

WOLFDEN RESOURCES INC.

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September 13, 2005

Mr. Philippe di Pizzo Executive Director Nunavut Water Board P.O. Box 119 Gjoa Have, NU X0B 1J0

Dear Mr. di Pizzo:

Re: Water License No. NWB1ULU0008 - Wolfden Resources Inc. - Geotechnical Inspection Report, Ulu Mine Site

Pursuant to Part D, Item 9 of Wolfden's water license find enclosed a completed geotechnical inspection report discussing the earthworks, geological and hydrological regime of the Ulu mine site.

All of the recommendations in the report have been complied with.

If you have any comments or questions I can be reached at the contact information indicated above.

Regards,

David B. Stevenson, M.Sc., P.Geo. Project Manager, Ulu

SEP 1 6 2005

Nunavut Water

Board

Public Registry



WOLFDEN RESOURCES INC.

2005 ANNUAL GEOTECHNICAL INSPECTION SELECTED STRUCTURES

ULU GOLD PROJECT, NU

FINAL

Nunavut Water Board SEP 1 6 2005 Public Registry

PROJECT NO.: 0385-004-01 DISTRIBUTION LIST:

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AN APPLIED EARTH SCIENCES COMPANY

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> Project No. 0385-004-01 September 9, 2005

Mr. Dave Stevenson, P.Geo. – Ulu Project Manager Wolfden Resources Inc. 309 South Court Street Thunder Bay, ON P7B 2Y1

RE: REPORT ON 2005 ANNUAL GEOTECHNICAL INSPECTION SELECTED STRUCTURES, ULU GOLD PROJECT, NU

Dear Dave:

Please find attached our final report on the annual geotechnical inspection of selected facilities at the above captioned project. This site visit was undertaken by Mr. Jim Cassie, P.Eng., on August 24 and 25, 2005. This report should be submitted to the Water Board within 60 days on the inspection.

If there are any questions regarding this report, or if you require any additional services, please contact the undersigned at your convenience.

Yours truly,

BGC Engineering Inc.

per:

James W. Cassie, M.Sc., P.Eng. Specialist Geotechnical Engineer

(direct line 403/250-5185 Ext. 103)

encl.: Final Report

JWC/sf

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LIMITATIONS OF REPORT

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1.0 INTRODUCTION

The Ulu Gold Project is an advanced mining-exploration project, currently operated by Wolfden Resources Inc. (Wolfden). The project is located in Nunavut, approximately 530 km north of Yellowknife at 66°55′N and 110°58′W as shown in Figure 1.

The Nunavut Water Board (NWB) License NWB1ULU008 provides for water use and waste disposal for this project. Clause D, Item 9 of that licence notes the following:

"Upon notification to the Board by the Licensee that operation at the site will be resumed, an inspection of the earthworks, geological regime and the hydrological regime are to be carried out annually during the summer months by a qualified Geotechnical Engineer".

As such, BGC Engineering Inc. (BGC) was requested by Wolfden to prepare a proposal to address the noted Water Licence clause.

As inferred by the clause, it is assumed that the Ulu Project would be in operation; *i.e.* producing either waste rock and/or ore from the ramp. Wolfden had intended to extend the ramp further this year and BGC/Lorax (2005) was prepared in anticipation of these events occurring (and in compliance with Clause D, Item 11 of the Water Licence). After some initial work on the portal, Wolfden decided to forgo any additional ramp development in 2005. Hence, no new waste rock or ore was brought to surface.

Typically, the intent of the annual geotechnical inspection within the Water Licence is to visually assess the performance of water and waste retaining structures from the geotechnical and hydrotechnical perspectives. Following from that assessment, Wolfden would be made aware of any deficiencies or concern with these retaining structures. Given the current configuration of the site, the following facilities and structures were identified for the annual inspection program:

- · Ulu main tank farm containment berm.
- Day tank containment berm.
- Camp 3 tank farm containment berm.
- Mine sump.
- Ore storage pad.
- Portal laydown pad.

BGC's proposal for the inspection report was dated July 20, 2005. Written authorization to proceed with the work was provided by Mr. Dave Stevenson, P.Geo. of Wolfden in an email dated August 2, 2005. The report provided herein summarizes the current conditions of the noted structures and provides any required recommendations with respect to maintenance or monitoring.

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2.0 PROJECT DESCRIPTION AND OPERATION

2.1 Background

The Ulu Property was originally discovered by BHP Minerals in 1988 followed by several years of additional exploration work. Mining consultants H.A. Simons Ltd. completed a prefeasibility study of the project in September 1995, followed by the sale of the property to Echo Bay Mines Ltd. (Echo Bay) in November 1995. After receipt of appropriate permits and approvals in early 1996, Echo Bay mobilized camp and mining equipment over the winter road to their temporary Camp 3, located south of the Ulu site. Following from that initial mobilization, Echo Bay built the 8 km all-weather road over to Ulu and the Ulu camp facilities, undertook surface diamond drilling and excavated a portal and completed a 632 m ramp to the 75 m level.

In February 1997, Echo Bay submitted an environmental assessment for the project. Also in 1997, additional ramp development was undertaken to the 155 m level, along with other development and diamond drilling work, but the project was shut down in August 1997 due to low gold prices. Echo Bay then provided updated Feasibility Studies in December 1997 and October 1998, but the project activity generally remained dormant.

In December 2003, Wolfden purchased the Ulu Property from Echo Bay with the view to combine the Ulu Gold Project and the High Lake base metal deposits into one overall mining project. Echo Bay's Water Licence for the site was transferred over to Wolfden by the NWB in a letter dated March 23, 2004.

2.2 Project Elements

Figure 2 provides an overview of the Ulu project site consisting of three main elements, from south to north:

- Camp 3 (fuel tank farm and maintenance building), borrow pits and explosives magazines on the esker located just northwest of Reno Lake North.
- 2. An airstrip, approximately 1350 m long, located over bedrock exposures to the north.
- The Ulu camp and portal, located at the north end of the site, directly proximal to the ore body.

The Ulu camp location is on a glacially modified bedrock outcrop bounded by a linear lake (West Lake) on the west, a small semi-circular lake (East Lake) on the southeast, Ulu Lake on the northeast and a drainage system to the north, as shown on Figure 3. The terrain is rugged, consisting of exposed bedrock, boulder fields (felsenmeer), relocated boulders and occasional glacial erratics. Areas proximal to lakes and watercourses contain wetlands and sedge grasses.

Figure 3 provides some details on the main components of the camp, including the following:

- accommodations, office and shop.
- · main tank farm.
- generators and day tank
- sewage treatment plant and discharge line into East Lake.
- · fresh water intake line from West Lake.
- mine portal and sump.
- temporary waste rock storage/laydown pad below the portal.
- ore storage pad.

The majority of the surface drainage from the camp site pad and waste rock and ore storage pads drains into East Lake, which then flows into Ulu Lake. Some surface drainage from the northern end of the campsite pad flows overland and then into Ulu Lake. A small southwestern portion of the ore storage pad flows west, possibly into West Lake.

2.3 Bedrock Geology and Permafrost Conditions

Echo Bay (1997) provides a summary of both the regional and property geology for the Ulu site, as paraphrased below.

The Ulu claims are located within the High Lake Volcanic Belt (HLVB) of the Archean Slave Structural Province. This geological province consists of basement gneisses overlain by greywacke turbidite and basalt in thick sequences. The HLVB is part of such a sequence and consists of a north-south trending volcanic and sedimentary sequence, enclosed by later Archean granitoid rocks.

The geology of the Ulu property consists of a sequence of folded mafic volcanic, mafic intrusive and sedimentary rocks, metamorphosed to upper greenshist / lower amphibolite facies. These rocks are intruded by later felsic instrusive rocks and diabase dykes. At least three phases of deformation are noted with the rocks at Ulu. The volcanic, intrusive and sedimentary rocks are folded into a north trending anticline that plunges steeply to the north in the area of the Flood Zone. Gold occurs in laminated calc-silicate veins and in quartz veins. Highest gold grains are found in quartz veins containing fine-grained arsenopyrite. Gold mineralization occurs primarily in the basalt and to some degree in the sediments. Very little gold mineralization occurs in the gabbroic rocks.

Additional information of the geochemical issues associated with waste rock and ore is provided within BGC/Lorax (2005).

The Ulu project site is located within the continuous permafrost zone of northern Canada. At the Lupin Mine, approximately 150 km to the south, the permafrost is approximately 540 m deep. Preliminary, extrapolated data from the High Lake site, approximately 50 km to the north of Ulu, indicates that permafrost is approximately 400 m deep. A shallow thermistor, BGC04-01 (cable 25-1), was installed by BGC to the east of West Lake in August 2004. A ground temperature of approximately –7°C was recorded at 10 m depth in May 2005.

2.4 Climatic Information

No long term climate records are available specifically for the Ulu site, although a weather station is now in operation at the airstrip. Based on regional correlations of proximal weather stations, RWDI (2005) have estimated representative climate parameters for the "Wolfden Project area", as summarized below:

- Mean annual air temperature of -11.8°C.
- Extreme annual temperatures values of -53.9°C and +34.9°C.

Within BGC (2005), the following precipitation and evaporation estimates were made for conceptual design work at the High Lake site, based on recent northern hydrology assessments:

- Mean annual precipitation amount of 210 mm.
- · One day Probable Maximum Precipitation (PMP) estimate of 150 mm.
- Mean annual lake evaporation value of 220 mm.

2.5 Facility Operation

The Ulu camp opened on May 13, 2005 and work on the portal opening initiated shortly thereafter. After removal of rockfill from the initial few metres of the decline, ice was removed to between the 25 and the 50 m levels. For a variety of reasons, the reopening of the decline was terminated on July 6, 2005 and a decision was made to temporarily block the portal again. As such, a low concrete pony wall and plywood structure was placed in the portal on July 12, 2005.

Rockfill taken from the portal opening was placed on the Portal Laydown Pad. Approximately 250 m³ of mine water was pumped into the Mine Sump before later discharge in East Lake.

3.0 INSPECTION CONDITIONS AND APPROACH

Mr. Jim Cassie, P.Eng., from BGC conducted the inspection on August 24 and 25, 2005. The temperature during the inspection visit was approximately 10°C, under partly cloudy, but generally clear visual conditions. Anecdotal information from site staff noted that significant precipitation had fallen in the two weeks before the inspection.

Each of the facilities was inspected in a walking tour. Pertinent observations concerning physical conditions, erosion and seepage (or lack thereof) were recorded by digital camera and Dictaphone. The transcribed Dictaphone notes and photographs constitute the field record and provide the basis for this formal report.

During Mr. Cassie's site visit, very little activity was occurring at the site. The portal had been previously closed and no ramp development or surface diamond drilling was occurring. Site staff was mostly undertaking equipment maintenance while geologists were mapping surface exposures in the regional area.

4.0 FINDINGS AND CONCLUSIONS

The results of the inspection are presented on the following pages in standardised format, complemented by a selection of site photographs. Figures 2 and 3 provide approximate locations for each noted structure. Any specific maintenance or monitoring requirements are documented on the individual sheets.

Outside of some suggested maintenance for the tank farm berms and mine sump, all structures were in satisfactory condition with no significant concerns noted.

Should the waste rock and ore storage pad seepage collection facilities be constructed, these structures should be included within the annual inspection program.

ULU TANK FARM CONTAINMENT BERM

LOCATION: Northeast corner of the Ulu camp pad.

FUNCTION: Provides secondary containment for five large fuel tanks and

numerous barrels of fuel.

SIZE: ~20 m wide by ~50 m long.

BERM HEIGHT: ~1.5 to 2 m above adjacent grade.

CREST ELEVATION: No detailed survey information provided.

BERM CONDITION: Berm is constructed from esker sand and gravel and appears in

good condition, as shown on Figure 4. Geomembrane liner within berm is exposed at three locations on the inside face. The liner appears to be either reinforced polyethylene (RPE) or possibly some other liner material designed for hydrocarbon containment.

SEEPAGE: No evidence of seepage observed directly at the berm toe.

MAINTENANCE / MONITORING

RECOMMENDATIONS: Cover the noted liner exposures with sand to prevent damage. The

secondary containment capacity provided within the existing berm

could be checked against the expected maximum fuel volume.

CONCLUSIONS: Outside of the minor noted maintenance, the berm appears in

satisfactory condition.

DAY TANK CONTAINMENT BERM

LOCATION: Adjacent to powerhouse area.

FUNCTION: Provides secondary containment for one fuel tank.

SIZE: ~5 m wide by ~5 m long.

BERM HEIGHT: ~1 to 1.2 m above adjacent grade.

CREST ELEVATION: No detailed survey information provided.

BERM CONDITION: Berm is constructed from esker sand and gravel and appears in

good condition, as shown on Figure 5. Geomembrane liner within berm is exposed at berm crest. The liner is the same material as

the main tank farm.

SEEPAGE: No evidence of seepage observed directly at the berm toe.

MAINTENANCE / MONITORING

RECOMMENDATIONS: The secondary containment capacity provided within the existing

berm could be checked against the expected maximum fuel volume

from potential tank leakage.

CONCLUSIONS: The berm appears in satisfactory condition.

CAMP 3 TANK FARM CONTAINMENT BERM

LOCATION: Far southern end of the esker, west of Reno Lake North.

FUNCTION: Provides secondary containment for two large fuel tanks and six

smaller skid-mounted tanks.

SIZE: ~30 m wide by ~60 m long.

BERM HEIGHT: ~1.5 to 2 m above adjacent grade on one side and ~1 to 1.2 m on

the other.

CREST ELEVATION: No detailed survey information provided.

BERM CONDITION: Berm is constructed from esker sand and gravel and appears in

good condition, as shown on Figure 6. Geomembrane liner within berm is exposed at several locations on the inside face and in the base. The liner material appears consistent with the other two tank

farms.

SEEPAGE: No evidence of seepage observed directly at the berm toe.

Small puddle of fuel appears to be located between two skid-

mounted tanks.

MAINTENANCE / MONITORING

RECOMMENDATIONS: Cover the noted liner exposures with sand to prevent damage.

Confirm existence of fuel in puddle between the tanks, cleanup small spill and check for source of the fuel leakage. The secondary containment capacity provided within the existing berm could be checked against the expected maximum fuel volume from tank

leakage.

CONCLUSIONS: Outside of the minor noted maintenance, the berm appears in

satisfactory condition.

MINE SUMP

LOCATION: Directly outside the portal, uphill from both a local access road and

the portal laydown pad.

FUNCTION: Provides containment for settling and sediment retention of mine

water pumped from the decline ramp.

SIZE: ~20 m wide by ~30 m long.

BERM HEIGHT: ~1.5 to 2 m above adjacent grade.

CREST ELEVATION: No detailed survey information provided.

BERM CONDITION: Berm is constructed from rockfill (waste rock) and esker sand and

gravel, as shown on Figure 7. Geomembrane liner within berm is exposed at several locations. Rockfill placed on the berm crest has

fallen onto the liner exposed on the inside face.

Access road and portal laydown pad located on the downhill side of

the sump.

Small pond located within the mine sump.

SEEPAGE: No evidence of seepage observed directly at the berm toe.

MAINTENANCE / MONITORING

RECOMMENDATIONS: Angular rockfill located directly on the liner should be carefully

removed and the liner examined for tears or rips (which should be repaired, if any are found). Esker sand should be placed over the

liner to prevent any future damage.

CONCLUSIONS: Outside of the noted maintenance, the sump appears in satisfactory

condition.

PORTAL LAYDOWN (WASTE ROCK) PAD

LOCATION: Pad is located just downhill from the portal and local access road,

approximately 150 m from East Lake.

FUNCTION: Initially constructed from waste rock from the decline ramp

development. Now serves as storage area for the underground

mine equipment.

SIZE: ~50 m wide by ~200 m long.

PAD THICKNESS: Ranges from 1 to 5 m above original topography.

CREST ELEVATION: No detailed survey information provided. Pad surface graded down

towards the southeast.

PAD CONDITION: Pad is constructed from rockfill (waste rock), as shown on Figure 8.

Toe of the pad sits at the angle of repose for rockfill.

Silt curtain, consisting of black geomembrane, orange geogrid and steel rods, is located 15 to 25 m downhill from the pad toe. The silt curtain is in a state of disrepair and likely does not serve its

intended purpose.

TOE DISCHARGE: One "dry" seepage discharge (with sediment) area and one small

flowing discharge were noted at the toe. Water appeared clear in the noted case. No significant drainage watercourse observed

downhill from the pad.

Pad drainage heads downhill into East Lake.

MAINTENANCE / MONITORING

RECOMMENDATIONS: Assess the utility of the silt curtain along the downhill toe and repair

curtain if convinced it would collect sediment from run-off events. Water quality from waste rock is not expected to be problematic but pad seepage quantity and quality could be monitored for baseline

information.

CONCLUSIONS: The pad appears stable with no signs of erosion or instability.

Runoff from the pad is collected within East Lake that passes

through a wetland before entering Ulu Lake.

ORE STORAGE PAD

LOCATION: Pad is located southwest of the Portal Laydown Pad, approximately

325 m from East Lake.

FUNCTION: Constructed from waste rock and then partially covered with esker

sand and gravel. The pad was originally constructed for temporary storage of ore before its proposed shipment to Lupin, which is no longer the plan. Two ore stockpiles are currently located on the pad.

Ore appears visually fresh.

SIZE: ~100 m wide by ~200 m long.

PAD THICKNESS: Ranging from 1 to 3 m (check your field notes) above original

topography.

CREST ELEVATION: No detailed survey information provided.

PAD CONDITION: Pad is constructed from rockfill (waste rock) and esker sand and

gravel, as shown on Figure 9. Two ore stockpiles located on the east corner of the pad. Toe of the pad sits at the angle of repose for

rockfill.

TOE DISCHARGE: One small flowing discharge, along with sediment (sand), noted at

the toe. Water appeared clear. Small drainage watercourse

observed downhill from the pad.

Majority of the pad drainage heads downhill into East Lake.

Some minor pad drainage would head west from the southwest corner of the pad. No drainage was observed in this direction.

MAINTENANCE / MONITORING

RECOMMENDATIONS: Monitor ore pad seepage for quantity and quality (especially

arsenic), in agreement with recommendations provided in

BGC/Lorax (2005).

CONCLUSIONS: The pad appears stable with no signs of erosion or instability.

Runoff from the pad is collected within East Lake that passes

through a wetland before entering Ulu Lake.

5.0 CLOSURE

We trust the enclosed report meets your present requirements and we thank Wolfden Resources Inc., to once again be of service at the Ulu Gold Project. If you have any questions or require additional information, please contact the undersigned.

Respectfully submitted,

BGC ENGINEERING INC.

per: OFESSION A

James W. Caseie, M.Sc., P.Eng. Specialist Geotechnical Engineer

(jcassie@bgcengineering.ca)

Holger Hartmaier, M.Eng., P.Eng. Specialist Geological Engineer

LICENSEE

N.W.T

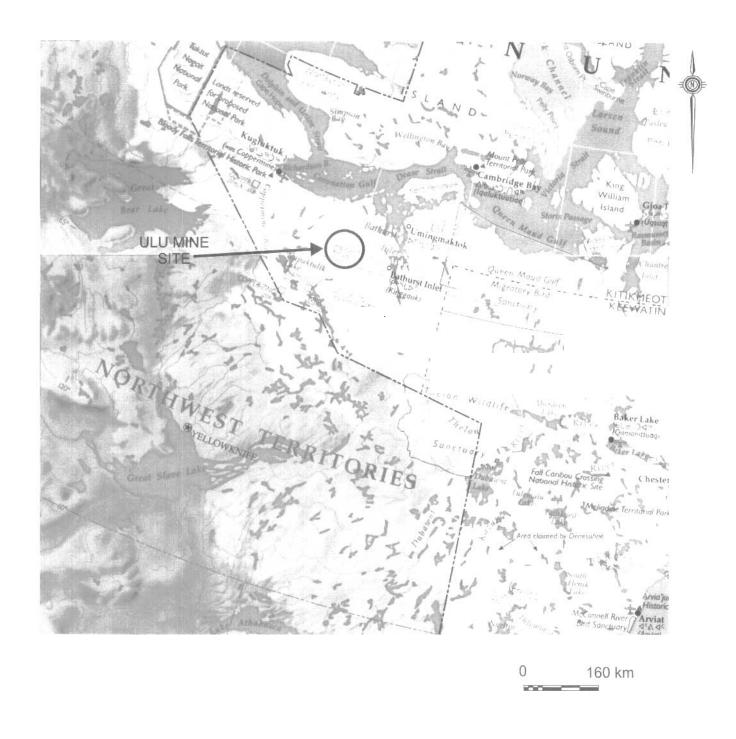
(hhartmaier@bgcengineering.ca)

Report reviewed by:

REFERENCES

- BGC Engineering Inc. and Lorax Environmental Services Ltd., 2005. Ulu Mine Waste Rock and Ore Storage Plan, Ulu Exploration Project. Report prepared for Wolfden Resources Inc., Project No. 0385-002-02, March 21, 2005, 32 pages plus figures and appendices.
- BGC Engineering Inc. 2005. Conceptual Design of Tailings Containment Facility, High Lake Project, NU. Draft report submitted to Wolfden Resources Inc., Project No. 0385-003-01 June 24, 2005, 36 pages plus figures.
- Echo Bay Mines Ltd., 1997. 1996/1997 Report on Exploration Geological Mapping, Sampling and Diamond Drilling, Ulu Property. Internal Echo Bay Report, November 1, 1997, 21 pages plus appendices.
- RWDI Air Inc. 2005. High Lake Climate Assessment. Draft report, Project No. W04-323, June 1 2005, 33 pages.

FIGURES



Source: Canadian Geographic/Indian and Northern Affairs Canada, 1999

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CLIENT





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PROJECT

ULU MINE ANNUAL INSPECTION

TITLE

PROJECT LOCATION PLAN

PROJECT No.	Figure, No.	REV.
0385-004-01	1	0