50		Lead (Pb)-Total (mg/kg)	0.077	0.064	0.068	0.157	0.067																																																																																																																																																								
Magnesium (Mg)-Total (mg/kg)1210144018409172240Manganese (Mn)-Total (mg/kg)420196010104202060Mercury (Hg)-Total (mg/kg)<0.00500.00500.0072<0.0050<0.0050Molybdenum (Mo)-Total (mg/kg)0.0410.0200.0930.0440.034Nickel (Ni)-Total (mg/kg)2.633.514.673.033.68Phosphorus (P)-Total (mg/kg)15602270270016002600Potassium (K)-Total (mg/kg)700074101300062706420Rubidium (Rb)-Total (mg/kg)29.815.132.526.919.6Selenium (Se)-Total (mg/kg)<0.050<0.050<0.050<0.050<0.050Sodium (Na)-Total (mg/kg)<20<20<20<20<20<20Strontium (Sr)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020<0.020Thallium (T1)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020<0.020<0.020Thallium (T)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020Thallium (T)-Total (mg/kg)<0.16<0.10<0.10<0.10<0.10<0.10<0.10Uranium (U)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020<0.020<0.020Uranium (U)-Total (mg/kg)<0.10<0.10<0.10<0.10<0.10<0.10<0.10Uranium (U)-Tota		Lithium (Li)-Total (mg/kg)	<0.50	<0.50	<0.50	<0.50	<0.50																																																																																																																																																								
Manganese (Mn)-Total (mg/kg)420196010104202060Mercury (Hg)-Total (mg/kg)<0.00500.00500.0072<0.0050<0.0050Molybdenum (Mo)-Total (mg/kg)0.0410.0200.0930.0440.034Nickel (Ni)-Total (mg/kg)2.633.514.673.033.68Phosphorus (P)-Total (mg/kg)15602270270016002600Potassium (K)-Total (mg/kg)700074101300062706420Rubidium (Rb)-Total (mg/kg)29.815.132.526.919.6Selenium (Se)-Total (mg/kg)<0.050<0.050<0.050<0.050<0.050Sodium (Na)-Total (mg/kg)<20<20<20<20<20Stortium (Sr)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Tellurium (Te)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Thalium (T)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Tin (Sn)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Vanadium (V)-Total (mg/kg)<0.10<0.10<0.10<0.10<0.10Zirconium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (V)-Total (mg/kg)<0.10<0.10<0.10<0.10<0.10<0.10Zirconium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (V)-Total (mg/kg) <th></th> <th>Magnesium (Mg)-Total (mg/kg)</th> <th>1210</th> <th>1440</th> <th>1840</th> <th>917</th> <th>2240</th>		Magnesium (Mg)-Total (mg/kg)	1210	1440	1840	917	2240																																																																																																																																																								
Mercury (Hg)-Total (mg/kg)<0.0050		Manganese (Mn)-Total (mg/kg)	420	1960	1010	420	2060	Molybdenum (Mo)-Total (mg/kg)0.0410.0200.0930.0440.034Nickel (Ni)-Total (mg/kg)2.633.514.673.033.68Phosphorus (P)-Total (mg/kg)15602270270016002600Potassium (K)-Total (mg/kg)700074101300062706420Rubidium (Rb)-Total (mg/kg)29.815.132.526.919.6Selenium (Se)-Total (mg/kg)<0.050<0.050<0.050<0.050<0.050Sodium (Na)-Total (mg/kg)<20<20<20<20<20Strontium (Sr)-Total (mg/kg)24.911.541.929.210.2Tellurium (Te)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Thallium (Ti)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Tin (Sn)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Uranium (U)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Vanadium (V)-Total (mg/kg)<0.10<0.10<0.10<0.10<0.10Zirconium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg) <t< th=""><th></th><th>Mercury (Hg)-Total (mg/kg)</th><th>&lt;0.0050</th><th>0.0050</th><th>0.0072</th><th>&lt;0.0050</th><th>&lt;0.0050</th></t<>		Mercury (Hg)-Total (mg/kg)	<0.0050	0.0050	0.0072	<0.0050	<0.0050	Nickel (Ni)-Total (mg/kg)2.633.514.673.033.68Phosphorus (P)-Total (mg/kg)15602270270016002600Potassium (K)-Total (mg/kg)700074101300062706420Rubidium (Rb)-Total (mg/kg)29.815.132.526.919.6Selenium (Se)-Total (mg/kg)<0.050<0.050<0.050<0.050<0.050Sodium (Na)-Total (mg/kg)<20<20<20<20<20Strontium (Sr)-Total (mg/kg)24.911.541.929.210.2Tellurium (Te)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Thallium (Tl)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Tin (Sn)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Vanadium (V)-Total (mg/kg)<0.16<0.10<0.10<0.10<0.10Vanadium (V)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Vanadium (V)-Total (mg/kg)<0.10<0.10<0.10<0.10<0.10Zirc (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20 <tr <tr="">Vanadium (Zr)-Total (mg/kg)&lt;</tr>		Molybdenum (Mo)-Total (mg/kg)	0.041	0.020	0.093	0.044	0.034	Phosphorus (P)-Total (mg/kg)         1560         2270         2700         1600         2600           Potassium (K)-Total (mg/kg)         7000         7410         13000         6270         6420           Rubidium (Rb)-Total (mg/kg)         29.8         15.1         32.5         26.9         19.6           Selenium (Se)-Total (mg/kg)         <0.050         <0.050         <0.050         <0.050         <0.050         <0.050           Sodium (Na)-Total (mg/kg)         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <		Nickel (Ni)-Total (mg/kg)	2.63	3.51	4.67	3.03	3.68	Potassium (K)-Total (mg/kg)700074101300062706420Rubidium (Rb)-Total (mg/kg)29.815.132.526.919.6Selenium (Se)-Total (mg/kg)<0.050<0.050<0.050<0.050<0.050Sodium (Na)-Total (mg/kg)220<20<20<20<20Strontium (Sr)-Total (mg/kg)24.911.541.929.210.2Tellurium (Te)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Thallium (Tl)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Tin (Sn)-Total (mg/kg)0.16<0.10<0.10<0.13<0.10Uranium (U)-Total (mg/kg)<0.020<0.020<0.0020<0.0020<0.0020Vanadium (V)-Total (mg/kg)<0.10<0.10<0.10<0.10<0.10Zinc (Zn)-Total (mg/kg)11612236.697.678.8Zirconium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20		Phosphorus (P)-Total (mg/kg)	1560	2270	2700	1600	2600	Rubidium (Rb)-Total (mg/kg)29.815.132.526.919.6Selenium (Se)-Total (mg/kg)<0.050<0.050<0.050<0.050<0.050<0.050Sodium (Na)-Total (mg/kg)<20<20<20<20<20<20<20Strontium (Sr)-Total (mg/kg)24.911.541.929.210.2<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020		Potassium (K)-Total (mg/kg)	7000	7410	13000	6270	6420	Selenium (Se)-Total (mg/kg)         <0.050		Rubidium (Rb)-Total (mg/kg)	29.8	15.1	32.5	26.9	19.6	Sodium (Na)-Total (mg/kg)         <20		Selenium (Se)-Total (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	Strontium (Sr)-Total (mg/kg)24.911.541.929.210.2Tellurium (Te)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020<0.020Thallium (Tl)-Total (mg/kg)<0.020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020Tin (Sn)-Total (mg/kg)0.16<0.10<0.100.13<0.10<0.10<0.020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020 <th></th> <th>Sodium (Na)-Total (mg/kg)</th> <th>&lt;20</th> <th>&lt;20</th> <th>&lt;20</th> <th>&lt;20</th> <th>&lt;20</th>		Sodium (Na)-Total (mg/kg)	<20	<20	<20	<20	<20	Tellurium (Te)-Total (mg/kg)<0.020		Strontium (Sr)-Total (mg/kg)	24.9	11.5	41.9	29.2	10.2	Thallium (TI)-Total (mg/kg)<0.0020		Tellurium (Te)-Total (mg/kg)	<0.020	<0.020	<0.020	<0.020	<0.020	Tin (Sn)-Total (mg/kg)       0.16       <0.10       <0.10       0.13       <0.10         Uranium (U)-Total (mg/kg)       <0.0020       <0.0020       <0.0020       <0.0020       <0.0020       <0.0020         Vanadium (V)-Total (mg/kg)       <0.10       <0.10       <0.10       <0.10       <0.10       <0.10       <0.10         Zinc (Zn)-Total (mg/kg)       116       122       36.6       97.6       78.8         Zirconium (Zr)-Total (mg/kg)       <0.20       <0.20       <0.20       <0.20       <0.20		Thallium (TI)-Total (mg/kg)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	Uranium (U)-Total (mg/kg)<0.0020		Tin (Sn)-Total (mg/kg)	0.16	<0.10	<0.10	0.13	<0.10	Vanadium (V)-Total (mg/kg)       <0.10       <0.10       <0.10       <0.10         Zinc (Zn)-Total (mg/kg)       116       122       36.6       97.6       78.8         Zirconium (Zr)-Total (mg/kg)       <0.20       <0.20       <0.20       <0.20       <0.20		Uranium (U)-Total (mg/kg)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	Zinc (Zn)-Total (mg/kg)       116       122       36.6       97.6       78.8         Zirconium (Zr)-Total (mg/kg)       <0.20       <0.20       <0.20       <0.20       <0.20       <0.20		Vanadium (V)-Total (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	Zirconium (Zr)-Total (mg/kg)         <0.20		Zinc (Zn)-Total (mg/kg)	116	122	36.6	97.6	78.8			Zirconium (Zr)-Total (mg/kg)	<0.20	<0.20	<0.20	<0.20	<0.20																								
	Manganese (Mn)-Total (mg/kg)	420	1960	1010	420	2060																																																																																																																																																									
Molybdenum (Mo)-Total (mg/kg)0.0410.0200.0930.0440.034Nickel (Ni)-Total (mg/kg)2.633.514.673.033.68Phosphorus (P)-Total (mg/kg)15602270270016002600Potassium (K)-Total (mg/kg)700074101300062706420Rubidium (Rb)-Total (mg/kg)29.815.132.526.919.6Selenium (Se)-Total (mg/kg)<0.050<0.050<0.050<0.050<0.050Sodium (Na)-Total (mg/kg)<20<20<20<20<20Strontium (Sr)-Total (mg/kg)24.911.541.929.210.2Tellurium (Te)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Thallium (Ti)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Tin (Sn)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Uranium (U)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Vanadium (V)-Total (mg/kg)<0.10<0.10<0.10<0.10<0.10Zirconium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg) <t< th=""><th></th><th>Mercury (Hg)-Total (mg/kg)</th><th>&lt;0.0050</th><th>0.0050</th><th>0.0072</th><th>&lt;0.0050</th><th>&lt;0.0050</th></t<>		Mercury (Hg)-Total (mg/kg)	<0.0050	0.0050	0.0072	<0.0050	<0.0050																																																																																																																																																								
Nickel (Ni)-Total (mg/kg)2.633.514.673.033.68Phosphorus (P)-Total (mg/kg)15602270270016002600Potassium (K)-Total (mg/kg)700074101300062706420Rubidium (Rb)-Total (mg/kg)29.815.132.526.919.6Selenium (Se)-Total (mg/kg)<0.050<0.050<0.050<0.050<0.050Sodium (Na)-Total (mg/kg)<20<20<20<20<20Strontium (Sr)-Total (mg/kg)24.911.541.929.210.2Tellurium (Te)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Thallium (Tl)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Tin (Sn)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Vanadium (V)-Total (mg/kg)<0.16<0.10<0.10<0.10<0.10Vanadium (V)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Vanadium (V)-Total (mg/kg)<0.10<0.10<0.10<0.10<0.10Zirc (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20Vanadium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20<0.20 <tr <tr="">Vanadium (Zr)-Total (mg/kg)&lt;</tr>		Molybdenum (Mo)-Total (mg/kg)	0.041	0.020	0.093	0.044	0.034																																																																																																																																																								
Phosphorus (P)-Total (mg/kg)         1560         2270         2700         1600         2600           Potassium (K)-Total (mg/kg)         7000         7410         13000         6270         6420           Rubidium (Rb)-Total (mg/kg)         29.8         15.1         32.5         26.9         19.6           Selenium (Se)-Total (mg/kg)         <0.050         <0.050         <0.050         <0.050         <0.050         <0.050           Sodium (Na)-Total (mg/kg)         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <20         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <		Nickel (Ni)-Total (mg/kg)	2.63	3.51	4.67	3.03	3.68																																																																																																																																																								
Potassium (K)-Total (mg/kg)700074101300062706420Rubidium (Rb)-Total (mg/kg)29.815.132.526.919.6Selenium (Se)-Total (mg/kg)<0.050<0.050<0.050<0.050<0.050Sodium (Na)-Total (mg/kg)220<20<20<20<20Strontium (Sr)-Total (mg/kg)24.911.541.929.210.2Tellurium (Te)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Thallium (Tl)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020Tin (Sn)-Total (mg/kg)0.16<0.10<0.10<0.13<0.10Uranium (U)-Total (mg/kg)<0.020<0.020<0.0020<0.0020<0.0020Vanadium (V)-Total (mg/kg)<0.10<0.10<0.10<0.10<0.10Zinc (Zn)-Total (mg/kg)11612236.697.678.8Zirconium (Zr)-Total (mg/kg)<0.20<0.20<0.20<0.20<0.20		Phosphorus (P)-Total (mg/kg)	1560	2270	2700	1600	2600																																																																																																																																																								
Rubidium (Rb)-Total (mg/kg)29.815.132.526.919.6Selenium (Se)-Total (mg/kg)<0.050<0.050<0.050<0.050<0.050<0.050Sodium (Na)-Total (mg/kg)<20<20<20<20<20<20<20Strontium (Sr)-Total (mg/kg)24.911.541.929.210.2<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020<0.020		Potassium (K)-Total (mg/kg)	7000	7410	13000	6270	6420																																																																																																																																																								
Selenium (Se)-Total (mg/kg)         <0.050		Rubidium (Rb)-Total (mg/kg)	29.8	15.1	32.5	26.9	19.6																																																																																																																																																								
Sodium (Na)-Total (mg/kg)         <20		Selenium (Se)-Total (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050																																																																																																																																																								
Strontium (Sr)-Total (mg/kg)24.911.541.929.210.2Tellurium (Te)-Total (mg/kg)<0.020<0.020<0.020<0.020<0.020<0.020Thallium (Tl)-Total (mg/kg)<0.020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020Tin (Sn)-Total (mg/kg)0.16<0.10<0.100.13<0.10<0.10<0.020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020<0.0020 <th></th> <th>Sodium (Na)-Total (mg/kg)</th> <th>&lt;20</th> <th>&lt;20</th> <th>&lt;20</th> <th>&lt;20</th> <th>&lt;20</th>		Sodium (Na)-Total (mg/kg)	<20	<20	<20	<20	<20																																																																																																																																																								
Tellurium (Te)-Total (mg/kg)<0.020		Strontium (Sr)-Total (mg/kg)	24.9	11.5	41.9	29.2	10.2																																																																																																																																																								
Thallium (TI)-Total (mg/kg)<0.0020		Tellurium (Te)-Total (mg/kg)	<0.020	<0.020	<0.020	<0.020	<0.020																																																																																																																																																								
Tin (Sn)-Total (mg/kg)       0.16       <0.10       <0.10       0.13       <0.10         Uranium (U)-Total (mg/kg)       <0.0020       <0.0020       <0.0020       <0.0020       <0.0020       <0.0020         Vanadium (V)-Total (mg/kg)       <0.10       <0.10       <0.10       <0.10       <0.10       <0.10       <0.10         Zinc (Zn)-Total (mg/kg)       116       122       36.6       97.6       78.8         Zirconium (Zr)-Total (mg/kg)       <0.20       <0.20       <0.20       <0.20       <0.20		Thallium (TI)-Total (mg/kg)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020																																																																																																																																																								
Uranium (U)-Total (mg/kg)<0.0020		Tin (Sn)-Total (mg/kg)	0.16	<0.10	<0.10	0.13	<0.10																																																																																																																																																								
Vanadium (V)-Total (mg/kg)       <0.10       <0.10       <0.10       <0.10         Zinc (Zn)-Total (mg/kg)       116       122       36.6       97.6       78.8         Zirconium (Zr)-Total (mg/kg)       <0.20       <0.20       <0.20       <0.20       <0.20		Uranium (U)-Total (mg/kg)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020																																																																																																																																																								
Zinc (Zn)-Total (mg/kg)       116       122       36.6       97.6       78.8         Zirconium (Zr)-Total (mg/kg)       <0.20       <0.20       <0.20       <0.20       <0.20       <0.20		Vanadium (V)-Total (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10																																																																																																																																																								
Zirconium (Zr)-Total (mg/kg)         <0.20		Zinc (Zn)-Total (mg/kg)	116	122	36.6	97.6	78.8																																																																																																																																																								
		Zirconium (Zr)-Total (mg/kg)	<0.20	<0.20	<0.20	<0.20	<0.20																																																																																																																																																								

L2309774 CONTD.... PAGE 7 of 16 29-AUG-19 13:07 (MT) Version: FINAL

Sam	Sample ID		L2309774-19	L2309774-20	L2309774-21	L2309774-22
Descr Sample	ription d Date	11-JUL-19	10-JUL-19	10-JUL-19	10-JUL-19	10-JUL-19
Sampleo	d Time	D1 - ALL PLOTS.	D2 - SOUTH.	D2 - SOUTH.	D2 - WEST.	D2 - WEST.
	ent ID	FESCUE	WILLOW LEAVES	DWARF BIRCH	WILLOW LEAVES	WILLOW TWIGS
Grouping Analyte						
TISSUE						
Metals Aluminum (Al)-Total (mg/kg)		12.3	57.3	50.8	74.1	68.1
Antimony (Sb)-Total (mg/kg)		0.012	0.074	0.067	0.120	0.073
Arsenic (As)-Total (mg/kg)		0.104	1.32	1.28	1.80	1.13
Barium (Ba)-Total (mg/kg)		40.6	27.3	63.2	56.7	81.5
Beryllium (Be)-Total (mg/kg)		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth (Bi)-Total (mg/kg)		<0.010	<0.010	<0.010	<0.010	<0.010
Boron (B)-Total (mg/kg)		2.1	6.8	10.0	2.3	7.2
Cadmium (Cd)-Total (mg/kg)		0.0770	4.46	0.123	3.28	3.58
Calcium (Ca)-Total (mg/kg)		1860	7930	4700	9560	5490
Cesium (Cs)-Total (mg/kg)		0.187	0.0341	0.0225	0.0310	0.0199
Chromium (Cr)-Total (mg/kg)		0.173	0.250	0.200	0.198	0.208
Cobalt (Co)-Total (mg/kg)		0.127	2.19	0.263	0.501	0.218
Copper (Cu)-Total (mg/kg)		2.76	4.45	3.73	4.72	7.88
Iron (Fe)-Total (mg/kg)		51.8	204	195	204	139
Lead (Pb)-Total (mg/kg)		0.143	0.249	0.262	0.384	0.207
Lithium (Li)-Total (mg/kg)		<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium (Mg)-Total (mg/kg)		904	3450	2680	4440	1410
Manganese (Mn)-Total (mg/kg)		1070	1290	685	273	79.0
Mercury (Hg)-Total (mg/kg)		<0.0050	0.0061	0.0055	0.0063	<0.0050
Molybdenum (Mo)-Total (mg/kg)		0.134	0.219	0.059	0.381	0.144
Nickel (Ni)-Total (mg/kg)		0.91	6.33	5.78	4.43	2.44
Phosphorus (P)-Total (mg/kg)		1710	2790	1820	2610	1640
Potassium (K)-Total (mg/kg)		15000	9280	5900	13300	8160
Rubidium (Rb)-Total (mg/kg)		41.4	9.18	3.74	7.34	5.67
Selenium (Se)-Total (mg/kg)		<0.050	<0.050	<0.050	0.053	<0.050
Sodium (Na)-Total (mg/kg)		<20	42	<20	<20	<20
Strontium (Sr)-Total (mg/kg)		9.31	35.9	14.8	42.3	23.5
Tellurium (Te)-Total (mg/kg)		<0.020	<0.020	<0.020	<0.020	<0.020
Thallium (TI)-Total (mg/kg)		<0.0020	<0.0020	0.0030	0.0026	0.0027
Tin (Sn)-Total (mg/kg)		0.19	0.17	<0.10	<0.10	<0.10
Uranium (U)-Total (mg/kg)		<0.0020	0.0060	0.0069	0.0095	0.0064
Vanadium (V)-Total (mg/kg)		<0.10	0.11	<0.10	0.14	0.13
Zinc (Zn)-Total (mg/kg)		30.7	120	83.1	73.8	115
Zirconium (Zr)-Total (mg/kg)		<0.20	<0.20	<0.20	<0.20	<0.20

L2309774 CONTD.... PAGE 8 of 16 29-AUG-19 13:07 (MT) Version: FINAL

	Sample ID	L2309774-23	L2309774-24	L2309774-25	L2309774-26	L2309774-27
	Description Sampled Date	10-JUL-19	10-JUL-19	10-JUL-19	10-JUL-19	10-JUL-19
	Sampled Time	D2 - FAST PAPER	D2 - FAST PAPER	D2 - CENTRE	D2 - CENTRE	D2 - CENTRE
	Client ID	BIRCH LEAVES	BIRCH TWIGS	WILLOW LEAVES	WILLOW TWIGS	FESCUE
Grouping	Analyte					
TISSUE						
Metals	Aluminum (Al)-Total (mg/kg)	88.7	29.4	84.5	38.4	48.7
	Antimony (Sb)-Total (mg/kg)	0.123	0.034	0.118	0.061	0.053
	Arsenic (As)-Total (mg/kg)	1.88	0.514	1.95	0.726	1.28
	Barium (Ba)-Total (mg/kg)	128	114	59.3	70.8	75.0
	Beryllium (Be)-Total (mg/kg)	<0.010	<0.010	<0.010	<0.010	<0.010
	Bismuth (Bi)-Total (mg/kg)	<0.010	<0.010	<0.010	<0.010	<0.010
	Boron (B)-Total (mg/kg)	3.2	3.2	4.4	9.8	2.7
	Cadmium (Cd)-Total (mg/kg)	0.464	0.771	1.61	1.38	0.0779
	Calcium (Ca)-Total (mg/kg)	5360	2850	8940	4880	3280
	Cesium (Cs)-Total (mg/kg)	0.0297	0.0133	0.0555	0.0249	0.0201
	Chromium (Cr)-Total (mg/kg)	0.394	0.155	0.196	0.638	0.292
	Cobalt (Co)-Total (mg/kg)	0.360	0.233	1.06	0.256	0.104
	Copper (Cu)-Total (mg/kg)	4.28	5.94	4.23	5.47	4.75
	Iron (Fe)-Total (mg/kg)	294	73.8	225	103	141
	Lead (Pb)-Total (mg/kg)	0.464	0.174	0.384	0.158	0.208
	Lithium (Li)-Total (mg/kg)	<0.50	<0.50	<0.50	<0.50	<0.50
	Magnesium (Mg)-Total (mg/kg)	2260	776	3070	1320	1380
	Manganese (Mn)-Total (mg/kg)	993	265	317	213	743
	Mercury (Hg)-Total (mg/kg)	0.0058	<0.0050	0.0067	<0.0050	<0.0050
	Molybdenum (Mo)-Total (mg/kg)	0.115	0.031	0.210	0.082	0.644
	Nickel (Ni)-Total (mg/kg)	2.41	6.68	3.37	3.67	1.35
	Phosphorus (P)-Total (mg/kg)	1900	1170	1910	1230	2470
	Potassium (K)-Total (mg/kg)	10200	3500	15700	8330	20100
	Rubidium (Rb)-Total (mg/kg)	4.75	3.27	9.89	5.86	6.36
	Selenium (Se)-Total (mg/kg)	0.105	0.050	<0.050	<0.050	<0.050
	Sodium (Na)-Total (mg/kg)	24	<20	<20	<20	22
	Strontium (Sr)-Total (mg/kg)	23.1	16.5	39.8	23.6	9.98
	Tellurium (Te)-Total (mg/kg)	<0.020	<0.020	<0.020	<0.020	<0.020
	Thallium (TI)-Total (mg/kg)	0.0032	<0.0020	0.0066	0.0061	<0.0020
	Tin (Sn)-Total (mg/kg)	0.16	<0.10	<0.10	0.19	0.30
	Uranium (U)-Total (mg/kg)	0.0114	0.0029	0.0111	0.0045	0.0064
	Vanadium (V)-Total (mg/kg)	0.16	<0.10	0.16	<0.10	0.10
	Zinc (Zn)-Total (mg/kg)	79.6	70.6	57.8	73.5	26.4
	Zirconium (Zr)-Total (mg/kg)	<0.20	<0.20	<0.20	<0.20	0.38

L2309774 CONTD.... PAGE 9 of 16 29-AUG-19 13:07 (MT) Version: FINAL

	Sample ID	L2309774-28	L2309774-29	L2309774-30	L2309774-31	L2309774-32
	Description Sampled Date	10-JUL-19	10-JUL-19	10-JUL-19	11-JUL-19	11-JUL-19
	Sampled Time	D2 - NORTH	D2 - NORTH	D2 - NORTH	D3 - SOUTH	D3 - SOUTH
	Client ID	WILLOW LEAVES	WILLOW TWIGS	EQUISETUM	WILLOW LEAVES	DWARF BIRCH
Grouping	Analyte					
TISSUE						
Metals	Aluminum (Al)-Total (mg/kg)	66.4	55.7	19.7	213	104
	Antimony (Sb)-Total (mg/kg)	0.080	0.071	0.027	0.165	0.080
	Arsenic (As)-Total (mg/kg)	1.52	1.15	0.583	2.02	1.13
	Barium (Ba)-Total (mg/kg)	63.3	57.5	36.2	118	31.0
	Beryllium (Be)-Total (mg/kg)	<0.010	<0.010	<0.010	0.028	<0.010
	Bismuth (Bi)-Total (mg/kg)	<0.010	<0.010	<0.010	0.087	0.037
	Boron (B)-Total (mg/kg)	24.9	15.3	17.9	4.4	3.0
	Cadmium (Cd)-Total (mg/kg)	4.89	3.25	1.03	2.42	0.233
	Calcium (Ca)-Total (mg/kg)	18600	9300	23400	7270	3650
	Cesium (Cs)-Total (mg/kg)	0.0178	0.0175	0.0861	0.276	0.198
	Chromium (Cr)-Total (mg/kg)	0.188	0.333	0.135	0.373	0.216
	Cobalt (Co)-Total (mg/kg)	0.386	0.139	0.055	5.93	0.749
	Copper (Cu)-Total (mg/kg)	4.28	4.92	4.39	3.49	4.01
	Iron (Fe)-Total (mg/kg)	173	146	78.7	388	170
	Lead (Pb)-Total (mg/kg)	0.278	0.274	0.107	0.618	0.309
	Lithium (Li)-Total (mg/kg)	<0.50	<0.50	<0.50	<0.50	<0.50
	Magnesium (Mg)-Total (mg/kg)	4870	1240	5580	2880	1760
	Manganese (Mn)-Total (mg/kg)	109	62.2	27.5	1150	1100
	Mercury (Hg)-Total (mg/kg)	<0.0050	<0.0050	0.0053	0.0079	<0.0050
	Molybdenum (Mo)-Total (mg/kg)	0.377	0.116	0.951	0.187	0.034
	Nickel (Ni)-Total (mg/kg)	7.45	4.00	1.11	7.29	4.90
	Phosphorus (P)-Total (mg/kg)	5690	1570	2260	3740	2360
	Potassium (K)-Total (mg/kg)	13900	7580	32500	10400	8020
	Rubidium (Rb)-Total (mg/kg)	1.78	1.39	30.9	25.9	18.6
	Selenium (Se)-Total (mg/kg)	3.11	1.47	26.7	0.051	<0.050
	Sodium (Na)-Total (mg/kg)	<20	<20	23	<20	<20
	Strontium (Sr)-Total (mg/kg)	43.0	23.9	63.9	76.0	10.3
	Tellurium (Te)-Total (mg/kg)	<0.020	<0.020	<0.020	<0.020	<0.020
	Thallium (TI)-Total (mg/kg)	<0.0020	0.0020	<0.0020	0.0044	0.0028
	Tin (Sn)-Total (mg/kg)	<0.10	0.22	<0.10	<0.10	<0.10
	Uranium (U)-Total (mg/kg)	0.0081	0.0081	0.0061	0.0175	0.0096
	Vanadium (V)-Total (mg/kg)	0.13	0.10	<0.10	0.36	0.19
	Zinc (Zn)-Total (mg/kg)	89.7	104	24.0	109	107
	Zirconium (Zr)-Total (mg/kg)	<0.20	<0.20	<0.20	<0.20	<0.20

L2309774 CONTD.... PAGE 10 of 16 29-AUG-19 13:07 (MT) Version: FINAL

	Sample ID	L2309774-33	L2309774-34	L2309774-35	L2309774-36	L2309774-37
	Description Sampled Date	11-JUL-19	11-JUL-19	11-JUL-19	11-JUL-19	11-JUL-19
	Sampled Time	D3 - CENTRE,	D3 - CENTRE,	D3 - CENTRE,	D3 - NORTH,	D3 - NORTH,
		WILLOW LEAVES	WILLOW TWIGS	DWARF BIRCH	WILLOW LEAVES	WILLOW TWIGS
Grouping	Analyte					
TISSUE						
Metals	Aluminum (Al)-Total (mg/kg)	159	147	132	129	67.1
	Antimony (Sb)-Total (mg/kg)	0.116	0.100	0.101	0.087	0.167
	Arsenic (As)-Total (mg/kg)	1.39	1.32	1.15	1.13	0.639
	Barium (Ba)-Total (mg/kg)	73.4	118	41.8	89.9	65.7
	Beryllium (Be)-Total (mg/kg)	0.018	<0.010	<0.010	0.019	<0.010
	Bismuth (Bi)-Total (mg/kg)	0.048	0.072	0.041	0.042	0.021
	Boron (B)-Total (mg/kg)	2.2	3.9	6.3	2.3	2.1
	Cadmium (Cd)-Total (mg/kg)	1.14	1.21	0.189	1.32	0.810
	Calcium (Ca)-Total (mg/kg)	8150	4340	4930	6520	2120
	Cesium (Cs)-Total (mg/kg)	0.116	0.112	0.0854	0.0739	0.0419
	Chromium (Cr)-Total (mg/kg)	0.300	0.385	0.231	0.247	0.241
	Cobalt (Co)-Total (mg/kg)	4.30	1.75	0.609	5.52	1.07
	Copper (Cu)-Total (mg/kg)	2.91	3.54	4.01	2.48	1.45
	Iron (Fe)-Total (mg/kg)	269	222	206	241	112
	Lead (Pb)-Total (mg/kg)	0.382	0.415	0.372	0.323	0.272
	Lithium (Li)-Total (mg/kg)	<0.50	<0.50	<0.50	<0.50	<0.50
	Magnesium (Mg)-Total (mg/kg)	2780	1290	2050	2280	720
	Manganese (Mn)-Total (mg/kg)	538	224	1950	837	183
	Mercury (Hg)-Total (mg/kg)	0.0074	<0.0050	<0.0050	0.0070	<0.0050
	Molybdenum (Mo)-Total (mg/kg)	0.106	0.072	0.037	0.123	0.055
	Nickel (Ni)-Total (mg/kg)	11.2	9.88	6.14	8.12	2.14
	Phosphorus (P)-Total (mg/kg)	3300	2050	2740	2930	845
	Potassium (K)-Total (mg/kg)	14500	8060	6260	10600	3290
	Rubidium (Rb)-Total (mg/kg)	21.0	18.7	11.4	11.4	5.77
	Selenium (Se)-Total (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Sodium (Na)-Total (mg/kg)	<20	<20	<20	<20	<20
	Strontium (Sr)-Total (mg/kg)	73.6	40.6	13.5	65.5	20.6
	Tellurium (Te)-Total (mg/kg)	<0.020	<0.020	<0.020	<0.020	<0.020
	Thallium (TI)-Total (mg/kg)	0.0028	0.0029	0.0025	0.0025	<0.0020
	Tin (Sn)-Total (mg/kg)	<0.10	0.10	<0.10	<0.10	<0.10
	Uranium (U)-Total (mg/kg)	0.0160	0.0117	0.0130	0.0101	0.0056
	Vanadium (V)-Total (mg/kg)	0.28	0.28	0.24	0.21	0.13
	Zinc (Zn)-Total (mg/kg)	51.6	90.6	120	49.4	51.7
	Zirconium (Zr)-Total (mg/kg)	<0.20	<0.20	<0.20	<0.20	<0.20
		1	1	1	1	1

L2309774 CONTD.... PAGE 11 of 16 29-AUG-19 13:07 (MT) Version: FINAL

	Sample ID	L2309774-38	L2309774-39	L2309774-40	L2309774-41	L2309774-42
	Description Sampled Date	11-JUL-19	11-JUL-19	11-JUL-19	11-JUL-19	11-JUL-19
	Sampled Time	D3 - NORTH.	D3 - WEST.	D3 - WEST.	D3 - WEST.	D3 - EAST.
	Client ID	DWARF BIRCH	WILLOW LEAVES	WILLOW TWIGS	DWARF BIRCH	WILLOW LEAVES
Grouping	Analyte					
TISSUE						
Metals	Aluminum (Al)-Total (mg/kg)	37.6	84.1	114	85.3	131
	Antimony (Sb)-Total (mg/kg)	0.026	0.054	0.230	0.072	0.090
	Arsenic (As)-Total (mg/kg)	0.366	0.675	1.13	0.756	1.12
	Barium (Ba)-Total (mg/kg)	15.0	48.9	126	25.6	81.8
	Beryllium (Be)-Total (mg/kg)	<0.010	0.012	<0.010	<0.010	0.024
	Bismuth (Bi)-Total (mg/kg)	0.013	0.025	0.027	0.046	0.048
	Boron (B)-Total (mg/kg)	2.7	<1.0	2.2	4.5	6.0
	Cadmium (Cd)-Total (mg/kg)	0.0675	0.526	1.13	0.137	3.40
	Calcium (Ca)-Total (mg/kg)	2130	3600	4170	3950	8560
	Cesium (Cs)-Total (mg/kg)	0.0303	0.0671	0.112	0.0540	0.0697
	Chromium (Cr)-Total (mg/kg)	0.088	0.133	0.550	0.196	0.244
	Cobalt (Co)-Total (mg/kg)	0.278	2.88	1.37	0.469	6.07
	Copper (Cu)-Total (mg/kg)	2.28	1.24	3.16	3.27	3.53
	Iron (Fe)-Total (mg/kg)	68.7	170	181	137	252
	Lead (Pb)-Total (mg/kg)	0.125	0.217	0.355	0.365	0.343
	Lithium (Li)-Total (mg/kg)	<0.50	<0.50	<0.50	<0.50	<0.50
	Magnesium (Mg)-Total (mg/kg)	1050	1360	1050	1610	2700
	Manganese (Mn)-Total (mg/kg)	1070	296	253	1740	1260
	Mercury (Hg)-Total (mg/kg)	0.0056	0.0058	<0.0050	<0.0050	0.0072
	Molybdenum (Mo)-Total (mg/kg)	<0.020	0.060	0.082	0.037	0.130
	Nickel (Ni)-Total (mg/kg)	2.98	4.28	4.86	4.40	11.3
	Phosphorus (P)-Total (mg/kg)	1660	1560	1650	2720	4440
	Potassium (K)-Total (mg/kg)	4480	4710	5040	5920	10600
	Rubidium (Rb)-Total (mg/kg)	7.02	8.63	14.1	8.09	10.8
	Selenium (Se)-Total (mg/kg)	<0.050	<0.050	<0.050	<0.050	0.075
	Sodium (Na)-Total (mg/kg)	<20	<20	<20	<20	<20
	Strontium (Sr)-Total (mg/kg)	5.08	36.0	37.0	10.1	78.9
	Tellurium (Te)-Total (mg/kg)	<0.020	<0.020	<0.020	<0.020	<0.020
	Thallium (TI)-Total (mg/kg)	<0.0020	<0.0020	0.0022	<0.0020	0.0028
	Tin (Sn)-Total (mg/kg)	<0.10	<0.10	0.11	<0.10	<0.10
	Uranium (U)-Total (mg/kg)	0.0036	0.0089	0.0082	0.0077	0.0098
	Vanadium (V)-Total (mg/kg)	<0.10	0.12	0.23	0.14	0.22
	Zinc (Zn)-Total (mg/kg)	53.9	23.1	92.4	67.8	78.1
	Zirconium (Zr)-Total (mg/kg)	<0.20	<0.20	<0.20	<0.20	<0.20
1		1	1	T	1	1

L2309774 CONTD.... PAGE 12 of 16 29-AUG-19 13:07 (MT) Version: FINAL

	Sample ID	L2309774-43	L2309774-44	L2309774-45	L2309774-46	L2309774-47
	Description Sampled Date	11-JUL-19	11-JUL-19	12-JUL-19	12-JUL-19	12-JUL-19
	Sampled Time	D3 - EAST,	D3 - THROUGH	D4B - CENTRE,	D4B - CENTRE,	D4B - WEST,
		DWARF BIRCH	PLOT, FESCUE	DWARF BIRCH	EQUISETUM	DWARF BIRCH
Grouping	Analyte					
TISSUE						
Metals	Aluminum (Al)-Total (mg/kg)	82.2	66.7	70.6	25.9	42.3
	Antimony (Sb)-Total (mg/kg)	0.066	0.075	0.081	0.031	0.049
	Arsenic (As)-Total (mg/kg)	0.773	0.669	1.41	0.720	0.844
	Barium (Ba)-Total (mg/kg)	13.7	33.1	37.7	43.3	56.3
	Beryllium (Be)-Total (mg/kg)	<0.010	<0.010	<0.010	<0.010	<0.010
	Bismuth (Bi)-Total (mg/kg)	0.051	0.020	0.013	<0.010	<0.010
	Boron (B)-Total (mg/kg)	2.2	1.5	13.6	5.4	12.7
	Cadmium (Cd)-Total (mg/kg)	0.119	0.0390	0.138	0.345	0.233
	Calcium (Ca)-Total (mg/kg)	4070	1650	5360	13600	5430
	Cesium (Cs)-Total (mg/kg)	0.0940	0.169	0.0332	0.330	0.0214
	Chromium (Cr)-Total (mg/kg)	0.158	0.474	0.236	0.206	0.151
	Cobalt (Co)-Total (mg/kg)	0.598	0.180	0.233	0.141	0.188
	Copper (Cu)-Total (mg/kg)	5.26	2.35	4.80	4.74	4.30
	Iron (Fe)-Total (mg/kg)	142	117	181	84.6	132
	Lead (Pb)-Total (mg/kg)	0.314	0.334	0.273	0.120	0.207
	Lithium (Li)-Total (mg/kg)	<0.50	<0.50	<0.50	<0.50	<0.50
	Magnesium (Mg)-Total (mg/kg)	2070	966	2590	3900	2440
	Manganese (Mn)-Total (mg/kg)	2420	1450	1040	52.7	1190
	Mercury (Hg)-Total (mg/kg)	<0.0050	<0.0050	0.0062	0.0078	0.0060
	Molybdenum (Mo)-Total (mg/kg)	0.033	0.110	0.040	0.274	0.042
	Nickel (Ni)-Total (mg/kg)	5.63	0.98	1.20	0.28	2.55
	Phosphorus (P)-Total (mg/kg)	3420	2180	1250	1720	1550
	Potassium (K)-Total (mg/kg)	8390	19400	9210	31000	8920
	Rubidium (Rb)-Total (mg/kg)	18.5	38.9	8.46	60.7	5.56
	Selenium (Se)-Total (mg/kg)	<0.050	<0.050	<0.050	0.119	0.064
	Sodium (Na)-Total (mg/kg)	<20	<20	<20	<20	<20
	Strontium (Sr)-Total (mg/kg)	8.19	9.28	10.7	37.9	15.2
	Tellurium (Te)-Total (mg/kg)	<0.020	<0.020	<0.020	<0.020	<0.020
	Thallium (TI)-Total (mg/kg)	<0.0020	<0.0020	<0.0020	<0.0020	0.0026
	Tin (Sn)-Total (mg/kg)	<0.10	<0.10	<0.10	0.10	<0.10
	Uranium (U)-Total (mg/kg)	0.0084	0.0058	0.0162	0.0107	0.0056
	Vanadium (V)-Total (mg/kg)	0.15	0.12	0.14	<0.10	<0.10
	Zinc (Zn)-Total (mg/kg)	91.7	21.2	195	27.5	196
	Zirconium (Zr)-Total (mg/kg)	<0.20	<0.20	<0.20	<0.20	<0.20
				_		-
		1		1		

L2309774 CONTD.... PAGE 13 of 16 29-AUG-19 13:07 (MT) Version: FINAL

	Sample ID	L2309774-48	L2309774-49	L2309774-50	L2309774-51	L2309774-52
	Description Sampled Date Sampled Time	12-JUL-19	12-JUL-19	12-JUL-19	12-JUL-19	12-JUL-19
	Client ID	D4B - WEST, WILLOW LEAVES	D4B - SOUTH, WILLOW LEAVES	D4B - SOUTH, WILLOW TWIGS	D4B - EAST, WILLOW LEAVES	D4B - EAST, DWARF BIRCH
Grouping	Analyte					
TISSUE						
Metals	Aluminum (Al)-Total (mg/kg)	24.2	43.5	49.0	38.9	42.3
	Antimony (Sb)-Total (mg/kg)	0.034	0.054	0.057	0.061	0.055
	Arsenic (As)-Total (mg/kg)	0.621	0.984	1.02	1.00	0.850
	Barium (Ba)-Total (mg/kg)	35.8	9.84	12.3	14.5	62.1
	Beryllium (Be)-Total (mg/kg)	<0.010	<0.010	<0.010	<0.010	<0.010
	Bismuth (Bi)-Total (mg/kg)	<0.010	0.017	0.051	0.010	<0.010
	Boron (B)-Total (mg/kg)	3.1	3.3	9.0	8.3	21.1
	Cadmium (Cd)-Total (mg/kg)	3.50	0.437	0.503	1.13	0.0393
	Calcium (Ca)-Total (mg/kg)	12800	7650	4220	12700	10500
	Cesium (Cs)-Total (mg/kg)	0.0127	0.0202	0.0220	0.0132	0.0119
	Chromium (Cr)-Total (mg/kg)	0.100	0.148	0.214	0.245	0.158
	Cobalt (Co)-Total (mg/kg)	0.513	0.514	0.281	0.884	0.096
	Copper (Cu)-Total (mg/kg)	4.56	1.34	1.84	3.05	4.01
	Iron (Fe)-Total (mg/kg)	95.6	134	126	133	141
	Lead (Pb)-Total (mg/kg)	0.122	0.166	0.188	0.186	0.222
	Lithium (Li)-Total (mg/kg)	<0.50	<0.50	<0.50	<0.50	<0.50
	Magnesium (Mg)-Total (mg/kg)	2950	3220	1520	3460	3870
	Manganese (Mn)-Total (mg/kg)	104	59.0	44.6	485	478
	Mercury (Hg)-Total (mg/kg)	0.0062	<0.0050	<0.0050	0.0058	<0.0050
	Molybdenum (Mo)-Total (mg/kg)	0.089	0.288	0.079	0.179	0.115
	Nickel (Ni)-Total (mg/kg)	1.95	<0.20	0.58	0.42	2.85
	Phosphorus (P)-Total (mg/kg)	1530	1480	1240	1220	1340
	Potassium (K)-Total (mg/kg)	11700	12300	8870	9640	6290
	Rubidium (Rb)-Total (mg/kg)	7.33	5.99	5.76	2.76	2.07
	Selenium (Se)-Total (mg/kg)	0.075	0.186	0.118	0.171	0.060
	Sodium (Na)-Total (mg/kg)	<20	<20	<20	<20	<20
	Strontium (Sr)-Total (mg/kg)	46.4	27.3	17.9	41.9	29.4
	Tellurium (Te)-Total (mg/kg)	<0.020	<0.020	<0.020	<0.020	<0.020
	Thallium (TI)-Total (mg/kg)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	Tin (Sn)-Total (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10
	Uranium (U)-Total (mg/kg)	0.0038	0.0062	0.0050	0.0098	0.0056
	Vanadium (V)-Total (mg/kg)	<0.10	<0.10	0.12	<0.10	<0.10
	Zinc (Zn)-Total (mg/kg)	140	37.4	95.7	81.7	171
	Zirconium (Zr)-Total (mg/kg)	<0.20	<0.20	<0.20	<0.20	<0.20

L2309774 CONTD.... PAGE 14 of 16 29-AUG-19 13:07 (MT) Version: FINAL

	Sample ID	L2309774-53	L2309774-54	L2309774-55		
	Description Sampled Date	12-JUL-19	12-JUL-19	12-JUL-19		
	Sampled Time	D4B - NORTH,	D4B - NORTH,	D4B - NORTH,		
		WILLOW LEAVES	WILLOW TWIGS	EQUISETUM		
Grouping	Analyte					
TISSUE						
Metals	Aluminum (Al)-Total (mg/kg)	57.6	36.2	11.6		
	Antimony (Sb)-Total (mg/kg)	0.064	0.056	0.015		
	Arsenic (As)-Total (mg/kg)	1.38	0.731	0.369		
	Barium (Ba)-Total (mg/kg)	11.9	13.5	67.8		
	Beryllium (Be)-Total (mg/kg)	<0.010	<0.010	<0.010		
	Bismuth (Bi)-Total (mg/kg)	0.010	<0.010	<0.010		
	Boron (B)-Total (mg/kg)	10.6	13.0	9.9		
	Cadmium (Cd)-Total (mg/kg)	1.36	1.20	1.26		
	Calcium (Ca)-Total (mg/kg)	8700	4440	17100		
	Cesium (Cs)-Total (mg/kg)	0.0917	0.0455	0.433		
	Chromium (Cr)-Total (mg/kg)	0.199	0.269	0.088		
	Cobalt (Co)-Total (mg/kg)	0.315	0.115	0.071		
	Copper (Cu)-Total (mg/kg)	4.35	7.18	5.27		
	Iron (Fe)-Total (mg/kg)	163	87.5	58.6		
	Lead (Pb)-Total (mg/kg)	0.208	0.122	0.051		
	Lithium (Li)-Total (mg/kg)	<0.50	<0.50	<0.50		
	Magnesium (Mg)-Total (mg/kg)	4240	1420	5150		
	Manganese (Mn)-Total (mg/kg)	262	151	70.0		
	Mercury (Hg)-Total (mg/kg)	0.0054	<0.0050	0.0061		
	Molybdenum (Mo)-Total (mg/kg)	0.192	0.073	0.198		
	Nickel (Ni)-Total (mg/kg)	1.96	0.85	1.54		
	Phosphorus (P)-Total (mg/kg)	1590	1360	2090		
	Potassium (K)-Total (mg/kg)	19100	8410	36600		
	Rubidium (Rb)-Total (mg/kg)	27.2	16.8	86.7		
	Selenium (Se)-Total (mg/kg)	<0.050	<0.050	0.068		
	Sodium (Na)-Total (mg/kg)	<20	<20	<20		
	Strontium (Sr)-Total (mg/kg)	27.6	17.6	56.7		
	Tellurium (Te)-Total (mg/kg)	<0.020	<0.020	<0.020		
	Thallium (TI)-Total (mg/kg)	<0.0020	<0.0020	<0.0020		
	Tin (Sn)-Total (mg/kg)	<0.10	<0.10	<0.10		
	Uranium (U)-Total (mg/kg)	0.0059	0.0034	0.0026		
	Vanadium (V)-Total (mg/kg)	0.13	<0.10	<0.10		
	Zinc (Zn)-Total (mg/kg)	85.5	117	56.4		
	Zirconium (Zr)-Total (mg/kg)	<0.20	<0.20	<0.20		
				_		
1					1	1

### **Reference Information**

#### QC Samples with Qualifiers & Comments:

(Bi)DUP-HB)DUP-HUP-HDUP-H	L2309774-1, -2 L2309774-1, -2
B) DUP-H	L2309774-1, -2
Im (Cr) DOP-H	L2309774-1, -2
Co) DUP-H	L2309774-1, -2
(Cu) DUP-H	L2309774-1, -2
(g) DUP-H	L2309774-1, -2
DUP-H	L2309774-1, -2
n (Ti) DUP-H	L2309774-1, -2
) DUP-H	L2309774-1, -2
, ,	Co)         DUP-H           (Cu)         DUP-H           Ag)         DUP-H           n         DUP-H           n (Ti)         DUP-H           n)         DUP-H

Quaimer	Description
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.
PSAL	Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.

#### **Test Method References:**

ALS Test Code	Matrix	Test Description	Method Reference**
HG-200.2-CVAF-VA	Soil	Mercury in Soil by CVAAS	EPA 200.2/1631E (mod)
Soil samples are digested v acid leachable metals diges	vith hot nitric stion method.	and hydrochloric acids, followed by CVAAS analysis.	This method is fully compliant with the BC SALM strong
HG-DRY-CVAES-N-VA	Tissue	Mercury in Tissue by CVAES (DRY)	FPA 200.3, FPA 245.7

**HG-DRY-CVAFS-N-VA** Tissue Mercury in Tissue by CVAFS (DRY)

This method is conducted following British Columbia Lab Manual method "Metals in Animal Tissue and Vegetation (Biota) - Prescriptive". Tissue samples are homogenized and sub-sampled prior to hotblock digestion with nitric and hydrochloric acids, in combination with addition of hydrogen

peroxide. Analysis is by atomic fluorescence spectrophotometry or atomic absorption spectrophotometry, adapted from US EPA Method 245.7.

MET-200.2-CCMS-VA Soil Metals in Soil by CRC ICPMS

Soil/sediment is dried, disaggregated, and sieved (2 mm). Strong Acid Leachable Metals in the <2mm fraction are solubilized by heated digestion with nitric and hydrochloric acids. Instrumental analysis is by Collision / Reaction Cell ICPMS.

Limitations: This method is intended to liberate environmentally available metals. Silicate minerals are not solubilized. Some metals may be only partially recovered (matrix dependent), including AI, Ba, Be, Cr, S, Sr, Ti, TI, V, W, and Zr. Elemental Sulfur may be poorly recovered by this method. Volatile forms of sulfur (e.g. sulfide, H2S) may be excluded if lost during sampling, storage, or digestion.

#### **MET-DRY-CCMS-N-VA** Metals in Tissue by CRC ICPMS (DRY) Tissue

This method is conducted following British Columbia Lab Manual method "Metals in Animal Tissue and Vegetation (Biota) - Prescriptive". Tissue samples are homogenized and sub-sampled prior to hotblock digestion with nitric and hydrochloric acids, in combination with addition of hydrogen peroxide. Instrumental analysis is by collision cell inductively coupled plasma - mass spectrometry (modified from EPA Method 6020A).

Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.

Soil Total Nitrogen by combustion method CSSS (2008) 22.4

EPA 200.2/6020A (mod)

EPA 200.3/6020A

APHA 4500 NO3F

The sample is ignited in a combustion analyzer where nitrogen in the reduced nitrous oxide gas is determined using a thermal conductivity detector.

Nitrate, Nitrite and Nitrate+Nitrite-N N2/N3-AVAIL-SK Soil

Available Nitrate and Nitrite are extracted from the soil using a dilute calcium chloride solution. Nitrate plus Nitrite is quantitatively reduced to nitrite by passage of the sample through a copperized cadmium column. The nitrite (reduced nitrate plus original nitrite) is then determined by diazotizing with sulfanilamide followed by coupling with N-(1-naphthyl) ethylenediamine dihydrochloride. The resulting water soluble dye has a magenta color which is measured at colorimetrically at 520nm. Nitrite is determined on the same extract by following the same instrumental procedure without a cadmium column.

Reference: Recommended Methods of Soil Analysis for Canadian Prairie Agricultural Soils. Alberta Agriculture (1988) p. 19 and 28

- PH-1:2-VA
- pH in Soil (1:2 Soil:Water Extraction) Soil

BC WLAP METHOD: PH, ELECTROMETRIC, SOIL

This analysis is carried out in accordance with procedures described in "pH, Electrometric in Soil and Sediment - Prescriptive Method", Rev. 2005, Section B Physical, Inorganic and Misc. Constituents, BC Environmental Laboratory Manual. The procedure involves mixing the dried (at <60°C) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water. The pH of the solution is then measured using a standard pH probe.

## **Reference Information**

PO4/K-AVAIL-SK	Soil	Plant Available Phosphorus and Pot	assium Co	omm. Soil Sci. Plant Anal, 25 (5&6)							
Plant available phosphorus colorimetrically at 880 nm,	s and potassi while potass	ium are extracted from the soil usng Me iumis determined by flame emission a	odified Kelowna solu t 770 nm.	tion. Phosphorous in the soil extract is determined							
PSA-1-SK	Soil	Particle Size Analysis:Mini-Pipet Me	thod SS	SIR-51 Method 3.2.1							
Dry, < 2 mm soil is treated the homogenized soil susp sub-sample is used determ	with sodium pension are ta nine the silt a	hexametaphosphate to ensure compleatent at specific times and sampling de and clay content. The sand fraction is d	ete dispersion of prim pths as determined b etermined by differer	ary soil particles. After treatment, sub-samples of by Stoke's Law. The dry weight of soil found in each nce.							
The soil texture is determin	ned according	g to the CSSC soil texture triangle.									
PSA-3-SK	Soil	Particle size - Pipette removal OM &	CO3 SS	SIR-51 Method 3.2.1							
Dry, < 2 mm soil is treated sodium hexametaphospha are taken at specific times silt and clay content. The s	hydrochloric te to ensure and samplin sand fraction	acid top remove carbonates, then hyd complete dispersion of primary soil par g depths as determined by Stoke's Law is determined by difference.	Irogen peroxide to ren rticles. After treatmer w. The dry weight of s	move organic matter. The soil is then treated with t, sub-samples of the homogenized soil suspension soil found in each sub-sample is used determine the							
The soil texture is determir	ned according	g to the CSSC soil texture triangle.									
S-TOT-LECO-SK	Soil	Total Sulphur by combustion method	d IS	O 15178:2000							
The air-dried sample is ign	ited in a com	bustion analyzer where sulfur in the re	duced SO2 gas is de	etermined using a thermal conductivity detector.							
** ALS test methods may inco	orporate mod	lifications from specified reference met	thods to improve perf	formance.							
The last two letters of the al	bove test coa	le(s) indicate the laboratory that perform	med analytical analys	sis for that test. Refer to the list below:							
Laboratory Definition Code	e Labora	atory Location									
SK	ALS EI	NVIRONMENTAL - SASKATOON, SAS	SKATCHEWAN, CAN	NADA							
VA	ALS EI	NVIRONMENTAL - VANCOUVER, BR	ITISH COLUMBIA, C	ANADA							
Chain of Custody Numbers											
1 of 5	2 of 5	3 of 5	4 of 5	5 of 5							
GLOSSARY OF REPORT TERMS Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. mg/kg - milligrams per kilogram based on dry weight of sample. mg/kg wwt - milligrams per kilogram based on wet weight of sample. mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample. mg/L - milligrams per litre. < - Less than. D.L The reported Detection Limit, also known as the Limit of Reporting (LOR). N/A - Result not available. Refer to qualifier code and definition for explanation.											
Test results reported relate UNLESS OTHERWISE STA Analytical results in unsigne	only to the sa ATED, ALL S ed test reports	amples as received by the laboratory. AMPLES WERE RECEIVED IN ACCE s with the DRAFT watermark are subje	PTABLE CONDITIO	N. g final QC review.							



Chain of Custody / Analytica: Requestroitor --Canada Toll Free: 1 800 668 9878 www.aisglobal.com

Page 1 of 5

.\_⊿C#

Environmental

Report To Report Format / Distribution Service Requested (Rush for routine analysis subject to availability) StrataGold Corporation Standard Regular (Standard Turnaround Times - Business Days) Company: Ø Other Contact: Hugh Coyle PDF S Digital D Fax Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm TAT Excel 1000 - 1050 West Pender Street Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT Address Email 1 hcoyle@vitgoldcorp.com Vancouver, BC V6E 3S7 Same Day or Weekend Emergency - Contact ALS to Confirm TAT Email 2: bonnleburns@northwestel.net 604-696-6600 Fax: Analysis Request Phone: Email 3: Jknox@vitgoldcorp.com, Please indicate below Filtered, Preserved or both (F, P, F/P) Invoice To Same as Report ? P Yes C No Client / Project Information P Yes No No Hardcopy of Invoice with Report? Job #: Eagle Gold PO/AFE: Company Contact: LSD: Victoria Gold Corp. Number of Containers Address: X Date Fax: Q69297, Dublin Gulch Samples Phone: Quote #: ۵. enssit ui . Bonnie Burns Lab Work Order # ALS COME Metals in tissue Heather Nitrogen Nitrite Available Sulphur Sampler: &Crystal Size Contact: Mackenzie (lab use only) Beaudry Mercury Nitratia, Metals, ticle Sample Sample Identification Date Time <u>sto</u> Sample Type **Fotal** (dd-mmm-yy) (hh:mm) # (This description will appear on the report) D-2 х Х х 2 12-Jul-19 Soil Х х х 2 D-4 12-Jul-19 Soil Х Х Х Х Х Х Х X 11-Jul-19 1 D1 - Centre, willow leaves х Х D1 - Centre, willow twigs 11-Jul-19 1 Х D1 - Centre, dwarf birch 11-Jul-19 Х 1 11-Jul-19 х х 1 D1 - East, willow leaves D1 - East, willow twigs 11-Jul-19 х х 1 D1 - East, dwarf birch 11-Jul-19 х X 1 D1 - West, willow leaves 11-Jul-19 Х Х 1 D1 - West, willow twigs 11-Jul-19 х Х 1 D1 - West, dwarf birch 11-Jul-19 х Х 1 11-Jul-19 D1 - South, willow leaves х Х 1 D1 - South, willow twigs 11-Jul-19 х Х Special instructions / Regulations with water or land use (CCME-Freshwater Aquatic Life/BC CSR - Commercial/AB Tier 1 - Natural, etc) / Hazardous Details DO NOT RINSE THE TISSUE SAMPLES. WE WANT THE ANALYSIS TO INCLUDE THE DUST ON THE LEAVES ETC AS WELL AS INCLUDING THE UPTAKE OF METALS IN THE PLANTS. Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab. Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses. SHIPMENT RECEPTION (lab use only) SHIPMENT VERIFICATION (lab use only) SHIPMENT RELEASE (client use) Time: Observations: Released by Date (dd-mmm-w) Time (hh-mm) Received Date: Time: Temoerature: Verified by: Date: Yes / No ? 14 °C If Yes add SIF Bonnie Burns 15-Jul-19 GENF 20.00 Front



Chain of Custody / An: Canada Toll Free <u>www.alsgloper.com</u> C #

Page 2 of 5

(ALS) Environmental

Report To Report Format / Distribution Service Requested (Rush for routine analysis subject to availability) Regular (Standard Turnaround Times - Business Days) StrataGold Corporation Company: 2 Standard D Other O Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm TAT Hugh Coyle Contact: 50 PDF 🖬 Excel 🖬 Digital 🗆 Fax 1000 - 1050 West Pender Street D Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT Address: Email 1: hcoyle@vitgoidcorp.com O Same Day or Weekend Emergency - Contact ALS to Confirm TAT Vancouver, BC V6E 3S7 Email 2: bonnieburns@northwestel.net 604-696-6600 Analysis Request Phone: Fax: Emall 3; Jknox@vitgoldcorp.com. Please indicate below Filtered, Preserved or both (F, P, F/P) invoice To Same as Report ? E Yes Client / Project Information No Hardcopy of Invoice with Report? ⊠ No Job #: Eagle Gold 🗆 Yes PO/AFE: Company: Victoria Gold Corp. LSD: Contact: Number of Containers Address: Q69297, Dublin Gulch Samples Phone: Fax: Quote #: in tissue Metals in tissue Lab Work Order # ALS Heather Bonnie Burns & Sampler: Contact: Mackenzie Crystal Beaudry (lab use only) Mercury Sample Sample Identification Date Time Sample Type (This description will appear on the report) (dd-mmm-yy) (hh:mm) # Х Х 1 D1 - South-dwarf birch 11-Jul-19 х 1 D1 - North, willow leaves х 11-Jul-19 11-Jul-19 х Х 1 D1 - North, willow twigs Х Х 1 D1 - North, dwarf birch 11-Jul-19 D1 - all plots, fescue 11-Jul-19 х Х 1 D2 - South, willow leaves 10-Jul-19 Х Х 1 х Х 1 D2 - South, dwarf birch 10-Jul-19 Х Х 1 D2 - West, willow leaves 10-Jul-19 Х X 1 D2 - West, willow twigs 10-Jul-19 Х Х D2 - East, paper birch leaves 10-Jul-19 1 Х 10-Jul-19 Х 1 D2 - East, paper birch twigs D2 - Centre, willow leaves 10-Jui-19 Х Х 1 10-Jul-19 Х Х 1 D2 - Centre, willow twias Special instructions / Regulations with water or land use (CCME-Freshwater Aquatic Life/BC CSR - Commercial/AB Tier 1 - Natural, etc) / Hazardous Details DO NOT RINSE THE TISSUE SAMPLES, WE WANT THE ANALYSIS TO INCLUDE THE DUST ON THE LEAVES ETC AS WELL AS INCLUDING THE UPTAKE OF METALS IN THE PLANTS. Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab. Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses. SHIPMENT RELEASE (client use) SHIPMENT RECEPTION (lab use only) SHIPMENT VERIFICATION (lab use only) Temperature: Verified by: Observations: Date: Time: Time: Released by: Date (dd-mmm-vv) Time (hh-mm) Received by: Date: Yes / No ? II:UØ 16/7/191 RC °C If Yes add SIF Bonnie Burns

GENF 20.00 Front



L2309774-COFC

- - - -

Chain of Custody / Analy Canada Toll Free: 1 www.aisglob.

Page <u>3</u> of <u>5</u>

#

....

#### Environmental (ALS

11

Report To	eport To Report Format / Distribution						Service Requested (Rush for routine analysis subject to availability)												
Company:	StrataGold Corpora	ation		2 Standard	D Other			Regular (Standard Turnaround Times - Business Days)											
Contact:	Hugh Coyle			SI PDF	E Excel	🛛 Digital	D Fax	O Prio	rity (2-	4 Busin	ess Days)	- 50% Su	rcharge	- Conte	oct ALS to	o Confirm	TAT		
Address:	1000 - 1050 West	Pender Street		Emaii 1:	Ernali 1: hcoyle@vitgoldcorp.com						O Emergency (1-2 Bus, Days) - 100% Surcharge - Contact ALS to Confirm TAT								
	Vancouver, BC V6	E 387		Email 2:	bonnieburns@	northwestel.net	_	C Same Day or Weekend Emergency - Contact ALS to Confirm TAT											
Phone:	604-696-6600	Fax:		Email 3:	Jknox@vitgolde	corp.com, cbeau	dry@vitgoldcorp.co	Ci Analysis Request											
invoice To	Same as Report ?	2 Yes	□ No	Client / P	roject Informati	on		Ple	ease i	ndicat	te below	Filtered	, Pres	erved	or both	(F, P,	F/P)		
Hardcopy of I	nvoice with Report?	🗆 Yes	SE No	Job #;	Eagle Gold													[	
Company:				PO / AFE															
Contact:				LSD:	Victoria Gold C	orp.		1										l on	
Address:		····						1									1	<u>j</u>	
Phone:		Fax:		Quote #:	Q69297, Dubli	n Guich Sample	\$	ų d						1				臣	
Lab W	/ork Order #			ALS	Heather	Samplar:	Bonnie Burns &	tiss1	28 ne									١ <u>٥</u>	
(lab	use only)			Contact:	Mackenzie		Crystal Beaudry	5	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1								-	ŝ	
Sample #		Sample I is description wi	dentification	reporti	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Aercur	Metals									quiny	
	D2- Centre, fescue				10-Jul-19		<u>+</u>	X	X									1	
	D2 - North, willow leaves				10-Jul-19			X	X									1	
	D2 - North, willow twigs			10-Jul-19		1	X	X									1		
	D2 - North, equise	tum			10-Jul-19			X	X									1	
	D3 - South, willow	leaves			11-Jul-19			X	X									1	
	D3 - South, willow	twigs			11-Jul-19			X	X									1	
	D3 - Centre, willow	leaves			11-Jul-19			X	X									1	
	D3 - Centre, willow	' twigs			11-Jul-19			X	X									1	
	D3 - Centre, dwarf	birch			11-Jul-19			X	X									1	
	D3 - North, willow I	eaves			11-Jul-19			Х	X									1	
	D3 - North, willow t	wigs			11-Jul-19	<u> </u>		X	X									1	
-	D3 - North, dwarf b	birch			11-Jul-19		,	X	X									1	
	D3 - West, willow I	eaves			11-Jul-19			X	X							$\bot$		1	
	Special Inst	ructions / Regu	lations with w	ater or land use (CCI	/E-Freshwater	Aquatic Life/BC	CSR - Commerc	ial/Al	B Tie	1 - N	latural, e	etc) / H	azardo	ous Di	etails				
do NOT ri	NSE THE TISSUE	SAMPLES. WE	WANT THE AN	NALYSIS TO INCLUD	E THE DUST ON	THE LEAVES	ETC AS WELL A	S INC	LUDI	NG T	HE UPT	AKE O	MET	ALS	N THE	PLANT	rs.		
		Butha uco a	Failure to co	omplete all portions of user acknowledges	of this form may	y delay analysis	s. Please fill in the Conditions as n	is for rovid	rm LE	GIBL	Y. narate <sup>E</sup>	vcal f			. —				
	Also provided o	n another Exce	atab are the Al	LS location addresse	s, phone numb	ers and sample	o container / pres	ervati	ion / 1	i a se ioldir	ig time f	table fo	or com	mon	anaiys	es.			
	SHIPMENT RELE	ASE (client use	)	SHIF	MENT RECEPT	ION (lab use on	ly)	1		S	IPMEN	T VERI	FICAT	ION (	ab use	only)			
Released by:		Date (dd-mmm-vv)	Time (nh-mm)	Received by:	Date:	Time:	Temperature:	Veri	fied b	V:	- D	ate:	5 m. *	Time:		Obs Vac	servati	ons:	
Bonnie Burns	i			BC	(617119	11:40	<u>\</u> •C									if Ye	es add	SIF	
															0		10.0		

GENF 20.00 Front



Chain of Custody / / Canada Toll Fr www.als . . . .

.

Page <u>4 of 5</u>

(ALS)	Environme	ental			<u>www.</u>	<u>ais</u>			-		<b>.</b>				Pag	je	<u>4</u> C	- к	5	
Report To	· · · · · · · · · · · · · · · · · · ·			Report Fo	Report Format / Distribution				Service Requested (Rush for routine analysis subject to availability)										•••••	
Company:	StrataGold Corpora	ation		⊠ Standard	🛙 Other			Regular (Standard Turnaround Times - Business Days)												
Contact:	Hugh Coyle			E2 PDF	🖬 Excel	🖬 Cigital	Ci Fax	O Prio	rity (2-4	Business	Days) -	50% S⊧	rcharge	- Cont	act ALS	to Con	firm T/	AT		
Address:	1000 - 1050 West	Pender Street		Email 1:	Email 1: hcovie@vitgoidcorp.com					O Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT										
	Vancouver, BC V6	E 3S7		Email 2:	bonnieburns@r	northwestel. <u>net</u>		O Sam	e Day o	r Weeker	ed Emerg	jency - (	Contact	ALS to	Confirm	TAT	Г			
Phone:	604-696-6600	Fax:		Email 3:	<u>Jknox@vitgoldo</u>	olb.com		Analysis Request												
Invoice To	Same as Report ?	🖬 Yes	© No	Client / Pr	roject Informati	on		Please indicate below Filtered, Preserved or both (F, P, F/P)												
Hardcopy of Invoice with Report?   Yes  Ro					Eagle Gold															
Company:				PO / AFE:	· · · · · · · · · · · · · · · · · · ·	_ <u></u>								i						
Contact:				LSD:	Victoria Gold C	orp.													ø	
Address																		1	<u>ie</u>	
Phone:		Fax:		Quote #:	Q69297, Dublir	n Guich Sample:	3	ų										1	, uta	
Lab W	/ork Order #			ALS	Heather	Sampler:	Bonnie Burns &	tiss	SSU										ĕ	
(iab	use only)			Contact:	Mackenzie		Crystal Beaudry	ļ.⊊	E.					i			1		er o	
Sample		Sample i	Identification		Date	Time	Sample Type		l als										Ê	
#	(This description will appear on the report)				(dd-mmm-yy)	(hh:mm)		ž	ž								$\rightarrow$	$\rightarrow$	ź	
	D3 - West, willow twigs				11-Jul-19			X	X										1	
	D3 - West, dwarf birch				11-Jul-19			Х	X										1	
	D3 - East, willow leaves			11-Jul-19	1		Х	X										1		
	D3 - East, dwarf bi	rch			11-Jul-19			Х	X										1	
	D3 through plot, fe	scue			11-Jul-19			Х	X										1	
	D4B - Centre, dwa	rf birch			12-Jul-19			Х	X										1	
	D4B - Centre, equi	setum			12-Jui-19			X	X										1	
	D48 - West, dwarf	birch			12-Jui-19			X	X										1	
	D4B - West, willow	leaves			12-Jul-19			X	X										1	
	D4B - South, willow	v leaves			12-Jul-19			X	X										1	
	D4B - South, willow	v twigs			12-Jul-19			X	X										1	
	D4B - East, willow	leaves	-		12-Jul-19			X	X										1	
	D4B - East, dwarf I	birch			12-Jul-19			X	X										1	
							· · · · ·													
DO NOT RI	NSE THE TISSUE	SAMPLES. WE	WANT THE A	ALYSIS TO INCLUDE	THE DUST ON	THE LEAVES	ETC AS WELL AS		LUDIN	IG THE		KE OF	• мет	ALS	N TH		NTS			
			Failure to c	omplete all portions o	of this form may	y delay analysis	s. Please fill in th	is for	m LE	GIBLY.										
	• I = = = = = • • • • •	By the use o	of this form the	user acknowledges a	and agrees with	n the Terms and	Conditions as p	rovid	ed on	a sepa	rate E:	xcel ta	ib.							
	Also provided of	n another Exce	ei tab are the A	LS location addresse	addresses, phone numbers and sample container / pres				on / h	oloing cuir	ume ta	NEGI	OF CON	Imon	analy	ses.	<u></u>			
Released by		Date (diame se	7) Time (themm)	Beceived by:	Date:	Time:	y/ Temperature:	Verit	Mad be	- orall		te:	GOAI		สมานธ์	ise only)				
		Care (on-uniterat	a radika (raienalit)	D.C.	16/4/19	11:4A			neu by	•						Ì.	/es / l	No ?	<b>v</b> .	
Bonnie Burns	<u>i                                     </u>		1											Ĺ			rres	add	SIF	

GENF 20.00 Front

,



Chain of Custody / Canada Toll F <u>www</u>,a,

L2309774-COFC

COC # \_\_\_\_

Page <u>5</u> of <u>5</u>

#### S) Environmental GAL

(ALS)	Environme	ental						•		-		-				-		-	
Report To				Report Fo	Report Format / Distribution				Service Requested (Rush for routine analysis subject to availability)										
Company:	StrataGold Corpora	tion		Ø Standard	D Other			Regular (Standard Turnaround Times - Business Days)											
Contact:	Hugh Coyle			12 PDF	SI Excel	Digital	LÜ Fetx	O Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm TAT											
Address:	1000 - 1050 West	Pender Street		Email 1:	Email 1: hcoyle@vitgoldcorp.com					O Emergency (1-2 Bus, Days) - 100% Surcharge - Contact ALS to Confirm TAT									
	Vancouver, BC V68	E 387	-	Email 2:	Email 2: bonnleburns@northwestel.net						Same Day or Weekend Emergency - Contact ALS to Confirm TAT								
Phone:	604-696-6600	Fax:		Emall 3:	Jknox@vitgold	corp.com			Analysis Request										
Invoice To	Same as Report ?	121 Yes	D No	Client / Pl	oject informati	ion		Ple	ease i	ndicate	below Filtered, Preserved or both (F, P, F/P)								
Hardcopy of I	nvoice with Report?	Job #:	Eagle Gold																
Company:																			
Contact:					Victoria Gold C	orp.													-
Address:																			nen
Phone:		Fax:		Quote #:	Q69297, Dubli	n Gulch Sample	3	•											ntai
Lab V	Vork Order #			ALS	Heather	Commissi	Bonnie Burns &	l issu	ens										8
(lab	use only)			Contact:	Mackenzle	Sampier:	Crystal Beaudry	. <u>.</u>	1 E										r of
Sample		Sample I	dentification		Date	Time	Somple Ture	L In C	See .										Ĕ
#	(Thi	is description w	Il appear on the	report)	(dd-mmm-yy)	(hhimm)	Sample Type	Ξ	Mel										ź
	D4B - North, willow	leaves			12-Jul-19			X	X										1
	D4B - North, willow twigs				12-Jul-19			X	X										1
	D4B - North, equise	etum			12-Jul-19			x	X								$\neg$		1
				<b>.</b>								-					-+		
					·				[				-					-+	
									ļ		_ <u> </u>		<b>_</b>						
								<b></b>											
		·	•		[														
	·									╞╼╾┼╴	+		+						
													+						
									<u> </u>				<u> </u>					$ \rightarrow $	
	Special Inst	ructions / Regu	lations with w	ater or land use (CCA	/E-Freshwater	Aquatic Life/BC	CSR - Commerc	lai/A	3 Tie	1 - Na	tural, i	etc) / H	azard	ous D	)etail	5			
	INSE THE TISSUE	SAMPLES WE		ALYSIS TO INCLUOT	THE DUST OF	N THE LEAVES	ETC AS WELL AS	5 INC	LUDI	NG TH			F ME1	TALS	IN TH		ANTS	<b>.</b>	
			Failure to co	omplete all portions o	of this form may	y delay analysi	s. Please fill in th	is for	m LE	GIBLY									
		By the use o	f this form the	user acknowledges a	and agrees with	h the Terms and	<b>Conditions</b> as p	rovid	ed or	ı a sep	arate E	Excel t	ab.						
	Also provided or	n another Exce	I tab are the A	LS location addresse	s, phone numb	ers and sample	container / pres	ervati	on /	holding	time	table f	or con	nmon	anal	yses.			
	SHIPMENT RELE	ASE (client use	)	SHIP	MENT RECEPT	ION (lab use on	<u>w</u>			SHI	PMEN	TVER	FICA	DON (	(iab u	se on	<u> </u>		
Released by	r:	Date (dd-mmm-vv)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Veri	ried b	V:~		ate:		Lime	3.	1	Obsei Yes /	IVATIO No ?	ns:
Bonnie Burn:	s			l SC	\6/7/19	11:40	\ °C			7		Ę				1	If Yes	add	SIF

GENF 20.00 Front

-

**APPENDIX B** 

PHOTOGRAPHS, JULY 2019



Photo #1: Collecting foliar samples at D-1, north plot.



Photo #4: Identifying plants at the west plot at D-2.



Photo #2: White heather (Cassiope tetragona) at D-1.



Photo #5: Dwarf birch (Betula glandulosa) dominated site D-3.



Photo #3: Equisetum dominated the north plot at D-2.



Photo #6: Collecting vegetation samples at D-3.



Photo #7: Moss (Polytricum sp) at D-3.



Photo #8: D-4B, looking from near centre plot to south plot.



Photo # 10: Ladies tresses orchid, (*Spiranthes romanzoffiana*) at D-4B.



Photo #9: Sampling willow leaves at D-4B, east plot.



Photo #11: Blueberry willow (Salix myrtillifolia) at D-4B.

# APPENDIX C SOILS DATA

- TABLE C-1
- ANALYTICAL REPORT, JULY 2019

Table C-1 SUMMARY OF ANALYTICAL RESULTS (mg/kg)												
Site	D-2	D-4B	Lowest Detection Limit									
Date Sampled	12-Jul-2019	12-Jul-2019										
pH (1:2 soil:water)	8.23	6.00	0.1									
Aluminum (Al)	8340	5200	50									
Antimony (Sb)	2.32	3.44	0.10									
Arsenic (As)	32.8	5.17	0.10									
Barium (Ba)	348	327	0.50									
Beryllium (Be)	0.31	0.30	0.10									
Bismuth (Bi)	0.24	<0.20	0.20									
Boron (B)	<5.0	<5.0	5.0									
Cadmium (Cd)	0.380	0.418	0.020									
Calcium (Ca)	11600	38600	50									
Chromium (Cr)	18.8	6.18	0.50									
Cobalt (Co)	8.81	3.86	0.10									
Copper (Cu)	27.9	25.9	0.50									
Iron (Fe)	22000	5920	50									
Lead (Pb)	12.6	8.43	0.50									
Lithium (Li)	10.2	<2.0	2.0									
Magnesium (Mg)	5760	2330	20									
Manganese (Mn)	425	510	1.0									
Mercury (Hg)	0.0329	0.146	0.0050									
Molybdenum (Mo)	1.01	0.66	0.10									
Nickel (Ni)	24.3	12.8	0.50									
Phosphorus (P)	808	1080	50									
Potassium (K)	840	220	100									
Selenium (Se)	0.32	0.86	0.20									
Silver (Ag)	0.15	0.58	0.10									
Sodium (Na)	119	107	50									
Strontium (Sr)	35.0	156	0.50									
Sulfur (S)	<1000	1600	1000									
Sulfur (S)-Total	<500	5100	500									
Thallium (TI)	0.088	0.054	0.050									
Tin (Sn)	<2.0	<2.0	2.0									
Titanium (Ti)	425	109	1.0									
Tungsten (W)	1.73	< 0.50	0.50									
Uranium (U)	0.600	0.998	0.050									
Vanadium (V)	33.8	8.55	0.20									
Zinc (Zn)	66.8	20.3	2.0									
Zirconium (Zr)	3.2	3.2	1.0									



STRATAGOLD CORPORATION ATTN: Hugh Coyle Suite 1000 - 1050 W. Pender St Vancouver BC V6E 3S7 Date Received:15-JUL-19Report Date:29-AUG-19 13:07 (MT)Version:FINAL

Client Phone: 604-682-5122

# Certificate of Analysis

### Lab Work Order #: L2309774

Project P.O. #: Job Reference: C of C Numbers: Legal Site Desc: NOT SUBMITTED EAGLE GOLD 1 of 5, 2 of 5, 3 of 5, 4 of 5, 5 of 5 Victoria Gold Corp.

Woods

Hilary Woods Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700 ALS CANADA LTD Part of the ALS Group An ALS Limited Company

Environmental 💭

www.alsglobal.com

**RIGHT SOLUTIONS** RIGHT PARTNER

L2309774 CONTD.... PAGE 2 of 16 29-AUG-19 13:07 (MT) Version: FINAL

	Sample ID Description Sampled Date Sampled Time Client ID	L2309774-1 Soil 12-JUL-19 D-2	L2309774-2 Soil 12-JUL-19 D-4B		
Grouping	Analyte				
SOIL					
Physical Tests	pH (1:2 soil:water) (pH)	8.23	6.00		
Particle Size	% Sand (2.0mm - 0.05mm) (%)	41.2	PSAL 20.2		
	% Silt (0.05mm - 2um) (%)	54.7	PSAL 58.9		
	% Clay (<2um) (%)	4.1	PSAL 20.9		
	Texture	Silt loam	PSAL Silt loam		
Anions and Nutrients	Total Nitrogen by LECO (%)	0.025	1.12		
Plant Available Nutrients	Nitrate+Nitrite-N (mg/kg)	<2.0 DLM	<5.0 DLM		
	Nitrate-N (mg/kg)	DLM <2.0	DLM <5.0		
	Nitrite-N (mg/kg)	DLM <0.80	DLM <2.0		
	Available Phosphate-P (mg/kg)	<2.0	олы сары сары сары сары сары сары сары сар		
	Available Potassium (mg/kg)	47	<sup>DLM</sup> 96		
Metals	Aluminum (Al) (mg/kg)	8340	5200		
	Antimony (Sb) (mg/kg)	2.32	3.44		
	Arsenic (As) (mg/kg)	32.8	5.17		
	Barium (Ba) (mg/kg)	348	327		
	Beryllium (Be) (mg/kg)	0.31	0.30		
	Bismuth (Bi) (mg/kg)	0.24	<0.20		
	Boron (B) (mg/kg)	<5.0	<5.0		
	Cadmium (Cd) (mg/kg)	0.380	0.418		
	Calcium (Ca) (mg/kg)	11600	38600		
	Chromium (Cr) (mg/kg)	18.8	6.18		
	Cobalt (Co) (mg/kg)	8.81	3.86		
	Copper (Cu) (mg/kg)	27.9	25.9		
	Iron (Fe) (mg/kg)	22000	5920		
	Lead (Pb) (mg/kg)	12.6	8.43		
	Lithium (Li) (mg/kg)	10.2	<2.0		
	Magnesium (Mg) (mg/kg)	5760	2330		
	Manganese (Mn) (mg/kg)	425	510		
	Mercury (Hg) (mg/kg)	0.0329	0.146		
	Molybdenum (Mo) (mg/kg)	1.01	0.66		
	Nickel (Ni) (mg/kg)	24.3	12.8		
	Phosphorus (P) (mg/kg)	808	1080		
	Potassium (K) (mg/kg)	840	220		
	Selenium (Se) (mg/kg)	0.32	0.86		
	Silver (Ag) (mg/kg)	0.15	0.58		
	Sodium (Na) (mg/kg)	119	107		

L2309774 CONTD.... PAGE 3 of 16 29-AUG-19 13:07 (MT) Version: FINAL

		Sample ID Description Sampled Date Sampled Time Client ID	L2309774-1 Soil 12-JUL-19 D-2	L2309774-2 Soil 12-JUL-19 D-4B		
Grouping	Analyte					
SOIL						
Metals	Strontium (Sr) (mg/kg)		35.0	156		
	Sulfur (S) (mg/kg)		<1000	1600		
	Sulfur (S)-Total (mg/kg)		<500	5100		
	Thallium (TI) (mg/kg)		0.088	0.054		
	Tin (Sn) (mg/kg)		<2.0	<2.0		
	Titanium (Ti) (mg/kg)		425	109		
	Tungsten (W) (mg/kg)		1.73	<0.50		
	Uranium (U) (mg/kg)		0.600	0.998		
	Vanadium (V) (mg/kg)		33.8	8.55		
	Zinc (Zn) (mg/kg)		66.8	20.3		
	Zirconium (Zr) (mg/kg)		3.2	3.2		