REVELSTOKE COMMUNITY FOREST CORPORATION WATER QUALITY MONITORING ON TFL 56

By: Julie-Anne Norton, TFT

Edited by Kevin Bollefer, RPF, RPBio

March 8th, 2021

SUMMARY

Aerial fertilization commenced on the Revelstoke Community Forest Corporations Tree Farm License on September 18th, 2020. Water quality monitoring was done on two unnamed S-6 streams on the TFL, for this project referred to as Coppermine and Keystone. Both streams run through or are adjacent to fertilization treatment areas. Due to the timing of fertilization a modified sampling schedule was developed which did not include pre-treatment sampling. Water quality sampling on the Coppermine stream was done immediately following fertilization treatment and then twice a week for three weeks and a conclusive sample four months post-treatment. Samples of the Keystone stream were taken once prior to treatment, immediately following fertilization and then twice a week for three weeks and a conclusive sample four months post-treatment. For both creeks, two samples were taken from above treatment areas during the first two visits for control samples. Samples were sent to ALS labs to determine levels of total ammonia (as N, Mg/L), nitrate (as N, Mg/L), and total nitrogen (Mg/L). Water temperature and pH were measured at the sites.

Based on the results given by ALS, total ammonia levels in both the creeks had a minimal increase following fertilization but returned to undetectable levels within three weeks post-treatment. Nitrate and total nitrogen levels were slightly elevated following treatment but remained well below allowable limits and showed a decline in levels by the final tests. Water temperatures dropped almost consistently throughout the monitoring as the weather got colder, and pH stayed relatively consistent in both creeks.

INTRODUCTION

An aerial fertilization project took place in the fall of 2020 on Louisiana Pacific's Tree Farm Licence (TFL) 55 and Revelstoke Community Forest Corporations (RCFC) TFL 56 (Figure 1). The treatment took place on TFL 55 from Sept 10 -18th and on TFL 56 from September 18th to October 3rd, 2020. The fertilization treatment of both licenses was conducted by Western Aerial Applications Ltd. (WAA), a contractor from Chilliwack, British Columbia. While this was the first time fertilization had been broadly applied on the two TFL's, WAA has years of previous experience conducting aerial fertilization applications across British Columbia and Alberta.



Figure 1 Figure 1. Overview of TFL 55 and TFL 56 Location

Combined, the project successfully treated 6066 hectares (ha) (3004ha on TFL 55 and 3062ha on TFL 56). The fertilizer mix was a combination of forestry grade urea, and ammonium sulphate blend (35-0-0-10.1S) applied at a rate of 564 kg/ha – (326.5 kg/ha urea and 237.5 kg/ha ammonium sulphate). This project was completed through the BC Forest Carbon Initiative, with the objective being to help mitigate the effects of climate change by increasing the carbon sequestration rate of BC's forests by adding deficient nutrients that were known to be limited on these sites. This project was completed in accordance with British Columbia's Fertilization Standards for Ministry funded programs (2015).

Both TFL's host rivers, an abundance of streams that are tributaries to Lake Revelstoke, a man-made reservoir lake which is part of the Columbia River system. Fertilization activities were not conducted around fish sensitive areas or community watersheds. Streams larger than S-6 were buffered out of treatment areas, and streams with water licences (one in the vicinity of treatment area). Weather conditions during the treatment of TFL 55 were warm and dry but began to deteriorate during the last few days and were generally cool with rain and fog during the TFL 56 project. The season leading up to treatment was mostly dry, and creeks were at their lowest point of the year since the spring freshet.

Due to operation logistics and timing, water quality monitoring was not completed on TFL 55 thus; this report focuses on water quality monitoring conducted on two unnamed tributary S6 streams on TFL56 (Coppermine and Keystone). Due to timing issues, a modified monitoring schedule took place which was not consistent with the Forest Fertilization Guidebook (1995). As stated in Appendix 4 of the guidebook, monitoring should take place pre-application for two weeks. However, there was not enough time to complete this step. The final test were conducted four months post-fertilization application instead of the three months mandated in the guidelines. RCFC's prescriptions for the project followed guidelines set out in the Fertilization guidebook for buffering streams and bodies of water. The monitoring was inducted to measure the amounts of total Ammonia (as N, Mg/L), total nitrogen (Mg/L) and nitrate (as N, Mg/L) to ensure that levels did not exceed the quality limits post-treatment.

METHODOLOGY

SAMPLE SITE LOCATIONS

The two sites were chosen based on finding mid-sized streams that ran through or adjacent to fertilization treatment areas. Easy vehicular access to the test site and control site was also a factor in stream choice. One stream was selected up the Coppermine (upper) and Keystone (lower) areas (Figure 2).



Figure 2. Overview of TFL 56 and approximate location of the Coppermine (upper) and Keystone (lower) water quality test streams

COPPERMINE

The Coppermine, S-6 stream, chosen for water quality monitoring, flows through and by multiple treatment areas near the Coppermine Road before emptying into the Goldstream River. Two test sites were established on the Coppermine stream, one upstream above any treatment areas (Figure 3), and one downstream below treatment areas (Figure 4). The stream flows through 729-4 and 728-303 (not visible from the air, thus not buffered) and west of 728-8 and 728-202. These areas were treated on the same day as the first samples were taken (above and downstream from the treatment area) (Figure 5 and 6).



Figure 3. Coppermine stream at control test site, upstream from fertilization treatment areas



Figure 4. Coppermine stream at test site downstream from fertilization treatment areas



Figure 5. Coppermine (s-6) water quality monitoring stream, test and control site locations, and 2020 fertilization area



Figure 6. Ortho photo of Coppermine area, stream, and location of control and test sites

KEYSTONE

The Keystone S-6 stream chosen for water quality monitoring begins in the subalpine, eventually flowing down into the Revelstoke Reservoir Lake. This stream was not visible from the air and runs unbuffered through treatment areas 686-304 and 686-5A (Figure 7). The Keystone site was also chosen as there was still time to collect pre-treatment samples. Two sample sites were established on the Keystone stream, one above any fertilizer treatment areas (Figure 8), and the other established downstream of any affecting treatment areas (Figure 9 and 10).



Figure 7. Keystone (s-6) water quality monitoring stream, test site and control site location and 2020 fertilization treatment areas



Figure 8. Keystone stream at control test site upstream from fertilization area



Figure 9. Keystone stream at test site downstream from fertilization treatment area



Figure 10. Ortho photo of Keystone, stream, and location of controls and test sites.

SAMPLING SCHEDULE

| Month | Week | Sun | Mon | Tues | Wed | Thurs | Fri | Sat |
|----------|-----------|--------------|------------|----------------|------------|--------------|-------|-----|
| Sept | 13-19th | | | | | | | |
| Sept | | Test#1 | | | Test #2 | | | |
| | 20-26th | Sept | | | Sept | | | |
| | | 20th | | | 23rd | | | |
| Sept/Oct | | | Test #3 | | Test#4 | | | |
| | 27-3rd | | Sept | | Sept | | | |
| | | | 28th | | 30th | | | |
| Oct | 4-10th | | Test #5 | | Test #6 | | | |
| | 4-1001 | | Oct 5th | | Oct 7th | | | |
| Oct | | | | Test#7 | | Test#8 | | |
| | 11-17th | | | | | Oct | | |
| | | | | Oct 13th | | 15th | | |
| | | | | 4-month | | | | |
| Jan/Feb | 31-6th | | | post- | | | | |
| 3017100 | 51 001 | | | treatment | | | | |
| | | | | test | | | | |
| | | | | t on areas aff | | - | | |
| | = Date of | fertilizatio | n treatmen | t on areas aff | ecting Key | stone test s | tream | |

Table 1 Schedule of water quality monitoring samples and fertilization treatment on areas affecting test streams

SAMPLING METHODOLOGY

Water sampling was done in accordance with the Forest Fertilization Guidebook (1995), though a modified schedule was established due to project timing. The Coppermine site was sampled the day of treatment, three days post-treatment, and then bi-weekly for three more weeks. Samples from the Keystone site were taken three days prior to treatment, immediately following treatment application, and then bi-weekly for three weeks following. Final samples on both streams were collected four months post-treatment. Control samples were taken from the Coppermine stream and the Keystone stream, upstream of fertilization activities. These samples were collected on September 20th and 23rd,2020. Test sites were established on each stream downstream from fertilization activities. A subsequent sample was taken on both streams at the test site four months following treatment.

SAMPLING MATERIAL

ALS environmental labs in Burnaby provided most of the water sample materials. The lab provided the appropriate amount of sample bottles, coolers, icepacks, chain of custody forms, labels, packing material and sulfuric acid. Other materials, such as a colorimetric pH test kit and a digital thermometer, were obtained at a local hardware store.

Each sample consisted of collecting two bottles, a glass bottle for testing nutrients, and a plastic bottle for testing metals. To preserve the water samples, sulfuric acid was added to the water in the glass bottles at the time of collection. Samples were collected at midstream, at mid-depth, as per the guidelines set out in the B.C. Field Sampling Manual, Part E: Water and Wastewater Sampling (2013). Water temperature and pH were measured at the site. The weather and daily the temperature were also recorded.

Samples from the same week were kept cool by icepacks, packaging, and coolers. They were shipped to the lab together as soon as possible. At the lab, samples were tested for total ammonia (as N, Mg/L), nitrate (as N, Mg/L) and total nitrogen (Mg/L).

RESULTS

COPPERMINE RESULTS

Table 2 below summarizes the results produced by ALS analysis, and collected in the field for the Coppermine stream.

Table 2. Results from ALS lab and at site measurements from the Coppermine stream

| | Area | Comula II | Comula Data | Somulo time | | ALS analysis | | | Me | easured at site | Day time conditions during sampling | |
|------|------------------------|--------------|---------------------------------------|----------------|-----------------------------|--------------------|-----------------------------|--------|--------|--------------------|---|--------------|
| | Alea | Sample IL | Sample Dates | Sample une | Ammonia, Total (as N) | Nitrogen, Total | Nitrate (as N)mg/L | pН | pН | Water Temp(°C) | Weather | Air Temp (°C |
| Post | Coppermin | | 2020-09-20 | 13:30 | 0.162 | 0.363 | 0.122 | 8 | 8 | 9.5 | mix of sun and clouds with some precip | 16 |
| | - Tre | atment sta | rted on the bl | locks effect | ing the Coppermine | area on Septe | ember 19 th 2020 | | | | | |
| | | | as effecting t | | | • | | | | | | |
| | | o 729-4 | - Stream goe | es through t | treatment area- fertili | zed Septemb | er 19 th 2020 | | | | | |
| | | o 728-8 | - Treatment a | area is eas | t of stream- fertilized | September 1 | 9 th 2020 | | | | | |
| | | o 728-3 | 03- Stream o | goes throug | gh treatment area- fei | rtilized Septer | nber 19 th 2020 | | | | | |
| | | | - | | , ust east of stream- fe | | | | | | | |
| | - Firs | | | , | | | | edia | atelv | following fertiliz | er treatment in the area | |
| | | | | | ent from the Coppern | | 2020, | o u.c | | iono ini gi iona a | | |
| | | | | | n of any fertilizer treat | | | | | | | |
| | - The | Copperm | ine test site v | was establi | shed downstream of | all fertilizer tre | atment areas that | t dir | ectly | effect the strea | m to monitor long term effects | |
| Post | Coppermin | e Control #2 | 2020-09-23 | 12:00 | <0.0050 | 0.054 | 0.0387 | 8 | 8 | 4.5 | Raining | 11 |
| ost | Coppermin | e Test #2 | 2020-09-23 | 12:30 | 0.0418 | 0.163 | 0.0805 | 8 | 7 | 8.9 | Raining | 11 |
| | | | | , | test #2 (below treat | , | , | | | | | |
| | | | • | | | | 0, | and | amn | nonia on the str | eam, that is not influences by the treatment | |
| | | | - | | ere conducted on the | | | | | | | |
| Post | Coppermin | | 2020-09-28 | 9:00 | 0.0064 | 0.12 | 0.0715 | 8 | | | Overcast in the am and sun and clouds in the pm | 11 |
| | | | | | tment. There were p | | | | | | | |
| Post | Coppermin | | 2020-09-30 | 12:30 | <0.0050 | 0.088 | 0.0528 | 8 | | 8.4 | mix of sun and clouds, humid | 16 |
| _ | | 1 | 1 1 | | | | | _ | eathe | , <u>,</u> , | overcast, rainy or high humidity. | |
| Post | Coppermin | | 2020-10-05 | 15:00 | <0.0050 | 0.084 | 0.0362 | 8 | . / | 8.6 | Raining | 11 |
| | | 1 | · · · · · · · · · · · · · · · · · · · | | | | | | | | between test 4 and 5. | |
| Post | Coppermin | | 2020-10-07 | 9:00 | 0.0066 | 0.214 | 0.0482 | 8 | 8 | 8.6 | Overcast with periods of rain | 11 |
| Deet | | | 2020-10-13 | | er got warmer, but sta | · · · | | 0 | -7 | | Crowing and cold | |
| | Coppermin Coppermin | | 2020-10-13 | 15:00 15:00 | <0.0050 <0.0050 | 0.34 0.113 | 0.0747 | 8 8 | 7 7 | 5.5 4.7 | Snowing and cold Cloudy | 1 4 |
| FUSL | | | | | e to the last week of s | | 0.0551 | 0 | 1 | 4./ | Cloudy | 4 |
| | | | | | e weeks post treatme | 1 0 | | | | | | |
| | | | • | | ek of sampling, even | | IS SNOW | | | | | |
| Post | | | 2021-02-02 | 11:00 | <0.0050 | 0.136 | 0.0614 | 8 | 8 | 1.1 | Winter | |
| | | ÷ | ost treatment | toct | | | | | • | | | |
| | - 1116 | e monunp | USI li Calificili | 1031 | | | | | | | | |

AMMONIA (as N/ Mg/L)

Ammonia levels at the control site on the Coppermine stream (Figure 11) above the treatment areas had undetectable levels which means very little ammonia is in this stream regularly. Ammonia levels rose slightly immediately following treatment at the test site below fertilized area and dropped back to normal levels within a week. Ammonia levels in the Coppermine stream remain well below the approved acute and chronic limits determined by the look-up table below (Table 3).



Figure 11. The Coppermine streams total ammonia levels (as n, Mg/L) at the control and test site immediately following fertilization, biweekly for three weeks and four months post-treatment.

Table 3. Acute and chronic thresholds for the Coppermine streams ammonia levels based on the stream's average temperature and pH at the test site

| | Coppermine |
|-------------------------------------|------------|
| Average Temperature (°C) | 7.1 |
| Average pH | 7.5 |
| Acceptable short-term (acute) mg/L | <=15 |
| Acceptable long-term (chronic) mg/L | <=1.9 |

TOTAL NITROGEN (mg/L)

The nitrogen levels in the Coppermine stream were the highest immediately following treatment (Figure 12). Nitrogen levels declined after the first test with an increase in the third week of sampling. The Coppermine streams nitrogen levels at the test site by the final test were still slightly elevated from the control test amounts, but significantly lower than immediately following treatment.



Figure 12. The Coppermine streams total nitrogen amounts (Mg/L) measured at the control and test site immediately following treatment, biweekly for three weeks and four months post- treatment.

NITRATE (as N, Mg/L)

The ALS lab results report that nitrate levels in the Coppermine stream (Figure 13) never exceeded 0.12 Mg/L. There was a small increase in nitrate levels following fertilization application, with small incremental drops over time. Levels increased again slightly from October 5th to October 13th, which seem to coincide with total nitrogen levels. Nitrate levels remained consistent between the last test in September and the final test, four months post treatment.



Figure 13. Coppermine's nitrate levels (as N/Mg/L) measured at the control and test site immediately following treatment and then biweekly for three weeks following and four months post-treatment.

KEYSTONE RESULTS

Table 4 below summarizes the results produced by ALS analysis, and collected in the field for the Keystone stream.

Table 4. Results from ALS lab and at site measurements from the Keystone stream

| Tub | | | | 1 | t site measuren | | / | | | | Day time conditions during samplir | |
|-------|--------------|-------------------------|--------------------------------|---|--|-----------------|--------------------|-----|-----|---------------|--|--------------|
| | Area | Sample ID | Sample Date | Sample time | Ammonia, Total (as N) | Nitrogen Total | Nitrate (as N)mg/l | nH | nH | Water Temn/ºC | | Air Temp (°C |
| Dro | Kountono | Control #1 | 2020-09-20 | 15:00 | <0.0050 | 0.034 | < 0.0050 | 7.7 | 8 | 6.9 | mix of sun and clouds with some precip | 16 |
| | | | | | <0.0050 | 0.034 | <0.0050 | 7.9 | 0 | 0.9 11.4 | mix of sun and clouds with some precip | 16 |
| FIE | | | - | | | | | - | . ' | | This of suit and clouds with some precip | 10 |
| | - Te - Th | st #1 was e treatmer | done Septe nt areas effe | ember 20 th , th ecting this wa | ter source are: | | | | | | t areas) and one at the test site (below treat | ment areas) |
| | 0 | 686-304- | fertilized on | September | 23 rd 2020 | | | | | | | |
| | 0 | 686-5A- f | ertilized on | September 2 | 23 rd 2020 | | | | | | | |
| | | | | | lirectly through the two | o treatment are | eas | | | | | |
| Post | Keystone | Control #2 | 2020-09-23 | 14:30 | 0.045 | 0.183 | <0.0050 | 7.7 | 8 | 6.5 | Raining | 10 |
| Post | Keystone | Test #2 | 2020-09-23 | 15:00 | 0.0064 | 0.067 | 0.0101 | 7.9 | 7 | 10.4 | Raining | 10 |
| | o - ltv | During Te vas rainin | est #2 anothe g during trea | er sample wa atment and w | 020 the day of fertilize as taken upstream of vater sample collectic | the treatment | | | | stream | | |
| Post | Keystone | Test #3 | 2020-09-28 | 16:30 | 0.144 | 0.703 | 0.506 | 7.4 | 7 | 7.8 | Overcast in the am, sun and clouds in the pn | r 11 |
| Deet | - We | eather up t | • | om treatment | was wet and cool, ar | nd then got wa | rmer and cleared | | | | onward, samples were collected downstream | |
| POSI | | | | | 0.0505 ving treatment. | 0.685 | 0.595 | 1.1 | ð | 8.1 | Clear and sunny | 16 |
| | | | | | hen got warmer and o | drior | | | | | | |
| Post | | | 2020-10-05 | | 0.0367 | 0.806 | 0.0353 | 7.8 | 8 | 9.6 | cloudy and rainy | 13 |
| | | | 2020-10-07 | | 0.0166 | 0.748 | 0.642 | 7.8 | | 10.2 | Mix of sun and clouds | 15 |
| 1 031 | , | | | | e second week post t | | 0.042 | 1.0 | ' | 10.2 | | 10 |
| | | | | 2 days post tr | | | | | | | | |
| | | | • | l days post tr | | | | | | | | |
| Post | | | 2020-10-13 | | 0.0079 | 0.402 | 0.31 | 7.7 | 8 | 6.3 | Raining | 2 |
| | | | 2020-10-15 | | <0.0073 | 0.348 | 0.282 | 7.7 | 8 | 5.9 | Over cast | 4 |
| 1 000 | , | | | | e to the last week of | | 0.202 | 1.1 | U | 0.0 | | т |
| | - Th | e last two | samples we | re taken thre | e weeks post treatm | ent | | | | | | |
| | | _ | | | ek of sampling, even | <u> </u> | | 7.5 | 0 | 0.0 | · . | 1 |
| Post | | | 2021-02-02 | | <0.0050 | 0.175 | 0.0951 | 7.5 | Ø | 0.8 | winter | |
| | | | post treatme | ent test | | | | | | | | |
| | - Wi | nter, and s | nowy | | | | | | | | | |

AMMONIA (as N. Mg/L)

The Keystone stream (Figure 14) detected a low amount of ammonia at the control. Following treatment ammonia levels at the test site increased slightly. Ammonia levels remained well below the approved acute and chronic limits determined by the look-up table (Table 5). By the final measurement, the Keystones ammonia levels dropped to undetectable levels.



Figure 14 The Keystone streams total ammonia levels (as N, Mg/L) at the control and test site immediately following fertilization, biweekly for three weeks and then four-months post-fertilization.

Table 5. Acute and chronic thresholds for ammonia levels in Keystone stream based on the average pH and water temperature at the test site.

| | Keystone |
|------------------------------------|----------|
| Average Temperature (°C) | 7.8 |
| Average pH | 7.6 |
| Acceptable short-term (acute) mg/l | <=11 |
| Acceptable long-term (chronic) mg, | <=1.9 |

TOTAL NITROGEN (Mg/L)

Nitrogen levels were the highest following fertilization treatment (Figure 15). The levels stayed consistently elevated for four tests. Two weeks post-treatment levels began to decrease and by the third week nitrogen concentrations were roughly half of the maximum reached during the sampling period. The four-month post-treatment test levels continued to decline but were still above the levels detected in the control samples.



Figure 65. The Keystone streams total nitrogen amounts (Mg/L measured at the control and test site three days prior to treatment, immediately following and then biweekly post-treatment

NITRATE (as N, Mg/L)

The results from the ALS lab report that nitrate levels the Keystone stream (Figure 16) never exceed 0.65 Mg/L. There was a small increase in nitrate levels following fertilization application, which dropped small amounts over time. Levels in the Keystone stream were a bit sporadic following treatment, with two elevated events, but remained well below acceptable levels. The final test levels continued to decline but were still slightly higher that the pre-treatment concentrations.



Figure 16. The Keystone streams Nitrate levels (as N. Mg/L) measured at the control and test site three days prior to fertilization, immediately following, biweekly for three weeks post-treatment and then four months post treatment.

DISCUSSION

Although water quality sampling is recommended when a fertilization treatment has been applied in a Community watershed or fisheries-sensitive area, neither of which applies to this situation, monitoring was done on the TFL56 in two sites within treatment areas. Samples were taken to measure post-treatment levels of total ammonia (as N/ Mg/L), total nitrogen (Mg/L), nitrate (as N, Mg/L), pH and water temperature (⁰C).

TOTAL AMMONIA

There is no threshold for acceptable levels of ammonia for drinking water. However, the Guideline Look-up table on the BC government website for Approved Water Quality Guidelines was used to assess the approved short-term and long-term limits of ammonia for the health of aquatic life in freshwater. The look-up table relates pH and water temperature to determine the allowable limits. An average of the Coppermine and Keystone streams pH measurements and water temperatures measured

at the test site (below treatment area) was used in determining the approved limits (Table 3 and 5). Ammonia levels in both streams did not exceed 0.2 Mg/L following treatment, which means both streams remained well below maximum allowable acute (11-15 Mg/L) and chronic levels (1.9 Mg/L) acceptable for aquatic life in freshwater. On both streams levels returned back to undetectable levels within 10 to 20 days of treatment.

NITRATE (An N, Mg/L) & NITROGEN (Mg/L)

As stated in the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) Fertilization Standard for Ministry funded programs (2015), water quality limits allow for a concentration of 10ppm or 9.988 Mg/L of nitrate (as N) in-stream following treatment. The ALS lab reported that nitrate levels (as N), in both the Coppermine and Keystone streams (Figures 13 & 16), never exceeded 1Mg/L, which is well below the allowable amount of 10 Mg/L.

There were variable levels of detectable nutrients in both streams post fertilizer treatment. The results saw similar nutrient levels that J.S Sanford & Associates Ltd (2018) found in the Lang Creek Watershed. On the TFL 56, nitrate and nitrogen levels initially increased post treatment and continued to decline over the testing period. All levels were well below the maximum allowable concentrations of ammonia and nitrate.

REFERENCES

- B.C. Field Sampling Manual, Part E: Water and Wastewater Sampling. (2013). Retrieved from https://www2.gov.bc.ca/assets/gov/environment/research-monitoring-andreporting/monitoring/emre/bc field sampling manual part e.pdf
- Forest Practices Code of British Columbia. (1995, September). *Forest Fertilization Guidebook*. Appendix 4, pg. 54-65
- J.S Sandford & Associates Ltd. (2018, July). Western Forest Products *Water Quality Monitoring in the* Lang Creek Watershed
- Ministry Environment, Approved Water Quality Guidelines, BC Data Catalogue, Retrieved from https://www2.gov.bc.ca/gov/content/environment/air-land-water/water-quality/waterquality-guidelines/approved-water-quality-guidelines
- Ministry of Forests, Lands and Natural Resource Operations. (2015), Fertilization Standard for Ministry funded Programs. Effective March 30, 2015. Retrieved from https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/land-basedinvestment/forests-for-tomorrow/fertilization_standard_march_30_2015_final.pdf

APPENDIX

• ALS Lab test results

| | NEW YORK CARLONNEY | CERTIFICAT | E OF ANALYSIS | | |
|--|--|--|--|--|------------------|
| Appl Order Dent Johnst Markess Relephone Project 20 D-O-S number Sampler | : VA20B7129 Revelsative Community Forest Kevin Bolleter 2 and St Ensi 200-103 Bex 3199 Revelsative BC Canada V0E 250 | 1.1.1 | Pape Extension Account Manaper Address Telephone Date Sample: Received Date Analysis Commenced Issue Date | : 1 of 2 : Vancouver - Environmental : 60% Lougheed Highway Burnaby BC Canade V5A 1W9 : 41 604 253 4188 : 02-0c1-2020 03-10 : 07-0c1-2020 : 13-0ct-2020 12:37 | 1.00 |
| This Certificate of Analys General Comme Analytical Result | : Standing Offer : 4 : 4 is contains the following information: ints is | | | | Quality Review a |
| Aude number No. of samples received No. of samples analysed This report supersedes a This Certificate of Analys © General Comme © Analytical Resul Additional informatic Sample Receipt Notif Signatories This document has been | Standing Offer : 4 :4 is contains the following information: antis is partiment to this report will be found in the cation (SRN): electronically signed by the authorized signatories | te following separate | attachments: Quality Control i | Report, OC Interpretive report to assist with | Quality Review a |
| Aude number No. of samples received No. of samples analysed This report supersedes of This Certificate of Analys © General Comme © Analytical Resul Additional informatio Sample Receipt Notif Signatories | Standing Offer : 4 :4 is contains the following information: infs is pertinent to this report will be found in the calter (SRN): | te following separate below. Electronic signi | attachments: Buality Control (ng is conducted in accordance with Leboratory Department Inorganics - Water Qual | Report, OC Interpretive report to assist with | Duality Review a |

| Gener | ral Comments | | Are being | - 2002 |
|-----------------------|---|--|---|---|
| ISO, En Incorporal | vironment- Canada, BC MC te modifications to improve po | E and Ontario MOE. Refer to the informatice. | Quarcoomized reference matrices (untries available) such as those published by US Ef ALS Custory County Interpreters (record (CCH) for oppleade informatics) and methodology privacy sample ordered@gehinte.dbiton and brined/them sample for energies. | A APHA' Sizhdard Methods: ASTM, summories: Reference*methods may |
| | | en-from standard LOR- this may be due to two report (QCI) for information regarding (| o high moisture on rient, insufficient sample (reduced weight employed) or matrix interference. | |
| Key: | | Abstracts Services number is a unique id | | |
| | Lini | Description | | |
| | mg/L pH units | milligrams per lare pH un ta | | |
| | | | | |
| | < kss than | | | |
| | >: grenter than Surropate: An analyte t | | 0). But kital dara not becur maturiliyin minimanan kamplar. Kong pileadar usisy sunoyakas an od | ded to samples prior to unalysis |
| | >: greater than | | bit that daes not occurredurally in minimum annulas. Bor spokedon tests, sunogales terrind | dend na sumplices prior to articipants |
| | greator tines Surropole: An analytic t as a chack on recovery Its reported refers only to the | c | | ded to sumplies prior to analysis |
| UNLESS | > greater tinn. Surrepater An analysis I as a chack on recovery Its reported relate only to the OTHERWISE STATED on St | c | RECEIVED IN ACCEPTABLE CONDITION. | ded to samples prior to analysis |
| UNLESS | > greater than Surrepater An enalytic L as a chack on recovery Its reported relate only to the OTHERWISE STATED on St | r semples as received by the lateratory. IN or OCI Report, ALL SAMP LES WERE I | RECEIVED IN ACCEPTABLE CONDITION. | ded to somption prior to involves |
| UNLESS | > greater than Surrepater An enalytic L as a chack on recovery Its reported relate only to the OTHERWISE STATED on St | r semples as received by the lateratory. IN or OCI Report, ALL SAMP LES WERE I | RECEIVED IN ACCEPTABLE CONDITION. | ded to somples prior to involves |
| UNLESS | > greater than Surrepater An enalytic L as a chack on recovery Its reported relate only to the OTHERWISE STATED on St | r semples as received by the lateratory. IN or OCI Report, ALL SAMP LES WERE I | RECEIVED IN ACCEPTABLE CONDITION. | land to scenary das spilers do menalgenia |
| UNLESS | > greater than Surrepater An enalytic L as a chack on recovery Its reported relate only to the OTHERWISE STATED on St | r semples as received by the lateratory. IN or OCI Report, ALL SAMP LES WERE I | RECEIVED IN ACCEPTABLE CONDITION. | lind to scamp dissplant to image as |
| UNLESS | > greater than Surrepater An enalytic L as a chack on recovery Its reported relate only to the OTHERWISE STATED on St | r semples as received by the lateratory. IN or OCI Report, ALL SAMP LES WERE I | RECEIVED IN ACCEPTABLE CONDITION. | ded to scongeles spice (o innalgens) |
| UNLESS | > greater than Surrepater An enalytic L as a chack on recovery Its reported relate only to the OTHERWISE STATED on St | r semples as received by the lateratory. IN or OCI Report, ALL SAMP LES WERE I | RECEIVED IN ACCEPTABLE CONDITION. | dech o scompters prior (o knodyca) |
| UNLESS | > greater than Surrepater An enalytic L as a chack on recovery Its reported relate only to the OTHERWISE STATED on St | r semples as received by the lateratory. IN or OCI Report, ALL SAMP LES WERE I | RECEIVED IN ACCEPTABLE CONDITION. | dech o scomptes pier (o souges) |
| UNLESS | > greater than Surrepater An enalytic L as a chack on recovery Its reported relate only to the OTHERWISE STATED on St | r semples as received by the lateratory. IN or OCI Report, ALL SAMP LES WERE I | RECEIVED IN ACCEPTABLE CONDITION. | dech o somptes pier (o movješ) |
| UNLESS | > greater than Surrepater An enalytic L as a chack on recovery Its reported relate only to the OTHERWISE STATED on St | r semples as received by the lateratory. IN or OCI Report, ALL SAMP LES WERE I | RECEIVED IN ACCEPTABLE CONDITION. | dech o somptes prior (cranalysis) |
| UNLESS | > greater than Surrepater An enalytic L as a chack on recovery Its reported relate only to the OTHERWISE STATED on St | r semples as received by the lateratory. IN or OCI Report, ALL SAMP LES WERE I | RECEIVED IN ACCEPTABLE CONDITION. | ked to somplex spice to analysis |

| Page Work Order Client Project | : 3 of 3 : VA206171 : Reveloke Community Forest : Water testing | ALS |
|---|--|-------|
| Project | | (ALS) |

Analytical Results

| Sub-Matrix: Water | | | Cli | ent sample ID | Control #1 - | Test #1- Copper | Control #1 - | Test #1 - | Control #1 - |
|-----------------------|------------|------------|----------------|----------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| (Matrix: Water) | | | | | Copper Mine | Mine | Copper Mine | Copper Mine | Keystone |
| | | | Client samplii | ng date / time | 20-Sep-2020 12:00 | 20-Sep-2020 13:30 | 20-Sep-2020 12:00 | 20-Sep-2020 11:30 | 20-Sep-2020 15:00 |
| Analyte (| CAS Number | Method | LOR | Unit | VA20B6171-001 | VA20B6171-002 | VA20B6171-003 | VA20B6171-004 | VA20B6171-005 |
| | | | | _ | Result | Result | Result | Result | Result |
| Physical Tests | | | | | | | | | |
| pН | | E108 | 0.10 | pH units | 8.13 | 8.05 | | | 7.72 |
| Anions and Nutrients | | | | | | | | | |
| ammonia, total (as N) | 7664-41-7 | E298 | 0.0050 | mg/L | | | <0.0050 | 0.162 | |
| nitrate (as N) | 14797-55-8 | E235.NO3-L | 0.0050 | mg/L | 0.0393 | 0.122 | | | <0.0050 |
| nitrogen, total | 7727-37-9 | E366 | 0.030 | mg/L | | | 0.065 | 0.363 | |

Please refer to the General Comments section for an explanation of any qualifiers detected. Analytical Results

| | | CI | ient sample ID | Test#1 - | Control #1- | Test#1- | | |
|------------|-------------------------|---|--|--|--|---|--|--|
| | | | | Keystone | Keystone | Keystone | | |
| | | Client sampli | ng date / time | 20-Sep-2020 15:30 | 20-Sep-2020 | 20-Sep-2020 | | |
| CAS Number | Method | LOR | Unit | VA20B6171-006 | VA20B6171-007 | VA20B6171-008 | | |
| | | | | Result | Result | Result | | |
| | | | | | | | | |
| | E108 | 0.10 | pH units | 7.88 | | | | |
| | | | | | | | | |
| 7664-41-7 | E298 | 0.0050 | mg/L | | <0.0050 | <0.0050 | | |
| 14797-55-8 | E235.NO3-L | 0.0050 | mg/L | 0.0089 | | | | |
| 7727-37-9 | E366 | 0.030 | mg/L | | 0.034 | 0.044 | | |
| | 7664-41-7 14797-55-8 | CAS Number Method E108 7684-117 E298 14797-558 E235.NO3-L 17727-37-9 E366 | Client sampli CAS Number Method LOR — E108 0.10 7684-41-7 E298 0.0059 14797-55-8 E235 NO3-L 0.0059 | E108 0.10 pH units 7664-41-7 E298 0.0050 mg/L 14727-554 E235.NO3-L 0.0050 mg/L | Keystone Keystone Clent sampling date / time 20-Sep-2020 15:30 15:30 CAS Number Method LOR Unit E108 0.10 pH units 7.88 7664-41.7 E298 0.0050 mg/L 14787-558 E235.NO3-L 0.0050 mg/L 0.0089 | Keystone Keystone Client sampling date / time 20-Sep-2020 20-Sep-2020 13:30 Va208517-006 VA208517-006 CAS Number Method LOR Unit VA208517-006 VA208517-006 E108 0.10 pH units 7.88 7664-41-7 E298 0.0050 mg/L 0.0089 14727-556 E235.NO3-L 0.0050 mg/L 0.0089 | Keystone Keystone Keystone Keystone CAS Number Method LOR Um Y4208171-060 Y420817 | Keystone Keystone Keystone Keystone CAS Number Method LOR Unit 20-Sep-2020 15:30 20-Sep-2020 20-Sep-2020 CAS Number Method LOR Unit VA20B6171-005 VA20B6171-005 E108 0.10 pH units 7.88 7864-41.7 E298 0.0050 mg/L 14797-558 E235.NO3-L 0.0050 mg/L |

Please refer to the General Comments section for an explanation of any qualifiers detected.

| | Call Calls at the Print | CERTIFICAT | E OF ANALYSIS | ETHERO GALAR | |
|--|--|---|--|--|------------------|
| Wage Order C Int. Contact Address Project Project Proj Col C number Sarpie Sarpie Sarpie Sarpie Sarpie Sarpie | VA20B6467 m Revelatorie Community Forest Revelatorie Community Forest Revelatorie Community Forest Revelatorie DC Canada (VDE 250 Revelatorie DC Canada (VDE 250 The Standing Offer | 4 i i i | Provide Enternance - Content Langue - Astrochum Data Extractor, Proceived Data Analysis Commenced Issue Date | 1 of 3 Vancouré - Environmental Edward Ngar 8031 Gugteed Highnay Durnoby BC Canada VSA 11V9 - 11 G02 (253-1165) 25-Sep-2020 (0525) 26-Sep-2020 (0525) 26-Sep-2020 07-Oct 2020 14:03 | į |
| This Certificate of Analys General Common Analytical Result Additional informatic | ts n pertinent to this report will be found in | | | at be reproduced; except in full Report: OC interpretive report to exist with | Quality Review a |
| No. of samples analysed This report supersides a This Continent of Analys C. General Comme G. Analytical Result Additional: a formatic Sample Receipt Notif Signatories | 18 ny previous report(s) with this reference. Result is contains the following information: ints is perchant, to this, report will be found it | the following separate | attachmenta: Goality Control (| Report, OC interpretive report to assist with | Roatty Review a |
| No of emoties analysed This report superviseds as This Contribution of Amagy 0 General Comme Analysical Result additional Informatic Sample Receipt Notifi Signatories This document has been Symmetry Color ang | : 6 ry provide report(s) with this reference. Result is contains the following information: ints a purchast, to this report will be found is cation (GRN). electronically signed by the sufficient signature | r Die following separate esiteteux, Electronic signin annes | atischnentis Baality Control I ig is conducted in peccercity Operand Asternity Operand Integration - Vector Cont | Report, OC interpretive report to assist with | Quality Rosson a |
| No. of samples analysed This report supersides a This Certificate of Analys General Connec Analysical Result Additional informatic Sample Result Notif Signatories This document has been | 10 ny providua report(s) with this reference. Result is contained for following information: its a portferent to this report will be found it cation (SRN). electronically signed by the authorized signator Assim Transferent re-ince | r Die following separate esiteteux, Electronic signin annes | atischnentis Baality Control I ig is conducted in peccercity Operand Asternity Operand Integration - Vector Cont | Report, OC Interpretive report to assist with h US FDA 21 OFR Part 11. b) Bomby, Break Columbia | Qually Rockw o |

| ge rk Order ent ject | : 2 of 3 : VA20B6467 : Revelstoke Com : | imunity Forest |
|----------------------------------|--|---|
| General C | omments | |
| ISO, Environm | | are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (GCI) for applicable references and methodology summaries. Reference methods may mance. |
| Where a reporte | d less than (<) result is hig | her than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. |
| | | from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference. report (QCI) for information regarding Holding Time compliance. |
| | CAS Number: Chemical At LOR: Limit of Reporting (de | stracts Services number is a unique identifier assigned to discrete substances tection limit). |
| | Unit | Description |
| | mg/L | milligrams per litre |
| | pH units | pH units |
| | < less than. | |
| | | |
| | >: greater than. | |
| | | is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis |
| | Surrogate: An analyte that as a check on recovery. | is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis |
| Test results rep | Surrogate: An analyte that as a check on recovery. | |
| Test results repu UNLESS OTHE | Surrogate: An analyte that as a check on recovery. orted relate only to the sam RWISE STATED on SRN (| ples as received by the laboratory. |

Page : 3 of 3 Work Order <td: VA20B6467</td> Client : Revelstoke Community Forest Project : --



Analytical Results

| Sub-Matrix: Water (Matrix: Water) | Client sample ID | Control # 2- Copper mine (a) | Control # 2-Copper mine | Test # 2 | Test # 2 | Control #2 |
|---|------------------|---------------------------------|----------------------------|---------------------|---------------------|---------------|
| (Matrix: Water) | | Copper mine (a) | 2 Common mine | | | |
| | | | 2-Copper mine (b) | -Copper mine (a) | -Copper mine (2) | -Keystone (a) |
| Client samp | ling date / time | 23-Sep-2020 | 23-Sep-2020 | 23-Sep-2020 | 23-Sep-2020 | 23-Sep-2020 |
| Analyte CAS Number Method LOR | Unit | VA20B6467-001 | VA20B6467-002 | VA20B6467-003 | VA20B6467-004 | VA20B6467-005 |
| | | Result | Result | Result | Result | Result |
| Physical Tests | | | | | | |
| pH E108 0.10 | pH units | | 8.11 | | 8.01 | |
| Anions and Nutrients | | | | | | |
| ammonia, total (as N) 7664-41-7 E298 0.0050 | mg/L | <0.0050 | | 0.0418 | | 0.0450 |
| nitrate (as N) 14797-55-8 E235.NO3-L 0.0050 | mg/L | | 0.0387 | | 0.0805 | |
| nitrogen, total 7727-37-9 E366 0.030 | mg/L | 0.054 | | 0.163 | | 0.183 |

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

| Sub-Matrix: Water | | | CI | ient sample ID | Control #2 | Test # 2 | Test # 2 | |
|-----------------------|------------|------------|---------------|----------------|---------------|---------------|---------------|------|
| (Matrix: Water) | | | | | -Keystone (b) | -Keystone (a) | -Keystone (b) | |
| | | | Client sampli | ng date / time | 23-Sep-2020 | 23-Sep-2020 | 23-Sep-2020 | |
| Analyte | CAS Number | Method | LOR | Unit | VA20B6467-006 | VA20B6467-007 | VA20B6467-008 | |
| | | | | | Result | Result | Result | |
| Physical Tests | | | | | | | | |
| pH | | E108 | 0.10 | pH units | 7.71 | | 7.88 | |
| Anions and Nutrients | | | | | | | | |
| ammonia, total (as N) | 7664-41-7 | E298 | 0.0050 | mg/L | | 0.0064 | | |
| nitrate (as N) | 14797-55-8 | E235.NO3-L | 0.0050 | mg/L | < 0.0050 | | 0.0101 | |
| nitrogen, total | 7727-37-9 | E366 | 0.030 | mg/L | | 0.067 | | |

Please refer to the General Comments section for an explanation of any qualifiers detected.

| | | nmental | - | Contraction of the | - Contraction of the local diversion of the local diversion of the local diversion of the local diversion of the | | | | |
|--|---|--|---|--|---|---|--|--|------------------|
| ieduOrder | : VA20B712 | | CERT | CATE (| OF ANALY | 1 of 2 | | | |
| 205.00 | Revelstoke Co | immunity Forest | | | Enterniory | : Vancou | ver - Environments | Submitter . | |
| ontact ddraets | Revin Bolleter 2nd St East 20 | 0-103 Box 3199 | -87 | | Address 1 | | ougheed Highway | | S. |
| elephone | : | Carada V0E 2S0 | | | Telephone | : +1 604 | y BC Canada V5A 1 253 4188 | Wa | |
| rojest O | : : | | | | Date Samples Rep Date Analysis Com | | 2020 09:10 2020 | | |
| -O-C number ampler | : 17-358169 | | | | Issue Date | : 13-Oct- | 2020 17:18 | | |
| te uote number | : : Standing Offer | | | | | | | | |
| of samples received of samples analysed | : 4 | | | | | | | | |
| | | ith this reference. Results | apply to the sam | iple(s) as subr | mitted. This docume | nt shall not be repro | duced, except in ful | r. | |
| General Con Analytical Re | | genomenon: | | | | | | | |
| | alion pertinent to this : | eport will be found in | the following | soparato atta | chments: Quality | Control Report, Of | C Interpretivo rop | ort to assist with | Quality Review a |
| ignatories | Condition | | _ | | _ | | _ | | |
| | can electronically signed b | y the authorized signatoric | s below, Electro | nic signing is | | | 21 CFR Part 11. | | |
| gnatories ndsay Gung | | Position Supervisor - Water C | themistry | | Laboratory De Inorganics - W | pertment rater Quality, Burnaby, | British Columbia | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | RUG | HT SOLU | TIONS | RIGHT P | A R T N E R | | | |
| Queut | 2 cf 2 VA2087129 | | HT SOLU | TIONS | . der | | | | À |
| Offer | 2 of 2 VA20B7129 Revelatoke Community F | | HT SOLU | (, | - 4 | | | | |
| ona General Comm | VA20B7129 Revelstoke Community F | iorest. | Å | | i dir | P | | | |
| order General Commi fromensiveels metho | VA20B7129 Revelstoke Community F | | Å | Iferance metho | ar salar antar antar dis (njine avaled) | - | published (by US es med methodolog | EDA, ADHA, Sumari 7 January - Robert | nce methods may |
| Graef Concernal Committing The analysical methor Sec. Environment, Cro neorgonate modification memorana reported less. | VA2087129 Revelstoke Community F | forest velgesdievelka, international international MCE, Briteraling, Bre ha LOR, Briteraling, Bre | Anarcaognized re ALS Outly Co | Haratroe, motificante Interpret Franciegante allo de | tering and the second s | o), such as tribue applicative reforme reformed for analysis. | es nod methodolog | EPA, APHA Standard 7 zamilajust Robert | Mariado and |
| Greef General Comm homanajweal metho Sou Envroyment, G sou Envroyment and fication voronorate modification voronorate vorono vo vorono vorono vo vo vo vo vo vo | VA2087129 Revelatoke Community F | ionest Velgendriji velika i Pricine Lagovi Jacovi – Kriskov Britorija koji linoj | Anneognized re Also genetic edition | foreitor, motioned and the second an | tering and the second s | o), such as tribue applicative reforme reformed for analysis. | es nod methodolog | EPA, APHA, School y schedolog, Robert | nce "methods may |
| Orbet Seneral Commi homenalyval metho Sou Environment Cr homonorate modification Where a reported cases where a reported cases where a reported cases where a reported cases issue refer to Quality in the source CR Source CR Source Cases issue CR Source CR | VA2057129 Revelatioka Community F Innite dar-salet bor-AkS, gap dit mate, act, tkO, and AS, and the innerve performance has be innerve performance borter (Interpretive report CA internet Orienkiat Abstracts S | Forest yelgnodievelka, international international de la constantia de la constantia he LOR, Bis may be due to p acad LOR, Bis may be due to p | àray cooniad ne As guardo de la guardo de la guardo de la guardo de la guardo de la guardo de l | Service motion of the service of the | an and a set of a set | o), such as tribue applicative reforme reformed for analysis. | es nod methodolog | EPA, APHA, Bahaura y samayan Ratein | nce "methods may |
| Order General Comm incursive analysis method and provide modification where a report a lease where a report a lease where the Lock of a rep lease refer to Cuality toy: CAS NU LOR: L | VA2037129 Revelatoka Community F error Ionfa dar-use9-bbr-Ak5, are-, dic mida, aGC, MOE, and , Ori na la inprova performance in la inprova performance indicator and a second comparison and crassification stan Centre I strangentive report (O | forest and MORE Briters to the DR. Briters to the he LOR, Briters to the he LOR, Briters to the and LOR, Briters to the and LOR, Briters to the and to find matter reparting 1 for information reparting 1 for information to a state | àray cooniad ne As guardo de la guardo de la guardo de la guardo de la guardo de la guardo de l | Service motion of the service of the | an and a set of a set | o), such as tribue applicative reforme reformed for analysis. | es nod methodolog | EPA, APPA, Sufraid 7 Sufraid 9 Sufraid | nce "methods may |
| Operation of the second | VA2057129 Revelatelike Community F International State (State) (Community State) (State) (State) (Community International Community (State) (Community Control Interpretive report (Co unitien Of Junic & Australia State) (State) (State) (State) (State) | forest velgeschevelrich, international onse-Ministra international en COR, dass Britter internation en COR, dass Britter internatione en COR, dass Britter internatione auf de Contraction regarding in dass Britter internatione auf des auf de Contractiones auf de | àray cooniad ne As guardo de la guardo de la guardo de la guardo de la guardo de la guardo de l | Service motion of the service of the | an and a set of a set | o), such as tribue impolestie rotarenc ritesanção for analysis. | es nod methodolog | EDA, APEA, Szíheard 7 színtapor – Ridelin | nce "methods may |
| Optief Schneral Comm increanity/cell metho Sourierinterments Sourierinterments Sourierinterments Maren a reported learn Where the LOisod a rep isease refer to Cushy LORE L LORE L LORE L | VA2057129 Revelatelike Community F Intentis doruman BCA MCS, and AC Intention BCA MCS, and AC Intention BCA MCS, and AC Intention BCA MCS, and AC Intention Community Community Community Control Interpretive report (Co unition Characteris & Control Interpretive report (Co unition Characteris & Control Interpretive report (Co unition Characteris & Control Interpretive report (Co | Forest yelgrood wrein all information fore white Referse Routes Ne LOR, this may be due to part 40 Refersion wy be due to that for information regarding if exclose number is a unique id as Decorption | àray cooniad ne As guardo de la guardo de la guardo de la guardo de la guardo de la guardo de l | Service motion internation motion reading insurance transferments | an and a set of a set | o), such as tribue impolestie rotarenc ritesanção for analysis. | es nod methodolog | Erk, Afrið, Sufikand 7 skontsport földeti | nce "methods may |
| Order Conservative all another Some analysis and another Some and the some and the some conservation and software and Software and Softw | VA2051129 Revelatelike Community F Ionits damage Boy AkS, pare of the Damage Boy AkS, pare of the Damage Boy AkS, pare of the Damage Boy All sectors and of result in Report Data Control Interpretive report (Or instance) Of control Abstracts S instance (Or control Abstracts S instance) | forest velgeschevelrich, international onse-Minister also und he COR, dass Barter also und he COR, dass mander fa auf Long mander fals auntique for hat dass fals aus das se ervices namber fals auntique for hat Discontribution | àray cooniad ne As a contro cina y sample on Indu motestare da faita Time com | Service motion internation motion reading insurance transferments | an and a set of a set | o), such as tribue impolestie rotarenc ritesanção for analysis. | es nod methodolog | EPA, "APPA" Stringer 7 stringer "Robert | nce "methods may |
| Grief General Vorum The service and the consequences of the many service and the ma | VA267129 Revelatoka Community F Ionia drusał Bor ALS, any doj na ba motowa performance in to informa performance Donto Interve performance control Intervet Verson I O Inter I Reporte a Vascusta S Inter I Reporte A Vascu | forest. yelgnodravskia, jirtumologiji teori-Kriten Bridra koji teo he LOR, Bis may be dise to p teorite de la service de la service jirto information teorite angletin ba unique tit teorite angletin ba unique tit teorite pli service pli service pli service pli service | Angle donical in ALS Control Co rinnary sample of meth methods are com- control or surgest of the | dentro, moti internet, moti references referente inno. | da judine avalad ne recet (COP) in an on area er na insta taan de gedioe dues anoos | c) such as albae applicable referenc ri sancis for analysis alberticioyod) ermatr | es nad methodolog | y summaria | ice methods may |
| Great Constrainty and a model Source analysis and an and Source and an and Alex Source Market and Source and Market and Source and Market and Source and Market and Source and Market and Source and Source and Source and Source and Source and Source and Source and Source and Source and Source and Source and Source and Source | VA267129 Revelatoka Community F Ionia drusał Bor ALS, any doj na ba motowa performance in to informa performance Donto Interve performance control Intervet Verson I O Inter I Reporte a Vascusta S Inter I Reporte A Vascu | forest velgeschevelrich, international onse-Minister also und he COR, dass Barter also und he COR, dass mander fa auf Long mander fals auntique for hat dass fals aus das se ervices namber fals auntique for hat Discontribution | Angle donical in ALS Control Co rinnary sample of meth methods are com- control or surgest of the | dentro, moti internet, moti references referente inno. | da judine avalad ne recet (COP) in an on area er na insta taan de gedioe dues anoos | c) such as albae applicable referenc ri sancis for analysis alberticioyod) ermatr | es nad methodolog | y summaria | ice methods may |
| Order Sanoral Comm house where a more source of the source of the merce of the source of the terms of the source of the source of the source of the source of the source of the source of | VA2051129 Revelatedus Community F Ionita damas (CAVAS, pare of man, (CAVAS, pare) of is la process performance and cytome performance control Interpretive report (Or processing Control of Abstracts S- mit of Reporting (or each or in to Reporting (or each or in to Reporting to test is similar to its an or track). S | forest velgeschevelicht, indem stopper inne – 400 km Rocker also, ten der Gelicht velge des teo Jack Hoffen kinnen bei des teo Jack Hoffen kinnen bei des teo Jack Hoffen kinnen bei des ein gelichten im gelichten kinnen bei familie gelichten kinnen bei familie gelichten kinnen bei familie gelichten kinnen bei familie sinnelyte (schweitig bei finst schormony) | angrooniced in Ale Control of international and international and and the section of the bit that communication bit that communication | denaños metri narel interpret recto pasta en di secto casta estas recto estas recto recto estas recto estas recto recto estas recto recto estas recto recto estas recto recto estas recto | oda (ubare avaitude her report (OCP) for Mit on avaite of the Mit on avaite (no dreb than de (no dreb ve) uncos | c) such as albae applicable referenc ri sancis for analysis alberticioyod) ermatr | es nad methodolog | y summaria | ice methods may |
| Gride Sanoral Comm Intersentive at modification warportale modification warportale modification warportale modification warportale and fication warportale and ficat | VA267129 Revelatoka Community F Ionia do sale bor A&Suero del materia EC ADD, and Con- is to another performance on the transmission of the transmission on the transmission of the transmission of the result defection of the other result defection of the other result defection of the transmission of the transmission of the transmission of the semileration of the transmission of the semileration of the transmission of the semileration of the semileration of the semileration of the STATED on SERN or OCI Rob | Forest velances weira, invanisación res. 415 cm. Rofert a los terres. 415 cm. Rofert a los terres estas de las consectos de las auniques (d na) consectos na) consectos na) consectos pH unita in lational de large consistencia | Argendonicad in Angendonicad i | denaños metri narel interpret recto pasta en di secto casta estas recto estas recto recto estas recto estas recto recto estas recto recto estas recto recto estas recto recto estas recto | oda (ubare avaitude her report (OCP) for Mit on avaite of the Mit on avaite (no dreb than de (no dreb ve) uncos | c) such as albae applicable referenc ri sancis for analysis alberticioyod) ermatr | es nad methodolog | y summaria | ice methods may |
| Order Ganaria Committee These environments the service of the committee the service of the committee the service of the committee the service of the service of the service of the service of the NuLLESS OTHER WAS the service of the service of the Service of the service of the service of the Service of the service of the Service of the service of | VA2051129 Revelately & Community F Ionits damage devices Assume of the Assume and the Assume of the Assume and the Assume of the Assume and the Assume of the Control Interpretation report (Or Interpretation report (Or Interpre | Forest. Velgeschewskisa prozeckomi tero-Afrikan. Briderakou (ter he LOR, Blis may be data to parad LOR, Blis may be data to parad LOR, Blis may be data to parad LOR, Blis may be data to process map bof as a unique til ro Disadgiffica mi lightmap be tare pH units in behaviori to target analyticit colved by the interarroy. port ALL, SAMDLES WIRE F | Argendonicad in Angendonicad i | denaños metri narel interpret recto pasta en di secto casta estas recto estas recto recto estas recto estas recto recto estas recto recto estas recto recto estas recto recto estas recto | oda (ubare avaitude her report (OCP) for Mit on avaite of the Mit on avaite (no dreb than de (no dreb ve) uncos | c) such as albae applicable referenc ri sancis for analysis alberticioyod) ermatr | es nad methodolog | y summaria | ice methods may |
| Gradient Commence of the second commence of t | VA2051129 Revelately & Community F Ionits damage devices Assume of the Assume and the Assume of the Assume and the Assume of the Assume and the Assume of the Control Interpretation report (Or Interpretation report (Or Interpre | Forest. Velgeschewskisa prozeckomi tero-Afrikan. Briderakou (ter he LOR, Blis may be data to parad LOR, Blis may be data to parad LOR, Blis may be data to parad LOR, Blis may be data to process map bof as a unique til ro Disadgiffica mi lightmap be tare pH units in behaviori to target analyticit colved by the interarroy. port ALL, SAMDLES WIRE F | angroconical in ALS Jointy Co detay served of the material and material and the second to be any time composition with exceeding to be any time composition and the second to be any time to the second to the second to be any time to the second to the seco | denaños metri narel interpret recto pasta en di secto casta estas recto estas recto recto estas recto estas recto recto estas recto recto estas recto recto estas recto recto estas recto | oda (obiev availued ber epoil (OCP) for Kitom pieter mentales anoca y in controlomental can NOTION | c) such as albae applicable referenc ri sancis for analysis alberticioyod) ermatr | es nad methodolog | y summaria | ice methods may |
| And a second sec | VA2051129 Revelately & Community F Ionits damage devices Assume of the Assume and the Assume of the Assume and the Assume of the Assume and the Assume of the Control Interpretation report (Or Interpretation report (Or Interpre | Forest. Velgeschewskisa prozeckomi tero-Afrikan. Briderakou (ter he LOR, Blis may be data to parad LOR, Blis may be data to parad LOR, Blis may be data to parad LOR, Blis may be data to process map bof as a unique til ro Disadgiffica mi lightmap be tare pH units in behaviori to target analyticit colved by the interarroy. port ALL, SAMDLES WIRE F | angroconical in ALS Jointy Co detay served of the material and material and the second to be any time composition with exceeding to be any time composition and the second to be any time to the second to the second to be any time to the second to the seco | dentro metri nella reteriori reconstructione descriptione reconstructione descripti | oda (obiev availued ber epoil (OCP) for Kitom pieter mentales anoca y in controlomental can NOTION | o), such as dibae oppleiste inferen et sample for analysis diseinationed activity galaxis. For applicable t | es had methodog | y sourcepiss" Robert | ice methods may |
| And a second sec | VA2051129 Revelately & Community F Ionits damage devices Assume of the Assume and the Assume of the Assume and the Assume of the Assume and the Assume of the Control Interpretation report (Or Interpretation report (Or Interpre | Forest. Velgeschewskisa prozeckomi tero-Afrikan. Briderakou (ter he LOR, Blis may be data to parad LOR, Blis may be data to parad LOR, Blis may be data to parad LOR, Blis may be data to process map bof as a unique til ro Disadgiffica mi lightmap be tare pH units in behaviori to target analyticit colved by the interarroy. port ALL, SAMDLES WIRE F | Augreconical re- Augreconical re- rinnays analysis of a to dar p transicional da- to dar p transicional da- bid ar p transicional da- transicional | dentro metri nella reteriori reconstructione descriptione reconstructione descripti | da (other available teo epoil (COP) for Athen avider method athon athon y in servicemental car NDTTON Test #3 - Copper Mine (c) 24.5mp.2020 | Test # 3 - Copper Mine (b) 28-509-2021 | es indeficence and inetficence and, exception bein Test # 5- Koystone (s) 23-Sep-2020 | Test # 3 - Keystone (b) 26-sing-2020 | ice methods may |
| Ander Sammer Samme Sammer Sammer Samm | VA2057129 Revelatoria Community F Instance Community F Instance Community F Instance Community F Instance Community Instance Community Instance Community Instance Community Instance Comminical Additional Section 1 Instance Instance Instance Instance Instance Instance Community Instance Inst | Forest. Velgeschewskisa prozeckomi tero-Afrikan. Briderakou (ter he LOR, Blis may be data to parad LOR, Blis may be data to parad LOR, Blis may be data to parad LOR, Blis may be data to process map bof as a unique til ro Disadgiffica mi lightmap be tare pH units in behaviori to target analyticit colved by the interarroy. port ALL, SAMDLES WIRE F | Augreconical re- Augreconical re- rinnays analysis of a to dar p transicional da- to dar p transicional da- bid ar p transicional da- transicional | A COCCE ANALOSIS | dda (offere availed fee report (OCF) fer Minor and or me inde internet (of door door anots y in control of the door y in control | () such as these oppering solution oppering solution of completion analysis of completion of comp | Test # 3- Keystone (a) 23-597-222 (15-30 V2215712-603 | Test #3 - Keystone (b) 23.5cp.2020 VA2007129-04 | ice methods may |
| Good Sanceral Comm these environments the second second the second second second second the second second second second the second second second second the second second second second second the second second second second second second the second second second second second the second second second second second second the second secon | VA2057129 Revelatoria Community F Instance Community F Instance Community F Instance Community F Instance Community Instance Community Instance Community Instance Community Instance Comminical Additional Section 1 Instance Instance Instance Instance Instance Instance Community Instance Inst | Forest video develo a Prior second tem 475 cm 87 for a to the her UCP, this may be due to a second UCP the second tem 2 10 for information regarding to 20 for | Angrosonized in Aug. Quarty Co Aug. Quarty Co intrary any angle of methods and the oblight in the comp antifice assisted 42 b), but flott does no accession of 42 b), b), b), b), b), b), b), b), b), b), | foren on the second sec | Copper Mine (a) Soft 3 - Copper Mine (a) Soft 5 - Copper Mine (a) | () such as offers oppletty reference of cample for insight absorbing loyed or mater absorbing loyed or material absorbing loyed or materia | Test #3-1 Keystone (s) 28-59-2220 13-30 | ddad la samplas pict : Test # 3 - Keystone (b) 7-3-59270 15-32 VA2007123-004 1-004 | ice methods may |
| Operation of the second | VA2057129 Revelatoria Community F Instance Community F Instance Community F Instance Community F Instance Community Instance Community Instance Community Instance Community Instance Comminical Additional Section 1 Instance Instance Instance Instance Instance Instance Community Instance Inst | Forest video develo a Prior second tem 475 cm 87 for a to the her UCP, this may be due to a second UCP the second tem 2 10 for information regarding to 20 for | Augucophicad re Augucophicad re draw download and highly notseed highly notseed highly notseed highly notseed highly notseed highly notseed highly notseed highly notseed highly notseed highly not notseed highly not notseed highly not notseed highly not notseed highly not notseed highly not notseed highly not notseed highly not not not not not not not not not not | foren on the second sec | dda (offere availed fee report (OCF) fer Minor and or me inde internet (of door door anots y in control of the door y in control | () such as these oppering solution oppering solution of sample for analysis attemptoyed) or main solution ployed) or main opper Mino (b) 28-507-2021 29:00 V42007226/022 | Test # 3- Keystone (a) 23-597-222 (15-30 V2215712-603 | Test #3 - Keystone (b) 23.5cp.2020 VA2007129-04 | ice methods may |
| Grief General Vorum Ansamuly a short South Printments Conservation and Ecolor Marcola No Colors Marcola No Colors Marcol | VA2057129 Revelatoria Community F context cont | Street Market Market Street St | Angrosonized in Aug. Quarty Co Aug. Quarty Co intrary any angle of methods and the oblight in the comp antifice assisted 42 b), but flott does no accession of 42 b), b), b), b), b), b), b), b), b), b), | An angel and a second s | da (offen and offen and of | () such as offers oppletty reference of cample for insight absorbing loyed or mater absorbing loyed or material absorbing loyed or materia | Test # 3- Keystone (a) 26-59-2020 VA20D7:28-003 Keyst | ddad la samplas pict : Test # 3 - Keystone (b) 7-3-59270 15-32 VA2007123-004 1-004 | ice methods may |

| (AL | S) Envin | | and the second se | A DESCRIPTION OF THE OWNER | and the second se | | _ | | and the second division of the second divisio |
|--|---|---|---|--|--|---|--|--|--|
| duOrder | · VA20B71 | | ERTH | and the second se | ANALYSIS | 1 of 2 | 1.12 | | 10.0 |
| ntact | | Community Ecrost | -17 | | Borniory III III | | nvironmental | - | 5 |
| áreo a | 2nd St East | 200-103 Bex 3199 3C Canada V0E 2S0 | -84 | | foresal II. | 8081 Loughee | | | 5 |
| ephone (est | | G Ganada VOE 280 | | | lephone to Samples Received | +1 604 253 41 02-Oct-2020 0 | 83 | | |
| 0-0 number | : : 174658169 | | | D | ala Analysis Commono see Data | | | | |
| niplet 1 | : | | | | | | | | |
| of employ receive | : Standing Off | er | | | | | | | |
| of samples analys | | with this reference. Results app | uto the complet | e) os submitto | This document shi | I not be reproduced. | event in full | | |
| | nalysis contains the follow | | () are the sentropole (| o prio di di li li li li | | | and a state of the | | |
| Analytical i | Results | report will be found in the | fellowing com | valo allaches | ante: Cuality Cook | Report OC Ide | mains ment to | arelet with Outline I | Review and |
| Sample Receipt | Notification (SRN). | report will be sound in the | tonowing softe | raio anacrin | ints subliny conci | or report, cro-inte | riseave report to | asses with cadality i | novew and |
| gnatories | have also been for the strength | by the authorized signatories be | Inter Electronic | alan kana ka mana | at at a second second | | Desit | | |
| notorios | Den theateneally signed | Position | | signing is cone | University Departm | ont | | | |
| dsay Gung | | Separation - Water Ohem | istry | | Inorganics - Water G | uality, Burnaby, British (| Golumbia | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | RIGHT | SOLUTI | ONSI | RIGHT PAR | TNER | | | |
| | 1.2.42 | | | | | | | | <u>^</u> |
| Courses of | : 2 c*2 : VA2037127 : Revelatike Commun | ity Forest | Å | (| , ile | | | | |
| i General Con | : VA2037127 : Revelstoke Commun : | | | i i | 2004 2004 | | | | |
| i General Con no anajrical mi -0. Environment | : VA2037127 : Revelstoke Commun : mmonts : Cansda used by ALS are Cansda used MOL, and | develaned using, international | warepognized re | aference methi intro: Interpret | da (where availabl | e) such as those | published "by US E | EPA: APHA Standard y summarius Roferen | Methods, ASTM, |
| 4 General Con no: enabytical i mi iQ Environment corporate modific | : VA2037127 : Revelatoke Commun : mmonts those used by AkS are Cansia BG MOL and alone to improve parformance | developed using international Organic MOE Refer to the s. | y repognized re ALS Clustey Co | eference methi intro: Interpret | ida (vibere availabli ve report (OCI) for | e), such as those applicable reference | es and methodolog | EPA, APHA, Stansard y summer Refere | Methods, ASTM, |
| t General Con Ioureratival i m Ioureratival i modific Piere a reported is Inerostia LORio(o | : VA2037127 : Revelatoke Commun : mmonts toda: used by AkS, are Ganaia, BG, MOE, and atoms to improve parformances than (c) result all indiget in reported result all indiget. | develaned using internetional Ontaria MOE Refer to the a as the LOR, this may be due to p standard LOR; this may be due to p | Verepognized re ALS Clustey Co meany sample ext high molistum con | nference methi intro: Interpret ract/digestate d | oda (where availab) ve import (OCI) for aution and/or insuttice | e), such as those applicable reference int sample for analysis | es and methodolog | EPA APHA Standard y summingus Rotern | Methods, ASTM, ice*methods may |
| A General Con to analysical min Corporate modific There a reported is from the LOR of a lease refer to Qua ay: QAC | : VA2037127 : Revelatoke Commun : monents rebody used upper A&C, are Camana, B&C, MC up et al dise to increase performan- ses than (c) result is highest increated result allocations with Control Integrets version in Control Integrets version increase version | developed weins interveloped optimo MDE interveloped as as the LOR, this may be due to p standardt OR; this may be due to p standardt OR; this may be due to the CO (1) or information optimically be Soroces number is a unique ide | y repognized re ALS Duratry Co meany sample of high molisture com high molisture com | narence meth Intro Interpret ractificgestate d Narotr rosullician Stance. | da (where availabl report (OCI) for Nition and/or neutrice Lisampia (roduced woa | e), such as those applicable reference int sample for analysis | es and methodolog | EPK, Anus, Ostinasid y susmingus, Rotern | Methods, ASTM, ice*methods may |
| Seneral Con Control of Control Comparison and Control Comparison and Control Control to Control to Control Control to Control to Control Control to Control to Control Control to Control to Control to Control Control to Control to Control to Control Control to Control to Control to Control to Control Control to Control to Control to Control to Control to Control Control to Control to Cont | : VA2037127 : Revelatoke Commun : mononts model- used ubor A&G, age Canada, B&, MG, and Canada, S, Canada, Assan S, Umber, Constrait Assan S, Umber, Constrait Assan S, Umber, Constrait Assan S, Umber, Constrait Assan | depelaned-uninginternational ControlsMCE::::Refers to a two angles LOR; this may be due to p atandardi LOR; this may be due to (200) for information regarding H ds Sanvaes number (s a unique Ide n 1mt). | y repognized re ALS Duratry Co meany sample of high molisture com high molisture com | narence meth Intro Interpret ractificgestate d Narotr rosullician Stance. | da (where availabl report (OCI) for Nition and/or neutrice Lisampia (roduced woa | e), such as those applicable reference int sample for analysis | es and methodolog | EPAC APIUL Bernaud Y summing Bernaud | Methods, ASTM, ice*methods may |
| A General Con Cale Environment Cale Environment Internationalities Int | CA2037127 CA2037127 CA2037127 CA2037127 CA203712 CA20371 CA203712 CA203712 CA203712 CA20371 | developed wind International Control - MOE Refer s log too autor of the LOR, his may be due to pr tandard LOR, his may be due to pr tandard to the his may be due to pr t (OC) for information regarding H t (OC) for information regarding H t (OC) for information regarding H t (OC) for information regarding H to Decision | y repognized re ALS Duratry Co meany sample of high molisture com high molisture com | narence meth Intro Interpret ractificgestate d Narotr rosullician Stance. | da (where availabl report (OCI) for Nition and/or neutrice Lisampia (roduced woa | e), such as those applicable reference int sample for analysis | es and methodolog | DA Arilà Ozinsud y autorigius Riferen | Methods, ASTM, ice*methods may |
| Concernal Con Concernal Concernation Concernation modific- there a reported to mero the CoPeer of case refer to Cas say: CAS LOT Up mg | : VA2037127 : Revelatoke Commun : mononts model | developed using international organo ADE in Refer to the two angle LOR, this may be due to planational (LOR, this may be due to planational (LOR, this may be due to planational) (LOR) for information reparting H (LOR) for information reparting H is Services number is a unique ide in 1771) Decomption | y repognized re ALS Duratry Co meany sample of high molisture com high molisture com | narence meth Intro Interpret ractificgestate d Narotr rosullician Stance. | da (where availabl report (OCI) for Nition and/or neutrice Lisampia (roduced woa | e), such as those applicable reference int sample for analysis | es and methodolog | EPA, APHA, Ostinaud y aumoque: Robert | Methods, ASTM, ice*methods may |
| Seneral Con Seneral Con Cale Engloyment Des Engloyment Interaction College Interaction College Engl Engl Engl Engl College Interaction College Int | VA2037127 Revelatoke Commun Revelatoke Commun Revelatoke Commun Status Sta | developed wind International Control - MOE Refer s log too autor of the LOR, his may be due to pr tandard LOR, his may be due to pr tandard to the his may be due to pr t (OC) for information regarding H t (OC) for information regarding H t (OC) for information regarding H t (OC) for information regarding H to Decision | y repognized re ALS Duratry Co meany sample of high molisture com high molisture com | narence meth Intro Interpret ractificgestate d Narotr rosullician Stance. | da (where availabl report (OCI) for Nition and/or neutrice Lisampia (roduced woa | e), such as those applicable reference int sample for analysis | es and methodolog | EPA APHA Standard y azərbayca Rotven | Methods, ASTM, ice*methods may |
| Secura 2 Con General Con Que a reformer comparis modifie interest a constant interest and the menta of the Const interest and the constant of | YA2037127 YA20371 YA20371 YA20371 YA20371 YA20371 YA20371 YA20371 YA20371 YA2037 YA20371 YA2037 YA2037 YA2037 YA2037 YA2037 Y | developed wind International Control - MOE Refer s log too autor of the LOR, his may be due to pr tandard LOR, his may be due to pr tandard to the his may be due to pr t (OC) for information regarding H t (OC) for information regarding H t (OC) for information regarding H t (OC) for information regarding H to Decision | y grępognizod re ALS divistry Co kinary sampto od high molistarución high molistarución higher assigned to | sterebe, methi natio Interpret ra-fito parte to de teolo insufficient sterio de schot | da - (vobre avaita) en mport (cCU) for subor andor sealtroi teample (rotuced wo | o), such as tribos "applicativ reforman et sample for analysis phormployus) comatr | es oud méthodolog | y automogias Robert | Netods, ASTN, and Control of the second seco |
| a Seneral Con Control Con Control Con | CARCIGNT27 CARCIGNT27 CARCIGNT27 CARCING COMMUNICATION CARCING COMMUNICATIO | developed wrind interpreteration of the second seco | y grępognizod re ALS divistry Co kinary sampto od high molistarución high molistarución higher assigned to | sterebe, methi natio Interpret ra-fito parte to de teolo insufficient sterio de schot | da - (vobre avaita) en mport (cCU) for subor andor sealtroi teample (rotuced wo | o), such as tribos "applicativ reforman et sample for analysis phormployus) comatr | es oud méthodolog | y automogias Robert | Netods, ASTN, and Control of the second seco |
| Seneral Con FourApplied on the comparison medite intervalue LOPe of a seneral reference of the construction Can any Construction of the Constructi | VA2037127 Kevelstoke Commun Kevelstoke Commun Kevelstoke Commun Stock used to ALE age Can bin, Bild More Park Sono a Commun Sono a Commun Vacance park Kevelstoke Commun Vacance Kevelstoke Commun Vacance Kevelstoke Kevelstokee Kevelstokee Kevelstokee Kevelstokee Kevelstokeee Kevelstokee Kevelstok | developed writing Interruptions | yageoonized re ALE (Durity Cr Indy sample on High method co Indian Time comp Indian Time comp Indian State State Indian State State State Indian State State State Indian State State State Indian State State State State Indian State State State State State State Indian State State State State State State Indian State State State State State State State Indian State State State State State State State State Indian State State State State State State State State State Indian State State State State State State State State State Indian State Stat | sterance, meth- net Teterper rectificipantello d teol a nouticier terro . > clarrote subst | A province available on report (COC) ¹ for some report (COC) ² for | o), such as tribos "applicativ reforman et sample for analysis phormployus) comatr | es oud méthodolog | y automogias Robert | Netods, ASTN, and Control of the second seco |
| Seneral Con Tourith Alphied in m Control of the Control of the menuither COR of a menuither COR of a menuith | CA2037127 Constant Sector Community | depelanced wising international Control ADE Defension and the second ADE Defension and the second and ADE internation from the due to pre- second and ADE internation reparating H t (ADE) for information reparating H mising and per later pH units | ysgeoonized re ALS "Cinnity Co Inter y sample on high melature co damp i melature co damp i melature comp artifice associated to | sterance, meth- net Teterper rectificipantello d teol a nouticier terro . > clarrote subst | A province available on report (COC) ¹ for some report (COC) ² for | o), such as tribos "applicativ reforman et sample for analysis phormployus) comatr | es oud méthodolog | y automogias Robert | Netods, ASTN, and Control of the second seco |
| a Seneral Con For any Kalan and Con Any Constant Constant of the Interest of Constant Age Consta | VA2037127 Kevelstoke Commun Kevelstoke Commun Kevelstoke Commun Com | depelanced wising interpretained Ornano APPE Refer to the top machine LORG, this may be due to p machine LORG, this may be due to p machine to the time may be due to p termical Countration regarding H Countration To Doubletion magnetic perform primits ans received by the intermaty. Incentrate | ALC CONTROL IN ACCOUNTS OF ALC CONTROL OF ALC CONTR | derence, metho nem: Telepoet de la routilider stern routilider sterner. o d'acroier subst | A provide a set task in report (COC) ¹ for subort and consulted is ample (reduced weat anoth) | o) subn as tribne "ripplentig reference et sample for analysis of borneloyed) c enstr of borneloyed) c enstr | esis) surrogalen ano o | dåed ta samples prior a | Netods, ASTN, and Control of the second seco |
| Seneral Con Seneral Con Louis Payle de la m Constante de la manuella manuella CR e de manuella CR e de manue | VA2037127 Kevelstoke Commun Kevelstoke Commun Kevelstoke Commun Com | depelanced wising interpretained Ornano APPE Refer to the top machine LORG, this may be due to p machine LORG, this may be due to p machine to the time may be due to p termical Countration regarding H Countration To Doubletion magnetic perform primits ans received by the intermaty. Incentrate | ALC CONTROL IN ACCOUNTS OF ALC CONTROL OF ALC CONTR | sterance, meth- net Teterpet ractificipantello d teol a nouticien terro a o discribe subst | A province available on report (COC) ¹ for some report (COC) ² for | o), such as tribos "applicativ reforman et sample for analysis phormployus) comatr | es oud méthodolog | y automogias Robert | Netods, ASTN, and Control of the second seco |
| Geer Control Control | VA2037127 Kevelstoke Commun Kevelstoke Commun Kevelstoke Commun Com | depelanced wising interpretained Ornano APPE Refer to the top machine LORG, this may be due to p machine LORG, this may be due to p machine to the time may be due to p termical Countration regarding H Countration To Doubletion magnetic perform primits ans received by the intermaty. Incentrate | yageoonicad re ALS "Cinniy Co may sample of high materiae do doing Time comp artifice assigned to but lost does no ecceived in Acc coursed or une | derence, metho nem: Telepoet de la recutición de la recutición de cocur natami de cocur natami de cocur natami | da (offer availad energier (OCI) for user and or realitie bample (rotuced we ances v in environmental ser vointion. Test #.4- Copper Mine (a) 30-Sep-2020 | o) such as those replicate reference in sample for analysis absomptions) cleaned absomptions) | Test #4- Keystone (a) 30-Sep-2020 | dant to exemples point to dant to exemples point to Trest # 4 - Keystone (b) 30.5ep-2020 | Netods, ASTN, and Control of the second seco |
| Seneral Con Seneral Con Contrastic data and Compared and the Interesting of the Contrastic Interesting of the Contrastic Inter | VA2037127 Kevelstoke Commun Kevelstoke Commun Kevelstoke Commun Com | depelanced wising international Control ADE Telefor Iou Iou an analytic LOR, this may be due to pri- standard LOR internation reparting H t COL for information reparting H is Services sumber is a unique (due in finit) Discription misgrams per Fire pH units an reversed by the informative (Report, ALL SAME LES WIRE) is range legoet, and considered interto | yageoonicad re ALS "Cinniy Co may sample of high materiae do doing Time comp artifice assigned to but lost does no ecceived in Acc coursed or une | derados, metro nato, Teterpet acolo nosta de la constructura el constructura o cisco e natamil de constructura de constructura | d - (norm analos) of monor (CC) for international control (CC) international control (CC) of the control (CC) for international control (CC) of the control (CC) copper Mine (c) | e) such as those "hepideate reference et sample for analysis of terms by out or matrix of terms by out or matrix splere. For applicable t Copper Mine (b) 10-Sep-0021 12-20 | esis, surrogelen era o Test #.4. Keystone (a) 30.69-2020 15.30 | dåad ta samples prior ta Test 8.4 - Keystone (b) | Netods, ASTN, and Control of the second seco |
| a Seneral Con Guerral Galance Company of the seneral company of the seneral company of the seneral seneral seneral and the seneral s | VA2037127 Kevelstoke Commun Kevelstoke Commun Kevelstoke Commun Com | depelanced wising interpretained Ornano APPE Refer to the top machine LORG, this may be due to p machine LORG, this may be due to p machine to the time may be due to p termical Countration regarding H Countration To Doubletion magnetic perform primits ans received by the intermaty. Incentrate | ALC CONTRACT IN ACCOUNTS OF ALC CONTRACT OF A AL | derence, metho nem. Teleppen rectogenetics dere provincier sterner. o discreter school de cocur notamat de cocur notamat | In an interference and task interference (COL) ¹ for interference (COL) ² for interference | o) such as those replicate reference in sample for analysis absomptions) cleaned absomptions) | Test #4- Keystone (a) 30-Sep-2020 | dded to samples price o Test #4 - Keystone (b) 0.0-500200 16:30 | Netods, ASTN, and Control of the second seco |
| a Sonoral Con Conserviced and a conservice of the service of the s | VA2037127 Kevelstoke Commun Kevelstoke Commun Kevelstoke Commun Com | depelanced wising international Control ADE Telefor Iou Iou an analytic LOR, this may be due to pri- standard LOR internation reparting H t COL for information reparting H is Services sumber is a unique (due in finit) Discription misgrams per Fire pH units an reversed by the informative (Report, ALL SAME LES WIRE) is range legoet, and considered interto | ALC CONTRACT IN ACCOUNTS OF ALC CONTRACT OF A AL | derence, metho nem. Teleppen rectogenetics dere provincier sterner. o discreter school de cocur notamat de cocur notamat | A - Indexe available in most (OCI) for international of a station international of a stational of a stational of a station international of a stational of a stational of a stational of a station international of a stational | e) such as tribue "replicable reference it sample for analysis obsemptional constraints obsemptional constraints place. For applicable 1 Copper Mine (b) <u>10-50-2020</u> 12-20 12-20 VA20B7127-022 | Test # 4- Kayslone (a) 10-20-7-20-3 15-30 VA208727-03 | Test #4.5 Keystone (b) 20.5ep.2070 16:30 VA20871227641 | Netods, ASTN, and Control of the second seco |
| a Seneral Con round Seneral Co | VA2037127 VA2037127 Revelatoka Commun VA2037127 Revelatoka Commun Stock used the ALE and the Commun Stock used the ALE and the Commun Stock used the ALE and the Commun Stock used the Commun Va204712 Va20471 Va20471 | Orgeloped wind _ https://orgeloped Orgenon_ADDE_Refer Jog to: Provide LORE, his may be due to pro- Address of the interrupt be due to pr | ALE control of the ALE control o | deraños, metri- nario. Teterpet- ra-fregariel de ale conservational el conservational de conservational de conservational de conservational centrasses conservational centrasses conservational de ale Alexan de ale Alexan | Compare available in more (CC) for international control international control intern | e) such as those "replicable reference et sample for analysis obsernet/yout) or matri splore. For applicables Copper Mine (b) 10-5-p-2020 (2200 (2200) 23-200 (2200) | Test # 4 Kaystone (a) 30-59-20 VA26Brt27-003 Res.1 | Test # 4 - Keystone (b) 20.5ep-200 15:30 VA20871274041 I-Rec4 774 | Netods, ASTN, and Control of the second seco |
| Constructioned interest of constructions interest of constructions interest of constructions interest of constructions of constructions of constructions interest in any pro- incursion of constructions in the constructio | VA2037127 VA2037127 Revelatoka Commun VA2037127 Revelatoka Commun Stock used the ALE and the Commun Stock used the ALE and the Commun Stock used the ALE and the Commun Stock used the Commun Va204712 Va20471 Va20471 | developed willing international Organization 2015 Refer to the top matched LOR, this may be due to pri- matched LOR, this may be due to pri- top top the top top top top top top top top top top top top top top top top p top top top top top top p top | ALE CONTRACT IN ALE CONTRACT Interview of the composition of the composition of the compo | deraños metro nen Teterpen rei felopiete de teo produiter tenno. o elsente autorit el econte netami el econt | A phone available in report (CO) for some of the construction is anyte (coloradown in controlled and compare files of the copper Mine (s) 30-Sep-2020 (2:3) VA2037127-2031 Frend | e) such as those "replicable reference et sample for analysis obsernet/yout) or matri splore. For applicables Copper Mine (b) 10-5-p-2020 (2200 (2200) 23-200 (2200) | Test #44 Keystone (a) 30-Cen-2020 13-30 VA20B7127-003 Resol | dded to samples price o Test # 4 - Keystone (b) 30.5ep.2020 16.30 VA2031122-004 Live.4 | Netods, ASTN, and Control of the second seco |

| | a dia a tala at abia | | CERT | | DE ANALYS | | 10931501 | | |
|--|--|--|--|---|--|---|---|---|--|
| pphyOrder COL | VA20B78 | Community Ecrest | | -5 | Page. | : 1 of 2 : Vancouil | er - Environmental | | 100 100 100 |
| intest Idress | Kevin Bollet | 200-103 Box 3199 | | | Address | : Edward | | | di d |
| techone | | IC Canada V0E 2S0 | | | Telephone | Burnaby | BC Canada V5A 1W | 9 | |
| olect 1 | | | | | Date Samples Recei Date Analysis Comm | ved : 13-Oct-2 | 020 09.10 | | |
| 0-C number mpler | : 174858173 : | | | | Issue Date | | 020.09:01 | | |
| e ole number | Standing Of | or | | | | | | | |
| of samples repaived of samples analysed | - 4 | | | | | | | | |
| | | with this reference. Re | suits apply to the | ample(s) as subm | itted. This document | t shall not be reprod | luced, except in full: | | |
| General Comm | ents | ing information: | | | | | | | |
| Analytical Result Additional Information Sample Receipt Note | on partinent to this | report will be foun | d in the followin | g separate attac | chments: Quality G | iontrol Report, QC | Interpretive report | t to assist with 0 | Quality Review an |
| ignatories | inality (Ortiv) | | | | | | | | |
| is document has been | electronically signed | by the authorized sign | atories below. Ele | tronic signing is c | | | 1 GER Part 11. | | |
| natories dsay Gung | | Position Supervisor - W | ate: Chemistry | | Laboratory Dep Increanics - Wa | ertment re=Quality, Burnaby, E | hit sh Columbia | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | R | IGHT SOI | UTIONS | RIGHT P | ARTNER | | | |
| | | R | IGHT SOI | UTIONS | RIGHT P | ARTNER | | | |
| ûder ∨ R | of 2 A2087667 Avelaticka Communit | | IGHT SOI | UTIONS | | | | | |
| onur v | A20B7867 ievelstoke Communit | | IGHT SOI | 12 | , ile | | | | |
| ode V R Seneral Comme | A20B7867 evelstoke Communit nfs | y Forest | đ. | | : <u>4</u> . | | published by US | EPA APHA Sulfid | |
| General Comme. | A20B7867 evelstoke Communit | y Forest Byzelanodływina, "mian Byzelano-kłó Rus Rołes a M | ndjega (Majroognica Guige ALS, Guinte | relativities meth Control Interpret | ods (utility available two report (OC)) for | e), sučn jas itioo | ces and methodolog | EPA APHA Sund | rence*methods may |
| Conceral Comme. | A20B7867 evelstoke Communit | r Forest Boylondawyng, antor Staton MOKas Roles a Sabe LOR, Ibis may be d | publicity, y an coordinate colloce. Just collocation colloce. ALS . Cluster true to primary sample | relations motific Control Interpret | | e), sučni jas titiose " | ces and methodolog | EPA APHA Sunda y summino. Rate | Te Walds, ASTM. |
| General Comme. | A20B7867 evelstoke Communit " Ised by ALS are a Bo WOL end to improve performance a (c) result is higher bin a (c) result is higher bin | y Forest developsalagenco, antas anto attorno attorno alto LOR, his may be altorated URR bis may be | subjects y arc popriate colore, ALS, coloret lose to by money sempl roke to hydy money | s relation moti Control Interpret | | e), sučni jas titiose " | ces and methodolog | ΕΡΑ ΑΡΗΔΆ SUITA γ summinged Rate | rence*methods may |
| Giber V Reneral Comment Seneral Comment Comment Cam corporate modifications have a reported less have a reported less trace a refort to Cashy Co esc, : DAS Nara | A2057667 evelstoke Communit ************************************ | y Forest Byvideedseving, mun grando-20 Eurocoles a gine LOR, this may be o contacto Urbit thi analyse contacto Urbit this may be don't or firm and gine LOR. | Higgs Var popula 2 99 ALS Cost too to poly mode data to beh mode rating Holding Time | | an and the second | e), sučni jas titiose " | ces and methodolog | EPA APHAN SUITU Y sunningios Rote | rence*methods may |
| Dater V Reneral Commen- concrete modifications from a reported test from a reported test from a reported test from a reported test from the Cashy Co ease refer to Cashy Co | A2087667 evelstoke Communit ** nts used by ALS are de BG WOE and bimorve performance o (c) result is higher the ted ment differedment and christmensor | y Forest Byvideedseving, mun grando-20 Eurocoles a gine LOR, this may be o contacto Urbit thi analyse contacto Urbit this may be don't or firm and gine LOR. | Higgs Var popula 2 99 ALS Cost too to poly mode data to beh mode rating Holding Time | | an and the second | e), sučni jas (trice ************************************ | ces and methodolog | EPA APHAN SUITA Y summing Rote | rence*methods may |
| Balan V V Branceral Common Anian Marka and Balan Goli any compared and an any compared last and any compared last and any compared last any compared and any compared last any compared last any compared any compared last any compared last any compared any compared last any compared last any compared any compared any compared any compared any compared any compared any compar | A2057667 evelstoke Communit ************************************ | r Forest during during a man a nan-ADG-a Role a a give LOR. His may be a agree LOR, His may be COI for the annotation Equipart and an ing Sanates number is a un Timit Description mangement per free | Higgs Var popula 2 99 ALS Cost too to poly mode data to beh mode rating Holding Time | | an and the second | e), sučni jas (trice ************************************ | ces and methodolog | EPA APHA Sulfa 7 sunmaus: Rate | rence*methods may |
| Gued v v R R Seneral Commen- General Commen- Generation of the seneration of the seneration of the seneration for a reported least the three the CR and the seneration of the seneration (CR Limit Unit | A2057667 evelstoke Communit ************************************ | / Forest #-villanduawingmia a line LOR, Ibia may be o antelandu (Virlandua Ibia Gali ya mform stori naj Gali ya minom stori naj Gali ya minom stori naj Gali ya manaki na su | Higgs Var popula 2 99 ALS Cost too to poly mode data to beh mode rating Holding Time | | an and the second | e), sučni jas (trice ************************************ | ces and methodolog | EPA APPA SUIN 7 staintagus Rate | rence*methods may |
| Guad v v Banceral Common Insuerolytical antibody descentionerates can be an operated least the cost of the antibody table antibody of the table antibody table antibody tab | A2007607 eveloticke Communit m m15 mande Daw Alsauer na dies Wolfsmanne is instrukt in Agland die na die wolfsmanne is die evelopie die na die na die evelopie die na d | r Forest during during a man a nan-ADG-a Role a a give LOR. His may be a agree LOR, His may be COI for the annotation Equiparties function for a factor a for the Discription mangement per from | Higgs Var popula 2 99 ALS Cost too to poly mode data to beh mode rating Holding Time | | an and the second | e), sučni jas (trice ************************************ | ces and methodolog | EPA APHAN Stuffe Y standing Kole | rence*methods may |
| Galar V V Sanceral Comme heaventh fair methada and a second second fair and any second second fair and any second second second second any second second second second any second seco | AD007067 eventsicke Communit " " " " " " " " " " " " " " " " " " " | r Forest during during a man a nan-ADG-a Role a a give LOR. His may be a agree LOR, His may be COI for the annotation Equiparties function for a factor a for the Discription mangement per from | Publicity: y signophica c grou, ALS, cluster data to primery sentph data to high montes unting Molding T most data to begin montes unting Molding T most data to begin filter assig | d reference meter Control Fremerer or de Biogrammeter orden de Control a sub de de la décense sub de | odas (others, aveitad ves report (OCO) for no on one or reading dama pie (recision duran ances | e), sučnijna i trice "opplestje rekner ne san ple Gri sah gli pli zemskýral) elma | oss and monocleo | y strentigus. Hote | rence *# stocds may |
| Concernal Commen- baserbeit-Allamettode and and allamettode and and allamettode and and allamettode and and allamettode and and allamettode and allamett | AD007067 eventsicke Communit " " " " " " " " " " " " " " " " " " " | Prorest developed anymp, inter ananov 450 Gar Roles ak gine LOR, this may be o contacto Unit of the market and the second second developed anymp and the developed anymp and the million of the market pit on is | Publicity: y signophica c grou, ALS, cluster data to primery sentph data to high montes unting Molding T most data to begin montes unting Molding T most data to begin filter assig | d reference meter Control Fremerer or de Biogrammeter orden de Control a sub de de la décense sub de | odas (others, aveitad ves report (OCO) for no on one or reading dama pie (recision duran ances | e), sučnijna i trice "opplestje rekner ne san ple Gri sah gli pli zemskýral) elma | oss and monocleo | y strentigus. Hote | rence *# stocds may |
| Control Common Control Common Control Common Control Common Control Common Control Common Control Common Control Common Control Common Control Con | A2007067 eveloticke Communit missed operALS.unter in fision and the second operation of provide performance of provide performance of provide performance of provide performance of the | r Forest during during under a non-thOur Role of a point On an Role of a point On the major of the COP for information regi Considers number (a a lun Imit) Discription maligners per lifer pit units at in behavior to target (we pit units | Algers (y archognica o the ALS - Chaite the ALS - Chaite the Als - Chaite the Also - Chaite and the Also - Chaite and the Also - Chaite Algers (dentifier assign malyta)(s); but there do the | Interaction motification | oda (vitine aveitad Ne epot (OCI) for titi on ank of rink that disente (ricklosed eno ances | e), sučnijna i trice "opplestje rekner ne san ple Gri sah gli pli zemskýral) elma | oss and monocleo | y strentigus. Hote | rence *# stocds may |
| Bager v v Banceral Comme Insertification in Market Sector 2014 - Comme Company of the Comme Sector 2014 - Comme Sector 201 | ADD07067 eventsicke Communit " " Insert and ALS area and ALS area are and ALS area are an and ALS area are an an area are an area are an area are an area area area area area area area area | Perest | Adjegs y grepopnia o gre ALS, Custe too to primery sampli doe to high model to high model inter Kontifer assig malyton), but Boot do | di referesce met Control interpret extra de político de activa de político de activa de político de activa de político de activa de activa de político de activa de ac | oda (vitine aveitad Ne epot (OCI) for titi on ank of rink that disente (ricklosed eno ances | e), sučnijna i trice "opplestje rekner ne san ple Gri sah gli pli zemskýral) elma | oss and monocleo | y strentigus. Hote | rence *# stocds may |
| Anneral Comme Manager Malanettalia Anneral Malanettalia Construction and Calanettalia Construction and Calanettalia Construction and Calanettalia Construction and Calanettalia Construction Calanettalia Calanettalistalia Calanettalia Calane | ADD07067 eventsicke Communit " " Insert and ALS area and ALS area are and ALS area are an and ALS area are an an area are an area are an area are an area area area area area area area area | Perest | Adjegs y grepopnia o gre ALS, Custe too to primery sampli doe to high model to high model inter Kontifer assig malyton), but Boot do | di referesce met Control interpret extra de político de activa de político de activa de político de activa de político de activa de activa de político de activa de ac | oda (vitine aveitad Ne epot (OCI) for titi on ank of rink that disente (ricklosed eno ances | e), sučnijna i trice "opplestje rekner ne san ple Gri sah gli pli zemskýral) elma | oss and monocleo | y strentigus. Hote | rence *# stocds may |
| Bager v v Banceral Comme Instantivity is included in stantivity is included in the stantistic of the instantion concerned in the stantistic of the stantistic of the instantion is in the stantistic of the instantistic is in the stantistic of the instantistic is in the stantistic of the instantistic is instantistic of the stantistic is instantistic of the stantistic is instantistic of the stantistic is instantistic of the stantistic is instantistic of the stantistic of the instantistic of the stantistic of the stantistic is instantistic of the stantistic of the stantistic of the instantistic of the stantistic of the stantistic is instantistic of the stantistic of the stantistic of the instantistic of the stantistic of the stantistic of the instantistic of the stantistic of the stantistic of the instantistic of the stantistic of the stantistic of the stantistic is instantistic of the stantistic of the stantistic of the stantistic is instantistic of the stantistic of the stantistic of the stantistic is instantistic of the stantistic of the | ADD07067 eventsicke Communit " " Insert and ALS area and ALS area are and ALS area are an and ALS area are an an area are an area are an area are an area area area area area area area area | Perest | Adjegs y grepopnia o gre ALS, Custe too to primery sampli doe to high model to high model inter Kontifer assig malyton), but Boot do | references medi control immedi control immedi control potentiaria control potentiaria control concernational control concernational Accomptiants in CO | ods (office, average her epoint (OCI) for those are or not the discussion of the second second access | e), sučnjas trico * oppleates relater ne sample for andysi pto caustopolj otnas nepise. For septemble | ons Fard Imperiodolog | y standingun. Hade | rence *# stocds may |
| Anneral Comme. Anneral Comme. Anneral Comme. Anneral Comme. Anneral Comme. Anneral Comme. Commenter City of a report commenter City of | ADD07067 eventsicke Communit " " Insert and ALS area and ALS area are and ALS area are an and ALS area are an an area are an area are an area are an area area area area area area area area | Perest | Adjegs y grepopnia o gre ALS, Custe too to primery sampli doe to high model to high model inter Kontifer assig malyton), but Boot do | di referesce met Control interpret extra de político de activa de político de activa de político de activa de político de activa de activa de político de activa de ac | an and a second | b) culm per those c) culm per those< | ons Fared Imperiedados 20 Januar de Carando - Imperiedados Januar y cumogrados sere o Test é Gru | y stanningus." Hote added to sumplets pric | rence *# stocds may |
| Anneral Comme. Anneral Comme. Anneral Comme. Anneral Comme. Anneral Comme. Anneral Comme. Commenter City of a report commenter City of | ADD07067 eventsicke Communit " " Insert and ALS area and ALS area are and ALS area are an and ALS area are an an area are an area are an area are an area area area area area area area area | Perest | Lippa V Are popular Lippa V Are popular< | a reference and a second and a second a | an operation overlass and for the overlass and the overla | n), subn pa Trine "applicate refore ne sample for innlyst phomological come phomological come mplets : For applicable Test #5 - Keystone | ons Fared Imperiedence 2 Installer forunde Installer gamoguless into d Coppermission | oded to sumples pic Test \$6 - Keyslone | rence *# stocds may |
| Sanceral Comme. Sanceral Comme. Inservit-Mail and Mail and Mail and Mail Comments of the Comment And Comments of the Comment And Comments of the Comment of the Comment And Comments of the Comment And Comments o | AD007007 eventsicke Communit "" "Issel and Drock Surger and Born AkSurger and Born AkSurger and Town & discussion and the Interpretation of the born Ober Colling and All Surger Su | / Forest devices devices a second devices devices a second devices devices devices de organisations devices de organisations devices de devices devices de devices devices de devices devices de devices devices de devices de | Marco Varia Control Biological Control Biological Control Biological Control Biological Control Control Control Control Control Control Control | Internet and the second second | Copernine October 2007 No. 2008 Million more reverse and the more reverse and th | n), suite pa thise inguident in minim ne sen ple Cr lendy b ut considerad joint makes : Europetebble Test n5- KayaLone OS-642003 16:00 | Instant Indentified International Internationa International International Internation | teded to somples price received to somples price Test #64- Keystone 13-06-2020 05:50 | rence *# stocds may |
| Sancral Comme search Annual Comme search Annual Comme search Annual Comme Comme Search Comme C | AD007007 eventsicke Communit "" "Issel and Drock Surger and Born AkSurger and Born AkSurger and Town & discussion and the Interpretation of the born Ober Colling and All Surger Su | Perest | Lippa V Are popular Lippa V Are popular< | Internet and the second second | in a service service of the service se | b): such yes there c): policies relate c): such yes to send yes c): such yes to send yes c): such yes | Index carrogules area Coppermine 1Cet-CO20 VACENTER FOR | Test #6- keystone 13-0c-5220 03-00 Vacestrare | rence *# stocds may |
| Sanceral Comme. Sanceral Comme. In each of the same sector of the sa | AD007007 eventsicke Communit "" "Issel and Drock Surger and Born AkSurger and Born AkSurger and Town & discussion and the Interpretation of the born Ober Colling and All Surger Su | r Forest developed even purchas trans at Can Role at trans at Can Role at trans at Can Role at Call for information reg Series encoder is a un minit Description miligrams per litre pir trans at in technicia to target a reschered Aprime toronto argentical at SAMILLES V Report" are consider CAS zummer Middior | Negative ALS - Control In Access Version Contro | el entre control de la co | an and a second | *) cullin per ifficie "applicate relation in somple for analysis of complexity of canad- plate application of the period of the application of complexity of the relation of the application relation of the application relati | Indel gamogules into Test 4: - Coppermine 1-Coppermine 1-Cop2 VA2EB7607.003 Ferent | Test 55 - Keystone 13-02-2000 VA2057087-014 Benut | rence *# stocds may |
| Seneral Comments Seneral Comments In autobiolist antibiolist Comments of the Carl Comments of the Carl Comments of the Carl Part and the Car | AD007007 eventsicke Communit "" "Issel and Drock Surger and Born AkSurger and Born AkSurger and Town & discussion and the Interpretation of the born Ober Colling and All Surger Su | / Forest devices devices a second devices devices a second devices devices devices de organisations devices de organisations devices de devices devices de devices devices de devices devices de devices devices de devices de | Marco Varia Control Biological Control Biological Control Biological Control Biological Control Control Control Control Control Control Control | el entre control de la co | in a service service of the service se | b): such yes there c): policies relate c): such yes to send yes c): such yes to send yes c): such yes | Index carrogules area Coppermine 1Cet-CO20 VACENTER FOR | Test #6- keystone 13-0c-5220 03-00 Vacestrare | rence *# stocds may |
| Guide V Bonceral Commen- neurophysical antibidos operating and a second second operating and a second second resource and seco | AD007007 eventsicke Communit "" "Issel and Drock Surger and Born AkSurger and Born AkSurger and Town & discussion and the Interpretation of the born Ober Colling and All Surger Su | r Forest developed even purchas trans at Can Role at trans at Can Role at trans at Can Role at Call for information reg Series encoder is a un minit Description miligrams per litre pir trans at in technicia to target a reschered Aprime toronto argentical at SAMILLES V Report" are consider CAS zummer Middior | Allega V ar popular to the ALS Control to the ALS Control to the Pointary media acting Holding II and four black for the assign malytone), but that do the ALS Control to a General Lege Control to a Control to a Co | Principal on and a second | an and a second | *) cullin per ifficie "applicate relation in somple for analysis of complexity of canad- plate application of the period of the application of complexity of the relation of the application relation of the application relati | Indel gamogules into Test 4: - Coppermine 1-Coppermine 1-Cop2 VA2EB7607.003 Ferent | Test 55 - Keystone 13-02-2000 VA2057087-014 Benut | rence *# stocds may |

| | and the second | OCTOTION AT | TE OF ANALYSIS | 1000 COLUMN | and the second se |
|--|---|-----------------------------|--|---|---|
| VorkeOrder Lemit | : VA20B8444 - | -7 | Palat. Entertwork | : 1 of 2 | 1 |
| lontact ddras 5 | : Kevin Bolleter 2nd St East 200-103 Box 3199 | - 107 | Assies | : Edward Ngai 8081 Lougheed Highway | j. |
| elephone | Revelstoke BC Canada VDE 2S0 | | Telephone | Burnaby BC Canada V5A 1W9 +1 604 253 4188 | |
| roject | | | Date Samples Received | : 19-Oct-2020 09:40 | |
| 0 -O-C number | : | | Bate Analysis Commente Issue Date | d : 20-0002020 02-Nov-2020 11123 | |
| ompler te | | | | | |
| uote number | : Starting Offer | | | | |
| of samples rece o, of samples anal | | | | | |
| | edes any previous report(s) with this reference. Result | s apply to the sample (s) a | is submitted. This document sha | Il not be reproduced, except in full. | |
| Sample Recei | I Results criticalities partment to this report will be found in at Notficulton (SRN). | the following separate | e atlachments: Evality Contr | of Report, QC Interpretive report to assist with | th Quality Review on |
| ignatories | s been electronically signed by the authorized signator | os holese. Electronis sino | una is conductori la socratione s | WIN US EDA 21 CER Dirit 11 | |
| griationies | Position | ca beran, escenaria argi | Laboratory Departm | | |
| | | | | | |
| indSay.Gung | Expansion - Water | Chemistry | | undigy Bornoby, Britsh Gelumbia | |
| hdsay Gung | Experisor - Water | Chemistry | | | |
| ndiay Gung | | | | valýv Bonačy, Bresh Grunti a | |
| ndiay Gung | | | inerganias - Water G | valýv Bonačy, Bresh Grunti a | |
| inda y Gung | RIG | | inerganias - Water G | valýv Bonačy, Bresh Grunti a | |
| Glad | 2 of 2 VA2058444 | | inerganias - Water G | valýv Bonačy, Bresh Grunti a | |
| | RJJG 2 of 2 VA208444 Revelatelya Community Forest | et solutio | NS RIGHT PAR | valýv Bonačy, Bresh Grunti a | |
| ସ୍ଥାଧ୍ୟ କୁ General Cor | 2 of 2 V4205444 Paveloste4a Community Forest | HT SOLUTIO | NS RIGHT PAR | nally, Bonady, Brash Countra T N E R | |
| Quar Ganaria Gonoral Con Dougray works and Dougray works and Dougray works and | 2 of 2 VA2005444 Revelatede Community Forest | HT SOLUTIO | Integence - Water C | T N E R | enco methods may |
| Glas Ganta General Con Dougray Vestim Statements | 2 of 2 VA2028444 Prevelateka Community Forest | HIT SOLUTIO | Integentes - Water C N.S. R.I.G.H.T. P.A.R | n as these published by US EPA, APHA these and the published by US EPA, APHA | |
| dilui (a General Cor Doughystellum School and School (Wing a reported) Wing a reported) | 2 of 2 VA2038444 Revelsteka Community Forest | HT SOLUTIO | Intergences - Water C N.S. R.I.G.H.T. P.A.R matrices - General and J. and representation - Golf for - Space for the second and for the space | n as these pectanes by US EPA APHA torong | rence methods may |
| QBui Seneral Con Pour Private model And a seneral Con Manage A Laboration Con | 2 of 2 VA2005444 Reveloktoka Community Forest and a set of the set | HT SOLUTIO | Increases - Water C | n as these pectanes by US EPA APHA torong | rence methods may |
| Cillari Sonoral Con Sonoral Con Sonoral Con Magna Argonical Magna Collega Magna Collega Magna Collega Magna Collega Magna Collega Magna Collega | 2 of 2 VA3008444 Prevelotika Community Forest | HT SOLUTIO | Increases - Water C | n as these pectanes by US EPA APHA torong | rence methods may |
| Citari Sonoral Cor Sonoral Cor | 2 of 2 VA2038444 Prevelative Community Forest Internet Source Prevention of the Source | HT SOLUTIO | Increases - Water C | n as these pectanes by US EPA APHA torong | rence methods may |
| Cidad 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | 2 of 2 VAC005444 Revelote646 Community Foreist Model used upon A&Europe developed yearling, international manual (65, AAEurope developed yearling, international developed upon A&Europe developed yearling, international developed upon A&Europe developed yearling, international manual (65, AAEurope developed yearling, international developed upon A&Europe developed yearling, international developed and a second of the second of the second of the activity of the second of the second of the second of the second of the second A&Europe Second of a unique to 4 the model Respective Second of a unique to 4 Limit of Respective (destation of the second of the second A&Europe Second of a unique to 4 Limit of Respective (destation of the | HT SOLUTIO | Increases - Water C | n as these pectanes by US EPA APHA torong | rence methods may |

Analysical results in reports identified as -Preliminary

 Maryline
 Maryline
 Test 87
 Test 87
 Test 87
 Test 84
 Test 84

Page Work Order Client Project 2 of 2 VA21A2442 Revelstoke Community Forest



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Incorporting modifications to improve performance. Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances LOR: Limit of Reporting (detection limit).

| Unit | Description |
|------------------|----------------------------------|
| mg/L pH units | milligrams per litre pH units |
| | |

<: less than >: greater than

Surrogate: An analyte that is sim as a check on recovery. ental samples. For applicable tests, surrogates are added to samples prior to analysis ilar in behavior to target analyte(s), but that does not occur naturally in envi

Test results reported relate only to the samples as received by the laboratory

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in reports identified as "Prel ary Report" are co ed authorized for us

Analytical Results

| Sub-Matrix: Water | | | Cl | ient sample ID | Goldstream (3 | Keystone (3 | | |
|-----------------------|----------------------|----------------------|--------|----------------|---------------|---------------|------|--|
| (Matrix: Water) | | | | | months) | months) | | |
| | 02-Feb-2021 11:00 | 02-Feb-2021 15:30 | | | | | | |
| Analyte | CAS Number | Method | LOR | Unit | VA21A2442-001 | VA21A2442-002 | | |
| | | | | | Result | Result | | |
| Physical Tests | | | | | | | | |
| pH | | E108 | 0.10 | pH units | 7.90 | 7.54 | | |
| Anions and Nutrients | | | | | | | | |
| ammonia, total (as N) | 7664-41-7 | E298 | 0.0050 | mg/L | <0.0050 | <0.0050 | | |
| nitrate (as N) | 14797-55-8 | E235.NO3-L | 0.0050 | mg/L | 0.0614 | 0.0951 | | |
| nitrogen, total | 7727-37-9 | E366 | 0.030 | mg/L | 0.136 | 0.175 | | |

efer to the General Comments section for an explanation of any qualifiers de

AL Environmental

CERTIFICATE OF ANALYSIS Work Order VA21A2442 : 1 of 2 Page Client Revelstoke Community Forest Laboratory Vancouver - Environmental : Kevin Bolleter 2nd St East 200-103 Box 3199 Edward Ngai 8081 Lougheed Highway Contact Account Manager Address Address Burnaby BC Canada V5A 1W9 +1 604 253 4188 Revelstoke BC Canada V0E 2S0 Telephone Telephone Date Samples Received 09-Feb-2021 09:15 Project PO Date Analysis Commenced : 11-Feb-2021 C-O-C number 17-858176 Issue Date 17-Feb-2021 16:43 Sampler Site Quote number : Standing Offer No. of samples received : 2 No. of samples analysed 2 This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full. This Certificate of Analysis contains the following information: General Comments Analytical Results Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN). Signatories This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| Signatories | Position | Laboratory Department |
|------------------------------|---|--|
| Lindsay Gung Miles Gropen | Supervisor - Water Chemistry Department Manager - Inorganics | Inorganics, Burnaby, British Columbia Inorganics, Burnaby, British Columbia |
| | | |

RIGHT SOLUTIONS | RIGHT PARTNER