Province of British Columbia

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

Report of Inspector of Mines

Geotechnical

(Issued pursuant to Section 15 of the *Mines Act*)

Inspection No.:	**91561**
Mine No.:	**0800007**
Permit No.:	**M-26**
Total Orders:	**2**

Mine Name:	Myra Falls
Location:	Campbell River, B.C.
Owner, Manager:	Glenn Smith
Company:	Nyrstar Myra Falls Ltd.
Address:	c/o Split Road P.O. Box 8000, Campbell River, BC, V9W 5E2
Workers Contacted:	Glenn Smith, Nicole Pesonen, Kevin LeDrew, Jaime Delgado, Dean Hynes, Haydn Duffty, Dave Williams, Corey McDonald, Dumas Contracting representatives, Onsite Engineering Ltd. Representatives.
Type of Mining:	Metal Mine – Underground (MU)
Date of Inspection:	2018-06-26
Inspector:	Jennifer Brash, M.Eng., P.Eng., Senior Geotechnical Inspector
Accompanying Inspectors:	Paul Hughes, Paul Beddoes, Andrew Craig
In Attendance:	Brian Finn (Corporate Services for the Natural Resource Industries)
Copies to:	Al Hoffman, Diane Howe, Lowell Constable, Jennifer McConnachie, Tania Demchuk, Heather Narynski, Paul Hughes, Paul Beddoes, Andrew Craig, Dave Caughill, Jim McMillan

The Mine Manager is required to provide a written response within 15 days of receiving the inspection report. The Manager's response must outline the remedial steps taken by a specified date and the work still outstanding. A copy must be provided to the inspector, and in the case of health and safety matters, the occupational health and safety committee and the local union. In this document, Code means Health, Safety and Reclamation Code for Mines in British Columbia.

Introduction

A geotechnical inspection of the Myra Falls Mine site was conducted on 26 June 2018 by Jennifer Brash, Senior Geotechnical Inspector with the Ministry of Energy, Mines, and Petroleum Resources (EMPR) and Paul Hughes, Contract Geotechnical Inspector with EMPR. Various Nyrstar personnel facilitated the inspection and led the site tour. EMPR geoscience inspectors also attended the inspection; geoscience inspection findings are submitted under separate cover, and should be read in conjunction with this inspection report.

At the time of inspection, the weather was sunny.

Preamble

The Myra Falls mine is currently preparing to restart mining and milling. Rehabilitation works were ongoing in the Lynx and HW orebodies at the time of the site visit. There were no works occurring at the Price orebody, which is subject to ongoing permit review. Testing was underway at the mill using materials excavated from existing low grade stockpiles. There was no tailings deposition into the Lynx tailings deposition facility (TDF), but some dredgeate had been recently deposited. Site preparation works had begun for the construction of an ore chute between the Lynx 6 portal and the Lynx TDF area. Geotechnical infrastructure includes waste dumps, borrow areas, sediment ponds, two tailings facilities (the Lynx TDF and the 'Old' TDF), underground mines, and historical open pits and adit/portal openings. The following areas were observed during the mine inspection tour:

Jennifer Brash, M.Eng., P.Eng.
Senior Geotechnical Inspector

7-18-18
Dated: June 20, 2018

- Price access roads
- Price 4 Portal and underground workings
- Price 5 Portal and underground workings
- Lynx 6 Portal and underground development
- Waste Dump 3 and ore chute
- Lynx TDF

The purpose of this inspection was to:

- assess whether the Mine is meeting the intent of the geotechnical requirements of the Code;
- assess whether the Mine is meeting the intent of the geotechnical conditions in its Mine Permit;
- assess whether geotechnical engineering practices at the Mine are generally consistent with accepted practices at mines in British Columbia; and,
- provide general comment on geotechnical conditions at the mine.

This report is governed by the conditions and limitations set forth in the Mines Act and Code. This report is based on a review of select reports and work areas at the Mine, and cannot practically cover the entire mine site. Professional reliance has been used throughout this inspection.

Please note EMPR expects that all written recommendations made by a Professional Engineer, relating to geotechnical stability affecting health, safety, or environment, are followed by the Mine unless a suitable alternative written recommendation is provided by a Professional Engineer.

This report summarizes EMPR's observations, comments, and recommendations based on the Mine site tour, preliminary review of annual geotechnical reports, and technical discussions with Mine staff. If required, inspection orders have been issued. For ease of reference the Mine Manager is asked to respond in red text in the space provided below each inspection order.

Location: General Notes

This site visit served a dual purpose – both as a site inspection and to gather information related to ongoing permitting reviews. While on site, EMPR discussed some aspects of the ongoing permitting processes with Nyrstar personnel. This report contains brief summaries of such discussions; however, related issues will be communicated in detail and addressed through the relevant permitting processes.

Time constraints prevented EMPR from visiting the HW workings, where ground support rehabilitation efforts are underway. Nyrstar informed EMPR that works had progressed partway through the 20 level using the same support patterns as observed by EMPR during their January 2018 site visit. EMPR and Nyrstar discussed the need for development of a geotechnical model in support of a more predictive, proactive understanding of underground ground conditions and support requirements.

The ore stockpile area, currently the subject of a stop-work order (see January 2018 Report of the Geotechnical Inspector), appeared to be unchanged from January 2018. Nyrstar confirmed that no further works had been completed at the ore stockpile, in accordance with the stop-work order.

Location: Price Portal Access Road

The Price mine, including access roads to the portals, is the subject of an ongoing *Mines Act* permit amendment application. As such, no works have been permitted here outside of those relating to Health and Safety (i.e. attempts to unplug a blocked ore pass).

As part of the Permit Amendment process, it was requested that the Mine have an external consultant evaluate the access road from the Thelwood forestry road to the Price 4 & 5 Portals. A memorandum titled "Price Upper

Portal Access Road Assessment" prepared by Onsite Engineering Ltd., dated May 30, 2018 was provided to address the request. The Onsite report provides recommendations for road upgrades and risk management strategies for the Price Access road. Onsite have prepared the recommendations to a level that is quoted in the report as "*safe for intended use and to obtain permitting for access.*" The prescribed works include repair or upgrade to existing culverts, improved/repair of ditches, repair/rebuild of road prisms, armoring of slopes, and the installation of rock fall signage along the route.

The Price Access Road was investigated by vehicle. Numerous areas were noted where scaling may reduce the rock fall hazard along the access road. Further, there were areas noted where a large volume of fallen material had been side cast below the road prism and was resting on alder trees. This poses a risk as the road switchbacks immediately below the perched rocks and is to be rectified as part of the road upgrades. Photo 1 shows the current state of the Price Access Road.

The use of Price Access Road is restricted to mine vehicles and no ore or waste haulage is to be carried out on the road. Currently the mine is considering using the road throughout the year. The prescribed upgrade works will reduce some of hazards of the road; however, proper safety management will further reduce the risk associated with using the road. Comments specific to the Price Portal Access Road will be handled within the existing Permit Amendment Process. These comments will include:

- The mine is to seek guidance on rock scaling as part of the road upgrades in the Price Area.
- The use of the road in high precipitation and high antecedent precipitation is to be considered by the mine in terms of risk management.
- The use of the road during winter snowfall with associated avalanche risk is to be considered.

Location: Price 4 Portal

The Price 4 Portal is the upper portion of the Price mine and is accessed by road. The Price 4 portal was caged off to prevent unauthorized human ingress. Straps were supporting the overhanging rock nose above the portal entryway (Photo 2).

The headcover of the portal has yet to be rehabilitated from previous mining and will need completed prior to commencement of mining activity. The Mine is allowed to perform the rehabilitation work of the portal head cover prior to granting the mine permit provided that suitable road upgrades have been performed such that equipment can travel safely on the Price Access Road.

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Inspection of the underground workings found that the majority of the ground is determined by the Mine to be "Good" by Rock Mass Ratings standards. There are large portions of the Mine that have unsupported ground in Price 4 and Price 5. These areas have been assessed by Myra Falls personnel and external rock mechanic engineers and determined to be "stable at present." The issue with unsupported ground is that there is no reliance on design of support; rather, it is a management issue that requires daily visual assessment and check scaling. Further, the ground was assessed under current stress conditions, which will change upon extraction of stopes in the area.

The Ore Pass that connects Price 4 and Price 5 to Price 13 Level is currently blocked. The mine has previously attempted to unplug the ore pass. It is understood that a first attempt to unplug the ore pass consisted of blasting on top of the ore pass in the Price 4 Portal (top of ore pass shown in Photo 3). The second attempt was performed recently and was unsuccessful. The recent work to unplug the ore pass is discussed further in the following section on Price 5.

Discussion on crown pillar stability, mucking out of stopes to a predetermined draw percentage of stope tonnage, and pillar stability will be provided within the ongoing Permit Amendment Process.

Advisory 1: *In accordance with Section 6.1.1 (1) of the Code, the Mine shall actively manage areas of unsupported ground that are considered 'stable' per assessment of ground control personnel. The Mine is to ensure that, during active mining of the Level, daily check scaling of active headings is completed and remedial ground support is installed when warranted. No access shall be allowed to unsupported areas until check scaling has been completed and, per Section 6.4.1 of the Code, an examination of the Workings has been performed.*

Manager Response:

Based on assessments of qualified ground control personnel, ground control will confirm to Price 4 Level Ground Control Plan April 2018 submitted as part of the Price Permit package. As part of daily work place inspections, areas will be scaled prior to work activities. In accordance to 1.12.2, work will take place under the supervision of a holder of a shiftboss ticket.

Advisory 2: *The Mine shall submit a "Notice of Work" to the Chief Inspector for approval prior to commencing portal headcover/area rehabilitation.*

Manager Response:

Notice of work will be provided prior to commencing Price Portal headcover / area rehabilitation.

GWB 7-18-18

Location: Price 5 Portal

The Price 5 Portal provides access to the majority of future ore within the Price Mine. The Price 5 portal was secured with a steel grid to prevent unauthorized human ingress. The area above the portal has some loose rock and overhanging trees/debris (Photo 4). A small filtering pond is located outside the portal, which discharges via a drillhole to lower elevation mine workings (Price 13). The portal area is accessed by a narrow road in steep terrain, with adjacent vertical to overhanging rock slopes and small grader berms (Photo 5). Outside the portal is a platform created by historical mine waste dumps and timber supports (Photo 6); berms were not evident around the entirety of the platform area.

The portal (as shown in Photo 4) has not been rehabilitated for current mining. The Mine is allowed to perform the rehabilitation work of the portal head cover prior to granting the mine permit provided that the suitable road upgrades have been performed such that equipment can travel safely on the Price Access Road. The scope of the work is to be provided to Mine Inspector as "Notice of Work" for approval prior to commencement of the activity (see Advisory 2 above).

At the Price 5 Portal there is a historic waste rock dump. It is understood that planned mining in the area will not deposit any waste or ore material on surface and no additional material will be placed on the existing dump. However, the stability of the waste rock dump at Price 5 is not known at present. The mine is to provide a geotechnical assessment of the dump stability and the plans to provide a long-term stable dump design for closure. This item will be discussed within the Permit Amendment Process.

Underground in Price 5 ground conditions are similar to Price 4 with large areas of unsupported ground. It is to be understood that Advisory 1 above applies to Price 5. No future development is to occur under unsupported ground. Both these items will be discussed within the Permit Amendment Process.

EMPR and Nyrstar discussed preliminary work completed to unplug the ore pass from the Price 5 level, previously approved by EMPR. This work included the drilling of probe holes to determine the extents of the plug, video scoping of the probe holes for visual confirmation and, attempts to loosen the plug material with explosives. The video scope showed that the majority of the plug is within the main ore pass and does not include the Price 5 Finger. Detonation of explosives was not successful is unplugging the chute (as discussed above).

Mine personnel have determined from back calculations that the ore pass plug is likely between the top of the Price 4 portal and likely 15 m below the connection between the Price 5 finger and the main chute. Based on this estimate, the Mine is proposing the drill fan holes from the main Price 5 access to 1) delineate the extents of the plug in the ore pass and 2) to provide an adequate location within the plug to detonate a charge to unplug the pass.

Advisory 3: *No further work towards unplugging the Price ore pass is to proceed until a "Notice of Work" is approved by the regional Health and Safety Inspectors that includes, but not limited to, the full scope of the work, the equipment necessary, plan and section views of the proposed work, estimate of location of ore plug based on volume calculations, estimated amount of explosives required, safety procedures in place on Price 4, Price 5 and Price 13, location of primary and secondary egress, and the number of personnel required to complete the task.*

Manager Response:

Safe work plan was submitted to the EMPR inspectors on March 20th, 2018 and permission was granted on March 20th, 2018 to proceed with plan as submitted to clear ore pass. At that time it was requested that if unsuccessful, a new plan would be submitted.

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Order 1 (Inspection of Mines)
Issued Pursuant To: Mines Act Section 15(4)

Observation of Contravention:
The area outside the Price 5 portal does not restrict access to the steep waste dump slope drop-offs, potentially posing a hazard to personnel and equipment utilizing this area.

Remedial Action/Results To Be Obtained:
Pursuant to Code clause 1.1.2, the Mine Manager shall put in place measures to restrict access to the steep slopes at the edge of the Price 5 portal. This order is to be completed prior to July 31, 2018 or before mining commences in the area, whichever comes first. The order will be considered satisfied upon submittal of a memorandum with photographic evidence written by a Qualified Person.

Rectify By/Completion Date: 2018-07-31

Manager Response:

Measures to restrict access (such as jersey barriers or bumper blocks) will be placed in such a way to restrict access to a fall from heights by July 31st, 2018 as requested. Photographic evidence will be submitted at the time of completion.

Location: Lynx 6 Portal

It is understood that the Lynx Portal will be the first ore body mined upon restart. As part of the Geotechnical Inspection of January 18, 2018, an Inspection order regarding the construction of a head cover at the portal was to be completed. Photo 6 is evidence that this order has been completed.

During the inspection, the activity at Lynx underground was specific to mine services with electrical cable being hung. The Mine has performed some initial development underground. There was discussion underground and in the close-out meeting held afterwards with what activities are allowed within the Lynx Orebody. Discussion was had internally within EMPR and it is understood that mining at the Lynx Orebody is allowed per the scope submitted by the Mine in the Lynx Mine Development Plan drawing dated April 11, 2018 with the restriction, understood by all, that no waste or ore material leave the Lynx Portal without Permit Approval of the Lynx Ore Chute.

The development underground has consisted of slashing out the Price 6 Portal work, as authorized, and the support of a faulted zone with shotcrete. Some drill development headings were developed with support installed by Dumas Contractors per Ground Control guidelines. The Lynx 138 Stope has difficult ground conditions with a ground collapse observed along intersecting shear planes in the stope area; the age of the failure is not known to mine personnel. It was discussed that the plan for this area would be to fill in the area of collapsed ground with ore material to build a safe working platform in order to install required support and provide drill access for the top-cut.

Advisory 4: *In accordance with Section 6.1.1. of the Code, prior to commencing mining, the Mine is to submit a "Notice of Work" of the proposed mining within 137, 138 and 140 Stopes in the Lynx Orebody. The "Notice of Work" should outline the scope of work to deal with the difficult ground within the Lynx 138 Stope. This notice should be provided to the regional Inspectors, Compliance and Enforcement and the Inspector making this Advisory.*

Manager Response:

Notice of work will be provided to EMPR prior to mining within production blocks (137, 138, 140) as requested.

Location: Lynx TDF

At the time of inspection the Lynx TDF appeared to be in much the same condition as was observed in January 2018. No recent construction works were evident. A plume of sediment was observed in the TDF impoundment, which Nyrstar advised was arising from deposition of dredgeate (Photo 8). Nyrstar advised that they would soon be installing survey monuments on the TDF crest. Nyrstar advised that planning is underway, in consultation with the TDF Engineer-of-Record, to investigate a prior observation of deleterious materials in the starter dam materials.

During excavation of the haul route to the ore chute, a historical portal was found along the alignment of the Lynx TDF (Photo 9). The rock exposed in this area also includes some open joints and blocky structure (Photo 10). Nyrstar advised that engineering design work on the dam abutment, including a portal plug, will occur this year.

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Several small excavations were observed downstream of the Lynx TDF, which Nyrstar advised were due to use of materials for mill testing. Some excavations appeared to be undercutting infrastructure (Photo 11).

Advisory 5: *EMPR advises that the Mine assess the potential for the small excavations downstream of the Lynx TDF to impact nearby infrastructure and implement remedial actions if required.*

Manager Response:

The area will be assessed and documented by the Nyrstar Senior Tailings Engineer and actions will be implemented as required by July 31, 2018.

Advisory 6: *Per Code clause 10.5.1, the Mine should prepare a plan to investigate and remediate the observation of deleterious material within the Lynx TDF, signed and sealed by the Lynx TDF EoR. This document should include sufficient plans and sections to explain any excavations required and should be submitted to the Chief Inspector for approval prior to commencing investigation or remedial works.*

Manager Response:

The proposed investigation plan submitted with the Lynx Tailings Disposal Facility Lift Application will be finalized by the EoR by July 31, 2018.

Upon completion of the investigation the outcomes and recommended mitigations (should they be required) will be provided in a report, signed and stamped by the EoR, with a sufficient level of detail to explain any remedial works to the Chief Inspector by December 31, 2018.

Location: Waste Dump 3 and Ore Chute

The Ore Chute, including the haul road to the mill, is the subject of an ongoing *Mines Act* permit amendment application. As such, no works have been permitted here outside of those already authourized as part of Waste Dump 3 re-sloping.

The proposed alignment/location of the ore/waste chute connecting the Lynx 6 portal with the mill runs over very steep ground comprising areas of both natural ground and historic waste rock dumps. Onsite Engineering representatives outlined the work completed to date. Work on preparing the alignment had begun; resloping of the lower Waste Dump 3 slopes was partially complete, the haul road alignment had been established, rock scaling on exposed slopes had been completed, and mesh had been installed on the upper rock slope (Photo 12). Waste materials already removed were hauled to the TDF and to Waste Dump 6. Onsite described how the next phases of work would be executed; in general:

- Work would be completed from the top down;
- Work at the base of the 59 degree rock slope (including construction of a thrust block and installation of rock anchors) would be completed prior to excavating the existing adjacent waste dump fills;
- The lower chute would then be constructed commensurate with steepening the lower waste dump slope to 40 degrees. This would happen in a sequential fashion, with a portion of slope being excavated and the associated pipe being installed from the platform of the lower (unexcavated) waste dump slope;
- Task-specific risks will be managed at the task level.

Onsite advised that the construction sequencing is outlined in further detail in a revised set of IFC drawings and other materials recently submitted to EMPR. Further comments on the ore chute will be provided as part of the existing permitting process.

Order 2 (Inspection of Mines)
Issued Pursuant To: Mines Act Section 15(4)

Observation of Contravention:
The rock slope above the Lynx TDF and new ore chute haul road contains open joints and blocks that appear to be potentially unstable.

Remedial Action/Results To Be Obtained:
Pursuant to Code clause 1.9.1, the Mine Manager shall have a Professional Engineer assess the rock slope for stability and implement mitigative measures. A report documenting this assessment and the implemented mitigative measures shall be submitted to the Chief Inspector by the date below or prior to usage of the road for haulage, whichever is earlier.

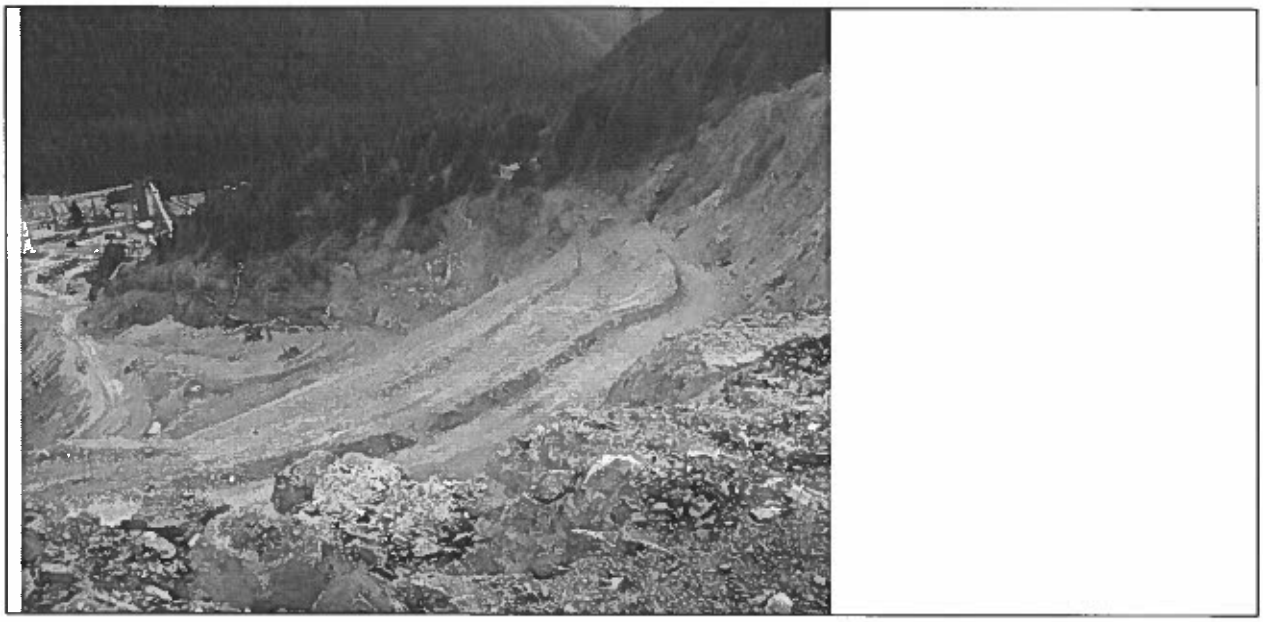
Rectify By/Completion Date: 2018-07-31

Manager Response:

Area was revisited by a professional engineer and a second letter (Engineering Note) provided. Mitigation actions implemented are: "(i) Scaling (large & small blocks), (ii) Establishment of an exclusion zone below the slope and (iii) establishment of a monitoring program".
Ref: (i) Eng-Note, July-9, 2018 (ii) Eng-Note, May-30, 2018.

Information Request 1: *EMPR was not able to clearly view the bench at the base of the 59 degree rock slope, the location of a planned thrust block and rock anchors. Please submit photographs of this area.*

Manager Response:



Closure

Please address the response to Jennifer Brash, Senior Geotechnical Inspector, at jennifer.brash@gov.bc.ca.

You are reminded that, as per Section 15(6) of the Mines Act, your response is required within 15 days of the days of receiving this report. In addition, Section 30 (1) of the Mines Act requires this Inspection Report to be posted in a conspicuous location at the mine site for 30 days.

Please feel free to contact the undersigned with any questions or comments.

Received by Glenn W. Smith, P.E. on 7-18-18
[Mine Manager Name, Title] [Date]

Signature: Glenn W. Smith

Jennifer Brash, M.Eng., P.Eng.
Senior Geotechnical Inspector

GWS 7-18-18

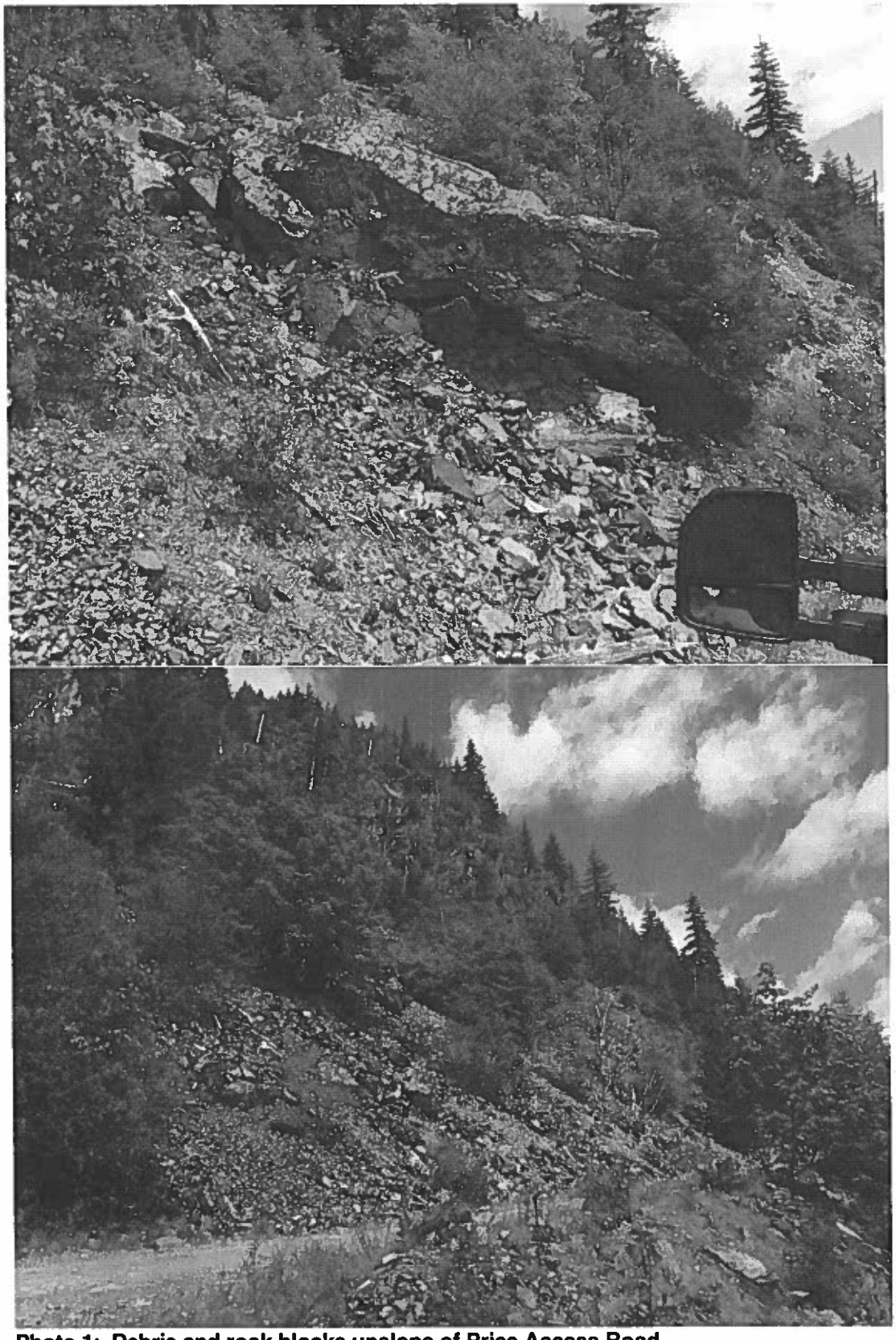


Photo 1: Debris and rock blocks upslope of Price Access Road

7-18-18

Photo 2: Price 4 Portal

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Photo 3: Price 4 Plugged Ore Pass

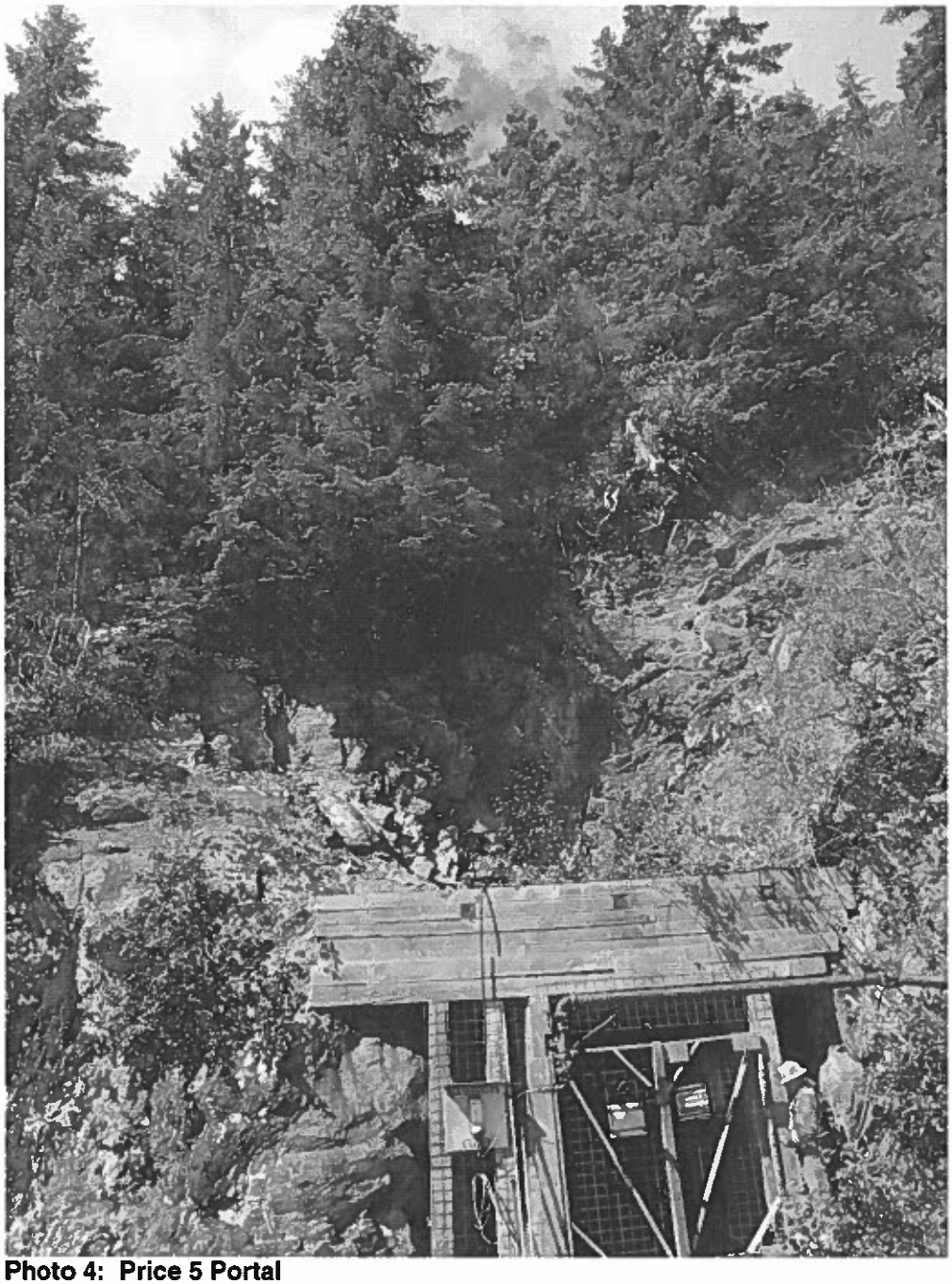


Photo 4: Price 5 Portal

Photo 5: Price 5 Portal Area

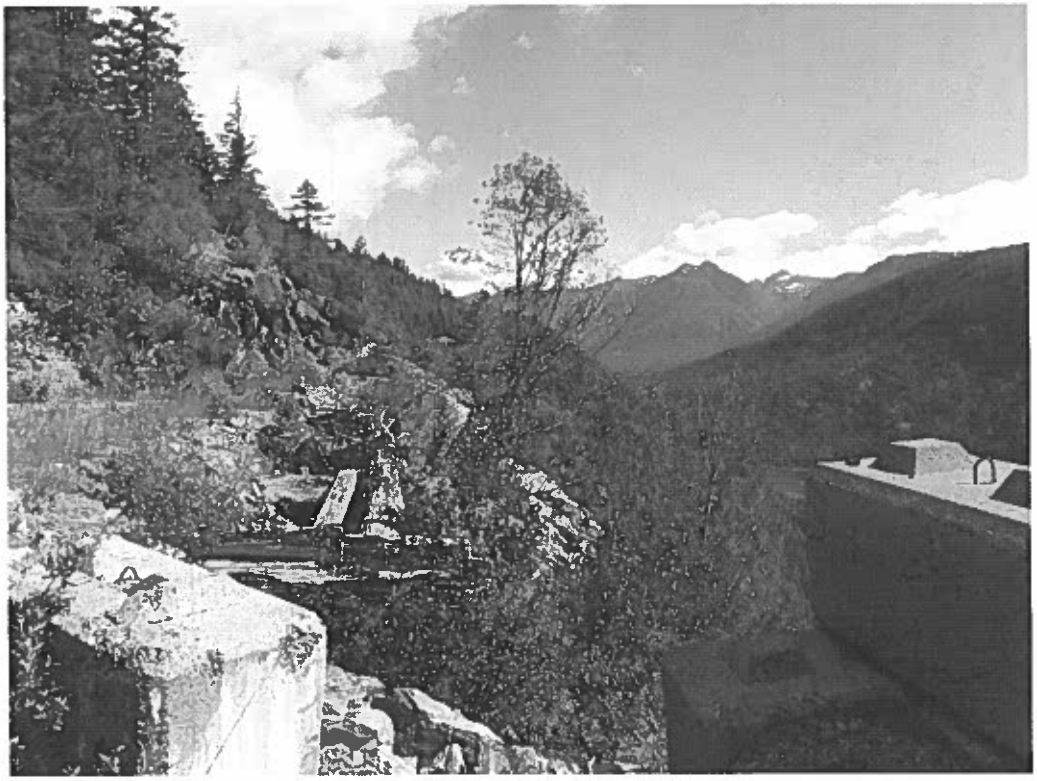


Photo 6: Price 5 Portal Area

Photo 6: Lynx 6 Portal Headcover

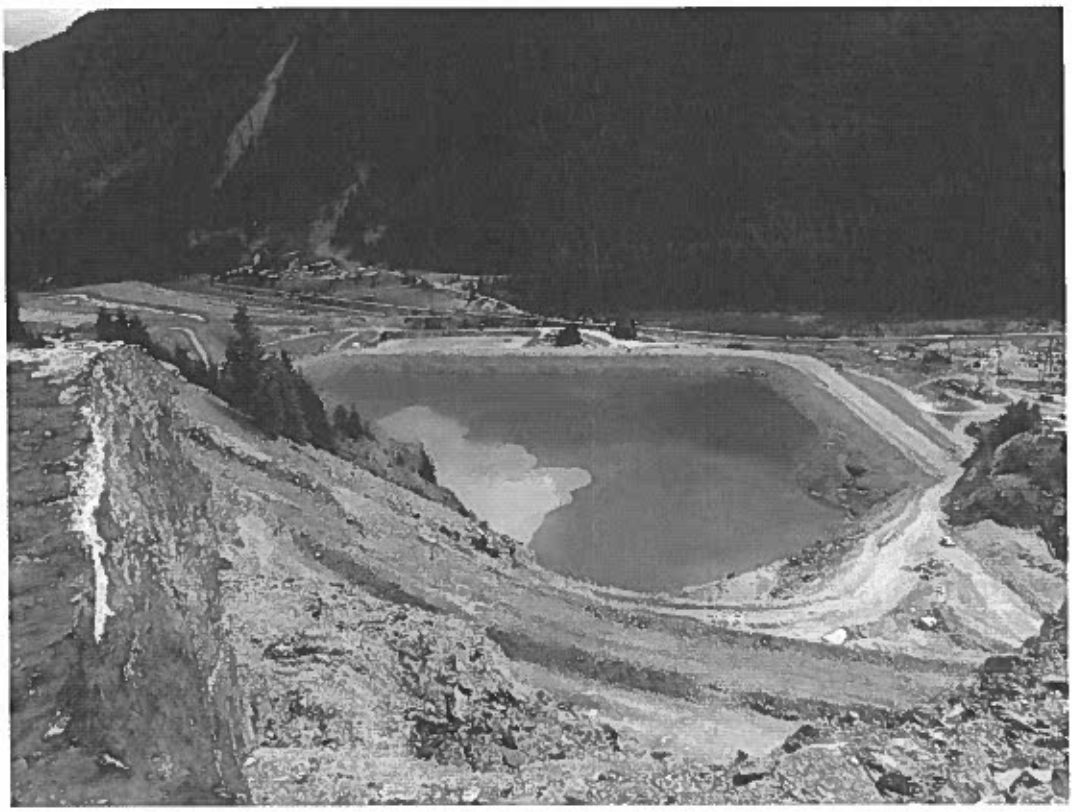


Photo 8: Lynx TDF

Photo 9: Portal in Lynx TDF Dam Abutment

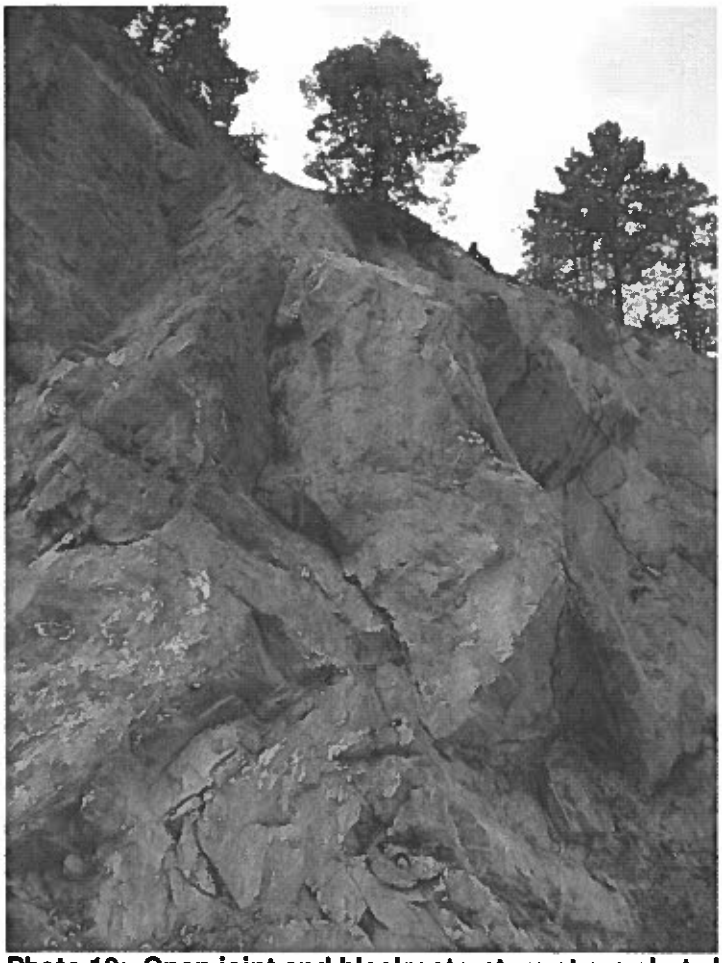


Photo 10: Open joint and blocky structure at ore chute haul road cut

Photo 11: Excavation in area downstream of Lynx TDF

Photo 12: Waste Dump 3 in ore chute area

ONSITE
Engineering Ltd.

ENGINEERING NOTE TO FILE

July 9, 2018
Jaime Delgado
Nyrstar Myra Falls,
Campbell River, BC

Re: Ongoing Hazard Mitigation on Lynx Ore Chute Construction

Dear Jaime,

Further to the May 30 Engineering Note to File (copy attached) related to ongoing hazard assessment for the construction of the Lynx Ore Chute, and to the MEM field review visit dated June 26, 2018 and associated follow-up comments, the writer has revisited the potential hazard represented by "open joints and blocks that appear to be potentially unstable".

The area in question is referred to as Area 1 in the attached Engineering Note to File. Mitigation to date in this area includes:

- Scaling, including scaling of large blocks wherever possible;
- Establishment of an exclusion zone below the rock slopes;
- Establishment of a monitoring program.

The writer has revisited this slope, and considers that the existing mitigation is adequate for the following reasons:

- The large blocks in question are located low on the slope, in locations where failure (were it to occur) would result in the block landing in the exclusion zone;
- Failure of blocks such as those observed are typically the result of unfavorable weather conditions, and these conditions generally correspond to the project's weather shutdown criteria;
- In addition to the exclusion zone, access to the road is limited to construction vehicles, and no activities require workers on foot to be in the area.

Despite the above the blocks are, as identified in the May 30th Engineering Note to File, included as part of the regular site stability monitoring.

7-18-18

Closure

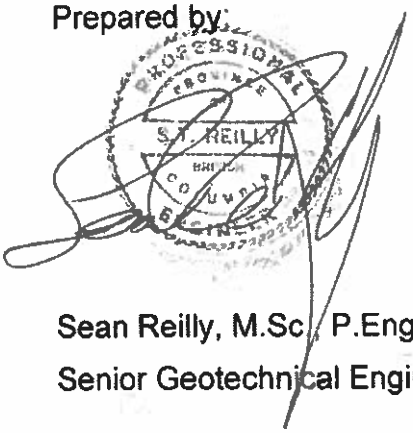
This note to file is a point in time summary of the work completed to date and work left remaining with respect to hazard mitigation. Further summaries will be forthcoming as work progresses.

These documents have been prepared in accordance with generally accepted engineering practices. No other warranty, expressed or implied, is made. We trust that this letter satisfies your present requirements. If you have any questions or comments, please contact our office at your convenience.

Sincerely,

Onsite Engineering Ltd.

Prepared by:



Sean Reilly, M.Sc., P.Eng.
Senior Geotechnical Engineer

Reviewed by:

Jeremy Araki, P.Eng.
Supervising Engineer, Principal

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ENGINEERING NOTE TO FILE

May 30, 2018
Jaime Delgado
Nyrstar Myra Falls,
Campbell River, BC

Re: Ongoing Hazard Mitigation on Lynx Ore Chute Construction

Dear Jaime,

The following part of ongoing hazard assessment for the construction of the Lynx Ore Chute in response to the report by OEL entitled, "Lynx 6 Ore Chute Geotechnical Hazard Assessment", issued May 7, 2018. This note summarizes the work completed to date and work remaining to mitigate the hazards identified in the above report.

Area 1 – Haul Road Widening Area

Mitigation tasks completed:

- Face above the haul road has been check scaled.
- Rock removal for the road widening has been completed with the use of expanding grout and a rock breaker.
- Large blocks were removed where ever possible.

Mitigation tasks remaining:

- Place barriers for the established exclusion zones at the base of the rock to prevent workers from entering the area.
- Monitor remaining large blocks. To be completed by the Engineer during regular field reviews.

Area 2 – Lower Transfer Point and Haul Road

Mitigation tasks completed:

- None. The existing berm has been adequate for the work completed to date.

Mitigation tasks remaining:

- Clean out existing berm as required

- Extend berm to meet Area 1 berm and provide continuous protection.

Area 3 – Lower Chute Waste Dump Slope

Mitigation tasks completed:

- Western side of the highwall above the slope has been check scaled. No specific blocks have been flagged for monitoring.
- Berm constructed along the entire toe of the waste dump.
- Waste dump slope has been trimmed to between 33 and 40 degrees.
- Working benches with berms have been created at the top of the waste dump (to leave in place) and near the top of the waste dump (to work down during chute construction).
- Regular survey monitoring

Mitigation tasks remaining:

- Limit access to essential personnel only
- Final drainage infrastructure for flows from near the adit on the west side.
- Final trimming of the slope at the finished temporary slope of 33.7 degrees away from the chute and 40 degrees under the chute.
- Establish the monitoring points down slope along the chute location for survey control during operations.
- Task specific risk assessments for each work task in critical areas on the slope
- Full time geotechnical monitoring for critical tasks during construction of the chute.

Area 4 – Lower Chute Rock Slope

Mitigation tasks completed:

- Slope has been check scaled. No specific blocks have been flagged for monitoring.
- Berm constructed along the top of the highwall and removal of loose materials at the chute location.
- Rockfall mesh and related anchors installed at the chute location.
- Regular survey monitoring

Mitigation tasks remaining:

- Limit access to essential personnel only
- Task specific risk assessments for each work task in critical areas on the slope
- Full time geotechnical monitoring for critical tasks during construction of the chute.

Area 5 – Upper Chute

Mitigation tasks completed:

- Exclusion zone and catchment berms have been established.

Mitigation tasks remaining:

- Limit access to essential personnel only
- Final trimming of the slope at the finished temporary slope of 40 degrees.
- Establish the monitoring points down slope along the chute location for survey control during operations.
- Task specific risk assessments for each work task in critical areas on the slope
- Full time geotechnical monitoring for critical tasks during construction of the chute.

Area 6 – Lower Chute Temporary Construction Access Road

Mitigation tasks completed:

- Exclusion zone established (physical barrier on the approach road).
- Highwall above the road has been check scaled. No specific blocks have been flagged for monitoring.
- Berm constructed along the outside edge.
- Regular survey monitoring

Mitigation tasks remaining:

- Limit access to essential personnel only
- Task specific risk assessments for each work task in critical areas on the road.

Closure

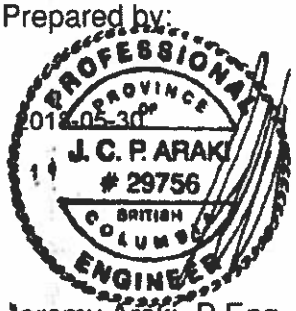
This note to file is a point in time summary of the work completed to date and work left remaining with respect to hazard mitigation. Further summaries will be forthcoming as work progresses.

These documents have been prepared in accordance with generally accepted engineering practices. No other warranty, expressed or implied, is made. We trust that this letter satisfies your present requirements. If you have any questions or comments, please contact our office at your convenience.

Sincerely,

Onsite Engineering Ltd.

Prepared by:



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