# Barrick Gold Inc.

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March 31, 2008

Ms. Dionne Filiatrault Executive Director, Nunavut Water Board P. O. Box 119 Gjoa Haven, Nunavut X0B 1J0

Dear Ms. Filiatrault:

Pursuant to Part B, Articles 2 and 12 of Water Licence 1BR-CUL0708, please find attached a paper copy of the Annual Water Licence Report 2007 for the Cullaton Lake property. An electronic copy has been e-mailed to you concurrent with this release.

Should you have any questions or comments regarding this report, or any other Cullaton Lake matter, please do not hesitate to contact Paul Brugger at (807) 964-1657 or myself at (801) 990-3746.

Sincerely,

[Original signed by Paul Brugger for]

Bill Ferdinand Director, Environment Health and Safety, North America region

Attachment: As stated

# CULLATON LAKE GOLD MINES LTD. WATER LICENCE 1BR-CUL0708

# **ANNUAL WATER LICENCE REPORT 2007**

PREPARED on behalf of:

BARRICK GOLD INC.

By P.J. Brugger and Associates 171 Copper Cliff Rd E Neebing, ON P7L 0B6

March 2008

# **Table of Contents**

Exe	cutive Summary (Inuktitut)	i
Exe	cutive Summary (English)	iii
1.0	Site Background / Location	1
	1.1 Closure and Maintenance History	1
2.0	Water Licence Supplemental Conditions and Notes	5
3.0	2007 Activities	7
	3.1 Annual Site Inspection Findings	9
	3.2 Water Quality Monitoring	10
	3.3 Thermistor Monitoring	11
	3.4 Geotechnical Inspection	11
	3.5 Shear Lake ARD Investigation – Initial Findings	11
4.0	Annual Review of Spill Response Plan	12
5.0	Annual Review of Abandonment and Restoration Plan	12
6.0	Annual Review of Quality Assurance / Quality Control	12
7.0	2008 Proposed Program	12

Appendix 1 – Site Photos

Appendix 2 – Water Quality Monitoring Results July 5, 2007

Appendix 3 – Thermistor Monitoring Results July 5, 2007

Appendix 4 – 2008 Spill Response Plan

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#### **EXECUTIVE SUMMARY**

The Cullaton Lake Gold mine is a recognized closed mine site located in the southern part of the Kivalliq Region in the Nunavut Territory. The property is 645 km north of Thompson, Manitoba and 250 km west of Arviat, Nunavut.

During 2007, activities at the site included conducting the annual site inspection, water quality and thermistor monitoring and the tailings dam geotechnical inspection required pursuant to then current Water Licence No. NWB1CUL0207. INAC personnel also attended the annual inspection as a follow up to their 2006 review and inspection, to discuss and view current site conditions with Barrick representatives and identify their areas of concern. These activities occurred on July 5, 2007.

Summarized, the results of the July 5, 2007 annual site inspection and monitoring indicate that:

- Water quality continues to remain within the guidelines specified in the Water Licence.
- The tailings storage facility continues to remain stable.
- The thermistors installed in the tailings cover are not providing correct readings.
- A new low pH environment has been identified at Shear Lake. Reconnaissance and field readings in the immediate Shear Lake area indicate that this new issue is not related to the Encapsulated Waste Rock.

To investigate the new pH issue further and gather initial data for an ERA, Barrick personnel and ARD / biology consultants from Gartner Lee Ltd. returned to the site on September 11, 2007. The results of this field work indicate that:

- Orthoquartzite waste rock used for yard fill at Shear Lake and for road topping and orthoquartzite outcrop at Shear Lake has the potential to produce ARD.
- Additional field work and analysis is required, to ascertain what level of remedial effort is required to resolve the new ARD issue.

In addition to the above, in response to issues raised by INAC and subsequent to the July 5 visit, Barrick volunteered to complete an Ecological Risk Assessment (ERA) to determine a) whether the mitigation efforts at Cullaton Lake have adequately addressed the requirements of the approved 1996 Abandonment and Reclamation Plan, and b) whether the ARD issue is having any significant ecological effects. The ERA will be completed this year.

Also in 2007, to facilitate ongoing discussions with INAC and field studies to support returning the property to the government, an amendment to the expiry date for Water Licence 1BR-CUL0207 was requested and granted. The property is now licensed under 1BR-CUL0708, which expires on November 30, 2008.

#### 1.0 SITE BACKGROUND / LOCATION

Cullaton Lake Gold Mines Ltd. is a wholly owned subsidiary of Barrick Gold Inc. (Barrick) which in turn is a wholly owned subsidiary of Barrick Gold Corporation.

The Cullaton Lake Gold mine is a recognized closed mine site located in the south central part of the Kivalliq Region in the Nunavut Territory. The property is 250 km west of Arviat, Nunavut, 400 km northwest of Churchill, Manitoba, and 645 km north of Thompson, Manitoba (see figure 1). The mine was in operation for four years from 1981 to 1985. Following operation, the mine was in a care and maintenance mode from 1985 to 1991.

#### 1.1 CLOSURE AND POST CLOSURE MAINTENANCE HISTORY

Decommissioning was initiated in 1991 with the rehabilitation of Tailings Pond No. 1, which included construction of a spillway in the dam and the covering of exposed tailings with water or till/mine rock. In addition, the water level in Tailings Pond No. 2 (the polishing pond) was lowered by partial removal of the dam (see figures 2 and 3 for site features).

Between 1991 and 1993, the fresh water intake, pump house and pipelines at the old diamond drill camp on the Kognak River were dismantled and removed. In 1995 and 1996 the mill buildings were dismantled. Some of the inert, non-salvageable material was crushed and placed in the quarry pit. In 1997, additional cover material was placed over the tailings area and the area was seeded and fertilized with a special arctic seed mix, as was the former mill site. During the winter of 1998/99 some salvageable equipment and material was removed from the property.

During the summer of 2001, all remaining inert material was placed in the former quarry pit and covered with 2 meters of till. All waste oils and hydraulic fluids, as well as tires and batteries were removed from equipment prior to burial and subsequently airlifted to Thompson, Manitoba for proper disposal. In addition, waste rock at the Shear Lake Portal area, which had been determined to be acid generating, was collected and encapsulated in till adjacent to the portal.

During the 2005 annual inspection, minor maintenance items identified during the 2004 inspection were corrected. These included a second application of seed and fertilizer on the Encapsulated Waste Rock (EWR) cover at Shear Lake and erosion repairs to the EWR cover, Tailings Pond No. 1 spillway and the quarry pit landfill cover.

During the 2006 annual inspection, a small above-water exposed section of rubber liner on the upstream side of the tailings dam south of the No.1 Spillway was removed.

Also in 2006, Indian and Northern Affairs Canada (INAC) initiated a review to assess closure conditions prior to accepting return of the property. INAC visited the site in Sept 2006. INAC also requested additional historic closure documentation, which was provided in October 2006 and January 2007. The review will continue in 2008.

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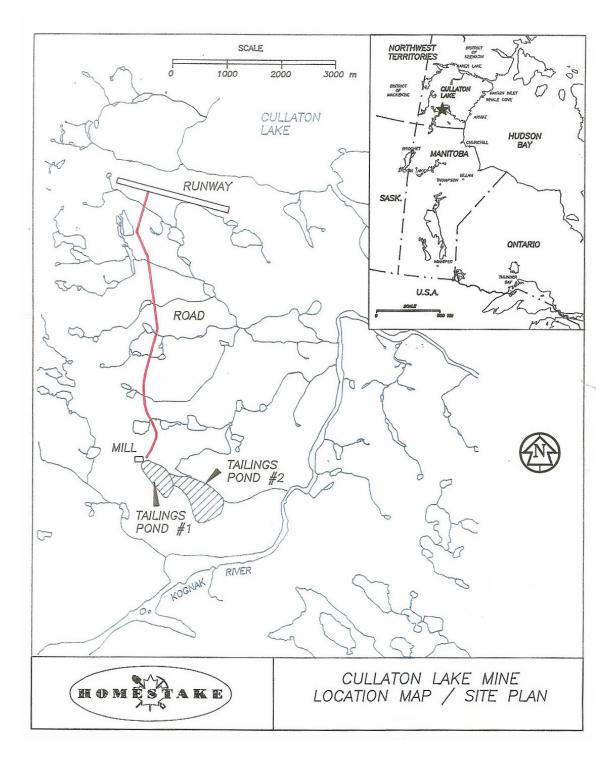
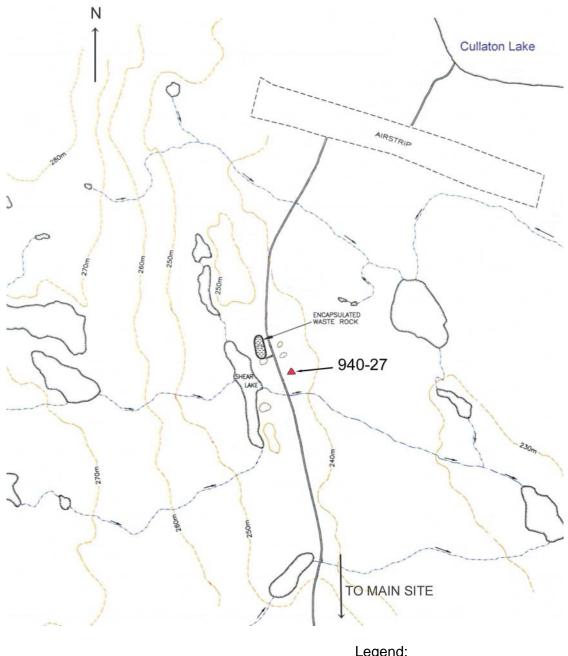
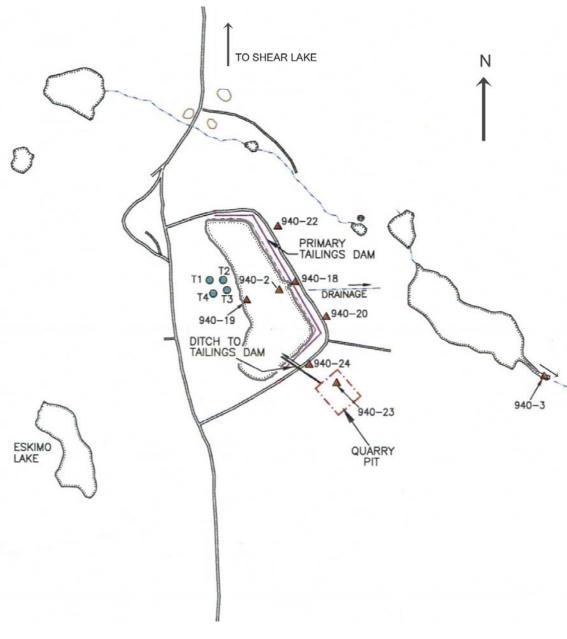


Figure 1: Cullaton Lake Mine location and general site layout



Legend: 940-27 Water sample station

Figure 2: Cullaton Lake Shear Lake site showing features and water sampling station (not to scale).



Legend:

T1: Thermistor station 940-2: Water sample station

Figure 3: Cullaton Lake main site showing features, water sampling and thermistor stations (not to scale).

# 2.0 WATER LICENCE NWB1CUL0207 / 1BR-CUL0708 SUPPLEMENTAL CONDITIONS AND NOTES

Management of Cullaton Lake is conducted pursuant to Water Licence 1BR-CUL0708, which was issued on December 17, 2007 to amend the imminent expiry date of NWB1CUL0207, in order to facilitate additional divestiture discussions and studies. 1BR-CUL0708 will expire on November 30, 2008. The following provides a summary of supplemental conditions and notes pursuant to NWB1CUL0207 / 1BR-CUL0708

#### Name Change:

On November 13, 2003, application was made to the Nunavut Water Board to change the name on Licence NWB1CUL0207 from Homestake Canada Inc. to Barrick Gold Inc. to reflect changes resulting from the 2001 merger of Barrick Gold Corporation and Homestake Mining Company.

Amendment for Encapsulated Waste Rock at Shear Lake:

Part F, Item 5 of the Licence required submission of an application for amendment to the approved Abandonment and Restoration Plan by January 1, 2003 (subsequently extended to March 31, 2003) for the new waste rock disposal area on the shores of Shear Lake. The application for amendment with supporting documentation was submitted to the Nunavut Water Board on March 31, 2003. The amendment was granted on June 6, 2005. In addition, station 940-25 was removed from the monitoring program and replaced with station 940-27, intended to monitor any seepage from the encapsulated waste rock down-gradient to Shear Lake Creek.

The amendment required that suitable as-built drawings for the encapsulated waste rock be submitted within 6 months of the date of the amendment. Drawings were submitted on Dec 5, 2005.

The amendment also required that Section 4.4 of the Approved Abandonment and Restoration Plan be revised to incorporate the latest information with respect to the closure of the Shear Lake Waste Rock disposal area. The revision was submitted concurrent with the 2005 Annual Report.

Contingency Plan to Address Seepage Issues at the Encapsulated Waste Rock

Part F, Item 6, Amendment No. 1 of the Licence required the submission of a Contingency Plan to address the potential of the permafrost not to re-aggrade into the waste rock pile / cover as anticipated, the clogging of the passive treatment system due to the relatively flat terrain and the remediation or mitigation of sediments contaminated with levels of metals in excess of CCME guidelines due to seepage from the encapsulated waste rock pile. The contingency plan for clogging of the passive treatment system and contamination remediation was submitted concurrent with the 2005 Annual Report and under separate cover. In the same document Barrick requested that the requirement for a Contingency Plan to address the possibility of permafrost not

re-aggrading into the waste rock be deleted from the Licence since this condition was identified as an "added benefit" and not a design parameter as specified by URS <sup>1</sup>.

#### Amendment for Encapsulated Waste Rock Thermistors:

Water Licence NWB1CUL0207 required the installation of thermistors in the encapsulated waste rock at Shear Lake. An unsuccessful attempt to install the thermistors was made in July 2003. A report detailing this attempt was submitted to the Nunavut Water Board on November 25, 2003 and requested that this requirement be removed from the Licence. The request was granted on June 6, 2005 and station 940-26 was removed from the monitoring program.

#### Site Map:

Part G, Item 4a of the Licence required submission to the Board of a Site Map of the Project Environmental Impact Area with active Surveillance Network Program (SNP) Stations within 60 days of issuance of the Licence. The required site map was submitted to the Nunavut Water Board on December 16, 2002.

#### GPS Coordinates:

Part G, Item 4b of the Licence required submission of GPS coordinates of all surface and subsurface sampling points. The required GPS coordinates were submitted to the Nunavut Water Board on August 29, 2003.

#### Miscellaneous:

The NWB noted the following in their October 10, 2006 review of the 2005 Annual Water Licence report:

1. While the 2004 reported detection limit for nickel had been lowered as previously requested, the detection limit for arsenic was now higher than previously reported (1 $\mu$ g/l compared to 0.1  $\mu$ g/l). To clarify the issue the NWB requested that detection limits proposed for the 2007 monitoring be included in this report.

The variability in detection limits is largely the result of the many recent laboratory acquisitions / mergers and procedure changes. After discussing the issue with the present laboratory and reviewing the associated methods and equipment limitations, the 2007 proposed detection limits were as follows:

<sup>&</sup>lt;sup>1</sup> Assessment of Closure Options and Impacts, Shear Lake Zone Waste Rock Dump, Cullaton Lake Mine Nunavut, March 2003, URS Norecol, Dames & Moore Inc.

Licence Parameter	Method Detection Limit
Total Suspended Solids	1 mg/l
Total Cyanide	0.005 mg/l
Total Arsenic	0.4 μ/Ι
Total Copper	1 μg/l
Total Lead	0.5 μg/l
Total Mercury	0.00005 mg/l
Total Nickel	1 μg/l
Total Zinc	5 μg/l

Following the 2007 sampling, the lab erroneously used a TSS detection limit of 10mg/l for the 2007 results. According to the lab, a correction to 1mg/l was not possible due the volume of analysis being less than 500ml. Additional vigilance will be practised in 2008 to insure the above detection limits are respected.

2. The NWB commented on the 2005 anomalous zinc value at station 940-23 (.065 mg/l) for follow – up in future monitoring.

The 2006 sampling at 940-23 reported a zinc concentration of 0.012 mg/l.

The 2007 sampling at 940-23 reported a zinc concentration of 0.006 mg/l.

3. The NWB requested that the Spill Response Plan contact number for the INAC Water Resources Inspector be changed.

The required change was made to the 2006 and 2007 versions.

4. The NWB requested that water quality and thermistor data be also provided in Excel format, in order to allow for easier data analysis

The 2006 data was provided in Excel format via e-mail on October 12, 2006. The 2007 data has been emailed current with this report

#### **3.0 2007 ACTIVITIES**

The annual site inspection was conducted on July 5, 2007. The annual inspection was also used as an opportunity to meet on site with INAC and their consultant BGC Consulting Ltd., to further define and discuss issues raised in the INAC review initiated in 2006. Personnel attending the site during this trip included:

#### Barrick Personnel:

Paul Brugger, Closed Properties Manager, Eastern Canada Ron Aubry, assistant Kolby Ozerkevich, assistant

#### Trow Associates Personnel:

Demetri Georgiou, Principle, qualified geotechnical engineer

Indian and Northern Affairs Canada Personnel:

David Abernethy, Water Resources Coordinator
Jeff Holwell, Land Administrator Specialist
Ian Rumbolt, Water Resources Technician
Holger Hartmaier, Senior Geotechnical Engineer (BGC Consulting Ltd.)
Shannon Shaw, Geochemist / Mineralogist (Mesh Environmental)

Access for the Barrick and Trow personnel was via chartered aircraft from Thompson, Manitoba. INAC personnel arrived on a separate charter aircraft and helicopter from points north.

Mr. Brugger and INAC personnel inspected the site and reviewed issues raised in the INAC review. Messrs. Aubry and Ozerkevich assisted in digging a test pit at tailings thermistor T3 and filled in the minor subsidence found in 2006 at the Shear Lake portal. Mr. Georgiou performed the annual geotechnical inspection, accompanied by Mr. Hartmaier from BGC.

During this trip, water samples required pursuant to then current Water Licence NWB1CUL0207 were also collected. In addition, visual inspections were conducted of the quarry pit, tailings area and dams, all former underground access areas, EWR and the site in general.

In addition to the above, a small pool of low pH water at Shear Lake previously identified by INAC was confirmed (see Photos 10 and 11, Appendix 1). Several field readings were recorded and plans were made to return to the site to investigate in more detail.

In response to issues raised by INAC and subsequent to the July 5 visit, Barrick volunteered to complete an Ecological Risk Assessment (ERA) to determine a) whether the mitigation efforts at Cullaton Lake have adequately addressed the requirements of the approved 1996 Abandonment and Reclamation Plan, and b) whether the new ARD issue at Shear Lake is having any significant ecological effects.

On September 11, 2007 Barrick and Gartner Lee personnel returned to the site to further investigate the new ARD issue at Shear Lake and to collect additional data for completing the ERA. Personnel attending the site during this trip included:

#### Barrick Personnel:

Paul Brugger, Closed Properties Manager, Eastern Canada Ron Aubry, assistant Kolby Ozerkevich, assistant

#### Gartner Lee Ltd. Personnel:

Mike Herrel, ARD specialist Rick Palmer, Senior Aquatic Biologist

Access was once again via charter aircraft from Thompson. During this trip representative rock samples were taken from five locations around the former Shear Lake complex and from one location at the main site.

To provide additional data for supporting the ERA and the low pH issue, field readings for pH, conductivity and temperature were taken at all access road stream crossings, upstream, along the east shore of and downstream of Shear Lake and from Tailings Pond No. 1. Water samples were also taken at representative locations. In addition, mini piezometers were hand installed at three locations: one in the collection berm of the EWR and two in the main site tailings cover / water cover interface.

There were no weather related issues affecting any of the inspections.

#### 3.1 ANNUAL SITE INSPECTION GENERAL FINDINGS

A site inspection was performed during the July 5, 2007 visit to assess general site conditions and identify any areas of concern. In general, the site was found in good condition. Select photos are included in Appendix 1.

During the inspection the following maintenance items were completed / noted:

The minor subsidence found at the Shear Lake portal in 2006 was filled in during the July 5 visit.

A 1.3m surficial lateral crack previously found by BGC was repaired during the follow-up visit on September 11.

During the July 5 site visit, the INAC supplied helicopter was used to inspect the site from the air and to locate a barrel identified previously by BGC on the north shore of the Kognak River. During this aerial reconnaissance, some additional minor demolition debris was spotted to the southwest of the main site.

#### 3.2 WATER QUALITY MONITORING

Duplicate water sampling was completed on July 5, 2007 at 6 of the 9 stations identified in the Water Licence (see Figures 2 and 3 for locations). Results are provided in Appendix 2. Recent historic results are also included for comparison. The following is a brief description of the sampling activities and results:

Station 940-2 (Tailings Pond No. 1 at discharge to Tailings Pond No. 2) – Duplicate water samples were collected on July 5. Results indicated that all parameters were below the limits prescribed in the Water Licence.

**Station 940-3 (Tailings Pond No. 2)** – Duplicate water samples were collected on July 5. Results indicated that all parameters were below the limits prescribed in the Water Licence.

**Station 940-18 (Tailings Pond No. 1 spillway)** – Duplicate water samples were collected on July 5. Results indicated that all parameters were below the limits prescribed in the Water Licence.

**Station 940-19 (Tailings Pond No. 1 at piezometer)** – Duplicate water samples were collected on July 5. Results indicated that all parameters were below the limits prescribed in the Water Licence.

**Station 940-20 (Tailings Pond No. 1 seepage at east side)** – Duplicate water samples were collected on July 5. Results indicated that all parameters were below the limits prescribed in the Water Licence.

**Station 940-22 (Tailings Pond No. 1 seepage at northeast corner)** – There was no seepage on July 5 and consequently no samples were collected.

**Station 940-23 (Quarry Pit)** – Duplicate water samples were collected on July 5. Results indicated that all parameters were below the limits prescribed in the Water Licence. In addition, there was no visible sheen indicating the presence of oil / grease.

**Station 940-24 (Quarry Pit flow to Tailings Pond No. 1)** - There was no flow from the Quarry Pit to Tailings Pond No. 1 on July 5 and consequently no samples were collected.

Station 940-27 (Seepage from Encapsulated Waste Rock to Shear Lake Creek) - There was no flow observed on July 5 and consequently no samples were collected.

#### 3.3 THERMISTOR MONITORING

Thermistor readings for Station 940-21 are provided in Appendix 3 along with recent historic readings for comparison. However the reader should note the following:

An in-house review of all historic thermistor readings, the initial installation and earth cover addition history indicated that the thermistors may not be providing correct readings. To test this finding, a pit was hand excavated to the permafrost next to T3 during the July 5 trip, with the intent of comparing the thermistor readings to actual site conditions. The test pit revealed permafrost at 1.2m, whereas the thermistor indicated permafrost between 2.3 and 2.8m, confirming previous suspicions. In addition the test pit indicated an earth cover thickness of 0.9m at T3, followed by 0.3m of thawed, but saturated tailings.

The reason for the faulty readings is not clear. However they may be related to periodic lifting of the thermistors by feeze-thaw action and permafrost rise. Field measurements of thermistor assembly upward movement between 2005 and 2007 indicate that this is occurring.

Based on the test pit findings the permafrost was found at a depth of 1.2m on July 5, 2007.

#### 3.4 GEOTECHNICAL INSPECTION

Demetri Georgiou (Trow Associates), performed the geotechnical inspection on July 5, 2007, pursuant to Part C, Article 1d of Water Licence NWB1CUL0207. A copy of the inspection report was submitted to the NWB on February 28, 2007.

In summary the report indicates that the tailings dam remains stable. Continued monitoring for erosion in the No. 1 Spillway channel is also recommended.

Pursuant to Licence Amendment No.1 date June 6, 2005, Part C, Item 1(e), the condition of the encapsulated waste rock cover at Shear Lake is to be monitored by the geotechnical engineer for erosion until vegetation is sufficiently established so as to stabilize the cover. At the time of the 2007 site inspection, the engineer noted the vegetation continues to take hold and is helping to reduce erosion. A recommendation for additional monitoring was also made.

#### 3.5 SHEAR LAKE ARD INVESTIGATION INITIAL FINDINGS

Initial findings relative to the new ARD issue at Shear Lake indicate that orthoquartzite waste rock and orthoquarzite outcrop at Shear Lake has the potential to produce ARD. The loose waste rock was used as yard fill at Shear Lake and as top dressing at several locations along the access road. This material is not the same as the low grade ore material encapsulated in the EWR in 2001.

The source of the low pH pool and overall affect of the waste rock ARD issue will be further investigated this year.

#### 4.0 ANNUAL REVIEW OF SPILL RESPONSE PLAN

Pursuant to Part E of the Water Licence, a review and update of the Spill Response Plan was conducted this month. An updated version is provided in Appendix 4.

#### 5.0 ANNUAL REVIEW OF ABANDONMENT AND RESTORATION PLAN

Pursuant to Part F, Article 4 of the Water Licence, an annual review of the Abandonment and Restoration Plan was completed. There were no changes to the plan.

#### 6.0 ANNUAL REVIEW OF QUALITY ASSURANCE / QUALTY CONTROL

Pursuant to Part G, Article 3, an annual review of the approved quality assurance / quality control plan (QA/QC) was conducted and found adequate. Field QA/QC is provided by duplicate sampling at each location. Lab QA/QC control is provided by Maxxam Analytics Inc., according to it's standard quality assurance/quality control plan. The laboratory QC involves duplicate analysis of at least one randomly selected sample from each sampling program. Lab QC results for the 2007 samples are provided in Appendix 2.

#### 7.0 2008 PROPOSED PROGRAM

The 2008 program will consist of a site inspection, water quality monitoring, tailings dam geotechnical inspection and EWR cover stability inspection pursuant to Water Licence 1BR-CUL0708. The program is tentatively scheduled to occur during the first week of July. Thermistor readings at 940-21 will be discontinued subject to approval from the Board. As an alternative and since the permafrost has reached the level observed prior to the installation of the thermistors in 1991, Barrick suggests 2008 readings be obtained by using a steel rod to probe for depth at each of the thermistor locations.

In addition to the above, the following is planned:

Additional field work to support the Environmental Risk Assessment and analysis of the ARD issue at Shear Lake. This will consist of a total of 2-4 trips to the site to evaluate conditions under different seasons. The first of these is scheduled for mid May to gather under ice data from Shear Lake. The second will occur in conjunction with the annual site inspection in July.

Minor maintenance activities including additional top dressing at previously filled areas of settlement, erosion channel repair and minor demolition debris retrieval from the area southwest of the main site.

# Appendix 1 Cullaton Lake Site Photos July 5, 2007



Photo 1: Cullaton Lake main site, looking west, July 5, 2007



Photo 2: Shear Lake site, looking northwest, July 5, 2007



Photo 3: Flooded portion of Tailings No.1 Pond, looking northwest from spillway, July 5, 2007



Photo 4: Flooded portion of former polishing pond, looking west from spillway, July 5, 2007



Photo 5: Former Shear Lake Portal, July 5, 2007 with erosion repaired.



Photo 6: Former B Zone Portal, looking north on July 5, 2007



Photo 7: Former Fresh Air Raise, looking north on July 5, 2007



Photo 8: Encapsulated Waste Rock at Shear Lake 2 years after the application of additional seed and fertilizer. Erosion scars are visible due to being filled in with lighter coloured granular road material.



Photo 9: Minor settlement in quarry pit cover on July 5, 2007, 2 years after being filled in August, 2005.



Photo 10: South side of former Shear Lake complex showing location of low pH related features.



Photo 11: Location of new ARD issue relative to EWR

# Appendix 2 July 5, 2007 Water Quality Monitoring Results

# Cullaton Lake Water Quality Monitoring Results July 5, 2007

Location	Sample	Field	Temp	Lab	Suspended	Total	Total	Total	Total	Total	Total	Total
	Number	PH	°C Î	PH	Solids	Cyanide	Arsenic	Copper	Lead	Mercury	Nickel	Zinc
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Tailings Pond No. 1	940-2A	8.0	15.2	7.7	<10	< 0.005	0.0021	0.001	0.0006	< 0.00005	0.002	< 0.005
(at discharge)	940-2B			7.8	<10	< 0.005	0.0020	0.001	< 0.0005	< 0.00005	0.002	< 0.005
Tailings Pond No. 2	940-3A	8.0	13.7	7.8	<10	< 0.005	0.0055	0.006	< 0.0005	< 0.00005	0.005	< 0.005
	940-3B			7.9	<10	< 0.005	0.0053	0.004	< 0.0005	< 0.00005	0.005	< 0.005
Tailings Pond No. 1	940-18A	7.7	15.2	7.8	<10	0.005	0.0023	0.002	< 0.0005	< 0.00005	0.001	< 0.005
(spillway)	940-18B			7.8	<10	0.005	0.0022	0.002	< 0.0005	< 0.00005	0.001	< 0.005
Tailings Pond No. 1	940-19A	7.9	15.3	7.8	<10	< 0.005	0.0016	0.001	< 0.0005	< 0.00005	0.002	< 0.005
(at piezometer)	940-19B			7.8	<10	< 0.005	0.0017	< 0.001	< 0.0005	< 0.00005	0.002	< 0.005
Tailings Pond No. 1	940-20A	8.1	17.9	8.2	<10	< 0.005	0.0052	0.005	< 0.0005	< 0.00005	0.008	< 0.005
(seepage at east side)	940-20B			8.3	<10	< 0.005	0.0051	0.007	< 0.0005	< 0.00005	0.009	< 0.005
Tailings Pond No. 1	940-22A	Dry										
(seepage at northeast corner)	940-22B											
Quarry Pit	940-23A	7.9	14.4	7.7	<10	< 0.005	0.0011	< 0.001	< 0.0005	< 0.00005	0.001	0.006
	940-23B			7.6	<10	< 0.005	0.0010	< 0.001	< 0.0005	< 0.00005	0.001	< 0.005
Quarry Pit	940-24	Dry										
(flow to Tailings Pond No. 1)												
Seepage from Shear Lake	940-27	Dry										
<b>Encapsulated Waste Rock to</b>		-										
Shear Lake Creek												

# Cullaton Lake Water Quality Monitoring July 5, 2007 Water Analysis Certificate and Quality Control Report



Your Project #: SURFACEWATER

Site: CULLATON LAKE Your C.O.C. #: C#45782-

Attention: Paul Brugger
BARRICK GOLD CORPORATION
171 Copper Cliff Rd E
Station F
Thunder Bay, ON
P7C 5V5

Report Date: 2007/08/30

# **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: A770020 Received: 2007/07/07, 09:56

Sample Matrix: Water # Samples Received: 16

		Date	Date	Method
Analyses	Quantity	Extracted	Analyzed Laboratory Method	Reference
Acidity as CaC03 in liquid ()	16	2007/07/09	2007/07/11	
Alkalinity	15	N/A	2007/07/11 Ont SOP 0083	SM 2320B
Alkalinity	1	N/A	2007/07/12 Ont SOP 0083	SM 2320B
Total Cyanide	13	2007/07/10	2007/07/10 CAM SOP 0457	EPA 335.3
Total Cyanide	2	2007/07/11	2007/07/12 CAM SOP 0457	EPA 335.3
Total Cyanide	1	2007/07/12	2007/07/12 CAM SOP 0457	EPA 335.3
Hardness (calculated as CaCO3)	16	N/A	2007/07/13 ATL SOP 00048	SM 2340B
Mercury in Water by CVAA	16	2007/07/12	2007/07/13 CAM SOP-00453	EPA 7470
Total Metals Analysis by ICPMS	13	N/A	2007/07/13 CAM SOP-00447	EPA 6020
Total Metals Analysis by ICPMS	3	N/A	2007/07/16 CAM SOP-00447	EPA 6020
pH	15	N/A	2007/07/11 Ont SOP 0067	SM 4500H
pH	1	N/A	2007/07/12 Ont SOP 0067	SM 4500H
Sulphate by Automated Colourimetry	16	N/A	2007/07/13 SOP 0848	EPA 375.4
Total Suspended Solids	13	N/A	2007/07/09 CAM SOP-00428	SM 2540D
Total Suspended Solids	3	N/A	2007/07/10 CAM SOP-00428	SM 2540D

<sup>\*</sup> RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Maxxam Sladeview Petrochemical

#### **Encryption Key**

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MARIJANE CRUZ, PROJECT MANAGER ASSISTANT Email: Marijane.Cruz@maxxamanalytics.com Phone# (905) 817-5700 Ext:5756



Your Project #: SURFACEWATER

Site: CULLATON LAKE Your C.O.C. #: C#45782-

Attention: Paul Brugger
BARRICK GOLD CORPORATION
171 Copper Cliff Rd E
Station F
Thunder Bay, ON
P7C 5V5

Report Date: 2007/08/30

# **CERTIFICATE OF ANALYSIS**

-2-

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 2



BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE Sampler Initials:

#### **RESULTS OF ANALYSES OF WATER**

Maxxam ID		T34962	T34963		T34964		
Sampling Date		2007/07/05	2007/07/05		2007/07/05		
COC Number		C#45782-	C#45782-		C#45782-		
	Units	940-2A	940-2B	QC Batch	940-3A	RDL	QC Batch

CONVENTIONALS							
Acidity as CaC03	mg/L	11	10	1294144	ND	10	1294144
INORGANICS							
Hardness (CaCO3)	mg/L	220	210	1293791	88	1	1293791
рН	рН	7.7	7.8	1296766	7.8		1296766
Total Suspended Solids	mg/L	ND	ND	1294436	ND	10	1294591
Dissolved Sulphate (SO4)	mg/L	200	196	1297096	36	1	1297096
Total Cyanide (CN)	mg/L	ND	ND	1294834	ND	0.005	1296807
Alkalinity (Total as CaCO3)	mg/L	51	51	1296767	64	1	1296767

ND = Not detected

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

	Units	940-3B	RDL	QC Batch	940-18A	RDL	QC Batch
COC Number		C#45782-			C#45782-		
Sampling Date		2007/07/05			2007/07/05		
Maxxam ID		T34965			T34966		

CONVENTIONALS							
Acidity as CaC03	mg/L	ND	10	1294144	ND	10	1294144
INORGANICS							
Hardness (CaCO3)	mg/L	89	1	1293791	230	1	1293791
рН	рН	7.9		1296416	7.8		1296766
Total Suspended Solids	mg/L	ND	10	1294436	ND	10	1294436
Dissolved Sulphate (SO4)	mg/L	35	1	1297096	181	2	1297096
Total Cyanide (CN)	mg/L	ND	0.005	1294834	0.005	0.005	1296807
Alkalinity (Total as CaCO3)	mg/L	65	1	1296417	63	1	1296767

ND = Not detected

RDL = Reportable Detection Limit QC Batch = Quality Control Batch



BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE Sampler Initials:

#### **RESULTS OF ANALYSES OF WATER**

Maxxam ID		T34967		T34968		T34969		
Sampling Date		2007/07/05		2007/07/05		2007/07/05		
COC Number		C#45782-		C#45782-		C#45782-		
	Units	940-18B	RDL	940-19A	RDL	940-19B	RDL	QC Batch

CONVENTIONALS								
Acidity as CaC03	mg/L	ND	10	ND	10	ND	10	1294144
INORGANICS								
Hardness (CaCO3)	mg/L	230	1	220	1	220	1	1293791
рН	рН	7.8		7.8		7.8		1296766
Total Suspended Solids	mg/L	ND	10	ND	10	ND	10	1294436
Dissolved Sulphate (SO4)	mg/L	187	2	199	1	185	2	1297096
Total Cyanide (CN)	mg/L	0.005	0.005	ND	0.005	ND	0.005	1294834
Alkalinity (Total as CaCO3)	mg/L	63	1	51	1	52	1	1296767

ND = Not detected

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

	Units	940-20A	940-20B	RDL	940-23A	RDL	QC Batch
COC Number		C#45782-	C#45782-		C#45782-		
Sampling Date		2007/07/05	2007/07/05		2007/07/05		
Maxxam ID		T34970	T34971		T34972		

CONVENTIONALS							
Acidity as CaC03	mg/L	13	15	10	ND	10	1294144
INORGANICS							
Hardness (CaCO3)	mg/L	620	630	1	78	1	1293791
рН	рН	8.2	8.3		7.7		1296766
Total Suspended Solids	mg/L	ND	ND	10	ND	10	1294436
Dissolved Sulphate (SO4)	mg/L	479	429	10	57	1	1297096
Total Cyanide (CN)	mg/L	ND	ND	0.005	ND	0.005	1294834
Alkalinity (Total as CaCO3)	mg/L	300	302	1	33	1	1296767

ND = Not detected

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE Sampler Initials:

#### **RESULTS OF ANALYSES OF WATER**

Maxxam ID		T34973		T34974		T34975		
Sampling Date		2007/07/05		2007/07/05		2007/07/05		
COC Number		C#45782-		C#45782-		C#45782-		
	Units	940-23B	QC Batch	SHEAR	QC Batch	SHEAR	RDL	QC Batch
				CREEK A		CREEK B		
			_					
CONVENTIONALS								
Acidity as CaC03	mg/L	ND	1294144	ND	1294144	ND	10	1294144
INORGANICS								
Hardness (CaCO3)	mg/L	72	1293791	14	1293791	13	1	1293791
рН	рН	7.6	1296766	6.5	1298195	6.7		1296766
Total Suspended Solids	mg/L	ND	1294436	ND	1294436	ND	10	1294591
Dissolved Sulphate (SO4)	mg/L	45	1297096	8	1297096	8	1	1297096
Total Cyanide (CN)	mg/L	0.025	1297767	ND	1294834	ND	0.005	1294834
Alkalinity (Total as CaCO3)	mg/L	33	1296767	4	1298202	4	1	1296767

ND = Not detected

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

	TO 4070					
	T34976			T34977		
	2007/07/05			2007/07/05		
	C#45782-			C#45782-		
Units	POOL	RDL	QC Batch	U/S SHEAR	RDL	QC Batch
mg/L	229	10	1294144	17	10	1301278
mg/L	260	1	1293791	14	1	1293791
рН	2.6		1296766	6.1		1296766
mg/L	ND	10	1294436	ND	10	1294591
mg/L	594	10	1297096	ND	1	1297096
mg/L	ND	0.005	1294834	ND	0.005	1294834
mg/L	ND	1	1296767	2	1	1296767
	mg/L mg/L pH mg/L mg/L mg/L	mg/L 229 mg/L 260 pH 2.6 mg/L ND mg/L 594 mg/L ND	C#45782-           Units         POOL         RDL           mg/L         229         10           mg/L         260         1           pH         2.6         10           mg/L         ND         10           mg/L         594         10           mg/L         ND         0.005	C#45782-         Units         POOL         RDL         QC Batch           mg/L         229         10         1294144           mg/L         260         1         1293791           pH         2.6         1296766         1294436           mg/L         ND         10         1297096           mg/L         ND         0.005         1294834	C#45782-         C#45782-           Units         POOL         RDL         QC Batch         U/S SHEAR           mg/L         229         10         1294144         17           mg/L         260         1         1293791         14           pH         2.6         1296766         6.1           mg/L         ND         10         1294436         ND           mg/L         594         10         1297096         ND           mg/L         ND         0.005         1294834         ND	C#45782-         C#45782-           Units         POOL         RDL         QC Batch         U/S SHEAR         RDL           mg/L         229         10         1294144         17         10           mg/L         260         1         1293791         14         1           pH         2.6         1296766         6.1         10           mg/L         ND         10         1294436         ND         10           mg/L         594         10         1297096         ND         1           mg/L         ND         0.005         1294834         ND         0.005

ND = Not detected

RDL = Reportable Detection Limit QC Batch = Quality Control Batch



BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE

Sampler Initials:

# **ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Maxxam ID Sampling Date		T34962 2007/07/05		T34963 2007/07/05		T34964 2007/07/05		
COC Number		C#45782-		C#45782-		C#45782-		
OGG Hamber	Units	940-2A	QC Batch	940-2B	QC Batch	940-3A	RDL	QC Batch
METALS					I			1
	/!	71	1299623	70	1299620	66	F	1200622
Total Autimonium (Al)	ug/L			-	+		5	1299623
Total Arrania (As)	ug/L	ND 0.4	1299623	ND	1299620	ND 5.5	0.5	1299623
Total Arsenic (As)	ug/L	2.1	1299623	2.0	1299620	5.5	0.4	1299623
Total Barium (Ba)	ug/L	14	1299623	14	1299620	14	5	1299623
Total Beryllium (Be)	ug/L	ND	1299623	ND	1299620	ND	0.5	1299623
Total Bismuth (Bi)	ug/L	ND	1299623	ND	1299620	ND	1	1299623
Total Boron (B)	ug/L	44	1299623	44	1299620	19	10	1299623
Total Cadmium (Cd)	ug/L	ND	1299623	ND	1299620	ND	0.1	1299623
Total Calcium (Ca)	ug/L	55000	1299623	55000	1299620	24000	200	1299623
Total Chromium (Cr)	ug/L	ND	1299623	ND	1299620	ND	5	1299623
Total Cobalt (Co)	ug/L	1.8	1299623	1.7	1299620	0.6	0.5	1299623
Total Copper (Cu)	ug/L	1	1299623	1	1299620	6	1	1299623
Total Iron (Fe)	ug/L	78	1299623	71	1299620	370	50	1299623
Total Lead (Pb)	ug/L	0.6	1299623	ND	1299620	ND	0.5	1299623
Total Lithium (Li)	ug/L	ND	1299623	ND	1299620	ND	5	1299623
Total Magnesium (Mg)	ug/L	20000	1299623	20000	1299620	8700	50	1299623
Total Manganese (Mn)	ug/L	81	1299623	79	1299620	100	2	1299623
Mercury (Hg)	mg/L	ND	1298540	ND	1298540	ND	0.00005	1298540
Total Molybdenum (Mo)	ug/L	ND	1299623	ND	1299620	ND	1	1299623
Total Nickel (Ni)	ug/L	2	1299623	2	1299620	5	1	1299623
Total Potassium (K)	ug/L	3000	1299623	3000	1299620	1500	200	1299623
Total Selenium (Se)	ug/L	ND	1299623	ND	1299620	ND	2	1299623
Total Silicon (Si)	ug/L	270	1299623	290	1299620	150	50	1299623
Total Silver (Ag)	ug/L	ND	1299623	ND	1299620	ND	0.1	1299623
Total Sodium (Na)	ug/L	25000	1299623	25000	1299620	8600	100	1299623
Total Strontium (Sr)	ug/L	220	1299623	220	1299620	110	1	1299623
Total Tellurium (Te)	ug/L	ND	1299623	ND	1299620	ND	1	1299623
Total Thallium (TI)	ug/L	ND	1299623	ND	1299620	ND	0.05	1299623
Total Thorium (Th)	ug/L	ND	1299623	ND	1299620	ND	1	1299623
Total Tin (Sn)	ug/L	ND	1299623	ND	1299620	ND	1	1299623
Total Titanium (Ti)	ug/L	ND	1299623	ND	1299620	ND	5	1299623
Total Tungsten (W)	ug/L	ND	1299623	ND	1299620	ND	1	1299623

ND = Not detected

RDL = Reportable Detection Limit QC Batch = Quality Control Batch



BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE Sampler Initials:

# **ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

					T34964		1
	2007/07/05		2007/07/05		2007/07/05		
	C#45782-		C#45782-		C#45782-		
Jnits	940-2A	QC Batch	940-2B	QC Batch	940-3A	RDL	QC Batch
<u>_</u>	nits	C#45782-	C#45782-	C#45782- C#45782-	C#45782- C#45782-	C#45782- C#45782- C#45782-	C#45782- C#45782- C#45782-

Total Uranium (U)	ug/L	0.5	1299623	0.5	1299620	0.5	0.1	1299623
Total Vanadium (V)	ug/L	ND	1299623	ND	1299620	ND	1	1299623
Total Zinc (Zn)	ug/L	ND	1299623	ND	1299620	ND	5	1299623
Total Zirconium (Zr)	ug/L	ND	1299623	ND	1299620	ND	1	1299623

ND = Not detected

RDL = Reportable Detection Limit QC Batch = Quality Control Batch



BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE Sampler Initials:

#### **ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Sampling Date COC Number  Units  METALS  Total Aluminum (AI) ug/L  Total Antimony (Sb) ug/L  Total Arsenic (As) ug/L  Total Barium (Ba) ug/L  Total Beryllium (Be) ug/L  Total Bismuth (Bi) ug/L  Total Boron (B) ug/L	2007/07/05 C#45782- 940-3B 52 ND 5.3 14	QC Batch  1299623 1299623 1299623	2007/07/05 C#45782- 940-18A 54 ND	QC Batch 1299623	2007/07/05 C#45782- <b>940-18B</b>	RDL	QC Batch
METALS  Total Aluminum (Al) ug/L  Total Antimony (Sb) ug/L  Total Arsenic (As) ug/L  Total Barium (Ba) ug/L  Total Beryllium (Be) ug/L  Total Bismuth (Bi) ug/L	940-3B  52  ND  5.3  14	1299623 1299623	<b>940-18A</b> 54		940-18B	RDL	QC Batch
METALS  Total Aluminum (AI) ug/L  Total Antimony (Sb) ug/L  Total Arsenic (As) ug/L  Total Barium (Ba) ug/L  Total Beryllium (Be) ug/L  Total Bismuth (Bi) ug/L	52 ND 5.3 14	1299623 1299623	54			RDL	QC Batch
Total Aluminum (AI) ug/L Total Antimony (Sb) ug/L Total Arsenic (As) ug/L Total Barium (Ba) ug/L Total Beryllium (Be) ug/L Total Bismuth (Bi) ug/L	ND 5.3 14	1299623		1299623			
Total Antimony (Sb) ug/L Total Arsenic (As) ug/L Total Barium (Ba) ug/L Total Beryllium (Be) ug/L Total Bismuth (Bi) ug/L	ND 5.3 14	1299623		1299623			1
Total Arsenic (As) ug/L Total Barium (Ba) ug/L Total Beryllium (Be) ug/L Total Bismuth (Bi) ug/L	5.3 14		ND	1	45	5	1299645
Total Barium (Ba) ug/L Total Beryllium (Be) ug/L Total Bismuth (Bi) ug/L	14	1299623		1299623	ND	0.5	1299645
Total Beryllium (Be) ug/L Total Bismuth (Bi) ug/L			2.3	1299623	2.2	0.4	1299645
Total Bismuth (Bi) ug/L	ND.	1299623	17	1299623	17	5	1299645
` ,	IND	1299623	ND	1299623	ND	0.5	1299645
Total Boron (B) ug/L	ND	1299623	ND	1299623	ND	1	1299645
( )	17	1299623	44	1299623	47	10	1299645
Total Cadmium (Cd) ug/L	ND	1299623	ND	1299623	ND	0.1	1299645
Total Calcium (Ca) ug/L	24000	1299623	62000	1299623	62000	200	1299645
Total Chromium (Cr) ug/L	ND	1299623	ND	1299623	ND	5	1299645
Total Cobalt (Co) ug/L	ND	1299623	1.6	1299623	1.5	0.5	1299645
Total Copper (Cu) ug/L	4	1299623	2	1299623	2	1	1299645
Total Iron (Fe) ug/L	320	1299623	150	1299623	170	50	1299645
Total Lead (Pb) ug/L	ND	1299623	ND	1299623	ND	0.5	1299645
Total Lithium (Li) ug/L	ND	1299623	ND	1299623	ND	5	1299645
Total Magnesium (Mg) ug/L	8300	1299623	21000	1299623	21000	50	1299645
Total Manganese (Mn) ug/L	87	1299623	98	1299623	99	2	1299645
Mercury (Hg) mg/L	ND	1298540	ND	1298531	ND	0.00005	1298531
Total Molybdenum (Mo) ug/L	ND	1299623	ND	1299623	ND	1	1299645
Total Nickel (Ni) ug/L	5	1299623	1	1299623	1	1	1299645
Total Potassium (K) ug/L	1500	1299623	3300	1299623	3400	200	1299645
Total Selenium (Se) ug/L	ND	1299623	ND	1299623	ND	2	1299645
Total Silicon (Si) ug/L	140	1299623	410	1299623	390	50	1299645
Total Silver (Ag) ug/L	ND	1299623	ND	1299623	ND	0.1	1299645
Total Sodium (Na) ug/L	8300	1299623	28000	1299623	28000	100	1299645
Total Strontium (Sr) ug/L	100	1299623	240	1299623	250	1	1299645
Total Tellurium (Te) ug/L	ND	1299623	ND	1299623	ND	1	1299645
Total Thallium (TI) ug/L	ND	1299623	ND	1299623	ND	0.05	1299645
Total Thorium (Th) ug/L	ND	1299623	ND	1299623	ND	1	1299645
Total Tin (Sn) ug/L	ND	1299623	ND	1299623	ND	1	1299645
Total Titanium (Ti) ug/L	ND	1299623	ND	1299623	ND	5	1299645
Total Tungsten (W) ug/L	ND	1299623	ND	1299623	ND	1	1299645

ND = Not detected

RDL = Reportable Detection Limit QC Batch = Quality Control Batch



BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE Sampler Initials:

## **ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Maxxam ID		T34965		T34966		T34967		
Sampling Date		2007/07/05		2007/07/05		2007/07/05		
COC Number		C#45782-		C#45782-		C#45782-		
	Units	940-3B	QC Batch	940-18A	QC Batch	940-18B	RDL	QC Batch

Total Uranium (U)	ug/L	0.5	1299623	0.6	1299623	0.6	0.1	1299645
Total Vanadium (V)	ug/L	ND	1299623	ND	1299623	ND	1	1299645
Total Zinc (Zn)	ug/L	ND	1299623	ND	1299623	ND	5	1299645
Total Zirconium (Zr)	ug/L	ND	1299623	ND	1299623	ND	1	1299645

ND = Not detected



BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE

Sampler Initials:

## **ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Maxxam ID		T34968		T34969		T34970		
Sampling Date		2007/07/05		2007/07/05		2007/07/05		
COC Number	Linita	C#45782-	QC Batch	C#45782-	OC Botob	C#45782-	RDL	OC Batab
	Units	940-19A	QC Batch	940-19B	QC Batch	940-20A	KUL	QC Batch
METALS								
Total Aluminum (Al)	ug/L	54	1299620	60	1299623	60	5	1299645
Total Antimony (Sb)	ug/L	ND	1299620	ND	1299623	ND	0.5	1299645
Total Arsenic (As)	ug/L	1.6	1299620	1.7	1299623	5.2	0.4	1299645
Total Barium (Ba)	ug/L	14	1299620	14	1299623	36	5	1299645
Total Beryllium (Be)	ug/L	ND	1299620	ND	1299623	ND	0.5	1299645
Total Bismuth (Bi)	ug/L	ND	1299620	ND	1299623	ND	1	1299645
Total Boron (B)	ug/L	44	1299620	45	1299623	19	10	1299645
Total Cadmium (Cd)	ug/L	ND	1299620	ND	1299623	ND	0.1	1299645
Total Calcium (Ca)	ug/L	55000	1299620	55000	1299623	170000	200	1299645
Total Chromium (Cr)	ug/L	ND	1299620	ND	1299623	ND	5	1299645
Total Cobalt (Co)	ug/L	1.7	1299620	1.7	1299623	5.1	0.5	1299645
Total Copper (Cu)	ug/L	1	1299620	ND	1299623	5	1	1299645
Total Iron (Fe)	ug/L	ND	1299620	ND	1299623	620	50	1299645
Total Lead (Pb)	ug/L	ND	1299620	ND	1299623	ND	0.5	1299645
Total Lithium (Li)	ug/L	ND	1299620	ND	1299623	ND	5	1299645
Total Magnesium (Mg)	ug/L	19000	1299620	19000	1299623	60000	50	1299645
Total Manganese (Mn)	ug/L	84	1299620	87	1299623	170	2	1299645
Mercury (Hg)	mg/L	ND	1298540	ND	1298540	ND	0.00005	1298540
Total Molybdenum (Mo)	ug/L	ND	1299620	ND	1299623	3	1	1299645
Total Nickel (Ni)	ug/L	2	1299620	2	1299623	8	1	1299645
Total Potassium (K)	ug/L	3000	1299620	3000	1299623	10000	200	1299645
Total Selenium (Se)	ug/L	ND	1299620	ND	1299623	ND	2	1299645
Total Silicon (Si)	ug/L	250	1299620	300	1299623	310	50	1299645
Total Silver (Ag)	ug/L	ND	1299620	ND	1299623	ND	0.1	1299645
Total Sodium (Na)	ug/L	24000	1299620	25000	1299623	78000	100	1299645
Total Strontium (Sr)	ug/L	220	1299620	220	1299623	720	1	1299645
Total Tellurium (Te)	ug/L	ND	1299620	ND	1299623	ND	1	1299645
Total Thallium (TI)	ug/L	ND	1299620	ND	1299623	ND	0.05	1299645
Total Thorium (Th)	ug/L	ND	1299620	ND	1299623	ND	1	1299645
Total Tin (Sn)	ug/L	ND	1299620	ND	1299623	ND	1	1299645
Total Titanium (Ti)	ug/L	ND	1299620	ND	1299623	ND	5	1299645
Total Tungsten (W)	ug/L	ND	1299620	ND	1299623	ND	1	1299645

ND = Not detected



BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE Sampler Initials:

## **ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Maxxam ID		T34968		T34969		T34970		
Sampling Date		2007/07/05		2007/07/05		2007/07/05		
COC Number		C#45782-		C#45782-		C#45782-		
	Units	940-19A	QC Batch	940-19B	QC Batch	940-20A	RDL	QC Batch

Total Uranium (U)	ug/L	0.5	1299620	0.4	1299623	19	0.1	1299645
Total Vanadium (V)	ug/L	ND	1299620	ND	1299623	ND	1	1299645
Total Zinc (Zn)	ug/L	ND	1299620	ND	1299623	ND	5	1299645
Total Zirconium (Zr)	ug/L	ND	1299620	ND	1299623	ND	1	1299645

ND = Not detected



Maxxam ID

BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE

Sampler Initials:

## **ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

T34972

T34971

Maxxam ID		134971		134972		134973		
Sampling Date		2007/07/05		2007/07/05		2007/07/05		
COC Number	Units	C#45782- <b>940-20B</b>	QC Batch	C#45782- <b>940-23A</b>	QC Batch	C#45782- <b>940-23B</b>	RDL	QC Batch
	Ullits	340-200	QC Balcii	340-23A	QC Balcii	340-236	NDL	QC Balcii
METALS								
Total Aluminum (Al)	ug/L	49	1299645	45	1299623	40	5	1299620
Total Antimony (Sb)	ug/L	ND	1299645	ND	1299623	ND	0.5	1299620
Total Arsenic (As)	ug/L	5.1	1299645	1.1	1299623	1.0	0.4	1299620
Total Barium (Ba)	ug/L	35	1299645	7	1299623	7	5	1299620
Total Beryllium (Be)	ug/L	ND	1299645	ND	1299623	ND	0.5	1299620
Total Bismuth (Bi)	ug/L	ND	1299645	ND	1299623	ND	1	1299620
Total Boron (B)	ug/L	17	1299645	15	1299623	15	10	1299620
Total Cadmium (Cd)	ug/L	ND	1299645	ND	1299623	ND	0.1	1299620
Total Calcium (Ca)	ug/L	170000	1299645	20000	1299623	20000	200	1299620
Total Chromium (Cr)	ug/L	ND	1299645	ND	1299623	ND	5	1299620
Total Cobalt (Co)	ug/L	5.1	1299645	ND	1299623	ND	0.5	1299620
Total Copper (Cu)	ug/L	7	1299645	ND	1299623	ND	1	1299620
Total Iron (Fe)	ug/L	640	1299645	ND	1299623	ND	50	1299620
Total Lead (Pb)	ug/L	ND	1299645	ND	1299623	ND	0.5	1299620
Total Lithium (Li)	ug/L	ND	1299645	ND	1299623	ND	5	1299620
Total Magnesium (Mg)	ug/L	60000	1299645	6200	1299623	6100	50	1299620
Total Manganese (Mn)	ug/L	170	1299645	14	1299623	14	2	1299620
Mercury (Hg)	mg/L	ND	1298540	ND	1298540	ND	0.00005	1298540
Total Molybdenum (Mo)	ug/L	3	1299645	ND	1299623	ND	1	1299620
Total Nickel (Ni)	ug/L	9	1299645	1	1299623	1	1	1299620
Total Potassium (K)	ug/L	10000	1299645	790	1299623	760	200	1299620
Total Selenium (Se)	ug/L	ND	1299645	ND	1299623	ND	2	1299620
Total Silicon (Si)	ug/L	300	1299645	190	1299623	180	50	1299620
Total Silver (Ag)	ug/L	ND	1299645	ND	1299623	ND	0.1	1299620
Total Sodium (Na)	ug/L	78000	1299645	2800	1299623	2800	100	1299620
Total Strontium (Sr)	ug/L	740	1299645	110	1299623	110	1	1299620
Total Tellurium (Te)	ug/L	ND	1299645	ND	1299623	ND	1	1299620
Total Thallium (TI)	ug/L	ND	1299645	ND	1299623	ND	0.05	1299620
Total Thorium (Th)	ug/L	ND	1299645	ND	1299623	ND	1	1299620
Total Tin (Sn)	ug/L	ND	1299645	ND	1299623	ND	1	1299620
Total Titanium (Ti)	ug/L	ND	1299645	ND	1299623	ND	5	1299620
Total Tungsten (W)	ug/L	ND	1299645	ND	1299623	ND	1	1299620

ND = Not detected



BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE Sampler Initials:

## **ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Maxxam ID		T34971		T34972		T34973		
Sampling Date		2007/07/05		2007/07/05		2007/07/05		
COC Number		C#45782-		C#45782-		C#45782-		
	Units	940-20B	QC Batch	940-23A	QC Batch	940-23B	RDL	QC Batch

Total Uranium (U)	ug/L	19	1299645	0.4	1299623	0.4	0.1	1299620
Total Vanadium (V)	ug/L	ND	1299645	ND	1299623	ND	1	1299620
Total Zinc (Zn)	ug/L	ND	1299645	6	1299623	ND	5	1299620
Total Zirconium (Zr)	ug/L	ND	1299645	ND	1299623	ND	1	1299620

ND = Not detected



BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE Sampler Initials:

## **ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Maxxam ID		T34974	T34975	T34976	T34977		
Sampling Date		2007/07/05	2007/07/05	2007/07/05	2007/07/05		-
COC Number	Units	C#45782- SHEAR	C#45782- SHEAR	C#45782- <b>POOL</b>	C#45782- U/S SHEAR	RDL	QC Batch
	Omito	CREEK A	CREEK B	1 002	0/0 OHEAR	I NOL	QO Buton
METALS							
Total Aluminum (Al)	ug/L	180	190	29000	130	5	1299623
Total Antimony (Sb)	ug/L	ND	ND	ND	ND	0.5	1299623
Total Arsenic (As)	ug/L	0.5	ND	1.3	0.6	0.4	1299623
Total Barium (Ba)	ug/L	12	11	12	10	5	1299623
Total Beryllium (Be)	ug/L	ND	ND	3.0	ND	0.5	1299623
Total Bismuth (Bi)	ug/L	ND	ND	ND	ND	1	1299623
Total Boron (B)	ug/L	ND	ND	15	ND	10	1299623
Total Cadmium (Cd)	ug/L	ND	ND	4.6	0.1	0.1	1299623
Total Calcium (Ca)	ug/L	3600	3600	57000	3000	200	1299623
Total Chromium (Cr)	ug/L	ND	ND	51	ND	5	1299623
Total Cobalt (Co)	ug/L	1.9	1.9	530	ND	0.5	1299623
Total Copper (Cu)	ug/L	3	3	330	2	1	1299623
Total Iron (Fe)	ug/L	590	550	37000	460	50	1299623
Total Lead (Pb)	ug/L	ND	ND	3.7	ND	0.5	1299623
Total Lithium (Li)	ug/L	ND	ND	34	ND	5	1299623
Total Magnesium (Mg)	ug/L	1000	1000	28000	900	50	1299623
Total Manganese (Mn)	ug/L	56	54	9500	58	2	1299623
Mercury (Hg)	mg/L	ND	ND	ND	ND	0.00005	1298540
Total Molybdenum (Mo)	ug/L	ND	ND	ND	ND	1	1299623
Total Nickel (Ni)	ug/L	4	3	340	3	1	1299623
Total Potassium (K)	ug/L	700	710	1700	640	200	1299623
Total Selenium (Se)	ug/L	ND	ND	ND	ND	2	1299623
Total Silicon (Si)	ug/L	660	620	17000	700	50	1299623
Total Silver (Ag)	ug/L	ND	ND	ND	ND	0.1	1299623
Total Sodium (Na)	ug/L	610	590	2500	640	100	1299623
Total Strontium (Sr)	ug/L	12	12	200	11	1	1299623
Total Tellurium (Te)	ug/L	ND	ND	ND	ND	1	1299623
Total Thallium (TI)	ug/L	ND	ND	0.20	ND	0.05	1299623
Total Thorium (Th)	ug/L	ND	ND	17	ND	1	1299623
Total Tin (Sn)	ug/L	ND	ND	ND	ND	1	1299623
Total Titanium (Ti)	ug/L	ND	ND	ND	ND	5	1299623

ND = Not detected



BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE Sampler Initials:

## **ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Maxxam ID		T34974	T34975	T34976	T34977		
Sampling Date		2007/07/05	2007/07/05	2007/07/05	2007/07/05		
COC Number		C#45782-	C#45782-	C#45782-	C#45782-		
	Units	SHEAR	SHEAR	POOL	U/S SHEAR	RDL	QC Batch
		CREEK A	CREEK B				
Total Tungsten (W)	ug/L	ND	ND	ND	ND	1	1299623
Total Uranium (U)	ug/L	0.2	0.2	35	ND	0.1	1299623
Total Vanadium (V)	ug/L	ND	ND	ND	ND	1	1299623
Total Zinc (Zn)	ug/L	ND	ND	320	ND	5	1299623
Total Zirconium (Zr)	ug/L	ND	ND	ND	ND	1	1299623
	•	•	•	•	•	•	•

ND = Not detected RDL = Reportable Detection Limit QC Batch = Quality Control Batch





BARRICK GOLD CORPORATION Client Project #: SURFACEWATER Project name: CULLATON LAKE Sampler Initials:

#### **GENERAL COMMENTS**

Sample T34976-01: ALKALINITY: Alkalinity result is reported as ND (pH value is less than 4.50).

Results relate only to the items tested.



Attention: Paul Brugger

Client Project #: SURFACEWATER

P.O. #:

Project name: CULLATON LAKE

#### Quality Assurance Report Maxxam Job Number: MA770020

QA/QC			Date			
Batch	OC Tuno	Doromotor	Analyzed	Value Beenver	Lleito	OC Limita
Num Init	QC Type	Parameter	yyyy/mm/dd	Value Recovery ND, RDL=10	Units	QC Limits
1294144 CPA	Method Blank	Acidity as CaC03	2007/07/11	•	mg/L	21
1294436 JDO	RPD [T34970-03] QC STANDARD	Acidity as CaC03 Total Suspended Solids	2007/07/11 2007/07/09	NC 103	% %	25 85 - 115
1294436 JDO	Method Blank	Total Suspended Solids Total Suspended Solids	2007/07/09	ND, RDL=10		00 - 113
		•		ND, RDL=10 0	mg/L	21
1004E04 DAV	RPD	Total Suspended Solids	2007/07/09	105	%	25
1294591 RAY	QC STANDARD Method Blank	Total Suspended Solids Total Suspended Solids	2007/07/10 2007/07/10	ND, RDL=10	% ma/l	85 - 115
		•		•	mg/L %	21
1294834 CP	RPD MATRIX SPIKE	Total Suspended Solids	2007/07/10	1.5		25 75 - 125
1294634 CP		Total Cyanida (CN)	2007/07/10	105 103	%	_
	Spiked Blank	Total Cyanide (CN)	2007/07/10	ND, RDL=0.005	% ma/l	75 - 12
	Method Blank RPD	Total Cyanide (CN) Total Cyanide (CN)	2007/07/10	NC, RDL=0.005	mg/L	21
400C447 VDA		, ,	2007/07/10		%	25
1296417 YPA	QC STANDARD	Alkalinity (Total as CaCO3)	2007/07/11	95 ND DDI 4	% ~~/!	85 - 11
	Method Blank	Alkalinity (Total as CaCO3)	2007/07/11	ND, RDL=1	mg/L	0/
4000707 VDA	RPD	Alkalinity (Total as CaCO3)	2007/07/11	0.2	%	25
1296767 YPA	QC STANDARD	Alkalinity (Total as CaCO3)	2007/07/11	97	%	85 - 11
	Method Blank	Alkalinity (Total as CaCO3)	2007/07/11	ND, RDL=1	mg/L	0.1
4000007.00	RPD [T34970-02]	Alkalinity (Total as CaCO3)	2007/07/11	0.4	%	25
1296807 CP	MATRIX SPIKE	Total Cyanide (CN)	2007/07/12	106	%	75 - 125
	Spiked Blank	Total Cyanide (CN)	2007/07/12	106	%	75 - 125
	Method Blank	Total Cyanide (CN)	2007/07/12	ND, RDL=0.005	mg/L	
	RPD	Total Cyanide (CN)	2007/07/12	NC	%	25
1297096 DRM						
	[T34967-02]	Dissolved Sulphate (SO4)	2007/07/13	81	%	N/A
	QC STANDARD	Dissolved Sulphate (SO4)	2007/07/13	108	%	80 - 120
	Spiked Blank	Dissolved Sulphate (SO4)	2007/07/13	105	%	80 - 120
	Method Blank	Dissolved Sulphate (SO4)	2007/07/13	ND, RDL=1	mg/L	
1297767 CP	RPD [T34967-02] MATRIX SPIKE	Dissolved Sulphate (SO4)	2007/07/13	1.0	%	25
	[T34973-04]	Total Cyanide (CN)	2007/07/12	103	%	75 - 125
	Spiked Blank	Total Cyanide (CN)	2007/07/12	106	%	75 - 125
	Method Blank	Total Cyanide (CN)	2007/07/12	ND, RDL=0.005	mg/L	
	RPD [T34973-04]	Total Cyanide (CN)	2007/07/12	3.9	%	25
1298202 YPA	QC STANDARD	Alkalinity (Total as CaCO3)	2007/07/12	103	%	85 - 115
	Method Blank	Alkalinity (Total as CaCO3)	2007/07/12	ND, RDL=1	mg/L	
	RPD [T34974-02]	Alkalinity (Total as CaCO3)	2007/07/12	NC	%	25
1298531 KCO	MATRIX SPIKE	Mercury (Hg)	2007/07/13	96	%	75 - 125
	QC STANDARD	Mercury (Hg)	2007/07/13	97	%	75 - 125
	Spiked Blank	Mercury (Hg)	2007/07/13	98	%	84 - 113
	Method Blank	Mercury (Hg)	2007/07/13	ND, RDL=0.0001	mg/L	
	RPD	Mercury (Hg)	2007/07/13	NC	%	25
1298540 KCO	MATRIX SPIKE	Mercury (Hg)	2007/07/13	98	%	75 - 125
	QC STANDARD	Mercury (Hg)	2007/07/13	94	%	75 - 125
	Spiked Blank	Mercury (Hg)	2007/07/13	98	%	84 - 113
	Method Blank	Mercury (Hg)	2007/07/13	ND, RDL=0.0001	mg/L	
	RPD	Mercury (Hg)	2007/07/13	NC	%	25
1299620 JBW	MATRIX SPIKE	Total Aluminum (Al)	2007/07/13	90	%	80 - 120
000_0 0077		Total Antimony (Sb)	2007/07/13	104	%	80 - 120
		Total Aritimory (CB)  Total Arsenic (As)	2007/07/13	97	%	80 - 120
		Total Barium (Ba)	2007/07/13	97	%	80 - 120
		Total Baridin (Ba) Total Beryllium (Be)	2007/07/13	100	%	75 - 12
		Total Bismuth (Bi)	2007/07/13	99	% %	75 - 125 75 - 125
		Total Boron (B)	2007/07/13	99 87		
					%	75 - 125
		Total Cadmium (Cd) Total Calcium (Ca)	2007/07/13	102	%	80 - 120
		rotai Galcium (Ga)	2007/07/13	81	%	75 - 125



Attention: Paul Brugger

Client Project #: SURFACEWATER

P.O. #

Project name: CULLATON LAKE

#### Quality Assurance Report (Continued)

QA/QC			Date				
Batch			Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1299620 JBW	MATRIX SPIKE	Total Chromium (Cr)	2007/07/13		100	%	80 - 120
		Total Cobalt (Co)	2007/07/13		98	%	80 - 120
		Total Copper (Cu)	2007/07/13		95	%	80 - 120
		Total Iron (Fe)	2007/07/13		97	%	80 - 120
		Total Lead (Pb)	2007/07/13		96	%	80 - 120
		Total Lithium (Li)	2007/07/13		90	%	75 - 125
		Total Magnesium (Mg)	2007/07/13		88	%	80 - 120
		Total Manganese (Mn)	2007/07/13		98	%	80 - 120
		Total Molybdenum (Mo)	2007/07/13		100	%	80 - 120
		Total Nickel (Ni)	2007/07/13		97	%	80 - 120
		Total Potassium (K)	2007/07/13		88	%	75 - 125
		Total Selenium (Se)	2007/07/13		101	%	75 - 125
		Total Silicon (Si)	2007/07/13		87	%	75 - 125
		Total Silver (Ag)	2007/07/13		96	%	80 - 120
		Total Sodium (Na)	2007/07/13		92	%	75 - 125
		Total Strontium (Sr)	2007/07/13		97	%	80 - 120
		Total Tellurium (Te)	2007/07/13		100	%	75 - 125
		Total Thallium (TI)	2007/07/13		99	%	80 - 120
		Total Thailidin (Tr) Total Thorium (Th)	2007/07/13		93	%	75 - 125
		Total Tin (Sn)	2007/07/13		102	%	75 - 125 75 - 125
		Total Titr (31) Total Titanium (Ti)	2007/07/13		98	% %	75 - 125 75 - 125
		Total Tungsten (W)	2007/07/13		101	% %	75 - 125 75 - 125
		Total Tungsteri (W) Total Uranium (U)	2007/07/13		100	%	80 - 120
		Total Vanadium (V)	2007/07/13		100	%	80 - 120
		` '	2007/07/13		98	% %	80 - 120
		Total Zinc (Zn)					
	Cailead Dlank	Total Aluminum (Zr)	2007/07/13		102	%	75 - 125
	Spiked Blank	Total Autimorn (Al)	2007/07/13		91	%	80 - 120
		Total Antimony (Sb)	2007/07/13		106	%	82 - 120
		Total Arsenic (As)	2007/07/13		99	%	86 - 119
		Total Barium (Ba)	2007/07/13		99	%	83 - 115
		Total Beryllium (Be)	2007/07/13		101	%	85 - 132
		Total Bismuth (Bi)	2007/07/13		101	%	78 - 120
		Total Boron (B)	2007/07/13		91	%	78 - 133
		Total Cadmium (Cd)	2007/07/13		103	%	85 - 116
		Total Calcium (Ca)	2007/07/13		95	%	75 - 125
		Total Chromium (Cr)	2007/07/13		100	%	80 - 120
		Total Cobalt (Co)	2007/07/13		99	%	82 - 117
		Total Copper (Cu)	2007/07/13		97	%	80 - 117
		Total Iron (Fe)	2007/07/13		98	%	80 - 120
		Total Lead (Pb)	2007/07/13		98	%	80 - 120
		Total Lithium (Li)	2007/07/13		90	%	86 - 131
		Total Magnesium (Mg)	2007/07/13		94	%	80 - 120
		Total Manganese (Mn)	2007/07/13		100	%	80 - 120
		Total Molybdenum (Mo)	2007/07/13		102	%	82 - 117
		Total Nickel (Ni)	2007/07/13		98	%	81 - 117
		Total Potassium (K)	2007/07/13		92	%	75 - 125
		Total Selenium (Se)	2007/07/13		100	%	82 - 118
		Total Silicon (Si)	2007/07/13		94	%	67 - 140
		Total Silver (Ag)	2007/07/13		97	%	80 - 120
		Total Sodium (Na)	2007/07/13		97	%	75 - 125
		Total Strontium (Sr)	2007/07/13		100	%	83 - 120
		Total Tellurium (Te)	2007/07/13		102	%	80 - 116
		Total Thallium (TI)	2007/07/13		100	%	80 - 129
		Total Thorium (Th)	2007/07/13		95	%	80 - 125
		Total Tin (Sn)	2007/07/13		103	%	83 - 119



Attention: Paul Brugger

Client Project #: SURFACEWATER

P.O. #:

Project name: CULLATON LAKE

#### **Quality Assurance Report (Continued)**

QA/QC			Date			
Batch			Analyzed			
Num Init	QC Type	Parameter	yyyy/mm/dd	Value Recovery	Units	QC Limits
1299620 JBW	Spiked Blank	Total Titanium (Ti)	2007/07/13	100	%	60 - 125
		Total Tungsten (W)	2007/07/13	102	%	81 - 123
		Total Uranium (U)	2007/07/13	102	%	82 - 120
		Total Vanadium (V)	2007/07/13	101	%	82 - 118
		Total Zinc (Zn)	2007/07/13	99	%	80 - 120
		Total Zirconium (Zr)	2007/07/13	103	%	84 - 118
	Method Blank	Total Aluminum (Al)	2007/07/13	ND, RDL=5	ug/L	
		Total Antimony (Sb)	2007/07/13	ND, RDL=0.5	ug/L	
		Total Arsenic (As)	2007/07/13	ND, RDL=1	ug/L	
		Total Barium (Ba)	2007/07/13	ND, RDL=5	ug/L	
		Total Beryllium (Be)	2007/07/13	ND, RDL=0.5	ug/L	
		Total Bismuth (Bi)	2007/07/13	ND, RDL=1	ug/L	
		Total Boron (B)	2007/07/13	ND, RDL=10	ug/L	
		Total Cadmium (Cd)	2007/07/13	ND, RDL=0.1	ug/L	
		Total Calcium (Ca)	2007/07/13	ND, RDL=200	ug/L	
		Total Chromium (Cr)	2007/07/13	ND, RDL=5	ug/L	
		Total Cobalt (Co)	2007/07/13	ND, RDL=0.5	ug/L	
		Total Copper (Cu)	2007/07/13	ND, RDL=1	ug/L	
		Total Iron (Fe)	2007/07/13	ND, RDL=50	ug/L	
		Total Lead (Pb)	2007/07/13	ND, RDL=0.5	ug/L	
		Total Lithium (Li)	2007/07/13	ND, RDL=5	ug/L	
		Total Magnesium (Mg)	2007/07/13	ND, RDL=50	ug/L	
		Total Manganese (Mn)	2007/07/13	ND, RDL=2	ug/L	
		Total Molybdenum (Mo)	2007/07/13	ND, RDL=1	ug/L	
		Total Nickel (Ni)	2007/07/13	ND, RDL=1	ug/L	
		Total Potassium (K)	2007/07/13	ND, RDL=200	ug/L	
		Total Selenium (Se)	2007/07/13	ND, RDL=2	ug/L	
		Total Silicon (Si)	2007/07/13	ND, RDL=50	ug/L	
		Total Silver (Ag)	2007/07/13	ND, RDL=0.1	ug/L	
		Total Sodium (Na)	2007/07/13	ND, RDL=100	ug/L	
		Total Strontium (Sr)	2007/07/13	ND, RDL=1	ug/L	
		Total Tellurium (Te)	2007/07/13	ND, RDL=1	ug/L	
		Total Thallium (TI)	2007/07/13	ND, RDL=0.05	ug/L	
		Total Thorium (Th)	2007/07/13	ND, RDL=1	ug/L	
		Total Tin (Sn)	2007/07/13	ND, RDL=1	ug/L	
		Total Titanium (Ti)	2007/07/13	ND, RDL=5	ug/L	
		Total Tungsten (W)	2007/07/13	ND, RDL=1	ug/L	
		Total Uranium (U)	2007/07/13	ND, RDL=0.1	ug/L	
		Total Vanadium (V)	2007/07/13	ND, RDL=1	ug/L	
		Total Zinc (Zn)	2007/07/13	ND, RDL=5	ug/L	
		Total Zirconium (Zr)	2007/07/13	ND, RDL=1	ug/L	
	RPD	Total Lead (Pb)	2007/07/13	NC	%	25
1299623 JBW						
	[T34974-05]	Total Aluminum (Al)	2007/07/13	86	%	80 - 120
		Total Antimony (Sb)	2007/07/13	105	%	80 - 120
		Total Arsenic (As)	2007/07/13	100	%	80 - 120
		Total Barium (Ba)	2007/07/13	99	%	80 - 120
		Total Beryllium (Be)	2007/07/13	103	%	75 - 125
		Total Bismuth (Bi)	2007/07/13	103	%	75 - 125
		Total Boron (B)	2007/07/13	89	%	75 - 125
		Total Cadmium (Cd)	2007/07/13	105	%	80 - 120
		Total Calcium (Ca)	2007/07/13	92	%	75 - 125
		Total Chromium (Cr)	2007/07/13	101	%	80 - 120
		Total Cobalt (Co)	2007/07/13	100	%	80 - 120
		Total Copper (Cu)	2007/07/13	98	%	80 - 120



Attention: Paul Brugger

Client Project #: SURFACEWATER

P.O. #

Project name: CULLATON LAKE

#### **Quality Assurance Report (Continued)**

QA/QC			Date				
Batch			Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1299623 JBW	MATRIX SPIKE						
	[T34974-05]	Total Iron (Fe)	2007/07/13		98	%	80 - 120
		Total Lead (Pb)	2007/07/13		100	%	80 - 120
		Total Lithium (Li)	2007/07/13		92	%	75 - 125
		Total Magnesium (Mg)	2007/07/13		92	%	80 - 120
		Total Manganese (Mn)	2007/07/13		99	%	80 - 120
		Total Molybdenum (Mo)	2007/07/13		102	%	80 - 120
		Total Nickel (Ni)	2007/07/13		99	%	80 - 120
		Total Potassium (K)	2007/07/13		92	%	75 - 125
		Total Selenium (Se)	2007/07/13		102	%	75 - 125
		Total Silicon (Si)	2007/07/13		91	%	75 - 125
		Total Silver (Ag)	2007/07/13		97	%	80 - 120
		Total Sodium (Na)	2007/07/13		95	%	75 - 125
		Total Strontium (Sr)	2007/07/13		101	%	80 - 120
		Total Tellurium (Te)	2007/07/13		101	%	75 - 125
		Total Thallium (TI)	2007/07/13		102	%	80 - 120
		Total Thorium (Th)	2007/07/13		97	%	75 - 125
		Total Tin (Sn)	2007/07/13		103	%	75 - 125
		Total Titanium (Ti)	2007/07/13		99	%	75 - 125
		Total Tungsten (W)	2007/07/13		103	%	75 - 125
		Total Uranium (U)	2007/07/13		104	%	80 - 120
		Total Vanadium (V)	2007/07/13		101	%	80 - 120
		Total Zinc (Zn)	2007/07/13		101	%	80 - 120
		Total Zirconium (Zr)	2007/07/13		104	%	75 - 125
	Spiked Blank	Total Aluminum (Al)	2007/07/13		90	%	80 - 120
		Total Antimony (Sb)	2007/07/13		105	%	82 - 120
		Total Arsenic (As)	2007/07/13		100	%	86 - 119
		Total Barium (Ba)	2007/07/13		101	%	83 - 115
		Total Beryllium (Be)	2007/07/13		101	%	85 - 132
		Total Bismuth (Bi)	2007/07/13		102	%	78 - 120
		Total Boron (B)	2007/07/13		87	%	78 - 133
		Total Cadmium (Cd)	2007/07/13		104	%	85 - 116
		Total Calcium (Ca)	2007/07/13		94	%	75 - 125
		Total Chromium (Cr)	2007/07/13		101	%	80 - 120
		Total Cobalt (Co)	2007/07/13		99	%	82 - 117
		Total Copper (Cu)	2007/07/13		98	%	80 - 117
		Total Iron (Fe)	2007/07/13		99	%	80 - 120
		Total Lead (Pb)	2007/07/13		100	%	80 - 120
		Total Manager (Man)	2007/07/13		91	%	86 - 131
		Total Magnesium (Mg)	2007/07/13		94	%	80 - 120
		Total Manganese (Mn)	2007/07/13		101	%	80 - 120
		Total Molybdenum (Mo)	2007/07/13		102	%	82 - 117
		Total Nickel (Ni)	2007/07/13		99	%	81 - 117
		Total Potassium (K)	2007/07/13		92	%	75 - 125
		Total Selenium (Se)	2007/07/13		101	%	82 - 118
		Total Silver (A.s.)	2007/07/13		92	%	67 - 140
		Total Sodium (No)	2007/07/13		96	%	80 - 120
		Total Solium (Na)	2007/07/13		96	%	75 - 125
		Total Strontium (Sr)	2007/07/13		99	%	83 - 120
		Total Tellurium (Te)	2007/07/13		101	%	80 - 116
		Total Thallium (TI)	2007/07/13		102	%	80 - 129
		Total Thorium (Th)	2007/07/13		96	%	80 - 125
		Total Tite since (Ti)	2007/07/13		103	%	83 - 119
		Total Titanium (Ti)	2007/07/13		100	%	60 - 125
		Total Tungsten (W)	2007/07/13		103	%	81 - 123



Attention: Paul Brugger

Client Project #: SURFACEWATER

P.O. #:

Project name: CULLATON LAKE

#### **Quality Assurance Report (Continued)**

QA/QC			Date			
Batch			Analyzed			
Num Init	QC Type	Parameter	yyyy/mm/dd	Value Recovery	Units	QC Limits
1299623 JBW	Spiked Blank	Total Uranium (U)	2007/07/13	103	%	82 - 120
		Total Vanadium (V)	2007/07/13	101	%	82 - 118
		Total Zinc (Zn)	2007/07/13	101	%	80 - 120
		Total Zirconium (Zr)	2007/07/13	103	%	84 - 118
	Method Blank	Total Aluminum (AI)	2007/07/13	ND, RDL=5	ug/L	
		Total Antimony (Sb)	2007/07/13	ND, RDL=0.5	ug/L	
		Total Arsenic (As)	2007/07/13	ND, RDL=1	ug/L	
		Total Barium (Ba)	2007/07/13	ND, RDL=5	ug/L	
		Total Beryllium (Be)	2007/07/13	ND, RDL=0.5	ug/L	
		Total Bismuth (Bi)	2007/07/13	ND, RDL=1	ug/L	
		Total Boron (B)	2007/07/13	ND, RDL=10	ug/L	
		Total Cadmium (Cd)	2007/07/13	ND, RDL=0.1	ug/L	
		Total Calcium (Ca)	2007/07/13	ND, RDL=200	ug/L	
		Total Chromium (Cr)	2007/07/13	ND, RDL=5	ug/L	
		Total Cobalt (Co)	2007/07/13	ND, RDL=0.5	ug/L	
		Total Copper (Cu)	2007/07/13	ND, RDL=1	ug/L	
		Total Iron (Fe)	2007/07/13	ND, RDL=50	ug/L	
		Total Lead (Pb)	2007/07/13	ND, RDL=0.5	ug/L	
		Total Lithium (Li)	2007/07/13	ND, RDL=5	ug/L	
		Total Magnesium (Mg)	2007/07/13	ND, RDL=50	ug/L	
		Total Manganese (Mn)	2007/07/13	ND, RDL=2	ug/L	
		Total Molybdenum (Mo)	2007/07/13	ND, RDL=1	ug/L	
		Total Nickel (Ni)	2007/07/13	ND, RDL=1	ug/L	
		Total Potassium (K)	2007/07/13	ND, RDL=200	ug/L	
		Total Selenium (Se)	2007/07/13	ND, RDL=2	ug/L	
		Total Silicon (Si)	2007/07/13	ND, RDL=50	ug/L	
		Total Silver (Ag)	2007/07/13	ND, RDL=0.1	ug/L	
		Total Sodium (Na)	2007/07/13	ND, RDL=100	ug/L	
		Total Strontium (Sr)	2007/07/13	ND, RDL=1	ug/L	
		Total Tellurium (Te)	2007/07/13	ND, RDL=1	ug/L	
		Total Thallium (TI)	2007/07/13	ND, RDL=0.05	ug/L	
		Total Thorium (Th)	2007/07/13	ND, RDL=1	ug/L	
		Total Tin (Sn)	2007/07/13	ND, RDL=1	ug/L	
		Total Titanium (Ti)	2007/07/13	ND, RDL=5	ug/L	
		Total Tungsten (W)	2007/07/13	ND, RDL=1	ug/L	
		Total Uranium (U)	2007/07/13	ND, RDL=0.1	ug/L	
		Total Vanadium (V)	2007/07/13	ND, RDL=1	ug/L	
		Total Zinc (Zn)	2007/07/13	ND, RDL=5	ug/L	
		Total Zirconium (Zr)	2007/07/13	ND, RDL=1	ug/L	
	RPD [T34974-05]	Total Aluminum (Al)	2007/07/13	2.9	%	25
		Total Antimony (Sb)	2007/07/13	NC	%	25
		Total Arsenic (As)	2007/07/13	NC	%	25
		Total Barium (Ba)	2007/07/13	NC	%	25
		Total Beryllium (Be)	2007/07/13	NC	%	25
		Total Bismuth (Bi)	2007/07/13	NC	%	25
		Total Boron (B)	2007/07/13	NC	%	25
		Total Cadmium (Cd)	2007/07/13	NC	%	25
		Total Calcium (Ca)	2007/07/13	2.0	%	25
		Total Chromium (Cr)	2007/07/13	NC	%	25
		Total Cobalt (Co)	2007/07/13	NC	%	25
		Total Copper (Cu)	2007/07/13	NC	%	25
		Total Iron (Fe)	2007/07/13	2.8	%	25
		Total Lead (Pb)	2007/07/13	NC	%	25
		Total Lithium (Li)	2007/07/13	NC	%	25
		Total Magnesium (Mg)	2007/07/13	1.5	%	25



Attention: Paul Brugger

Client Project #: SURFACEWATER

P.O. #

Project name: CULLATON LAKE

#### **Quality Assurance Report (Continued)**

QA/QC Batch			Date Analyzed			
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery Units	s QC Limits
1299623 JBW	RPD [T34974-05]	Total Manganese (Mn)	2007/07/13	2.7	%	25
1233023 3DW	N D [104074 00]	Total Molybdenum (Mo)	2007/07/13	NC	%	25
		Total Nickel (Ni)	2007/07/13	NC	%	25
		Total Potassium (K)	2007/07/13	NC	%	25
		Total Selenium (Se)	2007/07/13	NC	%	25
		Total Silicon (Si)	2007/07/13	9.1	%	25
		Total Silver (Ag)	2007/07/13	NC	%	25
		Total Sodium (Na)	2007/07/13	0.9	%	25
		Total Strontium (Sr)	2007/07/13	1.6	%	25
		Total Tellurium (Te)	2007/07/13	NC	%	25
		Total Thallium (TI)	2007/07/13	NC	%	25
		Total Thailiam (Th)	2007/07/13	NC	%	25
		Total Tin (Sn)	2007/07/13	NC	%	25
		Total Titanium (Ti)	2007/07/13	NC	%	25
		Total Tungsten (W)	2007/07/13	NC	%	25
		Total Uranium (U)	2007/07/13	NC	% %	25 25
		Total Vanadium (V)	2007/07/13	NC NC	%	25 25
		Total Zinc (Zn)	2007/07/13	NC NC	% %	25 25
		Total Zinc (Zn) Total Zirconium (Zr)	2007/07/13	NC NC	% %	25 25
100064E IDW	MATRIX CRIVE	` ,		NC		80 - 120
1299645 JBW	MATRIX SPIKE	Total Antimony (Sh)	2007/07/16		108 % 101 %	
		Total Artimony (Sb)	2007/07/16			80 - 120
		Total Arsenic (As)	2007/07/16		104 %	80 - 120
		Total Barium (Ba)	2007/07/16		101 %	80 - 120
		Total Beryllium (Be)	2007/07/16		103 %	75 - 125
		Total Bismuth (Bi)	2007/07/16		101 %	75 - 125
		Total Boron (B)	2007/07/16		86 %	75 - 125
		Total Cadmium (Cd)	2007/07/16		106 %	80 - 120
		Total Calcium (Ca)	2007/07/16		NC (1) %	75 - 125
		Total Chromium (Cr)	2007/07/16		103 %	80 - 120
		Total Cobalt (Co)	2007/07/16		102 %	80 - 120
		Total Copper (Cu)	2007/07/16		98 %	80 - 120
		Total Iron (Fe)	2007/07/16		106 %	80 - 120
		Total Lead (Pb)	2007/07/16		100 %	80 - 120
		Total Lithium (Li)	2007/07/16		97 %	75 - 125
		Total Magnesium (Mg)	2007/07/16		80 %	80 - 120
		Total Manganese (Mn)	2007/07/16		103 %	80 - 120
		Total Molybdenum (Mo)	2007/07/16		100 %	80 - 120
		Total Nickel (Ni)	2007/07/16		100 %	80 - 120
		Total Potassium (K)	2007/07/16		94 %	75 - 125
		Total Selenium (Se)	2007/07/16		102 %	75 - 125
		Total Silicon (Si)	2007/07/16		87 %	75 - 125
		Total Silver (Ag)	2007/07/16		99 %	80 - 120
		Total Sodium (Na)	2007/07/16		NC (1) %	75 - 125
		Total Strontium (Sr)	2007/07/16		95 %	80 - 120
		Total Tellurium (Te)	2007/07/16		96 %	75 - 125
		Total Thallium (TI)	2007/07/16		101 %	80 - 120
		Total Thorium (Th)	2007/07/16		103 %	75 - 125
		Total Tin (Sn)	2007/07/16		99 %	75 - 125
		Total Titanium (Ti)	2007/07/16		99 %	75 - 125
		Total Tungsten (W)	2007/07/16		98 %	75 - 125
		Total Uranium (U)	2007/07/16		103 %	80 - 120
		Total Vanadium (V)	2007/07/16		104 %	80 - 120
		Total Zinc (Zn)	2007/07/16		101 %	80 - 120
		Total Zirconium (Zr)	2007/07/16		100 %	75 - 125
	Spiked Blank	Total Aluminum (Al)	2007/07/16		93 %	80 - 120
		(/				220



Attention: Paul Brugger

Client Project #: SURFACEWATER

P.O. #:

Project name: CULLATON LAKE

#### **Quality Assurance Report (Continued)**

QA/QC			Date			
Batch			Analyzed			
Num Init	QC Type	Parameter	yyyy/mm/dd	Value Recovery	Units	QC Limits
1299645 JBW	Spiked Blank	Total Antimony (Sb)	2007/07/16	106	%	82 - 120
		Total Arsenic (As)	2007/07/16	102	%	86 - 119
		Total Barium (Ba)	2007/07/16	100	%	83 - 115
		Total Beryllium (Be)	2007/07/16	102	%	85 - 132
		Total Bismuth (Bi)	2007/07/16	100	%	78 - 120
		Total Boron (B)	2007/07/16	94	%	78 - 133
		Total Cadmium (Cd)	2007/07/16	103	%	85 - 116
		Total Calcium (Ca)	2007/07/16	97	%	75 - 125
		Total Chromium (Cr)	2007/07/16	103	%	80 - 120
		Total Cobalt (Co)	2007/07/16	102	%	82 - 117
		Total Copper (Cu)	2007/07/16	99	%	80 - 117
		Total Iron (Fe)	2007/07/16	104	%	80 - 120
		Total Lead (Pb)	2007/07/16	98	%	80 - 120
		Total Lithium (Li)	2007/07/16	97	%	86 - 131
		Total Magnesium (Mg)	2007/07/16	93	%	80 - 120
		Total Manganese (Mn)	2007/07/16	101	%	80 - 120
		Total Molybdenum (Mo)	2007/07/16	103	%	82 - 117
		Total Nickel (Ni)	2007/07/16	100	%	81 - 117
		Total Potassium (K)	2007/07/16	95	%	75 - 125
		Total Selenium (Se)	2007/07/16	101	%	82 - 118
		Total Silicon (Si)	2007/07/16	93	%	67 - 140
		Total Silver (Àg)	2007/07/16	98	%	80 - 120
		Total Sodium (Na)	2007/07/16	97	%	75 - 12
		Total Strontium (Sr)	2007/07/16	102	%	83 - 12
		Total Tellurium (Te)	2007/07/16	102	%	80 - 110
		Total Thallium (TI)	2007/07/16	100	%	80 - 129
		Total Thorium (Th)	2007/07/16	100	%	80 - 12
		Total Tin (Sn)	2007/07/16	104	%	83 - 119
		Total Titanium (Ti)	2007/07/16	105	%	60 - 12
		Total Tungsten (W)	2007/07/16	102	%	81 - 123
		Total Uranium (U)	2007/07/16	100	%	82 - 120
		Total Vanadium (V)	2007/07/16	103	%	82 - 118
		Total Zinc (Zn)	2007/07/16	101	%	80 - 120
		Total Zirconium (Zr)	2007/07/16	105	%	84 - 118
	Method Blank	Total Aluminum (Al)	2007/07/16	ND, RDL=5	ug/L	04 - 110
	Welliou Dialik	Total Antimony (Sb)	2007/07/16	ND, RDL=0.5	ug/L ug/L	
		Total Aritmony (Ob)	2007/07/16	ND, RDL=1	ug/L	
		Total Barium (Ba)	2007/07/16	ND, RDL=5	ug/L	
		Total Bandin (Ba) Total Beryllium (Be)	2007/07/16	ND, RDL=0.5	ug/L ug/L	
		Total Bismuth (Bi)	2007/07/16	ND, RDL=0.5	ug/L ug/L	
		Total Boron (B)	2007/07/16		-	
		( )		ND, RDL=10	ug/L	
		Total Cadmium (Cd)	2007/07/16	ND, RDL=0.1	ug/L	
		Total Calcium (Ca)	2007/07/16	ND, RDL=200	ug/L	
		Total Chromium (Cr)	2007/07/16	ND, RDL=5	ug/L	
		Total Cobalt (Co)	2007/07/16	ND, RDL=0.5	ug/L	
		Total Copper (Cu)	2007/07/16	1, RDL=1	ug/L	
		Total Iron (Fe)	2007/07/16	ND, RDL=50	ug/L	
		Total Lead (Pb)	2007/07/16	ND, RDL=0.5	ug/L	
		Total Lithium (Li)	2007/07/16	ND, RDL=5	ug/L	
		Total Magnesium (Mg)	2007/07/16	ND, RDL=50	ug/L	
		Total Manganese (Mn)	2007/07/16	ND, RDL=2	ug/L	
		Total Molybdenum (Mo)	2007/07/16	ND, RDL=1	ug/L	
		Total Nickel (Ni)	2007/07/16	ND, RDL=1	ug/L	
		Total Potassium (K)	2007/07/16	ND, RDL=200	ug/L	
		Total Selenium (Se)	2007/07/16	ND, RDL=2	ug/L	



Attention: Paul Brugger

Client Project #: SURFACEWATER

P.O. #:

Project name: CULLATON LAKE

#### Quality Assurance Report (Continued)

Maxxam Job Number: MA770020

QA/QC			Date			
Batch			Analyzed			
Num Init	QC Type	Parameter	yyyy/mm/dd	Value Recovery	Units	QC Limits
1299645 JBW	Method Blank	Total Silicon (Si)	2007/07/16	ND, RDL=50	ug/L	
		Total Silver (Ag)	2007/07/16	ND, RDL=0.1	ug/L	
		Total Sodium (Na)	2007/07/16	ND, RDL=100	ug/L	
		Total Strontium (Sr)	2007/07/16	ND, RDL=1	ug/L	
		Total Tellurium (Te)	2007/07/16	ND, RDL=1	ug/L	
		Total Thallium (TI)	2007/07/16	ND, RDL=0.05	ug/L	
		Total Thorium (Th)	2007/07/16	ND, RDL=1	ug/L	
		Total Tin (Sn)	2007/07/16	ND, RDL=1	ug/L	
		Total Titanium (Ti)	2007/07/16	ND, RDL=5	ug/L	
		Total Tungsten (W)	2007/07/16	ND, RDL=1	ug/L	
		Total Uranium (U)	2007/07/16	ND, RDL=0.1	ug/L	
		Total Vanadium (V)	2007/07/16	ND, RDL=1	ug/L	
		Total Zinc (Zn)	2007/07/16	ND, RDL=5	ug/L	
		Total Zirconium (Zr)	2007/07/16	ND, RDL=1	ug/L	
	RPD	Total Aluminum (AI)	2007/07/16	25.3 (2)	%	25
	THE D	Total Antimony (Sb)	2007/07/16	NC	%	25
		Total Arsenic (As)	2007/07/16	NC	%	25
		Total Barium (Ba)	2007/07/16	1.2	% %	25
		Total Beryllium (Be)	2007/07/16	NC	% %	25 25
		Total Bismuth (Bi)	2007/07/16	NC NC	%	25 25
		` ,		3.1		
		Total Boron (B)	2007/07/16	***	%	25
		Total Cadmium (Cd)	2007/07/16	NC	%	25
		Total Calcium (Ca)	2007/07/16	1	%	25
		Total Chromium (Cr)	2007/07/16	NC	%	25
		Total Cobalt (Co)	2007/07/16	NC	%	25
		Total Copper (Cu)	2007/07/16	NC	%	25
		Total Iron (Fe)	2007/07/16	NC	%	25
		Total Lead (Pb)	2007/07/16	NC	%	25
		Total Lithium (Li)	2007/07/16	NC	%	25
		Total Magnesium (Mg)	2007/07/16	1.9	%	25
		Total Manganese (Mn)	2007/07/16	5.0	%	25
		Total Molybdenum (Mo)	2007/07/16	NC	%	25
		Total Nickel (Ni)	2007/07/16	NC	%	25
		Total Potassium (K)	2007/07/16	2.5	%	25
		Total Selenium (Se)	2007/07/16	NC	%	25
		Total Silicon (Si)	2007/07/16	3.7	%	25
		Total Silver (Ag)	2007/07/16	NC	%	25
		Total Sodium (Na)	2007/07/16	2.7	%	25
		Total Strontium (Śr)	2007/07/16	2.4	%	25
		Total Tellurium (Te)	2007/07/16	NC	%	25
		Total Thallium (TI)	2007/07/16	NC	%	25
		Total Thorium (Th)	2007/07/16	NC	%	25
		Total Tin (Sn)	2007/07/16	NC	%	25
		Total Titanium (Ti)	2007/07/16	NC	%	25
		Total Tungsten (W)	2007/07/16	NC	%	25
		Total Transium (U)	2007/07/16	4.1	%	25 25
		Total Vanadium (V)	2007/07/16	NC	% %	25
		Total Zinc (Zn)	2007/07/16	NC NC	% %	25 25
		Total Zinc (Zn) Total Zirconium (Zr)	2007/07/16	NC NC	% %	25 25
1201270 CD4	DDD IT34077 001	` ,			% %	
1301218 CPA	RPD [T34977-03]	Acidity as CaC03	2007/07/17	NC	70	25

ND = Not detected

N/A = Not Applicable

NC = Non-calculable

RPD = Relative Percent Difference

QC Standard = Quality Control Standard





Attention: Paul Brugger

Client Project #: SURFACEWATER

P.O. #:

Project name: CULLATON LAKE

#### Quality Assurance Report (Continued)

Maxxam Job Number: MA770020

#### SPIKE = Fortified sample

- (1) The recovery in the matrix spiked sample was not calculated. Because of the high concentration of this compound in the parent sample, the relative difference between the spiked and un-spiked concentrations is not sufficiently significant to permit a reliable recovery calculation.
- (2) Duplicate results for QC batch 1299645 exceeded RPD acceptance criteria. This is likely due to sample heterogeneity.



## Validation Signature Page

#### Maxxam Job #: A770020

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Clistina News

CHRISTINA NERVO, Scientific Services

Eva Pranje S

EWA PRANJIC, M.Sc., C.Chem, Scientific Specialist

TROY CARRIER RECORDERS

TROY CARRIERE, B.Sc., C.Chem, Scientific Specialist

WAYNE LIANG, B.Eng, EFT, Senior Project Manager

Movement has presenting in place to good excited improper use of the electronic signature and have the pro-

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

# Cullaton Lake Water Quality Monitoring Results 2001- 2007

**CULLATON LAKE MINE** 

#### WATER ANALYSIS REPORT

#### STATION 940-02A - TAILNGS POND NO. 1 DISCHARGE, JULY 2007

Physical and General	Units	Water	CCME	July 26	July 3	July 29	July 7	Aug 5	Aug 2	July 5	MINIMUM	MAXIMUM	AVERAGE
		License	Guidelines	2001	2002	2003	2004	2005	2006	2007			
pH (lab)	units	6.0 - 9.5	6.5-9.0	8.00	7.81	8.07	7.77	7.8	8.0	7.7	7.77	8.07	7.91
Temperature	°C			21.6	14.1	21.0	15.3	NR	14.5	15.2	14.1	21.6	17.3
Suspended Solids (105°C)	mg/L	25.0		4	< 3	< 3	< 3	14	< 1	< 10	< 1	14	< 5
Total Cyanide	mg/L	0.80		0.015	0.009	< 0.005	< 0.0050	0.006	< 0.005	< 0.005	< 0.005	0.015	< 0.008
Total Hardness	mg CaCO3/L						197	199	210	220	197	210	202
Minor Cations													
Arsenic	mg/L	0.30	0.005	0.0025	0.0022	0.0025	0.00159	0.003	0.0018	0.0021	0.00159	0.003	0.0023
Copper	mg/L	0.20	0.004	0.002	0.002	0.002	0.0014	0.002	0.001	0.001	0.001	0.002	0.002
Lead	mg/L	0.20	0.007	0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0009
Mercury	mg/L		0.0002	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.0001
Nickel	mg/L	0.30	0.150	< 0.02	0.003	0.001	< 0.020	< 0.002	< 0.001	0.002	0.001	< 0.020	< 0.008
Zinc	mg/L	0.30	0.030	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.005	< 0.005	< 0.003	< 0.005	< 0.005

( ) Laboratory replicate.

[ ] Results re-checked.

(E) Not analyzed

**CULLATON LAKE MINE** 

#### WATER ANALYSIS REPORT

#### STATION 940-03A - TAILNGS POND NO. 2 DISCHARGE, JULY 2007

Physical and General	Units	Water	CCME	July 26	July 3	July 29	July 7	Aug 5	Aug 2	July 5	MINIMUM	MAXIMUM	AVERAGE
		License	Guidelines	2001	2002	2003	2004	2005	2006	2007			
pH (lab)	units	6.0 - 9.5	6.5-9.0	8.03	8.05	8.07	7.96	7.7	7.9	7.8	7.7	8.07	7.95
Temperature	°C			21.6	15.7	20.8	19.3	NR	17.4	13.7	15.7	21.6	19.0
Suspended Solids (105°C)	mg/L	25.0		< 3	< 3	5	< 3	2	2	< 10	< 2	5	< 3
Total Cyanide	mg/L	0.80		0.035	0.010	0.010	0.0072	< 0.0020	< 0.005	< 0.005	< 0.002	0.035	< 0.012
Total Hardness	mg CaCO3/L						92.4	100	90	88	90	100	94
Minor Cations													
Arsenic	mg/L	0.30	0.005	0.0042	0.0032	0.0059	0.00305	0.004	0.0037	0.0055	0.0032	0.0059	0.0040
Copper	mg/L	0.20	0.002	0.003	0.003	0.003	0.0043	0.020	0.004	0.006	< 0.003	0.020	< 0.003
Lead	mg/L	0.20	0.002	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0009
Mercury	mg/L		0.0002	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.0001
Nickel	mg/L	0.30	0.065	< 0.02	0.003	0.004	< 0.020	0.003	0.005	0.005	0.003	< 0.020	< 0.010
Zinc	mg/L	0.30	0.030	< 0.005	< 0.005	< 0.005	< 0.005	0.015	< 0.005	< 0.005	< 0.005	0.015	< 0.005

( ) Laboratory replicate.

[ ] Results re-checked.

(E) Not analyzed

**CULLATON LAKE MINE** 

## WATER ANALYSIS REPORT

#### STATION 940-18A - TAILNGS POND NO. 1 SPILLWAY, JULY 2007

Physical and General	Units	Water	CCME	July 26	July 3	July 29	July 7	Aug 5	Aug 2	July 5	MINIMUM	MAXIMUM	AVERAGE
		License	Guidelines	2001	2002	2003	2004	2005	2006	2007			
pH (lab)	units	6.0 - 9.5	6.5-9.0	8.10	7.86	8.87	7.89	8.1	8.4	7.8	7.86	8.87	8.20
Temperature	°C			21.5	14.2	20.5	18.5	NR	21.4	15.2	14.2	21.5	19.2
Suspended Solids (105°C)	mg/L	25.0		< 3	< 3	4	< 3	< 2	3	< 10	< 2	4	< 3
Total Cyanide	mg/L	0.80		0.009	0.008	0.009	0.0096	0.004	0.037	0.005	0.004	0.037	0.013
Total Hardness	mg CaCO3/L						217	200	210	230	200	217	209
Minor Cations													
Arsenic	mg/L	0.30	0.005	0.0023	0.0021	0.0029	0.00165	0.002	0.0055	0.0023	0.00165	0.006	0.00274
Copper	mg/L	0.20	0.004	0.002	0.001	0.002	0.0018	0.001	0.005	0.002	0.001	0.005	0.002
Lead	mg/L	0.20	0.007	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0009
Mercury	mg/L		0.0002	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.0001
Nickel	mg/L	0.30	0.150	< 0.02	0.002	0.001	< 0.020	< 0.002	0.002	0.001	0.001	< 0.02	< 0.008
Zinc	mg/L	0.30	0.030	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.005	< 0.005	< 0.003	< 0.005	< 0.005

( ) Laboratory replicate.

[ ] Results re-checked.

(E) Not analyzed

**CULLATON LAKE MINE** 

#### WATER ANALYSIS REPORT

#### STATION 940-19A - TAILNGS POND NO. 1 AT PIEZOMETER LOCATION JULY 2007

Physical and General	Units	NWB Water	CCME	July 26	July 3	July 29	July 7	Aug 5	Aug 2	July 5	MINIMUM	MAXIMUM	AVERAGE
		License	Guidelines	2001	2002	2003	2004	2005	2006	2007			
pH (lab)	units	6.0 - 9.5	6.5-9.0	8.11	7.89	8.08	7.69	7.9	7.9	7.8	7.69	8.11	7.93
Temperature	°C			22.0	12.7	20.8	16.3	NR	15.4	15.3	12.7	22.0	17.4
Suspended Solids (105°C)	mg/L	25.0		< 3	< 3	8	< 3	2	< 1	< 10	< 1	8	< 3
Total Cyanide	mg/L	0.80		0.010	0.012	< 0.005	0.0074	0.006	< 0.005	< 0.005	< 0.005	0.012	< 0.008
Total Hardness	mg CaCO3/L						206	201	210	220	201	210	206
Minor Cations													
Arsenic	mg/L	0.30	0.005	0.0024	0.0030	0.0036	0.00209	0.002	0.0019	0.0016	0.002	0.0036	0.0025
Copper	mg/L	0.20	0.004	0.002	0.002	0.002	0.0015	0.002	0.001	0.001	0.001	0.002	0.002
Lead	mg/L	0.20	0.007	< 0.001	0.001	< 0.001	< 0.0010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0009
Mercury	mg/L		0.0002	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.0001
Nickel	mg/L	0.30	0.150	< 0.02	0.003	0.002	< 0.020	< 0.002	< 0.001	0.002	< 0.001	< 0.02	< 0.008
Zinc	mg/L	0.30	0.030	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.005	< 0.005	< 0.003	< 0.005	< 0.005

( ) Laboratory replicate.

[ ] Results re-checked.

(E) Not analyzed

**CULLATON LAKE MINE** 

#### WATER ANALYSIS REPORT

## STATION 940-20A - TAILNGS POND NO. 1 EAST SIDE SEEPAGE, JULY 2007

Physical and General	Units	Water	CCME	July 26	July 3	July 29	July 7	Aug 5	Aug 2	July 5	MINIMUM	MAXIMUM	AVERAGE
		License	Guidelines	2001	2002	2003	2004	2005	2006	2007			
pH (lab)	units	6.0 - 9.5	6.5-9.0	8.43	D	D	8.13	7.8	8.1	8.2	7.8	8.43	8.12
Temperature	°C			24.3	D	D	21.3	NR	22.0	17.9	21.3	24.3	22.5
Suspended Solids (105°C)	mg/L	25.0		5	D	D	< 3	< 2	1	< 10	< 1	5	< 3
Total Cyanide	mg/L	0.80		0.019	D	D	0.0104	0.118	< 0.005	< 0.005	< 0.005	0.118	< 0.038
Total Hardness	mg CaCO3/L						310	338	220	620	220	338	289
Minor Cations													
Arsenic	mg/L	0.30	0.005	0.0028	D	D	0.00297	0.001	0.0044	0.0052	0.001	0.004	0.003
Copper	mg/L	0.20	0.004	0.005	D	D	0.0041	0.004	0.004	0.005	0.004	0.005	0.004
Lead	mg/L	0.20	0.007	< 0.001	D	D	< 0.0010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0009
Mercury	mg/L		0.0002	< 0.00005	D	D	< 0.00005	< 0.0001	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.0001
Nickel	mg/L	0.30	0.150	< 0.02	D	D	< 0.020	0.015	0.006	0.008	0.006	< 0.02	< 0.015
Zinc	mg/L	0.30	0.030	< 0.005	D	D	< 0.005	< 0.003	< 0.005	< 0.005	< 0.003	< 0.005	< 0.005

( ) Laboratory replicate. [ ] Results re-checked. D Dry

**CULLATON LAKE MINE** 

#### **WATER ANALYSIS REPORT**

## STATION 940-22A - TAILNGS POND NO. 1 NORTH SIDE SEEPAGE, JULY 2007

Physical and General	Units	Water	CCME	July 26	July 3	July 29	July 7	Aug 5	Aug 2	July 5	MINIMUM	MAXIMUM	AVERAGE
		License	Guidelines	2001	2002	2003	2004	2005	2006	2007			
pH (lab)	units	6.0 - 9.5	6.5-9.0	D	D	D	D	7.7	D	D	7.7	7.7	7.7
Temperature	°C			D	D	D	D	NR	D	D	NR	NR	NR
Suspended Solids (105°C)	mg/L	25.0		D	D	D	D	6	D	D	6	6	6
Total Cyanide	mg/L	0.80		D	D	D	D	0.073	D	D	0.073	0.073	0.073
Total Hardness	mg CaCO3/L			D	D	D	D	515	D	D	515	515	515
Minor Cations													
Arsenic	mg/L	0.30	0.005	D	D	D	D	0.001	D	D	0.001	0.001	0.001
Copper	mg/L	0.20	0.004	D	D	D	D	0.004	D	D	0.004	0.004	0.004
Lead	mg/L	0.20	0.007	D	D	D	D	< 0.001	D	D	< 0.001	< 0.001	< 0.001
Mercury	mg/L		0.0002	D	D	D	D	< 0.0001	D	D	< 0.0001	< 0.0001	< 0.0001
Nickel	mg/L	0.30	0.150	D	D	D	D	0.045	D	D	0.045	0.045	0.045
Zinc	mg/L	0.30	0.030	D	D	D	D	< 0.010	D	D	< 0.010	< 0.010	< 0.010

( ) Laboratory replicate.

[ ] Results re-checked.

D Dry

**CULLATON LAKE MINE** 

#### **WATER ANALYSIS REPORT**

## STATION 940-22A - TAILNGS POND NO. 1 NORTH SIDE SEEPAGE, JULY 2007

Physical and General	Units	Water	CCME	July 26	July 3	July 29	July 7	Aug 5	Aug 2	July 5	MINIMUM	MAXIMUM	AVERAGE
		License	Guidelines	2001	2002	2003	2004	2005	2006	2007			
pH (lab)	units	6.0 - 9.5	6.5-9.0	D	D	D	D	7.7	D	D	7.7	7.7	7.7
Temperature	°C			D	D	D	D	NR	D	D	NR	NR	NR
Suspended Solids (105°C)	mg/L	25.0		D	D	D	D	6	D	D	6	6	6
Total Cyanide	mg/L	0.80		D	D	D	D	0.073	D	D	0.073	0.073	0.073
Total Hardness	mg CaCO3/L			D	D	D	D	515	D	D	515	515	515
Minor Cations													
Arsenic	mg/L	0.30	0.005	D	D	D	D	0.001	D	D	0.001	0.001	0.001
Copper	mg/L	0.20	0.004	D	D	D	D	0.004	D	D	0.004	0.004	0.004
Lead	mg/L	0.20	0.007	D	D	D	D	< 0.001	D	D	< 0.001	< 0.001	< 0.001
Mercury	mg/L		0.0002	D	D	D	D	< 0.0001	D	D	< 0.0001	< 0.0001	< 0.0001
Nickel	mg/L	0.30	0.150	D	D	D	D	0.045	D	D	0.045	0.045	0.045
Zinc	mg/L	0.30	0.030	D	D	D	D	< 0.010	D	D	< 0.010	< 0.010	< 0.010

( ) Laboratory replicate.

[ ] Results re-checked.

D Dry

**CULLATON LAKE MINE** 

#### **WATER ANALYSIS REPORT** STATION 940-23A - QUARRY PIT, JULY 2007

Physical and General	Units	Water	CCME	July 26	July 3	July 29	July 7	Aug 5	Aug 2	July 5	MINIMUM	MAXIMUM	AVERAGE
		License	Guidelines	2001	2002	2003	2004	2005	2006	2007			
pH (lab)	units	6.0 - 9.5	6.5-9.0	D	7.82	8.07	7.56	7.8	8.1	7.7	7.56	8.1	7.87
Temperature	°C			D	12.7	20.7	15.7	NR	15.5	14.4	12.7	20.7	16.2
Suspended Solids (105°C)	mg/L	25.0		D	< 3	10	< 3	4	1	< 10	1	10	4
Total Cyanide	mg/L	0.80		D	< 0.005	< 0.006	< 0.0050	< 0.002	< 0.005	< 0.005	< 0.002	< 0.006	< 0.005
Total Hardness	mg CaCO3/L						37.9	104	120	78	37.9	120	87.3
Minor Cations													
Arsenic	mg/L	0.30	0.005	D	0.0020	0.0019	0.00096	0.002	0.0014	0.0011	0.00096	0.002	0.002
Copper	mg/L	0.20	0.003	D	0.003	0.002	< 0.0010	0.002	0.002	< 0.001	< 0.0010	0.003	< 0.002
Lead	mg/L	0.20	0.002	D	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0009
Mercury	mg/L		0.0002	D	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.0001
Nickel	mg/L	0.30	0.065	D	0.003	0.002	< 0.020	0.002	0.002	0.001	0.002	< 0.020	< 0.006
Zinc	mg/L	0.30	0.030	D	0.008	0.007	0.0087	0.065	0.012	0.006	0.007	0.065	0.020

( ) Laboratory replicate.[ ] Results re-checked.

(E) Not analyzed

**CULLATON LAKE MINE** 

#### **WATER ANALYSIS REPORT**

## STATION 940-24A - AREA OF SEEPAGE FROM QUARY PIT TO TAILINGS POND, JULY 2007

Physical and General	Units	Water	CCME	July 26	July 3	July 29	July 7	Aug 5	Aug 2	July 5	MINIMUM	MAXIMUM	AVERAGE
		License	Guidelines	2001	2002	2003	2004	2005	2006	2007			
pH (lab)	units	6.0 - 9.5	6.5-9.0	D	D	D	D	D	D	D			
Temperature	°C			D	D	D	D	D	D	D			
Suspended Solids (105°C)	mg/L	25.0		D	D	D	D	D	D	D			
Total Cyanide	mg/L	0.80		D	D	D	D	D	D	D			
Total Hardness	mg CaCO3/L			D	D	D	D	D	D	D			
Oil and Grease	mg/L	Visible		D	D	D	D	D	D	D			
Minor Cations													
Arsenic	mg/L	0.30	0.005	D	D	D	D	D	D	D			
Copper	mg/L	0.20	0.004	D	D	D	D	D	D	D			
Lead	mg/L	0.20	0.007	D	D	D	D	D	D	D			
Mercury	mg/L		0.0002	D	D	D	D	D	D	D			
Nickel	mg/L	0.30	0.150	D	D	D	D	D	D	D			
Zinc	mg/L	0.30	0.030	D	D	D	D	D	D	D			

( ) Laboratory replicate.

[ ] Results re-checked.

D: Dry

**CULLATON LAKE MINE** 

#### **WATER ANALYSIS REPORT**

#### STATION 940-27A - AREA OF SEEPAGE FROM EWR TO SHEAR LAKE CREEK (1), JULY 2007

Physical and General	Units	Water	CCME	July 26	July 3	July 29	July 7	Aug 5	Aug 2	July 5	MINIMUM	MAXIMUM	AVERAGE
		License	Guidelines	2001	2002	2003	2004	2005	2006	2007			
pH (lab)	units	6.0 - 9.5	6.5-9.0					D	D	D			
Temperature	°C							D	D	D			
Suspended Solids (105°C)	mg/L	25.0						D	D	D			
Total Cyanide	mg/L	0.80						D	D	D			
Total Hardness	mg CaCO3/L							D	D	D			
Sulphate	mg/L							D	D	D			
Minor Cations													
Arsenic	mg/L	0.30	0.005					D	D	D			
Copper	mg/L	0.20	0.004					D	D	D			
Lead	mg/L	0.20	0.007					D	D	D			
Mercury	mg/L		0.0002					D	D	D			
Nickel	mg/L	0.30	0.150					D	D	D			
Zinc	mg/L	0.30	0.030					D	D	D			

(1)	Station	added	in	2005

D: Dry

<sup>(1)</sup> Station added in 2005( ) Laboratory replicate.

<sup>[ ]</sup> Results re-checked.

## Appendix 3 July 5, 2007 Thermistor Monitoring Results

## THERMISTOR MONITORING RESULTS Station 940-21 Temperature °C

## July 5, 2007 (See Note 1 below)

Depth (m)	T1 (°C)	T2 (°C)	T3 (°C)	T4 (°C)
0.3	18.78	18.78	16.29	16.88
8.0	8.89	7.93	17.19	10.32
1.3	4.53	5.18	12.83	6.67
1.8	0.16	3.05	7.38	0.65
2.3	-1.23	1.68	0.90	-1.56
2.8	-1.45	Error (87.72)	-20.89	-0.55

## August 2, 2006

Depth (m)	T1 (°C)	T2 (°C)	T3 (°C)	T4 (°C)
0.3	26.91	26.41	27.93	25.46
0.8	9.49	8.31	25.46	11.65
1.3	6.15	6.32	16.00	7.38
1.8	4.22	5.65	7.74	4.22
2.3	0.65	3.19	4.69	-0.89
2.8	-0.66	3.48	4.07	-0.43

## August 3, 2005

Depth (m)	T1 (°C)	T2 (°C)	T3 (°C)	T4 (°C)
0.3	18.45	20.16	22.03	20.52
0.8	12.34	10.75	20.89	10.11
1.3	7.38	7.56	13.32	7.56
1.8	3.48	5.82	8.12	2.62
2.3	-0.43	2.21	3.63	-1.56
2.8	-1.45	-0.43	No reading	-2.10

## July 7, 2004

Depth (m)	T1 (°C)	T2 (°C)	T3 (°C)	T4 (°C)
0.3	25.46	22.43	26.91	24.99
0.8	9.69	8.12	21.26	8.89
1.3	2.76	3.48	10.54	2.76
1.8	-0.66	0.16	2.62	-0.66
2.3	-2.10	-0.55	-0.78	-2.21
2.8	-3.23	-1.67	No reading	-1.89

#### Notes

(1) Test pit completed at T3 on July 5, 2007 found permafrost at 1.2m depth.

## Appendix 4 2008 Spill Response Plan

## CULLATON LAKE ENVIRONMENTAL SPILL RESPONSE PLAN

#### **COMPANY INFORMATION**

Cullaton Lake Gold Mines Ltd. is wholly owned by Barrick Gold Inc. The Barrick head office responsible for the site is located at:

Barrick Gold Inc. BCE Place, Canada Trust Tower, Suite 3700 161 Bay Street, P.O. Box 212 Toronto, Ontario M5J 2S1

The site manager is:

Paul Brugger,
Barrick Gold Inc.
171 Copper Cliff Road East
Neebing, Ontario
P7L 0B6

Phone: 807-964-1657 (Thunder Bay, Ontario)

Cell: 807-473-7947

e-mail: p.brugger@sympatico.ca

#### SITE LOCATION:

The Cullaton Lake property is located in the southern part of the District of Keewatin in the Nunavut Territory. The property is 250 km west of Arviat, NU, 400 km northwest of Churchill, Manitoba and 645 km north of Thompson, Manitoba.

#### **FACILITY:**

Cullaton Lake operated as an underground gold mine for four years from 1981 to 1985. Decommissioning and reclamation began in 1991 and was completed in 2001. By the end of 2001, all mine buildings had been removed, roads were decommissioned and the tailings impoundment area was reclaimed. No chemicals, fuels or reagents remain on site.

Remaining activities on the site consist of a one-day annual visit for inspection and monitoring purposes. The site is dormant and uninhabited for the remainder of the year.

#### SPILL CONTROL AND REPORTING PROCEDURES:

Should it be necessary to mobilize contractors to the site for any reason in the future, the contractor will be required to supply spill control and clean up materials, have a spill control plan and train personnel in spill response procedures.

Upon discovery of a spill, the person discovering the spill will take the following actions:

#### **INITIAL ACTIONS:**

- a. Stop the flow if possible.
- b. Eliminate open flame ignition sources (i.e. extinguish cigarettes, shut off motors (from a remote location if surrounded by vapours).
- c. Contain flow of fuel by dyking, barricading or blocking flow by any means available. Use earth-moving equipment if available. A dam made of earth or other available fill can be quickly constructed to contain and prevent a spill from spreading. If the ground is permeable, it may be necessary to excavate a shallow depression and line it with plastic to prevent the oil from seeping away.

#### **ACTION IN CASE OF FIRE:**

- a. Use C0<sub>2</sub>, dry chemical, foam or water spray (fog), although water may spread the fire.
- b. Use jet streams to wash away burning gasoline.
- c. Use fog streams to protect any rescue team and trapped people.
- d. Use water to cool surface of tanks.
- e. Divert the oil or gasoline to an open area and let it burn off under control. If the fire is put out before all the fuel is consumed, beware of re-ignition. Rubber tires are almost impossible to extinguish after involvement with a fire. Have vehicles with burning tires removed from the danger area.

#### **RECOVERY PROCEDURE:**

- a. Unburned oil or gasoline can be soaked up by sand and peat moss, or by commercial absorbents such as Graboil.
- If necessary, contaminated soil should be excavated and disposed of as per the following section.
- c. Fuel entering the ground can be recovered by digging sumps or trenches.

#### DISPOSAL:

- a. Evaporation may be used if appropriate.
- b. Disposal as per the approved Abandonment and Restoration (1996) Plan.

#### **REPORTING:**

An individual discovering a spill must report it as soon as possible to the 24 hour Spill Report Line by calling:

## (867) 920-8130

- (1) A person reporting a spill shall give as much of the following information as possible:
  - date and time of spill
  - location of spill
  - direction spill is moving
  - name and phone number of a contact person close to the location of the spill
  - type and description of contaminant spilled including an estimate of the quantity
  - cause of spill
  - status of spill (i.e. continuing or stopped)
  - action taken to contain, recover, clean-up, and dispose of contaminant
  - name, address and phone number of person reporting the spill
  - name of owner, or person in charge or control of contaminant at time of spill
- (2) No person shall delay reporting a spill because of lack of knowledge of the factors listed in subsection (1).
- (1) The person reporting the spill shall also contact:
- INAC Water Resources Inspector at: (867) 975-4295
- Environment Canada at (867) 975-4644 and emergency pager (867) 920-5131
- Government of Nunavut Environmental Protection at (867) 857-2828
- Kivalliq Inuit Association at (867) 645-2810 or 1-800-220-6541 Contact Stephen Hartman
- If required:
  - RCMP Arviat at (867) 857-0123
  - Arviat Hospital at (867) 857-3100
  - Arviat Fire Response at (867) 857-2538
- (4) Barrick Gold Corporation:

Paul Brugger, Site Manager

Phone: **807-964-1657** Cell: 807-473-7947

Alternate: Bill Ferdinand

Director, Environment, Health and Safety,

North American Region Phone: **801-990-3746** 

Cell: 801-244-3540