

## **Appendix C1**

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### **Meadowbank Gold Project All Weather Private Access Road: 2009 Water Quality Management Report**

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# **MEADOWBANK GOLD PROJECT**

## **ALL WEATHER PRIVATE ACCESS ROAD: 2009 WATER QUALITY MANAGEMENT REPORT**

**DECEMBER 2009**

**MEADOWBANK GOLD PROJECT  
AWPAR AND QUARRIES WATER QUALITY  
MANAGEMENT REPORT**

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MAN**

## SECTION 1 • INTRODUCTION AND OBJECTIVES

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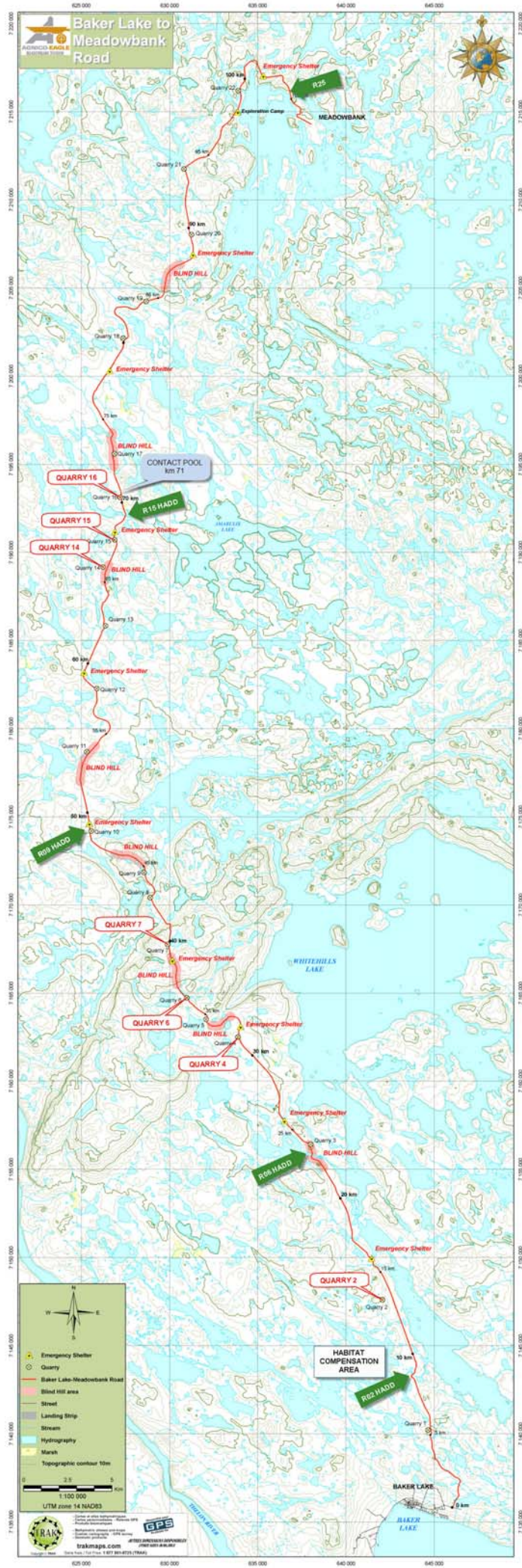
Agnico-Eagle Mines Ltd. (AEM) is responsible to manage erosion, water quality, and the introduction of sediment along the 110 km all weather private access road (AWPAR) that connects the Hamlet of Baker Lake to the Meadowbank mine site. As part of the water quality management, AEM personnel completed routine and event inspections at all of the crossings pre-freshet and post-freshet for potential or current erosional issues at all stream crossings, completed routine water quality monitoring at all major crossings from July until September, and collected water samples at representative watercourses and quarries as required.

As per the water quality management plan, a tiered approach was taken in 2009 to evaluate and monitor erosion and turbidity along the AWPAP. To prioritize monitoring at crossings, all crossings were visually inspected for erosion and turbidity on a regular basis, especially during freshet and immediately after freshet. During routine inspections and event inspections (i.e. following freshet or after a rain event), if visual turbidity was observed at a specific location, the characteristics of the plume were monitored. If warranted, water samples were collected for laboratory analysis.

Water quality sampling was primarily focused on AWPAP crossings that are considered fish-bearing watercourses where permitted Habitat Altered, Destroyed or Disturbed (HADD) for bridge and road construction had occurred (as per DFO Authorization) (See Fig. 1 for sample locations). Water samples were collected upstream of the crossings and immediately downstream of the crossings to evaluate the water quality of the AWPAP bridge and abutment construction. In the winter of 2009, the AWPAP no- net- loss habitat compensation features were constructed. As part of the AWPAP water management, erosion and water quality was monitored on a regular basis downstream of the habitat compensation features and samples were collected in August following a rain event.

In follow-up to the 2008 Geochemical Characterization Study for the AWPAP (AEM, 2009b), water samples were collected in July and August at quarries where water accumulation was enough to warrant surface water collection and subsequent water quality analysis.

This report documents the 2009 AWPAP water quality management which has been separated into the following key sections: AWPAP turbidity and erosion monitoring, AWPAP watercourse crossing water quality, AWPAP Quarry water quality, QA/ QC, and the associated results and discussion. All of the monitoring data has previously been reported to the NWB in the monthly reports.



## SECTION 2 • AWPARTURBIDITY AND EROSION MONITORING

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### 2.1 JUNE WATER QUALITY MONITORING

On June 1, 2009 pre-freshet erosional inspections at all culvert crossings and bridge crossings were conducted along the AWPART to evaluate the integrity of the bridges, evaluate the potential depositional sources due to winter activity and conduct erosion inspections. This erosion inspection also provided AEM with the information to prioritize our monitoring efforts along the roadway during freshet as part of our mitigation strategy to reduce the introduction of total suspended solids into the nearby aquatic resources. No potential issues were noted on June 1, as all of the crossings were snow-filled and/or frozen (See Appendix A for relevant photos). All abutments appeared to be stable and well armoured.

On June 14, 2009, streams were observed to have begun to flow. To begin, a visual inspection was made on June 18, 2009 at all crossings (see Table 2.1 for an AWPART inspections summary). No note-able visible turbidity was observed on June 18. Due to winter construction activities at R02 habitat compensation area, turbidity was observed downstream of the R02 compensation area following a rain event on June 23, 2009. Small pools of turbidity were observed immediately downstream of the compensation area (average turbidity ~10 NTUs) (See Appendix A). Follow-up turbidity monitoring indicated values similar to background levels (<1 NTU) downstream of the R02 bridge crossing, approximately 300m downstream from the observed turbidity.

On June 28<sup>th</sup>, 2009, all crossings and representative contact pools were monitored for turbidity and general water quality parameters (i.e. temperature, pH and NTUs; conductivity was not recorded) using field meters (analite and YSI 556). The monitoring focussed on HADD and other representative crossings, by evaluating water quality downstream (DS) compared to upstream (US: reference) water quality. Monitoring measurements taken at the crossings did not indicate any water quality issues that have a potential to impact nearby receiving environments (i.e. turbidity below 1 NTUs at nearly all crossings) (See Table 2.2 for 2009 field monitoring data). No water samples were collected on June 28, 2009.

### 2.2 JULY WATER QUALITY MONITORING

Similar to June, monitoring results in July did not indicate any water quality issues that have a potential to impact nearby receiving environments (i.e. turbidity below 1 NTUs at all crossings). Turbidity was visually monitored at least weekly at and near the R02 Compensation area; the only HADD crossing that presented possible turbidity issues as a result of the over-winter compensation construction. A plume of turbidity with average values of 10 NTUs subsided in the first week of July as discharge and water levels decreased. Water quality monitoring US and DS of R02 bridge (which is approximately 250m downstream of R02 Compensation Area), did not demonstrate water quality concerns to the receiving environment.

Water samples were collected on July 21, 2009 at all HADD crossings upstream (reference) and downstream of the bridge crossings to monitoring water quality of the bridge structures and related

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erosion. At the same time, water quality monitoring (i.e. pH, temp and conductivity using a calibrated YSI 556 meter) was conducted at all major bridge crossings (See Table 2.2).

### **2.3 AUGUST WATER QUALITY MONITORING**

Similar to June and July, monitoring results in August did not indicate any water quality issues that have a potential to impact nearby receiving environments. Water samples were collected on August 28<sup>th</sup>, 2009 at the R02 bridge crossing and in an adjacent to the R02 downstream compensation berm.

### **2.4 SEPTEMBER WATER QUALITY MONITORING**

No additional follow-up monitoring was completed in September.

## SECTION 3 • AWP PAR WATERCOURSE CROSSINGS

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Water quality sampling was completed together with the water quality monitoring along the AWP PAR. In total, 14 water quality samples were collected and submitted to ALS Laboratories Winnipeg, Man. (a CALA certified laboratory). Sampling locations are illustrated in Figure 1 and included: upstream (US: reference) and immediately downstream (DS) at HADD crossings, in one representative contact pool, and in the vicinity of mine construction activity at crossing R26. All water quality results for the watercourses are presented in Table 3.1

### 3.1 HADD CROSSING SURFACE WATER QUALITY RESULTS

Water samples were collected US and DS on July 21, 2009 at R02, R06, R09, and R15. Samples were analyzed for general parameters (pH, Conductivity, Hardness, Alkalinity, Total Suspended Solids, Total Dissolved Solids and Turbidity), total metals, dissolved metals, anions and nutrients, hydrocarbons and organic carbon. Results are presented in Table 3.1.

Follow-up water quality samples were collected US and DS on August 28, 2009, at R02. Samples were analyzed for general parameters (pH, Conductivity, Hardness, Alkalinity, Total Suspended Solids, Total Dissolved Solids and Turbidity), total metals, anions and nutrients, hydrocarbons and organic carbon. Results are presented in Table 3.1.

Total phosphorus exceeded Canadian Council of Ministers of the Environment (CCME, 2007) Guidelines for the protection of aquatic life at stations R06US and R06DS, R09US and R09DS on July 21, 2009. No other parameters exceeded CCME (2007) guidelines at HADD crossings.

### 3.2 HADD CROSSING DISCUSSION

By comparing upstream (reference water quality) to downstream water quality, the July 21 and Aug 28, 2009 surface water samples did not demonstrate that preceding construction activity, bridge abutments or nearby road activity altered the water quality in 2009. It should be noted that CCME (2007) values are conservative measures for the protection of broad aquatic effects. Thus exceedances do not always signify ecological effects rather a comparison to reference site conditions provides valuable insight into the natural conditions of the site. Although samples collected at R06 and R09 watercourses on July 21 exceeded total phosphorus CCME (2007) guidelines, reference site (upstream) conditions also exceed CCME (2007) guidelines. Furthermore, for R06, the US value is greater than the DS value.

The 2007 and 2008 AWP PAR water quality monitoring results at HADD crossings (AEM, 2008 & 2009a) demonstrated few exceedances of CCME (2007) for total metals. In 2007, CCME (2007) for Al and pH guideline values were slightly exceeded at R09 US and DS. In 2008, CCME (2007) for Cr, Cu and Se guideline values were exceeded at R02US & R02 DS, R09 US & DS, and R15 US & DS. In all cases historical CCME (2007) exceedances demonstrated downstream water quality similar to reference site conditions and results were near to the analytical method detection limit (thus may simply reflect QA/QC sampling issues). Overall, the 2009 data suggests slight improvement from

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historical water quality data with bridge and road activity causing no significant effects on the receiving environment.

### 3.3 ADDITIONAL AWPART CROSSING SAMPLES AND CONTACT POOL SURFACE WATER QUALITY RESULTS

Few representative contact pools were observed along the road in 2009. Water samples were collected on July 21, 2009 at a representative contact pool located at km 71. Analytical results indicate that the water quality exceeded CCME (2007) guidelines for 5 metals (Aluminum, Iron, Chromium, Copper and Lead) and for total phosphorus.

Crossing R26 is an ephemeral stream that collects local seasonal discharge and flows from the north side of the AWPART into Third Portage Lake. Construction activity began on a Saddle-dam (impoundment dike) during the winter of 2009 near R26. Prior to freshet, silt fences were installed. Although, no visual turbidity was observed downstream of the silt fences, water monitoring was conducted on July 21, 2009 US of the crossing nearest to the construction activity, and water samples were collected DS of the crossing immediately on the shore of third portage lake where R26 flows into the receiving water body. None of the parameters exceeded CCME (2007) guidelines at R26.

Lastly, in follow-up to observed turbidity downstream of the R02 Habitat Compensation, surface water quality samples were taken downstream of the last R02 spawning berm inside a small observed plume following a recent rain event. Water quality exceeded CCME (2007) guidelines for silver, but total suspended solids were below detection limits, despite the presence of visible turbidity.

### 3.4 ADDITIONAL CROSSING, R02 HABITAT COMPENSATION TURBIDITY AND CONTACT POOL DISCUSSION

Similar to many pools along the AWPART, the contact pool at KM 71 is a stagnant ephemeral pool and does not drain into nearby watercourses. In comparison to historical data (AEM, 2008 & 2009a), surface water results from water sampled in standing *contact* pools exceeded CCME (2007) guidelines for various total metal parameters. The naturally elevated levels of metals of the standing pools along the entire road may reflect the nature of the rock material (in the case of *contact* pools, such as KM 71 pool) and/or the organic metal content of the tundra. However none of the contact pools are near to and thus do not affect aquatic receiving environments. This is evident from the HADD crossings surface water quality results that do not have elevated total metal levels.

The surface water samples collected at R26 demonstrate that nearby Saddledam construction activity did not cause erosion or sediment inputs into the small stream that drains into Third Portage Lake.

R02 habitat compensation area consists of berms and spawning pads constructed with clean natural stone mined from natural gravel sources and/or separated clean boulder and cobble from Meadowbank mine site (Golder, 2009). The compensation area is located approximately 300m upstream of the bridge crossing. The surface water sample collected downstream of the R02 habitat compensation berm reflects the observed turbidity plumes at R02 due to winter construction activity and the subsequent flushing of fines following rain events. The turbidity plume observed in June re-occurred later in the summer following a rain event. Observationally, the sediment inputs were short-

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lived and localized to the downstream back eddie pool (where the *R02 berm* sample was taken on Aug 28,2009, see appendix A photos). The localization of the plume is evident by comparing the surface water quality results of the *R02 berm* to *R02 DS*, taken approximately 300m downstream of *R02 berm*.

## SECTION 4 • QUARRIES

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### 4.1 OBSERVED DRAINAGE AND WATER POOLING

Following the spring freshet, on July 21, 2009 water samples were collected from quarries where standing water was present. The objective of the water sampling was to re-sample quarries identified in the Geochemical Characterization Study (AEM, 2009b) as having exceeded CCME (2007) and MMER parameters or sample quarries that demonstrated concerns and were not sampled in 2008. These quarries included: Quarry 2, 6, 7, 16 and 20 as either having exceeded TSS guidelines or had low pH; Quarry 6 and 17 had low (near 0) neutralizing potential ratios (NPR); or if in 2008 the quarry was not sampled due to insufficient water pooling. Quarry 4 was sampled as it appears to be influenced by a perched groundwater feature. As well, on August 28, 2009 water samples were collected at all quarries that had sufficient pooling due to recent accumulation of precipitation.

Table 4.1 summarizes the 2009 observations and the sample locations for the follow-up study. The few pools that were present in the quarries were isolated and only a few appear to drain onto the nearby tundra (Quarry 4 and 13).

### 4.2 SURFACE WATER QUALITY RESULTS

Surface water samples were collected at Quarry 4, 7, 13, 14 and 15 on July 21 and Aug 28, 2009 (see Figure 1 for quarry locations). Samples were analyzed for general parameters (pH, Conductivity, Hardness, Alkalinity, Total Suspended Solids, Total Dissolved Solids and Turbidity), total metals, dissolved metals (for July 21 samples), anions and nutrients, hydrocarbons and organic carbon. Analytical results are presented in Table 4.2.

All of the quarries sampled exceeded CCME (2007) limits for Aluminum, Copper, and Lead. Quarries 4 and 14 exceed limits for Iron and Chromium. Quarry 7 exceeded CCME (2007) limits for pH, Cadmium, Nickel, and Zinc. Quarry 4 and 7 exceeded Total Phosphorus limits (CCME, 2007). Quarry 4 exceeded limits for Silver and Quarry 15 exceeded Selenium limits (CCME, 2007).

### 4.3 DISCUSSION

To ensure the quality of the follow-up study, the quarry surface water samples were collected on July 21, 2009 by qualified technicians. At this time, a standing pool of sufficient size was present at Quarry 7; no other pools were present in quarries identified in AEM (2009b) (See table 4.1). In 2009, AEM did not actively discharge water from the quarries along the AWPAP.

Similar to 2008 quarry surface water sample results (AEM, 2009b), Q7 had low pH and exceeded CCME (2007) guidelines for various total metals. Other 2009 surface water quality results sampled at quarries 13, 14 and 15 demonstrated similar elevated metal results. It should be noted that pools in Quarry 14 and 15 are stagnant isolated standing water pools. The pools in Quarry 4 and 13 are remote and during peak rain-fall or following freshet, drain onto the nearby tundra. Due to the quarries isolation from watercourses or waterbodies, there is no evidence that there is a pathway to

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the receiving environment and thus, there are no anticipated effects to the aquatic receiving environment.

## SECTION 5 • QUALITY ASSURANCE AND QUALITY CONTROL

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### 5.1 OBJECTIVES

The objective of quality assurance and quality control (QA/QC) for water quality monitoring is to ensure that the chemical and field data collected are representative of the material sampled. Data quality is assured throughout the collection and analysis of samples using standard procedures, certified laboratories and by staffing with trained technicians (AEM, 2008).

Field QA/QC duplicate results were assessed using the relative percent difference (RPD) between measurements: The equation used to calculate a RPD is:

$$RPD = [(A-B)/((A+B)/2)] \times 100$$

For the purposes of QA/QC screening a RPD of 50% for concentrations that exceed 10x the MDL is considered unacceptable. RPD values may be either positive or negative and ideally should provide a mix of the two, with values clustered around zero. Biases may be evident if there are consistently positive or negative values. Large variations in RPD values will often occur when duplicate sample concentrations are low and near the analytical detection limit. As an example, if the concentration of an analyte is 0.0005 and 0.0007 mg/L, there is a very small difference between these values, yet the RPD value is 33.3%; consideration for RPD outputs such as this example are important to judge.

As outlined in AEM (2008), for mine operations, 1 field duplicate was submitted for QA/QC analysis to assess sampling variability and sample homogeneity.

### 5.2 RESULTS AND DISCUSSION

All laboratory analysis were completed by ALS Laboratories: Winnipeg, Man which is an accredited laboratory by the Canadian Association for Laboratories Accreditation (CALA) Inc.. The results met laboratory QA/QC internal data quality objectives for precision and completeness.

One field duplicate water sample was collected from a random station during the July 21, 2009 sampling event. The field QA/QC results are summarized in Table 5.2. The results of this evaluation indicate a high consistency between the original field sample and the field duplicate sample. In three cases the samples exceeded the RPD of 50%. However, the concentrations measured were lower than 10 times the MDL, thus all samples meet the QA/QC objectives.

## SECTION 6 • CONCLUSIONS AND RECOMMENDATIONS

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As in the past, the 2009 AWPARG water quality management consisted of routine and event inspections at all of the crossings pre-freshet and post-freshet for potential or current erosional issues at all stream crossings, completed regular water quality monitoring at all major crossings from July until September, and surface water sample collection at HADD crossings, representative watercourses and quarries as a follow-up from AEM (2009b).

The monitoring results did not indicate erosional issues or inputs due to preceding or current bridge construction or road activity. Due to winter construction of the R02 habitat compensation area, localized turbidity plumes were observed following rain events immediately downstream of the compensation structures in June, July and August. Follow-up turbidity monitoring and surface water quality sampling confirmed the plumes isolation, as surface water quality sample results approximately 300m downstream of the construction activity and immediately downstream of the bridge crossing were similar to reference (R02US) conditions.

HADD crossings R02, R06, R09 and R15 water quality results suggest a slight improvement from historical water quality data with bridge and road activity causing no significant effects on the receiving environment. Additional AWPARG surface water quality results did not present concerns to the receiving environment. Overall, the results show low risks to aquatic life.

The 2008 Geochemical Characterization of the AWPARG Quarries required follow-up re-sampling in quarries that presented a concern due to low neutralizing potential, low pH or elevated TSS: priority during the July sampling was placed on Quarries 2, 6, 7 and 16. In July, only Quarry 7 had sufficient pooling to warrant surface water sampling. The fact that the quarries identified in AEM (2009b) of concern did not contain pooling in July confirms low risks to aquatic life. As was documented in the 2008 report, the follow-up surface water sampling program did not provide evidence of any significant acid generation or metal leaching issues associated with the road quarries sampled in 2009.

It is recommended that water quality management along the AWPARG continue in 2010 in-line with sampling in 2009. Priority should be placed on visual identification and turbidity monitoring to evaluate road related inputs. Unless turbidity issues are observed, surface water quality sampling is not deemed necessary at non-HADD crossings or contact pools. Water quality at HADD crossings should be evaluated as early into the open water season as possible, when erosional issues are most likely to occur.

It is also recommended that quarry surface water sampling take place in late June 2010 rather than in July to check the status on the quality of the snowmelt and precipitation runoff in quarries identified in AEM (2009b).

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**SECTION 7 • REFERENCES**

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**TABLES**

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**Table 2.1: 2009 AWR Turbidity and Erosion Inspections Summary**

| <u>Date</u> | <u>Monitoring</u> | <u>Visual Turbidity Observed?</u> | <u>Where?</u>                                                   | <u>Comment</u>                                                             | <u>Data Collected</u> | <u>Field Crew</u> |
|-------------|-------------------|-----------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------|-------------------|
| 1-Jun-09    | Routine           | No                                | Km-0 to MBK                                                     | All crossings were snow covered                                            | N                     | RV, PM            |
| 18-Jun-09   | Routine           | No                                | Km-0 to MBK                                                     | No visual turbidity                                                        | N                     | TM, MD, PM        |
| 19-Jun-09   | Event             | No                                | Km- 0 to MBK                                                    |                                                                            | N                     | TM, TT, PM        |
| 23-Jun-09   | Event             | No                                | Km- 0 to MBK                                                    |                                                                            | N                     | TM, TT, PM        |
| 24-Jun-09   | Event             | Yes                               | R02 compensation                                                | Turbidity observed DS of berms and in pool area DS of Habitat Compensation | Y                     | RV, TT            |
| 25-Jun-09   | Event             | Yes                               | R02 Compensation and Downstream of bridge from R02 Compensation |                                                                            | Y                     | RV, TT, MD        |
| 28-Jun-09   | Routine           | Yes                               | Km 30, 36 US and DS                                             | Small localized plume                                                      | Y                     | RV, TT, TM        |
| July 3-09   | Routine           | No                                | Km- 0 to MBK                                                    |                                                                            | N                     | TT, TM            |
| 17-Jul-09   | Routine           | No                                | Km- 0 to MBK                                                    |                                                                            | N                     | TT, TM            |
| 21-Jul-09   | Routine           | No                                | Km- 0 to MBK                                                    |                                                                            | N                     | RV, TT, TM        |
| 31-Jul-09   | Routine           | No                                | Km- 0 to MBK                                                    |                                                                            | N                     | TT, TM            |
| 7-Aug-09    | Routine           | No                                | Km- 0 to MBK                                                    |                                                                            | N                     | TT, TM            |
| 28-Aug-09   | Event             | Yes                               | Km- 0 to MBK                                                    | Turbidity observed DS of berms and in pool area DS of Habitat Compensation | Y                     | TT                |

\*Follow-up turbidity monitoring completed at R02 throughout July and August

**Table 2.2: AWPAP Field Water Monitoring Data Summary 2009**

| <i>Date</i> | <i>ID Location</i> | <i>Temp</i>  | <i>pH</i> | <i>Conductivity</i> | <i>Turbidity/NTU</i> | <i>Comments</i>                                                        |
|-------------|--------------------|--------------|-----------|---------------------|----------------------|------------------------------------------------------------------------|
|             |                    | <i>deg C</i> |           | <i>us/cm</i>        | <i>NTU</i>           |                                                                        |
| June 28/09  | R02 US             | 4.06         | 8.51      | -                   | 0.37                 | Conductivity meter not calibrated - no readings recorded on June 28/09 |
|             | R02 DS             | 3.92         | 8.15      | -                   | 0.59                 |                                                                        |
|             | R02 Cul US         | 4.38         | 8.14      | -                   | 3.66                 |                                                                        |
|             | R02 Cul DS         | 4.55         | 7.92      | -                   | 5.48                 |                                                                        |
|             | R05A US            | 4.73         | 8.11      | -                   | 0.35                 |                                                                        |
|             | R05A DS            | 4.98         | 7.91      | -                   | 0.46                 |                                                                        |
|             | R05 US             | 4.95         | 7.93      | -                   | 0.48                 |                                                                        |
|             | R05 DS             | 5.1          | 7.93      | -                   | 0.68                 |                                                                        |
|             | R06 US             | 4            | 8.09      | -                   | 0.7                  |                                                                        |
|             | R06 DS             | 4            | 7.92      | -                   | 0.96                 |                                                                        |
|             | R09 US             | 5.27         | 7.92      | -                   | 0.36                 |                                                                        |
|             | R09 DS             | 5.25         | 8.05      | -                   | 0.29                 |                                                                        |
|             | R13 US             | 9.48         | 7.85      | -                   | 0.26                 |                                                                        |
|             | R13 DS             | 9.45         | 7.94      | -                   | 0.29                 |                                                                        |
|             | R14 Cul US         | 4.98         | 7.67      | -                   | 0.27                 |                                                                        |
|             | R14 Cul DS         | 5.01         | 8.1       | -                   | 1.97                 |                                                                        |
|             | R15 US             | 5.64         | 7.84      | -                   | 0.67                 |                                                                        |
|             | R15 DS             | 5.66         | 7.83      | -                   | 0.11                 |                                                                        |
|             | R16 US             | 9.02         | 7.68      | -                   | 0.6                  |                                                                        |
|             | R16 DS             | 8.61         | 7.81      | -                   | 3.7                  |                                                                        |
|             | R18 DS             | 6:37         | 7.91      | -                   | 0.66                 |                                                                        |
|             | R19 US             | 6.09         | 7.6       | -                   | 0.9                  |                                                                        |
|             | R19 DS             | 6.13         | 8.01      | -                   | 0.9                  |                                                                        |
|             | R23 Cul US         | -            | -         | -                   | -                    | Standing Water                                                         |
|             | R23 Cul DS         | 8.1          | 7.96      | -                   | 1.41                 | (Run Off) Below Road Surface                                           |
|             | R25 US             | 7.25         | 7.71      | -                   | 1.45                 | Nearly Standing Water                                                  |
|             | R25 DS             | 6.19         | 7.38      | -                   | 0.9                  |                                                                        |
|             |                    |              |           |                     |                      |                                                                        |
| July 21/09  | R02 DS             | 11.6         | 7.05      | 32                  | 0.36                 |                                                                        |
|             | R02 US             | 11.3         | 7.07      | 32                  | 0.29                 |                                                                        |
|             | R06 DS             | 9.8          | 7.35      | 28                  | 0.37                 |                                                                        |
|             | R06 US             | 10           | 7.23      | 29                  | 0.52                 |                                                                        |
|             | R09 DS             | 13.45        | 5.74      | 44                  | 0.06                 |                                                                        |
|             | R09 US             | 13.7         | 6         | 39                  | 0.27                 |                                                                        |
|             | R15 DS             | 12.5         | 6.89      | 13                  | 0.45                 |                                                                        |
|             | R15 US             | 12.7         | 6.71      | 13                  | 0.42                 |                                                                        |
|             | R26 TPL            | 8.25         | 7.54      | 11                  | 0.29                 | TPL Shore (small diffuse stream)                                       |
|             |                    |              |           |                     |                      |                                                                        |
| Aug 28/09   | R02 US             | 11.63        | 7.65      | 32                  | 0.27                 |                                                                        |
|             | R02 DS             | 12           | 7.53      | 32                  | 0.32                 |                                                                        |
|             | R02 Berm           | 12.24        | 7.45      | 32                  | 0.3                  |                                                                        |

Table 3.1: 2009 AWPAP Water Quality Data

|                                     | CCME (2007)<br>Guideline                                                                  | 1 | R02 US        |            |              | R02 DS     |              | R02 Berm     |
|-------------------------------------|-------------------------------------------------------------------------------------------|---|---------------|------------|--------------|------------|--------------|--------------|
|                                     |                                                                                           |   | HADD Crossing |            |              |            |              |              |
|                                     |                                                                                           |   | MDL           | July 21/09 | August 28/09 | July 21/09 | August 28/09 | August 28/09 |
| GENERAL PARAMETERS                  |                                                                                           |   |               |            |              |            |              |              |
| pH (pH units)                       | 6.5 - 9.0                                                                                 |   | 0.1           | 7.36       | 7.36         | 7.40       | 7.42         | 7.45         |
| Conductivity (umhos/com)            | NG                                                                                        |   | 0.4           | 40.2       | 42.6         | 38.7       | 41.5         | 41.3         |
| Dis.Hardness (as CaCO3) (mg/L)      | NG                                                                                        |   | 0.2           | 13.0       | 15.4         | 14.1       | 15.1         | 14.3         |
| Tot.Hardness (as CaCO3) (mg/L)      | NG                                                                                        |   | 0.3           | 14.1       |              | 12.7       |              |              |
| Alkalinity, Total (as CaCO3) (mg/L) | NG                                                                                        |   | 1             | 13.3       |              | 12.8       |              |              |
| Total Suspended Solids (mg/L)       | NG                                                                                        |   | 2             | <2.0       | <2.0         | <2.0       | <2.0         | <2.0         |
| Total Dissolved Solids (mg/L)       | NG                                                                                        |   | 5             | 22.0       |              | 20.0       |              |              |
| Turbidity (NTU)                     | NG                                                                                        |   | 0.05          | 0.90       |              | 0.25       |              |              |
| TOTAL METALS (mg/L)                 |                                                                                           |   |               |            |              |            |              |              |
| Aluminum (Al)                       | 0.1 @ pH>6.5<br>0.005 @ pH<6.5                                                            |   | 0.005         | 0.0124     | 0.0153       | 0.0130     | 0.0124       | 0.0170       |
| Cadmium (Cd)                        | 0.00017                                                                                   | 2 | 0.00001       | <0.000010  | <0.000010    | <0.000010  | <0.000010    | <0.000010    |
| Iron (Fe)                           | 0.3                                                                                       |   | 0.02          | 0.022      | 0.035        | <0.020     | 0.024        | 0.025        |
| Mercury (Hg)                        | 0.000026                                                                                  |   | 0.0001        | <0.00010   | <0.00010     | <0.00010   | <0.00010     | <0.00010     |
| Arsenic (As)                        | 0.005                                                                                     |   | 0.0005        | <0.00050   | <0.00050     | <0.00050   | <0.00050     | <0.00050     |
| Boron (B)                           | NG                                                                                        |   | 0.03          | <0.030     | <0.030       | <0.030     | <0.030       | <0.030       |
| Barium (Ba)                         | NG                                                                                        |   | 0.0003        | 0.0104     | 0.0117       | 0.0106     | 0.0113       | 0.0110       |
| Beryllium (Be)                      | NG                                                                                        |   | 0.001         | <0.0010    | <0.0010      | <0.0010    | <0.0010      | <0.0010      |
| Bismuth (Bi)                        | NG                                                                                        |   | 0.0002        | <0.00020   | <0.00020     | <0.00020   | <0.00020     | <0.00020     |
| Calcium (Ca)                        | NG                                                                                        |   | 0.1           | 4.31       | 4.73         | 4.35       | 4.64         | 4.37         |
| Cobalt (Co)                         | NG                                                                                        |   | 0.0002        | 0.00028    | <0.00020     | 0.00025    | <0.00020     | <0.00020     |
| Chromium (Cr)                       | 0.001                                                                                     | 3 | 0.001         | <0.0010    | <0.0010      | <0.0010    | <0.0010      | <0.0010      |
| Cesium (Cs)                         | NG                                                                                        |   | 0.0001        | <0.00010   | <0.00010     | <0.00010   | <0.00010     | <0.00010     |
| Copper (Cu)                         | 0.002 @ hardness<120 mg/L<br>0.003 @ hardness 120-180 mg/L                                |   | 0.001         | <0.0010    | <0.0010      | <0.0010    | <0.0010      | <0.0010      |
| Potassium (K)                       | NG                                                                                        |   | 0.1           | 0.49       | 0.55         | 0.49       | 0.55         | 0.51         |
| Magnesium (Mg)                      | NG                                                                                        |   | 0.01          | 0.816      | 0.881        | 0.791      | 0.863        | 0.817        |
| Manganese (Mn)                      | NG                                                                                        |   | 0.0003        | 0.00195    | 0.00307      | 0.00160    | 0.00305      | 0.00323      |
| Molybdenum (Mo)                     | 0.073                                                                                     |   | 0.0002        | <0.00020   | <0.00020     | <0.00020   | <0.00020     | <0.00020     |
| Sodium (Na)                         | NG                                                                                        |   | 0.03          | 2.10       | 2.15         | 2.00       | 2.17         | 2.07         |
| Nickel (Ni)                         | 0.025 @ hardness<60 mg/L<br>0.065 @ hardness 60-120 mg/L<br>0.11 @ hardness 120-180 mg/L  |   | 0.002         | <0.0020    | <0.0020      | <0.0020    | <0.0020      | <0.0020      |
| Phosphorus (P)                      | NG                                                                                        |   | 0.05          | 0.061      | <0.050       | 0.059      | <0.050       | <0.050       |
| Lead (Pb)                           | 0.001 @ hardness<60 mg/L<br>0.002 @ hardness 60-120 mg/L<br>0.004 @ hardness 120-180 mg/L |   | 0.0005        | <0.00050   | <0.00050     | <0.00050   | <0.00050     | <0.00050     |
| Rubidium (Rb)                       | NG                                                                                        |   | 0.0002        | 0.00048    | 0.00058      | 0.00047    | 0.00057      | 0.00057      |
| Antimony (Sb)                       | NG                                                                                        |   | 0.0005        | <0.00050   | <0.00050     | <0.00050   | <0.00050     | 0.00054      |
| Selenium (Se)                       | 0.001                                                                                     |   | 0.001         | <0.0010    | <0.0010      | <0.0010    | <0.0010      | <0.0010      |
| Tin (Sn)                            | NG                                                                                        |   | 0.0006        | <0.00060   | 0.00072      | <0.00060   | <0.00060     | <0.00060     |
| Strontium (Sr)                      | NG                                                                                        |   | 0.0001        | 0.0182     | 0.0222       | 0.0176     | 0.0222       | 0.0215       |
| Tellurium (Te)                      | NG                                                                                        |   | 0.001         | <0.0010    | <0.0010      | <0.0010    | <0.0010      | <0.0010      |
| Titanium (Ti)                       | NG                                                                                        |   | 0.0009        | <0.00090   | <0.00090     | <0.00090   | <0.00090     | <0.00090     |
| Thallium (Tl)                       | 0.0008                                                                                    |   | 0.0001        | <0.00010   | <0.00010     | <0.00010   | <0.00010     | <0.00010     |
| Uranium (U)                         | NG                                                                                        |   | 0.0001        | <0.00010   | <0.00010     | <0.00010   | <0.00010     | <0.00010     |
| Vanadium (V)                        | NG                                                                                        |   | 0.001         | <0.0010    | <0.0010      | <0.0010    | <0.0010      | <0.0010      |
| Tungsten (W)                        | NG                                                                                        |   | 0.0002        | <0.00020   | <0.00020     | <0.00020   | <0.00020     | 0.00030      |
| Zinc (Zn)                           | 0.03                                                                                      |   | 0.01          | <0.010     | <0.010       | <0.010     | <0.010       | <0.010       |
| Zirconium (Zr)                      | NG                                                                                        |   | 0.0004        | <0.00040   | <0.00040     | <0.00040   | <0.00040     | <0.00040     |
| Silver (Ag)                         | 0.0001                                                                                    |   | 0.0001        | <0.00010   | <0.00010     | <0.00010   | <0.00010     | 0.00392      |

Table 3.1: 2009 AWPAP Water Quality Data

|                               | CCME (2007)<br>Guideline | R02 US        |            |              | R02 DS     |              | R02 Berm     |
|-------------------------------|--------------------------|---------------|------------|--------------|------------|--------------|--------------|
|                               |                          | HADD Crossing |            |              |            |              |              |
|                               |                          | MDL           | July 21/09 | August 28/09 | July 21/09 | August 28/09 | August 28/09 |
| ANIONS & NUTRIENTS (mg/L)     |                          |               |            |              |            |              |              |
| Ammonia (NH3) - Soluble       | See fact sheet           | 0.003         | <0.0030    | <0.0030      | <0.0030    | <0.0030      | <0.0030      |
| Chloride (Cl) - Soluble       | NG                       | 0.2           | 2.15       | -            | 2.19       | -            | -            |
| Nitrate (NO3) - Soluble       | NG                       | 0.01          | 461        | -            | 458        | -            | -            |
| Nitrate+Nitrite-N - Soluble   | 290000                   | 0.005         | 461        | -            | 458        | -            | -            |
| Nitrite-N Soluble             | NG                       | 0.01          | <0.010     | -            | <0.010     | -            | -            |
| Bicarbonate (HCO3)            | NG                       | 2             | 16.2       | -            | 15.6       | -            | -            |
| Carbonate (CO3)               | NG                       | 0.6           | <0.60      | -            | <0.60      | -            | -            |
| Hydroxide (OH)                | NG                       | 0.4           | <0.40      | -            | <0.40      | -            | -            |
| Fluoride (F) - Soluble        | NG                       | 0.1           | 0.15       | -            | 0.19       | -            | -            |
| Ortho Phosphorus Soluble As P | NG                       | 0.001         | <0.0010    | -            | <0.0010    | -            | -            |
| Phosphorus, Total             | 0.004                    | 0.001         | 0.0053     | -            | 0.0116     | -            | -            |
| Silica Reactive Soluble       | NG                       | 0.1           | 0.32       | -            | 0.33       | -            | -            |
| Sulphate (SO4) - Soluble      | NG                       | 2             | 3.6        | 3.7          | 4.8        | 3.0          | 3.5          |
| Total Kjeldahl Nitrogen       | NG                       | 0.2           | <0.20      | <0.20        | <0.20      | 0.23         | 0.30         |
| HYDROCARBONS (mg/L)           |                          |               |            |              |            |              |              |
| Total Oil and Grease          | NG                       | 1             | <1.0       | -            | <1.0       | -            | -            |
| ORGANICS (mg/L)               |                          |               |            |              |            |              |              |
| Total Organic Carbon          | NG                       | 1             | 2.8        | <1.0         | 5.2        | 2.0          | 2.6          |
| Dissolved Organic Carbon      | NG                       | 1             | 2.6        | -            | 4.2        | -            | -            |
| DISSOLVED METALS (mg/L)       |                          |               |            |              |            |              |              |
| Aluminum (Al)                 | -                        | 0.002         | 0.0028     | -            | 0.0029     | -            | -            |
| Cadmium (Cd)                  | -                        | 0.00001       | 0.000027   | -            | <0.000010  | -            | -            |
| Iron (Fe)                     | -                        | 0.002         | 0.0069     | -            | 0.0040     | -            | -            |
| Mercury (Hg)                  | -                        | 0.00005       | <0.000050  | -            | <0.000050  | -            | -            |
| Arsenic (As)                  | -                        | 0.0005        | <0.00050   | -            | <0.00050   | -            | -            |
| Boron (B)                     | -                        | 0.02          | <0.020     | -            | <0.020     | -            | -            |
| Barium (Ba)                   | -                        | 0.0003        | 0.0105     | -            | 0.0101     | -            | -            |
| Beryllium (Be)                | -                        | 0.001         | <0.0010    | -            | <0.0010    | -            | -            |
| Bismuth (Bi)                  | -                        | 0.0003        | <0.00030   | -            | <0.00030   | -            | -            |
| Calcium (Ca)                  | -                        | 0.05          | 3.98       | -            | 3.88       | -            | -            |
| Cobalt (Co)                   | -                        | 0.0002        | <0.00020   | -            | <0.00020   | -            | -            |
| Chromium (Cr)                 | -                        | 0.001         | <0.0010    | -            | <0.0010    | -            | -            |
| Cesium (Cs)                   | -                        | 0.0001        | <0.00010   | -            | <0.00010   | -            | -            |
| Copper (Cu)                   | -                        | 0.0004        | 0.00063    | -            | 0.00060    | -            | -            |
| Potassium (K)                 | -                        | 0.05          | 0.456      | -            | 0.447      | -            | -            |
| Magnesium (Mg)                | -                        | 0.01          | 0.740      | -            | 0.723      | -            | -            |
| Manganese (Mn)                | -                        | 0.0002        | 0.00052    | -            | 0.00033    | -            | -            |
| Molybdenum (Mo)               | -                        | 0.0001        | <0.00010   | -            | <0.00010   | -            | -            |
| Sodium (Na)                   | -                        | 0.02          | 1.74       | -            | 1.74       | -            | -            |
| Nickel (Ni)                   | -                        | 0.0002        | 0.00023    | -            | <0.00020   | -            | -            |
| Phosphorus (P)                | -                        | 0.02          | <0.020     | -            | <0.020     | -            | -            |
| Lead (Pb)                     | -                        | 0.0001        | <0.00010   | -            | <0.00010   | -            | -            |
| Rubidium (Rb)                 | -                        | 0.0002        | 0.00049    | -            | 0.00045    | -            | -            |
| Antimony (Sb)                 | -                        | 0.001         | <0.0010    | -            | <0.0010    | -            | -            |
| Selenium (Se)                 | -                        | 0.001         | <0.0010    | -            | <0.0010    | -            | -            |
| Silicon (Si)                  | -                        | 0.2           | <0.20      | -            | <0.20      | -            | -            |
| Tin (Sn)                      | -                        | 0.0003        | <0.00030   | -            | <0.00030   | -            | -            |
| Strontium (Sr)                | -                        | 0.0001        | 0.0191     | -            | 0.0187     | -            | -            |
| Tellurium (Te)                | -                        | 0.0005        | <0.00050   | -            | <0.00050   | -            | -            |
| Titanium (Ti)                 | -                        | 0.0005        | <0.00050   | -            | <0.00050   | -            | -            |
| Thallium (Tl)                 | -                        | 0.0001        | <0.00010   | -            | <0.00010   | -            | -            |
| Uranium (U)                   | -                        | 0.0001        | <0.00010   | -            | <0.00010   | -            | -            |
| Vanadium (V)                  | -                        | 0.001         | <0.0010    | -            | <0.0010    | -            | -            |
| Tungsten (W)                  | -                        | 0.0002        | <0.00020   | -            | <0.00020   | -            | -            |
| Zinc (Zn)                     | -                        | 0.005         | <0.0050    | -            | <0.0050    | -            | -            |
| Zirconium (Zr)                | -                        | 0.0004        | <0.00040   | -            | <0.00040   | -            | -            |
| Silver (Ag)                   | -                        | 0.0001        | <0.00010   | -            | <0.00010   | -            | -            |

**Notes:**

NG = no guideline

<sup>1</sup> Canadian Water Quality Guidelines for the Protection of Aquatic Life, CCME, Update 7.0, September 2007.<sup>2</sup> Cadmium guideline calculated using measured hardness concentration per sample.<sup>3</sup> Chromium guideline is for Cr VI, which yields the most conservative guideline.<sup>4</sup> Trigger Range for Total Phosphorus (see guidance Framework for Phosphorus factsheet): ultra-oligotrophic <4 ug/L

Highlighted concentrations exceed the CCME guideline.

Table 3.1: 2009 AWPAP Water Quality Data

|                                                  | CCME (2007)<br>Guideline                                                                  | R06 US<br>HADD Crossing<br>July 21/09 | R06 DS<br>July 21/09 | R09US<br>HADD Crossing<br>July 21/09 | R09 DS<br>July 21/09 | R15 US<br>HADD Crossing<br>July 21/09 | R15 DS<br>July 21/09 | KM 71<br>Contact pool<br>July 21/09 |
|--------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------|----------------------|--------------------------------------|----------------------|---------------------------------------|----------------------|-------------------------------------|
| <b>GENERAL PARAMETERS</b>                        |                                                                                           |                                       |                      |                                      |                      |                                       |                      |                                     |
| pH (pH units)                                    | 6.5 - 9.0                                                                                 | 7.33                                  | 7.31                 | 7.49                                 | 7.53                 | 6.95                                  | 6.96                 | 7.32                                |
| Conductivity (umhos/cm)                          | NG                                                                                        | 39.1                                  | 37.5                 | 48.1                                 | 50.8                 | 16.9                                  | 16.7                 | 55.5                                |
| Dis.Hardness (as CaCO <sub>3</sub> ) (mg/L)      | NG                                                                                        | 13.8                                  | 11.6                 | 21.7                                 | 22.1                 | 5.14                                  | 4.98                 | 20.9                                |
| Tot.Hardness (as CaCO <sub>3</sub> ) (mg/L)      | NG                                                                                        | 12.4                                  | 12.8                 | 19.2                                 | 19.6                 | 5.17                                  | 5.01                 | 23.5                                |
| Alkalinity, Total (as CaCO <sub>3</sub> ) (mg/L) | NG                                                                                        | 11.7                                  | 10.8                 | 19.2                                 | 19.9                 | 11.6                                  | 6.0                  | 25.2                                |
| Total Suspended Solids (mg/L)                    | NG                                                                                        | <2.0                                  | <2.0                 | <2.0                                 | <2.0                 | <2.0                                  | <2.0                 | 8.3                                 |
| Total Dissolved Solids (mg/L)                    | NG                                                                                        | 24.0                                  | 16.0                 | 20.0                                 | 20.0                 | <5.0                                  | <5.0                 | 64.0                                |
| Turbidity (NTU)                                  | NG                                                                                        | 0.50                                  | 1.10                 | 0.95                                 | 0.25                 | 0.30                                  | 0.50                 | 8.90                                |
| <b>TOTAL METALS (mg/L)</b>                       |                                                                                           |                                       |                      |                                      |                      |                                       |                      |                                     |
| Aluminum (Al)                                    | 0.1 @ pH>6.5<br>0.005 @ pH<6.5                                                            | 0.0356                                | 0.0188               | 0.0123                               | 0.0174               | 0.0282                                | 0.0274               | 0.334                               |
| Cadmium (Cd)                                     | 0.00017                                                                                   | <0.000010                             | <0.000010            | <0.000010                            | <0.000010            | <0.000010                             | <0.000010            | 0.000051                            |
| Iron (Fe)                                        | 0.3                                                                                       | 0.044                                 | <0.020               | 0.047                                | 0.051                | 0.021                                 | 0.022                | 4.94                                |
| Mercury (Hg)                                     | 0.000026                                                                                  | <0.00010                              | <0.00010             | <0.00010                             | <0.00010             | <0.00010                              | <0.00010             | <0.00010                            |
| Arsenic (As)                                     | 0.005                                                                                     | <0.00050                              | <0.00050             | <0.00050                             | <0.00050             | <0.00050                              | <0.00050             | 0.00080                             |
| Boron (B)                                        | NG                                                                                        | <0.030                                | <0.030               | <0.030                               | <0.030               | <0.030                                | <0.030               | <0.030                              |
| Barium (Ba)                                      | NG                                                                                        | 0.00329                               | 0.00316              | 0.00326                              | 0.00376              | 0.00281                               | 0.00272              | 0.0187                              |
| Beryllium (Be)                                   | NG                                                                                        | <0.0010                               | <0.0010              | <0.0010                              | <0.0010              | <0.0010                               | <0.0010              | <0.0010                             |
| Bismuth (Bi)                                     | NG                                                                                        | <0.00020                              | <0.00020             | <0.00020                             | <0.00020             | <0.00020                              | <0.00020             | <0.00020                            |
| Calcium (Ca)                                     | NG                                                                                        | 3.84                                  | 3.56                 | 5.98                                 | 6.11                 | 1.02                                  | 0.99                 | 5.62                                |
| Cobalt (Co)                                      | NG                                                                                        | 0.00026                               | 0.00024              | 0.00029                              | 0.00028              | 0.00026                               | 0.00026              | 0.00305                             |
| Chromium (Cr)                                    | 0.001                                                                                     | <0.0010                               | <0.0010              | <0.0010                              | <0.0010              | <0.0010                               | <0.0010              | 0.0011                              |
| Cesium (Cs)                                      | NG                                                                                        | <0.00010                              | <0.00010             | <0.00010                             | <0.00010             | <0.00010                              | <0.00010             | <0.00010                            |
| Copper (Cu)                                      | 0.002 @ hardness<120 mg/L<br>0.003 @ hardness 120-180 mg/L                                | 0.0012                                | 0.0010               | 0.0012                               | 0.0016               | 0.0011                                | 0.0012               | 0.0081                              |
| Potassium (K)                                    | NG                                                                                        | 0.43                                  | 0.44                 | 0.34                                 | 0.35                 | 0.48                                  | 0.46                 | 1.56                                |
| Magnesium (Mg)                                   | NG                                                                                        | 1.01                                  | 0.955                | 1.65                                 | 1.66                 | 0.633                                 | 0.612                | 2.30                                |
| Manganese (Mn)                                   | NG                                                                                        | 0.00174                               | 0.00140              | 0.00347                              | 0.00369              | 0.00103                               | 0.00096              | 0.244                               |
| Molybdenum (Mo)                                  | 0.073                                                                                     | <0.00020                              | <0.00020             | <0.00020                             | <0.00020             | <0.00020                              | <0.00020             | 0.00047                             |
| Sodium (Na)                                      | NG                                                                                        | 2.06                                  | 2.07                 | 1.48                                 | 1.51                 | 0.982                                 | 0.947                | 2.49                                |
| Nickel (Ni)                                      | 0.025 @ hardness<60 mg/L<br>0.065 @ hardness 60-120 mg/L<br>0.11 @ hardness 120-180 mg/L  | <0.0020                               | <0.0020              | <0.0020                              | <0.0020              | <0.0020                               | <0.0020              | 0.0043                              |
| Phosphorus (P)                                   | NG                                                                                        | 0.057                                 | 0.054                | 0.060                                | 0.060                | 0.062                                 | 0.059                | 0.116                               |
| Lead (Pb)                                        | 0.001 @ hardness<60 mg/L<br>0.002 @ hardness 60-120 mg/L<br>0.004 @ hardness 120-180 mg/L | <0.00050                              | <0.00050             | <0.00050                             | <0.00050             | <0.00050                              | <0.00050             | 0.00173                             |
| Rubidium (Rb)                                    | NG                                                                                        | 0.00037                               | 0.00038              | 0.00037                              | 0.00038              | 0.00066                               | 0.00066              | 0.00231                             |
| Antimony (Sb)                                    | NG                                                                                        | <0.00050                              | <0.00050             | <0.00050                             | <0.00050             | <0.00050                              | <0.00050             | <0.00050                            |
| Selenium (Se)                                    | 0.001                                                                                     | <0.0010                               | <0.0010              | <0.0010                              | <0.0010              | <0.0010                               | <0.0010              | <0.0010                             |
| Tin (Sn)                                         | NG                                                                                        | <0.00060                              | <0.00060             | <0.00060                             | <0.00060             | <0.00060                              | <0.00060             | <0.00060                            |
| Strontium (Sr)                                   | NG                                                                                        | 0.0133                                | 0.0127               | 0.0259                               | 0.0267               | 0.00649                               | 0.00623              | 0.0339                              |
| Tellurium (Te)                                   | NG                                                                                        | <0.0010                               | <0.0010              | <0.0010                              | <0.0010              | <0.0010                               | <0.0010              | <0.0010                             |
| Titanium (Ti)                                    | NG                                                                                        | 0.00096                               | <0.00090             | <0.00090                             | <0.00090             | <0.00090                              | <0.00090             | 0.0103                              |
| Thallium (Tl)                                    | 0.0008                                                                                    | <0.00010                              | <0.00010             | <0.00010                             | <0.00010             | <0.00010                              | <0.00010             | <0.00010                            |
| Uranium (U)                                      | NG                                                                                        | <0.00010                              | <0.00010             | <0.00010                             | <0.00010             | <0.00010                              | <0.00010             | 0.00075                             |
| Vanadium (V)                                     | NG                                                                                        | <0.0010                               | <0.0010              | <0.0010                              | <0.0010              | <0.0010                               | <0.0010              | <0.0010                             |
| Tungsten (W)                                     | NG                                                                                        | <0.00020                              | <0.00020             | <0.00020                             | <0.00020             | <0.00020                              | <0.00020             | <0.00020                            |
| Zinc (Zn)                                        | 0.03                                                                                      | <0.010                                | <0.010               | <0.010                               | <0.010               | <0.010                                | <0.010               | <0.010                              |
| Zirconium (Zr)                                   | NG                                                                                        | <0.00040                              | <0.00040             | <0.00040                             | <0.00040             | <0.00040                              | <0.00040             | 0.00123                             |
| Silver (Ag)                                      | 0.0001                                                                                    | <0.00010                              | <0.00010             | <0.00010                             | <0.00010             | <0.00010                              | <0.00010             | <0.00010                            |

Table 3.1: 2009 AWPAP Water Quality Data

|                                      | CCME (2007)<br>Guideline | R06 US<br>HADD Crossing<br>July 21/09 | R06 DS<br>HADD Crossing<br>July 21/09 | R09US<br>HADD Crossing<br>July 21/09 | R09 DS<br>HADD Crossing<br>July 21/09 | R15 US<br>HADD Crossing<br>July 21/09 | R15 DS<br>HADD Crossing<br>July 21/09 | KM 71<br>Contact pool<br>July 21/09 |
|--------------------------------------|--------------------------|---------------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-------------------------------------|
| <b>ANIONS &amp; NUTRIENTS (mg/L)</b> |                          |                                       |                                       |                                      |                                       |                                       |                                       |                                     |
| Ammonia (NH3) - Soluble              | See fact sheet           | <0.0030                               | <0.0030                               | <0.0030                              | <0.0030                               | <0.0030                               | <0.0030                               | <0.0030                             |
| Chloride (Cl) - Soluble              | NG                       | 2.54                                  | 2.66                                  | 0.75                                 | 0.87                                  |                                       | 0.45                                  | 0.37                                |
| Nitrate (NO3) - Soluble              | NG                       | 498                                   | 465                                   | <0.010                               | <0.010                                | <0.010                                | <0.010                                | <0.010                              |
| Nitrate+Nitrite-N - Soluble          | 290000                   | 498                                   | 465                                   | <0.0050                              | <0.0050                               | <0.0050                               | <0.0050                               | <0.0050                             |
| Nitrite-N Soluble                    | NG                       | <0.010                                | <0.010                                | <0.010                               | <0.010                                | <0.010                                | <0.010                                | <0.010                              |
| Bicarbonate (HCO3)                   | NG                       | 14.3                                  | 13.2                                  | 23.4                                 | 24.3                                  | 14.1                                  | 7.3                                   | 30.8                                |
| Carbonate (CO3)                      | NG                       | <0.60                                 | <0.60                                 | <0.60                                | <0.60                                 | <0.60                                 | <0.60                                 | <0.60                               |
| Hydroxide (OH)                       | NG                       | <0.40                                 | <0.40                                 | <0.40                                | <0.40                                 | <0.40                                 | <0.40                                 | <0.40                               |
| Fluoride (F) - Soluble               | NG                       | 0.23                                  | 0.18                                  | 0.16                                 | 0.25                                  |                                       | 0.24                                  | 0.25                                |
| Ortho Phosphorus Soluble As P        | NG                       | 0.0100                                | <0.0010                               | 0.0030                               | <0.0010                               | <0.0010                               | <0.0010                               | 0.0182                              |
| Phosphorus, Total                    | 0.004                    | 0.0198                                | 0.0074                                | 0.0056                               | 0.0074                                | 0.0027                                | 0.0020                                | 0.0754                              |
| Silica Reactive Soluble              | NG                       | 0.50                                  | 0.45                                  | 0.55                                 | 0.54                                  | 0.32                                  | 0.37                                  | 4.65                                |
| Sulphate (SO4) - Soluble             | NG                       | 3.7                                   | 4.1                                   | 4.1                                  | 4.4                                   |                                       | 3.4                                   | 27.6                                |
| Total Kjeldahl Nitrogen              | NG                       | <0.20                                 | <0.20                                 | 0.27                                 | 0.53                                  | <0.20                                 | <0.20                                 | 1.25                                |
| <b>HYDROCARBONS (mg/L)</b>           |                          |                                       |                                       |                                      |                                       |                                       |                                       |                                     |
| Total Oil and Grease                 | NG                       | <1.0                                  | <1.0                                  | <1.0                                 | <1.0                                  | <1.0                                  | <1.0                                  | <1.0                                |
| <b>ORGANICS (mg/L)</b>               |                          |                                       |                                       |                                      |                                       |                                       |                                       |                                     |
| Total Organic Carbon                 | NG                       | 2.6                                   | 2.4                                   | 2.8                                  | 2.4                                   | 2.7                                   | 2.3                                   | 14.0                                |
| Dissolved Organic Carbon             | NG                       | 2.5                                   | 2.5                                   | 2.6                                  | 2.3                                   | 2.3                                   | 2.2                                   | 14.3                                |
| <b>DISSOLVED METALS (mg/L)</b>       |                          |                                       |                                       |                                      |                                       |                                       |                                       |                                     |
| Aluminum (Al)                        | -                        | 0.0033                                | 0.0031                                | 0.0040                               | 0.0034                                | 0.0116                                | 0.0148                                | 0.156                               |
| Cadmium (Cd)                         | -                        | <0.000010                             | <0.000010                             | <0.000010                            | <0.000010                             | <0.000010                             | <0.000010                             | 0.000036                            |
| Iron (Fe)                            | -                        | <0.0020                               | <0.0020                               | 0.0093                               | 0.0093                                | 0.0066                                | 0.0085                                | 2.75                                |
| Mercury (Hg)                         | -                        | <0.000050                             | <0.000050                             | <0.000050                            | <0.000050                             | <0.000050                             | <0.000050                             | <0.000050                           |
| Arsenic (As)                         | -                        | <0.00050                              | <0.00050                              | <0.00050                             | <0.00050                              | 0.00134                               | <0.00050                              | 0.00085                             |
| Boron (B)                            | -                        | <0.020                                | <0.020                                | <0.020                               | <0.020                                | <0.020                                | <0.020                                | <0.020                              |
| Barium (Ba)                          | -                        | 0.00367                               | 0.00344                               | 0.00379                              | 0.00412                               | 0.00305                               | 0.00330                               | 0.0149                              |
| Beryllium (Be)                       | -                        | <0.0010                               | <0.0010                               | <0.0010                              | <0.0010                               | <0.0010                               | <0.0010                               | <0.0010                             |
| Bismuth (Bi)                         | -                        | <0.00030                              | <0.00030                              | <0.00030                             | <0.00030                              | <0.00030                              | <0.00030                              | <0.00030                            |
| Calcium (Ca)                         | -                        | 3.47                                  | 3.22                                  | 5.37                                 | 5.51                                  | 1.15                                  | 1.10                                  | 5.11                                |
| Cobalt (Co)                          | -                        | <0.00020                              | <0.00020                              | <0.00020                             | <0.00020                              | <0.00020                              | 0.00021                               | 0.00109                             |
| Chromium (Cr)                        | -                        | <0.0010                               | <0.0010                               | <0.0010                              | <0.0010                               | <0.0010                               | <0.0010                               | <0.0010                             |
| Cesium (Cs)                          | -                        | <0.00010                              | <0.00010                              | <0.00010                             | <0.00010                              | <0.00010                              | <0.00010                              | <0.00010                            |
| Copper (Cu)                          | -                        | 0.00115                               | 0.00099                               | 0.00114                              | 0.00110                               | 0.00094                               | 0.00130                               | 0.00721                             |
| Potassium (K)                        | -                        | 0.403                                 | 0.411                                 | 0.305                                | 0.298                                 | 0.442                                 | 0.444                                 | 1.40                                |
| Magnesium (Mg)                       | -                        | 0.895                                 | 0.879                                 | 1.41                                 | 1.42                                  | 0.557                                 | 0.550                                 | 1.99                                |
| Manganese (Mn)                       | -                        | <0.00020                              | <0.00020                              | 0.00092                              | 0.00081                               | 0.00059                               | 0.00107                               | 0.107                               |
| Molybdenum (Mo)                      | -                        | <0.00010                              | <0.00010                              | <0.00010                             | <0.00010                              | <0.00010                              | <0.00010                              | 0.00038                             |
| Sodium (Na)                          | -                        | 1.81                                  | 1.83                                  | 1.22                                 | 1.25                                  | 0.835                                 | 0.838                                 | 2.14                                |
| Nickel (Ni)                          | -                        | 0.00031                               | 0.00031                               | 0.00058                              | 0.00052                               | 0.00267                               | 0.00062                               | 0.00351                             |
| Phosphorus (P)                       | -                        | <0.020                                | <0.020                                | <0.020                               | <0.020                                | <0.020                                | <0.020                                | <0.020                              |
| Lead (Pb)                            | -                        | <0.00010                              | <0.00010                              | <0.00010                             | <0.00010                              | <0.00010                              | <0.00010                              | 0.00105                             |
| Rubidium (Rb)                        | -                        | 0.00037                               | 0.00036                               | 0.00036                              | 0.00035                               | 0.00062                               | 0.00070                               | 0.00222                             |
| Antimony (Sb)                        | -                        | <0.0010                               | <0.0010                               | <0.0010                              | <0.0010                               | <0.0010                               | <0.0010                               | <0.0010                             |
| Selenium (Se)                        | -                        | <0.0010                               | <0.0010                               | <0.0010                              | <0.0010                               | <0.0010                               | <0.0010                               | <0.0010                             |
| Silicon (Si)                         | -                        | <0.20                                 | <0.20                                 | <0.20                                | 0.23                                  | <0.20                                 | <0.20                                 | 1.67                                |
| Tin (Sn)                             | -                        | <0.00030                              | <0.00030                              | <0.00030                             | <0.00030                              | <0.00030                              | <0.00030                              | <0.00030                            |
| Strontium (Sr)                       | -                        | 0.0142                                | 0.0134                                | 0.0271                               | 0.0279                                | 0.00722                               | 0.00684                               | 0.0359                              |
| Tellurium (Te)                       | -                        | <0.00050                              | <0.00050                              | <0.00050                             | <0.00050                              | <0.00050                              | <0.00050                              | <0.00050                            |
| Titanium (Ti)                        | -                        | <0.00050                              | <0.00050                              | <0.00050                             | <0.00050                              | <0.00050                              | <0.00050                              | 0.00476                             |
| Thallium (Tl)                        | -                        | <0.00010                              | <0.00010                              | <0.00010                             | <0.00010                              | <0.00010                              | <0.00010                              | <0.00010                            |
| Uranium (U)                          | -                        | <0.00010                              | <0.00010                              | <0.00010                             | <0.00010                              | <0.00010                              | <0.00010                              | 0.00053                             |
| Vanadium (V)                         | -                        | <0.0010                               | <0.0010                               | <0.0010                              | <0.0010                               | <0.0010                               | <0.0010                               | <0.0010                             |
| Tungsten (W)                         | -                        | <0.00020                              | <0.00020                              | <0.00020                             | <0.00020                              | <0.00020                              | <0.00020                              | <0.00020                            |
| Zinc (Zn)                            | -                        | <0.0050                               | <0.0050                               | <0.0050                              | <0.0050                               | <0.0050                               | 0.0092                                | 0.0058                              |
| Zirconium (Zr)                       | -                        | <0.00040                              | <0.00040                              | <0.00040                             | <0.00040                              | <0.00040                              | <0.00040                              | 0.00118                             |
| Silver (Ag)                          | -                        | <0.00010                              | <0.00010                              | <0.00010                             | <0.00010                              | <0.00010                              | <0.00010                              | <0.00010                            |

**Notes:**

NG = no guideline

<sup>1</sup> Canadian Water Quality Guidelines for the Protection of Aquatic Life, C<sup>2</sup> Cadmium guideline calculated using measured hardness concentration<sup>3</sup> Chromium guideline is for Cr VI, which yields the most conservative gu<sup>4</sup> Trigger Range for Total Phosphorus (see guidance Framework for Pho:

Highlighted concentrations exceed the CCME guideline.

Table 3.1: 2009 AWPAP Water Quality Data

|                                                  | CCME (2007)<br>Guideline                                                                  | R26 TPL<br>Construction Monitoring<br>July 21/09 | DUP-1<br>Construction Monitoring<br>July 21/09 |
|--------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------|
| <b>GENERAL PARAMETERS</b>                        |                                                                                           |                                                  |                                                |
| pH (pH units)                                    | 6.5 - 9.0                                                                                 | 7.05                                             | 7.06                                           |
| Conductivity (umhos/cm)                          | NG                                                                                        | 14.5                                             | 14.5                                           |
| Dis.Hardness (as CaCO <sub>3</sub> ) (mg/L)      | NG                                                                                        | 5.27                                             | 5.39                                           |
| Tot.Hardness (as CaCO <sub>3</sub> ) (mg/L)      | NG                                                                                        | 5.47                                             | 5.24                                           |
| Alkalinity, Total (as CaCO <sub>3</sub> ) (mg/L) | NG                                                                                        | 6.3                                              | 6.3                                            |
| Total Suspended Solids (mg/L)                    | NG                                                                                        | <2.0                                             | <2.0                                           |
| Total Dissolved Solids (mg/L)                    | NG                                                                                        | 10.0                                             | 8.0                                            |
| Turbidity (NTU)                                  | NG                                                                                        | 0.25                                             | 0.25                                           |
| <b>TOTAL METALS (mg/L)</b>                       |                                                                                           |                                                  |                                                |
| Aluminum (Al)                                    | 0.1 @ pH>6.5<br>0.005 @ pH<6.5                                                            | 0.0159                                           | 0.0169                                         |
| Cadmium (Cd)                                     | 0.00017                                                                                   | <0.000010                                        | <0.000010                                      |
| Iron (Fe)                                        | 0.3                                                                                       | 0.020                                            | 0.020                                          |
| Mercury (Hg)                                     | 0.000026                                                                                  | <0.00010                                         | <0.00010                                       |
| Arsenic (As)                                     | 0.005                                                                                     | <0.00050                                         | <0.00050                                       |
| Boron (B)                                        | NG                                                                                        | <0.030                                           | <0.030                                         |
| Barium (Ba)                                      | NG                                                                                        | 0.00222                                          | 0.00219                                        |
| Beryllium (Be)                                   | NG                                                                                        | <0.0010                                          | <0.0010                                        |
| Bismuth (Bi)                                     | NG                                                                                        | <0.00020                                         | <0.00020                                       |
| Calcium (Ca)                                     | NG                                                                                        | 1.28                                             | 1.26                                           |
| Cobalt (Co)                                      | NG                                                                                        | 0.00025                                          | 0.00025                                        |
| Chromium (Cr)                                    | 0.001                                                                                     | <0.0010                                          | <0.0010                                        |
| Cesium (Cs)                                      | NG                                                                                        | <0.00010                                         | <0.00010                                       |
| Copper (Cu)                                      | 0.002 @ hardness<120 mg/L<br>0.003 @ hardness 120-180 mg/L                                | <0.0010                                          | <0.0010                                        |
| Potassium (K)                                    | NG                                                                                        | 0.37                                             | 0.36                                           |
| Magnesium (Mg)                                   | NG                                                                                        | 0.554                                            | 0.545                                          |
| Manganese (Mn)                                   | NG                                                                                        | 0.00140                                          | 0.00125                                        |
| Molybdenum (Mo)                                  | 0.073                                                                                     | <0.00020                                         | <0.00020                                       |
| Sodium (Na)                                      | NG                                                                                        | 0.525                                            | 0.500                                          |
| Nickel (Ni)                                      | 0.025 @ hardness<60 mg/L<br>0.065 @ hardness 60-120 mg/L<br>0.11 @ hardness 120-180 mg/L  | <0.0020                                          | <0.0020                                        |
| Phosphorus (P)                                   | NG                                                                                        | 0.059                                            | 0.055                                          |
| Lead (Pb)                                        | 0.001 @ hardness<60 mg/L<br>0.002 @ hardness 60-120 mg/L<br>0.004 @ hardness 120-180 mg/L | <0.00050                                         | <0.00050                                       |
| Rubidium (Rb)                                    | NG                                                                                        | 0.00050                                          | 0.00049                                        |
| Antimony (Sb)                                    | NG                                                                                        | <0.00050                                         | <0.00050                                       |
| Selenium (Se)                                    | 0.001                                                                                     | <0.0010                                          | <0.0010                                        |
| Tin (Sn)                                         | NG                                                                                        | <0.00060                                         | <0.00060                                       |
| Strontium (Sr)                                   | NG                                                                                        | 0.00514                                          | 0.00511                                        |
| Tellurium (Te)                                   | NG                                                                                        | <0.0010                                          | <0.0010                                        |
| Titanium (Ti)                                    | NG                                                                                        | <0.00090                                         | <0.00090                                       |
| Thallium (Tl)                                    | 0.0008                                                                                    | <0.00010                                         | <0.00010                                       |
| Uranium (U)                                      | NG                                                                                        | <0.00010                                         | <0.00010                                       |
| Vanadium (V)                                     | NG                                                                                        | <0.0010                                          | <0.0010                                        |
| Tungsten (W)                                     | NG                                                                                        | <0.00020                                         | <0.00020                                       |
| Zinc (Zn)                                        | 0.03                                                                                      | <0.010                                           | <0.010                                         |
| Zirconium (Zr)                                   | NG                                                                                        | <0.00040                                         | <0.00040                                       |
| Silver (Ag)                                      | 0.0001                                                                                    | <0.00010                                         | <0.00010                                       |

Table 3.1: 2009 AWPAP Water Quality Data

|                                       | CCME (2007)<br>Guideline | R26 TPL<br>Construction Monitoring<br>July 21/09 | DUP-1<br>July 21/09 |
|---------------------------------------|--------------------------|--------------------------------------------------|---------------------|
| <b>ANIONS &amp; NUTRIENTS (mg/L)</b>  |                          |                                                  |                     |
| Ammonia (NH <sub>3</sub> ) - Soluble  | See fact sheet           | <0.0030                                          | <0.0030             |
| Chloride (Cl) - Soluble               | NG                       | 1.91                                             | 0.82                |
| Nitrate (NO <sub>3</sub> ) - Soluble  | NG                       | <0.010                                           | <0.010              |
| Nitrate+Nitrite-N - Soluble           | 290000                   | <0.0050                                          | <0.0050             |
| Nitrite-N Soluble                     | NG                       | <0.010                                           | <0.010              |
| Bicarbonate (HCO <sub>3</sub> )       | NG                       | 7.7                                              | 7.7                 |
| Carbonate (CO <sub>3</sub> )          | NG                       | <0.60                                            | <0.60               |
| Hydroxide (OH)                        | NG                       | <0.40                                            | <0.40               |
| Fluoride (F) - Soluble                | NG                       | 0.25                                             | 0.20                |
| Ortho Phosphorus Soluble As P         | NG                       | <0.0010                                          | <0.0010             |
| Phosphorus, Total                     | 0.004                    | 0.0017                                           | 0.0035              |
| Silica Reactive Soluble               | NG                       | 0.24                                             | 0.17                |
| Sulphate (SO <sub>4</sub> ) - Soluble | NG                       | 2.7                                              | 3.2                 |
| Total Kjeldahl Nitrogen               | NG                       | <0.20                                            | <0.20               |
| <b>HYDROCARBONS (mg/L)</b>            |                          |                                                  |                     |
| Total Oil and Grease                  | NG                       | <1.0                                             | <1.0                |
| <b>ORGANICS (mg/L)</b>                |                          |                                                  |                     |
| Total Organic Carbon                  | NG                       | 1.6                                              | 2.0                 |
| Dissolved Organic Carbon              | NG                       | 1.4                                              | 1.4                 |
| <b>DISSOLVED METALS (mg/L)</b>        |                          |                                                  |                     |
| Aluminum (Al)                         | -                        | 0.0025                                           | 0.0023              |
| Cadmium (Cd)                          | -                        | <0.000010                                        | <0.000010           |
| Iron (Fe)                             | -                        | <0.0020                                          | <0.0020             |
| Mercury (Hg)                          | -                        | <0.000050                                        | <0.000050           |
| Arsenic (As)                          | -                        | <0.00050                                         | 0.00097             |
| Boron (B)                             | -                        | <0.020                                           | <0.020              |
| Barium (Ba)                           | -                        | 0.00231                                          | 0.00257             |
| Beryllium (Be)                        | -                        | <0.0010                                          | <0.0010             |
| Bismuth (Bi)                          | -                        | <0.00030                                         | <0.00030            |
| Calcium (Ca)                          | -                        | 1.31                                             | 1.29                |
| Cobalt (Co)                           | -                        | <0.00020                                         | <0.00020            |
| Chromium (Cr)                         | -                        | <0.0010                                          | <0.0010             |
| Cesium (Cs)                           | -                        | <0.00010                                         | <0.00010            |
| Copper (Cu)                           | -                        | <0.00040                                         | <0.00040            |
| Potassium (K)                         | -                        | 0.317                                            | 0.317               |
| Magnesium (Mg)                        | -                        | 0.484                                            | 0.487               |
| Manganese (Mn)                        | -                        | 0.00054                                          | 0.00054             |
| Molybdenum (Mo)                       | -                        | <0.00010                                         | <0.00010            |
| Sodium (Na)                           | -                        | 0.421                                            | 0.421               |
| Nickel (Ni)                           | -                        | 0.00031                                          | 0.00034             |
| Phosphorus (P)                        | -                        | <0.020                                           | <0.020              |
| Lead (Pb)                             | -                        | <0.00010                                         | <0.00010            |
| Rubidium (Rb)                         | -                        | 0.00046                                          | 0.00047             |
| Antimony (Sb)                         | -                        | <0.0010                                          | <0.0010             |
| Selenium (Se)                         | -                        | <0.0010                                          | <0.0010             |
| Silicon (Si)                          | -                        | <0.20                                            | <0.20               |
| Tin (Sn)                              | -                        | <0.00030                                         | <0.00030            |
| Strontium (Sr)                        | -                        | 0.00571                                          | 0.00585             |
| Tellurium (Te)                        | -                        | <0.00050                                         | <0.00050            |
| Titanium (Ti)                         | -                        | <0.00050                                         | <0.00050            |
| Thallium (Tl)                         | -                        | <0.00010                                         | <0.00010            |
| Uranium (U)                           | -                        | <0.00010                                         | <0.00010            |
| Vanadium (V)                          | -                        | <0.0010                                          | <0.0010             |
| Tungsten (W)                          | -                        | <0.00020                                         | <0.00020            |
| Zinc (Zn)                             | -                        | <0.0050                                          | <0.0050             |
| Zirconium (Zr)                        | -                        | <0.00040                                         | <0.00040            |
| Silver (Ag)                           | -                        | <0.00010                                         | <0.00010            |

**Notes:**

NG = no guideline

<sup>1</sup> Canadian Water Quality Guidelines for the Protection of Aquatic Life, C<sup>2</sup> Cadmium guideline calculated using measured hardness concentration<sup>3</sup> Chromium guideline is for Cr VI, which yields the most conservative gu<sup>4</sup> Trigger Range for Total Phosphorus (see guidance Framework for Pho:  
Highlighted concentrations exceed the CCME guideline.

**Table 4.1: Sampling Priorities and Drainage Patterns of AWPAP Quarries**

| Quarry ID | Requires follow-up from 2008 GeoChem. Report? | Why?        | Water pooling in quarry on July 21, 2009? | Is the pool area greater than 50% of the Quarry | Date Sampled in 2009? | Notes                                                                             |
|-----------|-----------------------------------------------|-------------|-------------------------------------------|-------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------|
| 1         | No                                            |             |                                           |                                                 |                       |                                                                                   |
| 2         | Yes                                           | TSS         | No                                        | No                                              | -                     |                                                                                   |
| 3         | No                                            |             |                                           |                                                 |                       |                                                                                   |
| 4         | No                                            | -           | Yes                                       | Yes                                             | July 21 & Aug 28      | Significant freshet water accumulation and drainage onto nearby tundra; See photo |
| 5         | No                                            |             |                                           |                                                 |                       |                                                                                   |
| 6         | Yes                                           | NPR 0, TSS  | No                                        | No                                              | -                     |                                                                                   |
| 7         | Yes                                           | TSS, low pH | Yes                                       | No                                              | July 21               |                                                                                   |
| 8         | No                                            |             |                                           |                                                 |                       |                                                                                   |
| 9         | No                                            |             |                                           |                                                 |                       |                                                                                   |
| 10        | No                                            |             |                                           |                                                 |                       |                                                                                   |
| 11        | No                                            |             |                                           |                                                 |                       |                                                                                   |
| 12        | No                                            |             |                                           |                                                 |                       |                                                                                   |
| 13        | No                                            |             |                                           |                                                 | Aug 28                | Sufficient pooling due to precipitation to warrant sampling; contained pooling    |
| 14        | No                                            |             |                                           |                                                 | Aug 29                | Sufficient pooling due to precipitation to warrant sampling; contained pooling    |
| 15        | No                                            |             |                                           |                                                 | Aug 30                | Sufficient pooling due to precipitation to warrant sampling; contained pooling    |
| 16        | Yes                                           | low pH      | No                                        | No                                              | -                     | See photo                                                                         |
| 17        | Yes                                           | NPR 0       | No                                        | No                                              | -                     | See photo                                                                         |
| 18        | No                                            |             |                                           |                                                 |                       |                                                                                   |
| 19        | No                                            |             |                                           |                                                 |                       |                                                                                   |
| 20        | Yes                                           | low pH      | No                                        | No                                              | -                     | See photo                                                                         |
| 21        | No                                            |             |                                           |                                                 |                       |                                                                                   |
| 22        | No                                            |             |                                           |                                                 |                       |                                                                                   |

Table 4.2: 2009 AWPAP Quarry Water Quality Data

|                                     | CCME (2007)<br>Guideline                                                                  | MDL     | Q4<br>July 21/09 | Q4<br>August 28/09 | Q7<br>July 21/09 | Q13<br>August 28/09 | Q14<br>August 28/09 | Q15<br>August 28/09 |
|-------------------------------------|-------------------------------------------------------------------------------------------|---------|------------------|--------------------|------------------|---------------------|---------------------|---------------------|
| GENERAL PARAMETERS                  |                                                                                           |         |                  |                    |                  |                     |                     |                     |
| pH (pH units)                       | 6.5 - 9.0                                                                                 | 0.1     | 8.02             | 8.10               | 4.33             | 8.15                | 7.64                | 7.86                |
| Conductivity (umhos/cm)             | NG                                                                                        | 0.4     | 120              | 186                | 91.2             | 383                 | 63.5                | 368                 |
| Dis.Hardness (as CaCO3) (mg/L)      | NG                                                                                        | 0.2     | 45.3             | 79.2               | 17.3             | 161                 | 14.6                | 104                 |
| Tot.Hardness (as CaCO3) (mg/L)      | NG                                                                                        | 0.3     | 56.2             | -                  | 15.9             | -                   | -                   | -                   |
| Alkalinity, Total (as CaCO3) (mg/L) | NG                                                                                        | 1       | 44.0             | See Comment        |                  |                     |                     |                     |
| Total Suspended Solids (mg/L)       | NG                                                                                        | 2       | 33.6             | <2.0               | 3.6              | <2.0                | 9.9                 | <2.0                |
| Total Dissolved Solids (mg/L)       | NG                                                                                        | 5       | 82.0             |                    | 40.0             |                     |                     |                     |
| Turbidity (NTU)                     | NG                                                                                        | 0.05    | 60.0             | -                  | 1.30             | -                   | -                   | -                   |
| TOTAL METALS (mg/L)                 |                                                                                           |         |                  |                    |                  |                     |                     |                     |
| Aluminum (Al)                       | 0.1 @ pH>6.5<br>0.005 @ pH<6.5                                                            | 0.005   | 3.68             | 0.469              | 1.90             | 0.129               | 1.35                | 0.0725              |
| Cadmium (Cd)                        | 0.00017                                                                                   | 0.00001 | 0.000012         | <0.000010          | 0.000227         | 0.000051            | 0.000014            | 0.000084            |
| Iron (Fe)                           | 0.3                                                                                       | 0.02    | 3.09             | 0.550              | 0.179            | 0.102               | 1.48                | 0.060               |
| Mercury (Hg)                        | 0.000026                                                                                  | 0.0001  | <0.00010         | <0.00010           | <0.00010         | <0.00010            | <0.00010            | <0.00010            |
| Arsenic (As)                        | 0.005                                                                                     | 0.0005  | 0.00220          | 0.00089            | 0.00065          | 0.00202             | 0.00084             | 0.00060             |
| Boron (B)                           | NG                                                                                        | 0.03    | <0.030           | <0.030             | <0.030           | <0.030              | <0.030              | <0.030              |
| Barium (Ba)                         | NG                                                                                        | 0.0003  | 0.0490           | 0.0350             | 0.0412           | 0.112               | 0.0189              | 0.110               |
| Beryllium (Be)                      | NG                                                                                        | 0.001   | <0.0010          | <0.0010            | <0.0010          | <0.0010             | <0.0010             | <0.0010             |
| Bismuth (Bi)                        | NG                                                                                        | 0.0002  | <0.00020         | <0.00020           | <0.00020         | <0.00020            | <0.00020            | <0.00020            |
| Calcium (Ca)                        | NG                                                                                        | 0.1     | 15.9             | 23.9               | 4.67             | 54.4                | 3.04                | 31.2                |
| Cobalt (Co)                         | NG                                                                                        | 0.0002  | 0.00176          | 0.00041            | 0.0786           | 0.00087             | 0.00109             | 0.00056             |
| Chromium (Cr)                       | 0.001                                                                                     | 0.001   | 0.0057           | <0.0010            | <0.0010          | <0.0010             | 0.0024              | <0.0010             |
| Cesium (Cs)                         | NG                                                                                        | 0.0001  | 0.00051          | 0.00010            | <0.00010         | <0.00010            | 0.00048             | 0.00021             |
| Copper (Cu)                         | 0.002 @ hardness<120 mg/L<br>0.003 @ hardness 120-180 mg/L                                | 0.001   | 0.0092           | 0.0043             | 0.0743           | 0.0139              | 0.0180              | 0.0062              |
| Potassium (K)                       | NG                                                                                        | 0.1     | 3.07             | 3.14               | 1.12             | 5.79                | 2.23                | 7.46                |
| Magnesium (Mg)                      | NG                                                                                        | 0.01    | 3.99             | 4.73               | 1.37             | 6.13                | 1.72                | 6.30                |
| Manganese (Mn)                      | NG                                                                                        | 0.0003  | 0.0516           | 0.00709            | 0.340            | 0.0376              | 0.0408              | 0.0407              |
| Molybdenum (Mo)                     | 0.073                                                                                     | 0.0002  | 0.00111          | 0.00178            | <0.00020         | 0.0153              | 0.00415             | 0.0115              |
| Sodium (Na)                         | NG                                                                                        | 0.03    | 4.53             | 6.40               | 0.836            | 9.46                | 7.00                | 24.8                |
| Nickel (Ni)                         | 0.025 @ hardness<60 mg/L<br>0.065 @ hardness 60-120 mg/L<br>0.11 @ hardness 120-180 mg/L  | 0.002   | 0.0043           | <0.0020            | 0.114            | <0.0020             | 0.0021              | 0.0048              |
| Phosphorus (P)                      | NG                                                                                        | 0.05    | 0.085            | <0.050             | 0.058            | <0.050              | <0.050              | <0.050              |
| Lead (Pb)                           | 0.001 @ hardness<60 mg/L<br>0.002 @ hardness 60-120 mg/L<br>0.004 @ hardness 120-180 mg/L | 0.0005  | 0.00202          | <0.00050           | 0.00111          | 0.00101             | 0.00200             | 0.00054             |
| Rubidium (Rb)                       | NG                                                                                        | 0.0002  | 0.00715          | 0.00159            | 0.00246          | 0.00405             | 0.00468             | 0.00764             |
| Antimony (Sb)                       | NG                                                                                        | 0.0005  | <0.00050         | 0.00063            | <0.00050         | 0.00151             | 0.00057             | 0.00069             |
| Selenium (Se)                       | 0.001                                                                                     | 0.001   | <0.0010          | <0.0010            | <0.0010          | <0.0010             | <0.0010             | 0.0011              |
| Tin (Sn)                            | NG                                                                                        | 0.0006  | <0.00060         | <0.00060           | <0.00060         | <0.00060            | <0.00060            | <0.00060            |
| Strontium (Sr)                      | NG                                                                                        | 0.0001  | 0.0871           | 0.150              | 0.0359           | 0.473               | 0.0246              | 0.192               |
| Tellurium (Te)                      | NG                                                                                        | 0.001   | <0.0010          | <0.0010            | <0.0010          | <0.0010             | <0.0010             | <0.0010             |
| Titanium (Ti)                       | NG                                                                                        | 0.0009  | 0.0999           | 0.0117             | 0.00575          | 0.00343             | 0.0423              | 0.00269             |
| Thallium (Tl)                       | 0.0008                                                                                    | 0.0001  | <0.00010         | <0.00010           | 0.00011          | <0.00010            | <0.00010            | <0.00010            |
| Uranium (U)                         | NG                                                                                        | 0.0001  | 0.00094          | 0.00165            | 0.00251          | 0.0247              | 0.00125             | 0.00672             |
| Vanadium (V)                        | NG                                                                                        | 0.001   | 0.0061           | 0.0011             | <0.0010          | <0.0010             | 0.0028              | <0.0010             |
| Tungsten (W)                        | NG                                                                                        | 0.0002  | <0.00020         | <0.00020           | <0.00020         | <0.00020            | <0.00020            | <0.00020            |
| Zinc (Zn)                           | 0.03                                                                                      | 0.01    | <0.010           | <0.010             | 0.033            | <0.010              | <0.010              | <0.010              |
| Zirconium (Zr)                      | NG                                                                                        | 0.0004  | 0.00654          | 0.00086            | <0.00040         | 0.00043             | 0.00279             | <0.00040            |
| Silver (Ag)                         | 0.0001                                                                                    | 0.0001  | <0.00010         | 0.00036            | <0.00010         | <0.00010            | <0.00010            | <0.00010            |

Table 4.2: 2009 AWPAP Quarry Water Quality Data

|                                      | CCME (2007)<br>Guideline | MDL     | Q4<br>July 21/09 | Q4<br>August 28/09 | Q7<br>July 21/09 | Q13<br>August 28/09 | Q14<br>August 28/09 | Q15<br>August 28/09 |
|--------------------------------------|--------------------------|---------|------------------|--------------------|------------------|---------------------|---------------------|---------------------|
| <b>ANIONS &amp; NUTRIENTS (mg/L)</b> |                          |         |                  |                    |                  |                     |                     |                     |
| Ammonia (NH3) - Soluble              | See fact sheet           | 0.003   | <0.0030          | 0.0054             | 0.617            | 0.212               | 0.0246              | 1.05                |
| Chloride (Cl) - Soluble              | NG                       | 0.2     | 0.25             | -                  | 1.00             | -                   | -                   | -                   |
| Nitrate (NO3) - Soluble              | NG                       | 0.01    | 1.43             | -                  | 0.130            | -                   | -                   | -                   |
| Nitrate+Nitrite-N - Soluble          | 290000                   | 0.005   | 1.43             | -                  | 0.130            | -                   | -                   | -                   |
| Nitrite-N Soluble                    | NG                       | 0.01    | <0.010           | -                  | <0.010           | -                   | -                   | -                   |
| Bicarbonate (HCO3)                   | NG                       | 2       | 53.6             | -                  | -                | -                   | -                   | -                   |
| Carbonate (CO3)                      | NG                       | 0.6     | <0.60            | -                  | -                | -                   | -                   | -                   |
| Hydroxide (OH)                       | NG                       | 0.4     | <0.40            | -                  | -                | -                   | -                   | -                   |
| Fluoride (F) - Soluble               | NG                       | 0.1     | 0.24             | -                  | 0.17             | -                   | -                   | -                   |
| Ortho Phosphorus Soluble As P        | NG                       | 0.001   | 0.0428           | -                  | 0.0052           | -                   | -                   | -                   |
| Phosphorus, Total                    | 0.004                    | 0.001   | 0.0373           | -                  | 0.0195           | -                   | -                   | -                   |
| Silica Reactive Soluble              | NG                       | 0.1     | 2.70             | -                  | 3.69             | -                   | -                   | -                   |
| Sulphate (SO4) - Soluble             | NG                       | 2       | 27.0             | 13.6               | 30.4             | 20.5                | 28.9                | 37.2                |
| Total Kjeldahl Nitrogen              | NG                       | 0.2     | 0.29             | 0.28               | 1.03             | 0.86                | 0.85                | 1.56                |
| <b>HYDROCARBONS (mg/L)</b>           |                          |         |                  |                    |                  |                     |                     |                     |
| Total Oil and Grease                 | NG                       | 1       | <1.0             | -                  | <1.0             | -                   | -                   | -                   |
| <b>ORGANICS (mg/L)</b>               |                          |         |                  |                    |                  |                     |                     |                     |
| Total Organic Carbon                 | NG                       | 1       | 2.3              | 2.9                | 1.3              | 5.1                 | 6.8                 | 4.1                 |
| Dissolved Organic Carbon             | NG                       | 1       | 1.8              | -                  | 1.6              | -                   | -                   | -                   |
| <b>DISSOLVED METALS (mg/L)</b>       |                          |         |                  |                    |                  |                     |                     |                     |
| Aluminum (Al)                        | -                        | 0.002   | 0.289            | -                  | 1.42             | -                   | -                   | -                   |
| Cadmium (Cd)                         | -                        | 0.00001 | <0.000010        | -                  | 0.000224         | -                   | -                   | -                   |
| Iron (Fe)                            | -                        | 0.002   | 0.184            | -                  | 0.0610           | -                   | -                   | -                   |
| Mercury (Hg)                         | -                        | 0.00005 | <0.000050        | -                  | <0.000050        | -                   | -                   | -                   |
| Arsenic (As)                         | -                        | 0.0005  | 0.00172          | -                  | 0.00073          | -                   | -                   | -                   |
| Boron (B)                            | -                        | 0.02    | <0.020           | -                  | <0.020           | -                   | -                   | -                   |
| Barium (Ba)                          | -                        | 0.0003  | 0.0189           | -                  | 0.0436           | -                   | -                   | -                   |
| Beryllium (Be)                       | -                        | 0.001   | <0.0010          | -                  | <0.0010          | -                   | -                   | -                   |
| Bismuth (Bi)                         | -                        | 0.0003  | <0.00030         | -                  | <0.00030         | -                   | -                   | -                   |
| Calcium (Ca)                         | -                        | 0.05    | 13.8             | -                  | 4.43             | -                   | -                   | -                   |
| Cobalt (Co)                          | -                        | 0.0002  | <0.00020         | -                  | 0.0704           | -                   | -                   | -                   |
| Chromium (Cr)                        | -                        | 0.001   | <0.0010          | -                  | <0.0010          | -                   | -                   | -                   |
| Cesium (Cs)                          | -                        | 0.0001  | <0.00010         | -                  | <0.00010         | -                   | -                   | -                   |
| Copper (Cu)                          | -                        | 0.0004  | 0.00175          | -                  | 0.0699           | -                   | -                   | -                   |
| Potassium (K)                        | -                        | 0.05    | 1.73             | -                  | 1.01             | -                   | -                   | -                   |
| Magnesium (Mg)                       | -                        | 0.01    | 2.62             | -                  | 1.17             | -                   | -                   | -                   |
| Manganese (Mn)                       | -                        | 0.0002  | 0.00210          | -                  | 0.333            | -                   | -                   | -                   |
| Molybdenum (Mo)                      | -                        | 0.0001  | 0.00090          | -                  | <0.00010         | -                   | -                   | -                   |
| Sodium (Na)                          | -                        | 0.02    | 3.62             | -                  | 0.694            | -                   | -                   | -                   |
| Nickel (Ni)                          | -                        | 0.0002  | 0.00056          | -                  | 0.108            | -                   | -                   | -                   |
| Phosphorus (P)                       | -                        | 0.02    | <0.020           | -                  | <0.020           | -                   | -                   | -                   |
| Lead (Pb)                            | -                        | 0.0001  | 0.00015          | -                  | 0.00115          | -                   | -                   | -                   |
| Rubidium (Rb)                        | -                        | 0.0002  | 0.00099          | -                  | 0.00249          | -                   | -                   | -                   |
| Antimony (Sb)                        | -                        | 0.001   | <0.0010          | -                  | <0.0010          | -                   | -                   | -                   |
| Selenium (Se)                        | -                        | 0.001   | <0.0010          | -                  | <0.0010          | -                   | -                   | -                   |
| Silicon (Si)                         | -                        | 0.2     | 1.00             | -                  | 1.31             | -                   | -                   | -                   |
| Tin (Sn)                             | -                        | 0.0003  | <0.00030         | -                  | <0.00030         | -                   | -                   | -                   |
| Strontium (Sr)                       | -                        | 0.0001  | 0.0860           | -                  | 0.0372           | -                   | -                   | -                   |
| Tellurium (Te)                       | -                        | 0.0005  | <0.00050         | -                  | <0.00050         | -                   | -                   | -                   |
| Titanium (Ti)                        | -                        | 0.0005  | 0.00509          | -                  | <0.00050         | -                   | -                   | -                   |
| Thallium (Tl)                        | -                        | 0.0001  | <0.00010         | -                  | 0.00013          | -                   | -                   | -                   |
| Uranium (U)                          | -                        | 0.0001  | 0.00068          | -                  | 0.00201          | -                   | -                   | -                   |
| Vanadium (V)                         | -                        | 0.001   | <0.0010          | -                  | <0.0010          | -                   | -                   | -                   |
| Tungsten (W)                         | -                        | 0.0002  | <0.00020         | -                  | <0.00020         | -                   | -                   | -                   |
| Zinc (Zn)                            | -                        | 0.005   | <0.0050          | -                  | 0.0354           | -                   | -                   | -                   |
| Zirconium (Zr)                       | -                        | 0.0004  | 0.00042          | -                  | <0.00040         | -                   | -                   | -                   |
| Silver (Ag)                          | -                        | 0.0001  | <0.00010         | -                  | <0.00010         | -                   | -                   | -                   |

**Notes:**

NG = no guideline

<sup>1</sup> Canadian Water Quality Guidelines for the Protection of Aquatic Life, CCME, Update 7.0, September 2007.<sup>2</sup> Cadmium guideline calculated using measured hardness concentration per sample.<sup>3</sup> Chromium guideline is for Cr VI, which yields the most conservative guideline.<sup>4</sup> Trigger Range for Total Phosphorus (see guidance Framework for Phosphorus factsheet): ultra-oligotrophic <4 ug/L

Highlighted concentrations exceed the CCME guideline.

Table 5.2: QA/QC Relative Percent Difference Evaluation

|                                | MDL     | R26 TPL<br>July 21/09 | DUP-1<br>July 21/09 | RPD   |
|--------------------------------|---------|-----------------------|---------------------|-------|
| <b>GENERAL PARAMETERS</b>      |         |                       |                     |       |
| pH                             | 0.1     | 7.05                  | 7.06                | -0.14 |
| Conductivity                   | 0.4     | 14.5                  | 14.5                | 0.00  |
| Hardness (as CaCO3)            | 0.2     | 5.27                  | 5.39                | -2.25 |
| Hardness (as CaCO3)- Dissolved | 0.3     | 5.47                  | 5.24                | 4.30  |
| Alkalinity, Total (as CaCO3)   | 1       | 6.3                   | 6.3                 | 0.00  |
| Total Suspended Solids         | 2       | <2.0                  | <2.0                | 0.00  |
| Total Dissolved Solids         | 5       | 10.0                  | 8.0                 | 22.22 |
| Turbidity                      | 0.05    | 0.25                  | 0.25                | 0.00  |
| <b>TOTAL METALS (mg/L)</b>     |         |                       |                     |       |
| Aluminum (Al)                  | 0.005   | 0.0159                | 0.0169              | -6.10 |
| Cadmium (Cd)                   | 0.00001 | <0.000010             | <0.000010           | 0.00  |
| Iron (Fe)                      | 0.02    | 0.020                 | 0.020               | 0.00  |
| Mercury (Hg)                   | 0.0001  | <0.00010              | <0.00010            | 0.00  |
| Arsenic (As)                   | 0.0005  | <0.00050              | <0.00050            | 0.00  |
| Boron (B)                      | 0.03    | <0.030                | <0.030              | 0.00  |
| Barium (Ba)                    | 0.0003  | 0.00222               | 0.00219             | 1.36  |
| Beryllium (Be)                 | 0.001   | <0.0010               | <0.0010             | 0.00  |
| Bismuth (Bi)                   | 0.0002  | <0.00020              | <0.00020            | 0.00  |
| Calcium (Ca)                   | 0.1     | 1.28                  | 1.26                | 1.57  |
| Cobalt (Co)                    | 0.0002  | 0.00025               | 0.00025             | 0.00  |
| Chromium (Cr)                  | 0.001   | <0.0010               | <0.0010             | 0.00  |
| Cesium (Cs)                    | 0.0001  | <0.00010              | <0.00010            | 0.00  |
| Copper (Cu)                    | 0.001   | <0.0010               | <0.0010             | 0.00  |
| Potassium (K)                  | 0.1     | 0.37                  | 0.36                | 2.74  |
| Magnesium (Mg)                 | 0.01    | 0.554                 | 0.545               | 1.64  |
| Manganese (Mn)                 | 0.0003  | 0.00140               | 0.00125             | 11.32 |
| Molybdenum (Mo)                | 0.0002  | <0.00020              | <0.00020            | 0.00  |
| Sodium (Na)                    | 0.03    | 0.525                 | 0.500               | 4.88  |
| Nickel (Ni)                    | 0.002   | <0.0020               | <0.0020             | 0.00  |
| Phosphorus (P)                 | 0.05    | 0.059                 | 0.055               | 7.02  |
| Lead (Pb)                      | 0.0005  | <0.00050              | <0.00050            | 0.00  |
| Rubidium (Rb)                  | 0.0002  | 0.00050               | 0.00049             | 2.02  |
| Antimony (Sb)                  | 0.0005  | <0.00050              | <0.00050            | 0.00  |
| Selenium (Se)                  | 0.001   | <0.0010               | <0.0010             | 0.00  |
| Tin (Sn)                       | 0.0006  | <0.00060              | <0.00060            | 0.00  |
| Strontium (Sr)                 | 0.0001  | 0.00514               | 0.00511             | 0.59  |
| Tellurium (Te)                 | 0.001   | <0.0010               | <0.0010             | 0.00  |
| Titanium (Ti)                  | 0.0009  | <0.00090              | <0.00090            | 0.00  |
| Thallium (Tl)                  | 0.0001  | <0.00010              | <0.00010            | 0.00  |
| Uranium (U)                    | 0.0001  | <0.00010              | <0.00010            | 0.00  |
| Vanadium (V)                   | 0.001   | <0.0010               | <0.0010             | 0.00  |
| Tungsten (W)                   | 0.0002  | <0.00020              | <0.00020            | 0.00  |
| Zinc (Zn)                      | 0.01    | <0.010                | <0.010              | 0.00  |
| Zirconium (Zr)                 | 0.0004  | <0.00040              | <0.00040            | 0.00  |
| Silver (Ag)                    | 0.0001  | <0.00010              | <0.00010            | 0.00  |

|                                      |         |           |           |        |
|--------------------------------------|---------|-----------|-----------|--------|
| <b>ANIONS &amp; NUTRIENTS (mg/L)</b> |         |           |           |        |
| Ammonia (NH3) - Soluble              | 0.003   | <0.0030   | <0.0030   | 0.00   |
| Chloride (Cl) - Soluble              | 0.2     | 1.91      | 0.82      | 79.85  |
| Nitrate (NO3) - Soluble              | 0.01    | <0.010    | <0.010    | 0.00   |
| Nitrate+Nitrite-N - Soluble          | 0.005   | <0.0050   | <0.0050   | 0.00   |
| Nitrite-N Soluble                    | 0.01    | <0.010    | <0.010    | 0.00   |
| Bicarbonate (HCO3)                   | 2       | 7.7       | 7.7       | 0.00   |
| Carbonate (CO3)                      | 0.6     | <0.60     | <0.60     | 0.00   |
| Hydroxide (OH)                       | 0.4     | <0.40     | <0.40     | 0.00   |
| Fluoride (F) - Soluble               | 0.1     | 0.25      | 0.20      | 22.22  |
| Ortho Phosphorus Soluble As P        | 0.001   | <0.0010   | <0.0010   | 0.00   |
| Phosphorus, Total                    | 0.001   | 0.0017    | 0.0035    | -69.23 |
| Silica Reactive Soluble              | 0.1     | 0.24      | 0.17      | 34.15  |
| Sulphate (SO4) - Soluble             | 2       | 2.7       | 3.2       | -16.95 |
| Total Kjeldahl Nitrogen              | 0.2     | <0.20     | <0.20     | 0.00   |
| <b>HYDROCARBONS (mg/L)</b>           |         |           |           |        |
| Total Oil and Grease                 | 1       | <1.0      | <1.0      | 0.00   |
| <b>ORGANICS (mg/L)</b>               |         |           |           |        |
| Total Organic Carbon                 | 1       | 1.6       | 2.0       | -22.22 |
| Dissolved Organic Carbon             | 1       | 1.4       | 1.4       | 0.00   |
| <b>DISSOLVED METALS (mg/L)</b>       |         |           |           |        |
| Aluminum (Al)                        | 0.002   | 0.0025    | 0.0023    | 8.33   |
| Cadmium (Cd)                         | 0.00001 | <0.000010 | <0.000010 | 0.00   |
| Iron (Fe)                            | 0.002   | <0.0020   | <0.0020   | 0.00   |
| Mercury (Hg)                         | 0.00005 | <0.000050 | <0.000050 | 0.00   |
| Arsenic (As)                         | 0.0005  | <0.00050  | 0.00097   | -63.95 |
| Boron (B)                            | 0.02    | <0.020    | <0.020    | 0.00   |
| Barium (Ba)                          | 0.0003  | 0.00231   | 0.00257   | -10.66 |
| Beryllium (Be)                       | 0.001   | <0.0010   | <0.0010   | 0.00   |
| Bismuth (Bi)                         | 0.0003  | <0.00030  | <0.00030  | 0.00   |
| Calcium (Ca)                         | 0.05    | 1.31      | 1.29      | 1.54   |
| Cobalt (Co)                          | 0.0002  | <0.00020  | <0.00020  | 0.00   |
| Chromium (Cr)                        | 0.001   | <0.0010   | <0.0010   | 0.00   |
| Cesium (Cs)                          | 0.0001  | <0.00010  | <0.00010  | 0.00   |
| Copper (Cu)                          | 0.0004  | <0.00040  | <0.00040  | 0.00   |
| Potassium (K)                        | 0.05    | 0.317     | 0.317     | 0.00   |
| Magnesium (Mg)                       | 0.01    | 0.484     | 0.487     | -0.62  |
| Manganese (Mn)                       | 0.0002  | 0.00054   | 0.00054   | 0.00   |
| Molybdenum (Mo)                      | 0.0001  | <0.00010  | <0.00010  | 0.00   |
| Sodium (Na)                          | 0.02    | 0.421     | 0.421     | 0.00   |
| Nickel (Ni)                          | 0.0002  | 0.00031   | 0.00034   | -9.23  |
| Phosphorus (P)                       | 0.02    | <0.020    | <0.020    | 0.00   |
| Lead (Pb)                            | 0.0001  | <0.00010  | <0.00010  | 0.00   |
| Rubidium (Rb)                        | 0.0002  | 0.00046   | 0.00047   | -2.15  |
| Antimony (Sb)                        | 0.001   | <0.0010   | <0.0010   | 0.00   |
| Selenium (Se)                        | 0.001   | <0.0010   | <0.0010   | 0.00   |
| Silicon (Si)                         | 0.2     | <0.20     | <0.20     | 0.00   |
| Tin (Sn)                             | 0.0003  | <0.00030  | <0.00030  | 0.00   |
| Strontium (Sr)                       | 0.0001  | 0.00571   | 0.00585   | -2.42  |
| Tellurium (Te)                       | 0.0005  | <0.00050  | <0.00050  | 0.00   |
| Titanium (Ti)                        | 0.0005  | <0.00050  | <0.00050  | 0.00   |
| Thallium (Tl)                        | 0.0001  | <0.00010  | <0.00010  | 0.00   |
| Uranium (U)                          | 0.0001  | <0.00010  | <0.00010  | 0.00   |
| Vanadium (V)                         | 0.001   | <0.0010   | <0.0010   | 0.00   |
| Tungsten (W)                         | 0.0002  | <0.00020  | <0.00020  | 0.00   |
| Zinc (Zn)                            | 0.005   | <0.0050   | <0.0050   | 0.00   |
| Zirconium (Zr)                       | 0.0004  | <0.00040  | <0.00040  | 0.00   |
| Silver (Ag)                          | 0.0001  | <0.00010  | <0.00010  | 0.00   |

**Notes:**

RPD = Relative Percent Difference (%) = ((original - duplicate) / (original + duplicate)/2) x 100

Shaded RPDs exceed 50% (field duplicates)

**MEADOWBANK GOLD PROJECT  
AWPAR AND QUARRIES WATER QUALITY  
MANAGEMENT REPORT**

**APPENDIX A: PHOTO DOCUMENTATION**

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Photo No 1 : Habitat Compensation Area on June 1st, 2009 during pre-freshet erosion inspections



Photo No 2: R02 prefreshet erosion inspection. No erosional issues identified.



Photo No 3: Turbidity and erosion monitoring at R06 on June 21, 2009.



Photo No 4: Turbidity and velocity measurements at R19.



Photo No 5 : Turbidity and erosion monitoring at R05



Photo No 6 : Downstream photo of R02 culverts



Photo No 7 : Water sampling using a small battery operated bilge pump and Teflon lined tubing



Photo No 8 : Bottle labelling and water sample collection at R25



Photo No 9 : Permanent pond at Quarry 4.



Photo No 10 : Small pool of run-off and rain water at Quarry 7.



Photo No 11 : No pooling at Quarry 20



Photo No 12 : Quarry 17: no standing water accumulated



Photo No 13: Downstream area of Habitat Compensation Area. Turbidity Plume evident in pool downstream of spawning pads



Photo No 14 : Small turbidity plume following rain event. Turbidity settled in pool downstream of habitat compensation area.

**MEADOWBANK GOLD PROJECT  
AWPAR AND QUARRIES WATER QUALITY  
MANAGEMENT REPORT**

**APPENDIX B: LABORATORY CERTIFICATE OF ANALYSIS: ALS  
LABORATORIES WINNIPEG MAN**

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**Environmental Division**

July 2, 2009

ALS Quote: **Q21514**

RYAN VANENGEN  
AGNICO-EAGLE MINING LTD  
MEADOWBANK DIV.  
P.O. BOX 540  
BAKER LAKE, NU X0X 0A0

Dear RYAN VANENGEN,

**RE: Price Quotation for AEMP Water & Sediment Analysis**

We are pleased to present our technical and price quotation to carry out the work as outlined under the above referenced project.

Our price quotation and a list of ALS Laboratory Group's unique technical and service advantages are attached.

Thank you for requesting our quotation. We look forward to the prospect of providing you with the quality service you require. Please call us at (204) 255-9720 or 1-800-668-9878 if you require any additional information.

Sincerely,

CHRISTINE HERROD  
Account Manager



## Technical and Service Highlights (Canada)

The ALS Laboratory Group's Environmental Division (ALS) is a full-service, testing, research, and consulting laboratory specializing in environmental chemistry. We offer several unique advantages that will benefit your project. The most notable highlights are as follows:

**Previous Experience** - ALS has provided analytical services and technical support to environmental consulting and engineering firms, industry, and government since 1982. These environmental projects routinely involve trace level determinations in a variety of sample matrices, and require stringent quality control and rapid sample turnaround. Repeat business by our valued clients shows that they appreciate our unique services and dedication to quality. Routine testing for all industries is supported by more specialized services, such as;

- Occupational/industrial hygiene analysis
- Taxonomy & microscopy
- Toxicity testing
- Microbiology
- Acid base accounting and kinetic cell testing
- Ultra trace metals and metal speciation testing
- Source emission & ambient air testing.

**Laboratory Locations** - ALS's Environmental Division (Canada) has 15 locations throughout BC, AB, SK, MB, ON and NWT with the additional support from over 50 ALS laboratories in 21 countries all over the globe. Please visit [www.alsglobal.com](http://www.alsglobal.com) for more details.

**Range of Services and Resources** - ALS's Canadian Environmental laboratories are well-equipped and staffed by more than 600 professionals who provide the necessary technical resources required by our clients. Many alternative analytical procedures and the instrumentation necessary are readily available in our facility. ALS can meet our promised turnaround time commitments because we have a large test capacity, each primary piece of equipment has one or more backup systems, and our chemists are cross-trained in a variety of procedures. This gives us a great deal of flexibility to direct resources where they are most needed.

ALS recently launched the North American Centre of Excellence. This new laboratory is housed in a 17,000 square foot, state of the art, purpose built facility using a modern, open concept laboratory design. The Centre for Excellence will offer the most advanced analytical, toxicological and technical capabilities in the industry. This center will provide chemical information concerning: levels of pesticides and associated metabolites, specialty chemicals, food safety, forensics, and environmental and human health. This division is also capable of developing new technologies as well as new analytical methods. The laboratory will be able to offer these services under both ISO 17025 and GLP quality systems.

**Accreditation and Regulatory Acceptance** - ALS's Environmental Division is a leader in environmental analytical testing. Our key staff are specialists in their fields and are well respected by the regulatory agencies.



## Technical and Service Highlights (Canada)

CALA - All our laboratories are accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific tests. This accreditation is based on international standards (ISO 17025) and involves extensive site audits and ongoing performance evaluations.

Many of the ALS Canada laboratories are also accredited or certified by other associations such as SCC, AIHA and Provincial or USA State government departments.

Our CALA certificates, lists of CALA accredited tests and other applicable accreditations/certifications are available at [www.alsenviro.com](http://www.alsenviro.com) under *Downloads* or under *Quality* for each ALS location.

**Sampling Supplies** - ALS will provide all necessary sample containers, labels (including pre-labeling of containers), chain of custodies, preservation chemicals, and shipping containers. Instructions for sampling and preservation will be provided as required.

**Analysis Methods** - All samples will be analyzed in accordance with the needs of the requisite regulatory agency. We perform only environmental analyses so all equipment and apparatus is dedicated to low-level determinations.

**Data Reliability** - Environmental professionals trust ALS because of consistent performance in providing credible results using validated methods and incorporating a comprehensive quality management program. ALS strives to be a leader among laboratories in quality. Through participation in inter laboratory and certification programs, we have demonstrated exceptional performance in testing for a wide range of parameters in various sample types. At ALS, we stand behind all data produced.

**Data Management** - ALS's Environmental Division in Canada has a fully integrated computer system utilized by all our locations for data management and reporting. All data is entered "only once" by the analysts into our Laboratory Information Management System (LIMS) which improves quality by eliminating future transcription errors. Data will be provided in a formal report summarizing the results, methodology, and appropriate comments.

Data can be sent in a variety of custom electronic data deliverables (EDDs) or accessed 24/7 through our secure web-based server (Webtrieve). Webtrieve will allow registered clients to automatically compare their data against most commonly used regulations in Canada and provide a quick visual presentation of any results that have exceeded regulatory limits.

**Project Support and Access to Expertise** - ALS is well known for an ability to complete projects on time and on budget. We provide qualified assistance with project mobilization, final review, and follow up. ALS has a philosophy of open communication that ensures direct contact with all personnel, including senior management and our Centre of Excellence. This "resource" can often be of assistance in problem solving or data interpretation.

**Security and Confidentiality** - All information generated by ALS, and all communication with our clients, is treated confidentially. The security and integrity of our database has always been a priority.



## APPENDIX

### GENERAL TERMS AND CONDITIONS:

These terms and conditions are incorporated in and form part of the Agreement between ALS Laboratory Group Environmental Division ( ALS ) and the party named in the Offer (the Client ).

1. Definitions. Capitalized Terms not defined in these Terms and Conditions have the definitions set out in the other Agreement documents.

2. The Services. ALS will provide the Services to the Client as described in the Offer and in any change of custody form provided with any sample.

3. Prices. ALS may review and change all prices, fees, surcharges or other charges set out in the Agreement if there are changes to ALS's cost beyond ALS's control, including changes in legislative requirements, Client variations of sample numbers and Client requests for changes to standard reporting requirements. Notwithstanding Condition 3, all quotations are reviewed and updated on a yearly basis.

4. Payment Terms. The Client shall pay ALS within 30 days of the invoice date OAC. ALS may, for reasonable business reasons, require the Client to arrange for payment in advance.

5. Quotation Numbers. The Client shall provide the quotation number to ALS (where applicable) to ensure correct pricing.

6. Taxes. Applicable taxes are not included in prices, surcharges and additional fees and will be added at the time of invoicing.

7. Quality Control. ALS has an extensive QA/QC program and all analytical data reported is analyzed using approved, referenced procedures followed by checks and reviews of senior managers and quality assurance personnel.

8. No Guarantee of Results. Results are obtained from chemical measurements. The Client is responsible for informing itself on the limitation of the results and acknowledges that the results are not guaranteed.

9. Standard of Care. ALS will use reasonable care and diligence as required by the laws of the province or territory where the sample is tested.

10. Storage. Where possible, ALS will store samples for 30 days from the date a final report is issued to the Client, after which ALS may discard the sample.

11. Holds. If the Client requests a sample be placed on hold, ALS will store the sample for 60 days for the quoted price, after which ALS will invoice the Client and discard the sample.

12. Archives. If the Client requests a sample be archived, ALS will store the sample for 6 months for the quoted price, after which ALS will invoice the Client and discard the sample.

13. Handling Protocol. Legal sample handling protocol must be arranged before samples are collected. ALS may charge a 20% surcharge on the list price plus the hourly technologist or chemist rates for legal sample protocol. Samples processed under legal protocol are stored indefinitely (storage charges may apply).

14. Samples. The quality, condition, content and source of samples stored and tested are not known to ALS except as declared and described on the chain of custody from completed and submitted by the Client and accompanying the sample.

15. Risk of Loss. ALS will use reasonable care to protect samples during storage, however all samples are stored at the Client's risk and the Client is responsible for obtaining appropriate insurance, if desired. The Client acknowledges that during the performance of the Services samples may be altered, lost, damaged or destroyed and the Client releases ALS from any claim the Client may have for any loss or damage to the sample.

16. Environmental. The Client must comply with all applicable environment legislation, including labeling all hazardous samples to comply with WHMIS and TDG regulations, and must provide appropriate material safety data sheets that include the nature of the hazard and a contact name and phone number to call for information. The Client will indemnify ALS for all loss or damages, including any fine or cost of complying with an order of any government authority, resulting from the Client's breach of this paragraph.

17. Hazardous Materials Disposal. ALS may return, at the Client's cost, hazardous material to the Client for disposal.

18. Hazardous Materials Surcharge. ALS may apply an additional surcharge for handling of hazardous samples or samples with Naturally Occurring Radioactive Materials (NORM), H<sub>2</sub>S, CN, etc.

19. Sample Containers. ALS may ship sample containers to the Client's location by the most cost effective means using ALS preferred courier suppliers, within the specified project timeline.

20. Additional Charges. ALS may charge the Client (a) its cost for emergency bottle shipments and shipments to and from a remote site, and (b) where pick up and delivery services are provided, subject in each instance to a minimum charge of \$25.00.

21. Large Bottle Orders. The Client shall provide ALS with 24 hours notice for large bottle orders.

22. Re-Tests. ALS reserves the right to re-test any samples that remains in its possession. Re-tests requested by the Client may be charged.

23. Waiver. The Client is responsible for making any assessment regarding the suitability of the Services and the intended results for the Client's purposes and waives any claims against ALS it may have as a result of the interpretation of the results. The Client shall indemnify ALS for all claims made by any third party against ALS in respect of all losses however arising from the performance of the Services or the use of any report provided in the performance of the Services.

24. Limitation of Liability. In no event shall ALS be liable for any consequential, indirect, incidental, special, exemplary or punitive damages, whether foreseeable or unforeseeable, (including claims for loss of profits or revenue or losses caused by stoppage of other work or impairment of other assets) incurred by the Client arising out of breach or failure of express or implied warranty, breach of contract, breach of warranty, misrepresentation, negligence, strict liability in tort or otherwise. In any event, the liability of ALS to the Client shall be limited to the cost of testing the sample as requested in the chain of custody form under which the sample was originally deposited. For the purposes of this paragraph and paragraphs 8, 15, 16, 23 and 25, as the applicable, ALS includes without limitations its directors, officers, employees and affiliates and the Client includes without limitation any third party that may have a claim against ALS through the Client.

25. Notice of Liability. Notwithstanding paragraph 24, ALS shall not be liable to the Client unless the Client provides notice in writing to ALS of such loss or damage, together with full particulars thereof, within 30 days of the Client's receipt of the report of the analysis of the sample giving rise to such liability. The provisions of this paragraph allocate the risk under the Agreement between the Client and ALS, and the fees to be paid by the Client to ALS reflect this allocation of risks and the limitations of liability in this Agreement.

26. Entire Agreement. The Agreement is the entire agreement between the parties and supercedes and takes precedence over any terms and conditions contained in any documentation provided by the Client. ALS's execution of any subsequent documentation from the Client only acknowledges receipt and not acceptance of any terms or conditions therein. If there is a conflict between these terms and conditions and any other Agreement document, these terms and conditions prevail.



**Quoted Parameters with Detection Limits**

| Parameter                                | Method Reference                       | Report D.L. | Units     |
|------------------------------------------|----------------------------------------|-------------|-----------|
| <b>Soil - Physical Tests</b>             |                                        |             |           |
| % Moisture                               | Gravimetric: Oven Dried                | 0.1         |           |
| pH                                       | APHA 4500B, 2510B, 2320B               | 0.10        | pH units  |
| <b>Soil - Particle Size</b>              |                                        |             |           |
| % Clay (<4um)                            | FORESTRY CANADA (1991) P. 46-48<br>MOD | 1.0         | %         |
| % Gravel (>2mm)                          | FORESTRY CANADA (1991) P. 46-48<br>MOD | 1.0         | %         |
| % Sand (2.0mm - 0.063mm)                 | FORESTRY CANADA (1991) P. 46-48<br>MOD | 1.0         | %         |
| % Silt (0.063mm - 4um)                   | FORESTRY CANADA (1991) P. 46-48<br>MOD | 1.0         | %         |
| <b>Soil - Organic / Inorganic Carbon</b> |                                        |             |           |
| CaCO3 Equivalent                         | SSSA (1996) P455-456                   | 0.70        | %         |
| Inorganic Carbon                         | SSSA (1996) P455-456                   | 0.10        | %         |
| Total Carbon by Combustion               | SSSA (1996) P. 973-974                 | 0.1         | %         |
| Total Carbon by Leco                     | SSSA (1996) P. 973-974                 | 0.1         | %         |
| Total Organic Carbon                     | SSSA (1996) P455-456                   | 0.10        | %         |
| <b>Soil - Metals</b>                     |                                        |             |           |
| Aluminum (Al)-Total                      | EPA SW846 3050B Rev 2 1996             | 3           | mg/kg dwt |
| Antimony (Sb)-Total                      | EPA SW846 3050B Rev 2 1996             | 0.07        | mg/kg dwt |
| Arsenic (As)-Total                       | EPA SW846 3050B Rev 2 1996             | 0.03        | mg/kg dwt |
| Barium (Ba)-Total                        | EPA SW846 3050B Rev 2 1996             | 0.04        | mg/kg dwt |
| Beryllium (Be)-Total                     | EPA SW846 3050B Rev 2 1996             | 0.06        | mg/kg dwt |
| Bismuth (Bi)-Total                       | EPA SW846 3050B Rev 2 1996             | 0.02        | mg/kg dwt |
| Boron (B)-Total                          | EPA SW846 3050B Rev 2 1996             | 0.6         | mg/kg dwt |
| Cadmium (Cd)-Total                       | EPA SW846 3050B Rev 2 1996             | 0.02        | mg/kg dwt |
| Calcium (Ca)-Total                       | EPA SW846 3050B Rev 2 1996             | 7           | mg/kg dwt |
| Chromium (Cr)-Total                      | EPA SW846 3050B Rev 2 1996             | 0.1         | mg/kg dwt |
| Cobalt (Co)-Total                        | EPA SW846 3050B Rev 2 1996             | 0.01        | mg/kg dwt |
| Copper (Cu)-Total                        | EPA SW846 3050B Rev 2 1996             | 0.2         | mg/kg dwt |
| Iron (Fe)-Total                          | EPA SW846 3050B Rev 2 1996             | 6           | mg/kg dwt |
| Lead (Pb)-Total                          | EPA SW846 3050B Rev 2 1996             | 0.05        | mg/kg dwt |
| Magnesium (Mg)-Total                     | EPA SW846 3050B Rev 2 1996             | 2           | mg/kg dwt |
| Manganese (Mn)-Total                     | EPA SW846 3050B Rev 2 1996             | 0.09        | mg/kg dwt |
| Mercury (Hg)-Total                       | EPA 7470A Rev 1,1994                   | 0.020       | mg/kg     |
| Molybdenum (Mo)-Total                    | EPA SW846 3050B Rev 2 1996             | 0.02        | mg/kg dwt |
| Nickel (Ni)-Total                        | EPA SW846 3050B Rev 2 1996             | 0.2         | mg/kg dwt |
| Phosphorus (P)-Total                     | EPA SW846 3050B Rev 2 1996             | 3           | mg/kg dwt |
| Potassium (K)-Total                      | EPA SW846 3050B Rev 2 1996             | 7           | mg/kg dwt |



**Quoted Parameters with Detection Limits**

| Parameter                                      | Method Reference                        | Report D.L. | Units     |
|------------------------------------------------|-----------------------------------------|-------------|-----------|
| <b>Soil - Metals</b>                           |                                         |             |           |
| Selenium (Se)-Total                            | EPA SW846 3050B Rev 2 1996              | 0.1         | mg/kg dwt |
| Silver (Ag)-Total                              | EPA SW846 3050B Rev 2 1996              | 1           | mg/kg dwt |
| Sodium (Na)-Total                              | EPA SW846 3050B Rev 2 1996              | 2           | mg/kg dwt |
| Strontium (Sr)-Total                           | EPA SW846 3050B Rev 2 1996              | 0.02        | mg/kg dwt |
| Thallium (Tl)-Total                            | EPA SW846 3050B Rev 2 1996              | 0.2         | mg/kg dwt |
| Tin (Sn)-Total                                 | EPA SW846 3050B Rev 2 1996              | 4           | mg/kg dwt |
| Titanium (Ti)-Total                            | EPA SW846 3050B Rev 2 1996              | 0.03        | mg/kg dwt |
| Uranium (U)-Total                              | EPA SW846 3050B Rev 2 1996              | 0.02        | mg/kg dwt |
| Vanadium (V)-Total                             | EPA SW846 3050B Rev 2 1996              | 0.06        | mg/kg dwt |
| Zinc (Zn)-Total                                | EPA SW846 3050B Rev 2 1996              | 2           | mg/kg dwt |
| Zirconium (Zr)-Total                           | EPA SW846 3050B Rev 2 1996              | 0.08        | mg/kg dwt |
| <b>Soil - Aggregate Organics</b>               |                                         |             |           |
| Total Oil and Grease                           | CCME Tier 1 Dec 2000                    | 200         | mg/kg     |
| <b>Soil - Polycyclic Aromatic Hydrocarbons</b> |                                         |             |           |
| 1-Methyl Naphthalene                           | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| 2-Methyl Naphthalene                           | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Acenaphthene                                   | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Acenaphthylene                                 | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Acridine                                       | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.050       | mg/kg dwt |
| Anthracene                                     | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Benzo(a)anthracene                             | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Benzo(a)pyrene                                 | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Benzo(b)fluoranthene                           | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Benzo(ghi)perylene                             | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Benzo(k)fluoranthene                           | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Chrysene                                       | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Dibenzo(ah)anthracene                          | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Fluoranthene                                   | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Fluorene                                       | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |



**Quoted Parameters with Detection Limits**

| Parameter                                      | Method Reference                        | Report D.L. | Units     |
|------------------------------------------------|-----------------------------------------|-------------|-----------|
| <b>Soil - Polycyclic Aromatic Hydrocarbons</b> |                                         |             |           |
| Indeno(1,2,3 cd)pyrene                         | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Naphthalene                                    | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Phenanthrene                                   | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Pyrene                                         | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.010       | mg/kg dwt |
| Quinoline                                      | EPA SW846 8270B Sep 1994,3550A Sep 1994 | 0.050       | mg/kg dwt |
| <b>Water - Physical Tests</b>                  |                                         |             |           |
| Conductivity                                   | APHA 2510B                              | 0.40        | umhos/cm  |
| Hardness (as CaCO <sub>3</sub> )               | Calculated                              | 0.20        | mg/L      |
| Hardness (as CaCO <sub>3</sub> )               | Calculated                              | 0.30        | mg/L      |
| pH                                             | APHA 4500H                              | 0.10        | pH units  |
| Total Dissolved Solids                         | APHA 2540                               | 5.0         | mg/L      |
| Total Suspended Solids                         | APHA 2540 LR                            | 2.0         | mg/L      |
| Turbidity                                      | APHA, 1998, 2130B                       | 0.050       | NTU       |
| <b>Water - Anions and Nutrients</b>            |                                         |             |           |
| Alkalinity, Total (as CaCO <sub>3</sub> )      | APHA 2320B                              | 1.0         | mg/L      |
| Ammonia (NH <sub>3</sub> ) - Soluble           | LACHAT;2003                             | 0.0030      | mg/L      |
| Bicarbonate (HCO <sub>3</sub> )                | APHA 2320B                              | 2.0         | mg/L      |
| Carbonate (CO <sub>3</sub> )                   | APHA 2320B                              | 0.60        | mg/L      |
| Chloride (Cl) - Soluble                        | APHA4500 /LACHAT                        | 0.20        | mg/L      |
| Fluoride (F) - Soluble                         | APHA4500/LACHAT                         | 0.10        | mg/L      |
| Hydroxide (OH)                                 | APHA 2320B                              | 0.40        | mg/L      |
| Nitrate+Nitrite-N - Soluble                    | APHA4500;2005/LACHAT;1997,1999          | 0.0050      | mg/L      |
| Nitrate (NO <sub>3</sub> ) - Soluble           |                                         | 0.010       | mg/L      |
| Nitrite-N Soluble                              | Lachat Quikchem 10-107-04-1-F Rev 1997  | 0.010       | mg/L      |
| Ortho Phosphorus Soluble As P                  | APHA, 1998                              | 0.0010      | mg/L      |
| Phosphorus, Total                              | APHA, 1998                              | 0.0010      | mg/L      |
| Silica Reactive Soluble                        | Technicon 105-71W; APHA 4500E           | 0.10        | mg/L      |
| Sulphate (SO <sub>4</sub> ) - Soluble          | APHA4500/LACHAT LR                      | 2.0         | mg/L      |
| Total Kjeldahl Nitrogen                        | Quickchem method 10-107-06-2-E Lachat   | 0.20        | mg/L      |
| <b>Water - Organic / Inorganic Carbon</b>      |                                         |             |           |
| Dissolved Organic Carbon                       | APHA 5310 B-Instrumental                | 1.0         | mg/L      |
| Total Organic Carbon                           | APHA 5310 B-Instrumental                | 1.0         | mg/L      |
| <b>Water - Total Metals</b>                    |                                         |             |           |
| Aluminum (Al)-Total                            | EPA 200.8 Rev 5.4 May 1994              | 0.0050      | mg/L      |



**Quoted Parameters with Detection Limits**

| Parameter                       | Method Reference             | Report D.L. | Units |
|---------------------------------|------------------------------|-------------|-------|
| <b>Water - Total Metals</b>     |                              |             |       |
| Antimony (Sb)-Total             | EPA 200.8 Rev 5.4 May 1994   | 0.00050     | mg/L  |
| Arsenic (As)-Total              | EPA 200.8 Rev 5.4 May 1994   | 0.00050     | mg/L  |
| Barium (Ba)-Total               | EPA 200.8 Rev 5.4 May 1994   | 0.00030     | mg/L  |
| Beryllium (Be)-Total            | EPA 200.8 Rev 5.4 May 1994   | 0.0010      | mg/L  |
| Bismuth (Bi)-Total              | EPA 200.8 Rev 5.4 May 1994   | 0.00020     | mg/L  |
| Boron (B)-Total                 | EPA 200.8 Rev 5.4 May 1994   | 0.030       | mg/L  |
| Cadmium (Cd)-Total              | EPA 200.8 REV 5.4 MAY 1994 U | 0.000010    | mg/L  |
| Calcium (Ca)-Total              | EPA 200.8 Rev 5.4 May 1994   | 0.10        | mg/L  |
| Cesium (Cs)-Total               | EPA 200.8 Rev 5.4 May 1994   | 0.00010     | mg/L  |
| Chromium (Cr)-Total             | EPA 200.8 Rev 5.4 May 1994   | 0.0010      | mg/L  |
| Cobalt (Co)-Total               | EPA 200.8 Rev 5.4 May 1994   | 0.00020     | mg/L  |
| Copper (Cu)-Total               | EPA 200.8 Rev 5.4 May 1994   | 0.0010      | mg/L  |
| Iron (Fe)-Total                 | EPA 200.8 REV 5.4 MAY 1994 U | 0.020       | mg/L  |
| Lead (Pb)-Total                 | EPA 200.8 Rev 5.4 May 1994   | 0.00050     | mg/L  |
| Magnesium (Mg)-Total            | EPA 200.8 Rev 5.4 May 1994   | 0.010       | mg/L  |
| Manganese (Mn)-Total            | EPA 200.8 Rev 5.4 May 1994   | 0.00030     | mg/L  |
| Mercury (Hg)-Total              | EPA 200.8 REV 5.4 MAY 1994 U | 0.00010     | mg/L  |
| Molybdenum (Mo)-Total           | EPA 200.8 Rev 5.4 May 1994   | 0.00020     | mg/L  |
| Nickel (Ni)-Total               | EPA 200.8 Rev 5.4 May 1994   | 0.0020      | mg/L  |
| Phosphorus (P)-Total            | EPA 200.8 Rev 5.4 May 1994   | 0.050       | mg/L  |
| Potassium (K)-Total             | EPA 200.8 Rev 5.4 May 1994   | 0.10        | mg/L  |
| Rubidium (Rb)-Total             | EPA 200.8 Rev 5.4 May 1994   | 0.00020     | mg/L  |
| Selenium (Se)-Total             | EPA 200.8 Rev 5.4 May 1994   | 0.0010      | mg/L  |
| Silver (Ag)-Total               | EPA 200.8 REV 5.4 MAY 1994 U | 0.00010     | mg/L  |
| Sodium (Na)-Total               | EPA 200.8 Rev 5.4 May 1994   | 0.030       | mg/L  |
| Strontium (Sr)-Total            | EPA 200.8 Rev 5.4 May 1994   | 0.00010     | mg/L  |
| Tellurium (Te)-Total            | EPA 200.8 Rev 5.4 May 1994   | 0.0010      | mg/L  |
| Thallium (Tl)-Total             | EPA 200.8 Rev 5.4 May 1994   | 0.00010     | mg/L  |
| Tin (Sn)-Total                  | EPA 200.8 Rev 5.4 May 1994   | 0.00060     | mg/L  |
| Titanium (Ti)-Total             | EPA 200.8 Rev 5.4 May 1994   | 0.00090     | mg/L  |
| Tungsten (W)-Total              | EPA 200.8 Rev 5.4 May 1994   | 0.00020     | mg/L  |
| Uranium (U)-Total               | EPA 200.8 Rev 5.4 May 1994   | 0.00010     | mg/L  |
| Vanadium (V)-Total              | EPA 200.8 Rev 5.4 May 1994   | 0.0010      | mg/L  |
| Zinc (Zn)-Total                 | EPA 200.8 Rev 5.4 May 1994   | 0.010       | mg/L  |
| Zirconium (Zr)-Total            | EPA 200.8 Rev 5.4 May 1994   | 0.00040     | mg/L  |
| <b>Water - Dissolved Metals</b> |                              |             |       |



**Quoted Parameters with Detection Limits**

| <b>Parameter</b>                | <b>Method Reference</b>       | <b>Report D.L.</b> | <b>Units</b> |
|---------------------------------|-------------------------------|--------------------|--------------|
| <b>Water - Dissolved Metals</b> |                               |                    |              |
| Aluminum (Al)-Dissolved         | EPA 200.8 REV 5.4 MAY 1994 DU | 0.0020             | mg/L         |
| Antimony (Sb)-Dissolved         | EPA 200.8 Rev 5.4 May 1994    | 0.0010             | mg/L         |
| Arsenic (As)-Dissolved          | EPA 200.8 Rev 5.4 May 1994    | 0.00050            | mg/L         |
| Barium (Ba)-Dissolved           | EPA 200.8 Rev 5.4 May 1994    | 0.00030            | mg/L         |
| Beryllium (Be)-Dissolved        | EPA 200.8 Rev 5.4 May 1994    | 0.0010             | mg/L         |
| Bismuth (Bi)-Dissolved          | EPA 200.8 Rev 5.4 May 1994    | 0.00030            | mg/L         |
| Boron (B)-Dissolved             | EPA 200.8 Rev 5.4 May 1994    | 0.020              | mg/L         |
| Cadmium (Cd)-Dissolved          | EPA 200.8 Rev 5.4 May 1994    | 0.000010           | mg/L         |
| Calcium (Ca)-Dissolved          | EPA 200.8 Rev 5.4 May 1994    | 0.050              | mg/L         |
| Cesium (Cs)-Dissolved           | EPA 200.8 Rev 5.4 May 1994    | 0.00010            | mg/L         |
| Chromium (Cr)-Dissolved         | EPA 200.8 Rev 5.4 May 1994    | 0.0010             | mg/L         |
| Cobalt (Co)-Dissolved           | EPA 200.8 Rev 5.4 May 1994    | 0.00020            | mg/L         |
| Copper (Cu)-Dissolved           | EPA 200.8 Rev 5.4 May 1994    | 0.00040            | mg/L         |
| Iron (Fe)-Dissolved             | EPA 200.8 Rev 5.4 May 1994    | 0.0020             | mg/L         |
| Lead (Pb)-Dissolved             | EPA 200.8 Rev 5.4 May 1994    | 0.00010            | mg/L         |
| Magnesium (Mg)-Dissolved        | EPA 200.8 Rev 5.4 May 1994    | 0.010              | mg/L         |
| Manganese (Mn)-Dissolved        | EPA 200.8 Rev 5.4 May 1994    | 0.00020            | mg/L         |
| Mercury (Hg)-Dissolved          | EPA 200.8 Rev 5.4 May 1994    | 0.000050           | mg/L         |
| Molybdenum (Mo)-Dissolved       | EPA 200.8 Rev 5.4 May 1994    | 0.00010            | mg/L         |
| Nickel (Ni)-Dissolved           | EPA 200.8 Rev 5.4 May 1994    | 0.00020            | mg/L         |
| Phosphorus (P)-Dissolved        | EPA 200.8 Rev 5.4 May 1994    | 0.020              | mg/L         |
| Potassium (K)-Dissolved         | EPA 200.8 Rev 5.4 May 1994    | 0.050              | mg/L         |
| Rubidium (Rb)-Dissolved         | EPA 200.8 Rev 5.4 May 1994    | 0.00020            | mg/L         |
| Selenium (Se)-Dissolved         | EPA 200.8 Rev 5.4 May 1994    | 0.0010             | mg/L         |
| Silicon (Si)-Dissolved          | EPA 200.8 Rev 5.4 May 1994    | 0.20               | mg/L         |
| Silver (Ag)-Dissolved           | EPA 200.8 Rev 5.4 May 1994    | 0.00010            | mg/L         |
| Sodium (Na)-Dissolved           | EPA 200.8 Rev 5.4 May 1994    | 0.020              | mg/L         |
| Strontium (Sr)-Dissolved        | EPA 200.8 Rev 5.4 May 1994    | 0.00010            | mg/L         |
| Tellurium (Te)-Dissolved        | EPA 200.8 Rev 5.4 May 1994    | 0.00050            | mg/L         |
| Thallium (Tl)-Dissolved         | EPA 200.8 Rev 5.4 May 1994    | 0.00010            | mg/L         |
| Tin (Sn)-Dissolved              | EPA 200.8 Rev 5.4 May 1994    | 0.00030            | mg/L         |
| Titanium (Ti)-Dissolved         | EPA 200.8 Rev 5.4 May 1994    | 0.00050            | mg/L         |
| Tungsten (W)-Dissolved          | EPA 200.8 Rev 5.4 May 1994    | 0.00020            | mg/L         |
| Uranium (U)-Dissolved           | EPA 200.8 Rev 5.4 May 1994    | 0.00010            | mg/L         |
| Vanadium (V)-Dissolved          | EPA 200.8 Rev 5.4 May 1994    | 0.0010             | mg/L         |
| Zinc (Zn)-Dissolved             | EPA 200.8 Rev 5.4 May 1994    | 0.0050             | mg/L         |



#### Quoted Parameters with Detection Limits

| Parameter                       | Method Reference           | Report D.L. | Units |
|---------------------------------|----------------------------|-------------|-------|
| <b>Water - Dissolved Metals</b> |                            |             |       |
| Zirconium (Zr)-Dissolved        | EPA 200.8 Rev 5.4 May 1994 | 0.00040     | mg/L  |

#### Methodology

| Product         | Matrix | Product Description   | Analytical Method Reference |
|-----------------|--------|-----------------------|-----------------------------|
| AG-DIS-ULTRA-WP | Water  | Silver (Ag)-Dissolved | EPA 200.8 Rev 5.4 May 1994  |

ALK-TOT-WP                      Water    Alkalinity                      APHA 2320B

Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. It is determined by titration with a standard solution of strong mineral acid to the successive HCO<sub>3</sub><sup>-</sup> and H<sub>2</sub>CO<sub>3</sub> endpoints indicated electrometrically.

C-DIS-ORG-WP                      Water    Dissolved Organic Carbon                      APHA 5310 B-Instrumental

This method is applicable to the analysis of ground water, wastewater, and surface water samples. The form detected depends upon sample pretreatment: Unfiltered sample = TC, 0.45um filtered = TDC. Samples are injected into a combustion tube containing an oxidation catalyst. The carrier gas containing the combustion product from the combustion tube flows through an inorganic carbon reactor vessel and is then sent through a halogen scrubber into a sample cell set in a non-dispersive infrared gas analyzer (NDIR) where carbon dioxide is detected. For total inorganic carbon and dissolved inorganic carbon, the sample is injected into an IC reactor vessel where only the IC component is decomposed to become carbon dioxide.

The peak area generated by the NDIR indicates the TC/TDC or TIC/DIC as applicable. The total organic carbon content of the sample is calculated by subtracting the TIC from the TC.

TOC = TC-TIC, DOC = TDC-DIC, Particulate = Total - Dissolved.

C-INORG-ORG-SK                      Soil            Inorganic and Organic Carbon                      SSSA (1996) P455-456

When carbonates are decomposed with acid in an open system, carbon dioxide is released to the atmosphere. The decrease in sample weight resulting from CO<sub>2</sub> loss is proportional to the carbonate content of the soil.

#### Reference:

Loeppert, R.H. and Suarez, D.L. 1996. Gravimetric Method for Loss of Carbon Dioxide. P. 455-456 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5

C-TOT-LECO-SK                      Soil            Total Carbon by combustion method                      SSSA (1996) P. 973-974

The sample is introduced into a quartz tube where it undergoes combustion at 900 °C in the presence of oxygen. Combustion gases are first carried through a catalyst bed in the bottom of the combustion tube, where oxidation is completed and then carried through a reducing agent (copper), where the nitrogen oxides are reduced to elemental nitrogen.

This mixture of N<sub>2</sub>, CO<sub>2</sub>, and H<sub>2</sub>O is then passed through an absorber column containing magnesium perchlorate to remove water. N<sub>2</sub> and CO<sub>2</sub> gases are then separated in a gas chromatographic column and detected by thermal conductivity.

#### Reference:

Nelson, D.W. and Sommers, L.E. 1996. Total Carbon, organic carbon and organic matter. P. 973-974 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5



| Methodology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |                       |                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------|-----------------------------|
| Product                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Matrix | Product Description   | Analytical Method Reference |
| C-TOT-ORG-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Water  | Total Organic Carbon  | APHA 5310 B-Instrumental    |
| <p>This method is applicable to the analysis of ground water, wastewater, and surface water samples. The form detected depends upon sample pretreatment: Unfiltered sample = TC, 0.45um filtered = TDC. Samples are injected into a combustion tube containing an oxidation catalyst. The carrier gas containing the combustion product from the combustion tube flows through an inorganic carbon reactor vessel and is then sent through a halogen scrubber into a sample cell set in a non-dispersive infrared gas analyzer (NDIR) where carbon dioxide is detected. For total inorganic carbon and dissolved inorganic carbon, the sample is injected into an IC reactor vessel where only the IC component is decomposed to become carbon dioxide.</p> <p>The peak area generated by the NDIR indicates the TC/TDC or TIC/DIC as applicable. The total organic carbon content of the sample is calculated by subtracting the TIC from the TC.<br/> TOC = TC-TIC, DOC = TDC-DIC, Particulate = Total - Dissolved.</p> |        |                       |                             |
| EC-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Water  | Conductivity          | APHA 2510B                  |
| <p>Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |                       |                             |
| F-SOL-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Water  | Fluoride Soluble      | APHA4500/LACHAT             |
| <p>Fluoride - Ion selective electrode</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |                       |                             |
| HG-TOT-CV-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Soil   | Mercury Total         | EPA 7470A Rev 1,1994        |
| <p>A hydrochloric acid/nitric acid and potassium persulphate block digestion is employed to oxidize the organomercury to inorganic mercury. After digestion, samples are analyzed using cold vapour techniques.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |                       |                             |
| MET-SCNOU-DIS-LOW-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Water  | Metal scan, dissolved | EPA 200.8 Rev 5.4 May 1994  |
| <p>Dissolved Metals by ICP-MS</p> <p>This analysis is carried out using sample preparation procedures adapted from APHA, AWWA, WPCF, Standard Methods for the Examination of Water and Wastewater for filtration through a 0.45 um filter, and procedures adapted from U.S. EPA Method 200.8 for analysis by inductively coupled - mass spectrometry.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |                       |                             |
| MET-SCNOU-TOT-LOW-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Water  | Metal scan            | EPA 200.8 Rev 5.4 May 1994  |
| <p>Total Metals by ICP-MS</p> <p>This analysis is carried out using sample preparation procedures adapted from U.S. EPA-600/4-82-055 for hotblock digestion or U.S. EPA Test Methods for Evaluating Solid Waste SW846 3015 for microwave digestion, and procedures adapted from U.S. EPA Method 200.8 for analysis by inductively coupled - mass spectrometry.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        |                       |                             |
| METAL-LOW-EXD-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Soil   | Metals                | EPA SW846 3050B Rev 2 1996  |
| <p>Metals in Soils by ICP-MS</p> <p>The submitted sample is homogenized, dried at &lt;50 Celcius, and sieved through an 80 mesh sieve. Analysis is carried out using sample preparation procedures adapted from U.S. EPA Test Methods for Evaluating Solid Waste SW846 Method 3050B for sample digestion and procedures adapted from U.S. EPA Method 200.8 for analysis by inductively coupled - mass spectrometry.</p> <p>Method limitation: This method is not a total digestion technique. It is a very strong acid digestion intended to dissolve those metals that may become "environmentally available". By design, elements bound in silicate structures are not normally dissolved by this procedure and they are not usually mobile in the environment.</p>                                                                                                                                                                                                                                                     |        |                       |                             |



| <b>Methodology</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |                            |                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------|-----------------------------------------|
| <b>Product</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Matrix</b> | <b>Product Description</b> | <b>Analytical Method Reference</b>      |
| MOISTURE-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Soil          | % Moisture                 | Gravimetric: Oven Dried                 |
| An aliquot of the sample is weighed, dried at 105 degrees Celcius overnight, then reweighed. The percent moisture is calculated by subtracting the dry weight from the wet weight, dividing by the wet weight and multiplying by 100.                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                            |                                         |
| Organic analysis is performed on a known aliquot of the wet sample. The analytical result is then corrected for moisture content, and reported as dry weight corrected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                            |                                         |
| N-TOTKJ-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Water         | Total Kjeldahl Nitrogen    | Quickchem method 10-107-06-2-E Lachat   |
| Samples are digested with a sulphuric acid solution, cooled, diluted with water, and analyzed for ammonia. Total Kjeldahl nitrogen is the sum of free-ammonia and organic nitrogen compounds which are converted to ammonium sulphate through this digestion process. Analysis is performed by Flow Injection Analysis (FIA). The pH of the digested sample is raised to a known, basic pH by neutralization with a concentrated buffer solution. This neutralization converts the ammonium cation to ammonia. The ammonia produced is heated with salicylate and hypochlorite to produce blue colour which is proportional to the ammonia concentration. |               |                            |                                         |
| N2N3-SOL-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Water         | Nitrate + Nitrite Soluble  | APHA4500;2005/LACHAT;1997,1999          |
| NH3-SOL-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Water         | Ammonia Soluble            | LACHAT;2003                             |
| Ammonia - Colourimetric using Salicylate-nitroprusside and hypochlorite, in an alkaline phosphate buffer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |                            |                                         |
| NO2-SOL-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Water         | Nitrite                    | Lachat Quikchem 10-107-04-1-F Rev 1997  |
| P-ORTHO-SOL-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Water         | Ortho Phosphorous Soluble  | APHA, 1998                              |
| Samples are digested using a sulphuric acid-persulphate mixture to convert organic phosphorous to orthophosphate. The samples are analyzed by either the Flow Injection Analysis (FIA) or the Segmented Flow Analysis (SFA) method. The absorbance measured by the instrument is proportional to the concentration of orthophosphate in the sample, and is reported as phosphorous. Quantitative soluble or dissolved orthophosphorous values can be determined by carrying out the procedure without the digestion step.                                                                                                                                 |               |                            |                                         |
| P-TOTAL-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Water         | Phosphorus, Total          | APHA, 1998                              |
| Samples are digested using a sulphuric acid-persulphate mixture to convert organic phosphorous to orthophosphate. The samples are analyzed by either the Flow Injection Analysis (FIA) or the Segmented Flow Analysis (SFA) method. The absorbance measured by the instrument is proportional to the concentration of orthophosphate in the sample, and is reported as phosphorous. Samples are analyzed for total or total dissolved phosphorous depending on the sample pretreatment.                                                                                                                                                                   |               |                            |                                         |
| PAH,PANH-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Soil          | PAH                        | EPA SW846 8270B Sep 1994,3550A Sep 1994 |
| Samples are ground into sodium sulfate and extracted with acetone/dichloromethane using a combination of high frequency sonication and shake using a wrist-action shaker. After extract concentration, samples are analyzed by GC/MS.                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                            |                                         |
| PH-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Water         | pH                         | APHA 4500H                              |
| pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                            |                                         |



| Methodology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |                                   |                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------|-------------------------------------|
| Product                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Matrix | Product Description               | Analytical Method Reference         |
| PH-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Soil   | PH                                | APHA 4500B, 2510B, 2320B            |
| pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |                                   |                                     |
| PREP-MET-A354-ULT-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Water  | Prep for Metals, ultra            |                                     |
| PREP-MET-DIS-ULT-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Water  | Ultra prep                        |                                     |
| PSA-PIPET+GRAVEL-SK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Soil   | Particle size - Sieve and Pipette | FORESTRY CANADA (1991) P. 46-48 MOD |
| Particle size analysis involves the measurement of the proportions of the various primary soil particle sizes (ie. clay < 0.004 mm, silt 0.004-0.063 mm, sand 0.063-2.0 mm and gravel > 2.0 mm). In this method, the gravel and sand portions are determined by sieving, while the clay portion is determined by sedimentation using Stokes Law, which relates the radius of the particles to the velocity of the sedimentation in water. Silt is calculated as 100% - ( sand% + clay%) Pretreatment of the soil with Calgon (sodium hexametaphosphate) is used to ensure the complete dispersion of the primary soil particles. Additional pretreatment may be necessary to remove cementing materials such as CaCO <sub>3</sub> and organic matter. |        |                                   |                                     |
| Reference<br>Y.P. Kalra, and D.G. Maynard, 1991. Methods Manual For Forest Soil and Plant Analysis, Northwest Region. Forestry Canada (modified sand, silt and clay size ranges)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |                                   |                                     |
| SILICA-REAC-SOL-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Water  | Reactive Silica                   | Technicon 105-71W; APHA 4500E       |
| Ammonium molybdate at approximately pH 1.2 reacts with silica and phosphate to produce heteropoly acids. Oxalic acid is added to destroy the molybdosilicic acid but not the molybdosilicic acid. The yellow molybdosilicic acid is reduced by ascorbic acid to heteropoly blue. The intensity of the blue colour measured spectrophotometrically at 600 nm is proportional to the concentration of molybdate-reactive silica and is reported as soluble. Results reported as dissolved indicate the sample was filtered prior to analysis.                                                                                                                                                                                                           |        |                                   |                                     |
| SOLIDS-TDS-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Water  | Total Dissolved Solids            | APHA 2540                           |
| The residue remaining in a prepared casserole after passing the sample through a 1.2 um Whatman GF/C glass microfibre filter and drying at 180 degrees C. Samples may be dried at 105 degrees C if the client specifically requests this drying temperature.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |                                   |                                     |
| SOLIDS-TOTSUS-LR-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Water  | Total Suspended Solids            | APHA 2540 LR                        |
| The residue retained by a prepared 1.5 um Whatman 934-AH glass microfibre filter dried at 105 degrees C. A method detection limit of 2 mg/L can be achieved when 500 mL of sample is used.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                   |                                     |
| TURBIDITY-WP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Water  | Turbidity                         | APHA, 1998, 2130B                   |
| A strong light beam is sent through a transparent tube containing the sample. Light that is reflected at 90 degrees to the axis by suspended particles is detected by the photocell. The electrical response is proportional to the sample turbidity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |                                   |                                     |



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**After Hours Emergency Pager:** (204)-931-3145

# CHAIN OF CUSTODY/ANALYTICAL REQUEST FORM

Service Requested: Regular X Rush \_\_\_\_\_ Emergency \_\_\_\_\_

Quotation Number: Q21514

W10104

Account# W.

Project Number: \_\_\_\_\_ AEM-AWR \_\_\_\_\_

| CHAIN OF CUSTODY/ANALYTICAL REQUEST FORM                                                                                        |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Service Requested: Regular <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Emergency <input type="checkbox"/> |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Quotation Number: Q21514                                                                                                        |  |  |  | W10104                           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Account# W_____                                                                                                                 |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Project Number: _____AEM- AWR_____                                                                                              |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  | Routine: Cond, pH, Hardness, TSS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  | Oil and Grease                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  | Sulphate                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  | TKN and Ammonia                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  | Total Metals                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  | Dissolved Metals                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  | Hg                               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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**CLIENT INFORMATION:**

**REPORT TO:**

**Ryan VanEngen:** [rvanengen@agnico-eagle.com](mailto:rvanengen@agnico-eagle.com)  
867. 739. 4610 at MBK x 6759  
If off site: 519.400.7979

**INVOICE:**

**payables.meadowbank@agnico-eagle.com.**

20 Route 395 Cadillac Que. J0Y 1C0

**FOR LABORATORY USE ONLY:**

SAMPLE CONDITION UPON RECEIPT: FROZEN \_\_\_\_\_ COLD \_\_\_\_\_ AMBIENT ☒

ACCEPTABLE ☒ NON ACCEPTABLE \_\_\_\_\_

OTHER (BREAKAGE, LEAKAGE, ETC.): 15.4°C

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**NOTES AND CONDITIONS:** 1. Hazardous samples must be labelled to comply with WHMIS regulations.

2. ALS's liability limited to cost of analysis. 3. Failure to complete all portions of this form may delay analysis.

|                  |                |                                                                                                  |                 |
|------------------|----------------|--------------------------------------------------------------------------------------------------|-----------------|
| Relinquished By: | Date: 07/25/09 | Received By:  | Date: 29-JUL-09 |
| Ryan VE          | Time: 13:00    | ALS Lab:                                                                                         | Time: 12:00     |
| Relinquished By: | Date:          | Received By:                                                                                     | Date:           |
| Time:            | ALS Lab:       | Time:                                                                                            |                 |

Environmental Division



Ship to: Unit 12-1329 Niakwa Road, Winnipeg, Manitoba, R3J 3T4  
Telephone: (204) 255-9720  
Fax: (204) 255-9721

After Hours Emergency Pager: (204) 931-3145

# CHAIN OF CUSTODY/ANALYTICAL REQUEST FORM

Service Requested: Regular ☒ Rush ☐ Emergency ☐

Quotation Number: Q21514

W10104

Account# W

Project Number: AEM-AWR

| Sample ID             | Sampled By | Date/Time Sampled | Sample Type | Routine: Cond, pH, Hardness, TSS | Oil and Grease | Sulphate | TKN and Ammonia | Total Metals | Dissolved Metals | Hg | Doc | TOC |  |  |  |  |  |  |  |
|-----------------------|------------|-------------------|-------------|----------------------------------|----------------|----------|-----------------|--------------|------------------|----|-----|-----|--|--|--|--|--|--|--|
| 9 R15 US              | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |
| 10 R15 DS             | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |
| 11 <u>Q16</u> MISSING | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |
| 12 KM 71              | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |
| 13 R26TPL             | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |
| 14 DUP1               | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |
|                       | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |

CLIENT INFORMATION:

REPORT TO:

Ryan VanEngen: rvanengen@agnico-eagle.com

867. 739. 4610 at MBK x 6759

If off site: 519.400.7979

FOR LABORATORY USE ONLY:  
SAMPLE CONDITION UPON RECEIPT:

FROZEN

COLD

AMBIENT

ACCEPTABLE NON ACCEPTABLE

OTHER (BREAKAGE, LEAKAGE, ETC.):

15.4°C

NOTES AND CONDITIONS: 1. Hazardous samples must be labelled to comply with WHMIS regulations.

2. ALS's liability limited to cost of analysis. 3. Failure to complete all portions of this form may delay analysis.

Relinquished By:

Date: 07/25/09

Received By: CD

Date: 29-JUL-09

Ryan VE

Time: 13:00

ALS Lab:

Time: 12:00

Relinquished By:

Date:

Received By:

Date:

INVOICE:  
payables.meadowbank@agnico-eagle.com.  
20 Route 395 Cadillac Que. J0Y 1C0

COMMENTS: No 1L Glass sent for Oil and Grease: Use 1 L Plastic or TOC bottles for Oil and Grease 1 of 2.



**Environmental Division**

**Certificate of Analysis**

AGNICO-EAGLE MINING LTD

ATTN: RYAN VANENGEN

MEADOWBANK DIV.

P.O. BOX 540

BAKER LAKE NU X0X 0A0

**Report Date:** 26-AUG-09 10:40 (MT)

**Version:** FINAL

**Lab Work Order #:** L798789

**Date Received:** 29-JUL-09

**Project P.O. #:** OP-62992

**Job Reference:** AEM-AWR

**Legal Site Desc:**

**CofC Numbers:**

**Other Information:**

**Comments:**

GAIL HILL  
Account Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.  
ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU  
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

**Manitoba Technology Centre Ltd.**

Part of the **ALS Laboratory Group**

1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4

Phone: +1 204 255 9720 Fax: +1 204 255 9721 [www.alsglobal.com](http://www.alsglobal.com)

A Campbell Brothers Limited Company

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters                                                                                | Result    | Qualifier* | D.L.     | Units | Extracted | Analyzed  | Batch   |
|----------------------------------------------------------------------------------------------------------|-----------|------------|----------|-------|-----------|-----------|---------|
| L798789-1 R02 US<br>Sampled By: RV, TT, TM on 21-JUL-09<br>Matrix: WATER<br>CCME Aqlife Dissolved Metals |           |            |          |       |           |           |         |
| Aluminum (Al)-Dissolved<br>Aluminum (Al)-Dissolved                                                       | 0.0028    |            | 0.0020   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cadmium (Cd)-Dissolved<br>Cadmium (Cd)-Dissolved                                                         | 0.000027  |            | 0.000010 | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Iron (Fe)-Dissolved<br>Iron (Fe)-Dissolved                                                               | 0.0069    |            | 0.0020   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Mercury (Hg)-Dissolved<br>Mercury (Hg)-Dissolved                                                         | <0.000050 |            | 0.000050 | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Metal scan, dissolved                                                                                    |           |            |          |       |           |           |         |
| Arsenic (As)-Dissolved                                                                                   | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 08-AUG-09 | R907500 |
| Boron (B)-Dissolved                                                                                      | <0.020    |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Barium (Ba)-Dissolved                                                                                    | 0.0105    |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Beryllium (Be)-Dissolved                                                                                 | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Bismuth (Bi)-Dissolved                                                                                   | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Calcium (Ca)-Dissolved                                                                                   | 3.98      |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cobalt (Co)-Dissolved                                                                                    | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Chromium (Cr)-Dissolved                                                                                  | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cesium (Cs)-Dissolved                                                                                    | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Copper (Cu)-Dissolved                                                                                    | 0.00063   |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Potassium (K)-Dissolved                                                                                  | 0.456     |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Magnesium (Mg)-Dissolved                                                                                 | 0.740     |            | 0.010    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Manganese (Mn)-Dissolved                                                                                 | 0.00052   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Molybdenum (Mo)-Dissolved                                                                                | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Sodium (Na)-Dissolved                                                                                    | 1.74      |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Nickel (Ni)-Dissolved                                                                                    | 0.00023   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Phosphorus (P)-Dissolved                                                                                 | <0.020    |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Lead (Pb)-Dissolved                                                                                      | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Rubidium (Rb)-Dissolved                                                                                  | 0.00049   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Antimony (Sb)-Dissolved                                                                                  | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Selenium (Se)-Dissolved                                                                                  | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silicon (Si)-Dissolved                                                                                   | <0.20     |            | 0.20     | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tin (Sn)-Dissolved                                                                                       | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Strontium (Sr)-Dissolved                                                                                 | 0.0191    |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tellurium (Te)-Dissolved                                                                                 | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Titanium (Ti)-Dissolved                                                                                  | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Thallium (Tl)-Dissolved                                                                                  | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Uranium (U)-Dissolved                                                                                    | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Vanadium (V)-Dissolved                                                                                   | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tungsten (W)-Dissolved                                                                                   | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zinc (Zn)-Dissolved                                                                                      | <0.0050   |            | 0.0050   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zirconium (Zr)-Dissolved                                                                                 | <0.00040  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silver (Ag)-Dissolved<br>Silver (Ag)-Dissolved                                                           | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| CCME Aqlife Total Metals                                                                                 |           |            |          |       |           |           |         |
| Aluminum (Al)-Total<br>Aluminum (Al)-Total                                                               | 0.0124    |            | 0.0050   | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Cadmium (Cd)-Total<br>Cadmium (Cd)-Total                                                                 | <0.000010 |            | 0.000010 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Iron (Fe)-Total<br>Iron (Fe)-Total                                                                       | 0.022     |            | 0.020    | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Mercury (Hg)-Total<br>Mercury (Hg)-Total                                                                 | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters     | Result                  | Qualifier* | D.L.    | Units | Extracted | Analyzed  | Batch   |
|-------------------------------|-------------------------|------------|---------|-------|-----------|-----------|---------|
| L798789-1                     | R02 US                  |            |         |       |           |           |         |
| Sampled By:                   | RV, TT, TM on 21-JUL-09 |            |         |       |           |           |         |
| Matrix:                       | WATER                   |            |         |       |           |           |         |
| Metal scan                    |                         |            |         |       |           |           |         |
| Arsenic (As)-Total            | <0.00050                |            | 0.00050 | mg/L  | 05-AUG-09 | 08-AUG-09 | R907500 |
| Boron (B)-Total               | <0.030                  |            | 0.030   | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Barium (Ba)-Total             | 0.0104                  |            | 0.00030 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Beryllium (Be)-Total          | <0.0010                 |            | 0.0010  | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Bismuth (Bi)-Total            | <0.00020                |            | 0.00020 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Calcium (Ca)-Total            | 4.31                    |            | 0.10    | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Cobalt (Co)-Total             | 0.00028                 |            | 0.00020 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Chromium (Cr)-Total           | <0.0010                 |            | 0.0010  | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Cesium (Cs)-Total             | <0.00010                |            | 0.00010 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Copper (Cu)-Total             | <0.0010                 |            | 0.0010  | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Potassium (K)-Total           | 0.49                    |            | 0.10    | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Magnesium (Mg)-Total          | 0.816                   |            | 0.010   | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Manganese (Mn)-Total          | 0.00195                 |            | 0.00030 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Molybdenum (Mo)-Total         | <0.00020                |            | 0.00020 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Sodium (Na)-Total             | 2.10                    |            | 0.030   | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Nickel (Ni)-Total             | <0.0020                 |            | 0.0020  | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Phosphorus (P)-Total          | 0.061                   |            | 0.050   | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Lead (Pb)-Total               | <0.00050                |            | 0.00050 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Rubidium (Rb)-Total           | 0.00048                 |            | 0.00020 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Antimony (Sb)-Total           | <0.00050                |            | 0.00050 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Selenium (Se)-Total           | <0.0010                 |            | 0.0010  | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Tin (Sn)-Total                | <0.00060                |            | 0.00060 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Strontium (Sr)-Total          | 0.0182                  |            | 0.00010 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Tellurium (Te)-Total          | <0.0010                 |            | 0.0010  | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Titanium (Ti)-Total           | <0.00090                |            | 0.00090 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Thallium (Tl)-Total           | <0.00010                |            | 0.00010 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Uranium (U)-Total             | <0.00010                |            | 0.00010 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Vanadium (V)-Total            | <0.0010                 |            | 0.0010  | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Tungsten (W)-Total            | <0.00020                |            | 0.00020 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Zinc (Zn)-Total               | <0.010                  |            | 0.010   | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Zirconium (Zr)-Total          | <0.00040                |            | 0.00040 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Silver (Ag)-Total             |                         |            |         |       |           |           |         |
| Silver (Ag)-Total             | <0.00010                |            | 0.00010 | mg/L  | 05-AUG-09 | 05-AUG-09 | R898543 |
| Miscellaneous Parameters      |                         |            |         |       |           |           |         |
| Ammonia (NH3) - Soluble       | <0.0030                 |            | 0.0030  | mg/L  |           | 08-AUG-09 | R905084 |
| Chloride (Cl) - Soluble       | 2.15                    |            | 0.20    | mg/L  |           | 11-AUG-09 | R909101 |
| Dissolved Organic Carbon      | 2.6                     |            | 1.0     | mg/L  |           | 18-AUG-09 | R912508 |
| Fluoride (F) - Soluble        | 0.15                    |            | 0.10    | mg/L  |           | 04-AUG-09 | R894644 |
| Hardness (as CaCO3)           | 14.1                    |            | 0.30    | mg/L  |           | 11-AUG-09 |         |
| Hardness (as CaCO3)           | 13.0                    |            | 0.20    | mg/L  |           | 04-AUG-09 |         |
| Ortho Phosphorus Soluble As P | <0.0010                 | RAMB       | 0.0010  | mg/L  |           | 13-AUG-09 | R910192 |
| Phosphorus, Total             | 0.0053                  |            | 0.0010  | mg/L  | 07-AUG-09 | 07-AUG-09 | R904695 |
| Silica Reactive Soluble       | 0.32                    |            | 0.10    | mg/L  |           | 06-AUG-09 | R901183 |
| Sulphate (SO4) - Soluble      | 3.6                     |            | 2.0     | mg/L  |           | 07-AUG-09 | R904561 |
| Total Dissolved Solids        | 22.0                    |            | 5.0     | mg/L  |           | 31-JUL-09 | R891664 |
| Total Kjeldahl Nitrogen       | <0.20                   |            | 0.20    | mg/L  | 31-JUL-09 | 05-AUG-09 | R895965 |
| Total Oil and Grease          | <1.0                    |            | 1.0     | mg/L  | 01-AUG-09 | 04-AUG-09 | R894604 |
| Total Organic Carbon          | 2.8                     |            | 1.0     | mg/L  |           | 18-AUG-09 | R912508 |
| Total Suspended Solids        | <2.0                    |            | 2.0     | mg/L  |           | 31-JUL-09 | R891664 |
| Turbidity                     | 0.90                    |            | 0.050   | NTU   |           | 30-JUL-09 | R888872 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters                                               | Result    | Qualifier* | D.L.     | Units    | Extracted | Analyzed  | Batch   |
|-------------------------------------------------------------------------|-----------|------------|----------|----------|-----------|-----------|---------|
| L798789-1R02 US<br>Sampled By: RV, TT, TM on 21-JUL-09<br>Matrix: WATER |           |            |          |          |           |           |         |
| Nitrate<br>Nitrate (NO3) - Soluble                                      | 461       |            | 0.010    | mg/L     |           | 24-AUG-09 |         |
| Nitrate + Nitrite Soluble<br>Nitrate+Nitrite-N - Soluble                | 461       |            | 0.0050   | mg/L     |           | 22-AUG-09 | R918616 |
| Nitrite<br>Nitrite-N Soluble                                            | <0.010    |            | 0.010    | mg/L     |           | 31-JUL-09 | R891503 |
| pH, Conductivity and Total Alkalinity                                   |           |            |          |          |           |           |         |
| Alkalinity                                                              |           |            |          |          |           |           |         |
| Alkalinity, Total (as CaCO3)                                            | 13.3      |            | 1.0      | mg/L     |           | 04-AUG-09 | R895344 |
| Bicarbonate (HCO3)                                                      | 16.2      |            | 2.0      | mg/L     |           | 04-AUG-09 | R895344 |
| Carbonate (CO3)                                                         | <0.60     |            | 0.60     | mg/L     |           | 04-AUG-09 | R895344 |
| Hydroxide (OH)                                                          | <0.40     |            | 0.40     | mg/L     |           | 04-AUG-09 | R895344 |
| Conductivity                                                            |           |            |          |          |           |           |         |
| Conductivity                                                            | 40.2      |            | 0.40     | umhos/cm |           | 30-JUL-09 | R889047 |
| pH                                                                      |           |            |          |          |           |           |         |
| pH                                                                      | 7.36      |            | 0.10     | pH units |           | 30-JUL-09 | R889047 |
| L798789-2R02 DS<br>Sampled By: RV, TT, TM on 21-JUL-09<br>Matrix: WATER |           |            |          |          |           |           |         |
| CCME Aqlife Dissolved Metals                                            |           |            |          |          |           |           |         |
| Aluminum (Al)-Dissolved<br>Aluminum (Al)-Dissolved                      | 0.0029    |            | 0.0020   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cadmium (Cd)-Dissolved<br>Cadmium (Cd)-Dissolved                        | <0.000010 |            | 0.000010 | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Iron (Fe)-Dissolved<br>Iron (Fe)-Dissolved                              | 0.0040    |            | 0.0020   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Mercury (Hg)-Dissolved<br>Mercury (Hg)-Dissolved                        | <0.000050 |            | 0.000050 | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Metal scan, dissolved                                                   |           |            |          |          |           |           |         |
| Arsenic (As)-Dissolved                                                  | <0.00050  |            | 0.00050  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Boron (B)-Dissolved                                                     | <0.020    |            | 0.020    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Barium (Ba)-Dissolved                                                   | 0.0101    |            | 0.00030  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Beryllium (Be)-Dissolved                                                | <0.0010   |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Bismuth (Bi)-Dissolved                                                  | <0.00030  |            | 0.00030  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Calcium (Ca)-Dissolved                                                  | 3.88      |            | 0.050    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cobalt (Co)-Dissolved                                                   | <0.00020  |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Chromium (Cr)-Dissolved                                                 | <0.0010   |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cesium (Cs)-Dissolved                                                   | <0.00010  |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Copper (Cu)-Dissolved                                                   | 0.00060   |            | 0.00040  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Potassium (K)-Dissolved                                                 | 0.447     |            | 0.050    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Magnesium (Mg)-Dissolved                                                | 0.723     |            | 0.010    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Manganese (Mn)-Dissolved                                                | 0.00033   |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Molybdenum (Mo)-Dissolved                                               | <0.00010  |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Sodium (Na)-Dissolved                                                   | 1.74      |            | 0.020    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Nickel (Ni)-Dissolved                                                   | <0.00020  |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Phosphorus (P)-Dissolved                                                | <0.020    |            | 0.020    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Lead (Pb)-Dissolved                                                     | <0.00010  |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Rubidium (Rb)-Dissolved                                                 | 0.00045   |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Antimony (Sb)-Dissolved                                                 | <0.0010   |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Selenium (Se)-Dissolved                                                 | <0.0010   |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silicon (Si)-Dissolved                                                  | <0.20     |            | 0.20     | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tin (Sn)-Dissolved                                                      | <0.00030  |            | 0.00030  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           | Result    | Qualifier* | D.L.     | Units | Extracted | Analyzed  | Batch   |
|-------------------------------------|-----------|------------|----------|-------|-----------|-----------|---------|
| L798789-2 R02 DS                    |           |            |          |       |           |           |         |
| Sampled By: RV, TT, TM on 21-JUL-09 |           |            |          |       |           |           |         |
| Matrix: WATER                       |           |            |          |       |           |           |         |
| Metal scan, dissolved               |           |            |          |       |           |           |         |
| Strontium (Sr)-Dissolved            | 0.0187    |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tellurium (Te)-Dissolved            | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Titanium (Ti)-Dissolved             | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Thallium (Tl)-Dissolved             | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Uranium (U)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Vanadium (V)-Dissolved              | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tungsten (W)-Dissolved              | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zinc (Zn)-Dissolved                 | <0.0050   |            | 0.0050   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zirconium (Zr)-Dissolved            | <0.00040  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silver (Ag)-Dissolved               |           |            |          |       |           |           |         |
| Silver (Ag)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| CCME Aqlife Total Metals            |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 | 0.0130    |            | 0.0050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cadmium (Cd)-Total                  |           |            |          |       |           |           |         |
| Cadmium (Cd)-Total                  | <0.000010 |            | 0.000010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Iron (Fe)-Total                     |           |            |          |       |           |           |         |
| Iron (Fe)-Total                     | <0.020    |            | 0.020    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Mercury (Hg)-Total                  |           |            |          |       |           |           |         |
| Mercury (Hg)-Total                  | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Metal scan                          |           |            |          |       |           |           |         |
| Arsenic (As)-Total                  | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Boron (B)-Total                     | <0.030    |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Barium (Ba)-Total                   | 0.0106    |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Beryllium (Be)-Total                | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Bismuth (Bi)-Total                  | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Calcium (Ca)-Total                  | 4.35      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cobalt (Co)-Total                   | 0.00025   |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Chromium (Cr)-Total                 | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cesium (Cs)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Copper (Cu)-Total                   | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Potassium (K)-Total                 | 0.49      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Magnesium (Mg)-Total                | 0.791     |            | 0.010    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Manganese (Mn)-Total                | 0.00160   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Molybdenum (Mo)-Total               | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Sodium (Na)-Total                   | 2.00      |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Nickel (Ni)-Total                   | <0.0020   |            | 0.0020   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Phosphorus (P)-Total                | 0.059     |            | 0.050    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Lead (Pb)-Total                     | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Rubidium (Rb)-Total                 | 0.00047   |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Antimony (Sb)-Total                 | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Selenium (Se)-Total                 | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tin (Sn)-Total                      | <0.00060  |            | 0.00060  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Strontium (Sr)-Total                | 0.0176    |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tellurium (Te)-Total                | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Titanium (Ti)-Total                 | <0.00090  |            | 0.00090  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Thallium (Tl)-Total                 | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Uranium (U)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Vanadium (V)-Total                  | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tungsten (W)-Total                  | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zinc (Zn)-Total                     | <0.010    |            | 0.010    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zirconium (Zr)-Total                | <0.00040  |            | 0.00040  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |

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

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ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           | Result    | Qualifier* | D.L.     | Units | Extracted | Analyzed  | Batch   |
|-------------------------------------|-----------|------------|----------|-------|-----------|-----------|---------|
| L798789-3 R06 US                    |           |            |          |       |           |           |         |
| Sampled By: RV, TT, TM on 21-JUL-09 |           |            |          |       |           |           |         |
| Matrix: WATER                       |           |            |          |       |           |           |         |
| Metal scan, dissolved               |           |            |          |       |           |           |         |
| Barium (Ba)-Dissolved               | 0.00367   |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Beryllium (Be)-Dissolved            | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Bismuth (Bi)-Dissolved              | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Calcium (Ca)-Dissolved              | 3.47      |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cobalt (Co)-Dissolved               | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Chromium (Cr)-Dissolved             | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cesium (Cs)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Copper (Cu)-Dissolved               | 0.00115   |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Potassium (K)-Dissolved             | 0.403     |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Magnesium (Mg)-Dissolved            | 0.895     |            | 0.010    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Manganese (Mn)-Dissolved            | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Molybdenum (Mo)-Dissolved           | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Sodium (Na)-Dissolved               | 1.81      |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Nickel (Ni)-Dissolved               | 0.00031   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Phosphorus (P)-Dissolved            | <0.020    |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Lead (Pb)-Dissolved                 | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Rubidium (Rb)-Dissolved             | 0.00037   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Antimony (Sb)-Dissolved             | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Selenium (Se)-Dissolved             | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silicon (Si)-Dissolved              | <0.20     |            | 0.20     | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tin (Sn)-Dissolved                  | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Strontium (Sr)-Dissolved            | 0.0142    |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tellurium (Te)-Dissolved            | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Titanium (Ti)-Dissolved             | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Thallium (Tl)-Dissolved             | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Uranium (U)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Vanadium (V)-Dissolved              | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tungsten (W)-Dissolved              | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zinc (Zn)-Dissolved                 | <0.0050   |            | 0.0050   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zirconium (Zr)-Dissolved            | <0.00040  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silver (Ag)-Dissolved               |           |            |          |       |           |           |         |
| Silver (Ag)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| CCME Aqlife Total Metals            |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 | 0.0356    |            | 0.0050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cadmium (Cd)-Total                  |           |            |          |       |           |           |         |
| Cadmium (Cd)-Total                  | <0.000010 |            | 0.000010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Iron (Fe)-Total                     |           |            |          |       |           |           |         |
| Iron (Fe)-Total                     | 0.044     |            | 0.020    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Mercury (Hg)-Total                  |           |            |          |       |           |           |         |
| Mercury (Hg)-Total                  | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Metal scan                          |           |            |          |       |           |           |         |
| Arsenic (As)-Total                  | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Boron (B)-Total                     | <0.030    |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Barium (Ba)-Total                   | 0.00329   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Beryllium (Be)-Total                | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Bismuth (Bi)-Total                  | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Calcium (Ca)-Total                  | 3.84      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cobalt (Co)-Total                   | 0.00026   |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Chromium (Cr)-Total                 | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cesium (Cs)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Copper (Cu)-Total                   | 0.0012    |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters             | Result                  | Qualifier* | D.L.    | Units | Extracted | Analyzed  | Batch   |
|---------------------------------------|-------------------------|------------|---------|-------|-----------|-----------|---------|
| L798789-3                             | R06 US                  |            |         |       |           |           |         |
| Sampled By:                           | RV, TT, TM on 21-JUL-09 |            |         |       |           |           |         |
| Matrix:                               | WATER                   |            |         |       |           |           |         |
| Metal scan                            |                         |            |         |       |           |           |         |
| Potassium (K)-Total                   | 0.43                    |            | 0.10    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Magnesium (Mg)-Total                  | 1.01                    |            | 0.010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Manganese (Mn)-Total                  | 0.00174                 |            | 0.00030 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Molybdenum (Mo)-Total                 | <0.00020                |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Sodium (Na)-Total                     | 2.06                    |            | 0.030   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Nickel (Ni)-Total                     | <0.0020                 |            | 0.0020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Phosphorus (P)-Total                  | 0.057                   |            | 0.050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Lead (Pb)-Total                       | <0.00050                |            | 0.00050 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Rubidium (Rb)-Total                   | 0.00037                 |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Antimony (Sb)-Total                   | <0.00050                |            | 0.00050 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Selenium (Se)-Total                   | <0.0010                 |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tin (Sn)-Total                        | <0.00060                |            | 0.00060 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Strontium (Sr)-Total                  | 0.0133                  |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tellurium (Te)-Total                  | <0.0010                 |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Titanium (Ti)-Total                   | 0.00096                 |            | 0.00090 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Thallium (Tl)-Total                   | <0.00010                |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Uranium (U)-Total                     | <0.00010                |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Vanadium (V)-Total                    | <0.0010                 |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tungsten (W)-Total                    | <0.00020                |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zinc (Zn)-Total                       | <0.010                  |            | 0.010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zirconium (Zr)-Total                  | <0.00040                |            | 0.00040 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Silver (Ag)-Total                     |                         |            |         |       |           |           |         |
| Silver (Ag)-Total                     | <0.00010                |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Miscellaneous Parameters              |                         |            |         |       |           |           |         |
| Ammonia (NH3) - Soluble               | <0.0030                 |            | 0.0030  | mg/L  |           | 08-AUG-09 | R905084 |
| Chloride (Cl) - Soluble               | 2.54                    |            | 0.20    | mg/L  |           | 11-AUG-09 | R909101 |
| Dissolved Organic Carbon              | 2.5                     |            | 1.0     | mg/L  |           | 18-AUG-09 | R912508 |
| Fluoride (F) - Soluble                | 0.23                    |            | 0.10    | mg/L  |           | 04-AUG-09 | R894644 |
| Hardness (as CaCO3)                   | 13.8                    |            | 0.30    | mg/L  |           | 06-AUG-09 |         |
| Hardness (as CaCO3)                   | 12.4                    |            | 0.20    | mg/L  |           | 04-AUG-09 |         |
| Ortho Phosphorus Soluble As P         | 0.0100                  |            | 0.0010  | mg/L  |           | 07-AUG-09 | R904664 |
| Phosphorus, Total                     | 0.0198                  |            | 0.0010  | mg/L  |           | 04-AUG-09 | R901684 |
| Silica Reactive Soluble               | 0.50                    |            | 0.10    | mg/L  |           | 06-AUG-09 | R901183 |
| Sulphate (SO4) - Soluble              | 3.7                     |            | 2.0     | mg/L  |           | 07-AUG-09 | R904561 |
| Total Dissolved Solids                | 24.0                    |            | 5.0     | mg/L  |           | 31-JUL-09 | R891664 |
| Total Kjeldahl Nitrogen               | <0.20                   |            | 0.20    | mg/L  | 31-JUL-09 | 05-AUG-09 | R895965 |
| Total Oil and Grease                  | <1.0                    |            | 1.0     | mg/L  | 01-AUG-09 | 04-AUG-09 | R894604 |
| Total Organic Carbon                  | 2.6                     |            | 1.0     | mg/L  |           | 18-AUG-09 | R912508 |
| Total Suspended Solids                | <2.0                    |            | 2.0     | mg/L  |           | 31-JUL-09 | R891664 |
| Turbidity                             | 0.50                    |            | 0.050   | NTU   |           | 30-JUL-09 | R888872 |
| Nitrate                               |                         |            |         |       |           |           |         |
| Nitrate (NO3) - Soluble               | 498                     |            | 0.010   | mg/L  |           | 24-AUG-09 |         |
| Nitrate + Nitrite Soluble             |                         |            |         |       |           |           |         |
| Nitrate+Nitrite-N - Soluble           | 498                     |            | 0.0050  | mg/L  |           | 22-AUG-09 | R918616 |
| Nitrite                               |                         |            |         |       |           |           |         |
| Nitrite-N Soluble                     | <0.010                  |            | 0.010   | mg/L  |           | 31-JUL-09 | R891503 |
| pH, Conductivity and Total Alkalinity |                         |            |         |       |           |           |         |
| Alkalinity                            |                         |            |         |       |           |           |         |
| Alkalinity, Total (as CaCO3)          | 11.7                    |            | 1.0     | mg/L  |           | 04-AUG-09 | R895344 |

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

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ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           | Result    | Qualifier* | D.L.     | Units | Extracted | Analyzed  | Batch   |
|-------------------------------------|-----------|------------|----------|-------|-----------|-----------|---------|
| L798789-4 R06 DS                    |           |            |          |       |           |           |         |
| Sampled By: RV, TT, TM on 21-JUL-09 |           |            |          |       |           |           |         |
| Matrix: WATER                       |           |            |          |       |           |           |         |
| Metal scan, dissolved               |           |            |          |       |           |           |         |
| Zirconium (Zr)-Dissolved            | <0.00040  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silver (Ag)-Dissolved               |           |            |          |       |           |           |         |
| Silver (Ag)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| CCME Aqlife Total Metals            |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 | 0.0188    |            | 0.0050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cadmium (Cd)-Total                  |           |            |          |       |           |           |         |
| Cadmium (Cd)-Total                  | <0.000010 |            | 0.000010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Iron (Fe)-Total                     |           |            |          |       |           |           |         |
| Iron (Fe)-Total                     | <0.020    |            | 0.020    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Mercury (Hg)-Total                  |           |            |          |       |           |           |         |
| Mercury (Hg)-Total                  | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Metal scan                          |           |            |          |       |           |           |         |
| Arsenic (As)-Total                  | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Boron (B)-Total                     | <0.030    |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Barium (Ba)-Total                   | 0.00316   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Beryllium (Be)-Total                | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Bismuth (Bi)-Total                  | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Calcium (Ca)-Total                  | 3.56      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cobalt (Co)-Total                   | 0.00024   |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Chromium (Cr)-Total                 | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cesium (Cs)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Copper (Cu)-Total                   | 0.0010    |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Potassium (K)-Total                 | 0.44      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Magnesium (Mg)-Total                | 0.955     |            | 0.010    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Manganese (Mn)-Total                | 0.00140   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Molybdenum (Mo)-Total               | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Sodium (Na)-Total                   | 2.07      |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Nickel (Ni)-Total                   | <0.0020   |            | 0.0020   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Phosphorus (P)-Total                | 0.054     |            | 0.050    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Lead (Pb)-Total                     | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Rubidium (Rb)-Total                 | 0.00038   |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Antimony (Sb)-Total                 | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Selenium (Se)-Total                 | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tin (Sn)-Total                      | <0.00060  |            | 0.00060  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Strontium (Sr)-Total                | 0.0127    |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tellurium (Te)-Total                | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Titanium (Ti)-Total                 | <0.00090  |            | 0.00090  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Thallium (Tl)-Total                 | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Uranium (U)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Vanadium (V)-Total                  | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tungsten (W)-Total                  | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zinc (Zn)-Total                     | <0.010    |            | 0.010    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zirconium (Zr)-Total                | <0.00040  |            | 0.00040  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Silver (Ag)-Total                   |           |            |          |       |           |           |         |
| Silver (Ag)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Miscellaneous Parameters            |           |            |          |       |           |           |         |
| Ammonia (NH3) - Soluble             | <0.0030   |            | 0.0030   | mg/L  |           | 08-AUG-09 | R905084 |
| Chloride (Cl) - Soluble             | 2.66      |            | 0.20     | mg/L  |           | 11-AUG-09 | R909101 |
| Dissolved Organic Carbon            | 2.5       |            | 1.0      | mg/L  |           | 18-AUG-09 | R912508 |
| Fluoride (F) - Soluble              | 0.18      |            | 0.10     | mg/L  |           | 04-AUG-09 | R894644 |

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| Sample Details/Parameters              | Result   | Qualifier* | D.L.     | Units | Extracted | Analyzed  | Batch   |
|----------------------------------------|----------|------------|----------|-------|-----------|-----------|---------|
| L798789-5      Q4                      |          |            |          |       |           |           |         |
| Sampled By:    RV, TT, TM on 21-JUL-09 |          |            |          |       |           |           |         |
| Matrix:        WATER                   |          |            |          |       |           |           |         |
| <b>Metal scan, dissolved</b>           |          |            |          |       |           |           |         |
| Copper (Cu)-Dissolved                  | 0.00175  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Potassium (K)-Dissolved                | 1.73     |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Magnesium (Mg)-Dissolved               | 2.62     |            | 0.010    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Manganese (Mn)-Dissolved               | 0.00210  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Molybdenum (Mo)-Dissolved              | 0.00090  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Sodium (Na)-Dissolved                  | 3.62     |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Nickel (Ni)-Dissolved                  | 0.00056  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Phosphorus (P)-Dissolved               | <0.020   |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Lead (Pb)-Dissolved                    | 0.00015  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Rubidium (Rb)-Dissolved                | 0.00099  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Antimony (Sb)-Dissolved                | <0.0010  |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Selenium (Se)-Dissolved                | <0.0010  |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silicon (Si)-Dissolved                 | 1.00     |            | 0.20     | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tin (Sn)-Dissolved                     | <0.00030 |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Strontium (Sr)-Dissolved               | 0.0860   |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tellurium (Te)-Dissolved               | <0.00050 |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Titanium (Ti)-Dissolved                | 0.00509  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Thallium (Tl)-Dissolved                | <0.00010 |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Uranium (U)-Dissolved                  | 0.00068  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Vanadium (V)-Dissolved                 | <0.0010  |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tungsten (W)-Dissolved                 | <0.00020 |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zinc (Zn)-Dissolved                    | <0.0050  |            | 0.0050   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zirconium (Zr)-Dissolved               | 0.00042  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>Silver (Ag)-Dissolved</b>           |          |            |          |       |           |           |         |
| Silver (Ag)-Dissolved                  | <0.00010 |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>CCME Aqlife Total Metals</b>        |          |            |          |       |           |           |         |
| <b>Aluminum (Al)-Total</b>             |          |            |          |       |           |           |         |
| Aluminum (Al)-Total                    | 3.68     |            | 0.0050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Cadmium (Cd)-Total</b>              |          |            |          |       |           |           |         |
| Cadmium (Cd)-Total                     | 0.000012 |            | 0.000010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Iron (Fe)-Total</b>                 |          |            |          |       |           |           |         |
| Iron (Fe)-Total                        | 3.09     |            | 0.020    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Mercury (Hg)-Total</b>              |          |            |          |       |           |           |         |
| Mercury (Hg)-Total                     | <0.00010 |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Metal scan</b>                      |          |            |          |       |           |           |         |
| Arsenic (As)-Total                     | 0.00220  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Boron (B)-Total                        | <0.030   |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Barium (Ba)-Total                      | 0.0490   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Beryllium (Be)-Total                   | <0.0010  |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Bismuth (Bi)-Total                     | <0.00020 |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Calcium (Ca)-Total                     | 15.9     |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cobalt (Co)-Total                      | 0.00176  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Chromium (Cr)-Total                    | 0.0057   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cesium (Cs)-Total                      | 0.00051  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Copper (Cu)-Total                      | 0.0092   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Potassium (K)-Total                    | 3.07     |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Magnesium (Mg)-Total                   | 3.99     |            | 0.010    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Manganese (Mn)-Total                   | 0.0516   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Molybdenum (Mo)-Total                  | 0.00111  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Sodium (Na)-Total                      | 4.53     |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Nickel (Ni)-Total                      | 0.0043   |            | 0.0020   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Phosphorus (P)-Total                   | 0.085    |            | 0.050    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters                    | Result   | Qualifier* | D.L.    | Units    | Extracted | Analyzed  | Batch   |
|----------------------------------------------|----------|------------|---------|----------|-----------|-----------|---------|
| L798789-5      Q4                            |          |            |         |          |           |           |         |
| Sampled By:    RV, TT, TM on 21-JUL-09       |          |            |         |          |           |           |         |
| Matrix:        WATER                         |          |            |         |          |           |           |         |
| <b>Metal scan</b>                            |          |            |         |          |           |           |         |
| Lead (Pb)-Total                              | 0.00202  |            | 0.00050 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Rubidium (Rb)-Total                          | 0.00715  |            | 0.00020 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Antimony (Sb)-Total                          | <0.00050 |            | 0.00050 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Selenium (Se)-Total                          | <0.0010  |            | 0.0010  | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tin (Sn)-Total                               | <0.00060 |            | 0.00060 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Strontium (Sr)-Total                         | 0.0871   |            | 0.00010 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tellurium (Te)-Total                         | <0.0010  |            | 0.0010  | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Titanium (Ti)-Total                          | 0.0999   |            | 0.00090 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Thallium (Tl)-Total                          | <0.00010 |            | 0.00010 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Uranium (U)-Total                            | 0.00094  |            | 0.00010 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Vanadium (V)-Total                           | 0.0061   |            | 0.0010  | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tungsten (W)-Total                           | <0.00020 |            | 0.00020 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zinc (Zn)-Total                              | <0.010   |            | 0.010   | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zirconium (Zr)-Total                         | 0.00654  |            | 0.00040 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Silver (Ag)-Total</b>                     |          |            |         |          |           |           |         |
| Silver (Ag)-Total                            | <0.00010 |            | 0.00010 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Miscellaneous Parameters</b>              |          |            |         |          |           |           |         |
| Ammonia (NH3) - Soluble                      | <0.0030  |            | 0.0030  | mg/L     |           | 08-AUG-09 | R905084 |
| Chloride (Cl) - Soluble                      | 0.25     |            | 0.20    | mg/L     |           | 11-AUG-09 | R909101 |
| Dissolved Organic Carbon                     | 1.8      |            | 1.0     | mg/L     |           | 18-AUG-09 | R912508 |
| Fluoride (F) - Soluble                       | 0.24     |            | 0.10    | mg/L     |           | 04-AUG-09 | R894644 |
| Hardness (as CaCO3)                          | 45.3     |            | 0.20    | mg/L     |           | 04-AUG-09 |         |
| Hardness (as CaCO3)                          | 56.2     |            | 0.30    | mg/L     |           | 06-AUG-09 |         |
| Ortho Phosphorus Soluble As P                | 0.0428   |            | 0.0010  | mg/L     |           | 07-AUG-09 | R904664 |
| Phosphorus, Total                            | 0.0373   |            | 0.0010  | mg/L     |           | 04-AUG-09 | R901684 |
| Silica Reactive Soluble                      | 2.70     |            | 0.10    | mg/L     |           | 06-AUG-09 | R901183 |
| Sulphate (SO4) - Soluble                     | 27.0     |            | 2.0     | mg/L     |           | 07-AUG-09 | R904561 |
| Total Dissolved Solids                       | 82.0     |            | 5.0     | mg/L     |           | 31-JUL-09 | R891664 |
| Total Kjeldahl Nitrogen                      | 0.29     |            | 0.20    | mg/L     | 31-JUL-09 | 05-AUG-09 | R895965 |
| Total Oil and Grease                         | <1.0     |            | 1.0     | mg/L     | 01-AUG-09 | 04-AUG-09 | R894604 |
| Total Organic Carbon                         | 2.3      |            | 1.0     | mg/L     |           | 18-AUG-09 | R912508 |
| Total Suspended Solids                       | 33.6     |            | 2.0     | mg/L     |           | 31-JUL-09 | R891664 |
| Turbidity                                    | 60.0     |            | 0.050   | NTU      |           | 30-JUL-09 | R888872 |
| <b>Nitrate</b>                               |          |            |         |          |           |           |         |
| Nitrate (NO3) - Soluble                      | 1.43     |            | 0.010   | mg/L     |           | 20-AUG-09 |         |
| <b>Nitrate + Nitrite Soluble</b>             |          |            |         |          |           |           |         |
| Nitrate+Nitrite-N - Soluble                  | 1.43     |            | 0.0050  | mg/L     |           | 19-AUG-09 | R913153 |
| <b>Nitrite</b>                               |          |            |         |          |           |           |         |
| Nitrite-N Soluble                            | <0.010   |            | 0.010   | mg/L     |           | 31-JUL-09 | R891503 |
| <b>pH, Conductivity and Total Alkalinity</b> |          |            |         |          |           |           |         |
| <b>Alkalinity</b>                            |          |            |         |          |           |           |         |
| Alkalinity, Total (as CaCO3)                 | 44.0     |            | 1.0     | mg/L     |           | 30-JUL-09 | R889047 |
| Bicarbonate (HCO3)                           | 53.6     |            | 2.0     | mg/L     |           | 30-JUL-09 | R889047 |
| Carbonate (CO3)                              | <0.60    |            | 0.60    | mg/L     |           | 30-JUL-09 | R889047 |
| Hydroxide (OH)                               | <0.40    |            | 0.40    | mg/L     |           | 30-JUL-09 | R889047 |
| <b>Conductivity</b>                          |          |            |         |          |           |           |         |
| Conductivity                                 | 120      |            | 0.40    | umhos/cm |           | 30-JUL-09 | R889047 |
| <b>pH</b>                                    |          |            |         |          |           |           |         |
| pH                                           | 8.02     |            | 0.10    | pH units |           | 30-JUL-09 | R889047 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           | Result    | Qualifier* | D.L.     | Units | Extracted | Analyzed  | Batch   |
|-------------------------------------|-----------|------------|----------|-------|-----------|-----------|---------|
| L798789-6 Q7                        |           |            |          |       |           |           |         |
| Sampled By: RV, TT, TM on 21-JUL-09 |           |            |          |       |           |           |         |
| Matrix: WATER                       |           |            |          |       |           |           |         |
| CCME Aqlife Dissolved Metals        |           |            |          |       |           |           |         |
| Aluminum (Al)-Dissolved             |           |            |          |       |           |           |         |
| Aluminum (Al)-Dissolved             | 1.42      |            | 0.0020   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cadmium (Cd)-Dissolved              |           |            |          |       |           |           |         |
| Cadmium (Cd)-Dissolved              | 0.000224  |            | 0.000010 | mg/L  | 29-JUL-09 | 08-AUG-09 | R907500 |
| Iron (Fe)-Dissolved                 |           |            |          |       |           |           |         |
| Iron (Fe)-Dissolved                 | 0.0610    |            | 0.0020   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Mercury (Hg)-Dissolved              |           |            |          |       |           |           |         |
| Mercury (Hg)-Dissolved              | <0.000050 |            | 0.000050 | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Metal scan, dissolved               |           |            |          |       |           |           |         |
| Arsenic (As)-Dissolved              | 0.00073   |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Boron (B)-Dissolved                 | <0.020    |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Barium (Ba)-Dissolved               | 0.0436    |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Beryllium (Be)-Dissolved            | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Bismuth (Bi)-Dissolved              | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Calcium (Ca)-Dissolved              | 4.43      |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cobalt (Co)-Dissolved               | 0.0704    |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Chromium (Cr)-Dissolved             | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cesium (Cs)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Copper (Cu)-Dissolved               | 0.0699    |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Potassium (K)-Dissolved             | 1.01      |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Magnesium (Mg)-Dissolved            | 1.17      |            | 0.010    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Manganese (Mn)-Dissolved            | 0.333     |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Molybdenum (Mo)-Dissolved           | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Sodium (Na)-Dissolved               | 0.694     |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Nickel (Ni)-Dissolved               | 0.108     |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Phosphorus (P)-Dissolved            | <0.020    |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Lead (Pb)-Dissolved                 | 0.00115   |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Rubidium (Rb)-Dissolved             | 0.00249   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Antimony (Sb)-Dissolved             | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Selenium (Se)-Dissolved             | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silicon (Si)-Dissolved              | 1.31      |            | 0.20     | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tin (Sn)-Dissolved                  | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Strontium (Sr)-Dissolved            | 0.0372    |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tellurium (Te)-Dissolved            | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Titanium (Ti)-Dissolved             | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Thallium (Tl)-Dissolved             | 0.00013   |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Uranium (U)-Dissolved               | 0.00201   |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Vanadium (V)-Dissolved              | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tungsten (W)-Dissolved              | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zinc (Zn)-Dissolved                 | 0.0354    |            | 0.0050   | mg/L  | 29-JUL-09 | 08-AUG-09 | R907500 |
| Zirconium (Zr)-Dissolved            | <0.00040  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silver (Ag)-Dissolved               |           |            |          |       |           |           |         |
| Silver (Ag)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| CCME Aqlife Total Metals            |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 | 1.90      |            | 0.0050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cadmium (Cd)-Total                  |           |            |          |       |           |           |         |
| Cadmium (Cd)-Total                  | 0.000227  |            | 0.000010 | mg/L  | 05-AUG-09 | 08-AUG-09 | R907500 |
| Iron (Fe)-Total                     |           |            |          |       |           |           |         |
| Iron (Fe)-Total                     | 0.179     |            | 0.020    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Mercury (Hg)-Total                  |           |            |          |       |           |           |         |
| Mercury (Hg)-Total                  | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           | Result   | Qualifier* | D.L.    | Units | Extracted | Analyzed  | Batch   |
|-------------------------------------|----------|------------|---------|-------|-----------|-----------|---------|
| L798789-6 Q7                        |          |            |         |       |           |           |         |
| Sampled By: RV, TT, TM on 21-JUL-09 |          |            |         |       |           |           |         |
| Matrix: WATER                       |          |            |         |       |           |           |         |
| Metal scan                          |          |            |         |       |           |           |         |
| Arsenic (As)-Total                  | 0.00065  |            | 0.00050 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Boron (B)-Total                     | <0.030   |            | 0.030   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Barium (Ba)-Total                   | 0.0412   |            | 0.00030 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Beryllium (Be)-Total                | <0.0010  |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Bismuth (Bi)-Total                  | <0.00020 |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Calcium (Ca)-Total                  | 4.67     |            | 0.10    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cobalt (Co)-Total                   | 0.0786   |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Chromium (Cr)-Total                 | <0.0010  |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cesium (Cs)-Total                   | <0.00010 |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Copper (Cu)-Total                   | 0.0743   |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Potassium (K)-Total                 | 1.12     |            | 0.10    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Magnesium (Mg)-Total                | 1.37     |            | 0.010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Manganese (Mn)-Total                | 0.340    |            | 0.00030 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Molybdenum (Mo)-Total               | <0.00020 |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Sodium (Na)-Total                   | 0.836    |            | 0.030   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Nickel (Ni)-Total                   | 0.114    |            | 0.0020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Phosphorus (P)-Total                | 0.058    |            | 0.050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Lead (Pb)-Total                     | 0.00111  |            | 0.00050 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Rubidium (Rb)-Total                 | 0.00246  |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Antimony (Sb)-Total                 | <0.00050 |            | 0.00050 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Selenium (Se)-Total                 | <0.0010  |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tin (Sn)-Total                      | <0.00060 |            | 0.00060 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Strontium (Sr)-Total                | 0.0359   |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tellurium (Te)-Total                | <0.0010  |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Titanium (Ti)-Total                 | 0.00575  |            | 0.00090 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Thallium (Tl)-Total                 | 0.00011  |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Uranium (U)-Total                   | 0.00251  |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Vanadium (V)-Total                  | <0.0010  |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tungsten (W)-Total                  | <0.00020 |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zinc (Zn)-Total                     | 0.033    |            | 0.010   | mg/L  | 05-AUG-09 | 08-AUG-09 | R907500 |
| Zirconium (Zr)-Total                | <0.00040 |            | 0.00040 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Silver (Ag)-Total                   |          |            |         |       |           |           |         |
| Silver (Ag)-Total                   | <0.00010 |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Miscellaneous Parameters            |          |            |         |       |           |           |         |
| Ammonia (NH3) - Soluble             | 0.617    |            | 0.0030  | mg/L  |           | 08-AUG-09 | R905084 |
| Chloride (Cl) - Soluble             | 1.00     |            | 0.20    | mg/L  |           | 11-AUG-09 | R909101 |
| Dissolved Organic Carbon            | 1.6      |            | 1.0     | mg/L  |           | 18-AUG-09 | R912508 |
| Fluoride (F) - Soluble              | 0.17     |            | 0.10    | mg/L  |           | 05-AUG-09 | R897086 |
| Hardness (as CaCO3)                 | 15.9     |            | 0.20    | mg/L  |           | 04-AUG-09 |         |
| Hardness (as CaCO3)                 | 17.3     |            | 0.30    | mg/L  |           | 11-AUG-09 |         |
| Ortho Phosphorus Soluble As P       | 0.0052   |            | 0.0010  | mg/L  |           | 07-AUG-09 | R904664 |
| Phosphorus, Total                   | 0.0195   |            | 0.0010  | mg/L  |           | 04-AUG-09 | R901684 |
| Silica Reactive Soluble             | 3.69     |            | 0.10    | mg/L  |           | 06-AUG-09 | R901183 |
| Sulphate (SO4) - Soluble            | 30.4     |            | 2.0     | mg/L  |           | 07-AUG-09 | R904561 |
| Total Dissolved Solids              | 40.0     |            | 5.0     | mg/L  |           | 31-JUL-09 | R891664 |
| Total Kjeldahl Nitrogen             | 1.03     |            | 0.20    | mg/L  | 31-JUL-09 | 05-AUG-09 | R895965 |
| Total Oil and Grease                | <1.0     |            | 1.0     | mg/L  | 01-AUG-09 | 04-AUG-09 | R894604 |
| Total Organic Carbon                | 1.3      |            | 1.0     | mg/L  |           | 18-AUG-09 | R912508 |
| Total Suspended Solids              | 3.6      |            | 2.0     | mg/L  |           | 31-JUL-09 | R891664 |
| Turbidity                           | 1.30     |            | 0.050   | NTU   |           | 30-JUL-09 | R888872 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters                                                                                | Result      | Qualifier* | D.L.     | Units    | Extracted | Analyzed  | Batch   |
|----------------------------------------------------------------------------------------------------------|-------------|------------|----------|----------|-----------|-----------|---------|
| L798789-6      Q7<br>Sampled By:    RV, TT, TM on 21-JUL-09<br>Matrix:        WATER                      |             |            |          |          |           |           |         |
| <b>Nitrate</b><br>Nitrate (NO3) - Soluble                                                                | 0.130       |            | 0.010    | mg/L     |           | 24-AUG-09 |         |
| <b>Nitrate + Nitrite Soluble</b><br>Nitrate+Nitrite-N - Soluble                                          | 0.130       |            | 0.0050   | mg/L     |           | 22-AUG-09 | R918616 |
| <b>Nitrite</b><br>Nitrite-N Soluble                                                                      | <0.010      |            | 0.010    | mg/L     |           | 31-JUL-09 | R891503 |
| <b>pH, Conductivity and Total Alkalinity</b>                                                             |             |            |          |          |           |           |         |
| <b>Alkalinity</b><br>Alkalinity, Total (as CaCO3)                                                        | See Comment | MP         | 1.0      | mg/L     |           | 30-JUL-09 | R889047 |
| Bicarbonate (HCO3)                                                                                       | See Comment | MP         | 2.0      | mg/L     |           | 30-JUL-09 | R889047 |
| Carbonate (CO3)                                                                                          | See Comment | MP         | 0.60     | mg/L     |           | 30-JUL-09 | R889047 |
| Hydroxide (OH)                                                                                           | See Comment | MP         | 0.40     | mg/L     |           | 30-JUL-09 | R889047 |
| Note: The pH of this sample is less than 4.5 pH units, therefore a result for alkalinity is not reported |             |            |          |          |           |           |         |
| <b>Conductivity</b><br>Conductivity                                                                      | 91.2        |            | 0.40     | umhos/cm |           | 30-JUL-09 | R889047 |
| <b>pH</b><br>pH                                                                                          | 4.33        |            | 0.10     | pH units |           | 30-JUL-09 | R889047 |
| L798789-7      R09 US<br>Sampled By:    RV, TT, TM on 21-JUL-09<br>Matrix:        WATER                  |             |            |          |          |           |           |         |
| <b>CCME Aqlife Dissolved Metals</b>                                                                      |             |            |          |          |           |           |         |
| <b>Aluminum (Al)-Dissolved</b><br>Aluminum (Al)-Dissolved                                                | 0.0040      |            | 0.0020   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>Cadmium (Cd)-Dissolved</b><br>Cadmium (Cd)-Dissolved                                                  | <0.000010   |            | 0.000010 | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>Iron (Fe)-Dissolved</b><br>Iron (Fe)-Dissolved                                                        | 0.0093      |            | 0.0020   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>Mercury (Hg)-Dissolved</b><br>Mercury (Hg)-Dissolved                                                  | <0.000050   |            | 0.000050 | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>Metal scan, dissolved</b>                                                                             |             |            |          |          |           |           |         |
| Arsenic (As)-Dissolved                                                                                   | <0.00050    |            | 0.00050  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Boron (B)-Dissolved                                                                                      | <0.020      |            | 0.020    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Barium (Ba)-Dissolved                                                                                    | 0.00379     |            | 0.00030  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Beryllium (Be)-Dissolved                                                                                 | <0.0010     |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Bismuth (Bi)-Dissolved                                                                                   | <0.00030    |            | 0.00030  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Calcium (Ca)-Dissolved                                                                                   | 5.37        |            | 0.050    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cobalt (Co)-Dissolved                                                                                    | <0.00020    |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Chromium (Cr)-Dissolved                                                                                  | <0.0010     |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cesium (Cs)-Dissolved                                                                                    | <0.00010    |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Copper (Cu)-Dissolved                                                                                    | 0.00114     |            | 0.00040  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Potassium (K)-Dissolved                                                                                  | 0.305       |            | 0.050    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Magnesium (Mg)-Dissolved                                                                                 | 1.41        |            | 0.010    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Manganese (Mn)-Dissolved                                                                                 | 0.00092     |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Molybdenum (Mo)-Dissolved                                                                                | <0.00010    |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Sodium (Na)-Dissolved                                                                                    | 1.22        |            | 0.020    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Nickel (Ni)-Dissolved                                                                                    | 0.00058     |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Phosphorus (P)-Dissolved                                                                                 | <0.020      |            | 0.020    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Lead (Pb)-Dissolved                                                                                      | <0.00010    |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Rubidium (Rb)-Dissolved                                                                                  | 0.00036     |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Antimony (Sb)-Dissolved                                                                                  | <0.0010     |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           | Result    | Qualifier* | D.L.     | Units | Extracted | Analyzed  | Batch   |
|-------------------------------------|-----------|------------|----------|-------|-----------|-----------|---------|
| L798789-7 R09 US                    |           |            |          |       |           |           |         |
| Sampled By: RV, TT, TM on 21-JUL-09 |           |            |          |       |           |           |         |
| Matrix: WATER                       |           |            |          |       |           |           |         |
| Metal scan, dissolved               |           |            |          |       |           |           |         |
| Selenium (Se)-Dissolved             | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silicon (Si)-Dissolved              | <0.20     |            | 0.20     | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tin (Sn)-Dissolved                  | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Strontium (Sr)-Dissolved            | 0.0271    |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tellurium (Te)-Dissolved            | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Titanium (Ti)-Dissolved             | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Thallium (Tl)-Dissolved             | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Uranium (U)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Vanadium (V)-Dissolved              | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tungsten (W)-Dissolved              | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zinc (Zn)-Dissolved                 | <0.0050   |            | 0.0050   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zirconium (Zr)-Dissolved            | <0.00040  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silver (Ag)-Dissolved               |           |            |          |       |           |           |         |
| Silver (Ag)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| CCME Aqlife Total Metals            |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 | 0.0123    |            | 0.0050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cadmium (Cd)-Total                  |           |            |          |       |           |           |         |
| Cadmium (Cd)-Total                  | <0.000010 |            | 0.000010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Iron (Fe)-Total                     |           |            |          |       |           |           |         |
| Iron (Fe)-Total                     | 0.047     |            | 0.020    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Mercury (Hg)-Total                  |           |            |          |       |           |           |         |
| Mercury (Hg)-Total                  | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Metal scan                          |           |            |          |       |           |           |         |
| Arsenic (As)-Total                  | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Boron (B)-Total                     | <0.030    |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Barium (Ba)-Total                   | 0.00326   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Beryllium (Be)-Total                | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Bismuth (Bi)-Total                  | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Calcium (Ca)-Total                  | 5.98      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cobalt (Co)-Total                   | 0.00029   |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Chromium (Cr)-Total                 | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cesium (Cs)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Copper (Cu)-Total                   | 0.0012    |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Potassium (K)-Total                 | 0.34      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Magnesium (Mg)-Total                | 1.65      |            | 0.010    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Manganese (Mn)-Total                | 0.00347   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Molybdenum (Mo)-Total               | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Sodium (Na)-Total                   | 1.48      |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Nickel (Ni)-Total                   | <0.0020   |            | 0.0020   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Phosphorus (P)-Total                | 0.060     |            | 0.050    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Lead (Pb)-Total                     | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Rubidium (Rb)-Total                 | 0.00037   |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Antimony (Sb)-Total                 | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Selenium (Se)-Total                 | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tin (Sn)-Total                      | <0.00060  |            | 0.00060  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Strontium (Sr)-Total                | 0.0259    |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tellurium (Te)-Total                | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Titanium (Ti)-Total                 | <0.00090  |            | 0.00090  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Thallium (Tl)-Total                 | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Uranium (U)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Vanadium (V)-Total                  | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |

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

# ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters                    |                         | Result    | Qualifier* | D.L.     | Units    | Extracted | Analyzed  | Batch   |
|----------------------------------------------|-------------------------|-----------|------------|----------|----------|-----------|-----------|---------|
| L798789-7                                    | R09 US                  |           |            |          |          |           |           |         |
| Sampled By:                                  | RV, TT, TM on 21-JUL-09 |           |            |          |          |           |           |         |
| Matrix:                                      | WATER                   |           |            |          |          |           |           |         |
| <b>Metal scan</b>                            |                         |           |            |          |          |           |           |         |
| Tungsten (W)-Total                           |                         | <0.00020  |            | 0.00020  | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zinc (Zn)-Total                              |                         | <0.010    |            | 0.010    | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zirconium (Zr)-Total                         |                         | <0.00040  |            | 0.00040  | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Silver (Ag)-Total</b>                     |                         |           |            |          |          |           |           |         |
| Silver (Ag)-Total                            |                         | <0.00010  |            | 0.00010  | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Miscellaneous Parameters</b>              |                         |           |            |          |          |           |           |         |
| Ammonia (NH3) - Soluble                      |                         | <0.0030   |            | 0.0030   | mg/L     |           | 08-AUG-09 | R905084 |
| Chloride (Cl) - Soluble                      |                         | 0.75      |            | 0.20     | mg/L     |           | 11-AUG-09 | R909101 |
| Dissolved Organic Carbon                     |                         | 2.6       |            | 1.0      | mg/L     |           | 18-AUG-09 | R912508 |
| Fluoride (F) - Soluble                       |                         | 0.16      |            | 0.10     | mg/L     |           | 05-AUG-09 | R897086 |
| Hardness (as CaCO3)                          |                         | 21.7      |            | 0.30     | mg/L     |           | 06-AUG-09 |         |
| Hardness (as CaCO3)                          |                         | 19.2      |            | 0.20     | mg/L     |           | 04-AUG-09 |         |
| Ortho Phosphorus Soluble As P                |                         | 0.0030    | RAMB       | 0.0010   | mg/L     |           | 13-AUG-09 | R910192 |
| Phosphorus, Total                            |                         | 0.0056    |            | 0.0010   | mg/L     |           | 04-AUG-09 | R901684 |
| Silica Reactive Soluble                      |                         | 0.55      |            | 0.10     | mg/L     |           | 06-AUG-09 | R901183 |
| Sulphate (SO4) - Soluble                     |                         | 4.1       |            | 2.0      | mg/L     |           | 07-AUG-09 | R904561 |
| Total Dissolved Solids                       |                         | 20.0      |            | 5.0      | mg/L     |           | 31-JUL-09 | R891664 |
| Total Kjeldahl Nitrogen                      |                         | 0.27      |            | 0.20     | mg/L     | 31-JUL-09 | 05-AUG-09 | R895965 |
| Total Oil and Grease                         |                         | <1.0      |            | 1.0      | mg/L     | 01-AUG-09 | 04-AUG-09 | R894604 |
| Total Organic Carbon                         |                         | 2.8       |            | 1.0      | mg/L     |           | 18-AUG-09 | R912508 |
| Total Suspended Solids                       |                         | <2.0      |            | 2.0      | mg/L     |           | 31-JUL-09 | R891664 |
| Turbidity                                    |                         | 0.95      |            | 0.050    | NTU      |           | 30-JUL-09 | R888872 |
| <b>Nitrate</b>                               |                         |           |            |          |          |           |           |         |
| Nitrate (NO3) - Soluble                      |                         | <0.010    |            | 0.010    | mg/L     |           | 24-AUG-09 |         |
| <b>Nitrate + Nitrite Soluble</b>             |                         |           |            |          |          |           |           |         |
| Nitrate+Nitrite-N - Soluble                  |                         | <0.0050   |            | 0.0050   | mg/L     |           | 22-AUG-09 | R918616 |
| <b>Nitrite</b>                               |                         |           |            |          |          |           |           |         |
| Nitrite-N Soluble                            |                         | <0.010    |            | 0.010    | mg/L     |           | 31-JUL-09 | R891503 |
| <b>pH, Conductivity and Total Alkalinity</b> |                         |           |            |          |          |           |           |         |
| <b>Alkalinity</b>                            |                         |           |            |          |          |           |           |         |
| Alkalinity, Total (as CaCO3)                 |                         | 19.2      |            | 1.0      | mg/L     |           | 04-AUG-09 | R895344 |
| Bicarbonate (HCO3)                           |                         | 23.4      |            | 2.0      | mg/L     |           | 04-AUG-09 | R895344 |
| Carbonate (CO3)                              |                         | <0.60     |            | 0.60     | mg/L     |           | 04-AUG-09 | R895344 |
| Hydroxide (OH)                               |                         | <0.40     |            | 0.40     | mg/L     |           | 04-AUG-09 | R895344 |
| <b>Conductivity</b>                          |                         |           |            |          |          |           |           |         |
| Conductivity                                 |                         | 48.1      |            | 0.40     | umhos/cm |           | 30-JUL-09 | R889047 |
| <b>pH</b>                                    |                         |           |            |          |          |           |           |         |
| pH                                           |                         | 7.49      |            | 0.10     | pH units |           | 30-JUL-09 | R889047 |
| L798789-8                                    | R09 DS                  |           |            |          |          |           |           |         |
| Sampled By:                                  | RV, TT, TM on 21-JUL-09 |           |            |          |          |           |           |         |
| Matrix:                                      | WATER                   |           |            |          |          |           |           |         |
| <b>CCME Aqlife Dissolved Metals</b>          |                         |           |            |          |          |           |           |         |
| <b>Aluminum (Al)-Dissolved</b>               |                         |           |            |          |          |           |           |         |
| Aluminum (Al)-Dissolved                      |                         | 0.0034    |            | 0.0020   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>Cadmium (Cd)-Dissolved</b>                |                         |           |            |          |          |           |           |         |
| Cadmium (Cd)-Dissolved                       |                         | <0.000010 |            | 0.000010 | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>Iron (Fe)-Dissolved</b>                   |                         |           |            |          |          |           |           |         |
| Iron (Fe)-Dissolved                          |                         | 0.0093    |            | 0.0020   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>Mercury (Hg)-Dissolved</b>                |                         |           |            |          |          |           |           |         |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           | Result    | Qualifier* | D.L.     | Units | Extracted | Analyzed  | Batch   |
|-------------------------------------|-----------|------------|----------|-------|-----------|-----------|---------|
| L798789-8 R09 DS                    |           |            |          |       |           |           |         |
| Sampled By: RV, TT, TM on 21-JUL-09 |           |            |          |       |           |           |         |
| Matrix: WATER                       |           |            |          |       |           |           |         |
| Mercury (Hg)-Dissolved              |           |            |          |       |           |           |         |
| Mercury (Hg)-Dissolved              | <0.000050 |            | 0.000050 | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Metal scan, dissolved               |           |            |          |       |           |           |         |
| Arsenic (As)-Dissolved              | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Boron (B)-Dissolved                 | <0.020    |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Barium (Ba)-Dissolved               | 0.00412   |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Beryllium (Be)-Dissolved            | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Bismuth (Bi)-Dissolved              | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Calcium (Ca)-Dissolved              | 5.51      |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cobalt (Co)-Dissolved               | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Chromium (Cr)-Dissolved             | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cesium (Cs)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Copper (Cu)-Dissolved               | 0.00110   |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Potassium (K)-Dissolved             | 0.298     |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Magnesium (Mg)-Dissolved            | 1.42      |            | 0.010    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Manganese (Mn)-Dissolved            | 0.00081   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Molybdenum (Mo)-Dissolved           | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Sodium (Na)-Dissolved               | 1.25      |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Nickel (Ni)-Dissolved               | 0.00052   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Phosphorus (P)-Dissolved            | <0.020    |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Lead (Pb)-Dissolved                 | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Rubidium (Rb)-Dissolved             | 0.00035   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Antimony (Sb)-Dissolved             | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Selenium (Se)-Dissolved             | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silicon (Si)-Dissolved              | 0.23      |            | 0.20     | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tin (Sn)-Dissolved                  | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Strontium (Sr)-Dissolved            | 0.0279    |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tellurium (Te)-Dissolved            | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Titanium (Ti)-Dissolved             | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Thallium (Tl)-Dissolved             | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Uranium (U)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Vanadium (V)-Dissolved              | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tungsten (W)-Dissolved              | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zinc (Zn)-Dissolved                 | <0.0050   |            | 0.0050   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zirconium (Zr)-Dissolved            | <0.00040  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silver (Ag)-Dissolved               |           |            |          |       |           |           |         |
| Silver (Ag)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| CCME Aqlife Total Metals            |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 | 0.0174    |            | 0.0050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cadmium (Cd)-Total                  |           |            |          |       |           |           |         |
| Cadmium (Cd)-Total                  | <0.000010 |            | 0.000010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Iron (Fe)-Total                     |           |            |          |       |           |           |         |
| Iron (Fe)-Total                     | 0.051     |            | 0.020    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Mercury (Hg)-Total                  |           |            |          |       |           |           |         |
| Mercury (Hg)-Total                  | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Metal scan                          |           |            |          |       |           |           |         |
| Arsenic (As)-Total                  | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Boron (B)-Total                     | <0.030    |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Barium (Ba)-Total                   | 0.00376   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Beryllium (Be)-Total                | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Bismuth (Bi)-Total                  | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Calcium (Ca)-Total                  | 6.11      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters        | Result                  | Qualifier* | D.L.    | Units | Extracted | Analyzed  | Batch   |
|----------------------------------|-------------------------|------------|---------|-------|-----------|-----------|---------|
| L798789-8                        | R09 DS                  |            |         |       |           |           |         |
| Sampled By:                      | RV, TT, TM on 21-JUL-09 |            |         |       |           |           |         |
| Matrix:                          | WATER                   |            |         |       |           |           |         |
| <b>Metal scan</b>                |                         |            |         |       |           |           |         |
| Cobalt (Co)-Total                | 0.00028                 |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Chromium (Cr)-Total              | <0.0010                 |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cesium (Cs)-Total                | <0.00010                |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Copper (Cu)-Total                | 0.0016                  |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Potassium (K)-Total              | 0.35                    |            | 0.10    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Magnesium (Mg)-Total             | 1.66                    |            | 0.010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Manganese (Mn)-Total             | 0.00369                 |            | 0.00030 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Molybdenum (Mo)-Total            | <0.00020                |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Sodium (Na)-Total                | 1.51                    |            | 0.030   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Nickel (Ni)-Total                | <0.0020                 |            | 0.0020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Phosphorus (P)-Total             | 0.060                   |            | 0.050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Lead (Pb)-Total                  | <0.00050                |            | 0.00050 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Rubidium (Rb)-Total              | 0.00038                 |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Antimony (Sb)-Total              | <0.00050                |            | 0.00050 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Selenium (Se)-Total              | <0.0010                 |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tin (Sn)-Total                   | <0.00060                |            | 0.00060 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Strontium (Sr)-Total             | 0.0267                  |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tellurium (Te)-Total             | <0.0010                 |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Titanium (Ti)-Total              | <0.00090                |            | 0.00090 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Thallium (Tl)-Total              | <0.00010                |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Uranium (U)-Total                | <0.00010                |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Vanadium (V)-Total               | <0.0010                 |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tungsten (W)-Total               | <0.00020                |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zinc (Zn)-Total                  | <0.010                  |            | 0.010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zirconium (Zr)-Total             | <0.00040                |            | 0.00040 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Silver (Ag)-Total</b>         |                         |            |         |       |           |           |         |
| Silver (Ag)-Total                | <0.00010                |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Miscellaneous Parameters</b>  |                         |            |         |       |           |           |         |
| Ammonia (NH3) - Soluble          | <0.0030                 |            | 0.0030  | mg/L  |           | 08-AUG-09 | R905084 |
| Chloride (Cl) - Soluble          | 0.87                    |            | 0.20    | mg/L  |           | 11-AUG-09 | R909101 |
| Dissolved Organic Carbon         | 2.3                     |            | 1.0     | mg/L  |           | 18-AUG-09 | R912508 |
| Fluoride (F) - Soluble           | 0.25                    |            | 0.10    | mg/L  |           | 05-AUG-09 | R897086 |
| Hardness (as CaCO3)              | 22.1                    |            | 0.30    | mg/L  |           | 06-AUG-09 |         |
| Hardness (as CaCO3)              | 19.6                    |            | 0.20    | mg/L  |           | 04-AUG-09 |         |
| Ortho Phosphorus Soluble As P    | <0.0010                 | RAMB       | 0.0010  | mg/L  |           | 13-AUG-09 | R910192 |
| Phosphorus, Total                | 0.0074                  |            | 0.0010  | mg/L  |           | 04-AUG-09 | R901684 |
| Silica Reactive Soluble          | 0.54                    |            | 0.10    | mg/L  |           | 06-AUG-09 | R901183 |
| Sulphate (SO4) - Soluble         | 4.4                     |            | 2.0     | mg/L  |           | 07-AUG-09 | R904561 |
| Total Dissolved Solids           | 20.0                    |            | 5.0     | mg/L  |           | 31-JUL-09 | R891664 |
| Total Kjeldahl Nitrogen          | 0.53                    |            | 0.20    | mg/L  | 31-JUL-09 | 05-AUG-09 | R895965 |
| Total Oil and Grease             | <1.0                    |            | 1.0     | mg/L  | 01-AUG-09 | 04-AUG-09 | R894604 |
| Total Organic Carbon             | 2.4                     |            | 1.0     | mg/L  |           | 18-AUG-09 | R912508 |
| Total Suspended Solids           | <2.0                    |            | 2.0     | mg/L  |           | 31-JUL-09 | R891664 |
| Turbidity                        | 0.25                    |            | 0.050   | NTU   |           | 30-JUL-09 | R888872 |
| <b>Nitrate</b>                   |                         |            |         |       |           |           |         |
| Nitrate (NO3) - Soluble          | <0.010                  |            | 0.010   | mg/L  |           | 24-AUG-09 |         |
| <b>Nitrate + Nitrite Soluble</b> |                         |            |         |       |           |           |         |
| Nitrate+Nitrite-N - Soluble      | <0.0050                 |            | 0.0050  | mg/L  |           | 22-AUG-09 | R918616 |
| <b>Nitrite</b>                   |                         |            |         |       |           |           |         |

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

# ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters                    |                         | Result | Qualifier* | D.L.     | Units    | Extracted | Analyzed  | Batch   |
|----------------------------------------------|-------------------------|--------|------------|----------|----------|-----------|-----------|---------|
| L798789-8                                    | R09 DS                  |        |            |          |          |           |           |         |
| Sampled By:                                  | RV, TT, TM on 21-JUL-09 |        |            |          |          |           |           |         |
| Matrix:                                      | WATER                   |        |            |          |          |           |           |         |
| <b>Nitrite</b>                               |                         |        |            |          |          |           |           |         |
| Nitrite-N Soluble                            | <0.010                  |        |            | 0.010    | mg/L     |           | 31-JUL-09 | R891503 |
| <b>pH, Conductivity and Total Alkalinity</b> |                         |        |            |          |          |           |           |         |
| <b>Alkalinity</b>                            |                         |        |            |          |          |           |           |         |
| Alkalinity, Total (as CaCO3)                 | 19.9                    |        |            | 1.0      | mg/L     |           | 04-AUG-09 | R895344 |
| Bicarbonate (HCO3)                           | 24.3                    |        |            | 2.0      | mg/L     |           | 04-AUG-09 | R895344 |
| Carbonate (CO3)                              | <0.60                   |        |            | 0.60     | mg/L     |           | 04-AUG-09 | R895344 |
| Hydroxide (OH)                               | <0.40                   |        |            | 0.40     | mg/L     |           | 04-AUG-09 | R895344 |
| <b>Conductivity</b>                          |                         |        |            |          |          |           |           |         |
| Conductivity                                 | 50.8                    |        |            | 0.40     | umhos/cm |           | 30-JUL-09 | R889047 |
| <b>pH</b>                                    |                         |        |            |          |          |           |           |         |
| pH                                           | 7.53                    |        |            | 0.10     | pH units |           | 30-JUL-09 | R889047 |
| L798789-9                                    | R15 US                  |        |            |          |          |           |           |         |
| Sampled By:                                  | RV, TT, TM on 21-JUL-09 |        |            |          |          |           |           |         |
| Matrix:                                      | WATER                   |        |            |          |          |           |           |         |
| <b>CCME Aqlife Dissolved Metals</b>          |                         |        |            |          |          |           |           |         |
| <b>Aluminum (Al)-Dissolved</b>               |                         |        |            |          |          |           |           |         |
| Aluminum (Al)-Dissolved                      | 0.0116                  |        |            | 0.0020   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>Cadmium (Cd)-Dissolved</b>                |                         |        |            |          |          |           |           |         |
| Cadmium (Cd)-Dissolved                       | <0.000010               |        |            | 0.000010 | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>Iron (Fe)-Dissolved</b>                   |                         |        |            |          |          |           |           |         |
| Iron (Fe)-Dissolved                          | 0.0066                  |        |            | 0.0020   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>Mercury (Hg)-Dissolved</b>                |                         |        |            |          |          |           |           |         |
| Mercury (Hg)-Dissolved                       | <0.000050               |        |            | 0.000050 | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>Metal scan, dissolved</b>                 |                         |        |            |          |          |           |           |         |
| Arsenic (As)-Dissolved                       | 0.00134                 |        |            | 0.00050  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Boron (B)-Dissolved                          | <0.020                  |        |            | 0.020    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Barium (Ba)-Dissolved                        | 0.00305                 |        |            | 0.00030  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Beryllium (Be)-Dissolved                     | <0.0010                 |        |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Bismuth (Bi)-Dissolved                       | <0.00030                |        |            | 0.00030  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Calcium (Ca)-Dissolved                       | 1.15                    |        |            | 0.050    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cobalt (Co)-Dissolved                        | <0.00020                |        |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Chromium (Cr)-Dissolved                      | <0.0010                 |        |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cesium (Cs)-Dissolved                        | <0.00010                |        |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Copper (Cu)-Dissolved                        | 0.00094                 |        |            | 0.00040  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Potassium (K)-Dissolved                      | 0.442                   |        |            | 0.050    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Magnesium (Mg)-Dissolved                     | 0.557                   |        |            | 0.010    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Manganese (Mn)-Dissolved                     | 0.00059                 |        |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Molybdenum (Mo)-Dissolved                    | <0.00010                |        |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Sodium (Na)-Dissolved                        | 0.835                   |        |            | 0.020    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Nickel (Ni)-Dissolved                        | 0.00267                 |        |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Phosphorus (P)-Dissolved                     | <0.020                  |        |            | 0.020    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Lead (Pb)-Dissolved                          | <0.00010                |        |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Rubidium (Rb)-Dissolved                      | 0.00062                 |        |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Antimony (Sb)-Dissolved                      | <0.0010                 |        |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Selenium (Se)-Dissolved                      | <0.0010                 |        |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silicon (Si)-Dissolved                       | <0.20                   |        |            | 0.20     | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tin (Sn)-Dissolved                           | <0.00030                |        |            | 0.00030  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Strontium (Sr)-Dissolved                     | 0.00722                 |        |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tellurium (Te)-Dissolved                     | <0.00050                |        |            | 0.00050  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Titanium (Ti)-Dissolved                      | <0.00050                |        |            | 0.00050  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Thallium (Tl)-Dissolved                      | <0.00010                |        |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           | Result    | Qualifier* | D.L.     | Units | Extracted | Analyzed  | Batch   |
|-------------------------------------|-----------|------------|----------|-------|-----------|-----------|---------|
| L798789-9 R15 US                    |           |            |          |       |           |           |         |
| Sampled By: RV, TT, TM on 21-JUL-09 |           |            |          |       |           |           |         |
| Matrix: WATER                       |           |            |          |       |           |           |         |
| Metal scan, dissolved               |           |            |          |       |           |           |         |
| Uranium (U)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Vanadium (V)-Dissolved              | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tungsten (W)-Dissolved              | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zinc (Zn)-Dissolved                 | <0.0050   |            | 0.0050   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zirconium (Zr)-Dissolved            | <0.00040  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silver (Ag)-Dissolved               |           |            |          |       |           |           |         |
| Silver (Ag)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| CCME Aqlife Total Metals            |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 | 0.0282    |            | 0.0050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cadmium (Cd)-Total                  |           |            |          |       |           |           |         |
| Cadmium (Cd)-Total                  | <0.000010 |            | 0.000010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Iron (Fe)-Total                     |           |            |          |       |           |           |         |
| Iron (Fe)-Total                     | 0.021     |            | 0.020    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Mercury (Hg)-Total                  |           |            |          |       |           |           |         |
| Mercury (Hg)-Total                  | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Metal scan                          |           |            |          |       |           |           |         |
| Arsenic (As)-Total                  | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Boron (B)-Total                     | <0.030    |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Barium (Ba)-Total                   | 0.00281   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Beryllium (Be)-Total                | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Bismuth (Bi)-Total                  | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Calcium (Ca)-Total                  | 1.02      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cobalt (Co)-Total                   | 0.00026   |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Chromium (Cr)-Total                 | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cesium (Cs)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Copper (Cu)-Total                   | 0.0011    |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Potassium (K)-Total                 | 0.48      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Magnesium (Mg)-Total                | 0.633     |            | 0.010    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Manganese (Mn)-Total                | 0.00103   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Molybdenum (Mo)-Total               | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Sodium (Na)-Total                   | 0.982     |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Nickel (Ni)-Total                   | <0.0020   |            | 0.0020   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Phosphorus (P)-Total                | 0.062     |            | 0.050    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Lead (Pb)-Total                     | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Rubidium (Rb)-Total                 | 0.00066   |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Antimony (Sb)-Total                 | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Selenium (Se)-Total                 | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tin (Sn)-Total                      | <0.00060  |            | 0.00060  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Strontium (Sr)-Total                | 0.00649   |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tellurium (Te)-Total                | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Titanium (Ti)-Total                 | <0.00090  |            | 0.00090  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Thallium (Tl)-Total                 | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Uranium (U)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Vanadium (V)-Total                  | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tungsten (W)-Total                  | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zinc (Zn)-Total                     | <0.010    |            | 0.010    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zirconium (Zr)-Total                | <0.00040  |            | 0.00040  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Silver (Ag)-Total                   |           |            |          |       |           |           |         |
| Silver (Ag)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Miscellaneous Parameters            |           |            |          |       |           |           |         |
| Ammonia (NH3) - Soluble             | <0.0030   |            | 0.0030   | mg/L  |           | 08-AUG-09 | R905084 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters                                                | Result    | Qualifier* | D.L.     | Units    | Extracted              | Analyzed  | Batch   |
|--------------------------------------------------------------------------|-----------|------------|----------|----------|------------------------|-----------|---------|
| L798789-9R15 US<br>Sampled By: RV, TT, TM on 21-JUL-09<br>Matrix: WATER  |           |            |          |          |                        |           |         |
| Dissolved Organic Carbon                                                 | 2.3       | RAMB       | 1.0      | mg/L     | 07-AUG-09              | 18-AUG-09 | R912508 |
| Hardness (as CaCO3)                                                      | 5.17      |            | 0.20     | mg/L     |                        | 04-AUG-09 |         |
| Hardness (as CaCO3)                                                      | 5.14      |            | 0.30     | mg/L     |                        | 06-AUG-09 |         |
| Ortho Phosphorus Soluble As P                                            | <0.0010   |            | 0.0010   | mg/L     |                        | 13-AUG-09 | R910192 |
| Phosphorus, Total                                                        | 0.0027    |            | 0.0010   | mg/L     |                        | 07-AUG-09 | R904695 |
| Silica Reactive Soluble                                                  | 0.32      |            | 0.10     | mg/L     | 31-JUL-09<br>01-AUG-09 | 06-AUG-09 | R901183 |
| Total Dissolved Solids                                                   | <5.0      |            | 5.0      | mg/L     |                        | 31-JUL-09 | R891664 |
| Total Kjeldahl Nitrogen                                                  | <0.20     |            | 0.20     | mg/L     |                        | 05-AUG-09 | R895965 |
| Total Oil and Grease                                                     | <1.0      |            | 1.0      | mg/L     |                        | 04-AUG-09 | R894604 |
| Total Organic Carbon                                                     | 2.7       |            | 1.0      | mg/L     |                        | 18-AUG-09 | R912508 |
| Total Suspended Solids                                                   | <2.0      |            | 2.0      | mg/L     |                        | 31-JUL-09 | R891664 |
| Turbidity                                                                | 0.30      |            | 0.050    | NTU      |                        | 30-JUL-09 | R888872 |
| Nitrate                                                                  |           |            |          |          |                        |           |         |
| Nitrate (NO3) - Soluble                                                  | <0.010    |            | 0.010    | mg/L     |                        | 24-AUG-09 |         |
| Nitrate + Nitrite Soluble                                                |           |            |          |          |                        |           |         |
| Nitrate+Nitrite-N - Soluble                                              | <0.0050   |            | 0.0050   | mg/L     |                        | 22-AUG-09 | R918616 |
| Nitrite                                                                  |           |            |          |          |                        |           |         |
| Nitrite-N Soluble                                                        | <0.010    |            | 0.010    | mg/L     |                        | 31-JUL-09 | R891503 |
| pH, Conductivity and Total Alkalinity                                    |           |            |          |          |                        |           |         |
| Alkalinity                                                               |           |            |          |          |                        |           |         |
| Alkalinity, Total (as CaCO3)                                             | 11.6      |            | 1.0      | mg/L     |                        | 04-AUG-09 | R895344 |
| Bicarbonate (HCO3)                                                       | 14.1      |            | 2.0      | mg/L     |                        | 04-AUG-09 | R895344 |
| Carbonate (CO3)                                                          | <0.60     |            | 0.60     | mg/L     |                        | 04-AUG-09 | R895344 |
| Hydroxide (OH)                                                           | <0.40     |            | 0.40     | mg/L     |                        | 04-AUG-09 | R895344 |
| Conductivity                                                             |           |            |          |          |                        |           |         |
| Conductivity                                                             | 16.9      |            | 0.40     | umhos/cm |                        | 04-AUG-09 | R892163 |
| pH                                                                       |           |            |          |          |                        |           |         |
| pH                                                                       | 6.95      |            | 0.10     | pH units |                        | 30-JUL-09 | R889047 |
| L798789-10R15 DS<br>Sampled By: RV, TT, TM on 21-JUL-09<br>Matrix: WATER |           |            |          |          |                        |           |         |
| CCME Aqlife Dissolved Metals                                             |           |            |          |          |                        |           |         |
| Aluminum (Al)-Dissolved                                                  |           |            |          |          |                        |           |         |
| Aluminum (Al)-Dissolved                                                  | 0.0148    |            | 0.0020   | mg/L     | 29-JUL-09              | 01-AUG-09 | R891728 |
| Cadmium (Cd)-Dissolved                                                   |           |            |          |          |                        |           |         |
| Cadmium (Cd)-Dissolved                                                   | <0.000010 |            | 0.000010 | mg/L     | 29-JUL-09              | 08-AUG-09 | R907500 |
| Iron (Fe)-Dissolved                                                      |           |            |          |          |                        |           |         |
| Iron (Fe)-Dissolved                                                      | 0.0085    |            | 0.0020   | mg/L     | 29-JUL-09              | 01-AUG-09 | R891728 |
| Mercury (Hg)-Dissolved                                                   |           |            |          |          |                        |           |         |
| Mercury (Hg)-Dissolved                                                   | <0.000050 |            | 0.000050 | mg/L     | 29-JUL-09              | 01-AUG-09 | R891728 |
| Metal scan, dissolved                                                    |           |            |          |          |                        |           |         |
| Arsenic (As)-Dissolved                                                   | <0.00050  |            | 0.00050  | mg/L     | 29-JUL-09              | 01-AUG-09 | R891728 |
| Boron (B)-Dissolved                                                      | <0.020    |            | 0.020    | mg/L     | 29-JUL-09              | 01-AUG-09 | R891728 |
| Barium (Ba)-Dissolved                                                    | 0.00330   |            | 0.00030  | mg/L     | 29-JUL-09              | 01-AUG-09 | R891728 |
| Beryllium (Be)-Dissolved                                                 | <0.0010   |            | 0.0010   | mg/L     | 29-JUL-09              | 01-AUG-09 | R891728 |
| Bismuth (Bi)-Dissolved                                                   | <0.00030  |            | 0.00030  | mg/L     | 29-JUL-09              | 01-AUG-09 | R891728 |
| Calcium (Ca)-Dissolved                                                   | 1.10      |            | 0.050    | mg/L     | 29-JUL-09              | 01-AUG-09 | R891728 |
| Cobalt (Co)-Dissolved                                                    | 0.00021   |            | 0.00020  | mg/L     | 29-JUL-09              | 01-AUG-09 | R891728 |
| Chromium (Cr)-Dissolved                                                  | <0.0010   |            | 0.0010   | mg/L     | 29-JUL-09              | 01-AUG-09 | R891728 |
| Cesium (Cs)-Dissolved                                                    | <0.00010  |            | 0.00010  | mg/L     | 29-JUL-09              | 01-AUG-09 | R891728 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           | Result    | Qualifier* | D.L.     | Units | Extracted | Analyzed  | Batch   |
|-------------------------------------|-----------|------------|----------|-------|-----------|-----------|---------|
| L798789-10 R15 DS                   |           |            |          |       |           |           |         |
| Sampled By: RV, TT, TM on 21-JUL-09 |           |            |          |       |           |           |         |
| Matrix: WATER                       |           |            |          |       |           |           |         |
| Metal scan, dissolved               |           |            |          |       |           |           |         |
| Copper (Cu)-Dissolved               | 0.00130   |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Potassium (K)-Dissolved             | 0.444     |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Magnesium (Mg)-Dissolved            | 0.550     |            | 0.010    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Manganese (Mn)-Dissolved            | 0.00107   |            | 0.00020  | mg/L  | 29-JUL-09 | 08-AUG-09 | R907500 |
| Molybdenum (Mo)-Dissolved           | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Sodium (Na)-Dissolved               | 0.838     |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Nickel (Ni)-Dissolved               | 0.00062   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Phosphorus (P)-Dissolved            | <0.020    |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Lead (Pb)-Dissolved                 | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Rubidium (Rb)-Dissolved             | 0.00070   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Antimony (Sb)-Dissolved             | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Selenium (Se)-Dissolved             | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silicon (Si)-Dissolved              | <0.20     |            | 0.20     | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tin (Sn)-Dissolved                  | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Strontium (Sr)-Dissolved            | 0.00684   |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tellurium (Te)-Dissolved            | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Titanium (Ti)-Dissolved             | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Thallium (Tl)-Dissolved             | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Uranium (U)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Vanadium (V)-Dissolved              | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tungsten (W)-Dissolved              | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zinc (Zn)-Dissolved                 | 0.0092    |            | 0.0050   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zirconium (Zr)-Dissolved            | <0.00040  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silver (Ag)-Dissolved               |           |            |          |       |           |           |         |
| Silver (Ag)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| CCME Aqlife Total Metals            |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 | 0.0274    |            | 0.0050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cadmium (Cd)-Total                  |           |            |          |       |           |           |         |
| Cadmium (Cd)-Total                  | <0.000010 |            | 0.000010 | mg/L  | 05-AUG-09 | 08-AUG-09 | R907500 |
| Iron (Fe)-Total                     |           |            |          |       |           |           |         |
| Iron (Fe)-Total                     | 0.022     |            | 0.020    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Mercury (Hg)-Total                  |           |            |          |       |           |           |         |
| Mercury (Hg)-Total                  | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Metal scan                          |           |            |          |       |           |           |         |
| Arsenic (As)-Total                  | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Boron (B)-Total                     | <0.030    |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Barium (Ba)-Total                   | 0.00272   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Beryllium (Be)-Total                | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Bismuth (Bi)-Total                  | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Calcium (Ca)-Total                  | 0.99      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cobalt (Co)-Total                   | 0.00026   |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Chromium (Cr)-Total                 | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cesium (Cs)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Copper (Cu)-Total                   | 0.0012    |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Potassium (K)-Total                 | 0.46      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Magnesium (Mg)-Total                | 0.612     |            | 0.010    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Manganese (Mn)-Total                | 0.00096   |            | 0.00030  | mg/L  | 05-AUG-09 | 08-AUG-09 | R907500 |
| Molybdenum (Mo)-Total               | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Sodium (Na)-Total                   | 0.947     |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Nickel (Ni)-Total                   | <0.0020   |            | 0.0020   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Phosphorus (P)-Total                | 0.059     |            | 0.050    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters             | Result   | Qualifier* | D.L.    | Units    | Extracted | Analyzed  | Batch   |
|---------------------------------------|----------|------------|---------|----------|-----------|-----------|---------|
| L798789-10 R15 DS                     |          |            |         |          |           |           |         |
| Sampled By: RV, TT, TM on 21-JUL-09   |          |            |         |          |           |           |         |
| Matrix: WATER                         |          |            |         |          |           |           |         |
| Metal scan                            |          |            |         |          |           |           |         |
| Lead (Pb)-Total                       | <0.00050 |            | 0.00050 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Rubidium (Rb)-Total                   | 0.00066  |            | 0.00020 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Antimony (Sb)-Total                   | <0.00050 |            | 0.00050 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Selenium (Se)-Total                   | <0.0010  |            | 0.0010  | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tin (Sn)-Total                        | <0.00060 |            | 0.00060 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Strontium (Sr)-Total                  | 0.00623  |            | 0.00010 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tellurium (Te)-Total                  | <0.0010  |            | 0.0010  | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Titanium (Ti)-Total                   | <0.00090 |            | 0.00090 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Thallium (Tl)-Total                   | <0.00010 |            | 0.00010 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Uranium (U)-Total                     | <0.00010 |            | 0.00010 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Vanadium (V)-Total                    | <0.0010  |            | 0.0010  | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tungsten (W)-Total                    | <0.00020 |            | 0.00020 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zinc (Zn)-Total                       | <0.010   |            | 0.010   | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zirconium (Zr)-Total                  | <0.00040 |            | 0.00040 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Silver (Ag)-Total                     |          |            |         |          |           |           |         |
| Silver (Ag)-Total                     | <0.00010 |            | 0.00010 | mg/L     | 05-AUG-09 | 06-AUG-09 | R898543 |
| Miscellaneous Parameters              |          |            |         |          |           |           |         |
| Ammonia (NH3) - Soluble               | <0.0030  |            | 0.0030  | mg/L     |           | 08-AUG-09 | R905084 |
| Chloride (Cl) - Soluble               | 0.45     |            | 0.20    | mg/L     |           | 11-AUG-09 | R909101 |
| Dissolved Organic Carbon              | 2.2      |            | 1.0     | mg/L     |           | 18-AUG-09 | R912508 |
| Fluoride (F) - Soluble                | 0.24     |            | 0.10    | mg/L     |           | 05-AUG-09 | R897086 |
| Hardness (as CaCO3)                   | 4.98     |            | 0.30    | mg/L     |           | 11-AUG-09 |         |
| Hardness (as CaCO3)                   | 5.01     |            | 0.20    | mg/L     |           | 04-AUG-09 |         |
| Ortho Phosphorus Soluble As P         | <0.0010  | RAMB       | 0.0010  | mg/L     |           | 13-AUG-09 | R910192 |
| Phosphorus, Total                     | 0.0020   |            | 0.0010  | mg/L     | 07-AUG-09 | 07-AUG-09 | R904695 |
| Silica Reactive Soluble               | 0.37     |            | 0.10    | mg/L     |           | 06-AUG-09 | R901183 |
| Sulphate (SO4) - Soluble              | 3.4      |            | 2.0     | mg/L     |           | 07-AUG-09 | R904561 |
| Total Dissolved Solids                | <5.0     |            | 5.0     | mg/L     |           | 31-JUL-09 | R891664 |
| Total Kjeldahl Nitrogen               | <0.20    |            | 0.20    | mg/L     | 31-JUL-09 | 05-AUG-09 | R895965 |
| Total Oil and Grease                  | <1.0     |            | 1.0     | mg/L     | 01-AUG-09 | 04-AUG-09 | R894604 |
| Total Organic Carbon                  | 2.3      |            | 1.0     | mg/L     |           | 18-AUG-09 | R912508 |
| Total Suspended Solids                | <2.0     |            | 2.0     | mg/L     |           | 31-JUL-09 | R891664 |
| Turbidity                             | 0.50     |            | 0.050   | NTU      |           | 30-JUL-09 | R888872 |
| Nitrate                               |          |            |         |          |           |           |         |
| Nitrate (NO3) - Soluble               | <0.010   |            | 0.010   | mg/L     |           | 24-AUG-09 |         |
| Nitrate + Nitrite Soluble             |          |            |         |          |           |           |         |
| Nitrate+Nitrite-N - Soluble           | <0.0050  |            | 0.0050  | mg/L     |           | 22-AUG-09 | R918616 |
| Nitrite                               |          |            |         |          |           |           |         |
| Nitrite-N Soluble                     | <0.010   |            | 0.010   | mg/L     |           | 31-JUL-09 | R891503 |
| pH, Conductivity and Total Alkalinity |          |            |         |          |           |           |         |
| Alkalinity                            |          |            |         |          |           |           |         |
| Alkalinity, Total (as CaCO3)          | 6.0      |            | 1.0     | mg/L     |           | 04-AUG-09 | R895344 |
| Bicarbonate (HCO3)                    | 7.3      |            | 2.0     | mg/L     |           | 04-AUG-09 | R895344 |
| Carbonate (CO3)                       | <0.60    |            | 0.60    | mg/L     |           | 04-AUG-09 | R895344 |
| Hydroxide (OH)                        | <0.40    |            | 0.40    | mg/L     |           | 04-AUG-09 | R895344 |
| Conductivity                          |          |            |         |          |           |           |         |
| Conductivity                          | 16.7     |            | 0.40    | umhos/cm |           | 04-AUG-09 | R892163 |
| pH                                    |          |            |         |          |           |           |         |
| pH                                    | 6.96     |            | 0.10    | pH units |           | 30-JUL-09 | R889047 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters              | Result    | Qualifier* | D.L.     | Units | Extracted | Analyzed  | Batch   |
|----------------------------------------|-----------|------------|----------|-------|-----------|-----------|---------|
| L798789-12    KM 71                    |           |            |          |       |           |           |         |
| Sampled By:    RV, TT, TM on 21-JUL-09 |           |            |          |       |           |           |         |
| Matrix:        WATER                   |           |            |          |       |           |           |         |
| CCME Aqlife Dissolved Metals           |           |            |          |       |           |           |         |
| Aluminum (Al)-Dissolved                |           |            |          |       |           |           |         |
| Aluminum (Al)-Dissolved                | 0.156     |            | 0.0020   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cadmium (Cd)-Dissolved                 |           |            |          |       |           |           |         |
| Cadmium (Cd)-Dissolved                 | 0.000036  |            | 0.000010 | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Iron (Fe)-Dissolved                    |           |            |          |       |           |           |         |
| Iron (Fe)-Dissolved                    | 2.75      |            | 0.0020   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Mercury (Hg)-Dissolved                 |           |            |          |       |           |           |         |
| Mercury (Hg)-Dissolved                 | <0.000050 |            | 0.000050 | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Metal scan, dissolved                  |           |            |          |       |           |           |         |
| Arsenic (As)-Dissolved                 | 0.00085   |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Boron (B)-Dissolved                    | <0.020    |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Barium (Ba)-Dissolved                  | 0.0149    |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Beryllium (Be)-Dissolved               | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Bismuth (Bi)-Dissolved                 | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Calcium (Ca)-Dissolved                 | 5.11      |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cobalt (Co)-Dissolved                  | 0.00109   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Chromium (Cr)-Dissolved                | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cesium (Cs)-Dissolved                  | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Copper (Cu)-Dissolved                  | 0.00721   |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Potassium (K)-Dissolved                | 1.40      |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Magnesium (Mg)-Dissolved               | 1.99      |            | 0.010    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Manganese (Mn)-Dissolved               | 0.107     |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Molybdenum (Mo)-Dissolved              | 0.00038   |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Sodium (Na)-Dissolved                  | 2.14      |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Nickel (Ni)-Dissolved                  | 0.00351   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Phosphorus (P)-Dissolved               | <0.020    |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Lead (Pb)-Dissolved                    | 0.00105   |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Rubidium (Rb)-Dissolved                | 0.00222   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Antimony (Sb)-Dissolved                | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Selenium (Se)-Dissolved                | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silicon (Si)-Dissolved                 | 1.67      |            | 0.20     | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tin (Sn)-Dissolved                     | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Strontium (Sr)-Dissolved               | 0.0359    |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tellurium (Te)-Dissolved               | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Titanium (Ti)-Dissolved                | 0.00476   |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Thallium (Tl)-Dissolved                | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Uranium (U)-Dissolved                  | 0.00053   |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Vanadium (V)-Dissolved                 | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tungsten (W)-Dissolved                 | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zinc (Zn)-Dissolved                    | 0.0058    |            | 0.0050   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zirconium (Zr)-Dissolved               | 0.00118   |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silver (Ag)-Dissolved                  |           |            |          |       |           |           |         |
| Silver (Ag)-Dissolved                  | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| CCME Aqlife Total Metals               |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                    |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                    | 0.334     |            | 0.0050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cadmium (Cd)-Total                     |           |            |          |       |           |           |         |
| Cadmium (Cd)-Total                     | 0.000051  |            | 0.000010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Iron (Fe)-Total                        |           |            |          |       |           |           |         |
| Iron (Fe)-Total                        | 4.94      |            | 0.020    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Mercury (Hg)-Total                     |           |            |          |       |           |           |         |
| Mercury (Hg)-Total                     | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters              | Result   | Qualifier* | D.L.    | Units | Extracted | Analyzed  | Batch   |
|----------------------------------------|----------|------------|---------|-------|-----------|-----------|---------|
| L798789-12    KM 71                    |          |            |         |       |           |           |         |
| Sampled By:    RV, TT, TM on 21-JUL-09 |          |            |         |       |           |           |         |
| Matrix:        WATER                   |          |            |         |       |           |           |         |
| <b>Metal scan</b>                      |          |            |         |       |           |           |         |
| Arsenic (As)-Total                     | 0.00080  |            | 0.00050 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Boron (B)-Total                        | <0.030   |            | 0.030   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Barium (Ba)-Total                      | 0.0187   |            | 0.00030 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Beryllium (Be)-Total                   | <0.0010  |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Bismuth (Bi)-Total                     | <0.00020 |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Calcium (Ca)-Total                     | 5.62     |            | 0.10    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cobalt (Co)-Total                      | 0.00305  |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Chromium (Cr)-Total                    | 0.0011   |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cesium (Cs)-Total                      | <0.00010 |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Copper (Cu)-Total                      | 0.0081   |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Potassium (K)-Total                    | 1.56     |            | 0.10    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Magnesium (Mg)-Total                   | 2.30     |            | 0.010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Manganese (Mn)-Total                   | 0.244    |            | 0.00030 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Molybdenum (Mo)-Total                  | 0.00047  |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Sodium (Na)-Total                      | 2.49     |            | 0.030   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Nickel (Ni)-Total                      | 0.0043   |            | 0.0020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Phosphorus (P)-Total                   | 0.116    |            | 0.050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Lead (Pb)-Total                        | 0.00173  |            | 0.00050 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Rubidium (Rb)-Total                    | 0.00231  |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Antimony (Sb)-Total                    | <0.00050 |            | 0.00050 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Selenium (Se)-Total                    | <0.0010  |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tin (Sn)-Total                         | <0.00060 |            | 0.00060 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Strontium (Sr)-Total                   | 0.0339   |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tellurium (Te)-Total                   | <0.0010  |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Titanium (Ti)-Total                    | 0.0103   |            | 0.00090 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Thallium (Tl)-Total                    | <0.00010 |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Uranium (U)-Total                      | 0.00075  |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Vanadium (V)-Total                     | <0.0010  |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tungsten (W)-Total                     | <0.00020 |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zinc (Zn)-Total                        | <0.010   |            | 0.010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zirconium (Zr)-Total                   | 0.00123  |            | 0.00040 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Silver (Ag)-Total</b>               |          |            |         |       |           |           |         |
| Silver (Ag)-Total                      | <0.00010 |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Miscellaneous Parameters</b>        |          |            |         |       |           |           |         |
| Ammonia (NH3) - Soluble                | <0.0030  |            | 0.0030  | mg/L  |           | 08-AUG-09 | R905084 |
| Chloride (Cl) - Soluble                | 0.37     |            | 0.20    | mg/L  |           | 11-AUG-09 | R909101 |
| Dissolved Organic Carbon               | 14.3     |            | 1.0     | mg/L  |           | 18-AUG-09 | R912508 |
| Fluoride (F) - Soluble                 | 0.25     |            | 0.10    | mg/L  |           | 05-AUG-09 | R897086 |
| Hardness (as CaCO3)                    | 23.5     |            | 0.30    | mg/L  |           | 06-AUG-09 |         |
| Hardness (as CaCO3)                    | 20.9     |            | 0.20    | mg/L  |           | 04-AUG-09 |         |
| Ortho Phosphorus Soluble As P          | 0.0182   |            | 0.0010  | mg/L  |           | 07-AUG-09 | R904664 |
| Phosphorus, Total                      | 0.0754   |            | 0.0010  | mg/L  |           | 04-AUG-09 | R901684 |
| Silica Reactive Soluble                | 4.65     |            | 0.10    | mg/L  |           | 06-AUG-09 | R901183 |
| Sulphate (SO4) - Soluble               | 27.6     |            | 2.0     | mg/L  |           | 07-AUG-09 | R904561 |
| Total Dissolved Solids                 | 64.0     |            | 5.0     | mg/L  |           | 31-JUL-09 | R891664 |
| Total Kjeldahl Nitrogen                | 1.25     |            | 0.20    | mg/L  | 31-JUL-09 | 05-AUG-09 | R895965 |
| Total Oil and Grease                   | <1.0     |            | 1.0     | mg/L  | 01-AUG-09 | 04-AUG-09 | R894604 |
| Total Organic Carbon                   | 14.0     |            | 1.0     | mg/L  |           | 18-AUG-09 | R912508 |
| Total Suspended Solids                 | 8.3      |            | 2.0     | mg/L  |           | 31-JUL-09 | R891664 |
| Turbidity                              | 8.90     |            | 0.050   | NTU   |           | 30-JUL-09 | R888872 |

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

# ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters             |                         | Result    | Qualifier* | D.L.     | Units    | Extracted | Analyzed  | Batch   |
|---------------------------------------|-------------------------|-----------|------------|----------|----------|-----------|-----------|---------|
| L798789-12                            | KM 71                   |           |            |          |          |           |           |         |
| Sampled By:                           | RV, TT, TM on 21-JUL-09 |           |            |          |          |           |           |         |
| Matrix:                               | WATER                   |           |            |          |          |           |           |         |
|                                       |                         |           |            |          |          |           |           |         |
| Nitrate                               |                         |           |            |          |          |           |           |         |
| Nitrate (NO3) - Soluble               |                         | <0.010    |            | 0.010    | mg/L     |           | 26-AUG-09 |         |
| Nitrate + Nitrite Soluble             |                         |           |            |          |          |           |           |         |
| Nitrate+Nitrite-N - Soluble           |                         | <0.0050   |            | 0.0050   | mg/L     |           | 25-AUG-09 | R922496 |
| Nitrite                               |                         |           |            |          |          |           |           |         |
| Nitrite-N Soluble                     |                         | <0.010    |            | 0.010    | mg/L     |           | 31-JUL-09 | R891503 |
| pH, Conductivity and Total Alkalinity |                         |           |            |          |          |           |           |         |
| Alkalinity                            |                         |           |            |          |          |           |           |         |
| Alkalinity, Total (as CaCO3)          |                         | 25.2      |            | 1.0      | mg/L     |           | 04-AUG-09 | R895344 |
| Bicarbonate (HCO3)                    |                         | 30.8      |            | 2.0      | mg/L     |           | 04-AUG-09 | R895344 |
| Carbonate (CO3)                       |                         | <0.60     |            | 0.60     | mg/L     |           | 04-AUG-09 | R895344 |
| Hydroxide (OH)                        |                         | <0.40     |            | 0.40     | mg/L     |           | 04-AUG-09 | R895344 |
| Conductivity                          |                         |           |            |          |          |           |           |         |
| Conductivity                          |                         | 55.5      |            | 0.40     | umhos/cm |           | 30-JUL-09 | R889047 |
| pH                                    |                         |           |            |          |          |           |           |         |
| pH                                    |                         | 7.32      |            | 0.10     | pH units |           | 30-JUL-09 | R889047 |
| L798789-13                            | R26TPL                  |           |            |          |          |           |           |         |
| Sampled By:                           | RV, TT, TM on 21-JUL-09 |           |            |          |          |           |           |         |
| Matrix:                               | WATER                   |           |            |          |          |           |           |         |
| CCME Aqlife Dissolved Metals          |                         |           |            |          |          |           |           |         |
| Aluminum (Al)-Dissolved               |                         |           |            |          |          |           |           |         |
| Aluminum (Al)-Dissolved               |                         | 0.0025    |            | 0.0020   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cadmium (Cd)-Dissolved                |                         |           |            |          |          |           |           |         |
| Cadmium (Cd)-Dissolved                |                         | <0.000010 |            | 0.000010 | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Iron (Fe)-Dissolved                   |                         |           |            |          |          |           |           |         |
| Iron (Fe)-Dissolved                   |                         | <0.0020   |            | 0.0020   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Mercury (Hg)-Dissolved                |                         |           |            |          |          |           |           |         |
| Mercury (Hg)-Dissolved                |                         | <0.000050 |            | 0.000050 | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Metal scan, dissolved                 |                         |           |            |          |          |           |           |         |
| Arsenic (As)-Dissolved                |                         | <0.00050  |            | 0.00050  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Boron (B)-Dissolved                   |                         | <0.020    |            | 0.020    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Barium (Ba)-Dissolved                 |                         | 0.00231   |            | 0.00030  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Beryllium (Be)-Dissolved              |                         | <0.0010   |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Bismuth (Bi)-Dissolved                |                         | <0.00030  |            | 0.00030  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Calcium (Ca)-Dissolved                |                         | 1.31      |            | 0.050    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cobalt (Co)-Dissolved                 |                         | <0.00020  |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Chromium (Cr)-Dissolved               |                         | <0.0010   |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cesium (Cs)-Dissolved                 |                         | <0.00010  |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Copper (Cu)-Dissolved                 |                         | <0.00040  |            | 0.00040  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Potassium (K)-Dissolved               |                         | 0.317     |            | 0.050    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Magnesium (Mg)-Dissolved              |                         | 0.484     |            | 0.010    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Manganese (Mn)-Dissolved              |                         | 0.00054   |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Molybdenum (Mo)-Dissolved             |                         | <0.00010  |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Sodium (Na)-Dissolved                 |                         | 0.421     |            | 0.020    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Nickel (Ni)-Dissolved                 |                         | 0.00031   |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Phosphorus (P)-Dissolved              |                         | <0.020    |            | 0.020    | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Lead (Pb)-Dissolved                   |                         | <0.00010  |            | 0.00010  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Rubidium (Rb)-Dissolved               |                         | 0.00046   |            | 0.00020  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Antimony (Sb)-Dissolved               |                         | <0.0010   |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Selenium (Se)-Dissolved               |                         | <0.0010   |            | 0.0010   | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silicon (Si)-Dissolved                |                         | <0.20     |            | 0.20     | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tin (Sn)-Dissolved                    |                         | <0.00030  |            | 0.00030  | mg/L     | 29-JUL-09 | 01-AUG-09 | R891728 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           | Result    | Qualifier* | D.L.     | Units | Extracted | Analyzed  | Batch   |
|-------------------------------------|-----------|------------|----------|-------|-----------|-----------|---------|
| L798789-13 R26TPL                   |           |            |          |       |           |           |         |
| Sampled By: RV, TT, TM on 21-JUL-09 |           |            |          |       |           |           |         |
| Matrix: WATER                       |           |            |          |       |           |           |         |
| Metal scan, dissolved               |           |            |          |       |           |           |         |
| Strontium (Sr)-Dissolved            | 0.00571   |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tellurium (Te)-Dissolved            | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Titanium (Ti)-Dissolved             | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Thallium (Tl)-Dissolved             | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Uranium (U)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Vanadium (V)-Dissolved              | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tungsten (W)-Dissolved              | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zinc (Zn)-Dissolved                 | <0.0050   |            | 0.0050   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zirconium (Zr)-Dissolved            | <0.00040  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silver (Ag)-Dissolved               |           |            |          |       |           |           |         |
| Silver (Ag)-Dissolved               | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| CCME Aqlife Total Metals            |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                 | 0.0159    |            | 0.0050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cadmium (Cd)-Total                  |           |            |          |       |           |           |         |
| Cadmium (Cd)-Total                  | <0.000010 |            | 0.000010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Iron (Fe)-Total                     |           |            |          |       |           |           |         |
| Iron (Fe)-Total                     | 0.020     |            | 0.020    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Mercury (Hg)-Total                  |           |            |          |       |           |           |         |
| Mercury (Hg)-Total                  | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Metal scan                          |           |            |          |       |           |           |         |
| Arsenic (As)-Total                  | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Boron (B)-Total                     | <0.030    |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Barium (Ba)-Total                   | 0.00222   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Beryllium (Be)-Total                | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Bismuth (Bi)-Total                  | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Calcium (Ca)-Total                  | 1.28      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cobalt (Co)-Total                   | 0.00025   |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Chromium (Cr)-Total                 | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cesium (Cs)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Copper (Cu)-Total                   | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Potassium (K)-Total                 | 0.37      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Magnesium (Mg)-Total                | 0.554     |            | 0.010    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Manganese (Mn)-Total                | 0.00140   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Molybdenum (Mo)-Total               | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Sodium (Na)-Total                   | 0.525     |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Nickel (Ni)-Total                   | <0.0020   |            | 0.0020   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Phosphorus (P)-Total                | 0.059     |            | 0.050    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Lead (Pb)-Total                     | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Rubidium (Rb)-Total                 | 0.00050   |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Antimony (Sb)-Total                 | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Selenium (Se)-Total                 | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tin (Sn)-Total                      | <0.00060  |            | 0.00060  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Strontium (Sr)-Total                | 0.00514   |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tellurium (Te)-Total                | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Titanium (Ti)-Total                 | <0.00090  |            | 0.00090  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Thallium (Tl)-Total                 | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Uranium (U)-Total                   | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Vanadium (V)-Total                  | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tungsten (W)-Total                  | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zinc (Zn)-Total                     | <0.010    |            | 0.010    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zirconium (Zr)-Total                | <0.00040  |            | 0.00040  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |

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

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ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters              | Result    | Qualifier* | D.L.     | Units | Extracted | Analyzed  | Batch   |
|----------------------------------------|-----------|------------|----------|-------|-----------|-----------|---------|
| L798789-14     DUP 1                   |           |            |          |       |           |           |         |
| Sampled By:    RV, TT, TM on 21-JUL-09 |           |            |          |       |           |           |         |
| Matrix:        WATER                   |           |            |          |       |           |           |         |
| <b>Metal scan, dissolved</b>           |           |            |          |       |           |           |         |
| Barium (Ba)-Dissolved                  | 0.00257   |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Beryllium (Be)-Dissolved               | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Bismuth (Bi)-Dissolved                 | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Calcium (Ca)-Dissolved                 | 1.29      |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cobalt (Co)-Dissolved                  | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Chromium (Cr)-Dissolved                | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Cesium (Cs)-Dissolved                  | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Copper (Cu)-Dissolved                  | <0.00040  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Potassium (K)-Dissolved                | 0.317     |            | 0.050    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Magnesium (Mg)-Dissolved               | 0.487     |            | 0.010    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Manganese (Mn)-Dissolved               | 0.00054   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Molybdenum (Mo)-Dissolved              | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Sodium (Na)-Dissolved                  | 0.421     |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Nickel (Ni)-Dissolved                  | 0.00034   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Phosphorus (P)-Dissolved               | <0.020    |            | 0.020    | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Lead (Pb)-Dissolved                    | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Rubidium (Rb)-Dissolved                | 0.00047   |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Antimony (Sb)-Dissolved                | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Selenium (Se)-Dissolved                | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Silicon (Si)-Dissolved                 | <0.20     |            | 0.20     | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tin (Sn)-Dissolved                     | <0.00030  |            | 0.00030  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Strontium (Sr)-Dissolved               | 0.00585   |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tellurium (Te)-Dissolved               | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Titanium (Ti)-Dissolved                | <0.00050  |            | 0.00050  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Thallium (Tl)-Dissolved                | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Uranium (U)-Dissolved                  | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Vanadium (V)-Dissolved                 | <0.0010   |            | 0.0010   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Tungsten (W)-Dissolved                 | <0.00020  |            | 0.00020  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zinc (Zn)-Dissolved                    | <0.0050   |            | 0.0050   | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| Zirconium (Zr)-Dissolved               | <0.00040  |            | 0.00040  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>Silver (Ag)-Dissolved</b>           |           |            |          |       |           |           |         |
| Silver (Ag)-Dissolved                  | <0.00010  |            | 0.00010  | mg/L  | 29-JUL-09 | 01-AUG-09 | R891728 |
| <b>CCME Aqlife Total Metals</b>        |           |            |          |       |           |           |         |
| <b>Aluminum (Al)-Total</b>             |           |            |          |       |           |           |         |
| Aluminum (Al)-Total                    | 0.0169    |            | 0.0050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Cadmium (Cd)-Total</b>              |           |            |          |       |           |           |         |
| Cadmium (Cd)-Total                     | <0.000010 |            | 0.000010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Iron (Fe)-Total</b>                 |           |            |          |       |           |           |         |
| Iron (Fe)-Total                        | 0.020     |            | 0.020    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Mercury (Hg)-Total</b>              |           |            |          |       |           |           |         |
| Mercury (Hg)-Total                     | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Metal scan</b>                      |           |            |          |       |           |           |         |
| Arsenic (As)-Total                     | <0.00050  |            | 0.00050  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Boron (B)-Total                        | <0.030    |            | 0.030    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Barium (Ba)-Total                      | 0.00219   |            | 0.00030  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Beryllium (Be)-Total                   | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Bismuth (Bi)-Total                     | <0.00020  |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Calcium (Ca)-Total                     | 1.26      |            | 0.10     | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cobalt (Co)-Total                      | 0.00025   |            | 0.00020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Chromium (Cr)-Total                    | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Cesium (Cs)-Total                      | <0.00010  |            | 0.00010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Copper (Cu)-Total                      | <0.0010   |            | 0.0010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters                    | Result   | Qualifier* | D.L.    | Units | Extracted | Analyzed  | Batch   |
|----------------------------------------------|----------|------------|---------|-------|-----------|-----------|---------|
| L798789-14    DUP 1                          |          |            |         |       |           |           |         |
| Sampled By:    RV, TT, TM on 21-JUL-09       |          |            |         |       |           |           |         |
| Matrix:        WATER                         |          |            |         |       |           |           |         |
| <b>Metal scan</b>                            |          |            |         |       |           |           |         |
| Potassium (K)-Total                          | 0.36     |            | 0.10    | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Magnesium (Mg)-Total                         | 0.545    |            | 0.010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Manganese (Mn)-Total                         | 0.00125  |            | 0.00030 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Molybdenum (Mo)-Total                        | <0.00020 |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Sodium (Na)-Total                            | 0.500    |            | 0.030   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Nickel (Ni)-Total                            | <0.0020  |            | 0.0020  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Phosphorus (P)-Total                         | 0.055    |            | 0.050   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Lead (Pb)-Total                              | <0.00050 |            | 0.00050 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Rubidium (Rb)-Total                          | 0.00049  |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Antimony (Sb)-Total                          | <0.00050 |            | 0.00050 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Selenium (Se)-Total                          | <0.0010  |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tin (Sn)-Total                               | <0.00060 |            | 0.00060 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Strontium (Sr)-Total                         | 0.00511  |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tellurium (Te)-Total                         | <0.0010  |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Titanium (Ti)-Total                          | <0.00090 |            | 0.00090 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Thallium (Tl)-Total                          | <0.00010 |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Uranium (U)-Total                            | <0.00010 |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Vanadium (V)-Total                           | <0.0010  |            | 0.0010  | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Tungsten (W)-Total                           | <0.00020 |            | 0.00020 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zinc (Zn)-Total                              | <0.010   |            | 0.010   | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| Zirconium (Zr)-Total                         | <0.00040 |            | 0.00040 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Silver (Ag)-Total</b>                     |          |            |         |       |           |           |         |
| Silver (Ag)-Total                            | <0.00010 |            | 0.00010 | mg/L  | 05-AUG-09 | 06-AUG-09 | R898543 |
| <b>Miscellaneous Parameters</b>              |          |            |         |       |           |           |         |
| Ammonia (NH3) - Soluble                      | <0.0030  |            | 0.0030  | mg/L  |           | 08-AUG-09 | R905084 |
| Chloride (Cl) - Soluble                      | 0.82     |            | 0.20    | mg/L  |           | 11-AUG-09 | R909101 |
| Dissolved Organic Carbon                     | 1.4      |            | 1.0     | mg/L  |           | 18-AUG-09 | R912508 |
| Fluoride (F) - Soluble                       | 0.20     |            | 0.10    | mg/L  |           | 05-AUG-09 | R897086 |
| Hardness (as CaCO3)                          | 5.24     |            | 0.20    | mg/L  |           | 04-AUG-09 |         |
| Hardness (as CaCO3)                          | 5.39     |            | 0.30    | mg/L  |           | 06-AUG-09 |         |
| Ortho Phosphorus Soluble As P                | <0.0010  | RAMB       | 0.0010  | mg/L  |           | 13-AUG-09 | R910192 |
| Phosphorus, Total                            | 0.0035   |            | 0.0010  | mg/L  |           | 19-AUG-09 | R912404 |
| Silica Reactive Soluble                      | 0.17     |            | 0.10    | mg/L  |           | 06-AUG-09 | R901183 |
| Sulphate (SO4) - Soluble                     | 3.2      |            | 2.0     | mg/L  |           | 07-AUG-09 | R904561 |
| Total Dissolved Solids                       | 8.0      |            | 5.0     | mg/L  |           | 31-JUL-09 | R891664 |
| Total Kjeldahl Nitrogen                      | <0.20    |            | 0.20    | mg/L  | 31-JUL-09 | 05-AUG-09 | R895965 |
| Total Oil and Grease                         | <1.0     |            | 1.0     | mg/L  | 01-AUG-09 | 04-AUG-09 | R894604 |
| Total Organic Carbon                         | 2.0      |            | 1.0     | mg/L  |           | 18-AUG-09 | R912508 |
| Total Suspended Solids                       | <2.0     |            | 2.0     | mg/L  |           | 31-JUL-09 | R891664 |
| Turbidity                                    | 0.25     |            | 0.050   | NTU   |           | 30-JUL-09 | R888872 |
| <b>Nitrate</b>                               |          |            |         |       |           |           |         |
| Nitrate (NO3) - Soluble                      | <0.010   |            | 0.010   | mg/L  |           | 24-AUG-09 |         |
| <b>Nitrate + Nitrite Soluble</b>             |          |            |         |       |           |           |         |
| Nitrate+Nitrite-N - Soluble                  | <0.0050  |            | 0.0050  | mg/L  |           | 22-AUG-09 | R918616 |
| <b>Nitrite</b>                               |          |            |         |       |           |           |         |
| Nitrite-N Soluble                            | <0.010   |            | 0.010   | mg/L  |           | 31-JUL-09 | R891503 |
| <b>pH, Conductivity and Total Alkalinity</b> |          |            |         |       |           |           |         |
| <b>Alkalinity</b>                            |          |            |         |       |           |           |         |
| Alkalinity, Total (as CaCO3)                 | 6.3      |            | 1.0     | mg/L  |           | 04-AUG-09 | R895344 |

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

# ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters              |  | Result | Qualifier* | D.L. | Units    | Extracted | Analyzed  | Batch   |
|----------------------------------------|--|--------|------------|------|----------|-----------|-----------|---------|
| L798789-14      DUP 1                  |  |        |            |      |          |           |           |         |
| Sampled By:    RV, TT, TM on 21-JUL-09 |  |        |            |      |          |           |           |         |
| Matrix:            WATER               |  |        |            |      |          |           |           |         |
| <b>Alkalinity</b>                      |  |        |            |      |          |           |           |         |
| Bicarbonate (HCO3)                     |  | 7.7    |            | 2.0  | mg/L     |           | 04-AUG-09 | R895344 |
| Carbonate (CO3)                        |  | <0.60  |            | 0.60 | mg/L     |           | 04-AUG-09 | R895344 |
| Hydroxide (OH)                         |  | <0.40  |            | 0.40 | mg/L     |           | 04-AUG-09 | R895344 |
| <b>Conductivity</b>                    |  |        |            |      |          |           |           |         |
| Conductivity                           |  | 14.5   |            | 0.40 | umhos/cm |           | 04-AUG-09 | R892163 |
| <b>pH</b>                              |  |        |            |      |          |           |           |         |
| pH                                     |  | 7.06   |            | 0.10 | pH units |           | 30-JUL-09 | R889047 |
|                                        |  |        |            |      |          |           |           |         |

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

Reference Information

QC Samples with Qualifiers & Comments:

| QC Type Description | Parameter                     | Qualifier | Applies to Sample Number(s)                  |
|---------------------|-------------------------------|-----------|----------------------------------------------|
| Method Blank        | Ortho Phosphorus Soluble As P | A         | L798789-1, -10, -13, -14, -2, -4, -7, -8, -9 |
| Duplicate           | Ortho Phosphorus Soluble As P | RAMB      | L798789-1, -10, -13, -14, -2, -4, -7, -8, -9 |
| Duplicate           | Ortho Phosphorus Soluble As P | RAMB      | L798789-1, -10, -13, -14, -2, -4, -7, -8, -9 |
| Duplicate           | Ortho Phosphorus Soluble As P | RAMB      | L798789-1, -10, -13, -14, -2, -4, -7, -8, -9 |

Sample Parameter Qualifier Key:

| Qualifier | Description                                                                        |
|-----------|------------------------------------------------------------------------------------|
| A         | Method Blank exceeds ALS DQO. Refer to narrative comments for further information. |
| RAMB      | Result Adjusted For Method Blank                                                   |

Test Method References:

| ALS Test Code   | Matrix | Test Description        | Method Reference**            |
|-----------------|--------|-------------------------|-------------------------------|
| AG-DIS-ULTRA-WP | Water  | Silver (Ag)-Dissolved   | EPA 200.8 Rev 5.4 May 1994    |
| AG-TOT-ULTRA-WP | Water  | Silver (Ag)-Total       | EPA 200.8 REV 5.4 MAY 1994 U  |
| AL-DIS-ULTRA-WP | Water  | Aluminum (Al)-Dissolved | EPA 200.8 REV 5.4 MAY 1994 DU |
| AL-TOT-ULTRA-WP | Water  | Aluminum (Al)-Total     | EPA 200.8 Rev 5.4 May 1994    |
| ALK-TOT-WP      | Water  | Alkalinity              | APHA 2320B                    |

Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. It is determined by titration with a standard solution of strong mineral acid to the successive HCO3- and H2CO3 endpoints indicated electrometrically.

|              |       |                          |                          |
|--------------|-------|--------------------------|--------------------------|
| C-DIS-ORG-WP | Water | Dissolved Organic Carbon | APHA 5310 B-Instrumental |
|--------------|-------|--------------------------|--------------------------|

This method is applicable to the analysis of ground water, wastewater, and surface water samples. The form detected depends upon sample pretreatment: Unfiltered sample = TC, 0.45um filtered = TDC. Samples are injected into a combustion tube containing an oxidation catalyst. The carrier gas containing the combustion product from the combustion tube flows through an inorganic carbon reactor vessel and is then sent through a halogen scrubber into a sample cell set in a non-dispersive infrared gas analyzer (NDIR) where carbon dioxide is detected. For total inorganic carbon and dissolved inorganic carbon, the sample is injected into an IC reactor vessel where only the IC component is decomposed to become carbon dioxide.

The peak area generated by the NDIR indicates the TC/TDC or TIC/DIC as applicable. The total organic carbon content of the sample is calculated by subtracting the TIC from the TC.  
TOC = TC-TIC, DOC = TDC-DIC, Particulate = Total - Dissolved.

|              |       |                      |                          |
|--------------|-------|----------------------|--------------------------|
| C-TOT-ORG-WP | Water | Total Organic Carbon | APHA 5310 B-Instrumental |
|--------------|-------|----------------------|--------------------------|

This method is applicable to the analysis of ground water, wastewater, and surface water samples. The form detected depends upon sample pretreatment: Unfiltered sample = TC, 0.45um filtered = TDC. Samples are injected into a combustion tube containing an oxidation catalyst. The carrier gas containing the combustion product from the combustion tube flows through an inorganic carbon reactor vessel and is then sent through a halogen scrubber into a sample cell set in a non-dispersive infrared gas analyzer (NDIR) where carbon dioxide is detected. For total inorganic carbon and dissolved inorganic carbon, the sample is injected into an IC reactor vessel where only the IC component is decomposed to become carbon dioxide.

The peak area generated by the NDIR indicates the TC/TDC or TIC/DIC as applicable. The total organic carbon content of the sample is calculated by subtracting the TIC from the TC.  
TOC = TC-TIC, DOC = TDC-DIC, Particulate = Total - Dissolved.

|                 |       |                        |                              |
|-----------------|-------|------------------------|------------------------------|
| CD-DIS-ULTRA-WP | Water | Cadmium (Cd)-Dissolved | EPA 200.8 Rev 5.4 May 1994   |
| CD-TOT-ULTRA-WP | Water | Cadmium (Cd)-Total     | EPA 200.8 REV 5.4 MAY 1994 U |
| CL-SOL-LOW-WP   | Water | Chloride Soluble       | APHA4500 /LACHAT             |
| EC-WP           | Water | Conductivity           | APHA 2510B                   |

Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.

|                                    |       |                     |                 |
|------------------------------------|-------|---------------------|-----------------|
| ETL-HARDNESS-DIS-WP                | Water | Hardness Calculated | Calculated      |
| ETL-HARDNESS-TOT-WP                | Water | Hardness Calculated | Calculated      |
| F-SOL-WP                           | Water | Fluoride Soluble    | APHA4500/LACHAT |
| Fluoride - Ion selective electrode |       |                     |                 |

Reference Information

|                      |       |                        |                              |
|----------------------|-------|------------------------|------------------------------|
| FE-DIS-ULTRA-WP      | Water | Iron (Fe)-Dissolved    | EPA 200.8 Rev 5.4 May 1994   |
| FE-TOT-ULTRA-WP      | Water | Iron (Fe)-Total        | EPA 200.8 REV 5.4 MAY 1994 U |
| HG-DIS-ULTRA-WP      | Water | Mercury (Hg)-Dissolved | EPA 200.8 Rev 5.4 May 1994   |
| HG-TOT-ULTRA-WP      | Water | Mercury (Hg)-Total     | EPA 200.8 REV 5.4 MAY 1994 U |
| MET-SCNOU-DIS-LOW-WP | Water | Metal scan, dissolved  | EPA 200.8 Rev 5.4 May 1994   |

Dissolved Metals by ICP-MS

This analysis is carried out using sample preparation procedures adapted from APHA, AWWA, WPCF, Standard Methods for the Examination of Water and Wastewater for filtration through a 0.45 um filter, and procedures adapted from U.S. EPA Method 200.8 for analysis by inductively coupled - mass spectrometry.

|                      |       |            |                            |
|----------------------|-------|------------|----------------------------|
| MET-SCNOU-TOT-LOW-WP | Water | Metal scan | EPA 200.8 Rev 5.4 May 1994 |
|----------------------|-------|------------|----------------------------|

Total Metals by ICP-MS

This analysis is carried out using sample preparation procedures adapted from U.S. EPA-600/4-82-055 for hotblock digestion or U.S. EPA Test Methods for Evaluating Solid Waste SW846 3015 for microwave digestion, and procedures adapted from U.S. EPA Method 200.8 for analysis by inductively coupled - mass spectrometry.

|            |       |                         |                                       |
|------------|-------|-------------------------|---------------------------------------|
| N-TOTKJ-WP | Water | Total Kjeldahl Nitrogen | Quickchem method 10-107-06-2-E Lachat |
|------------|-------|-------------------------|---------------------------------------|

Samples are digested with a sulphuric acid solution, cooled, diluted with water, and analyzed for ammonia. Total Kjeldahl nitrogen is the sum of free-ammonia and organic nitrogen compounds which are converted to ammonium sulphate through this digestion process. Analysis is performed by Flow Injection Analysis (FIA). The pH of the digested sample is raised to a known, basic pH by neutralization with a concentrated buffer solution. This neutralization converts the ammonium cation to ammonia. The ammonia produced is heated with salicylate and hypochlorite to produce blue colour which is proportional to the ammonia concentration.

|             |       |                           |                                |
|-------------|-------|---------------------------|--------------------------------|
| N2N3-SOL-WP | Water | Nitrate + Nitrite Soluble | APHA4500;2005/LACHAT;1997,1999 |
| NH3-SOL-WP  | Water | Ammonia Soluble           | LACHAT;2003                    |

Ammonia - Colourimetric using Salicylate-nitroprusside and hypochlorite, in an alkaline phosphate buffer.

|                |       |                           |                                        |
|----------------|-------|---------------------------|----------------------------------------|
| NO2-SOL-WP     | Water | Nitrite                   | Lachat Quikchem 10-107-04-1-F Rev 1997 |
| OGG-IR-WP      | Water | Total Oil and Grease      | APHA METHOD 5520C                      |
| P-ORTHO-SOL-WP | Water | Ortho Phosphorous Soluble | APHA, 1998 P-OS                        |

Samples are digested using a sulphuric acid-persulphate mixture to convert organic phosphorous to orthophosphate. The samples are analyzed by either the Flow Injection Analysis (FIA) or the Segmented Flow Analysis (SFA) method. The absorbance measured by the instrument is proportional to the concentration of orthophosphate in the sample, and is reported as phosphorous. Quantitative soluble or dissolved orthophosphorous values can be determined by carrying out the procedure without the digestion step.

|            |       |                   |                |
|------------|-------|-------------------|----------------|
| P-TOTAL-WP | Water | Phosphorus, Total | APHA, 1998 P-T |
|------------|-------|-------------------|----------------|

Samples are digested using a sulphuric acid-persulphate mixture to convert organic phosphorous to orthophosphate. The samples are analyzed by either the Flow Injection Analysis (FIA) or the Segmented Flow Analysis (SFA) method. The absorbance measured by the instrument is proportional to the concentration of orthophosphate in the sample, and is reported as phosphorous. Samples are analyzed for total or total dissolved phosphorous depending on the sample pretreatment.

|       |       |    |            |
|-------|-------|----|------------|
| PH-WP | Water | pH | APHA 4500H |
|-------|-------|----|------------|

pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.

|                    |       |                 |                                 |
|--------------------|-------|-----------------|---------------------------------|
| SILICA-REAC-SOL-WP | Water | Reactive Silica | TECHNICON 105-71W; APHA 4500E S |
|--------------------|-------|-----------------|---------------------------------|

Ammonium molybdate at approximately pH 1.2 reacts with silica and phosphate to produce heteropoly acids. Oxalic acid is added to destroy the molybdosphoric acid but not the molybdosilicic acid. The yellow molybdosilicic acid is reduced by ascorbic acid to heteropoly blue. The intensity of the blue colour measured spectrophotometrically at 600 nm is proportional to the concentration of molybdate-reactive silica and is reported as soluble. Results reported as dissolved indicate the sample was filtered prior to analysis.

Reference Information

|                |       |                        |                    |
|----------------|-------|------------------------|--------------------|
| SO4-SOL-LOW-WP | Water | Sulphate Soluble       | APHA4500/LACHAT LR |
| SOLIDS-TDS-WP  | Water | Total Dissolved Solids | APHA 2540          |

The residue remaining in a prepared casserole after passing the sample through a 1.2 um Whatman GF/C glass microfibre filter and drying at 180 degrees C. Samples may be dried at 105 degrees C if the client specifically requests this drying temperature.

|                     |       |                        |              |
|---------------------|-------|------------------------|--------------|
| SOLIDS-TOTSUS-LR-WP | Water | Total Suspended Solids | APHA 2540 LR |
|---------------------|-------|------------------------|--------------|

The residue retained by a prepared 1.5 um Whatman 934-AH glass microfibre filter dried at 105 degrees C. A method detection limit of 2 mg/L can be achieved when 500 mL of sample is used.

|              |       |           |                   |
|--------------|-------|-----------|-------------------|
| TURBIDITY-WP | Water | Turbidity | APHA, 1998, 2130B |
|--------------|-------|-----------|-------------------|

A strong light beam is sent through a transparent tube containing the sample. Light that is reflected at 90 degrees to the axis by suspended particles is detected by the photocell. The electrical response is proportional to the sample turbidity.

\*\* ALS test methods may incorporate modifications from specified reference methods to improve performance.

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                               |
|----------------------------|---------------------------------------------------|
| WP                         | ALS LABORATORY GROUP - WINNIPEG, MANITOBA, CANADA |

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

- mg/kg - milligrams per kilogram based on dry weight of sample
- mk/kg wwt - milligrams per kilogram based on wet weight of sample
- mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
- mg/L - unit of concentration based on volume, parts per million.
- < - Less than.
- D.L. - The reporting 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.  
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



**Ship to: Unit 12- 1329 Niakwa Road, Winnipeg, Manitoba, R3J 3T4**

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**Fax: (204) 255-9721**

**After Hours Emergency Pager : (204)-931-3145**

# CHAIN OF CUSTODY/ANALYTICAL REQUEST FORM

Service Requested: Regular X Rush \_\_\_\_\_ Emergency \_\_\_\_\_

Quotation Number: Q21514

W10104

Account# W.

Project Number:            AEM-AWR           

| CHAIN OF CUSTODY/ANALYTICAL REQUEST FORM                                                                                        |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------|--|--|--|----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Service Requested: Regular <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Emergency <input type="checkbox"/> |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Quotation Number: Q21514                                                                                                        |  |  |  | W10104                           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Account# W_____                                                                                                                 |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Project Number: _____AEM- AWR_____                                                                                              |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  | Routine: Cond, pH, Hardness, TSS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  | Oil and Grease                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  | Sulphate                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  | TKN and Ammonia                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  | Total Metals                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  | Dissolved Metals                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|                                                                                                                                 |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                 |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| </                                                                                                                              |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**CLIENT INFORMATION:**

**REPORT TO:**

**Ryan VanEngen:** [rvanengen@agnico-eagle.com](mailto:rvanengen@agnico-eagle.com)

867. 739. 4610 at MBK x 6759

**If off site: 519.400.7979**

**FOR LABORATORY USE ONLY:**  
SAMPLE CONDITION UPON RECEIPT:

FROZEN \_\_\_\_\_ COLD \_\_\_\_\_ AMBIENT \_\_\_\_\_  
ACCEPTABLE \_\_\_\_\_ NON ACCEPTABLE \_\_\_\_\_

15.4°C

**NOTES AND CONDITIONS: 1. Hazardous samples must be labelled to comply with WHMIS regulations.**

**2. ALS's liability limited to cost of analysis. 3. Failure to complete all portions of this form may delay analysis.**

Relinquished By:

Date: 07/25/09

Received By: CS

Date: 29-JUL-00

Relinquished By:

Date: \_\_\_\_\_

Received By:

Date: \_\_\_\_\_

**INVOICE:**  
**payables.meadowbank@agnico-eagle.com**

**20 Route 395 Cadillac Que. J0Y 1C0**



# CHAIN OF CUSTODY/ANALYTICAL REQUEST FORM

Service Requested: Regular ☒ Rush ☐ Emergency ☐

Quotation Number: Q21514

Account# W

Project Number: AEM-AWR

W10104

| Sample ID             | Sampled By | Date/Time Sampled | Sample Type | Routine: Cond, pH, Hardness, TSS | Oil and Grease | Sulphate | TKN and Ammonia | Total Metals | Dissolved Metals | Hg | Doc | TOC |  |  |  |  |  |  |  |  |
|-----------------------|------------|-------------------|-------------|----------------------------------|----------------|----------|-----------------|--------------|------------------|----|-----|-----|--|--|--|--|--|--|--|--|
| 9 R15 US              | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |  |
| 10 R15 DS             | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |  |
| 11 <u>Q16</u> MISSING | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |  |
| 12 KM 71              | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |  |
| 13 R26TPL             | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |  |
| 14 DUP1               | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |  |
|                       | RV, TT, TM | 07/21/09          | Water       | X                                | X              | X        | X               | X            | X                | X  | X   | X   |  |  |  |  |  |  |  |  |

## CLIENT INFORMATION:

REPORT TO:

Ryan VanEngen: rvanengen@agnico-eagle.com

867. 739. 4610 at MBK x 6759

If off site: 519.400.7979

## FOR LABORATORY USE ONLY:

SAMPLE CONDITION UPON RECEIPT: FROZEN ☐ COLD ☐ AMBIENT ☒

ACCEPTABLE ☒ NON ACCEPTABLE ☐

OTHER (BREAKAGE, LEAKAGE, ETC.):

NOTES AND CONDITIONS: 1. Hazardous samples must be labelled to comply with WHMIS regulations.

2. ALS's liability limited to cost of analysis. 3. Failure to complete all portions of this form may delay analysis.

Relinquished By:

Ryan VE

Relinquished By:

|                |                 |                 |
|----------------|-----------------|-----------------|
| Date: 07/25/09 | Received By: CD | Date: 29-JUL-09 |
| Time: 13:00    | ALS Lab:        | Time: 12:00     |
| Date:          | Received By:    | Date:           |
| Time:          | ALS Lab:        | Time:           |

INVOICE:  
payables.meadowbank@agnico-eagle.com.  
20 Route 395 Cadillac Que. J0Y 1C0

COMMENTS: No 1L Glass sent for Oil and Grease: Use 1 L Plastic or TOC bottles for Oil and Grease 1 of 2.



**Environmental Division**

**Certificate of Analysis**

AGNICO-EAGLE MINING LTD

ATTN: RYAN VANENGEN

MEADOWBANK DIV.

P.O. BOX 540

BAKER LAKE NU X0X 0A0

**Report Date:** 15-SEP-09 10:34 (MT)

**Version:** FINAL

**Lab Work Order #:** L813762

**Date Received:** 02-SEP-09

**Project P.O. #:**

**Job Reference:** AEM - AWR

**Legal Site Desc:**

**CofC Numbers:**

**Other Information:**

**Comments:**

GAIL HILL  
Account Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.  
ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU  
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           | Result    | Qualifier* | D.L.     | Units    | Extracted | Analyzed  | Batch   |
|-------------------------------------|-----------|------------|----------|----------|-----------|-----------|---------|
| L813762-1 R02 US                    |           |            |          |          |           |           |         |
| Sampled By: TT on 28-AUG-09 @ 10:20 |           |            |          |          |           |           |         |
| Matrix: WATER                       |           |            |          |          |           |           |         |
| CCME Aqlife Total Metals            |           |            |          |          |           |           |         |
| Aluminum (Al)-Total                 |           |            |          |          |           |           |         |
| Aluminum (Al)-Total                 | 0.0153    |            | 0.0050   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Cadmium (Cd)-Total                  |           |            |          |          |           |           |         |
| Cadmium (Cd)-Total                  | <0.000010 |            | 0.000010 | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Iron (Fe)-Total                     |           |            |          |          |           |           |         |
| Iron (Fe)-Total                     | 0.035     |            | 0.020    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Mercury (Hg)-Total                  |           |            |          |          |           |           |         |
| Mercury (Hg)-Total                  | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Metal scan                          |           |            |          |          |           |           |         |
| Arsenic (As)-Total                  | <0.00050  |            | 0.00050  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Boron (B)-Total                     | <0.030    |            | 0.030    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Barium (Ba)-Total                   | 0.0117    |            | 0.00030  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Beryllium (Be)-Total                | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Bismuth (Bi)-Total                  | <0.00020  |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Calcium (Ca)-Total                  | 4.73      |            | 0.10     | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Cobalt (Co)-Total                   | <0.00020  |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Chromium (Cr)-Total                 | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Cesium (Cs)-Total                   | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Copper (Cu)-Total                   | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Potassium (K)-Total                 | 0.55      |            | 0.10     | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Magnesium (Mg)-Total                | 0.881     |            | 0.010    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Manganese (Mn)-Total                | 0.00307   |            | 0.00030  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Molybdenum (Mo)-Total               | <0.00020  |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Sodium (Na)-Total                   | 2.15      |            | 0.030    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Nickel (Ni)-Total                   | <0.0020   |            | 0.0020   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Phosphorus (P)-Total                | <0.050    | RAMB       | 0.050    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Lead (Pb)-Total                     | <0.00050  |            | 0.00050  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Rubidium (Rb)-Total                 | 0.00058   |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Antimony (Sb)-Total                 | <0.00050  |            | 0.00050  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Selenium (Se)-Total                 | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tin (Sn)-Total                      | 0.00072   |            | 0.00060  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Strontium (Sr)-Total                | 0.0222    |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tellurium (Te)-Total                | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Titanium (Ti)-Total                 | <0.00090  |            | 0.00090  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Thallium (Tl)-Total                 | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Uranium (U)-Total                   | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Vanadium (V)-Total                  | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tungsten (W)-Total                  | <0.00020  |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Zinc (Zn)-Total                     | <0.010    |            | 0.010    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Zirconium (Zr)-Total                | <0.00040  |            | 0.00040  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Silver (Ag)-Total                   |           |            |          |          |           |           |         |
| Silver (Ag)-Total                   | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Miscellaneous Parameters            |           |            |          |          |           |           |         |
| Ammonia (NH3) - Soluble             | <0.0030   |            | 0.0030   | mg/L     |           | 03-SEP-09 | R934198 |
| Conductivity                        | 42.6      |            | 0.40     | umhos/cm |           | 02-SEP-09 | R931783 |
| Hardness (as CaCO3)                 | 15.4      |            | 0.30     | mg/L     |           | 15-SEP-09 |         |
| Sulphate (SO4) - Soluble            | 3.7       |            | 2.0      | mg/L     |           | 08-SEP-09 | R937903 |
| Total Kjeldahl Nitrogen             | <0.20     |            | 0.20     | mg/L     | 03-SEP-09 | 04-SEP-09 | R934020 |
| Total Organic Carbon                | <1.0      |            | 1.0      | mg/L     |           | 12-SEP-09 | R941554 |
| Total Suspended Solids              | <2.0      |            | 2.0      | mg/L     |           | 03-SEP-09 | R934022 |
| pH                                  | 7.36      |            | 0.10     | pH units |           | 02-SEP-09 | R931783 |

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

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           |        | Result    | Qualifier* | D.L.     | Units    | Extracted | Analyzed  | Batch   |
|-------------------------------------|--------|-----------|------------|----------|----------|-----------|-----------|---------|
| L813762-1                           | R02 US |           |            |          |          |           |           |         |
| Sampled By: TT on 28-AUG-09 @ 10:20 |        |           |            |          |          |           |           |         |
| Matrix: WATER                       |        |           |            |          |          |           |           |         |
| L813762-2                           | R02 DS |           |            |          |          |           |           |         |
| Sampled By: TT on 28-AUG-09 @ 10:40 |        |           |            |          |          |           |           |         |
| Matrix: WATER                       |        |           |            |          |          |           |           |         |
| CCME Aqlife Total Metals            |        |           |            |          |          |           |           |         |
| Aluminum (Al)-Total                 |        |           |            |          |          |           |           |         |
| Aluminum (Al)-Total                 |        | 0.0124    |            | 0.0050   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Cadmium (Cd)-Total                  |        |           |            |          |          |           |           |         |
| Cadmium (Cd)-Total                  |        | <0.000010 |            | 0.000010 | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Iron (Fe)-Total                     |        |           |            |          |          |           |           |         |
| Iron (Fe)-Total                     |        | 0.024     |            | 0.020    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Mercury (Hg)-Total                  |        |           |            |          |          |           |           |         |
| Mercury (Hg)-Total                  |        | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Metal scan                          |        |           |            |          |          |           |           |         |
| Arsenic (As)-Total                  |        | <0.00050  |            | 0.00050  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Boron (B)-Total                     |        | <0.030    |            | 0.030    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Barium (Ba)-Total                   |        | 0.0113    |            | 0.00030  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Beryllium (Be)-Total                |        | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Bismuth (Bi)-Total                  |        | <0.00020  |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Calcium (Ca)-Total                  |        | 4.64      |            | 0.10     | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Cobalt (Co)-Total                   |        | <0.00020  |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Chromium (Cr)-Total                 |        | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Cesium (Cs)-Total                   |        | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Copper (Cu)-Total                   |        | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Potassium (K)-Total                 |        | 0.55      |            | 0.10     | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Magnesium (Mg)-Total                |        | 0.863     |            | 0.010    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Manganese (Mn)-Total                |        | 0.00305   |            | 0.00030  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Molybdenum (Mo)-Total               |        | <0.00020  |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Sodium (Na)-Total                   |        | 2.17      |            | 0.030    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Nickel (Ni)-Total                   |        | <0.0020   |            | 0.0020   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Phosphorus (P)-Total                |        | <0.050    | RAMB       | 0.050    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Lead (Pb)-Total                     |        | <0.00050  |            | 0.00050  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Rubidium (Rb)-Total                 |        | 0.00057   |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Antimony (Sb)-Total                 |        | <0.00050  |            | 0.00050  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Selenium (Se)-Total                 |        | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tin (Sn)-Total                      |        | <0.00060  |            | 0.00060  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Strontium (Sr)-Total                |        | 0.0222    |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tellurium (Te)-Total                |        | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Titanium (Ti)-Total                 |        | <0.00090  |            | 0.00090  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Thallium (Tl)-Total                 |        | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Uranium (U)-Total                   |        | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Vanadium (V)-Total                  |        | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tungsten (W)-Total                  |        | <0.00020  |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Zinc (Zn)-Total                     |        | <0.010    |            | 0.010    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Zirconium (Zr)-Total                |        | <0.00040  |            | 0.00040  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Silver (Ag)-Total                   |        |           |            |          |          |           |           |         |
| Silver (Ag)-Total                   |        | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Miscellaneous Parameters            |        |           |            |          |          |           |           |         |
| Ammonia (NH3) - Soluble             |        | <0.0030   | RAMB       | 0.0030   | mg/L     |           | 04-SEP-09 | R936764 |
| Conductivity                        |        | 41.5      |            | 0.40     | umhos/cm |           | 02-SEP-09 | R931783 |
| Hardness (as CaCO3)                 |        | 15.1      |            | 0.30     | mg/L     |           | 15-SEP-09 |         |
| Sulphate (SO4) - Soluble            |        | 3.0       |            | 2.0      | mg/L     |           | 08-SEP-09 | R937903 |
| Total Kjeldahl Nitrogen             |        | 0.23      |            | 0.20     | mg/L     | 03-SEP-09 | 04-SEP-09 | R934020 |

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

# ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           |          | Result    | Qualifier* | D.L.     | Units    | Extracted | Analyzed  | Batch   |
|-------------------------------------|----------|-----------|------------|----------|----------|-----------|-----------|---------|
| L813762-2                           | R02 DS   |           |            |          |          |           |           |         |
| Sampled By: TT on 28-AUG-09 @ 10:40 |          |           |            |          |          |           |           |         |
| Matrix: WATER                       |          |           |            |          |          |           |           |         |
| Total Organic Carbon                |          | 2.0       |            | 1.0      | mg/L     |           | 12-SEP-09 | R941554 |
| Total Suspended Solids              |          | <2.0      |            | 2.0      | mg/L     |           | 03-SEP-09 | R934022 |
| pH                                  |          | 7.42      |            | 0.10     | pH units |           | 02-SEP-09 | R931783 |
| L813762-3                           | R02 BERM |           |            |          |          |           |           |         |
| Sampled By: TT on 28-AUG-09 @ 11:00 |          |           |            |          |          |           |           |         |
| Matrix: WATER                       |          |           |            |          |          |           |           |         |
| CCME Aqlife Total Metals            |          |           |            |          |          |           |           |         |
| Aluminum (Al)-Total                 |          |           |            |          |          |           |           |         |
| Aluminum (Al)-Total                 |          | 0.0170    |            | 0.0050   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Cadmium (Cd)-Total                  |          |           |            |          |          |           |           |         |
| Cadmium (Cd)-Total                  |          | <0.000010 |            | 0.000010 | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Iron (Fe)-Total                     |          |           |            |          |          |           |           |         |
| Iron (Fe)-Total                     |          | 0.025     |            | 0.020    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Mercury (Hg)-Total                  |          |           |            |          |          |           |           |         |
| Mercury (Hg)-Total                  |          | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Metal scan                          |          |           |            |          |          |           |           |         |
| Arsenic (As)-Total                  |          | <0.00050  |            | 0.00050  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Boron (B)-Total                     |          | <0.030    |            | 0.030    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Barium (Ba)-Total                   |          | 0.0110    |            | 0.00030  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Beryllium (Be)-Total                |          | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Bismuth (Bi)-Total                  |          | <0.00020  |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Calcium (Ca)-Total                  |          | 4.37      |            | 0.10     | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Cobalt (Co)-Total                   |          | <0.00020  |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Chromium (Cr)-Total                 |          | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Cesium (Cs)-Total                   |          | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Copper (Cu)-Total                   |          | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Potassium (K)-Total                 |          | 0.51      |            | 0.10     | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Magnesium (Mg)-Total                |          | 0.817     |            | 0.010    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Manganese (Mn)-Total                |          | 0.00323   |            | 0.00030  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Molybdenum (Mo)-Total               |          | <0.00020  |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Sodium (Na)-Total                   |          | 2.07      |            | 0.030    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Nickel (Ni)-Total                   |          | <0.0020   |            | 0.0020   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Phosphorus (P)-Total                |          | <0.050    | RAMB       | 0.050    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Lead (Pb)-Total                     |          | <0.00050  |            | 0.00050  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Rubidium (Rb)-Total                 |          | 0.00057   |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Antimony (Sb)-Total                 |          | 0.00054   |            | 0.00050  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Selenium (Se)-Total                 |          | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tin (Sn)-Total                      |          | <0.00060  |            | 0.00060  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Strontium (Sr)-Total                |          | 0.0215    |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tellurium (Te)-Total                |          | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Titanium (Ti)-Total                 |          | <0.00090  |            | 0.00090  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Thallium (Tl)-Total                 |          | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Uranium (U)-Total                   |          | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Vanadium (V)-Total                  |          | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tungsten (W)-Total                  |          | 0.00030   |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Zinc (Zn)-Total                     |          | <0.010    |            | 0.010    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Zirconium (Zr)-Total                |          | <0.00040  |            | 0.00040  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Silver (Ag)-Total                   |          |           |            |          |          |           |           |         |
| Silver (Ag)-Total                   |          | 0.00392   |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Miscellaneous Parameters            |          |           |            |          |          |           |           |         |
| Ammonia (NH3) - Soluble             |          | <0.0030   | RAMB       | 0.0030   | mg/L     |           | 04-SEP-09 | R936764 |
| Conductivity                        |          | 41.3      |            | 0.40     | umhos/cm |           | 02-SEP-09 | R931783 |

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

# ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           |  | Result    | Qualifier* | D.L.     | Units    | Extracted | Analyzed  | Batch   |
|-------------------------------------|--|-----------|------------|----------|----------|-----------|-----------|---------|
| L813762-3 R02 BERM                  |  |           |            |          |          |           |           |         |
| Sampled By: TT on 28-AUG-09 @ 11:00 |  |           |            |          |          |           |           |         |
| Matrix: WATER                       |  |           |            |          |          |           |           |         |
| Hardness (as CaCO3)                 |  | 14.3      |            | 0.30     | mg/L     |           | 15-SEP-09 |         |
| Sulphate (SO4) - Soluble            |  | 3.5       |            | 2.0      | mg/L     |           | 08-SEP-09 | R937903 |
| Total Kjeldahl Nitrogen             |  | 0.30      |            | 0.20     | mg/L     | 03-SEP-09 | 04-SEP-09 | R934020 |
| Total Organic Carbon                |  | 2.6       |            | 1.0      | mg/L     |           | 12-SEP-09 | R941554 |
| Total Suspended Solids              |  | <2.0      |            | 2.0      | mg/L     |           | 03-SEP-09 | R934022 |
| pH                                  |  | 7.45      |            | 0.10     | pH units |           | 02-SEP-09 | R931783 |
| L813762-4 Q4                        |  |           |            |          |          |           |           |         |
| Sampled By: TT on 28-AUG-09 @ 11:55 |  |           |            |          |          |           |           |         |
| Matrix: WATER                       |  |           |            |          |          |           |           |         |
| CCME Aqlife Total Metals            |  |           |            |          |          |           |           |         |
| Aluminum (Al)-Total                 |  |           |            |          |          |           |           |         |
| Aluminum (Al)-Total                 |  | 0.469     |            | 0.0050   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Cadmium (Cd)-Total                  |  |           |            |          |          |           |           |         |
| Cadmium (Cd)-Total                  |  | <0.000010 |            | 0.000010 | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Iron (Fe)-Total                     |  |           |            |          |          |           |           |         |
| Iron (Fe)-Total                     |  | 0.550     |            | 0.020    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Mercury (Hg)-Total                  |  |           |            |          |          |           |           |         |
| Mercury (Hg)-Total                  |  | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Metal scan                          |  |           |            |          |          |           |           |         |
| Arsenic (As)-Total                  |  | 0.00089   |            | 0.00050  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Boron (B)-Total                     |  | <0.030    |            | 0.030    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Barium (Ba)-Total                   |  | 0.0350    |            | 0.00030  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Beryllium (Be)-Total                |  | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Bismuth (Bi)-Total                  |  | <0.00020  |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Calcium (Ca)-Total                  |  | 23.9      |            | 0.10     | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Cobalt (Co)-Total                   |  | 0.00041   |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Chromium (Cr)-Total                 |  | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Cesium (Cs)-Total                   |  | 0.00010   |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Copper (Cu)-Total                   |  | 0.0043    |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Potassium (K)-Total                 |  | 3.14      |            | 0.10     | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Magnesium (Mg)-Total                |  | 4.73      |            | 0.010    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Manganese (Mn)-Total                |  | 0.00709   |            | 0.00030  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Molybdenum (Mo)-Total               |  | 0.00178   |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Sodium (Na)-Total                   |  | 6.40      |            | 0.030    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Nickel (Ni)-Total                   |  | <0.0020   |            | 0.0020   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Phosphorus (P)-Total                |  | <0.050    | RAMB       | 0.050    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Lead (Pb)-Total                     |  | <0.00050  |            | 0.00050  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Rubidium (Rb)-Total                 |  | 0.00159   |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Antimony (Sb)-Total                 |  | 0.00063   |            | 0.00050  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Selenium (Se)-Total                 |  | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tin (Sn)-Total                      |  | <0.00060  |            | 0.00060  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Strontium (Sr)-Total                |  | 0.150     |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tellurium (Te)-Total                |  | <0.0010   |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Titanium (Ti)-Total                 |  | 0.0117    |            | 0.00090  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Thallium (Tl)-Total                 |  | <0.00010  |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Uranium (U)-Total                   |  | 0.00165   |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Vanadium (V)-Total                  |  | 0.0011    |            | 0.0010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tungsten (W)-Total                  |  | <0.00020  |            | 0.00020  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Zinc (Zn)-Total                     |  | <0.010    |            | 0.010    | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Zirconium (Zr)-Total                |  | 0.00086   |            | 0.00040  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Silver (Ag)-Total                   |  |           |            |          |          |           |           |         |
| Silver (Ag)-Total                   |  | 0.00036   |            | 0.00010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |

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

# ALS LABORATORY GROUP ANALYTICAL REPORT

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

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# ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters           |     | Result   | Qualifier* | D.L.    | Units    | Extracted | Analyzed  | Batch   |
|-------------------------------------|-----|----------|------------|---------|----------|-----------|-----------|---------|
| L813762-7                           | Q15 |          |            |         |          |           |           |         |
| Sampled By: TT on 28-AUG-09 @ 13:50 |     |          |            |         |          |           |           |         |
| Matrix: WATER                       |     |          |            |         |          |           |           |         |
| <b>Metal scan</b>                   |     |          |            |         |          |           |           |         |
| Strontium (Sr)-Total                |     | 0.192    |            | 0.00010 | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tellurium (Te)-Total                |     | <0.0010  |            | 0.0010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Titanium (Ti)-Total                 |     | 0.00269  |            | 0.00090 | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Thallium (Tl)-Total                 |     | <0.00010 |            | 0.00010 | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Uranium (U)-Total                   |     | 0.00672  |            | 0.00010 | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Vanadium (V)-Total                  |     | <0.0010  |            | 0.0010  | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Tungsten (W)-Total                  |     | <0.00020 |            | 0.00020 | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Zinc (Zn)-Total                     |     | <0.010   |            | 0.010   | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| Zirconium (Zr)-Total                |     | <0.00040 |            | 0.00040 | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| <b>Silver (Ag)-Total</b>            |     |          |            |         |          |           |           |         |
| Silver (Ag)-Total                   |     | <0.00010 |            | 0.00010 | mg/L     | 04-SEP-09 | 10-SEP-09 | R941936 |
| <b>Miscellaneous Parameters</b>     |     |          |            |         |          |           |           |         |
| Ammonia (NH3) - Soluble             |     | 1.05     |            | 0.0030  | mg/L     |           | 04-SEP-09 | R936764 |
| Conductivity                        |     | 368      |            | 0.40    | umhos/cm |           | 02-SEP-09 | R931783 |
| Hardness (as CaCO3)                 |     | 104      |            | 0.30    | mg/L     |           | 15-SEP-09 |         |
| Sulphate (SO4) - Soluble            |     | 37.2     |            | 2.0     | mg/L     |           | 08-SEP-09 | R937903 |
| Total Kjeldahl Nitrogen             |     | 1.56     |            | 0.20    | mg/L     | 03-SEP-09 | 04-SEP-09 | R934020 |
| Total Organic Carbon                |     | 4.1      |            | 1.0     | mg/L     |           | 12-SEP-09 | R941554 |
| Total Suspended Solids              |     | <2.0     |            | 2.0     | mg/L     |           | 03-SEP-09 | R934022 |
| pH                                  |     | 7.86     |            | 0.10    | pH units |           | 02-SEP-09 | R931783 |
|                                     |     |          |            |         |          |           |           |         |

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

Reference Information

QC Samples with Qualifiers & Comments:

| QC Type Description | Parameter               | Qualifier | Applies to Sample Number(s)   |
|---------------------|-------------------------|-----------|-------------------------------|
| Duplicate           | Ammonia (NH3) - Soluble | RAMB      | L813762-2, -3, -4, -5, -6, -7 |
| Duplicate           | Ammonia (NH3) - Soluble | RAMB      | L813762-2, -3, -4, -5, -6, -7 |

Qualifiers for Sample Submission Listed:

| Qualifier | Description                                                                                                                                                              |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EHR       | samples were over 48 hour hold time upon receipt - proceed with analysis as requested - Exceeded Recommended Holding Time On Receipt: Proceed With Analysis As Requested |

Sample Parameter Qualifier Key:

| Qualifier | Description                      |
|-----------|----------------------------------|
| RAMB      | Result Adjusted For Method Blank |

Test Method References:

| ALS Test Code   | Matrix | Test Description     | Method Reference**           |
|-----------------|--------|----------------------|------------------------------|
| AG-TOT-ULTRA-WP | Water  | Silver (Ag)-Total    | EPA 200.8 REV 5.4 MAY 1994 U |
| AL-TOT-ULTRA-WP | Water  | Aluminum (Al)-Total  | EPA 200.8 Rev 5.4 May 1994   |
| C-TOT-ORG-WP    | Water  | Total Organic Carbon | APHA 5310 B-Instrumental     |

This method is applicable to the analysis of ground water, wastewater, and surface water samples. The form detected depends upon sample pretreatment: Unfiltered sample = TC, 0.45um filtered = TDC. Samples are injected into a combustion tube containing an oxidation catalyst. The carrier gas containing the combustion product from the combustion tube flows through an inorganic carbon reactor vessel and is then sent through a halogen scrubber into a sample cell set in a non-dispersive infrared gas analyzer (NDIR) where carbon dioxide is detected. For total inorganic carbon and dissolved inorganic carbon, the sample is injected into an IC reactor vessel where only the IC component is decomposed to become carbon dioxide.

The peak area generated by the NDIR indicates the TC/TDC or TIC/DIC as applicable. The total organic carbon content of the sample is calculated by subtracting the TIC from the TC.  
TOC = TC-TIC, DOC = TDC-DIC, Particulate = Total - Dissolved.

|                 |       |                    |                              |
|-----------------|-------|--------------------|------------------------------|
| CD-TOT-ULTRA-WP | Water | Cadmium (Cd)-Total | EPA 200.8 REV 5.4 MAY 1994 U |
| EC-WP           | Water | Conductivity       | APHA 2510B                   |

Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.

|                      |       |                     |                              |
|----------------------|-------|---------------------|------------------------------|
| ETL-HARDNESS-TOT-WP  | Water | Hardness Calculated | Calculated                   |
| FE-TOT-ULTRA-WP      | Water | Iron (Fe)-Total     | EPA 200.8 REV 5.4 MAY 1994 U |
| HG-TOT-ULTRA-WP      | Water | Mercury (Hg)-Total  | EPA 200.8 REV 5.4 MAY 1994 U |
| MET-SCNOU-TOT-LOW-WP | Water | Metal scan          | EPA 200.8 Rev 5.4 May 1994   |

Total Metals by ICP-MS

This analysis is carried out using sample preparation procedures adapted from U.S. EPA-600/4-82-055 for hotblock digestion or U.S. EPA Test Methods for Evaluating Solid Waste SW846 3015 for microwave digestion, and procedures adapted from U.S. EPA Method 200.8 for analysis by inductively coupled - mass spectrometry.

|            |       |                         |                                       |
|------------|-------|-------------------------|---------------------------------------|
| N-TOTKJ-WP | Water | Total Kjeldahl Nitrogen | Quickchem method 10-107-06-2-E Lachat |
|------------|-------|-------------------------|---------------------------------------|

Samples are digested with a sulphuric acid solution, cooled, diluted with water, and analyzed for ammonia. Total Kjeldahl nitrogen is the sum of free-ammonia and organic nitrogen compounds which are converted to ammonium sulphate through this digestion process. Analysis is performed by Flow Injection Analysis (FIA). The pH of the digested sample is raised to a known, basic pH by neutralization with a concentrated buffer solution. This neutralization converts the ammonium cation to ammonia. The ammonia produced is heated with salicylate and hypochlorite to produce blue colour which is proportional to the ammonia concentration.

|            |       |                 |             |
|------------|-------|-----------------|-------------|
| NH3-SOL-WP | Water | Ammonia Soluble | LACHAT;2003 |
|------------|-------|-----------------|-------------|

Ammonia - Colourimetric using Salicylate-nitroprusside and hypochlorite, in an alkaline phosphate buffer.

|       |       |    |            |
|-------|-------|----|------------|
| PH-WP | Water | pH | APHA 4500H |
|-------|-------|----|------------|

Reference Information

pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.

|                     |       |                        |                    |
|---------------------|-------|------------------------|--------------------|
| SO4-SOL-LOW-WP      | Water | Sulphate Soluble       | APHA4500/LACHAT LR |
| SOLIDS-TOTSUS-LR-WP | Water | Total Suspended Solids | APHA 2540 LR       |

The residue retained by a prepared 1.5 um Whatman 934-AH glass microfibre filter dried at 105 degrees C. A method detection limit of 2 mg/L can be achieved when 500 mL of sample is used.

\*\* ALS test methods may incorporate modifications from specified reference methods to improve performance.

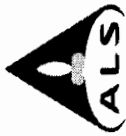
*The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:*

| Laboratory Definition Code | Laboratory Location                               |
|----------------------------|---------------------------------------------------|
| WP                         | ALS LABORATORY GROUP - WINNIPEG, MANITOBA, CANADA |

Chain of Custody Numbers:

**GLOSSARY OF REPORT TERMS**  
*Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.*  
*mg/kg - milligrams per kilogram based on dry weight of sample*  
*mk/kg wwt - milligrams per kilogram based on wet weight of sample*  
*mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight*  
*mg/L - unit of concentration based on volume, parts per million.*  
*< - Less than.*  
*D.L. - The reporting 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.*  
*Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.*



**Ship to:** Unit 12- 1329 Niakwa Road, Winnipeg, Manitoba, R3J 3T4  
**Telephone:** (204) 255-9720  
**Fax:** (204) 255-9721  
**After Hours Emergency Pager :** (204)-931-3145

**Environmental Division**

# CHAIN OF CUSTODY/ANALYTICAL REQUEST FORM

Service Requested: Regular X Rush \_\_\_\_\_ Emergency \_\_\_\_\_

**Quotation Number: Q21514**

Account# W 101007

Project Number: AEM- AWR

[illegible]**CLIENT INFORMATION:**

REPORT TO:

**Ryan VanEngen:** [rvanengen@agnico-eagle.com](mailto:rvanengen@agnico-eagle.com)  
867. 739. 4610 at MBK x 6759  
If off site: 519.400.7979

**FOR LABORATORY USE ONLY:**

SAMPLE CONDITION UPON RECEIPT: FROZEN COLD AMBIENT

ACCEPTABLE \_\_\_\_\_ NON ACCEPTABLE \_\_\_\_\_

OTHER (BREAKAGE, LEAKAGE, ETC.):

**NOTES AND CONDITIONS: 1. Hazardous samples must be labelled to comply with WHMIS regulations.**

2. ALS's liability limited to cost of analysis. 3. Failure to complete all portions of this form may delay analysis.

payables.meadowbank@agnico-eagle.com.

20 Route 395 Cadillac Que. J0Y 1C0

|                  |       |
|------------------|-------|
| Relinquished By: | Date: |
|------------------|-------|

Time: \_\_\_\_\_

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_

Time: \_\_\_\_\_

Received By:           

ALS Lab: 

Received By: \_\_\_\_\_

ALS Lab:

**COMMENTS:**