Bonito Capital Corp.

A wholly owned subsidiary of Elgin Mining Inc.

Ulu Gold Project

Nunavut, Canada

Quality Assurance and Quality Control Plan

Water Quality Sampling
June 2014

Bonito Capital Corp.
Elgin Mining Inc.
#1204 – 700 West Pender Street,
Vancouver, BC V6C 1G8

Executive Summary English

This Quality Assurance and Quality Control Plan (Plan) has been prepared by Bonito Capital Corporation (BCC), a wholly owned subsidiary of Elgin Mining Inc. (Elgin) for the Ulu Gold Project in accordance with its Water Licence 2BM-ULU0914 (Licence). The Project site is located in the Kitikmeot region of Nunavut approximately 12 km north of Hood River and 150 km north of Lupin Mine and has been in a state of care and maintenance since 2006.

This QA/QC plan has been developed as a standardized procedure for water quality sampling, laboratory analysis, and reporting to ensure precision of the data, confidence in the results, and accuracy in the reporting. This plan is in accordance with the Aboriginal Affairs and Northern Development Canada (1996) Quality Assurance (QA) and Quality Control (QC) Guidelines for Use by Class "A" Licensees in Meeting SNP Requirements and for Submission of a QA/QC Plan.

Executive Summary Inuktitut



Executive Summary Inuinnaqtun

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1. Introduction

Bonito Capital Corp. (BCC), a wholly owned subsidiary of Elgin Mining Inc. (Elgin), has prepared this Quality Assurance Quality Control Plan (QA/QC Plan) with respect to the requirements within Water Licence Number 2BM-ULU0914 (Licence), Part J, Item 8 which states:

"The Licensee shall, within ninety (90) days following issuance of the Licence, submit to the Board a Quality Assurance/Quality Control (QA/QC) Plan. The Plan shall be include up to date field sampling methods to all applicable standards, acceptable to an accredited laboratory as required by Part J, Item 6 and Part J, Item 7. The Plan shall include a covering letter from the accredited laboratory confirming acceptance of the Plan for analyses to be performed under this Licence."

The QA/QC Plan includes both field and laboratory requirements required to meet the water quality monitoring program in the Licence. The QA/QC plan has been developed as a standardized procedure for water quality sampling, laboratory analysis, and reporting to ensure precision of the data, confidence in the results, and accuracy in the reporting. This plan is in accordance with the Indian and Northern Affairs Canada's (1996) Quality Assurance (QA) and Quality Control (QC) Guidelines for Use by Class "A" Licensees in Meeting SNP Requirements and for Submission of a QA/QC Plan. The guide defines QA and QC as follows:

Quality Assurance: is the system of activities designed to better ensure that quality control is done

effectively.

Quality Control: is the use of established procedures to achieve standards of measurement for

the three principal components of quality: precision, accuracy and reliability.

2. Background

Elgin is a Canadian based company focused on the production at the Björkdal Gold Mine located in Sweden, and the exploration and development of the Lupin Mine and Ulu Gold Project, both located in Nunavut, Canada.

Elgin purchased BCC, which owns the Ulu Gold Project, from MMG Resources Ltd. in July 2011. The Project site lease was purchased by Echo Bay Mines Ltd. from BHP in 1995 with the intent to develop the property into a satellite mine for additional feed to the Lupin mill. An underground development, diamond drilling and bulk sample program was initiated in 1996 to provide infill geological information. Wolfden Resources Inc. purchased the Ulu Project from Kinross Gold Corporation in February 2004, and Zinifex purchased Wolfden in 2007. In June 2008, Zinifex merged with Oxiana Limited to form OZ Minerals. The assets of OZ Minerals were then purchased by China Minmetals resulting in OZ Minerals

becoming MMG Resources Inc. ("MMG"). MMG subsequently sold the Ulu exploration project to Elgin Mining Inc. in July 2011. The project has been in care and maintenance since 2006.

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Project: Ulu Gold Project, Nunavut

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Attention: George Friesen Effective date: June, 2014

Additional copies of this QA/QC Plan are available from BCC, General Administration at 604-682-3366 or klewis@elginmining.com.

All employees and contractors involved with water sampling will be made aware of the QA/QC Plan contents.

3. Water Quality Monitoring Program

There are twelve (12) water quality monitoring stations located throughout the Project site to monitor water quality at the location of effluent discharges, portal, containment facilities, runoff from rock piles, and within both East and Ulu Lakes (Table 1 and Appendix A). These water quality sampling stations must be sampled, analyzed, and meet the effluent quality requirements set under the Licence. However, not all monitoring stations are active, and sampling is often dependent on the availability of sufficient water for collection and level of activity at the site. For example, monitoring stations ULU-5 and ULU-6 are not active as the corresponding collection ponds have not been built. In addition, runoff is not always present from the rock piles during periods of sampling, and the water intake and sewage treatment plant are only operational when the site is active with sufficient occupancy to operate the facilities. Table 1 provides the sampling stations, description of location, sampling frequency and parameters to be analyzed.

Table 1: Water Quality Monitoring Program

| Station Number | Description | Sample Frequency during | Sample Frequency during Site | Analysis Requirements |
|-------------------|--|---|---|---|
| | | Active Site | Inactivity | |
| ULU-1 | Water Intake at West Lake. | Daily Volume; Water quality parameters twice during open water period when water has been sourced from West Lake. | Daily Volume if in use; Water quality parameters twice during open water period when water has been sourced from West Lake. | Volume (m3) Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH |
| ULU-2 | Sewage Effluent Discharge Point at East Lake or to land with indirect flow to East Lake. | Monthly | Monthly if in use. | Volume (m3) Fecal Coliforms Total Suspended Solids BOD5 pH Total Phosphorous Total Dissolved Phosphorus Total Nitrogen Nitrate Nitrite Total Kjedahl Nitrogen |
| ULU-3 | Sludge removed from Sewage Treatment Facility. | Monthly | When sludge removal occurs. | Volume (m3) Chemical characterization required to determine suitable disposal method for Sludge. |
| ULU-4 | Minewater pumped from Portal area and underground Mine Sump. | Monthly | When pumping occurs. | Volume (m3) |

| Station | Description | Sample | Sample Frequency | Analysis |
|---|----------------------------------|---|--|--|
| Number | | Frequency during | during Site | Requirements |
| | | Active Site | Inactivity | |
| ULU-4b | Surface Retention Pond. | Prior to discharge | Prior to discharge. | Volume (m3) Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Conductivity Chloride Sodium Calcium |
| ULU-5 (currently inactive, pond not constructed) | Settling/ Neutralization Pond 1. | Monthly during open water season. Prior to discharge and weekly during discharge. | Twice annually during open water season. Prior to discharge. | Volume (m3) Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Conductivity Chloride Sodium Calcium |
| ULU-6 (currently inactive, pond not constructed) | Settling/ Neutralization Pond 2. | Monthly during open water season. Prior to discharge and weekly during discharge. | Twice annually during open water season. Prior to discharge. | Volume (m3) Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Conductivity Chloride Sodium Calcium |

| Station | Description | Sample | Sample Frequency | Analysis |
|---------|--|---|---|--|
| Number | | Frequency during | during Site | Requirements |
| | | Active Site | Inactivity | |
| ULU-7 | Runoff from the waste rock storage area. | Monthly during periods of flow. | Twice annually during open water period if flow is present. | Volume (m3) Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Conductivity Chloride Sodium Calcium |
| ULU-8 | Runoff from the ore storage area. | Monthly during periods of flow. | Twice annually during open water period if flow is present. | Volume (m3) Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH |
| ULU-9 | Outflow East Lake. | Monthly during open water season. Weekly during open water season, if receiving discharge from ore runoff collection ponds. | Twice annually during open water period when discharge to East Lake is planned. | Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Fecal Coliforms |
| ULU-10 | Inflow Ulu Lake from East Lake. | Monthly during open water season, if flow present. | Twice annually during open water period when discharge to East Lake is planned. | Fecal Coliforms Total Suspended Solids BOD5 pH Total Phosphorus Total Dissolved Phosphorus Total Nitrogen Nitrate Nitrite Total Kjedahl Nitrogen |

| Station Number | Description | Sample Frequency during Active Site | Sample Frequency during Site Inactivity | Analysis Requirements |
|-------------------|-------------------|---|---|---|
| ULU-11 | Outflow Ulu Lake. | Monthly during open water season. Weekly during open water season, if receiving discharge from ore runoff collection ponds. | Twice annually during open water period when discharge to East Lake is planned. | Total Arsenic Total Copper Total Nickel Total Mercury Total Cadmium Total Lead Total Zinc Total Suspended Solids pH Fecal Coliforms |

The Licence details sampling and analysis requirements for each of the monitoring program stations. A copy of the Licence is available from the NWB public registry and at the Project site. All sampling, sample preservation, and analyses must be conducted in accordance with methods approved by an Analyst, and only laboratories approved by an Analyst may be used

As per the Licence, only six (6) monitoring stations must meet specific effluent quality criteria, which are outlined in the following two tables for ULU-2, and ULU 4b, 5,6,7,8 respectively:

Table 2: ULU-2 Effluent Quality Criteria

| Parameter | Maximum Concentration of any Grab Sample | |
|----------------|--|--|
| BOD5 (mg/L) | 30.0 | |
| TSS (mg/L) | 35.0 | |
| рН | 6.0 to 9.5 | |
| Oil and Grease | Visible Sheen | |

Table 3: ULU-4b, 5, 6, 7, 8 Effluent Quality Criteria

| Parameter | Maximum Average Concentration | Maximum Concentration of any Grab Sample |
|----------------------|-------------------------------|--|
| Total Arsenic (mg/L) | 0.5 | 1.0 |
| Total Copper (mg/L) | 0.3 | 0.6 |
| Total Lead (mg/L) | 0.2 | 0.4 |
| Total Nickel (mg/L) | 0.5 | 1.0 |
| Total Zinc (mg/L) | 0.5 | 1.0 |
| TSS (mg/L) | 25.0 | 50.0 |
| рН | 6.0 to 9.5 | n/a |
| Oil and Grease | Visible Sheen | n/a |

4. Sample Collection

As outlined in the Licence, signs are posted at each water quality sampling station. The Universal Transverse Mercator (UTM) location of each sampling station is also recorded and used to locate the station by Global Positioning System (GPS) during each sampling period. A description of the water sampling station locations are provided in Section 3 and Table 1.

Personnel familiar with the Licence and the Project will collect the water quality samples, analyze the laboratory data, conduct quality control of the data, and prepare the reporting. All water quality bottles, preservatives, and de-ionized water will be supplied by an accredited laboratory, and all samples will be shipped to the accredited laboratory for analysis.

Field samples are collected either directly from the source water or into a container attached to a pole extension. The accredited laboratory supplies all sample bottles and containers used in the collection of water quality samples. Once in the field, all bottles and containers are rinsed three times with source water prior to collecting the water sample, except for those bottles with preservative pellets already added by the laboratory. Standard water quality sample bottles and preservatives provided by the laboratory, and associated maximum hold times are provided here in Table 4.

Table 4: Sample Preservation

| Parameter | Sample Bottle | Preservative | Hold Time |
|------------------------|---------------------------|------------------------|---------------|
| ICP Metals, including | 250 ml plastic | 2 mL of Nitric acid | 6 months |
| Total Arsenic | | | |
| pH and Total Suspended | 500 ml plastic | 4 ºC | 24 – 48 hours |
| Solids | | | |
| Conductivity | 500 ml plastic | 4 ºC | 28 days |
| Mercury | 250 ml plastic | 3 ml of Nitric acid | 28 days |
| Nitrate, Nitrite, | 500 ml plastic | 4 ºC | 2 days |
| Ammonia | | | |
| Kjeldahl or Organic | 250 ml plastic or glass | 1 ml Sulphuric acid | 28 days |
| Nitrogen | | | |
| Total Nitrogen | 250 ml plastic or glass | 1 ml Hydrochloric acid | 28 days |
| Total Phosphorus | 250 ml plastic | 1 ml Sulphuric acid | 28 days |
| BOD ₅ | 500 ml plastic | 4 ºC | 2 days |
| Faecal Coliforms | 250 ml sterilized plastic | Sodium Thiosulphate | 30 hours |

In accordance with current standardized sampling protocols, water quality sample collection methods are as follows:

Upon arrival at each station, record the date, samplers name, SNP station number, and general
site conditions including the weather, water depth at the station, general water flow, and any
visible sheen.

- In the field, disposable nitrile sampling gloves are worn during handling of all the bottles and equipment.
- Bottles are triple rinsed with the source water (i.e. the same water the bottle will be filled with)
 prior to water collection, except for those bottles with preservative pellets already added by the
 laboratory.
- Samples are collected off shore as much as possible without disturbing the bottom sediment.
- The sample bottle is lowered in an upright position into the water column enough to ensure the entire bottle is underwater and without disturbing the bottom sediment.
- Water quality samples are collected towards the current at stations with flowing water.
- Record any deviations from the sample collection methods in the field notebook.
- Samples are transported in laboratory issued portable coolers with ice packs, to ensure samples remain at 4 degrees Celsius (°C). A chain-of-custody form is completed and shipped with the samples to the accredited laboratory.

A Chain of Custody Form containing the following information is completed by the sampler for every cooler shipment of samples:

- Company name and contact information,
- Analytical laboratory name, address, and contact person,
- Invoicing instructions,
- Report format requested,
- Project information,
- Sampler's name,
- Sample identification number, time and date of sampling, sample type, and analyses requested,
- Any special instructions, and
- Name of person releasing the shipment as well as date and time of release.

Each person relinquishing and receiving the samples, including the courier, must sign the Chain of Custody form. Each cooler shipped must have a Chain of Custody form indicating those samples contained in the particular cooler. Chain of Custody forms should be enclosed in a Ziploc bag to protect them from possible water damage during shipment. One copy of the Chain of Custody form is included with the shipment and one copy must remain at the Project site for recording keeping. Standard Chain of Custody Forms are provided by LMI.

Where required by the monitoring program (see Table 1), pH, temperature and, conductivity and dissolved oxygen of water is measured and recorded in the field directly from the water body being sampled wherever possible. Where it is not possible to take field measurements directly from the water body, the measurements can be taken from the sample bottle and may be confirmed by the laboratory.

The pH and conductivity meters must be calibrated in advance of each day's sampling activities according to the manufactures instructions, using fresh standard calibration solutions. Any discrepancies must be recorded in the Field Log Book along with the sampling data; however recorded field

measurements must not be altered due to calibration issues. Refer to the pH and conductivity meter manuals for instructions regarding how to calibrate and take measurements with the particular devices.

Immediately following field activities, an electronic copy of the Field Log data must be made. Field log entries in the Field Log Book must not be altered; pages must not be removed; space or pages left blank must be labeled as such and crossed with a diagonal line; and errors must be crossed out, not erased.

Three types of quality control samples are prepared and shipped to the laboratory with the water quality samples for each sampling event. These include: a travel blank, field blank, and duplicate sample.

Travel blanks (also referred to as trip blanks) are supplied and shipped by the laboratory, and field blanks and duplicate samples will be collected in the field. Travel blanks are used to test for possible contamination that might arise during the handling, transport or storage of the samples; while field blanks are used to test for contamination arising from the sampling equipment, handling, or from the general conditions during sampling. A duplicate sample is collected to test the validity of sampling procedures and laboratory methodology. One duplicate and one field blank is collected for approximately every 10 field samples per day, and are sufficient in number to represent the full suite of parameters collected across site. One travel blank will be submitted from the full sampling event to represent the full suite of parameters collected across site.

5. Sample Handling

Water quality samples are to be preserved, either by laboratory issued chemical preservatives or temperature control, immediately following sample collection. This ensures the quality of the water sample remains similar to the source water. All samples are to be stored and transported at 4 °C, and laboratory defined holding times must be followed. A general guideline for water quality sample preservatives and holding times are provided in Table 4.

Water quality sample bottles are clearly and consistently labelled with a waterproof, non-smear felt pen. Each label includes the following information:

- Company Name
- Project Site Name
- Sample Number
 - o Example: ULU-2-130609-50
 - ULU-2: Refers to the monitoring station.
 - 1300609: Refers to the date that the sample was collected (yy/mm/dd). In this example the date the sample was collected was June 9, 2013.
 - 50: Refers to the depth in centimeters from surface which the same was collected. If the depth of the sample is not applicable do not include the suffix.
- Sample Date and Time
- Analysis Required

6. Reporting

All analytical results will be forwarded in electronic format from the laboratory to LMI for data collection and management. Upon receipt, LMI will review the results to identify any anomalies. Anomalous results will be either re-analyzed by the laboratory or new samples will be collected to confirm the analytical results.

Any analytical results that indicate exceedance of regulatory criteria will be reported to the appropriate agencies including the NWB and the AANDC Inspector. Part J Item 11 of the Licence requires LMI to include in its Annual Report (due March 31st), all data, monitoring results and information required by Part J of the Water Licence.

To facilitate the required annual reporting, LMI prepares written monthly reports supported by laboratory analyses results table summaries and quality assurance review. Each monthly report includes the following:

- A description of the sample activities undertaken
- Description of the existing conditions at each sampling station
- Tabular summary of analytical lab result including the results of the quality control samples (travel blank, field blank, duplicate samples), and
- Interpretation of the analytical lab results including comparison of the results with water licence criteria and assessment of the reliability of the results.

7. References

Aboriginal Affairs and Northern Development Canada, 1996, *Quality Assurance (QA) and Quality Control (QC) Guidelines for Use by Class "A" Licensees in Meeting SNP Requirements and for Submission of a QA/QC Plan*.



Figure 1: Ulu Project Location Map



Figure 2: Main Areas Ulu Site

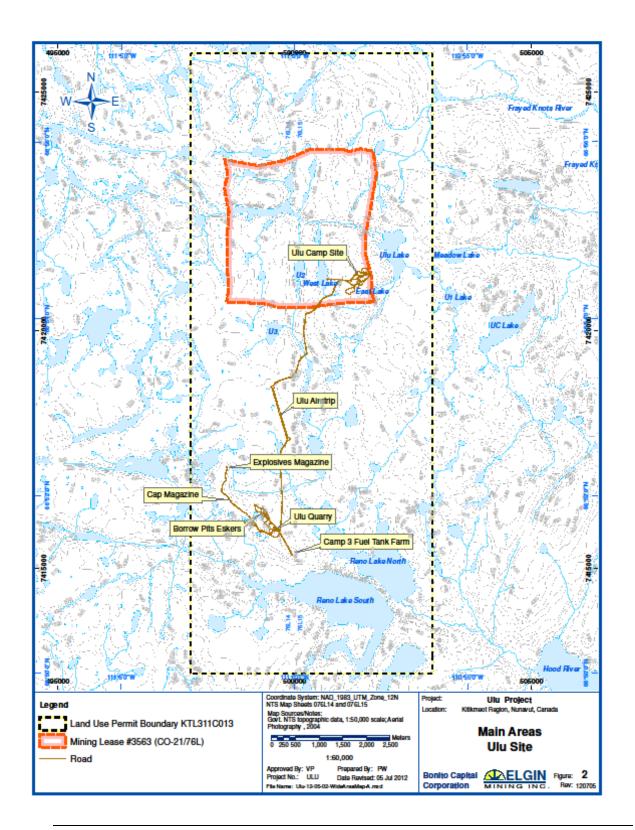


Figure 3: Ulu Mine Site Plan

