



A TETRA TECH COMPANY

September 30, 2011

ISSUED FOR USE  
EBA FILE: W14101068.037

Minto Explorations Ltd  
Suite 900-999 West Hastings Street  
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**Attention:** Mr. John Knapp, General Manager

**Subject:** Fuel Containment Facility – 2011 Annual Review, Minto Mine, YT

## 1.0 INTRODUCTION

As requested, this letter presents a report by EBA Engineering Consultants Ltd. (EBA) resulting from a site visit completed to examine the current condition of the Fuel Containment Facility (FCF) at Minto Mine, YT. The intent of the site visit was to provide a geotechnical engineering report on the condition of the facility, in partial fulfillment of the requirements of the existing Quartz Mining Licence QML-0001.

EBA's last inspection of the FCF was in September 2010. This inspection is summarized in EBA's letter report "Fuel Containment Facility – 2010 Annual Review, Minto Mine, YT" dated February 11, 2011. EBA has used this background information to assist in assessing the recent performance of the FCF.

## 2.0 OBSERVATIONS AND RECOMMENDATIONS

Mr. Chad Cowan, P.Eng., of EBA's Whitehorse office completed a site visit on August 25, 2011. Specific details are presented below, and are also noted on Figure 1 attached to this letter. Photographs were taken of the facility during the visit. Selected photos are attached while the remainder are available for review in the EBA files, if desired.

### 2.1 Observations

Observations noted during the site visit are as follows.

- Photos 1 through 3 show the current condition of the FCF. Small amounts of ponded water were noted throughout the base of the FCF. As stated in the previous inspection report there was still evidence of tire rutting in the granular base material.
- Water from the filling station area was draining into the containment area as per design.
- There were two small puncture repairs in liner system (outer geomembrane) along the north side of the FCF (Photo 4).

## **2.2 Recommendations**

As noted in previous EBA annual observation reports the inside or base of the FCF liner system was designed and constructed with 150 mm of residuum bedding over the geomembrane and geotextile liner materials. This portion of liner system was not designed for frequent visits with heavy equipment. If equipment is required to gain access to the inside area of the FCF it should be limited to the occasional visit with low ground pressure equipment. If heavy equipment is required to gain access to the area, the original design should be reviewed by an engineer and modifications to the FCF should be made to allow for such access.

## **3.0 LIMITATIONS OF REPORT**

This report and its contents are intended for the sole use of Minto Explorations Ltd. and their agents. EBA, A Tetra Tech Company, does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than Minto Explorations Ltd., or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this report is subject to the terms and conditions stated in EBA's General Conditions that are provided in Appendix A of this report.

## 4.0 CLOSURE

We trust this report meets your present requirements. Should you have any questions or comments, please contact the undersigned at your convenience.

Sincerely,  
EBA, A Tetra Tech Company

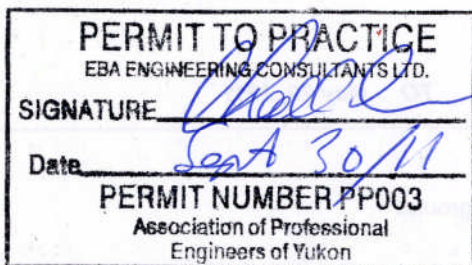


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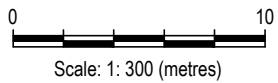
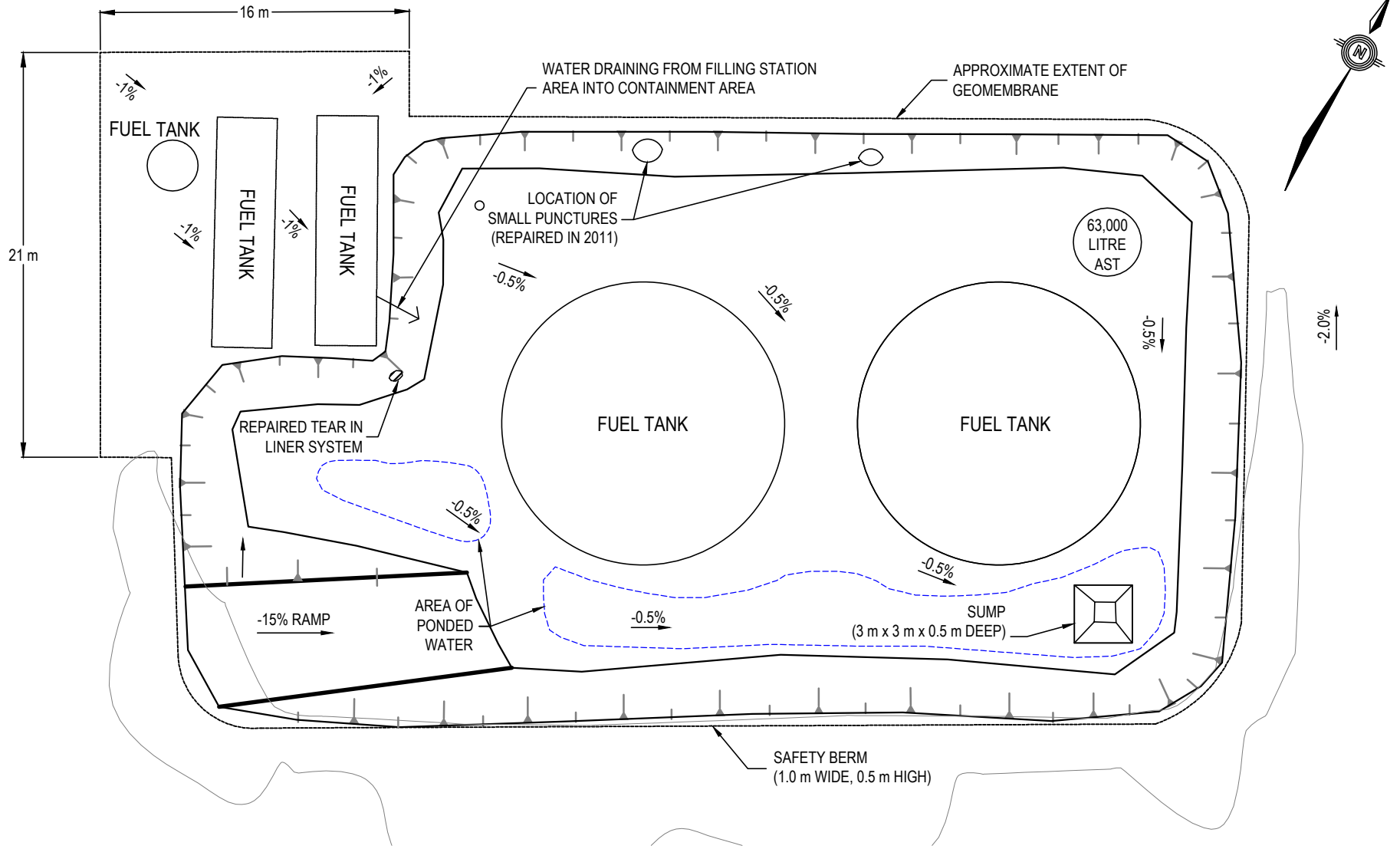
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# FIGURES

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Figure 1 Site Plan with Observations



STATUS  
ISSUED FOR REVIEW

CLIENT

MINTO EXPLORATIONS LTD.



FUEL CONTAINMENT FACILITY - 2011 ANNUAL REVIEW  
MINTO MINE, YUKON

SITE PLAN WITH OBSERVATIONS

PROJECT NO. W14101068.037	DWN CB	CKD CPC	REV 0
OFFICE EBA-WHSE	DATE September 8, 2011		

Figure 1

# PHOTOGRAPHS

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- |         |   |
|---------|---|
| Photo 1 | South portion of FCF.   |
| Photo 2 | North portion of FCF.   |
| Photo 3 | Small punctures repaired along northern portion of FCF liner. |



**Photo 1**  
South portion of FCF. (August 25, 2011)



**Photo 2**  
North portion of FCF. (August 25, 2011)





**Photo 3**

Small punctures that were repaired along northern portion of FCF liner. (August 25, 2011)



# APPENDIX A

## APPENDIX A GENERAL CONDITIONS

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# GENERAL CONDITIONS

## GEOTECHNICAL REPORT

This report incorporates and is subject to these "General Conditions".

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### 1.0 USE OF REPORT AND OWNERSHIP

This geotechnical report pertains to a specific site, a specific development and a specific scope of work. It is not applicable to any other sites nor should it be relied upon for types of development other than that to which it refers. Any variation from the site or development would necessitate a supplementary geotechnical assessment.

This report and the recommendations contained in it are intended for the sole use of EBA's Client. EBA does not accept any responsibility for the accuracy of any of the data, the analyses or the recommendations contained or referenced in the report when the report is used or relied upon by any party other than EBA's Client unless otherwise authorized in writing by EBA. Any unauthorized use of the report is at the sole risk of the user.

This report is subject to copyright and shall not be reproduced either wholly or in part without the prior, written permission of EBA. Additional copies of the report, if required, may be obtained upon request.

### 2.0 ALTERNATE REPORT FORMAT

Where EBA submits both electronic file and hard copy versions of reports, drawings and other project-related documents and deliverables (collectively termed EBA's instruments of professional service), only the signed and/or sealed versions shall be considered final and legally binding. The original signed and/or sealed version archived by EBA shall be deemed to be the original for the Project.

Both electronic file and hard copy versions of EBA's instruments of professional service shall not, under any circumstances, no matter who owns or uses them, be altered by any party except EBA. EBA's instruments of professional service will be used only and exactly as submitted by EBA.

Electronic files submitted by EBA have been prepared and submitted using specific software and hardware systems. EBA makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.

### 3.0 ENVIRONMENTAL AND REGULATORY ISSUES

Unless stipulated in the report, EBA has not been retained to investigate, address or consider and has not investigated, addressed or considered any environmental or regulatory issues associated with development on the subject site.

### 4.0 NATURE AND EXACTNESS OF SOIL AND ROCK DESCRIPTIONS

Classification and identification of soils and rocks are based upon commonly accepted systems and methods employed in professional geotechnical practice. This report contains descriptions of the systems and methods used. Where deviations from the system or method prevail, they are specifically mentioned.

Classification and identification of geological units are judgmental in nature as to both type and condition. EBA does not warrant conditions represented herein as exact, but infers accuracy only to the extent that is common in practice.

Where subsurface conditions encountered during development are different from those described in this report, qualified geotechnical personnel should revisit the site and review recommendations in light of the actual conditions encountered.

### 5.0 LOGS OF TESTHOLES

The testhole logs are a compilation of conditions and classification of soils and rocks as obtained from field observations and laboratory testing of selected samples. Soil and rock zones have been interpreted. Change from one geological zone to the other, indicated on the logs as a distinct line, can be, in fact, transitional. The extent of transition is interpretive. Any circumstance which requires precise definition of soil or rock zone transition elevations may require further investigation and review.

### 6.0 STRATIGRAPHIC AND GEOLOGICAL INFORMATION

The stratigraphic and geological information indicated on drawings contained in this report are inferred from logs of test holes and/or soil/rock exposures. Stratigraphy is known only at the locations of the test hole or exposure. Actual geology and stratigraphy between test holes and/or exposures may vary from that shown on these drawings. Natural variations in geological conditions are inherent and are a function of the historic environment. EBA does not represent the conditions illustrated as exact but recognizes that variations will exist. Where knowledge of more precise locations of geological units is necessary, additional investigation and review may be necessary.

## 7.0 PROTECTION OF EXPOSED GROUND

Excavation and construction operations expose geological materials to climatic elements (freeze/thaw, wet/dry) and/or mechanical disturbance which can cause severe deterioration. Unless otherwise specifically indicated in this report, the walls and floors of excavations must be protected from the elements, particularly moisture, desiccation, frost action and construction traffic.

## 8.0 SUPPORT OF ADJACENT GROUND AND STRUCTURES

Unless otherwise specifically advised, support of ground and structures adjacent to the anticipated construction and preservation of adjacent ground and structures from the adverse impact of construction activity is required.

## 9.0 INFLUENCE OF CONSTRUCTION ACTIVITY

There is a direct correlation between construction activity and structural performance of adjacent buildings and other installations. The influence of all anticipated construction activities should be considered by the contractor, owner, architect and prime engineer in consultation with a geotechnical engineer when the final design and construction techniques are known.

## 10.0 OBSERVATIONS DURING CONSTRUCTION

Because of the nature of geological deposits, the judgmental nature of geotechnical engineering, as well as the potential of adverse circumstances arising from construction activity, observations during site preparation, excavation and construction should be carried out by a geotechnical engineer. These observations may then serve as the basis for confirmation and/or alteration of geotechnical recommendations or design guidelines presented herein.

## 11.0 DRAINAGE SYSTEMS

Where temporary or permanent drainage systems are installed within or around a structure, the systems which will be installed must protect the structure from loss of ground due to internal erosion and must be designed so as to assure continued performance of the drains. Specific design detail of such systems should be developed or reviewed by the geotechnical engineer. Unless otherwise specified, it is a condition of this report that effective temporary and permanent drainage systems are required and that they must be considered in relation to project purpose and function.

## 12.0 BEARING CAPACITY

Design bearing capacities, loads and allowable stresses quoted in this report relate to a specific soil or rock type and condition. Construction activity and environmental circumstances can materially change the condition of soil or rock. The elevation at which a soil or rock type occurs is variable. It is a requirement of this report that structural elements be founded in and/or upon geological materials of the type and in the condition assumed. Sufficient observations should be made by qualified geotechnical personnel during construction to assure that the soil and/or rock conditions assumed in this report in fact exist at the site.

## 13.0 SAMPLES

EBA will retain all soil and rock samples for 30 days after this report is issued. Further storage or transfer of samples can be made at the Client's expense upon written request, otherwise samples will be discarded.

## 14.0 INFORMATION PROVIDED TO EBA BY OTHERS

During the performance of the work and the preparation of the report, EBA may rely on information provided by persons other than the Client. While EBA endeavours to verify the accuracy of such information when instructed to do so by the Client, EBA accepts no responsibility for the accuracy or the reliability of such information which may affect the report.