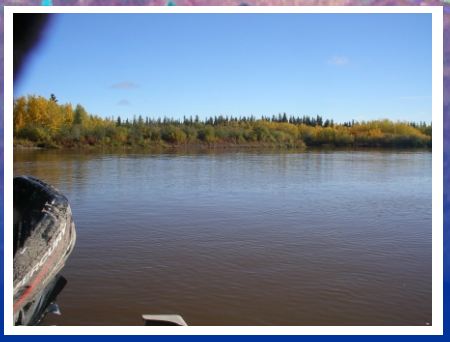
CREATING AND DELIVERING BETTER SOLUTIONS

TAMERLANE PINE POINT PROJECT

Water Quality & Stream Assessment Baseline Studies

November, 2005



Tamerlane Ventures Inc.

eba

Tamerlane Ventures Inc.

TAMERLANE PINE POINT PROJECT
ENVIRONMENTAL BASELINE STUDIES
WATER QUALITY AND STREAM ASSESSMENT
SEPTEMBER 2005

1740149

November 2005

EBA Engineering Consultants Ltd.
p. 604.685.0275 • f. 604.684.6241 • Oceanic Plaza, 9th Floor
1066 West Hastings Street • Vancouver, British Columbia V6E 3X2 • CANADA

TABLE OF CONTENTS

PAGE

EXECUTIVE SUMMARY I

1.0 INTRODUCTION 1

2.0 METHODOLOGY 1

2.1 Water Quality Sampling 1

2.1.1 Selection of Water Quality Sample Sites 2

2.2 Stream Assessment Sampling 2

2.2.1 Selection of Stream Sample Sites 2

3.0 RESULTS 3

3.1 Water Quality Analysis 3

3.1.1 Buffalo River Sites 4

3.1.2 Twin Creek Sites 5

3.1.3 Great Slave Lake Sites 6

3.1.4 Abandoned Pine Point Mine Works 6

3.2 Stream Assesment Sites 7

3.2.1 Buffalo River 7

3.2.1.1 Fish Habitat 8

3.2.1.2 BRS1 9

3.2.1.3 BRS2 9

3.2.1.4 BRS3 10

3.2.1.5 BRS4 11

3.2.1.6 BRS5 11

3.2.1.7 BRS6 12

3.2.2 Twin Creek 13

3.2.2.1 Fish Habitat 13

3.2.2.2 TCS1 14

3.2.2.3 TCS2 14

3.2.2.4 TCS3 15

3.2.2.5 TCS4 15

3.2.2.6 TCS5 16

3.2.2.7 TCS6 16

3.2.2.8 TCS7 17

TABLE OF CONTENTS

PAGE

3.2.2.9 TCS8 17
3.2.2.10 TCS9 18
4.0 CLOSURE 18
REFERENCES 20

TABLES

Table 1. Summary of Stream Biophysical Attributes

FIGURES

Figure 1. Water and Stream Assessment Sample Locations

PHOTOGRAPHS

APPENDICES

Appendix A Water Quality Analysis
Appendix B Stream Assessment Data Collected During Fall 2005 Survey

1.0 INTRODUCTION

EBA Engineering Consultants Ltd. (EBA) was retained by Tamerlane Ventures Inc. (Tamerlane) in September, 2005 to conduct a preliminary surface water quality sampling program and fish habitat assessment of Buffalo River and Twin Creek, the two primary streams flowing though Tamerlane's Pine Point project area, located on the south shore of Great Slave Lake, NWT. The following data report presents the results of this preliminary field program.

2.0 METHODOLOGY

The following is a description of the methodologies employed for sample site selection, stream biophysical sampling, and water quality sampling for field studies conducted in the Pine Point study area in September 2005. This field program was conducted by Tim Abercrombie, M.Sc., of EBA and Tom Unka of Fort Resolution.

2.1 WATER QUALITY SAMPLING

Water quality samples were collected for standard analytical parameters including dissolved metals, total metals, nutrients, pH, conductivity, alkalinity, hardness, total dissolved solids, and. All bottles were "conditioned" before sampling by rinsing the containers three times with water at each sampling site before drawing the sample. Sampling was conducted with the sampling personnel facing upstream (or into the wind on the lake) to prevent possible contamination of the sample with sediment. Nutrient samples were preserved in the field with sulphuric acid, and total metals samples were preserved in the field with nitric acid. All samples were transported in portable coolers with ice-packs during transport and kept outside while in camp. Fourteen water sampling sites were chosen (Figure 1), in addition to a field blank, a trip blank and two duplicate samples.

Field measurements taken at each site also included: pH, dissolved oxygen (% saturation and mg/L), temperature (°C), and conductivity (µS/cm). Photographs of each site were taken.

2.1.1 Selection of Water Quality Sample Sites

Water quality sampling sites were selected and located with GPS to gain an understanding of prevailing water quality conditions in various water bodies throughout the study area and the former Pine Point mine site. Sampling sites were located in Buffalo River and Twin Creek both upstream and downstream of the highway. In Buffalo River, sites upstream and downstream of the study area were also selected. Sampling sites were also selected where both the Buffalo River and Twin Creek flow into Great Slave Lake. Several other sites were chosen on Great Slave Lake. A number of tailings ponds and/or flooded open pits were also sampled. Figure 1 shows the locations of water quality sampling sites. In addition, duplicate samples were collected at Water Station (S) 11 on Twin Creek and at Station (S) 3, on Buffalo River.

2.2 STREAM ASSESSMENT SAMPLING

Stream biophysical sampling consisted primarily of fish habitat assessment. Sampling for fish presence was not conducted. The fish habitat assessment followed the methodology of the Department of Fisheries and Oceans (DFO)/BC Ministry of Environment, Lands and Parks (MELP) Stream Survey Field Guide (1989). Stream survey forms were completed for all sample sites.

Measurements taken at each site included pH, dissolved oxygen (% saturation and mg/L), temperature (°C), and conductivity (µS/cm). Photographs were taken at all sampling sites. Water quality meters (pH: Hanna PHEP3, DO/ Conductivity/ Temp: YSI 85) were calibrated using reference solutions prior to the start of fieldwork.

2.2.1 Selection of Stream Sample Sites

Sampled stream sites were selected and located with GPS based on a review of Quick bird satellite imagery and available maps. The sampling program concentrated on the primary streams located in the immediate vicinity of the Tamerlane Pine Point Project area, that flow into Great Slave Lake and, those that were most likely fish-bearing streams. While in the field, additional/different sampling sites were selected based on their potential suitability for fish habitat and accessibility. Figure 1 presents the locations of the stream sample sites.

3.0 RESULTS

The results of the September 2005 water quality test program and stream biophysical habitat surveys are presented in this section. The locations of all sites assessed are shown in Figure 1. A complete set of site photos presented sequentially is provided in the Photograph section of this report. Site vegetation ecosystem descriptions provided are derived from site-specific determinations from this aquatic resources study.

3.1 WATER QUALITY ANALYSIS

A summary of the water quality analytical results is presented in Appendix A. The results are compared against the criteria outlined in the 1999 Canadian Council of Ministers of Environment (CCME) Canadian Environmental Quality Guideline (CEQG) (CCME 1999); and the B.C. Approved and Working Water Quality Guideline (AWWQG) (BC 1998) criteria. The BC guideline values address a number of water quality parameters not covered by the federal CEQG and provide a perspective relative to some other important water quality criteria for fish and aquatic life. The CEQG criteria for total aluminum and iron are 0.005 – 0.1 mg/L and 0.3 mg/L, respectively. The CEQG criteria for total copper, lead and zinc are 0.002 – 0.004 mg/L, 0.001 – 0.007 mg/L, 0.03 mg/L respectively.

The water quality for all sites sampled along Twin Creek, Buffalo River and in Great Slave Lake, with exception of S02 and S14 in Buffalo River were typical of natural background values for this area of the NWT. Concentrations of most parameters tested were below existing federal (CEQG) guideline criteria and laboratory detection limits.

The highest total aluminum concentration recorded was 7.67 mg/L in Station 2 in Buffalo River. All three stations in Great Slave Lake exhibited total aluminum values that exceeded existing criteria (1.90, 1.76 and 1.63 mg/L). Indicating that the water in Great Slave Lake likely has naturally elevated background aluminum levels. Aluminum and Barium are typically associated with limestone, dolomite, sandstones and shales, which occur in the Pine Point area. Aluminum is also the most abundant metallic element present in the earth's crust.

The highest total iron concentration recorded was 5.9 mg/L at the same station (2) in Buffalo River. Naturally elevated iron levels are commonly linked to the presence of mafic minerals, which also occur throughout this region.

Metals in water samples taken from the Slave River, Little Buffalo River and Great Slave Lake (Evans, Lockhart, and Klaverkamp, 1998) were comparable to those samples taken from Buffalo River, Twin Creek and Great Slave Lake found in this study (0.00186 – 0.0332 mg/L total zinc, 0.00015 – 0.0013 mg/L total lead, 0.0013 – 0.0054 mg/L total copper and 0.35 – 10.11 mg/L total iron).

Calcium, magnesium and water hardness, are not presently included in the federal guidelines. However, since they represent important water quality parameters for fish and other aquatic resources, to provide a perspective, comparisons were made with BC provincial (AWWQC) limits for these parameters. Using this comparison, the BC calcium limit of 4-8 mg/L was exceeded at every site. High levels of calcium and magnesium can be attributed to the geological conditions of the Pine Point area consisting of limestone, dolomite, sandstones and shales.

Water hardness is generally due to the presence of calcium and magnesium in water. High background levels of calcium and magnesium typically produce high values in water hardness. General guidelines for classification of waters are: 0 to 60 mg/L of calcium carbonate $CaCO_3$ is classified as soft; 61 to 120 mg/L as moderately hard; 121 to 180 mg/L as hard; and more than 180 mg/L as very hard.

Boron concentrations are typically linear with the weathering of calcium, which is likely occurring in the Pine Point area. Boron levels are additionally elevated in the presence of bore holes, when bore holes allow ground water to be discharged to the surface. This was observed to have has occurred in association with some bore holes at the former Pine Point Mine.

3.1.1 Buffalo River Sites

Four water quality Stations (WS) were selected and sampled in Buffalo River: WS01, (Photographs 20-22), WS02 (Photograph 17), WS03 (Photograph 10-11) and WS14 (Photographs 12-13).

At Station WS01, values of 0.31 mg/L dissolved aluminum, 0.059 mg/L dissolved barium, 2.30 mg/L dissolved iron, 6.66 mg/L total aluminum, 0.117 mg/L total barium, and 5.76 mg/L total iron were recorded. Station WS01 exceeded CEQG water quality guidelines for aluminum, copper, and iron.

At Station WS02 values of 0.039 mg/L dissolved barium, 0.079 mg/L dissolved iron, 7.67 mg/L total aluminum, 0.103 mg/L total titanium, and 5.9 mg/L total iron were recorded. Station WS02 exceeded CEQG water quality guidelines for aluminum, copper and iron.

At Station WS03 values of 0.042 mg/L dissolved barium, 2.96 mg/L total aluminum, 2.85 mg/L total iron was recorded. Station WS03 exceeded CEQG water quality guidelines for aluminum and iron.

At Station WS14 values of 0.37 mg/L dissolved aluminum, 0.063 mg/L dissolved barium, 7.01 mg/L total aluminium, 0.116 mg/L total barium, were recorded. Station WS14 exceeded CEQG water quality guidelines for aluminum, copper, and iron.

Conductivities were generally around 250 μS/cm in Buffalo River stations. Water hardness ($CaCO_3$) at the three Twin Creek Buffalo River stations ranged between 218 and 226 mg/L.

3.1.2 Twin Creek Sites

Three water quality stations were selected and sampled in Twin Creek: WS11 (Photograph 27), WS12 (Photograph 30), and WS15 (Photograph 29).

At Station WS11 values of 0.027 mg/L dissolved barium, 0.29 mg/L total barium, and 0.029 mg/L total iron were recorded.

At Station WS12 values of 0.028 mg/L dissolved barium, 0.030 mg/L dissolved iron, 0.29 mg/L total barium, and 0.038 mg/L total iron were recorded.

At Station WS15 values of 0.025 mg/L dissolved barium, and 0.026 mg/L total barium were recorded.

Conductivities were generally above 400 µS/cm at Twin Creek stations. Water hardness ($CaCO_3$) at the three Twin Creek stations ranged between 218 and 226 mg/L.

3.1.3 Great Slave Lake Sites

Three water quality stations were selected and sampled in Great Slave Lake: WS10 (Photograph 37), WS13 (Photograph 4), and WS08 (Photograph 3).

At Station WS10, values of 0.043 mg/L dissolved barium, and 1.90 mg/L total aluminum were recorded. Station WS10 exceeded CEQG water quality guidelines for aluminum and zinc.

At Station WS13, values of 0.02 mg/L dissolved aluminum, 1.76 mg/L total aluminum, and 0.042 mg/L total titanium were recorded. Station WS13 exceeded CEQG water quality guidelines for aluminum and iron.

At Station WS08, values of 0.043 mg/L dissolved barium, 1.63 mg/L total aluminum, and 1.20 mg/L total iron were recorded. Station WS08 exceeded CEQG water quality guidelines for aluminum, and iron.

Conductivities were generally around 250 µS/cm in Great Slave Lake stations. Water hardness ($CaCO_3$) at the three Great Slave stations ranged between 100 and 110 mg/L

3.1.4 Abandoned Pine Point Mine Works

Surface water was sampled from three abandoned mine pit lakes: WS04 (Photograph 5), WS05 (Photograph 6), and WS06 (Photograph 7), and the former Pine Point Mine Tailings Pond – WS07 (Photograph 8).

At Station WS04, values of 0.51 mg/L dissolved boron, 0.39 mg/L total boron, a conductivity of 2,820 µS/cm, and a hardness (CaCO3) of 1,700 mg/L.

At Station WS05, values of 0.20 mg/L dissolved boron, 1.12 mg/L total iron were recorded. Conductivity of 1950 µS/cm, and hardness (CaCO3) of 1150 mg/L were recorded. Station 5 exceeded CEQG water quality guidelines for iron.

At Station WS06, values of 0.040 mg/L dissolved barium, 0.069 mg/L dissolved zinc, conductivity and hardness ($CaCO_3$) levels were lower than the values recorded at the other abandoned mine pits lakes (380 µS/cm, 194 mg/L, respectively). Values of 0.19 mg/L total aluminum, and 0.043 mg/L total barium were recorded. Station WS06 exceeded CEQG water quality guidelines for aluminum and zinc.

At Station WS07 (the former Pine Point tailings pond), values of 0.02 mg/L dissolved lead, 1.14 mg/L dissolved zinc, 0.034 mg/L total lead, 1.11 mg/L total zinc, pH of 8.3, conductivity of 828µS/cm, and hardness of 480 mg/L were recorded. Station WS07 exceeded CEQG water quality guidelines for copper, lead, and zinc.

Total water hardness (CaCO3) was elevated at Stations 4, 5 and 7: 1700 mg/L, with water hardness values of 1150 mg/L , and 480 mg/L respectively.

3.2 STREAM ASSESMENT SITES

The stream site biophysical data for each site assessed in both Twin Creek and Buffalo River are summarized in Table 1. The complete sets of stream habitat field data for these sites are presented in Appendix A. Photos are provided in the Photograph section of the report.

3.2.1 Buffalo River

Buffalo River is a large river that originates from Buffalo Lake and receives drainage from many other small lakes and wetlands upstream (south) of the current study area and northward en route to Great Slave Lake. The overall length of Buffalo River is approximately 155 km. According to satellite imagery, maps and onsite field studies, the stream channel is not less than 20 m across at any point. Water at all stations was flowing strongly and at times was characterized by rapids. Buffalo River water flows year-round with higher levels of flow occurring during the annual spring melt. Due to the wide, fast flowing, turbid water, river widths were estimated and the nature of river bed material was judged

from the rivers edge. The presence of aquatic insects was observed in many locations but no fish were observed at any location due to the highly turbid water.

3.2.1.1 Fish Habitat

Although no fish sampling was conducted in Buffalo River, several species are known to be common in Buffalo River. Inconnu (*Stenodus leucichthys*), whitefish (*Coregonus clupeaformis*), northern pike (*Esox lucius*), pickerel (*Stizostedion vitreum*) and burbot (*Lota lota*) (Evans, Lockhart and Klaverkamp, 1998).

Inconnu typically spawn in late summer or early autumn in rivers but the location of spawning grounds are not known. There are known migrations of inconnu from Great Slave Lake up the Buffalo River in the fall (Scott and Crossman, 1973).

Whitefish, spawn in the early fall. The time varies from year to year, even in the same lake. Spawning usually occurs in shallow water at depths less than 7.6 m. It often takes place over a hard or stoney bottom but sometimes over sand (Scott and Crossman, 1973).

Northern pike is a spring spawner and spawning takes place immediately after ice melts in April to early May when water temperatures fall between 4.4-11.1 °C. Pike typically spawn on heavily vegetated floodplains of rivers, marshes, and bays of larger lakes in water no deeper than 18 cm. In Canada, the habitat of the pike is usually clear, warm, slow, meandering, heavily vegetated rivers or warm weedy bays of lakes. They occur in a wide range of habitat over the whole of their distribution (Scott and Crossman, 1973).

Pickerel, or Walleye spawn in the spring or early summer depending on latitude and water temperature. Normally spawning begins shortly after ice- break up in lakes at water temperatures between 6.7-8.9 °C. Spawning grounds are the rocky areas in white water below impassable falls and dams in rivers, or boulder to coarse gravel shoals of lakes. Large streams of rivers, providing they are deep or turbid enough to provide shelter in daylight, are suitable habitat (Scott and Crossman, 1973).

Burbot spawn in midwinter under ice, principally from January to March. Burbot usually spawn in water 0.3-1.5 m deep over gravel or sand in shallow bays or gravel shoals. In northern Canada burbot are present in large cool rivers. Summer habitat is often in the river

channels and young –of –the year and yearling burbot are frequently found along rocky shores and sometimes in weedy areas of tributary streams (Scott and Crossman, 1973).

3.2.1.2 BRS1

Buffalo River Station 1 (BRS1) was located approximately 100 m upstream of the road crossing (Highway 5 from Hay River to Fort Resolution) a large clear span bridge that crosses the Buffalo River. No sedimentation or erosional issues or other disturbance from the road crossing to the river were noted at the survey site. Buffalo River likely receives minimal runoff from the roadbed in this area. Water volume at this station was fast-flowing. A 12 m high bank was present on the outside corner of the meander. There were several small tributary inputs to the Buffalo River approximately 25 m upstream of the sample site. The riparian vegetation in this area consists primarily of Riparian Shrubland and deciduous forest (cottongrass and shrubs noted) (Photographs 9-11).

The river at Station 1 was characterized by a wide, low-gradient channel, with small and large gravels dominating the bed material. The river banks consisted of gravel and cobble with willow vegetation cover further up. Approximately 5% of the wetted surface was accounted for by cover elements, consisting of boulders and large organic debris.

This area of the stream likely provides good habitat for inconnu, pickerel, pike, burbot and whitefish due to the deep flowing turbid water with a gravel/ cobble/ boulder bottom.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 8.57, DO = 10.27 mg/L, Temp. = 9.4 °C, Cond. = 408.2 µS/cm). No sedimentation or other disturbance to the river was noted at the sampling site.

3.2.1.3 BRS2

Buffalo River Station 2 (BRS2) was the station located furthest downstream that was accessibly by ATV. The river at this station was fast-flowing. A 6 m high bank was present on the outside corner of the meander. At this station, there was a lowland back channel area with several small sulfurous ponds that likely becomes flooded at freshet. The riparian vegetation in this area consists primarily of Riparian Shrubland (willow) and mixed deciduous and evergreen forest (Photographs 12-14).

The river at Station 2 was characterized by a wide low-gradient channel, with gravels dominating the bed material in addition to some fines and gravels. The bank consisted of gravel and fines with grass low land and willow vegetation further up. None of the wetted surface was accounted for by cover elements.

This area of the stream would provide good habitat for inconnu, pickerel, pike, burbot and whitefish due to the deep flowing turbid water with a gravel/ cobble/ boulder bottom.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 8.40, DO = 10.44 mg/L, Temp. = 9.7 °C, Cond. = 241.1 µS/cm). No sedimentation or other disturbance to the river was noted at the sampling site.

3.2.1.4 BRS3

Buffalo River Station 3 (BRS3) was located upstream of BRS2 and accessed by ATV. The river at this station was fast-flowing. A 20 m high bank was present on the west side of the river, with evident erosion. On the east side of the channel, a lowland flood plain covered in dense willow thicket was observed. The riparian vegetation in this area consists primarily of Riparian Shrubland (willow) and mixed deciduous and evergreen forest (Photographs 15 -16).

The river at Station 3 was characterized by a wide low-gradient channel, with silt and small gravel dominating the bed material. The river bank consisted of gravel and fines on the east side with grass and willow vegetation on the west side. Approximately 2% of the wetted surface was accounted for by cover elements consisting entirely of boulders.

This area of the stream would likely provide good habitat for inconnu, pickerel, pike, burbot and whitefish due to the deep flowing turbid water with a gravel/ cobble/ boulder bottom.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 7.92, DO = 10.27 mg/L, Temp. = 9.9 °C, Cond. = 222.7 µS/cm).

3.2.1.5 BRS4

Buffalo River Station 4 (BRS4) was located upstream of BRS3 and accessed by ATV. The river at this station was fast-flowing. Three metre-high banks were present on both sides of the channel, with no indication of erosion evident. On both sides of the channel, a lowland flood plain covered in dense willow thicket was observed. The riparian vegetation in this area consists primarily of Riparian Shrubland (willow) and mixed deciduous and evergreen forest (Photographs 17-19).

The river at Station 4 was characterized by a wide low-gradient channel, with small gravel dominating the bed material. The bank consisted of gravel and fines, which became vegetated with grass and willow vegetation approximately 2 meters from the waters edge. Approximately 2% of the wetted surface was accounted for by cover elements consisting entirely of boulders.

This area of the stream would likely provide good habitat for inconnu, pickerel, pike, burbot and whitefish due to the deep flowing turbid water with a gravel/ cobble/ boulder bottom. A freshwater mussel shell (Family *Unionidae*) was noted on the riverbank. Freshwater mussels occupy all aquatic habitats, but reach maximum richness and abundance in large rivers, such as Buffalo River. Mussels serve as indicators of good water quality. Mussel communities are intimately associated with fish communities, since mussels are parasitic on fishes during their larval stage.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 8.21, DO = 10.91 mg/L, Temp. = 9.9 °C, Cond. = 245.5 µS/cm).

3.2.1.6 BRS5

Buffalo River Station 5 (BRS5) was located upstream of BRS4 and accessed by ATV. The river at this station was fast-flowing. Four metre-high banks were present on the east side of the channel, on the outside of the meander. A lowland/ wetland area was present on the west side, and three moose where observed there. Approximately 100 m downstream from BRS5 a small tributary stream was observed flowing into Buffalo River and leaving a sulphurous residue on the rock surfaces. A strong sulphurous odour was noted at this station. The riparian vegetation in this area consists primarily of Riparian Shrubland (willow) and mixed deciduous and evergreen forest (Photographs 20-22).

The river at Station 5 was characterized a wide low-gradient channel, with small gravel dominating the bed material. The bank consisted of gravel and fines. Above the bank vegetation consisted of grass and willow vegetation approximately 2 meters from the waters edge. None of the wetted surface was accounted for by cover elements.

This area of the stream would likely provide good habitat for inconnu, pickerel, pike, burbot and whitefish due to the deep flowing turbid water with a gravel/ cobble/ boulder bottom.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 7.01, DO = 10.86 mg/L, Temp. = 9.5 °C, Cond. = 233.2 µS/cm).

3.2.1.7 BRS6

Buffalo River Station 6 (BRS6) at the river mouth on Great Slave Lake and accessed by boat. the river at this station was slow-flowing. Low, two metre-high banks were present on both sides of the channel. A small island was present within the river mouth. Several small trappers cabins were present near the river mouth. The riparian vegetation in this area consisted primarily of Riparian Shrubland (willow) and mixed deciduous and evergreen forest (Photographs 23-25).

The river at Station 6 was characterized by a wide low-gradient channel, with small cobble dominating the bed material. The bank consisted of cobble and gravel. Above the bank vegetation consisted of grass and willow. Approximately 50% of the wetted surface was accounted for by cover elements consisting of deep pools.

This area of the stream would likely provide good habitat for inconnu, pickerel, pike, burbot and whitefish due to the deep flowing turbid water with a gravel/ cobble/ boulder bottom. All fish migrating up stream to spawn would pass this point.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 8.01, DO = 9.82 mg/L, Temp. = 8.5 °C, Cond. = 252.8 µS/cm).

3.2.2 Twin Creek

Twin Creek is a small stream that drains several small lakes and wetlands to the south of the Tamerlake Pine Point project area northward into Great Slave Lake. The overall length of Twin Creek is approximately 45 km. According to satellite imagery, maps and onsite field studies, the stream channel is often undefined and travels through sphagnum bogs. Twin Creek is expected to have seasonal water flow with more flow during spring melt. Aquatic insects were observed in many locations but no fish were observed in any location.

3.2.2.1 Fish Habitat

Although no fish sampling was conducted in Twin Creek, several species are known to be common in the area and are typically found in habitats similar to Twin Creek. White sucker (Catostom*us commersoni*), longnose sucker (*Catostomus catostomus*), northern pike (*Esox lucius*), and brook stickleback (*Culaea iconstans*)

White suckers spawn in the spring, usually from early May to early June. Adults usually migrate from lakes into gravelly streams when stream temperatures first reach 10°C, but they are also known to spawn on lake margins, or quiet areas in the mouths of blocked streams. Spawning sites are usually in shallow water with a gravel bottom but they may spawn even in rapids (Scott and Crossman, 1973).

Longnose suckers spawn in the spring in streams where available, but otherwise in shallow areas of lakes. They enter spawning streams as soon as stream temperature exceeds 5°C usually in mid-April to mid-May. The spawning run of this sucker begins and reaches a peak several days before the run of white suckers in the same stream. Spawning often takes place in stream water 15 – 30 cm deep, with a current from 0.3 – 0.46 m/s with a bottom of gravel 5 –10 cm in diameter (Scott and Crossman, 1973).

Northern pike is a spring spawner and spawning takes place immediately after ice melts in April to early May when water temperatures are 4.4-11.1 °C. Pike spawn on heavily vegetated floodplains of rivers, marshes, and bays of larger lakes in water no deeper than 18 cm (Scott and Crossman, 1973).

The brook stickleback spawns in shallow water from late April to July depending upon the water temperature, and tends to be later in more northerly latitudes. Nests are built of stems of reeds or grass, on or near the stream bottom (Scott and Crossman, 1973).

3.2.2.2 TCS1

Twin Creek Station 1 (TCSI) was located immediately upstream of the road crossing (Highway 5 from Hay River to Fort Resolution) a clear span bridge crosses Twin Creek. No sedimentation or erosional issues or other disturbance from road crossing to the stream was noted at the survey site. Twin Creek likely receives runoff from the roadbed in this area. The bridge footings are well stabilized with riprap. Water volume at this station was considerable but flow was slow and ponding was occurring in nearby areas just downstream. Organic debris was observed deposited 2 metres up the stream bank on the riprap, likely from a beaver dam just downstream (Appendix X, Photograph X). The riparian vegetation in this area consists primarily of Riparian Shrubland (Photographs 26-27).

At this station, the stream channel was observed to be generally straight with a shallow gradient. Fines and small gravel dominate the bed material, while riprap (of anthropogenic origin) cover the banks Approximately 100 % of the wetted surface was accounted for by cover elements, which were dominated by pools and instream vegetation. The stream study site provides good rearing habitat for suckers and northern pike due to the abundance of instream vegetation and boulders. Spawning habitat for stream-spawners, such as suckers would also be good due to the presence of gravels.

The field measurements indicated that water quality at this site was acceptable for aquatic life (pH = 7.89, DO = 5.67 mg/L, Temp. = 6.4°C, Cond. = 418.0 µS/cm), although dissolved oxygen is low.

3.2.2.3 TCS2

At Twin Creek Station 2 (TCS2), south of the road crossing, the crossing site exhibited a low-gradient channel, with cobble and gravel dominating the bed material (with some fines noted) and vegetated gravel and fines dominating the banks. Approximately 100 % of the wetted surface was accounted for by cover elements, which were dominated by instream vegetation (sedges, cottongrass) overstream vegetation (willow), large organic debris and

boulders. This reach of Twin Creek had varying widths with wetland directly adjacent to the creek and nearby spruce and pine highland (Photograph 28).

The area of the stream could provide good rearing habitat for suckers, northern pike, due to the abundance of in-stream vegetation and boulders. In addition, spawning habitat for white sucker would also likely be present here.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 7.4, DO = 86.0 mg/L, Temp. = 5.3 °C, Cond. = 409.8 µS/cm). No sedimentation or other disturbance to the stream was noted at the stream site.

3.2.2.4 TCS3

Twin Creek Station 3 (TCS3) was the furthest station south accessible on foot. At the crossing site exhibited a low-gradient channel, with fines and small cobble dominating the bed material and vegetated gravel and fines dominating the banks. Approximately 100 % of the wetted surface was accounted for by cover elements, which were dominated by deep pools and some instream vegetation. This reach of Twin Creek was highly braided amongst wetland while a spruce and pine forest bordered either side (Photograph 29).

This area of the stream could provide good rearing habitat for suckers and stickleback, but insufficient vegetation may discourage northern pike. In addition, spawning habitat for white sucker would also likely be present here.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 7.13, DO = 9.74 mg/L, Temp. = 5.5 °C, Cond. = 408.1 µS/cm). No sedimentation or other disturbance to the stream was noted at the stream site.

3.2.2.5 TCS4

Twin Creek Station 4 (TCS4) was the furthest station north accessible on foot. At this station the crossing site exhibited a low-gradient channel, with large cobbles, and gravels (and some fines) dominating the bed material and willow vegetated wetland as the banks. Approximately 50% of the wetted surface was accounted for by cover elements, 100% that was dominated by deep pools. This area of Twin Creek had a defined channel meandering

through a willow wetland, bordered on either side by a spruce and pine forest. Immediately downstream of the study site, was a fish barrier constituting of organic debris (possible due to beaver activity) (Photograph 30).

The area of the stream could provide good rearing habitat for suckers, northern pike, due to the abundance of in-stream vegetation and boulders. In addition, spawning habitat for white sucker would also likely be present here.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 8.12, DO = 10.41 mg/L, Temp. = 7.3 °C, Cond. = 428.5 µS/cm). No sedimentation or other disturbance to the stream was noted at the stream site.

3.2.2.6 TCS5

Twin Creek Station 5 (TCS5) exhibited a low-gradient channel, with fines dominating the bed material and willow vegetated wetland as the banks. Approximately 70 % of the wetted surface was accounted for by cover elements, consisting of deep pools, instream vegetation, some boulders and some large organic debris. This area of Twin Creek had a defined channel meandering through a willow wetland, bordered on either side by a spruce and pine forest. Downstream of the study site, was a fish obstacle constituting of organic debris (possible due to nearby beaver activity) (Photographs 31-33).

The area of the stream could provide good rearing habitat for suckers, northern pike, due to the abundance of in-stream vegetation. Although flow is slow and no bed gravels are present.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 8.03, DO = 8.02 mg/L, Temp. = 7.4 °C, Cond. = 430.0 µS/cm). No sedimentation or other disturbance to the stream was noted at the stream site.

3.2.2.7 TCS6

Twin Creek Station 6 (TCS6) exhibited a low-gradient channel, with fines dominating the bed material in addition to some gravels and small cobbles. The bank consisted of willow vegetated wetland as the banks. Approximately 60% of the wetted surface was accounted

for by cover elements, consisting of instream vegetation, deep pools, some overstream vegetation and some boulders. This area of Twin Creek had a principal channel with additional side channels meandering through a willow wetland, bordered on either side by a spruce and pine highland. At this site the principle channel was ponding with little to no flow due to a build up of large organic debris (possible due to nearby beaver activity). The dam created a small waterfall (Photograph 34).

This area of the stream would not provide good rearing habitat for suckers, and northern pike, due to a lack of consistent water flow, and bed gravel.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 8.25, DO = 7.57 mg/L, Temp. = 9.9 °C, Cond. = 423.4 µS/cm). No sedimentation or other disturbance to the stream was noted at the stream site.

3.2.2.8 TCS7

Twin Creek Station 7 (TCS7) exhibited a low to medium gradient channel, with boulders dominating the bed material and some vegetation on the banks. Approximately 100 % of the wetted surface was accounted for by cover elements, consisting primarily of boulders but also instream vegetation, overstream vegetation and deep pools. Approximately 80% of the wetted water consisted of riffles. This reach of Twin Creek was considerably different than more northern stations. The channel was unbraided with no wetland area and closely bordered on either side by a spruce and pine forest (Photograph 35).

This area of the stream would provide ideal rearing habitat for suckers, northern pike, and stickleback, but due to minimal vegetation, not ideal spawning habitat.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 7.88, DO = 9.19 mg/L, Temp. = 7.1 °C, Cond. = 420.5 µS/cm). No sedimentation or other disturbance to the stream was noted at the stream site.

3.2.2.9 TCS8

Twin Creek Station 8 (TCS8) exhibited a low-gradient channel, with fines dominating the bed material in addition to some gravels and small cobbles. The channel was highly braided

through a willow vegetated wetland which gave way to a spruce and pine forest. Approximately 50% of the wetted surface was accounted for by cover elements, consisting of overstream vegetation and some instream vegetation. This area of Twin Creek had a principal channel with several additional side channels (Photograph 36).

This area of the stream would provide adequate rearing habitat for suckers, and northern pike, due cover elements, and bed gravel.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 7.99, DO = 10.87 mg/L, Temp. = 7.2 °C, Cond. = 420.2 µS/cm). No sedimentation or other disturbance to the stream was noted at the stream site.

3.2.2.10 TCS9

Twin Creek Station 9 (TCS9) was located at the mouth where Twin Creek drains into Great Slave Lake. The site exhibited a low-gradient wetland that extended well out into the lake. There was no defined channel and the bed material was not identified due to access problems. The channel was highly braided through a vegetated wetland, which gave way to a deciduous forest. From a distance, there appeared to be a percentage of the wetted surface that accounted for by cover elements, including instream and overstream vegetation (Photograph 37).

The mouth of the stream was considered to provide good rearing and spawning habitat for arctic grayling (Thymallus arcticus) and minnows and good rearing habitat for northern pike (Esox lucius) due to the presence of instream and overstream vegetation, fine substrates and low gradient.

The physical water quality parameters measured in the field indicated that the water quality was suitable for aquatic life (pH = 8.07, DO = 10.67 mg/L, Temp. = 9.4 °C, Cond. = 466.9 µS/cm). No sedimentation or other disturbance to the stream was noted at the stream site.

4.0 CLOSURE

EBA presents Tamerlane with this Environmental Baseline Study of Water Quality and Stream Assessment for the Tamerlane Pine Point Project. We hope everything is found to be satisfactory. If there any are any questions, the please do not hesitate to contact us.

Prepared by:

Tim Abercrombie, M.Sc.

Environmental Scientist

Reviewed by:

Richard A.W. Hoos, M.Sc., R.P.Bio.

Senior Environmental Scientist

EBA ENGINEERING CONSULTANTS LTD.

REFERENCES

Evans, M.S., L. Lockhart, and D. Muir. 1998. Investigation of metals and persistent organochlorine contaminates in predatory fish from Resolution Bat, Great Slave Lake. National Hydrology Research Institute Contribution Series.

Evans, M.S., L. Lockhart, and J. Klaverkamp. 1998. Metal Studies of water, sediments and fish from the Resolution bay area of Great Slave Lake: studies related to the decommissioned Pine Point Mine. Hydrology Research Institute Contribution Series No. 98-87, July 15 1998.

BC. 1998. A Compendium of Working Water Quality Guidelines for British Columbia – Aquatic Life.

DFO/MELP. 1989. Stream Survey Field Guide. Vancouver, B.C.

Scott, W.B. and E.J. Crossman. 1973. Freshwater Fishes of Canada. Bulletin 184. Fisheries Research Board of Canada. Ottawa, 1973.

TABLES

Table 1. Summary of Stream Biophysical Attributes

Site	Twin Creek Station 1	Twin Creek Station 2	Twin Creek Station 3	Twin Creek Station 4	Twin Creek Station 5	Twin Creek Station 6	Twin Creek Station 7	Twin Creek Station 8	Twin Creek Station 9	Buffalo River Station 1	Buffalo River Station 2	Buffalo River Station 3	Buffalo River Station 4	Buffalo River Station 5	Buffalo River Station 6
Date	9/21/2005	9/21/2005	9/21/2005	9/21/2005	9/21/2005	9/21/2005	9/21/2005	9/21/2005	9/22/2005	9/20/2005	9/20/2005	9/20/2005	9/20/2005	9/20/2005	9/22/2005
Average Channel Width (m)	12.00	4.50	33.00	25.00	50.00	50.00	3.00	15.00		75.00	70.00	150.00	200.00	50.00	204.00
Average Wetted Width (m)	10.00	2.50	29.00	20.00	45.00	44.00	2.00	12.00		60.00	50.00	40.00	60.00	30.00	200.00
Average Maximum Riffle Depth (cm)		37.00	0.00	0.00	0.00	0.00	20.00	70.00							
Average Maximum Pool Depth (cm)	75.00	0.00	50.00	80.00	100.00	100.00	50.00	0.00							
Average Gradient (%)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pool (%)	100	0	100	100	100	100	20	0		0	0	0	0	0	0
Riffle (%)	0	50	0	0	0	0	80	0		20	10	0	0	0	0
Run (%)	0	50	0	0	0	0	0	100		80	90	70	90	50	100
Other (%)	0	0	0	0	0	0	0	0		0	0	30 (Rapid)	10 (Rapid)	50 (Rapid)	0
Sidechannel (%)	10	0	30	0	0	0	0	0		0	0	0	0	0	0
Debris - Area (%)	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Debris - Stable (%)	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Total Cover (%)	100	100	50	50	70	60	100	50		5	0	2	2	0	50
Deep Pool (%)	100	0	90	100	45	30	5	5		5	0	0	0	0	100
LOD (%)	0	30	0	0	5	5	0	0		2.5	0	0	0	0	0
Boulder (%)	45	10	0	0	10	10	85	85		2.5	0	100	100	0	0
Instream Vegetation (%)	100	60	10	10	40	40	5	20		0	0	0	0	0	0
Overstream Vegetation (%)	0	40	0	0	0	20	5	80		0	0	0	0	0	0
Cutbank (%)	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Crown Closure (%)	0	0	0	0	0	0	20	20	0	0	0	0	0	0	0
Aspect (º)	NW	N	N	N	NW	NW	W	NE	NW	NW	W	N	NW	NW	NW
Bed Material															
Fines (%)	80	10	50	20	100	50	0	30		70	20	30	10	30	0
Small Gravels (%)	20	20	10	10	0	10	0	10		30	60	60	80	70	0
Large Gravels (%)	0	10	10	10	0	10	0	10		10	10	10	10	0	0
Small Cobbles (%)	0	50	30	10	0	10	0	30		0	10	0	0	0	100
Large Cobbles (%)	0	10	0	50	0	20	10	20		0	0	0	0	0	0
Boulders (%)	0	0	0	0	0	0	90	0		0	0	0	0	0	0
Bedrock (%)	0	0	0	0	0	0	0	0		0	0	0	0	0	0
D90 (cm)															
Compaction	L	H	M	H	L	L	H	H		M	M	M	M	H	H
Banks															
Height (m)	1	1	0.5	2	1.5	1.5	3	2		12	6	20	3	4	2
Unstable (%)	0	0	0	0	0	0	33	0		25	0	15	0	38	0
Texture	F (vegegated)	F (vegegated)	F (vegegated)	F (vegegated)	F (vegegated)	F (vegegated)	F and G	F (vegegated)		F and G	F and G	F and G	F and G	F and G	F and G
Confinement	UC	UC	UC	UC	UC	UC	CO	UC	UC	FC	FC	FC	OC	OC	G
Valley:Channel Ratio	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stage	M	H	M	M	M	M	M	M	M	H	H	H	H	M	M
Flood Signs Height (m)	1	1	0.5	2	2	1	1	0		2.5	2.5	3	1	1.5	1
Braided (Y/N)	N	N	Y	Y	Y	Y	N	Y		N	N	N	N	N	Y
Bars (%)	0	0													
Water Quality															
pH	7.89	7.4	7.13	8.12	8.03	8.25	7.88	7.99	8.07	8.57	8.4	7.92	8.21	7.01	8.01
O_2 (mg/L)	5.76	10.89	9.74	10.4	8.02	7.57	9.19	10.87	10.67	10.27	10.44	10.27	10.91	10.86	9.82
Average Water Temp. (ºC)	6.4	5.4	5.6	7.3	7.4	9.9	7.1	7.2	9.4	9.4	9.8	10	9.9	9.5	8.5
Turbidity (cm)	bottom	bottom	bottom	bottom	bottom	bottom	bottom	bottom		15	12	10	10	9	8
Conductivity (µS)	418	409.8	408.1	428.5	430	423.4	420.5	420.2	266.9	208.2	241.1	222.7	245.5	233.2	252.8

Notes:

Large Organic Debris - Pieces of wood >20cm in diameter and >2m in length
D90 - Intermediate diameter of the substrate particle that is larger than 90% of substrate particles at site.
Compaction - Embeddedness of substrate particles (Low, Moderate, High)

Texture - Fines, Gravels, Larges (=cobbles, boulders)
Confinement: UC - Unconfined, FC - Frequently Confined
Stage - Flow stage (Low, Moderate, High, Flood)

FIGURES

Legend

- Buffalo River Stream Assessment
- Twin Creek Stream Assesment
- Water Sampling Stations
- Beaver Dam
- Sulphurous Area

Sources:
Landsat TM bands 7,4,1 (GLFC)
QuickBird-Pacific GeoAnalytic

Scale: 1:225,000

0 2.5 5 10 Kilometers

Pine Point Project

Pine Point Water Sampling & Stream Assessment Locations

EBA ENGINEERING CONSULTANTS LTD.

November, 2005

Figure 1

1740089_Figure1_Watersampling_stations.mxd

PHOTOGRAPHS

Photo 1
Access to Water Stations and Stream Assessment locations by ATV.

Photo 2
Boat launch at Great Slave Lake.

Photo 3
Water Station 8 Great Slave Lake.

Photo 4
Water Station 13 Great Slave Lake.

Photo 5
Water Station 4 Mine Pit Lake.

Photo 6
Water Station 5 Mine Pit Lake.

Photo 7
Water Station 6 Mine Pit Lake.

Photo 8
Water Station 7 Pine Paint Tailings Pond.

Photo 9
Buffalo River at road crossing near Station 1.

Photo 10
Buffalo River Station 1 and Water Station 3 looking upstream.

Photo 11
Buffalo River Station 1 and Water Station 3 road crossing downstream.

Photo 12
Buffalo River Station 2 and Water Station 14 water turbidity.

Photo 13
Buffalo River Station 2 and Water Station 14 looking downstream.

Photo 14
Buffalo River Station 2 and Water Station 14 lowland area.

Photo 15
Buffalo River Station 3 looking upstream.

Photo 16
Buffalo River Station 3 riparian area.

Photo 17
Buffalo River Station 4 and Water Station 2 cross section.

Photo 18
Buffalo River Station 4 east bank.

Photo 19
Natural sulphurous tributary near Buffalo River Station 4.

Photo 20
Buffalo River Station 5 and Water Station 1 downstream input.

Photo 21
Buffalo River Station 5 and Water Station 1 rapids.

Photo 22
Buffalo River Station 5 and Water Station 1 shoreline deposit.

Photo 23
Buffalo River Station 6 cross section.

Photo 24
Buffalo River Station 6 from Great Slave Lake looking south.

Photo 25
Buffalo River Station 6 from river mouth looking north into lake.

Photo 26
Twin Creek at road crossing near station 1.

Photo 27
Twin Creek Station 1 and Water Station 11.

Photo 28
Twin Creek Station 2.

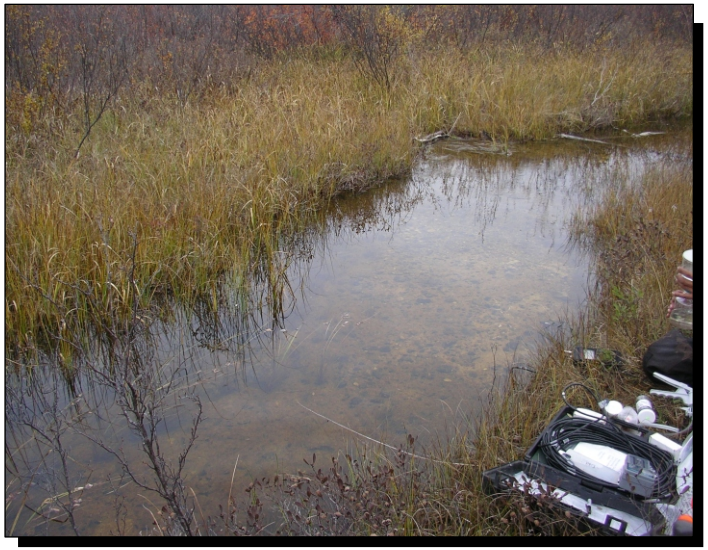


Photo 29
Twin Creek Station 3 and Water Station 15.

Photo 30
Twin Creek Station 4 and Water Station 12.

Photo 31
Twin Creek Station 5 pond.

Photo 32
Twin Creek Station 5.

Photo 33
Beaver dam in Twin Creek near Station 5.

Photo 34
Twin Creek Station 6.

Photo 35
Twin Creek Station 7.

Photo 36
Twin Creek Station 8.

Photo 37
Twin Creek Station 9 and Water Station 10 river mouth.

APPENDIX

APPENDIX A WATER QUALITY ANALYSIS

ETL Enviro-Test LABORATORIES

PRELIMINARY RESULTS

EBA ENG CONSULTANTS LTD
ATTN: STEVE MOORE
201-4916 49 STREET
YELLOWKNIFE NT X1A 2P7

DATE: 11-OCT-05 05:29 PM

Lab Work Order #: L322074 **Sampled By:** TA **Date Received:** 23-SEP-05
Project P.O. #:
Job Reference: 1740149

Comments: L322074-5,8: The dissolved metals bottles have fine particles. Before analysis, the samples were syringe filtered through a 0.45um filter.

DOUG JOHNSON
Director of Operations, Edmonton

SANDRA WATSON
Account Manager

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-1 STATION 7								
Sample Date: 22-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	<0.01		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.023		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	0.0007		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	0.003		0.001	mg/L		30-SEP-05	MX	R330388
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	0.004		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	0.003		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	0.0202		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	0.0002		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	1.14		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Iron (Fe)	0.006		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	0.004		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	0.05		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Barium (Ba)	0.025		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	0.0009		0.0002	mg/L		30-SEP-05	MX	R330389
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	0.007		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Lithium (Li)	<0.01		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	0.004		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0336		0.0001	mg/L		30-SEP-05	MX	R330389
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	0.003		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	0.0003		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Vanadium (V)	0.002		0.001	mg/L		30-SEP-05	MX	R330389

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-1 STATION 7								
Sample Date: 22-SEP-05								
Matrix: WATER								
Total Metals - CCME								
Total Trace Metals								
Zinc (Zn)	1.11		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	129		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	2.0		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	28.7		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	3		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	0.071		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.009		0.001	mg/L		30-SEP-05	HAS	R330341
Phosphorus, Total	0.003		0.001	mg/L		07-OCT-05	TL	R332886
Ammonia-N	0.009		0.005	mg/L		06-OCT-05	KMY	R332343
Total Organic Carbon	3		1	mg/L		07-OCT-05	ZOW	R332812
Routine Water Analysis - Low Level								
Chloride (Cl)	6		1	mg/L		30-SEP-05	WYA	R330298
Nitrate+Nitrite-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrate-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrite-N	<0.002		0.002	mg/L		30-SEP-05	SHC	R330437
Sulphate (SO4)	410		0.05	mg/L		04-OCT-05	JWU	R329576
pH, Conductivity and Total Alkalinity								
pH	8.3		0.1	pH		30-SEP-05	PTT	R330158
Conductivity (EC)	828		0.2	uS/cm		30-SEP-05	PTT	R330158
Bicarbonate (HCO3)	88		5	mg/L		30-SEP-05	PTT	R330158
Carbonate (CO3)	<5		5	mg/L		30-SEP-05	PTT	R330158
Hydroxide (OH)	<5		5	mg/L		30-SEP-05	PTT	R330158
Alkalinity, Total (as CaCO3)	72		5	mg/L		30-SEP-05	PTT	R330158
Ion Balance Calculation								
Ion Balance	96.7			%		05-OCT-05		
TDS (Calculated)	637			mg/L		05-OCT-05		
Hardness (as CaCO3)	480			mg/L		05-OCT-05		
ICP metals for routine water								
Calcium (Ca)	140		0.5	mg/L		04-OCT-05	EOC	R331376
Potassium (K)	1.9		0.1	mg/L		04-OCT-05	EOC	R331376
Magnesium (Mg)	31.6		0.1	mg/L		04-OCT-05	EOC	R331376
Sodium (Na)	4		1	mg/L		04-OCT-05	EOC	R331376
L322074-2 STATION 13								
Sample Date: 22-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	0.02		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.043		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	0.003		0.001	mg/L		30-SEP-05	MX	R330388

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-2 STATION 13								
Sample Date: 22-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	0.005		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	0.0005		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	0.001		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0004		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.006		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Iron (Fe)	0.051		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	0.001		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	1.76		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	0.0010		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Barium (Ba)	0.063		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	0.003		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Lithium (Li)	<0.01		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	0.003		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0009		0.0001	mg/L		30-SEP-05	MX	R330389
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	0.042		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0005		0.0001	mg/L		30-SEP-05	MX	R330389
Vanadium (V)	0.007		0.001	mg/L		30-SEP-05	MX	R330389
Zinc (Zn)	0.007		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	30.2		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	1.7		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	7.7		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	10		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	1.41		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.024		0.001	mg/L		30-SEP-05	HAS	R330341
Phosphorus, Total	0.037		0.001	mg/L		07-OCT-05	TL	R332886

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-2 STATION 13								
Sample Date: 22-SEP-05								
Matrix: WATER								
Ammonia-N	0.010		0.005	mg/L		06-OCT-05	KMY	R332343
Total Organic Carbon	10		1	mg/L		07-OCT-05	ZOW	R332812
Routine Water Analysis - Low Level								
Chloride (Cl)	12		1	mg/L		30-SEP-05	WYA	R330298
Nitrate+Nitrite-N	0.008		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrate-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrite-N	0.003		0.002	mg/L		30-SEP-05	SHC	R330437
Sulphate (SO4)	23.0		0.05	mg/L		04-OCT-05	JWU	R329576
pH, Conductivity and Total Alkalinity								
pH	8.1		0.1	pH		30-SEP-05	PTT	R330158
Conductivity (EC)	260		0.2	uS/cm		30-SEP-05	PTT	R330158
Bicarbonate (HCO3)	101		5	mg/L		30-SEP-05	PTT	R330158
Carbonate (CO3)	<5		5	mg/L		30-SEP-05	PTT	R330158
Hydroxide (OH)	<5		5	mg/L		30-SEP-05	PTT	R330158
Alkalinity, Total (as CaCO3)	83		5	mg/L		30-SEP-05	PTT	R330158
Ion Balance Calculation								
Ion Balance	102			%		04-OCT-05		
TDS (Calculated)	132			mg/L		04-OCT-05		
Hardness (as CaCO3)	103			mg/L		04-OCT-05		
ICP metals for routine water								
Calcium (Ca)	28.9		0.5	mg/L		30-SEP-05	AHY	R330152
Potassium (K)	1.0		0.1	mg/L		30-SEP-05	AHY	R330152
Magnesium (Mg)	7.5		0.1	mg/L		30-SEP-05	AHY	R330152
Sodium (Na)	10		1	mg/L		30-SEP-05	AHY	R330152
L322074-3 STATION 15								
Sample Date: 21-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	<0.01		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.025		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	0.005		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0001		0.0001	mg/L		30-SEP-05	MX	R330388

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-3 STATION 15								
Sample Date: 21-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.005		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Iron (Fe)	0.013		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	0.004		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	<0.01		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	0.0006		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Barium (Ba)	0.026		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Lithium (Li)	<0.01		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0002		0.0001	mg/L		30-SEP-05	MX	R330389
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Vanadium (V)	0.001		0.001	mg/L		30-SEP-05	MX	R330389
Zinc (Zn)	<0.004		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	63.6		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	1.4		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	14.8		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	5		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	0.020		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.004		0.001	mg/L		30-SEP-05	HAS	R330341
Phosphorus, Total	0.005		0.001	mg/L		07-OCT-05	TL	R332886
Ammonia-N	0.024		0.005	mg/L		06-OCT-05	KMY	R332343
Total Organic Carbon	20		1	mg/L		07-OCT-05	ZOW	R332812
Routine Water Analysis - Low Level								
Chloride (Cl)	5		1	mg/L		30-SEP-05	WYA	R330298
Nitrate+Nitrite-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrate-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrite-N	<0.002		0.002	mg/L		30-SEP-05	SHC	R330437
Sulphate (SO4)	19.1		0.05	mg/L		04-OCT-05	JWU	R329576
pH, Conductivity and Total Alkalinity								
pH	8.2		0.1	pH		30-SEP-05	PTT	R330158
Conductivity (EC)	417		0.2	uS/cm		30-SEP-05	PTT	R330158

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-3 STATION 15								
Sample Date: 21-SEP-05								
Matrix: WATER								
Routine Water Analysis - Low Level								
pH, Conductivity and Total Alkalinity								
Bicarbonate (HCO3)	244		5	mg/L		30-SEP-05	PTT	R330158
Carbonate (CO3)	<5		5	mg/L		30-SEP-05	PTT	R330158
Hydroxide (OH)	<5		5	mg/L		30-SEP-05	PTT	R330158
Alkalinity, Total (as CaCO3)	200		5	mg/L		30-SEP-05	PTT	R330158
Ion Balance Calculation								
Ion Balance	103			%		04-OCT-05		
TDS (Calculated)	229			mg/L		04-OCT-05		
Hardness (as CaCO3)	221			mg/L		04-OCT-05		
ICP metals for routine water								
Calcium (Ca)	63.1		0.5	mg/L		30-SEP-05	AHY	R330152
Potassium (K)	1.2		0.1	mg/L		30-SEP-05	AHY	R330152
Magnesium (Mg)	15.3		0.1	mg/L		30-SEP-05	AHY	R330152
Sodium (Na)	5		1	mg/L		30-SEP-05	AHY	R330152
L322074-4 STATION 12								
Sample Date: 21-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	0.01		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	0.0005		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.028		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	0.005		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0003		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.009		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Iron (Fe)	0.030		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	0.003		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	<0.01		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	0.0006		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-4 STATION 12								
Sample Date: 21-SEP-05								
Matrix: WATER								
Total Metals - CCME								
Total Trace Metals								
Barium (Ba)	0.029		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Lithium (Li)	<0.01		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0003		0.0001	mg/L		30-SEP-05	MX	R330389
Vanadium (V)	0.001		0.001	mg/L		30-SEP-05	MX	R330389
Zinc (Zn)	<0.004		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	66.5		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	1.0		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	16.5		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	6		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	0.038		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.003		0.001	mg/L		30-SEP-05	HAS	R330341
Phosphorus, Total	0.005		0.001	mg/L		07-OCT-05	TL	R332886
Ammonia-N	0.032		0.005	mg/L		06-OCT-05	KMY	R332343
Total Organic Carbon	23		1	mg/L		07-OCT-05	ZOW	R332812
Routine Water Analysis - Low Level								
Chloride (Cl)	6		1	mg/L		30-SEP-05	WYA	R330298
Nitrate+Nitrite-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrate-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrite-N	<0.002		0.002	mg/L		30-SEP-05	SHC	R330437
Sulphate (SO4)	28.1		0.05	mg/L		04-OCT-05	JWU	R329576
pH, Conductivity and Total Alkalinity								
pH	8.2		0.1	pH		30-SEP-05	PTT	R330158
Conductivity (EC)	438		0.2	uS/cm		30-SEP-05	PTT	R330158
Bicarbonate (HCO3)	242		5	mg/L		30-SEP-05	PTT	R330158
Carbonate (CO3)	<5		5	mg/L		30-SEP-05	PTT	R330158
Hydroxide (OH)	<5		5	mg/L		30-SEP-05	PTT	R330158
Alkalinity, Total (as CaCO3)	199		5	mg/L		30-SEP-05	PTT	R330158
Ion Balance Calculation								
Ion Balance	102			%		04-OCT-05		
TDS (Calculated)	241			mg/L		04-OCT-05		
Hardness (as CaCO3)	226			mg/L		04-OCT-05		
ICP metals for routine water								
Calcium (Ca)	63.9		0.5	mg/L		30-SEP-05	AHY	R330152
Potassium (K)	1.1		0.1	mg/L		30-SEP-05	AHY	R330152

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-4 STATION 12								
Sample Date: 21-SEP-05								
Matrix: WATER								
Routine Water Analysis - Low Level								
ICP metals for routine water								
Magnesium (Mg)	16.2		0.1	mg/L		30-SEP-05	AHY	R330152
Sodium (Na)	6		1	mg/L		30-SEP-05	AHY	R330152
L322074-5 STATION 14 A								
Sample Date: 20-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	0.37		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	0.0019		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.063		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	0.005		0.001	mg/L		30-SEP-05	MX	R330388
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	0.007		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	0.005		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	0.0021		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	0.0007		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	0.004		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0005		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	0.002		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.006		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Iron (Fe)	2.62		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	0.123		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	7.01		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	0.0035		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Barium (Ba)	0.116		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Cobalt (Co)	0.003		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	0.011		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	0.008		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Lithium (Li)	0.01		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	0.009		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0035		0.0001	mg/L		30-SEP-05	MX	R330389

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-5 STATION 14 A								
Sample Date: 20-SEP-05								
Matrix: WATER								
Total Metals - CCME								
Total Trace Metals								
Antimony (Sb)	0.0008		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	0.0005		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	0.067		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0007		0.0001	mg/L		30-SEP-05	MX	R330389
Vanadium (V)	0.026		0.001	mg/L		30-SEP-05	MX	R330389
Zinc (Zn)	0.018		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	30.3		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	3.3		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	9.8		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	8		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	6.92		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.141		0.001	mg/L		30-SEP-05	HAS	R330341
Phosphorus, Total	0.157		0.001	mg/L		07-OCT-05	TL	R332886
Ammonia-N	0.025		0.005	mg/L		06-OCT-05	KMY	R332343
Total Organic Carbon	23		1	mg/L		07-OCT-05	ZOW	R332812
Routine Water Analysis - Low Level								
Chloride (Cl)	6		1	mg/L		04-OCT-05	GCM	R311460
Nitrate+Nitrite-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrate-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrite-N	0.002		0.002	mg/L		30-SEP-05	SHC	R330437
Sulphate (SO4)	26.1		0.05	mg/L		04-OCT-05	JWU	R329576
pH, Conductivity and Total Alkalinity								
pH	8.0		0.1	pH		30-SEP-05	PTT	R330158
Conductivity (EC)	232		0.2	uS/cm		30-SEP-05	PTT	R330158
Bicarbonate (HCO3)	99		5	mg/L		30-SEP-05	PTT	R330158
Carbonate (CO3)	<5		5	mg/L		30-SEP-05	PTT	R330158
Hydroxide (OH)	<5		5	mg/L		30-SEP-05	PTT	R330158
Alkalinity, Total (as CaCO3)	81		5	mg/L		30-SEP-05	PTT	R330158
Ion Balance Calculation								
Ion Balance	115	BL:INT		%		04-OCT-05		
TDS (Calculated)	131			mg/L		04-OCT-05		
Hardness (as CaCO3)	112			mg/L		04-OCT-05		
ICP metals for routine water								
Calcium (Ca)	29.8		0.5	mg/L		03-OCT-05	AHY	R330976
Potassium (K)	1.8		0.1	mg/L		03-OCT-05	AHY	R330976
Magnesium (Mg)	9.2		0.1	mg/L		03-OCT-05	AHY	R330976
Sodium (Na)	9		1	mg/L		03-OCT-05	AHY	R330976
L322074-6 STATION 14 B								
Sample Date: 20-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	0.02		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	0.0005		0.0004	mg/L		30-SEP-05	MX	R330388

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-6 STATION 14 B								
Sample Date: 20-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.039		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	0.002		0.001	mg/L		30-SEP-05	MX	R330388
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	0.007		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	0.003		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	0.0004		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	0.0009		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	0.001		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0004		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.008		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Calcium (Ca)	29.5		0.5	mg/L		30-SEP-05	HAS	R330338
Potassium (K)	1.0		0.1	mg/L		30-SEP-05	HAS	R330338
Magnesium (Mg)	8.68		0.01	mg/L		30-SEP-05	HAS	R330338
Sodium (Na)	7.9		0.5	mg/L		30-SEP-05	HAS	R330338
Iron (Fe)	0.107		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	0.004		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	0.04		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Barium (Ba)	0.039		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	0.003		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Lithium (Li)	<0.01		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	0.003		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	0.002		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0004		0.0001	mg/L		30-SEP-05	MX	R330389

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-6 STATION 14 B								
Sample Date: 20-SEP-05								
Matrix: WATER								
Total Metals - CCME								
Total Trace Metals								
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Zinc (Zn)	<0.004		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	28.1		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	1.0		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	8.3		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	7		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	0.109		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.004		0.001	mg/L		30-SEP-05	HAS	R330341
L322074-7 STATION 2								
Sample Date: 20-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	0.02		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.039		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	0.002		0.001	mg/L		30-SEP-05	MX	R330388
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	0.007		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	0.003		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	0.001		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0004		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.004		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Iron (Fe)	0.079		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	0.002		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	7.67		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	0.0027		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Barium (Ba)	0.118		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-7 STATION 2								
Sample Date: 20-SEP-05								
Matrix: WATER								
Total Metals - CCME								
Total Trace Metals								
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	0.011		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	0.007		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Lithium (Li)	0.01		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	0.008		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0029		0.0001	mg/L		30-SEP-05	MX	R330389
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	0.103		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0007		0.0001	mg/L		30-SEP-05	MX	R330389
Vanadium (V)	0.025		0.001	mg/L		30-SEP-05	MX	R330389
Zinc (Zn)	0.021		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	32.7		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	3.3		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	10.2		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	6		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	5.90		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.115		0.001	mg/L		30-SEP-05	HAS	R330341
Phosphorus, Total	0.143		0.001	mg/L		07-OCT-05	TL	R332886
Ammonia-N	0.021		0.005	mg/L		06-OCT-05	KMY	R332343
Total Organic Carbon	19		1	mg/L		07-OCT-05	ZOW	R332812
Routine Water Analysis - Low Level								
Chloride (Cl)	4		1	mg/L		30-SEP-05	WYA	R330298
Nitrate+Nitrite-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrate-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrite-N	0.002		0.002	mg/L		30-SEP-05	SHC	R330437
Sulphate (SO4)	33.7		0.05	mg/L		04-OCT-05	JWU	R329576
pH, Conductivity and Total Alkalinity								
pH	8.1		0.1	pH		30-SEP-05	PTT	R330158
Conductivity (EC)	253		0.2	uS/cm		30-SEP-05	PTT	R330158
Bicarbonate (HCO3)	104		5	mg/L		30-SEP-05	PTT	R330158
Carbonate (CO3)	<5		5	mg/L		30-SEP-05	PTT	R330158
Hydroxide (OH)	<5		5	mg/L		30-SEP-05	PTT	R330158
Alkalinity, Total (as CaCO3)	86		5	mg/L		30-SEP-05	PTT	R330158
Ion Balance Calculation								
Ion Balance	101			%		04-OCT-05		
TDS (Calculated)	136			mg/L		04-OCT-05		
Hardness (as CaCO3)	112			mg/L		04-OCT-05		
ICP metals for routine water								
Calcium (Ca)	30.2		0.5	mg/L		30-SEP-05	AHY	R330152
Potassium (K)	1.0		0.1	mg/L		30-SEP-05	AHY	R330152
Magnesium (Mg)	9.0		0.1	mg/L		30-SEP-05	AHY	R330152
Sodium (Na)	6		1	mg/L		30-SEP-05	AHY	R330152

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-8 STATION 1 A								
Sample Date: 20-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	0.31		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	0.0018		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.059		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	0.005		0.001	mg/L		30-SEP-05	MX	R330388
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	0.007		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	0.004		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	0.0019		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	0.0006		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	0.003		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0005		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	0.002		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.009		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Iron (Fe)	2.30		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	0.099		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	6.66		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	0.0027		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Barium (Ba)	0.109		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	0.010		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	0.007		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Lithium (Li)	0.01		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	0.008		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0029		0.0001	mg/L		30-SEP-05	MX	R330389
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	0.117		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0006		0.0001	mg/L		30-SEP-05	MX	R330389
Vanadium (V)	0.024		0.001	mg/L		30-SEP-05	MX	R330389

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-8 STATION 1 A								
Sample Date: 20-SEP-05								
Matrix: WATER								
Total Metals - CCME								
Total Trace Metals								
Zinc (Zn)	0.020		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	33.6		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	3.0		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	10.5		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	7		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	5.76		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.110		0.001	mg/L		30-SEP-05	HAS	R330341
Phosphorus, Total	0.127		0.001	mg/L		07-OCT-05	TL	R332886
Ammonia-N	0.021		0.005	mg/L		06-OCT-05	KMY	R332343
Total Organic Carbon	20		1	mg/L		07-OCT-05	ZOW	R332812
Routine Water Analysis - Low Level								
Chloride (Cl)	4		1	mg/L		30-SEP-05	WYA	R330298
Nitrate+Nitrite-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrate-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrite-N	0.002		0.002	mg/L		30-SEP-05	SHC	R330437
Sulphate (SO4)	34.1		0.05	mg/L		04-OCT-05	JWU	R329576
pH, Conductivity and Total Alkalinity								
pH	8.0		0.1	pH		30-SEP-05	PTT	R330158
Conductivity (EC)	248		0.2	uS/cm		30-SEP-05	PTT	R330158
Bicarbonate (HCO3)	101		5	mg/L		30-SEP-05	PTT	R330158
Carbonate (CO3)	<5		5	mg/L		30-SEP-05	PTT	R330158
Hydroxide (OH)	<5		5	mg/L		30-SEP-05	PTT	R330158
Alkalinity, Total (as CaCO3)	82		5	mg/L		30-SEP-05	PTT	R330158
Ion Balance Calculation								
Ion Balance	101			%		04-OCT-05		
TDS (Calculated)	133			mg/L		04-OCT-05		
Hardness (as CaCO3)	111			mg/L		04-OCT-05		
ICP metals for routine water								
Calcium (Ca)	29.8		0.5	mg/L		30-SEP-05	AHY	R330152
Potassium (K)	1.0		0.1	mg/L		30-SEP-05	AHY	R330152
Magnesium (Mg)	8.9		0.1	mg/L		30-SEP-05	AHY	R330152
Sodium (Na)	6		1	mg/L		30-SEP-05	AHY	R330152
L322074-9 STATION 1 B								
Sample Date: 20-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	0.02		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.038		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	0.002		0.001	mg/L		30-SEP-05	MX	R330388

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-9 STATION 1 B								
Sample Date: 20-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	0.007		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	0.003		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	0.0007		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	0.001		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0004		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.006		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Iron (Fe)	0.086		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	0.005		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	0.04		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Barium (Ba)	0.039		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	0.003		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Lithium (Li)	<0.01		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	0.003		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	0.002		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0004		0.0001	mg/L		30-SEP-05	MX	R330389
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Zinc (Zn)	<0.004		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	31.9		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	1.1		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	9.3		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	7		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	0.093		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.005		0.001	mg/L		30-SEP-05	HAS	R330341

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-10 STATION 4								
Sample Date: 22-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	<0.01		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	0.51		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.006		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	0.001		0.001	mg/L		30-SEP-05	MX	R330388
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	0.033		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	0.0006		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0008		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.010		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Iron (Fe)	<0.005		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	0.014		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	0.01		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	0.39		0.05	mg/L		30-SEP-05	MX	R330389
Barium (Ba)	0.007		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	0.002		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Lithium (Li)	0.04		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0004		0.0001	mg/L		30-SEP-05	MX	R330389
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	0.0006		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	0.001		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0008		0.0001	mg/L		30-SEP-05	MX	R330389
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-10 STATION 4								
Sample Date: 22-SEP-05								
Matrix: WATER								
Total Metals - CCME								
Total Trace Metals								
Zinc (Zn)	0.008		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	414		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	4.6		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	179		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	49		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	0.051		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.019		0.001	mg/L		30-SEP-05	HAS	R330341
Phosphorus, Total	0.008		0.001	mg/L		07-OCT-05	TL	R332886
Ammonia-N	<0.005		0.005	mg/L		06-OCT-05	KMY	R332343
Total Organic Carbon	3		1	mg/L		07-OCT-05	ZOW	R332812
Routine Water Analysis - Low Level								
Chloride (Cl)	64		1	mg/L		30-SEP-05	WYA	R330298
Nitrate+Nitrite-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrate-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrite-N	<0.002		0.002	mg/L		30-SEP-05	SHC	R330437
Sulphate (SO4)	1470		0.05	mg/L		04-OCT-05	JWU	R329576
pH, Conductivity and Total Alkalinity								
pH	8.1		0.1	pH		30-SEP-05	PTT	R330158
Conductivity (EC)	2820		0.2	uS/cm		30-SEP-05	PTT	R330158
Bicarbonate (HCO3)	260		5	mg/L		30-SEP-05	PTT	R330158
Carbonate (CO3)	<5		5	mg/L		30-SEP-05	PTT	R330158
Hydroxide (OH)	<5		5	mg/L		30-SEP-05	PTT	R330158
Alkalinity, Total (as CaCO3)	213		5	mg/L		30-SEP-05	PTT	R330158
Ion Balance Calculation								
Ion Balance	98.4			%		04-OCT-05		
TDS (Calculated)	2280			mg/L		04-OCT-05		
Hardness (as CaCO3)	1700			mg/L		04-OCT-05		
ICP metals for routine water								
Calcium (Ca)	395		0.5	mg/L		30-SEP-05	AHY	R330152
Potassium (K)	4.0		0.1	mg/L		30-SEP-05	AHY	R330152
Magnesium (Mg)	173		0.1	mg/L		30-SEP-05	AHY	R330152
Sodium (Na)	47		1	mg/L		30-SEP-05	AHY	R330152
L322074-11 STATION 8								
Sample Date: 22-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	0.02		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.043		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	0.002		0.001	mg/L		30-SEP-05	MX	R330388

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-11 STATION 8								
Sample Date: 22-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	0.005		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	0.001		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0004		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.004		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Iron (Fe)	0.034		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	<0.001		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	1.63		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	0.0008		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Barium (Ba)	0.061		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	0.003		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Lithium (Li)	<0.01		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	0.003		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0007		0.0001	mg/L		30-SEP-05	MX	R330389
Antimony (Sb)	0.0014		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	0.044		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0005		0.0001	mg/L		30-SEP-05	MX	R330389
Vanadium (V)	0.005		0.001	mg/L		30-SEP-05	MX	R330389
Zinc (Zn)	0.005		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	30.1		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	1.7		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	7.4		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	8		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	1.20		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.018		0.001	mg/L		30-SEP-05	HAS	R330341
Phosphorus, Total	0.033		0.001	mg/L		07-OCT-05	TL	R332886

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-11 STATION 8								
Sample Date: 22-SEP-05								
Matrix: WATER								
Ammonia-N	0.006		0.005	mg/L		06-OCT-05	KMY	R332343
Total Organic Carbon	9		1	mg/L		07-OCT-05	ZOW	R332812
Routine Water Analysis - Low Level								
Chloride (Cl)	9		1	mg/L		30-SEP-05	WYA	R330298
Nitrate+Nitrite-N	0.022		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrate-N	0.022		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrite-N	<0.002		0.002	mg/L		30-SEP-05	SHC	R330437
Sulphate (SO4)	26.4		0.05	mg/L		04-OCT-05	JWU	R329576
pH, Conductivity and Total Alkalinity								
pH	8.1		0.1	pH		30-SEP-05	PTT	R330158
Conductivity (EC)	248		0.2	uS/cm		30-SEP-05	PTT	R330158
Bicarbonate (HCO3)	100		5	mg/L		30-SEP-05	PTT	R330158
Carbonate (CO3)	<5		5	mg/L		30-SEP-05	PTT	R330158
Hydroxide (OH)	<5		5	mg/L		30-SEP-05	PTT	R330158
Alkalinity, Total (as CaCO3)	82		5	mg/L		30-SEP-05	PTT	R330158
Ion Balance Calculation								
Ion Balance	97.9			%		04-OCT-05		
TDS (Calculated)	130			mg/L		04-OCT-05		
Hardness (as CaCO3)	101			mg/L		04-OCT-05		
ICP metals for routine water								
Calcium (Ca)	28.7		0.5	mg/L		30-SEP-05	AHY	R330152
Potassium (K)	1.1		0.1	mg/L		30-SEP-05	AHY	R330152
Magnesium (Mg)	7.1		0.1	mg/L		30-SEP-05	AHY	R330152
Sodium (Na)	8		1	mg/L		30-SEP-05	AHY	R330152
L322074-12 STATION 5								
Sample Date: 22-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	<0.01		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	0.20		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.028		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	0.036		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	0.008		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	0.0003		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	0.0006		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	0.0009		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0056		0.0001	mg/L		30-SEP-05	MX	R330388

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-12 STATION 5								
Sample Date: 22-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.023		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Iron (Fe)	<0.005		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	0.001		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		02-OCT-05	CLL	R330742
Aluminum (Al)	0.02		0.01	mg/L		02-OCT-05	CLL	R330742
Arsenic (As)	<0.0004		0.0004	mg/L		02-OCT-05	CLL	R330742
Boron (B)	0.18		0.05	mg/L		02-OCT-05	CLL	R330742
Barium (Ba)	0.031		0.003	mg/L		02-OCT-05	CLL	R330742
Beryllium (Be)	<0.001		0.001	mg/L		02-OCT-05	CLL	R330742
Cadmium (Cd)	<0.0002		0.0002	mg/L		02-OCT-05	CLL	R330742
Cobalt (Co)	<0.002		0.002	mg/L		02-OCT-05	CLL	R330742
Chromium (Cr)	<0.005		0.005	mg/L		02-OCT-05	CLL	R330742
Copper (Cu)	<0.001		0.001	mg/L		02-OCT-05	CLL	R330742
Mercury (Hg)	<0.0002		0.0002	mg/L		02-OCT-05	CLL	R330742
Lithium (Li)	0.04		0.01	mg/L		02-OCT-05	CLL	R330742
Molybdenum (Mo)	<0.005		0.005	mg/L		02-OCT-05	CLL	R330742
Nickel (Ni)	0.007		0.002	mg/L		02-OCT-05	CLL	R330742
Lead (Pb)	0.0005		0.0001	mg/L		02-OCT-05	CLL	R330742
Antimony (Sb)	<0.0004		0.0004	mg/L		02-OCT-05	CLL	R330742
Selenium (Se)	0.0010		0.0004	mg/L		02-OCT-05	CLL	R330742
Tin (Sn)	<0.05		0.05	mg/L		02-OCT-05	CLL	R330742
Titanium (Ti)	0.001		0.001	mg/L		02-OCT-05	CLL	R330742
Thallium (Tl)	0.0010		0.0001	mg/L		02-OCT-05	CLL	R330742
Uranium (U)	0.0062		0.0001	mg/L		02-OCT-05	CLL	R330742
Vanadium (V)	<0.001		0.001	mg/L		02-OCT-05	CLL	R330742
Zinc (Zn)	0.018		0.004	mg/L		02-OCT-05	CLL	R330742
Total Major Metals								
Calcium (Ca)	285		0.5	mg/L		02-OCT-05	CLL	R330742
Potassium (K)	3.9		0.1	mg/L		02-OCT-05	CLL	R330742
Magnesium (Mg)	123		0.1	mg/L		02-OCT-05	CLL	R330742
Sodium (Na)	18		1	mg/L		02-OCT-05	CLL	R330742
Iron (Fe)	1.12		0.005	mg/L		02-OCT-05	CLL	R330742
Manganese (Mn)	0.003		0.001	mg/L		02-OCT-05	CLL	R330742
Phosphorus, Total	0.003		0.001	mg/L		07-OCT-05	TL	R332886
Ammonia-N	<0.005		0.005	mg/L		06-OCT-05	KMY	R332343
Total Organic Carbon	2		1	mg/L		07-OCT-05	ZOW	R332812
Routine Water Analysis - Low Level								
Chloride (Cl)	18		1	mg/L		30-SEP-05	WYA	R330298
Nitrate+Nitrite-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrate-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrite-N	<0.002		0.002	mg/L		30-SEP-05	SHC	R330437
Sulphate (SO4)	1000		0.05	mg/L		04-OCT-05	JWU	R329576
pH, Conductivity and Total Alkalinity								
pH	8.1		0.1	pH		30-SEP-05	PTT	R330158
Conductivity (EC)	1950		0.2	uS/cm		30-SEP-05	PTT	R330158

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-12 STATION 5								
Sample Date: 22-SEP-05								
Matrix: WATER								
Routine Water Analysis - Low Level								
pH, Conductivity and Total Alkalinity								
Bicarbonate (HCO3)	168		5	mg/L		30-SEP-05	PTT	R330158
Carbonate (CO3)	<5		5	mg/L		30-SEP-05	PTT	R330158
Hydroxide (OH)	<5		5	mg/L		30-SEP-05	PTT	R330158
Alkalinity, Total (as CaCO3)	138		5	mg/L		30-SEP-05	PTT	R330158
Ion Balance Calculation								
Ion Balance	99.0			%		04-OCT-05		
TDS (Calculated)	1500			mg/L		04-OCT-05		
Hardness (as CaCO3)	1150			mg/L		04-OCT-05		
ICP metals for routine water								
Calcium (Ca)	262		0.5	mg/L		30-SEP-05	AHY	R330152
Potassium (K)	3.9		0.1	mg/L		30-SEP-05	AHY	R330152
Magnesium (Mg)	120		0.1	mg/L		30-SEP-05	AHY	R330152
Sodium (Na)	18		1	mg/L		30-SEP-05	AHY	R330152
L322074-13 STATION 6 A								
Sample Date: 22-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	<0.01		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.038		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	0.003		0.001	mg/L		30-SEP-05	MX	R330388
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	<0.003		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	0.0003		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	0.0008		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0007		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.065		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Iron (Fe)	0.012		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	0.002		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	<0.01		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-13 STATION 6 A								
Sample Date: 22-SEP-05								
Matrix: WATER								
Total Metals - CCME								
Total Trace Metals								
Barium (Ba)	0.039		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	0.002		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Lithium (Li)	<0.01		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0002		0.0001	mg/L		30-SEP-05	MX	R330389
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0006		0.0001	mg/L		30-SEP-05	MX	R330389
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Zinc (Zn)	0.065		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	60.3		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	1.1		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	12.2		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	<1		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	0.014		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.002		0.001	mg/L		30-SEP-05	HAS	R330341
Phosphorus, Total	0.006		0.001	mg/L		07-OCT-05	TL	R332886
Ammonia-N	0.019		0.005	mg/L		06-OCT-05	KMY	R332343
Total Organic Carbon	15		1	mg/L		07-OCT-05	ZOW	R332812
Routine Water Analysis - Low Level								
Chloride (Cl)	2		1	mg/L		30-SEP-05	WYA	R330298
Nitrate+Nitrite-N	0.130		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrate-N	0.130		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrite-N	<0.002		0.002	mg/L		30-SEP-05	SHC	R330437
Sulphate (SO4)	70.7		0.05	mg/L		04-OCT-05	JWU	R329576
pH, Conductivity and Total Alkalinity								
pH	8.3		0.1	pH		30-SEP-05	PTT	R330158
Conductivity (EC)	380		0.2	uS/cm		30-SEP-05	PTT	R330158
Bicarbonate (HCO3)	152		5	mg/L		30-SEP-05	PTT	R330158
Carbonate (CO3)	<5		5	mg/L		30-SEP-05	PTT	R330158
Hydroxide (OH)	<5		5	mg/L		30-SEP-05	PTT	R330158
Alkalinity, Total (as CaCO3)	125		5	mg/L		30-SEP-05	PTT	R330158
Ion Balance Calculation								
Ion Balance	97.8			%		04-OCT-05		
TDS (Calculated)	220			mg/L		04-OCT-05		
Hardness (as CaCO3)	194			mg/L		04-OCT-05		
ICP metals for routine water								
Calcium (Ca)	57.3		0.5	mg/L		30-SEP-05	AHY	R330152
Potassium (K)	1.0		0.1	mg/L		30-SEP-05	AHY	R330152

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-13 STATION 6 A								
Sample Date: 22-SEP-05								
Matrix: WATER								
Routine Water Analysis - Low Level								
ICP metals for routine water								
Magnesium (Mg)	12.3		0.1	mg/L		30-SEP-05	AHY	R330152
Sodium (Na)	1		1	mg/L		30-SEP-05	AHY	R330152
L322074-14 STATION 6 B								
Sample Date: 22-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	0.07		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.040		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	0.001		0.001	mg/L		30-SEP-05	MX	R330388
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	<0.003		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	0.0013		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	0.0008		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	0.003		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0007		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.069		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Calcium (Ca)	61.7		0.5	mg/L		30-SEP-05	HAS	R330338
Potassium (K)	1.1		0.1	mg/L		30-SEP-05	HAS	R330338
Magnesium (Mg)	12.9		0.01	mg/L		30-SEP-05	HAS	R330338
Sodium (Na)	1.0		0.5	mg/L		30-SEP-05	HAS	R330338
Iron (Fe)	0.079		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	0.005		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	0.19		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Barium (Ba)	0.043		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	0.002		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-14 STATION 6 B								
Sample Date: 22-SEP-05								
Matrix: WATER								
Total Metals - CCME								
Total Trace Metals								
Lithium (Li)	<0.01		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0012		0.0001	mg/L		30-SEP-05	MX	R330389
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	0.006		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0007		0.0001	mg/L		30-SEP-05	MX	R330389
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Zinc (Zn)	0.071		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	59.6		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	1.1		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	12.5		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	1		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	0.138		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.004		0.001	mg/L		30-SEP-05	HAS	R330341
L322074-15 STATION 10								
Sample Date: 22-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	0.02		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	0.043		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	0.002		0.001	mg/L		30-SEP-05	MX	R330388
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	0.005		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	0.0004		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.004		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Iron (Fe)	0.037		0.005	mg/L		30-SEP-05	HAS	R330338

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-15 STATION 10								
Sample Date: 22-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Major Metals								
Manganese (Mn)	0.002		0.001	mg/L		30-SEP-05	HAS	R330338
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Aluminum (Al)	1.90		0.01	mg/L		30-SEP-05	MX	R330389
Arsenic (As)	0.0009		0.0004	mg/L		30-SEP-05	MX	R330389
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Barium (Ba)	0.065		0.003	mg/L		30-SEP-05	MX	R330389
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330389
Cadmium (Cd)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330389
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Copper (Cu)	0.004		0.001	mg/L		30-SEP-05	MX	R330389
Mercury (Hg)	<0.0002		0.0002	mg/L		30-SEP-05	MX	R330389
Lithium (Li)	<0.01		0.01	mg/L		30-SEP-05	MX	R330389
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330389
Nickel (Ni)	0.003		0.002	mg/L		30-SEP-05	MX	R330389
Lead (Pb)	0.0009		0.0001	mg/L		30-SEP-05	MX	R330389
Antimony (Sb)	0.0005		0.0004	mg/L		30-SEP-05	MX	R330389
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330389
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330389
Titanium (Ti)	0.049		0.001	mg/L		30-SEP-05	MX	R330389
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330389
Uranium (U)	0.0005		0.0001	mg/L		30-SEP-05	MX	R330389
Vanadium (V)	0.006		0.001	mg/L		30-SEP-05	MX	R330389
Zinc (Zn)	0.006		0.004	mg/L		30-SEP-05	MX	R330389
Total Major Metals								
Calcium (Ca)	31.4		0.5	mg/L		30-SEP-05	HAS	R330341
Potassium (K)	1.7		0.1	mg/L		30-SEP-05	HAS	R330341
Magnesium (Mg)	8.1		0.1	mg/L		30-SEP-05	HAS	R330341
Sodium (Na)	12		1	mg/L		30-SEP-05	HAS	R330341
Iron (Fe)	1.44		0.005	mg/L		30-SEP-05	HAS	R330341
Manganese (Mn)	0.028		0.001	mg/L		30-SEP-05	HAS	R330341
Phosphorus, Total	0.041		0.001	mg/L		07-OCT-05	TL	R332886
Ammonia-N	0.008		0.005	mg/L		06-OCT-05	KMY	R332343
Total Organic Carbon	9		1	mg/L		07-OCT-05	ZOW	R332812
Routine Water Analysis - Low Level								
Chloride (Cl)	14		1	mg/L		30-SEP-05	WYA	R330298
Nitrate+Nitrite-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrate-N	<0.006		0.006	mg/L		30-SEP-05	SHC	R330437
Nitrite-N	<0.002		0.002	mg/L		30-SEP-05	SHC	R330437
Sulphate (SO4)	29.6		0.05	mg/L		04-OCT-05	JWU	R329576
pH, Conductivity and Total Alkalinity								
pH	8.1		0.1	pH		30-SEP-05	PTT	R330158
Conductivity (EC)	276		0.2	uS/cm		30-SEP-05	PTT	R330158
Bicarbonate (HCO3)	103		5	mg/L		30-SEP-05	PTT	R330158
Carbonate (CO3)	<5		5	mg/L		30-SEP-05	PTT	R330158
Hydroxide (OH)	<5		5	mg/L		30-SEP-05	PTT	R330158
Alkalinity, Total (as CaCO3)	84		5	mg/L		30-SEP-05	PTT	R330158

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322074-15 STATION 10								
Sample Date: 22-SEP-05								
Matrix: WATER								
Routine Water Analysis - Low Level								
Ion Balance Calculation								
Ion Balance	100			%		04-OCT-05		
TDS (Calculated)	145			mg/L		04-OCT-05		
Hardness (as CaCO3)	110			mg/L		04-OCT-05		
ICP metals for routine water								
Calcium (Ca)	31.0		0.5	mg/L		30-SEP-05	AHY	R330152
Potassium (K)	1.1		0.1	mg/L		30-SEP-05	AHY	R330152
Magnesium (Mg)	8.0		0.1	mg/L		30-SEP-05	AHY	R330152
Sodium (Na)	11		1	mg/L		30-SEP-05	AHY	R330152
L322074-16 FILTER								
Sample Date: 22-SEP-05								
Matrix: FILTER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		30-SEP-05	MX	R330388
Aluminum (Al)	<0.01		0.01	mg/L		30-SEP-05	MX	R330388
Arsenic (As)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Boron (B)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Barium (Ba)	<0.003		0.003	mg/L		30-SEP-05	MX	R330388
Beryllium (Be)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Cadmium (Cd)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Cobalt (Co)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Chromium (Cr)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Copper (Cu)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Mercury (Hg)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Lithium (Li)	<0.003		0.003	mg/L		30-SEP-05	MX	R330388
Molybdenum (Mo)	<0.005		0.005	mg/L		30-SEP-05	MX	R330388
Nickel (Ni)	<0.002		0.002	mg/L		30-SEP-05	MX	R330388
Lead (Pb)	0.0002		0.0001	mg/L		30-SEP-05	MX	R330388
Antimony (Sb)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Selenium (Se)	<0.0004		0.0004	mg/L		30-SEP-05	MX	R330388
Tin (Sn)	<0.05		0.05	mg/L		30-SEP-05	MX	R330388
Titanium (Ti)	<0.001		0.001	mg/L		30-SEP-05	MX	R330388
Thallium (Tl)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Uranium (U)	<0.0001		0.0001	mg/L		30-SEP-05	MX	R330388
Vanadium (V)	0.003		0.001	mg/L		30-SEP-05	MX	R330388
Zinc (Zn)	0.004		0.002	mg/L		30-SEP-05	MX	R330388
Dissolved Major Metals								
Calcium (Ca)	<0.5		0.5	mg/L		30-SEP-05	HAS	R330338
Potassium (K)	<0.1		0.1	mg/L		30-SEP-05	HAS	R330338
Magnesium (Mg)	<0.01		0.01	mg/L		30-SEP-05	HAS	R330338
Sodium (Na)	<0.5		0.5	mg/L		30-SEP-05	HAS	R330338
Iron (Fe)	<0.005		0.005	mg/L		30-SEP-05	HAS	R330338
Manganese (Mn)	<0.001		0.001	mg/L		30-SEP-05	HAS	R330338

Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Qualifiers for Sample Submission Listed:

Qualifier	Description
EHT	Exceeds Recommended Holding Time Prior To Analysis - SOME ROUTINE PARAMETERS PAST HOLD TIME

Sample Parameter Qualifier key listed:

Qualifier	Description
BL:INT	Balance Reviewed: Interference Or Non-Measured Component
RAMB	Result Adjusted For Method Blank

Methods Listed (if applicable):

ETL Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
C-TOT-ORG-ED	Water	Total Organic Carbon		APHA 5310 B-Instrumental
CL-ED	Water	Chloride (Cl)		APHA 4500 Cl E-Colorimetry
ETL-ROUTINE-LOW-ED	Water	ICP metals for routine water		APHA 3120 B-ICP/OES
IONBALANCE-ED	Water	Ion Balance Calculation		APHA 1030E
MET1-DIS-CCME-ED	Water	Dissolved Trace Metals		EPA 6020
MET1-TOT-CCME-ED	Water	Total Trace Metals	EPA3015	EPA 6020
MET2-DIS-ED	Water	Dissolved Major Metals		EPA 200.7
MET2-TOT-LOW-ED	Water	Total Major Metals	EPA3015	APHA 3120 B-ICP-OES
N2N3-LOW-ED	Water	Nitrate+Nitrite-N		APHA 4500 NO3E-Colorimetry
NH4-LOW-ED	Water	Ammonia-N		APHA 4500 NH3F-Colorimetry
NO2-LOW-ED	Water	Nitrite-N		APHA 4500 NO2B-Colorimetry
NO3-LOW-ED	Water	Nitrate-N		APHA 4500 NO3H-Colorimetry
P-TOTAL-LOW-ED	Water	Phosphorus, Total		APHA 4500 P B,E-Auto-Colorimetry
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity		APHA 4500-H, 2510, 2320
SO4-LOW-ED	Water	Sulfate (SO4)		APHA 4110 B-Ion Chromatography

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

211481 211482

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
ED	Enviro-Test Laboratories - Edmonton, Alberta, Canada		

Reference Information

GLOSSARY OF REPORT TERMS
Surr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in enviromental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.
The reported surrogate recovery value provides a measure of method efficiency. The Laboratory warning units are determined under column heading D.L.
mg/kg (units) - unit of concentration based on mass, parts per million
mg/L (units) - unit of concentration based on volume, parts per million
< - Less than
D.L. - Detection Limit
N/A - Result not available. Refer to qualifier code and definition for explanation

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.
Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

Enviro-Test Laboratories has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, Enviro-Test Laboratories assumes no liability for the use or interpretation of the results.

ETL Enviro-Test LABORATORIES

PRELIMINARY RESULTS

EBA ENG CONSULTANTS LTD
ATTN: STEVE MOORE
201-4916 49 STREET
YELLOWKNIFE NT X1A 2P7

DATE: 03-OCT-05 07:33 PM

Lab Work Order #:	L322418	**Sampled By:**	SM	**Date Received:**	26-SEP-05
Project P.O. #:					
Job Reference:	1740149				

Comments:

DOUG JOHNSON
Director of Operations, Edmonton

SANDRA WATSON
Account Manager

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322418-1 TRIP BLANK								
Sample Date: 23-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		27-SEP-05	CLL	R329381
Aluminum (Al)	<0.01		0.01	mg/L		27-SEP-05	CLL	R329381
Arsenic (As)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Boron (B)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329381
Barium (Ba)	<0.003		0.003	mg/L		27-SEP-05	CLL	R329381
Beryllium (Be)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Cadmium (Cd)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Cobalt (Co)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Chromium (Cr)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329381
Copper (Cu)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Mercury (Hg)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Lithium (Li)	<0.003		0.003	mg/L		27-SEP-05	CLL	R329381
Molybdenum (Mo)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329381
Nickel (Ni)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Lead (Pb)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Antimony (Sb)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Selenium (Se)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Tin (Sn)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329381
Titanium (Ti)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Thallium (Tl)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Uranium (U)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Vanadium (V)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Zinc (Zn)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Dissolved Major Metals								
Calcium (Ca)	<0.5		0.5	mg/L		28-SEP-05	HAS	R329418
Potassium (K)	<0.1		0.1	mg/L		28-SEP-05	HAS	R329418
Magnesium (Mg)	<0.01		0.01	mg/L		28-SEP-05	HAS	R329418
Sodium (Na)	<0.5		0.5	mg/L		28-SEP-05	HAS	R329418
Iron (Fe)	<0.005		0.005	mg/L		28-SEP-05	HAS	R329418
Manganese (Mn)	<0.001		0.001	mg/L		28-SEP-05	HAS	R329418
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329156
Aluminum (Al)	<0.01		0.01	mg/L		27-SEP-05	CLL	R329156
Arsenic (As)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329156
Boron (B)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329156
Barium (Ba)	<0.003		0.003	mg/L		27-SEP-05	CLL	R329156
Beryllium (Be)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Cadmium (Cd)	<0.0002		0.0002	mg/L		27-SEP-05	CLL	R329156
Cobalt (Co)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329156
Chromium (Cr)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329156
Copper (Cu)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Mercury (Hg)	<0.0002		0.0002	mg/L		27-SEP-05	CLL	R329156
Lithium (Li)	<0.01		0.01	mg/L		27-SEP-05	CLL	R329156
Molybdenum (Mo)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329156
Nickel (Ni)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329156
Lead (Pb)	0.0001		0.0001	mg/L		27-SEP-05	CLL	R329156
Antimony (Sb)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329156
Selenium (Se)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329156
Tin (Sn)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329156

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322418-1 TRIP BLANK								
Sample Date: 23-SEP-05								
Matrix: WATER								
Total Metals - CCME								
Total Trace Metals								
Titanium (Ti)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Thallium (Tl)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329156
Uranium (U)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329156
Vanadium (V)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Zinc (Zn)	<0.004		0.004	mg/L		27-SEP-05	CLL	R329156
Total Major Metals								
Calcium (Ca)	<0.5		0.5	mg/L		28-SEP-05	HAS	R329419
Potassium (K)	<0.1		0.1	mg/L		28-SEP-05	HAS	R329419
Magnesium (Mg)	<0.1		0.1	mg/L		28-SEP-05	HAS	R329419
Sodium (Na)	<1		1	mg/L		28-SEP-05	HAS	R329419
Iron (Fe)	<0.005		0.005	mg/L		28-SEP-05	HAS	R329419
Manganese (Mn)	<0.001		0.001	mg/L		28-SEP-05	HAS	R329419
Phosphorus, Total	<0.001		0.001	mg/L		29-SEP-05	SHC	R330407
Ammonia-N	<0.005		0.005	mg/L		28-SEP-05	TL	R329165
Total Organic Carbon	<1		1	mg/L		29-SEP-05	ZOW	R329822
Routine Water Analysis - Low Level								
Chloride (Cl)	<1		1	mg/L		27-SEP-05	WYA	R328887
Nitrate+Nitrite-N	<0.006		0.006	mg/L		26-SEP-05	SHC	R328519
Nitrate-N	<0.006		0.006	mg/L		26-SEP-05	SHC	R328519
Nitrite-N	<0.002		0.002	mg/L		26-SEP-05	SHC	R328519
Sulphate (SO4)	<0.05		0.05	mg/L		27-SEP-05	JWU	R328301
pH, Conductivity and Total Alkalinity								
pH	5.7		0.1	pH		27-SEP-05	PTT	R328648
Conductivity (EC)	0.9		0.2	uS/cm		27-SEP-05	PTT	R328648
Bicarbonate (HCO3)	<5		5	mg/L		27-SEP-05	PTT	R328648
Carbonate (CO3)	<5		5	mg/L		27-SEP-05	PTT	R328648
Hydroxide (OH)	<5		5	mg/L		27-SEP-05	PTT	R328648
Alkalinity, Total (as CaCO3)	<5		5	mg/L		27-SEP-05	PTT	R328648
Ion Balance Calculation								
Ion Balance	Low TDS			%		28-SEP-05		
TDS (Calculated)	<1			mg/L		28-SEP-05		
Hardness (as CaCO3)	<1			mg/L		28-SEP-05		
ICP metals for routine water								
Calcium (Ca)	<0.5		0.5	mg/L		27-SEP-05	AHY	R328721
Potassium (K)	<0.1		0.1	mg/L		27-SEP-05	AHY	R328721
Magnesium (Mg)	<0.1		0.1	mg/L		27-SEP-05	AHY	R328721
Sodium (Na)	<1		1	mg/L		27-SEP-05	AHY	R328721
L322418-2 FIELD BLANK								
Sample Date: 23-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		27-SEP-05	CLL	R329381
Aluminum (Al)	0.02		0.01	mg/L		27-SEP-05	CLL	R329381
Arsenic (As)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Boron (B)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329381
Barium (Ba)	<0.003		0.003	mg/L		27-SEP-05	CLL	R329381
Beryllium (Be)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322418-2 FIELD BLANK								
Sample Date: 23-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Cadmium (Cd)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Cobalt (Co)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Chromium (Cr)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329381
Copper (Cu)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Mercury (Hg)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Lithium (Li)	<0.003		0.003	mg/L		27-SEP-05	CLL	R329381
Molybdenum (Mo)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329381
Nickel (Ni)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Lead (Pb)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Antimony (Sb)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Selenium (Se)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Tin (Sn)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329381
Titanium (Ti)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Thallium (Tl)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Uranium (U)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Vanadium (V)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Zinc (Zn)	0.003		0.002	mg/L		27-SEP-05	CLL	R329381
Dissolved Major Metals								
Calcium (Ca)	<0.5		0.5	mg/L		28-SEP-05	HAS	R329418
Potassium (K)	<0.1		0.1	mg/L		28-SEP-05	HAS	R329418
Magnesium (Mg)	<0.01		0.01	mg/L		28-SEP-05	HAS	R329418
Sodium (Na)	0.6		0.5	mg/L		28-SEP-05	HAS	R329418
Iron (Fe)	<0.005		0.005	mg/L		28-SEP-05	HAS	R329418
Manganese (Mn)	<0.001		0.001	mg/L		28-SEP-05	HAS	R329418
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329156
Aluminum (Al)	0.02		0.01	mg/L		27-SEP-05	CLL	R329156
Arsenic (As)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329156
Boron (B)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329156
Barium (Ba)	<0.003		0.003	mg/L		27-SEP-05	CLL	R329156
Beryllium (Be)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Cadmium (Cd)	<0.0002		0.0002	mg/L		27-SEP-05	CLL	R329156
Cobalt (Co)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329156
Chromium (Cr)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329156
Copper (Cu)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Mercury (Hg)	<0.0002		0.0002	mg/L		27-SEP-05	CLL	R329156
Lithium (Li)	<0.01		0.01	mg/L		27-SEP-05	CLL	R329156
Molybdenum (Mo)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329156
Nickel (Ni)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329156
Lead (Pb)	0.0001		0.0001	mg/L		27-SEP-05	CLL	R329156
Antimony (Sb)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329156
Selenium (Se)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329156
Tin (Sn)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329156
Titanium (Ti)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Thallium (Tl)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329156
Uranium (U)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329156
Vanadium (V)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Zinc (Zn)	<0.004		0.004	mg/L		27-SEP-05	CLL	R329156
Total Major Metals								

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322418-2 FIELD BLANK								
Sample Date: 23-SEP-05								
Matrix: WATER								
Total Metals - CCME								
Total Major Metals								
Calcium (Ca)	<0.5		0.5	mg/L		28-SEP-05	HAS	R329419
Potassium (K)	<0.1		0.1	mg/L		28-SEP-05	HAS	R329419
Magnesium (Mg)	<0.1		0.1	mg/L		28-SEP-05	HAS	R329419
Sodium (Na)	<1		1	mg/L		28-SEP-05	HAS	R329419
Iron (Fe)	<0.005		0.005	mg/L		28-SEP-05	HAS	R329419
Manganese (Mn)	<0.001		0.001	mg/L		28-SEP-05	HAS	R329419
Phosphorus, Total	<0.001		0.001	mg/L		29-SEP-05	SHC	R330407
Ammonia-N	<0.005		0.005	mg/L		28-SEP-05	TL	R329165
Total Organic Carbon	<1		1	mg/L		29-SEP-05	ZOW	R329822
Routine Water Analysis - Low Level								
Chloride (Cl)	<1		1	mg/L		27-SEP-05	WYA	R328887
Nitrate+Nitrite-N	<0.006		0.006	mg/L		26-SEP-05	SHC	R328519
Nitrate-N	<0.006		0.006	mg/L		26-SEP-05	SHC	R328519
Nitrite-N	<0.002		0.002	mg/L		26-SEP-05	SHC	R328519
Sulphate (SO4)	<0.05		0.05	mg/L		27-SEP-05	JWU	R328301
pH, Conductivity and Total Alkalinity								
pH	6.6		0.1	pH		27-SEP-05	PTT	R328648
Conductivity (EC)	3.7		0.2	uS/cm		27-SEP-05	PTT	R328648
Bicarbonate (HCO3)	<5		5	mg/L		27-SEP-05	PTT	R328648
Carbonate (CO3)	<5		5	mg/L		27-SEP-05	PTT	R328648
Hydroxide (OH)	<5		5	mg/L		27-SEP-05	PTT	R328648
Alkalinity, Total (as CaCO3)	<5		5	mg/L		27-SEP-05	PTT	R328648
Ion Balance Calculation								
Ion Balance	Low TDS			%		28-SEP-05		
TDS (Calculated)	<1			mg/L		28-SEP-05		
Hardness (as CaCO3)	<1			mg/L		28-SEP-05		
ICP metals for routine water								
Calcium (Ca)	<0.5		0.5	mg/L		27-SEP-05	AHY	R328721
Potassium (K)	<0.1		0.1	mg/L		27-SEP-05	AHY	R328721
Magnesium (Mg)	<0.1		0.1	mg/L		27-SEP-05	AHY	R328721
Sodium (Na)	<1		1	mg/L		27-SEP-05	AHY	R328721
L322418-3 TWIN CREEK STATION 11								
Sample Date: 23-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		27-SEP-05	CLL	R329381
Aluminum (Al)	<0.01		0.01	mg/L		27-SEP-05	CLL	R329381
Arsenic (As)	0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Boron (B)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329381
Barium (Ba)	0.027		0.003	mg/L		27-SEP-05	CLL	R329381
Beryllium (Be)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Cadmium (Cd)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Cobalt (Co)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Chromium (Cr)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329381
Copper (Cu)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Mercury (Hg)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Lithium (Li)	0.005		0.003	mg/L		27-SEP-05	CLL	R329381

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322418-3 TWIN CREEK STATION 11								
Sample Date: 23-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Molybdenum (Mo)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329381
Nickel (Ni)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Lead (Pb)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Antimony (Sb)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Selenium (Se)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Tin (Sn)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329381
Titanium (Ti)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Thallium (Tl)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Uranium (U)	0.0002		0.0001	mg/L		27-SEP-05	CLL	R329381
Vanadium (V)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Zinc (Zn)	0.004		0.002	mg/L		27-SEP-05	CLL	R329381
Dissolved Major Metals								
Calcium (Ca)	64.4		0.5	mg/L		28-SEP-05	HAS	R329418
Potassium (K)	1.1		0.1	mg/L		28-SEP-05	HAS	R329418
Magnesium (Mg)	16.2		0.01	mg/L		28-SEP-05	HAS	R329418
Sodium (Na)	6.2		0.5	mg/L		28-SEP-05	HAS	R329418
Iron (Fe)	0.020		0.005	mg/L		28-SEP-05	HAS	R329418
Manganese (Mn)	0.001		0.001	mg/L		28-SEP-05	HAS	R329418
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329156
Aluminum (Al)	0.01		0.01	mg/L		27-SEP-05	CLL	R329156
Arsenic (As)	0.0005		0.0004	mg/L		27-SEP-05	CLL	R329156
Boron (B)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329156
Barium (Ba)	0.029		0.003	mg/L		27-SEP-05	CLL	R329156
Beryllium (Be)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Cadmium (Cd)	<0.0002		0.0002	mg/L		27-SEP-05	CLL	R329156
Cobalt (Co)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329156
Chromium (Cr)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329156
Copper (Cu)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Mercury (Hg)	<0.0002		0.0002	mg/L		27-SEP-05	CLL	R329156
Lithium (Li)	<0.01		0.01	mg/L		27-SEP-05	CLL	R329156
Molybdenum (Mo)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329156
Nickel (Ni)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329156
Lead (Pb)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329156
Antimony (Sb)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329156
Selenium (Se)	0.0006		0.0004	mg/L		27-SEP-05	CLL	R329156
Tin (Sn)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329156
Titanium (Ti)	0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Thallium (Tl)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329156
Uranium (U)	0.0002		0.0001	mg/L		27-SEP-05	CLL	R329156
Vanadium (V)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Zinc (Zn)	<0.004		0.004	mg/L		27-SEP-05	CLL	R329156
Total Major Metals								
Calcium (Ca)	64.0		0.5	mg/L		28-SEP-05	HAS	R329419
Potassium (K)	1.1		0.1	mg/L		28-SEP-05	HAS	R329419
Magnesium (Mg)	16.2		0.1	mg/L		28-SEP-05	HAS	R329419
Sodium (Na)	6		1	mg/L		28-SEP-05	HAS	R329419
Iron (Fe)	0.029		0.005	mg/L		28-SEP-05	HAS	R329419
Manganese (Mn)	0.003		0.001	mg/L		28-SEP-05	HAS	R329419

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322418-3 TWIN CREEK STATION 11								
Sample Date: 23-SEP-05								
Matrix: WATER								
Total Metals - CCME								
Phosphorus, Total	0.003		0.001	mg/L		29-SEP-05	SHC	R330407
Ammonia-N	0.019		0.005	mg/L		28-SEP-05	TL	R329165
Total Organic Carbon	23		1	mg/L		29-SEP-05	ZOW	R329822
Routine Water Analysis - Low Level								
Chloride (Cl)	6		1	mg/L		27-SEP-05	WYA	R328887
Nitrate+Nitrite-N	<0.006		0.006	mg/L		26-SEP-05	SHC	R328519
Nitrate-N	<0.006		0.006	mg/L		26-SEP-05	SHC	R328519
Nitrite-N	0.002		0.002	mg/L		26-SEP-05	SHC	R328519
Sulphate (SO4)	27.8		0.05	mg/L		27-SEP-05	JWU	R328301
pH, Conductivity and Total Alkalinity								
pH	8.2		0.1	pH		27-SEP-05	PTT	R328648
Conductivity (EC)	433		0.2	uS/cm		27-SEP-05	PTT	R328648
Bicarbonate (HCO3)	233		5	mg/L		27-SEP-05	PTT	R328648
Carbonate (CO3)	<5		5	mg/L		27-SEP-05	PTT	R328648
Hydroxide (OH)	<5		5	mg/L		27-SEP-05	PTT	R328648
Alkalinity, Total (as CaCO3)	191		5	mg/L		27-SEP-05	PTT	R328648
Ion Balance Calculation								
Ion Balance	102			%		28-SEP-05		
TDS (Calculated)	232			mg/L		28-SEP-05		
Hardness (as CaCO3)	218			mg/L		28-SEP-05		
ICP metals for routine water								
Calcium (Ca)	60.9		0.5	mg/L		27-SEP-05	AHY	R328721
Potassium (K)	1.0		0.1	mg/L		27-SEP-05	AHY	R328721
Magnesium (Mg)	16.0		0.1	mg/L		27-SEP-05	AHY	R328721
Sodium (Na)	6		1	mg/L		27-SEP-05	AHY	R328721
L322418-4 TWIN CREEK - DUP STATION 11								
Sample Date: 23-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001	RAMB	0.0001	mg/L		27-SEP-05	CLL	R329381
Aluminum (Al)	<0.01		0.01	mg/L		27-SEP-05	CLL	R329381
Arsenic (As)	0.0005		0.0004	mg/L		27-SEP-05	CLL	R329381
Boron (B)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329381
Barium (Ba)	0.028		0.003	mg/L		27-SEP-05	CLL	R329381
Beryllium (Be)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Cadmium (Cd)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Cobalt (Co)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Chromium (Cr)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329381
Copper (Cu)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Mercury (Hg)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Lithium (Li)	0.005		0.003	mg/L		27-SEP-05	CLL	R329381
Molybdenum (Mo)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329381
Nickel (Ni)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Lead (Pb)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Antimony (Sb)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Selenium (Se)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Tin (Sn)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329381
Titanium (Ti)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322418-4 TWIN CREEK - DUP STATION 11								
Sample Date: 23-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Thallium (Tl)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Uranium (U)	0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Vanadium (V)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Zinc (Zn)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Dissolved Major Metals								
Calcium (Ca)	65.1		0.5	mg/L		28-SEP-05	HAS	R329418
Potassium (K)	1.1		0.1	mg/L		28-SEP-05	HAS	R329418
Magnesium (Mg)	16.3		0.01	mg/L		28-SEP-05	HAS	R329418
Sodium (Na)	6.2		0.5	mg/L		28-SEP-05	HAS	R329418
Iron (Fe)	0.022		0.005	mg/L		28-SEP-05	HAS	R329418
Manganese (Mn)	0.001		0.001	mg/L		28-SEP-05	HAS	R329418
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329156
Aluminum (Al)	0.01		0.01	mg/L		27-SEP-05	CLL	R329156
Arsenic (As)	0.0005		0.0004	mg/L		27-SEP-05	CLL	R329156
Boron (B)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329156
Barium (Ba)	0.029		0.003	mg/L		27-SEP-05	CLL	R329156
Beryllium (Be)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Cadmium (Cd)	<0.0002		0.0002	mg/L		27-SEP-05	CLL	R329156
Cobalt (Co)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329156
Chromium (Cr)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329156
Copper (Cu)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Mercury (Hg)	<0.0002		0.0002	mg/L		27-SEP-05	CLL	R329156
Lithium (Li)	<0.01		0.01	mg/L		27-SEP-05	CLL	R329156
Molybdenum (Mo)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329156
Nickel (Ni)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329156
Lead (Pb)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329156
Antimony (Sb)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329156
Selenium (Se)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329156
Tin (Sn)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329156
Titanium (Ti)	0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Thallium (Tl)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329156
Uranium (U)	0.0002		0.0001	mg/L		27-SEP-05	CLL	R329156
Vanadium (V)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329156
Zinc (Zn)	<0.004		0.004	mg/L		27-SEP-05	CLL	R329156
Total Major Metals								
Calcium (Ca)	63.9		0.5	mg/L		28-SEP-05	HAS	R329419
Potassium (K)	1.2		0.1	mg/L		28-SEP-05	HAS	R329419
Magnesium (Mg)	16.0		0.1	mg/L		28-SEP-05	HAS	R329419
Sodium (Na)	6		1	mg/L		28-SEP-05	HAS	R329419
Iron (Fe)	0.025		0.005	mg/L		28-SEP-05	HAS	R329419
Manganese (Mn)	0.001		0.001	mg/L		28-SEP-05	HAS	R329419
Phosphorus, Total	0.002		0.001	mg/L		29-SEP-05	SHC	R330407
Ammonia-N	0.018		0.005	mg/L		28-SEP-05	TL	R329165
Total Organic Carbon	23		1	mg/L		29-SEP-05	ZOW	R329822
Routine Water Analysis - Low Level								
Chloride (Cl)	6		1	mg/L		27-SEP-05	WYA	R328887
Nitrate+Nitrite-N	<0.006		0.006	mg/L		26-SEP-05	SHC	R328519

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322418-4 TWIN CREEK - DUP STATION 11								
Sample Date: 23-SEP-05								
Matrix: WATER								
Routine Water Analysis - Low Level								
Nitrate-N	<0.006		0.006	mg/L		26-SEP-05	SHC	R328519
Nitrite-N	<0.002		0.002	mg/L		26-SEP-05	SHC	R328519
Sulphate (SO4)	27.7		0.05	mg/L		27-SEP-05	JWU	R328301
pH, Conductivity and Total Alkalinity								
pH	8.2		0.1	pH		27-SEP-05	PTT	R328648
Conductivity (EC)	432		0.2	uS/cm		27-SEP-05	PTT	R328648
Bicarbonate (HCO3)	231		5	mg/L		27-SEP-05	PTT	R328648
Carbonate (CO3)	<5		5	mg/L		27-SEP-05	PTT	R328648
Hydroxide (OH)	<5		5	mg/L		27-SEP-05	PTT	R328648
Alkalinity, Total (as CaCO3)	190		5	mg/L		27-SEP-05	PTT	R328648
Ion Balance Calculation								
Ion Balance	104			%		28-SEP-05		
TDS (Calculated)	233			mg/L		28-SEP-05		
Hardness (as CaCO3)	222			mg/L		28-SEP-05		
ICP metals for routine water								
Calcium (Ca)	61.8		0.5	mg/L		27-SEP-05	AHY	R328721
Potassium (K)	1.0		0.1	mg/L		27-SEP-05	AHY	R328721
Magnesium (Mg)	16.4		0.1	mg/L		27-SEP-05	AHY	R328721
Sodium (Na)	6		1	mg/L		27-SEP-05	AHY	R328721
L322418-5 BUFFALO RIVER STATION 3								
Sample Date: 23-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Aluminum (Al)	0.01		0.01	mg/L		27-SEP-05	CLL	R329381
Arsenic (As)	0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Boron (B)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329381
Barium (Ba)	0.042		0.003	mg/L		27-SEP-05	CLL	R329381
Beryllium (Be)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Cadmium (Cd)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Cobalt (Co)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Chromium (Cr)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329381
Copper (Cu)	0.003		0.001	mg/L		27-SEP-05	CLL	R329381
Mercury (Hg)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Lithium (Li)	0.006		0.003	mg/L		27-SEP-05	CLL	R329381
Molybdenum (Mo)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329381
Nickel (Ni)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Lead (Pb)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Antimony (Sb)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Selenium (Se)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Tin (Sn)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329381
Titanium (Ti)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Thallium (Tl)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Uranium (U)	0.0003		0.0001	mg/L		27-SEP-05	CLL	R329381
Vanadium (V)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Zinc (Zn)	0.003		0.002	mg/L		27-SEP-05	CLL	R329381
Dissolved Major Metals								
Calcium (Ca)	38.8		0.5	mg/L		28-SEP-05	HAS	R329418
Potassium (K)	0.9		0.1	mg/L		28-SEP-05	HAS	R329418
Magnesium (Mg)	9.63		0.01	mg/L		28-SEP-05	HAS	R329418

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322418-5 BUFFALO RIVER STATION 3								
Sample Date: 23-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Major Metals								
Sodium (Na)	5.8		0.5	mg/L		28-SEP-05	HAS	R329418
Iron (Fe)	0.063		0.005	mg/L		28-SEP-05	HAS	R329418
Manganese (Mn)	<0.001		0.001	mg/L		28-SEP-05	HAS	R329418
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		28-SEP-05	CLL	R329421
Aluminum (Al)	2.96	RAMB	0.01	mg/L		28-SEP-05	CLL	R329421
Arsenic (As)	0.0016		0.0004	mg/L		28-SEP-05	CLL	R329421
Boron (B)	<0.05		0.05	mg/L		28-SEP-05	CLL	R329421
Barium (Ba)	0.072		0.003	mg/L		28-SEP-05	CLL	R329421
Beryllium (Be)	<0.001		0.001	mg/L		28-SEP-05	CLL	R329421
Cadmium (Cd)	<0.0002		0.0002	mg/L		28-SEP-05	CLL	R329421
Cobalt (Co)	<0.002		0.002	mg/L		28-SEP-05	CLL	R329421
Chromium (Cr)	<0.005		0.005	mg/L		28-SEP-05	CLL	R329421
Copper (Cu)	0.003		0.001	mg/L		28-SEP-05	CLL	R329421
Mercury (Hg)	<0.0002		0.0002	mg/L		28-SEP-05	CLL	R329421
Lithium (Li)	<0.01		0.01	mg/L		28-SEP-05	CLL	R329421
Molybdenum (Mo)	<0.005		0.005	mg/L		28-SEP-05	CLL	R329421
Nickel (Ni)	0.004		0.002	mg/L		28-SEP-05	CLL	R329421
Lead (Pb)	0.0014		0.0001	mg/L		28-SEP-05	CLL	R329421
Antimony (Sb)	<0.0004		0.0004	mg/L		28-SEP-05	CLL	R329421
Selenium (Se)	<0.0004		0.0004	mg/L		28-SEP-05	CLL	R329421
Tin (Sn)	<0.05		0.05	mg/L		28-SEP-05	CLL	R329421
Titanium (Ti)	0.082		0.001	mg/L		28-SEP-05	CLL	R329421
Thallium (Tl)	<0.0001		0.0001	mg/L		28-SEP-05	CLL	R329421
Uranium (U)	0.0005		0.0001	mg/L		28-SEP-05	CLL	R329421
Vanadium (V)	0.009		0.001	mg/L		28-SEP-05	CLL	R329421
Zinc (Zn)	0.009		0.004	mg/L		28-SEP-05	CLL	R329421
Total Major Metals								
Calcium (Ca)	34.6		0.5	mg/L		28-SEP-05	HAS	R329419
Potassium (K)	2.0		0.1	mg/L		28-SEP-05	HAS	R329419
Magnesium (Mg)	9.3		0.1	mg/L		28-SEP-05	HAS	R329419
Sodium (Na)	7		1	mg/L		28-SEP-05	HAS	R329419
Iron (Fe)	2.85		0.005	mg/L		28-SEP-05	HAS	R329419
Manganese (Mn)	0.052		0.001	mg/L		28-SEP-05	HAS	R329419
Phosphorus, Total	0.073		0.001	mg/L		29-SEP-05	SHC	R330407
Ammonia-N	0.014		0.005	mg/L		28-SEP-05	TL	R329165
Total Organic Carbon	20		1	mg/L		29-SEP-05	ZOW	R329822
Routine Water Analysis - Low Level								
Chloride (Cl)	3		1	mg/L		27-SEP-05	WYA	R328887
Nitrate+Nitrite-N	<0.006		0.006	mg/L		26-SEP-05	SHC	R328519
Nitrate-N	<0.006		0.006	mg/L		26-SEP-05	SHC	R328519
Nitrite-N	0.002		0.002	mg/L		26-SEP-05	SHC	R328519
Sulphate (SO4)	18.1		0.05	mg/L		27-SEP-05	JWU	R328301
pH, Conductivity and Total Alkalinity								
pH	8.2		0.1	pH		27-SEP-05	PTT	R328648
Conductivity (EC)	245		0.2	uS/cm		27-SEP-05	PTT	R328648
Bicarbonate (HCO3)	125		5	mg/L		27-SEP-05	PTT	R328648
Carbonate (CO3)	<5		5	mg/L		27-SEP-05	PTT	R328648

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322418-5 BUFFALO RIVER STATION 3								
Sample Date: 23-SEP-05								
Matrix: WATER								
Routine Water Analysis - Low Level								
pH, Conductivity and Total Alkalinity								
Hydroxide (OH)	<5		5	mg/L		27-SEP-05	PTT	R328648
Alkalinity, Total (as CaCO3)	103		5	mg/L		27-SEP-05	PTT	R328648
Ion Balance Calculation								
Ion Balance	103			%		28-SEP-05		
TDS (Calculated)	130			mg/L		28-SEP-05		
Hardness (as CaCO3)	115			mg/L		28-SEP-05		
ICP metals for routine water								
Calcium (Ca)	31.9		0.5	mg/L		27-SEP-05	AHY	R328721
Potassium (K)	0.9		0.1	mg/L		27-SEP-05	AHY	R328721
Magnesium (Mg)	8.6		0.1	mg/L		27-SEP-05	AHY	R328721
Sodium (Na)	6		1	mg/L		27-SEP-05	AHY	R328721
L322418-6 BUFFALO RIVER - DUP STATION 3								
Sample Date: 23-SEP-05								
Matrix: WATER								
Dissolved Metals - CCME								
Dissolved Trace Metals								
Silver (Ag)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Aluminum (Al)	0.01		0.01	mg/L		27-SEP-05	CLL	R329381
Arsenic (As)	0.0005		0.0004	mg/L		27-SEP-05	CLL	R329381
Boron (B)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329381
Barium (Ba)	0.043		0.003	mg/L		27-SEP-05	CLL	R329381
Beryllium (Be)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Cadmium (Cd)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Cobalt (Co)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Chromium (Cr)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329381
Copper (Cu)	0.002		0.001	mg/L		27-SEP-05	CLL	R329381
Mercury (Hg)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Lithium (Li)	0.006		0.003	mg/L		27-SEP-05	CLL	R329381
Molybdenum (Mo)	<0.005		0.005	mg/L		27-SEP-05	CLL	R329381
Nickel (Ni)	<0.002		0.002	mg/L		27-SEP-05	CLL	R329381
Lead (Pb)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Antimony (Sb)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Selenium (Se)	<0.0004		0.0004	mg/L		27-SEP-05	CLL	R329381
Tin (Sn)	<0.05		0.05	mg/L		27-SEP-05	CLL	R329381
Titanium (Ti)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Thallium (Tl)	<0.0001		0.0001	mg/L		27-SEP-05	CLL	R329381
Uranium (U)	0.0004		0.0001	mg/L		27-SEP-05	CLL	R329381
Vanadium (V)	<0.001		0.001	mg/L		27-SEP-05	CLL	R329381
Zinc (Zn)	0.003		0.002	mg/L		27-SEP-05	CLL	R329381
Dissolved Major Metals								
Calcium (Ca)	38.2		0.5	mg/L		28-SEP-05	HAS	R329418
Potassium (K)	0.8		0.1	mg/L		28-SEP-05	HAS	R329418
Magnesium (Mg)	9.16		0.01	mg/L		28-SEP-05	HAS	R329418
Sodium (Na)	5.6		0.5	mg/L		28-SEP-05	HAS	R329418
Iron (Fe)	0.060		0.005	mg/L		28-SEP-05	HAS	R329418
Manganese (Mn)	0.001		0.001	mg/L		28-SEP-05	HAS	R329418
Total Metals - CCME								
Total Trace Metals								
Silver (Ag)	<0.0004		0.0004	mg/L		28-SEP-05	CLL	R329421
Aluminum (Al)	3.26	RAMB	0.01	mg/L		28-SEP-05	CLL	R329421

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322418-6 BUFFALO RIVER - DUP STATION 3								
Sample Date: 23-SEP-05								
Matrix: WATER								
Total Metals - CCME								
Total Trace Metals								
Arsenic (As)	0.0016		0.0004	mg/L		28-SEP-05	CLL	R329421
Boron (B)	<0.05		0.05	mg/L		28-SEP-05	CLL	R329421
Barium (Ba)	0.076		0.003	mg/L		28-SEP-05	CLL	R329421
Beryllium (Be)	<0.001		0.001	mg/L		28-SEP-05	CLL	R329421
Cadmium (Cd)	<0.0002		0.0002	mg/L		28-SEP-05	CLL	R329421
Cobalt (Co)	<0.002		0.002	mg/L		28-SEP-05	CLL	R329421
Chromium (Cr)	<0.005		0.005	mg/L		28-SEP-05	CLL	R329421
Copper (Cu)	0.004		0.001	mg/L		28-SEP-05	CLL	R329421
Mercury (Hg)	<0.0002		0.0002	mg/L		28-SEP-05	CLL	R329421
Lithium (Li)	<0.01		0.01	mg/L		28-SEP-05	CLL	R329421
Molybdenum (Mo)	<0.005		0.005	mg/L		28-SEP-05	CLL	R329421
Nickel (Ni)	0.004		0.002	mg/L		28-SEP-05	CLL	R329421
Lead (Pb)	0.0015		0.0001	mg/L		28-SEP-05	CLL	R329421
Antimony (Sb)	0.0006		0.0004	mg/L		28-SEP-05	CLL	R329421
Selenium (Se)	0.0008		0.0004	mg/L		28-SEP-05	CLL	R329421
Tin (Sn)	<0.05		0.05	mg/L		28-SEP-05	CLL	R329421
Titanium (Ti)	0.070		0.001	mg/L		28-SEP-05	CLL	R329421
Thallium (Tl)	<0.0001		0.0001	mg/L		28-SEP-05	CLL	R329421
Uranium (U)	0.0005		0.0001	mg/L		28-SEP-05	CLL	R329421
Vanadium (V)	0.010		0.001	mg/L		28-SEP-05	CLL	R329421
Zinc (Zn)	0.010		0.004	mg/L		28-SEP-05	CLL	R329421
Total Major Metals								
Calcium (Ca)	33.4		0.5	mg/L		28-SEP-05	HAS	R329419
Potassium (K)	2.0		0.1	mg/L		28-SEP-05	HAS	R329419
Magnesium (Mg)	9.3		0.1	mg/L		28-SEP-05	HAS	R329419
Sodium (Na)	7		1	mg/L		28-SEP-05	HAS	R329419
Iron (Fe)	2.98		0.005	mg/L		28-SEP-05	HAS	R329419
Manganese (Mn)	0.055		0.001	mg/L		28-SEP-05	HAS	R329419
Phosphorus, Total	0.081		0.001	mg/L		29-SEP-05	SHC	R330407
Ammonia-N	0.028		0.005	mg/L		28-SEP-05	TL	R329165
Total Organic Carbon	20		1	mg/L		29-SEP-05	ZOW	R329822
Routine Water Analysis - Low Level								
Chloride (Cl)	3		1	mg/L		27-SEP-05	WYA	R328887
Nitrate+Nitrite-N	<0.006		0.006	mg/L		26-SEP-05	SHC	R328519
Nitrate-N	<0.006		0.006	mg/L		26-SEP-05	SHC	R328519
Nitrite-N	0.002		0.002	mg/L		26-SEP-05	SHC	R328519
Sulphate (SO4)	18.3		0.05	mg/L		27-SEP-05	JWU	R328301
pH, Conductivity and Total Alkalinity								
pH	8.2		0.1	pH		27-SEP-05	PTT	R328648
Conductivity (EC)	243		0.2	uS/cm		27-SEP-05	PTT	R328648
Bicarbonate (HCO3)	121		5	mg/L		27-SEP-05	PTT	R328648
Carbonate (CO3)	<5		5	mg/L		27-SEP-05	PTT	R328648
Hydroxide (OH)	<5		5	mg/L		27-SEP-05	PTT	R328648
Alkalinity, Total (as CaCO3)	99		5	mg/L		27-SEP-05	PTT	R328648
Ion Balance Calculation								
Ion Balance	105			%		28-SEP-05		
TDS (Calculated)	128			mg/L		28-SEP-05		
Hardness (as CaCO3)	114			mg/L		28-SEP-05		
ICP metals for routine water								

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L322418-6 BUFFALO RIVER - DUP STATION 3								
Sample Date: 23-SEP-05								
Matrix: WATER								
Routine Water Analysis - Low Level								
ICP metals for routine water								
Calcium (Ca)	31.5		0.5	mg/L		27-SEP-05	AHY	R328721
Potassium (K)	0.9		0.1	mg/L		27-SEP-05	AHY	R328721
Magnesium (Mg)	8.6		0.1	mg/L		27-SEP-05	AHY	R328721
Sodium (Na)	6		1	mg/L		27-SEP-05	AHY	R328721

Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
RAMB	Result Adjusted For Method Blank

Methods Listed (if applicable):

ETL Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
C-TOT-ORG-ED	Water	Total Organic Carbon		APHA 5310 B-Instrumental
CL-ED	Water	Chloride (Cl)		APHA 4500 Cl E-Colorimetry
ETL-ROUTINE-LOW-ED	Water	ICP metals for routine water		APHA 3120 B-ICP/OES
IONBALANCE-ED	Water	Ion Balance Calculation		APHA 1030E
MET1-DIS-CCME-ED	Water	Dissolved Trace Metals		EPA 6020
MET1-TOT-CCME-ED	Water	Total Trace Metals	EPA3015	EPA 6020
MET2-DIS-ED	Water	Dissolved Major Metals		EPA 200.7
MET2-TOT-LOW-ED	Water	Total Major Metals	EPA3015	EPA 200.7
N2N3-LOW-ED	Water	Nitrate+Nitrite-N		APHA 4500 NO3E-Colorimetry
NH4-LOW-ED	Water	Ammonia-N		APHA 4500 NH3F-Colorimetry
NO2-LOW-ED	Water	Nitrite-N		APHA 4500 NO2B-Colorimetry
NO3-LOW-ED	Water	Nitrate-N		APHA 4500 NO3H-Colorimetry
P-TOTAL-LOW-ED	Water	Phosphorus, Total		APHA 4500 P B,E-Auto-Colorimetry
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity		APHA 4500-H, 2510, 2320
SO4-LOW-ED	Water	Sulfate (SO4)		APHA 4110 B-Ion Chromatography

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

211480

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
ED	Enviro-Test Laboratories - Edmonton, Alberta, Canada		

Reference Information

GLOSSARY OF REPORT TERMS
Surr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in enviromental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.
The reported surrogate recovery value provides a measure of method efficiency. The Laboratory warning units are determined under column heading D.L.
mg/kg (units) - unit of concentration based on mass, parts per million
mg/L (units) - unit of concentration based on volume, parts per million
< - Less than
D.L. - Detection Limit
N/A - Result not available. Refer to qualifier code and definition for explanation

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.
Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

Enviro-Test Laboratories has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, Enviro-Test Laboratories assumes no liability for the use or interpretation of the results.

APPENDIX

APPENDIX B STREAM ASSESSMENT DATA COLLECTED DURING FALL 2005 SURVEY

Appendix B. Stream Assessment Data Collected During Fall 2005 Survey

Site	TCS1	TCS2	TCS3	TCS4	TCS5	TCS6	TCS7	TCS8	TCS9	BRS1	BRS2	BRS3	BRS4	BRS5	BRS6
Stream Name	Twin Creek	Twin Creek	Twin Creek	Twin Creek	Twin Creek	Twin Creek	Twin Creek	Twin Creek	Twin Creek	Buffalo River	Buffalo River	Buffalo River	Buffalo River	Buffalo River	Buffalo River
Access	ATV	ATV	ATV	HIKE	HIKE	HIKE	HIKE	HIKE	BOAT	ATV	ATV	ATV/ HIKE	ATV	ATV	BOAT
Location/ Notes	At highway crossing, with clear span bridge	Upstream of highway crossing	Upstream of highway crossing, furthest point assessed upstream	Downstream of highway crossing, furthest point assessed downstream	Downstream of highway crossing, fish obstacle just downstream	Downstream of highway crossing	Downstream of highway crossing	Downstream of highway crossing	River mouth at Great Slave Lake. Wetland unable to access due to shallow water	Upstream of highway crossing, with clear span bridge	Furthest point acessed downstream	Long flood plain on east side, steep cliff with erosional issues on west side	Larger banks noted upstream and downstream. Freshwater clam shell noted on bank	Sulpour odour deposit on shoreline. Three moose observed	River mouth at Great Slave Lake
Coordinates (NAD 83)	N 60 43'56.8	N 60 43'43.7	N 60 43'39.5	N 60 44'43.7	N 60 44'37.7	N 60 44'20.5	N 60 44'13.6	N 60 44'02.1	N 60 51'04.1	N 60 42'52.5	N 60 49'12.3	N 60 46'59.7	N 60 46'09.7	N 60 45'25.6	N 60 52'50.6
	W 115 11'15.4	W 115 11'25.1	W 115 11'40.9	W 115 11'12.7	W 115 11'02.5	W 115 11'31.1	W 115 11'25.6	W 115 11'11.8	W 115 14'09.6	W 114 54'20.1	W 114 57'32.2	W 114 56'36.9	W 114 56'59.5	W 115 02'45.6	W 114 56'54.6
Reach No.															
Length Surveyed (m)															
Date	9/21/2005	9/21/2005	9/21/2005	9/21/2005	9/21/2005	9/21/2005	9/21/2005	9/21/2005	9/22/2005	9/20/2005	9/20/2005	9/20/2005	9/20/2005	9/20/2005	9/22/2005
Time	9:30	10:20	11:00	14:00	15:00	15:30	16:30	17:00	11:00	9:00	13:00	15:00	16:30	18:00	11:30
Crew	TA/TU	TA/TU	TA/TU	TA/TU	TA/TU	TA/TU	TA/TU	TA/TU	TA/TU	TA/TU	TA/TU	TA/TU	TA/TU	TA/TU	TA/TU
Average Channel Width (m)	12.00	4.50	33.00	25.00	50.00	50.00	3.00	15.00		75.00	70.00	150.00	200.00	50.00	204.00
Average Wetted Width (m)	10.00	2.50	29.00	20.00	45.00	44.00	2.00	12.00		60.00	50.00	40.00	60.00	30.00	200.00
Average Maximum Riffle Depth (cm)		37.00	0.00	0.00	0.00	0.00	20.00	70.00							
Average Maximum Pool Depth (cm)	75.00	0.00	50.00	80.00	100.00	100.00	50.00	0.00							
Average Gradient (%)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pool (%)	100	0	100	100	100	100	20	0		0	0	0	0	0	0
Riffle (%)	0	50	0	0	0	0	80	0		20	10	0	0	0	0
Run (%)	0	50	0	0	0	0	0	100		80	90	70	90	50	100
Other (%)	0	0	0	0	0	0	0	0		0	0	30 (Rapid)	10 (Rapid)	50 (Rapid)	0
Sidechannel (%)	10	0	30	0	0	0	0	0		0	0	0	0	0	0
Debris - Area (%)	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Debris - Stable (%)	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Total Cover (%)	100	100	50	50	70	60	100	50		5	0	2	2	0	50
Deep Pool (%)	100	0	90	100	45	30	5	5		0	0	0	0	0	100
LOD (%)	0	30	0	0	5	5	0	0		50	0	0	0	0	0
Boulder (%)	45	10	0	0	10	10	85	85		50	0	100	100	0	0
Instream Vegetation (%)	100	60	10	10	40	40	5	20		0	0	0	0	0	0
Overstream Vegetation (%)	0	40	0	0	0	20	5	80		0	0	0	0	0	0
Cutbank (%)	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Crown Closure (%)	0	0	0	0	0	0	20	20	0	0	0	0	0	0	0
Aspect (º)	NW	N	N	N	NW	NW	W	NE	NW	NW	W	N	NW	NW	NW
Velocity (m/s)	0.010	1.000	0.100	0.200	0.000	0.000	1.000				1.500	1.500	1.500	3.000	0.200
Bed Material															
Fines (%)	80	10	50	20	100	50	0	30		70	20	30	10	30	0
Small Gravels (%)	20	20	10	10	0	10	0	10		30	60	60	80	70	0
Large Gravels (%)	0	10	10	10	0	10	0	10		10	10	10	10	0	0
Small Cobbles (%)	0	50	30	10	0	10	0	30		0	10	0	0	0	100
Large Cobbles (%)	0	10	0	50	0	20	10	20		0	0	0	0	0	0
Boulders (%)	0	0	0	0	0	0	90	0		0	0	0	0	0	0
Bedrock (%)	0	0	0	0	0	0	0	0		0	0	0	0	0	0
D90 (cm)															
Compaction	L	H	M	H	L	L	H	H		M	M	M	M	H	H
Banks															
Height (m)	1	1	0.5	2	1.5	1.5	3	2		12	6	20	3	4	2
Unstable (%)	0	0	0	0	0	0	33	0		25	0	15	0	38	0
Texture	F (vegegated)	F (vegegated)	F (vegegated)	F (vegegated)	F (vegegated)	F (vegegated)	F and G	F (vegegated)		F and G	F and G	F and G	F and G	F and G	F and G
Confinement	UC	UC	UC	UC	UC	UC	CO	UC	UC	FC	FC	FC	OC	OC	G
Valley:Channel Ratio	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stage	M	H	M	M	M	M	M	M	M	H	H	H	H	M	M
Flood Signs Height (m)	1	1	0.5	2	2	1	1	0		2.5	2.5	3	1	1.5	1
Braided (Y/N)	N	N	Y	Y	Y	Y	N	Y		N	N	N	N	N	Y
Bars (%)	0	0													
Water Quality															
pH	7.89	7.4	7.13	8.12	8.03	8.25	7.88	7.99	8.07	8.57	8.4	7.92	8.21	7.01	8.01
O_2 (%)	46.5	86	77.3	86.4	66.5	67.1	77	89.6	93	88.8	91.5	89.9	96.1	95.3	84.1
O_2 (mg/L)	5.76	10.89	9.74	10.4	8.02	7.57	9.19	10.87	10.67	10.27	10.44	10.27	10.91	10.86	9.82
Average Water Temp. (ºC)	6.4	5.4	5.6	7.3	7.4	9.9	7.1	7.2	9.4	9.4	9.8	10	9.9	9.5	8.5
Turbidity (cm)	bottom	bottom	bottom	bottom	bottom	bottom	bottom	bottom		15	12	10	10	9	8
Salinity (ppt)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Conductivity (µS)	418	409.8	408.1	428.5	430	423.4	420.5	420.2	266.9	208.2	241.1	222.7	245.5	233.2	252.8

Notes:

Large Organic Debris - Pieces of wood >20cm in diameter and >2m in length
D90 - Intermediate diameter of the substrate particle that is larger than 90% of substrate particles a
Compaction - Embeddedness of substrate particles (Low, Moderate, High)

Texture - Fines, Gravels, Larges (=cobbles, boulders)
Confinement: UC - Unconfined, FC - Frequently Confined
Stage - Flow stage (Low, Moderate, High, Flood)