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FINAL REPORT

SD 2-7 Ore Storage Management Plan - Meliadine Gold Project, Nunavut

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REPORT



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Executive Summary

Agnico Eagle Mines Limited (AEM) is developing the Meliadine Gold Project (the Project), located approximately 25 kilometres (km) north from Rankin Inlet, and 80 km southwest from Chesterfield Inlet in the Kivalliq Region of Nunavut. Situated on the western shore of Hudson's Bay, the Project site is located on a peninsula between the east, south, and west basins of Meliadine Lake (63°1'23.8" N, 92°13'6.42"W), on Inuit owned land. This report presents a conceptual Ore Storage Management Plan (Plan) for the Project and forms a component of the documentation series produced in accordance with the Project.

The Plan has been prepared to a conceptual level appropriate for inclusion in the Project Environmental Impact Statement. The Plan will be reviewed and updated on a regular basis as the Project proceeds into detailed design, construction, operations and closure.

The current mining plan indicates that approximately 38 Mt of ore will be mined from open pit (approximately 27 Mt) and underground activities (approximately 11 Mt) over a mine life of 13 years. Alternative management strategies for ore at the Project site are limited. The proposed management strategy was chosen based on operational considerations and to minimize transportation of ore.

During operation, the ore will be trucked to the primary crusher either directly from the open pits or from two temporary stockpiles located south of the primary crusher. Crushed ore from the Primary crusher will be conveyed to the crushed ore dome which is the main crushed stockpile facility. Transfer of ore from the primary crusher to the dome and then to the mill will be made via covered conveyor system. The conveyors will be equipped with a belt scale for detailed tracking and monitoring of the ore. These results will be crosschecked with the tailings production rate.

Ore stockpile tonnage will vary over time but will gradually increase to approximately Year 10. Starting Year 11, the stockpiled ore will gradually be processed through the mill. The stockpiles will be designed and operated to minimize the impact on the environment and considering geochemical conditions. The material will be generally transported by truck and end-dumped, following a sequence developed for the operation. The stockpiles will be situated on waste rock pads, the foundations of which are anticipated to be permafrost. The permafrost is expected to aggrade into the waste rock pads with the active layer contained within the pads. All contact water reporting from the stockpile areas will be intercepted, analyzed and re-used in the process, or treated, if required, and discharged to the receiving environment when water meets discharge criteria. The primary crusher and conveyors will be covered systems equipped with dust collectors. Therefore, dust is expected to be a minor issue during operation.



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Abbreviation and Acronym List

AEM	Agnico Eagle Mines Limited
ARD	Acid Rock Drainage
DFO	Fisheries and Oceans Canada
FEIS	Final Environmental Impact Statement
Golder	Golder Associates Ltd.
LML	Little Meliadine Lake
MMER	Metal Mining Effluent Regulations
NIRB	Nunavut Impact Review Board
NPAG	Non-Potentially Acid Generating
PAG	Potentially Acid Generating
TSF	Tailings Storage Facility



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1.0 INTRODUCTION

Agnico Eagle Mines Limited (AEM) is developing the Meliadine Gold Project (the Project), located approximately 25 kilometres (km) north from Rankin Inlet, and 80 km southwest from Chesterfield Inlet in the Kivalliq Region of Nunavut. Situated on the western shore of Hudson's Bay, the proposed Project site is located on a peninsula (the Peninsula) between the east, south, and west basins of Meliadine Lake (63°1'23.8" N, 92°13'6.42"W), on Inuit owned lands.

The Project is composed of five gold deposits that are located in relatively close proximity to one another: Tiriganiaq, F Zone, Pump, Wesmeg and Discovery. The proposed mine will generate approximately 38 million tonne (Mt) of ore. The deposits will be mined using conventional open pit mining methods with additional underground mining for the Tiriganiaq deposit. Approximately 8,500 tonnes of ore will be processed per day.

Proposed mining facilities in the area include a plant site, an ore stockpile site, a tailings storage facility (TSF), waste rock storage facilities, and diversion and containment dikes. A general location and site plan of the proposed Meliadine Mine is shown in Figures 1-1 and 1-2, respectively.

This document presents a conceptual Ore Storage Management Plan (Plan) for the Project. The Plan is divided into the following components:

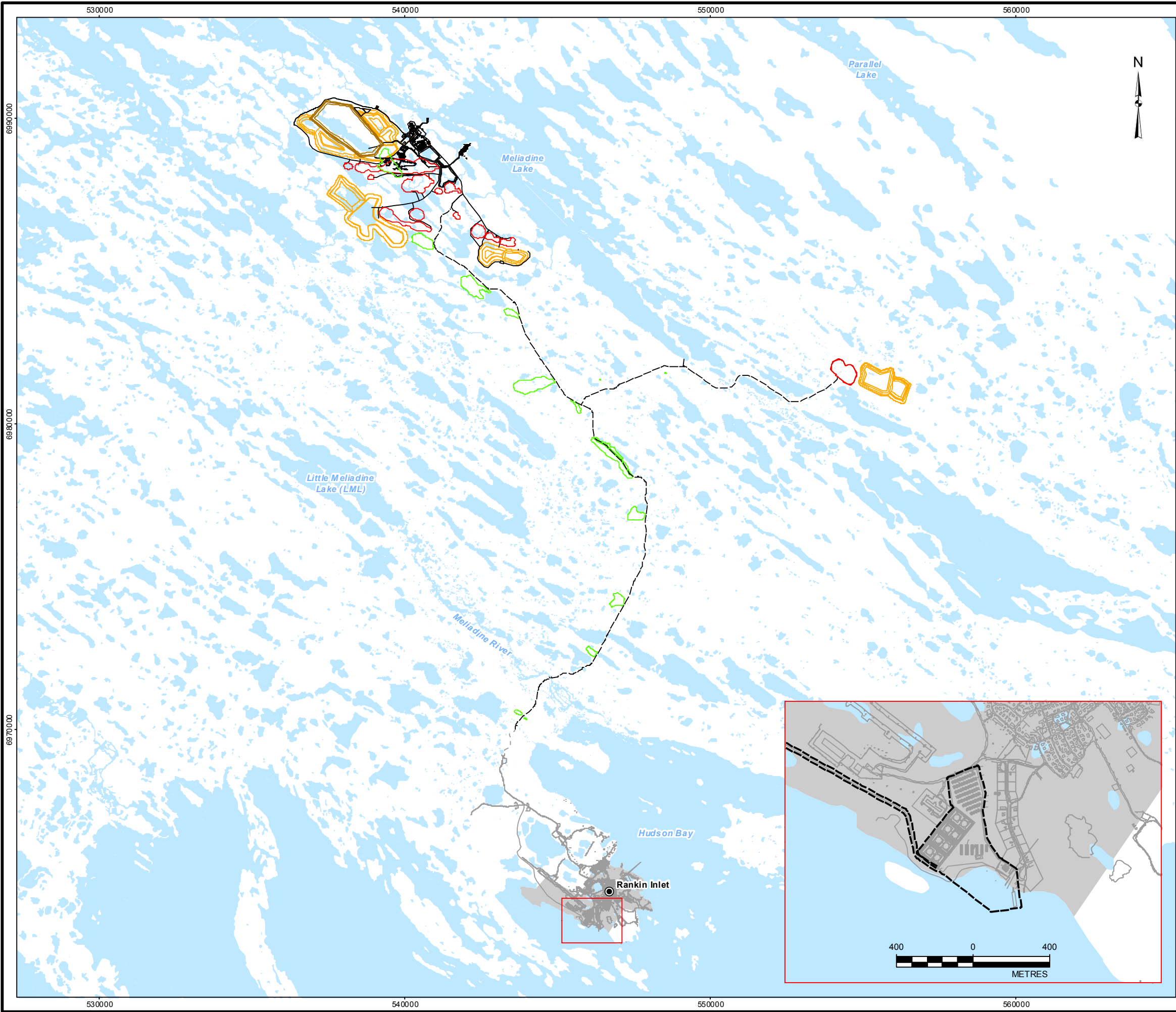
- A brief summary of the physical setting at the mine site (Section 3);
- A description of the ore geochemistry (Section 4);
- A description of ore management at the mine site (Section 5);
- A description of conceptual closure activities related to the ore management facilities (Section 6); and
- A discussion on alternative ore management strategies (Section 7).

The Plan will be in effect for the operating phase of the Project. The purpose of the Plan is to provide consolidated information on ore storage management, including strategies for controlling dust, worker doses, and runoff from the Project ore stockpiles.

This Plan has been prepared to a conceptual level appropriate for inclusion in the Project Environmental Impact Statement. This Plan will be reviewed and updated on a regular basis as the Project proceeds into detailed design, construction, operations and closure.

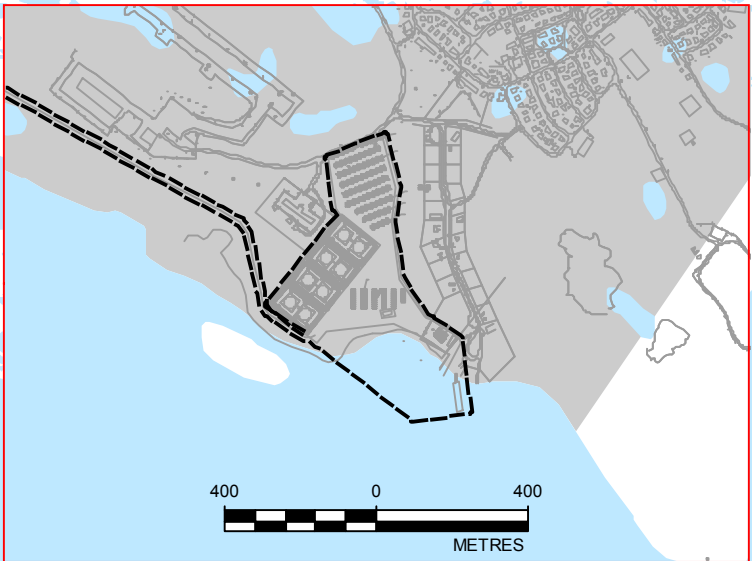
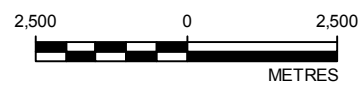
This report has been prepared in accordance with the "Study Limitations of This Report," which are presented at the beginning of the report. The reader's attention is specifically drawn to this information for reference during the use of this report.



N:\Bur_Graphics\Projects\2013\1428\13-1428-0007\GIS\Mapping\MXD\FEIS\Volume_2\SD_2-7_Ore_Storage_Mgmt_Plan\Figure_1.1_Infrastructure_Rankin_Inlet.mxd

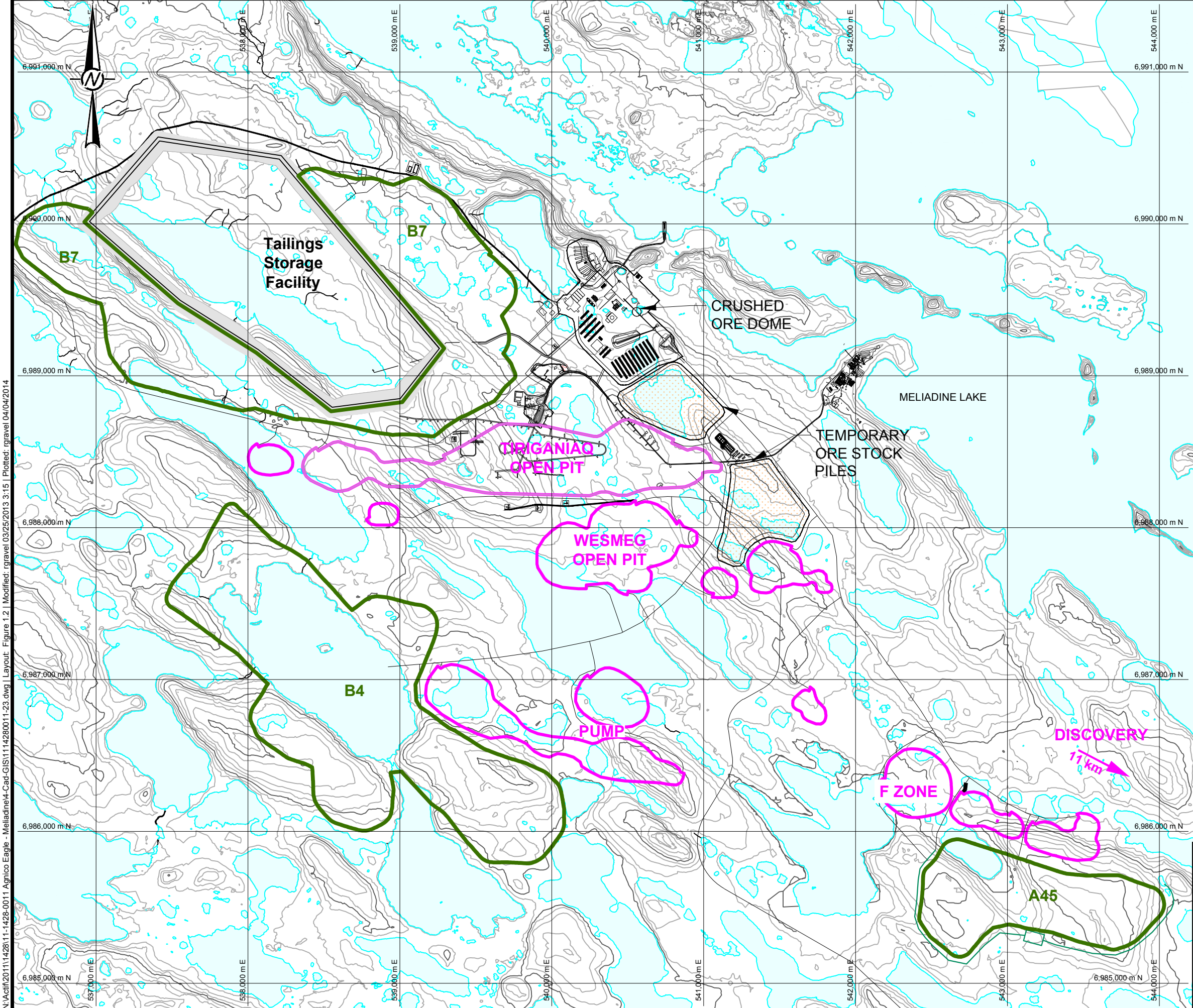


- LEGEND**
- Proposed Project Infrastructure
 - Open Pit
 - Tailings Storage Facility
 - Waste Rock Storage Facility
 - Borrow Pit/Quarry
 - All-weather Access Road (AWAR)
 - Road - New
 - Road - Existing
 - Watercourse
 - Waterbody
 - Municipal Boundary

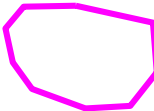
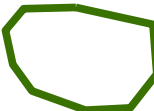
REFERENCE
Base data obtained from Agnico Eagle Mines Limited (AEM).
Datum: NAD 83 Projection: UTM Zone 15



PROJECT		 AGNICO EAGLE		AGNICO EAGLE MINES LIMITED MELIADINE GOLD PROJECT NUNAVUT			
TITLE		PROJECT LAYOUT, INCLUDING AWAR AND PROPOSED INFRASTRUCTURE IN RANKIN INLET FOR THE MELIADINE GOLD PROJECT					
		PROJECT NO.		FILE No.			
		DESIGN	DW	19 Nov. 2012	SCALE AS SHOWN	REV.	0
		GIS	CDB	19 Nov. 2012	FIGURE 1.1		
		CHECK	DW	11 Jan. 2013			
		REVIEW	DW	11 Jan. 2013			



LEGEND

-  PROJECTED OPEN PIT (LARGEST CONTOUR)
-  PROPOSED WASTE ROCK STORAGE FACILITY



PROJECT

**AGNICO EAGLE**

TITLE

**MELIADINE GOLD PROJECT
GENERAL SITE PLAN**



PROJECT No.		11-1428-0011	FILE No.		1114280011-23
DESIGN	MK	26Nov2012	SCALE	AS SHOWN	REV. 0
CADD	RG	26Nov2012	FIGURE 1.2		
CHECK	MK	26Nov2012			
REVIEW	MK	26Nov2012			

N:\Activ\2011\1428\11-1428-0011 Agnico Eagle - Meliadine\4-Cad-GIS\1114280011-23.dwg | Layout: Figure 1.2 | Modified: rgravel 03/25/2013 3:15 | Plotted: rgravel 04/04/2014



2.0 CONCORDANCE WITH GUIDELINES

The purpose of this document is to address the Guidelines issued by the Nunavut Impact Review Board (NIRB) for the Project (NIRB 2012), and specifically those relating to the presentation of an Ore Storage Management Plan. Specific requirements set out in the Guidelines relating to the preparation of an Ore Storage Management Plan are presented in FEIS Volume 1, Appendix 1.0-A.

3.0 BACKGROUND INFORMATION

3.1 Site conditions

The Project is located in lowlands near the northwest coast of Hudson Bay. The dominant terrain in the Project area comprises glacial landforms such as drumlins (glacial till), eskers (gravel and sand), and small lakes. Topography is gently rolling with a mean elevation of 65 metres above sea level and a maximum relief of 20 metres (m).

The local overburden typically consists of sand and gravel deposits of various thicknesses overlying till with cobbles and boulders. Some of the surfaces are covered by a thin layer of organics. Bedrock in the Project area consists of a stratigraphic sequence of clastic sediments, oxide iron formation, siltstones, graphitic argillite, and mafic volcanic flows (Snowden 2008; Golder 2009).

Low-lying areas are poorly drained as a result of a low slope in the landscape, and intermittent streams connect numerous shallow ponds and lakes. Most lakes in the study area are generally well oxygenated during open water conditions. Lakes have been found not to be thermally stratified during open water sampling events, and low dissolved oxygen concentrations have been observed in the Peninsula lakes during ice conditions, which likely limit their use by overwintering fish (SD 7-2 2011 Aquatics Baseline).

3.1.1 Climate

The Project is located in the Kivalliq Region of Nunavut, near the northern border of the southern Arctic terrestrial ecozone, and within the Arctic tundra climate region. Within this region daylight reaches a minimum of 4 hours per day during the winter, and a maximum of 20 hours during the summer. The climate is extreme with long cold winters and short cool summers. Temperatures are cool, with mean temperature of 12 degrees Celsius (°C) in July and -31 °C in January. The mean annual air temperature of the Project site is approximately -10.4 °C (SD 7-2 2011 Aquatics Baseline).

The recorded prevailing winds are from north and north-northwest. The wind blows from the north and north-northwest direction more than 30% of the time, and the least frequent wind direction is west-southwest, with a frequency of 2.1%. The calm frequency is 2.8% of the time. The mean values for wind speed show that the north-northwest together with north and northwest winds have the highest speeds and tend to be the strongest.

Mean annual precipitation at the Project site, based on the hydrological year from 1 October to 30 September, is estimated to be 411.7 millimetres (mm) after accounting for rainfall and snowfall undercatch. Approximately 51% of precipitation occurs as rain (207.1 mm) and 49% occurs as snow (199.1 mm). The 24-hour extreme rainfall



intensity with a 10-year return period is estimated to be 1.9 mm/h, or 45.6 mm total depth. Corresponding values for the 100-year return period are 2.6 mm/h or 62.4 mm total depth.

3.1.2 Permafrost

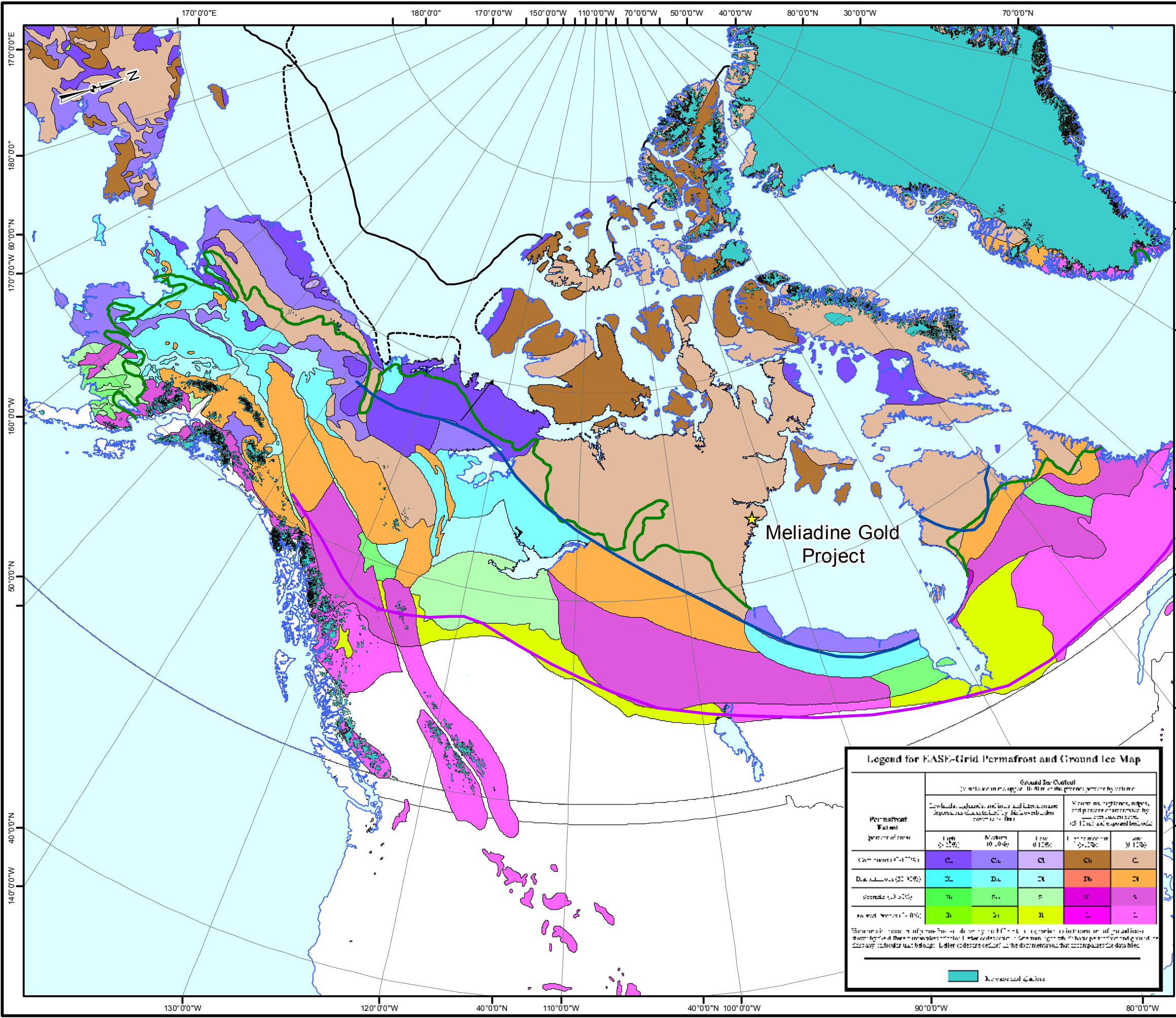
The Project is located in the area of continuous permafrost, as shown on Figure 2-1.

Late-winter ice thicknesses on freshwater lakes in the Project area over the period of record are presented in SD 6-1 Permafrost Baseline Report, Table 12. Ice thickness ranges from 1 to 2.3 m with an average thickness of 1.7 m. Ice covers usually appear by the end of October and are completely formed in early November. The spring ice melt typically begins in mid-June and is complete by early July.

Published data regarding permafrost were used to recreate the permafrost map of Canada shown in Figure 2-1. Based on thermal studies and measurements of ground temperatures, the depth of permafrost at the Project site is estimated to be in the order of 360 to 495 m, depending on proximity to lakes. The depth of the active layer ranges from about 1 m in areas with shallow overburden, up to about 3 m adjacent to lakes. The depth of the permafrost and active layer will vary based on proximity to lakes, overburden thickness, vegetation, climate conditions, and slope direction (SD 6-1 Permafrost Baseline Report).

Based on ground conductivity surveys and compilation of regional data, the ground ice content at the site is expected to be low between 0% and 10% (dry permafrost). Regionally on land, ice lenses and ice wedges are present, as indicated by ground conductivity, and by permafrost features such as frost mounds. These areas of local ground ice are generally associated with low-lying areas of poor drainage. Thermistor cables have been installed at the site to characterize and monitor the thermal conditions and permafrost.

N:\Bur_Graphics\Projects\2013\1428\13-1428-0007\GIS\Mapping\MXD\FEIS\Volume_2\SD_2-7_Ore_Storage_Mgmt_Plan\Figure_2.1_Permafrost_Map.mxd

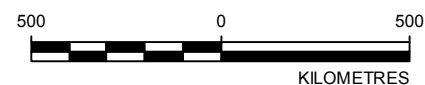


LEGEND

- MELIADINE GOLD PROJECT
- SOUTHERN BOUNDARY OF CONTINUOUS PERMAFROST - PRESENT
- SOUTHERN BOUNDARY OF DISCONTINUOUS PERMAFROST - PRESENT
- TREELINE
- SEA-ICE EDGE LIMIT
- SUBSEAPERMAFROST LIMIT

REFERENCE

BROWN, J., O.J. FERRIANS JR., J.A. HEGINBOTTOM, AND E.S. MELNIKOV. 1998. CIRCUM-ARCTIC MAP OF PERMAFROST AND GROUND-ICE CONDITIONS. BOULDER, CO: NATIONAL SNOW AND ICE DATA CENTRE/WORLD DATA CENTER FOR GLACIOLOGY. DIGITAL MEDIA. PREDICTED PERMAFROST BOUNDARIES BASED ON WOO ET AL., 1992. DATUM: NAD83 PROJECTION: UTM ZONE 15



Legend for EASE-Grid Permafrost and Ground Ice Map

Permafrost Type (percent of area)	Ground Ice Content (percent of volume)				
	High (> 12%)	Medium (10-12%)	Low (0-12%)	Very Low (0-12%)	None (0-12%)
Continuous (> 10%)	C1	C2	C3	C4	C5
Discontinuous (5-10%)	D1	D2	D3	D4	D5
Sporadic (< 5%)	S1	S2	S3	S4	S5
No permafrost (< 0%)	N1	N2	N3	N4	N5

Where the color of the permafrost type is indicated by the color of the ground ice content, the color of the ground ice content is indicated by the color of the permafrost type. The color of the permafrost type is indicated by the color of the ground ice content. The color of the ground ice content is indicated by the color of the permafrost type.

PROJECT

AGNICO EAGLE MINES LIMITED
MELIADINE GOLD PROJECT
NUNAVUT

TITLE

PERMAFROST MAP OF CANADA

Golder Associates

PROJECT	10-1373-0076	FILE No.
DESIGN	JC	27 July 2011
GIS	AL	27 July 2011
CHECK	JC	28 Jun. 2012
REVIEW	CJC	28 Jun. 2012

SCALE AS SHOWN

REV. 1

FIGURE 2.1

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3.2 Mining Plan

The current mining plan (FEIS Volume 2 Table 2-12) indicates that approximately 37.5 Mt of ore will be mined from open pit (approximately 27 Mt) and underground activities (approximately 10.5 Mt) over a mine life of 13 years.

The following mining development sequence is currently planned:

- 1) **Tiriganiaq:** Open pits and underground operation in this area are the first to start, but are also those with the longest mine life.
- 2) **F Zone:** The second open pit area to be developed simultaneously with Wesmeg. This area is also somewhat remote.
- 3) **Wesmeg:** Wesmeg is located south of the Tiriganiaq deposit. Wesmeg has multiple development pits and starts at Year 3 at the same time as F Zone. However Wesmeg has longer planned operational life.
- 4) **Pump:** Located close to Wesmeg starting operation in Year 6.
- 5) **Discovery:** Open pit area located at a distance from the mill and other mining infrastructure. It is currently planned to start developing Discovery open pit area at the same time as Pump following initiating development at Tiriganiaq.

The mine plan was used to prepare the material balance shown in Table 2-1. Ore stockpile tonnage will vary over time. The ore stockpiles will gradually increase their tonnage until approximately Year 10, with little variation after Year 7. During that period, borrow from the stockpiles will mainly be used to balance the mill operation. Starting Year 11, the stockpiled ore will gradually be processed through the mill. The maximum planned capacity of the ore stockpiles of approximately 4 Mt should be reached at the end of Year 10.

3.3 Ore Storage Areas

Three main components make up the ore storage facilities, as shown on Figure 2-2. The components can be described as follows:

- crushed ore dome;
- temporary ore stockpile #1 near the primary crusher; and
- temporary ore stockpile #2 near the primary crusher.

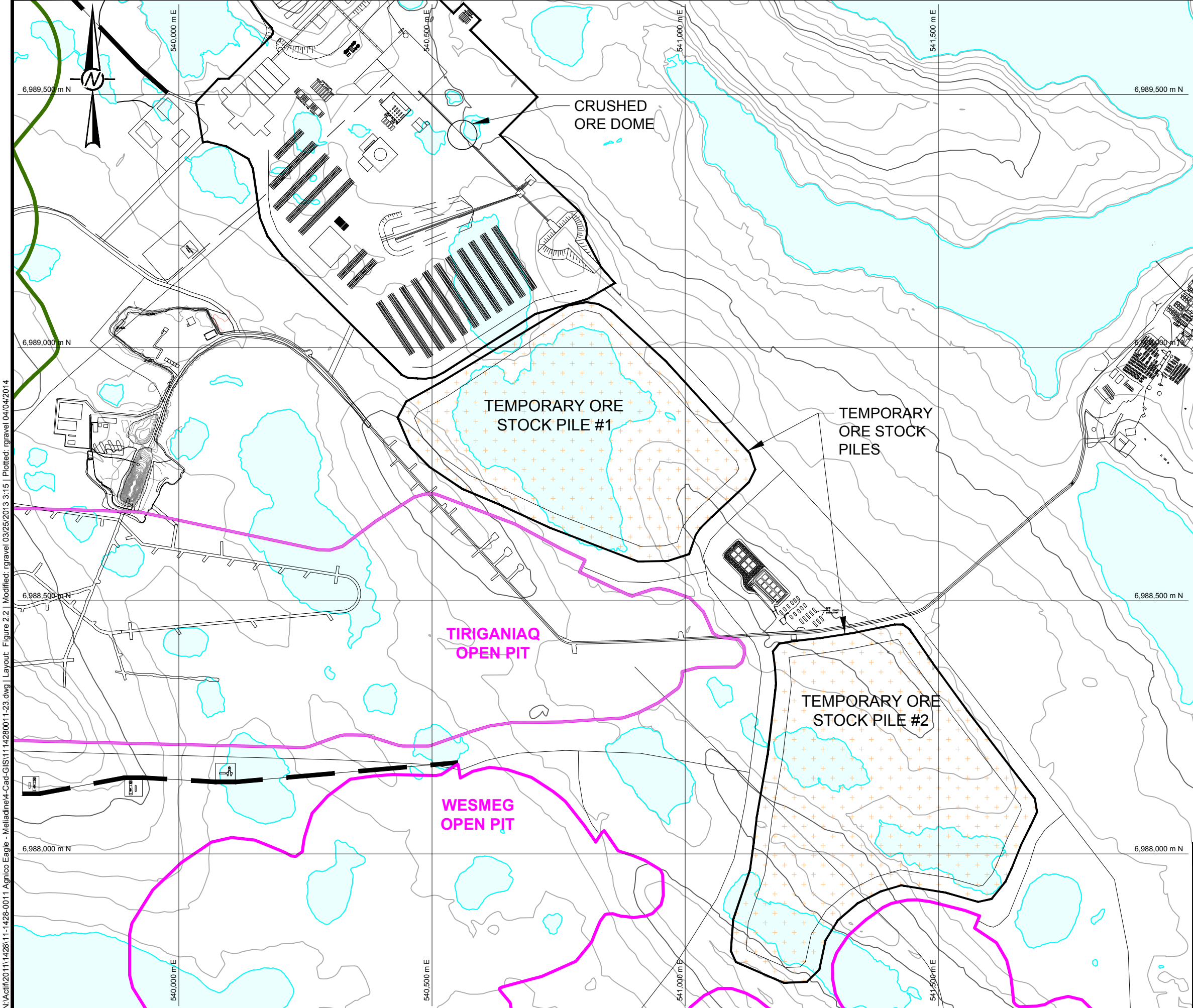


MELIADINE FEIS – SD 2-7 ORE STORAGE MANAGEMENT PLAN - MELIADINE GOLD PROJECT, NUNAVUT


Table 2-1: Project Ore Stockpiling Schedule

Year	-3	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12	13
Stockpile Beginning of Period Balance (kt)				686	938	1336	1287	2098	3197	3670	3806	3802	3734	3973	2440	981
Stockpile Additions (kt)			686	404	932	700	1328	2245	474	183	183	183	239	416		
<i>Pit Ore (kt)</i>			661	183	932	700	1328	2245	474	183	183	183	239	416		
<i>Underground Ore (kt)</i>			25	222												
Stockpile Withdrawal (kt)				152	534	749	517	1146		47	186	251		1949	1459	981
Stockpile end of Period Balance (kt)			686	938	1,336	1287	2098	3197	3670	3806	3802	3734	3973	2440	981	0


Note: kt = 1000 tonnes



LEGEND





PROJECTED OPEN PIT
(LARGEST CONTOUR)



PROPOSED WASTE ROCK
STORAGE FACILITY



PROJECT		 AGNICO EAGLE MINES LIMITED MELIADINE PROJECT NUNAVUT			
TITLE					
ORE STOCK PILES AND CRUSHED ORE DOME LOCATIONS					
PROJECT No.		11-1428-0011		FILE No.	
DESIGN		MK	26Nov2012	SCALE AS SHOWN	
CADD		RG	26Nov2012	REV. 0	
CHECK		MK	26Nov2012	FIGURE 2.2	
REVIEW		MK	26Nov2012		



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4.0 ORE GEOCHEMISTRY

Samples of ore from each of the five deposits have been collected as part of the Mine Waste Geochemical Characterization program for the Project (SD 6-3 Geochemistry Baseline Report). The ore sample selection was intended to target the predominant type of ore encountered at each deposit. Static and kinetic testing methods were used to assess the chemical composition of the ore, its potential to generate acid rock drainage (ARD), and its potential to leach metals to the receiving environment upon exposure to ambient conditions. Results of the analytical program are summarized in SD 6-3 Geochemistry Baseline Report.

Tested ore from most deposits is non-potentially acid generating (NPAG), with the exception of the Discovery iron formation ore which is potentially acid generating (PAG) and Pump and F Zone iron formation ore which have an uncertain ARD potential. Furthermore, the Discovery iron formation ore, Tiriganiaq greywacke ore and Tiriganiaq mafic volcanic ore have the potential to leach arsenic above the Canadian Metal Mining Effluent Regulations (MMER) effluent quality (monthly mean value for arsenic; DFO 2006). All tailings from the milling process will report to tailings storage facility (TSF) for long-term management. During operations, all contact water from the ore stockpiles will be adequately managed as described in Section 5.3.

5.0 ORE MANAGEMENT

5.1 General Description of the Ore Storage Facilities

Ore transported from the open pits will be sent directly to the crusher. If not possible, it will be temporarily stockpiled at the 2 stockpiles located south of the primary crusher. During operation the ore will be trucked to the primary crusher either directly from the open pits or from the temporary ore pads, as per the current mine plan (Table 2-1; FEIS Volume 2 Table 2-12). The crushed ore will then be conveyed to the dome which will be the main stockpile facility. Transfer of ore from the primary crusher to the dome and then to the mill will be via a covered conveyor system. Ore from the underground mine will be crushed underground and transported to the ore dome via a conveyor system.

As described below, the ore storage facilities will be designed and operated to minimize the impact on the environment and considering geochemical conditions.

5.2 Thermal and Stability Considerations

As mentioned in Section 3.1.2, the Project is located within the zone of continuous permafrost with intervening taliks and thaw bulbs induced by lakes. Temporary ore stockpiles #1 and #2 will be located in areas where shallow waterbodies are currently present (Figure 2-2). The waterbodies will be pumped out for the development of the milling area. Open taliks are not predicted to be present beneath the waterbodies and the foundation of the ore stockpiles is anticipated to be permafrost.

The active layer thickness in the area is anticipated to be less than 2.0 m (average of 1.7 m). To protect the permafrost from thawing, waste rock pads with a minimum thickness of 2.0 m will be constructed prior to ore stockpiling. NPAG and non-metal leaching rock will be used for the pads. The permafrost is expected to aggrade into the waste rock pads with the active layer contained within the pads. Thus the permafrost regime in the vicinity of the ore stockpiles should not be impacted.



The temporary ore stockpiles themselves will be managed and operated to minimize potential freezing of the stockpiled materials by maintaining stockpiled materials in continuous borrow mode to the extent practicable.

Although the Discovery ore (hosted in iron formation rock) is potentially acid generating, it has a low sulphur content (less than 1.5% sulphur; SD6-3 document) and the sulphide minerals are found to have low reactivity, thus heat generation from sulphide oxidation is not expected to be measurable in the rolling ore stockpile. Geochemical analysis on Discovery ore, waste rock, and tailings of iron formation rock show the presence of immediately-available buffering capacity (neutral paste pH, and sustained neutral pH in kinetic testing) and a substantial lag time until initiation of sulphide mineral oxidation under laboratory accelerated leaching conditions. Dissolved sulphate concentrations, which are a product of sulphide oxidation, remained low during 20 weeks of laboratory testing for waste rock iron formation and for 30 weeks for discovery tailings, all on samples that are PAG based on static Acid-Base Accounting test results. Thus, given the observed delay until initiation of sulphide oxidation, heat generation from sulphide mineral oxidation is not expected to be measurable over the short period of exposure of Discovery ore.

5.3 Drainage and Dust Management

As described in Section 4 above, the Discovery iron formation ore, Tiriganiaq greywacke ore and Tiriganiaq mafic volcanic ore have the potential to leach arsenic. The temporary ore stockpiles and the crushed ore dome are located in the mining and milling area of the Project. Surface runoff from this area is considered contact water. All contact water in the mining and milling area will be intercepted, and re-used in the process, or analyzes and treated, if required, before being discharged to the receiving environment when water meets discharge criteria.

Site contact water from the ore storage facilities will be collected by perimeter water management infrastructure located to the east and west of the facilities. The collected water will be pumped to the site attenuation pond AP-01 for, re-use in the process, or for monitoring and treatment (if required) prior to release at mine effluent. Further details on site water management, including the site-wide water balance model, are provided in SD 2-6 Surface Water Management Plan.

Dust is expected to be a minor issue during operation of the ore storage facilities. Primary crusher is located underground and thus this particular process is not expected to produce dust emission on surface. The crushed ore facility is a dome allowing for good control of dust in an enclosed area. The 2 conveyors from the primary crusher to the mill will be covered systems. The dome and the covered conveyors will be equipped with dust collectors. Dust collected during operation will be recycled through the mill.

Ore from surface mining areas will be transported to the crusher zone or temporary stockpiles by haul trucks through a network of internal haul roads. Design of the road network was oriented at minimizing travelling distances in order to limit potential impacts (dust, air emissions, etc.) and cost. However, it is reasonable to expect that some ore blocks might fall from trucks in motion during transit; ore block dropped from trucks will be picked up as much as possible.



5.4 Ore Accounting

The ore will be transferred from the open pits to the crusher or temporary stockpiles by truck with distribution according to an operation schedule. The conveyor from the stockpile to the mill will be equipped with a belt scale for detailed tracking and monitoring of the ore transferred. These results will be crosschecked with the tailings production rate from the mill.

Table 2-1 presents the planned quantities of ore that will be temporarily stored within the stockpiles on a yearly basis throughout the mine life. Monthly surveying of the stockpiles will be conducted to monitor ore storage volumes. Each survey will be followed by a complete or partial review of the mine schedule, depending of the area under development, and if adjustments are needed, they will be implemented. All ore generated and stockpiled will be processed by the end of mine life.

The crushed ore dome will have a storage capacity for approximately 4 to 5 times the mill daily tonnage, or approximately 32 to 40 kt of ore. Approximately 20% of this tonnage, corresponding to a day of mill operation, will constitute an active zone and will be continuously in borrow mode.

6.0 CLOSURE ACTIVITIES

The ore management facilities include the crushed ore dome and the two temporary ore stockpiles. Closure activities for the ore management facilities will commence at the end of mining once any remaining ore has been processed. The crushed ore dome will be dismantled and demobilized from the site. The waste rock pads will remain in place but will be visually assessed for potential ARD or metal leaching. If any PAG or metal leaching materials are identified, these will be excavated and disposed in the TSF. It is not anticipated that specific dust or erosion controls will be required as the waste rock used to construct the pads will be generally large in size; however, the need for dust and erosion control will be evaluated and implemented during closure activities, as required. Further details on mine site closure and reclamation, including the ore storage facilities, can be found in SD 2-17 Mine Closure and Reclamation Plan.

7.0 ALTERNATIVES

Alternative management strategies for the ore storage facilities were considered during the planning of the Project.

Alternatives considered included:

- Underground stockpiling: Underground facilities offer limited space. The mine plan, based on open pit exploitation, requires larger stockpile facilities. Underground facilities also have greater operational constraints and the risks of inconsistent feed for the mill are high.
- Stockpile in silo: Silo construction requires development of infrastructure. The current plan did not allow for silos to be constructed in interior spaces. The risk to management costs if silos were located outside was estimated to be high given the extreme weather conditions at the site.



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- Stockpile under a dome: This option was the most attractive as it allowed for a larger stockpile to be developed and its operational costs were acceptable. It also allowed for adequate dust control and accessibility. A domed stockpile is used effectively at the Meadowbank Mine.

The main facility for the proposed management strategy described above (the dome for stockpiling) was then located based on operational considerations and to minimize transportation of ore (proximity to the mill and ore deposits). The main objectives were to avoid long travel routes and re-handling of material. Based on these considerations, material will be dumped directly into the crusher as much as possible. Considerations were also given to minimizing site footprint while leaving enough space for contingency stockpiling, and to the presence of waterbodies (including fish presence) to avoid high quality fish habitat.

Transportation using a conveyor system dictated that the necessary infrastructure (primary crusher, dome, and mill) be located in relatively close proximity one from another. In case the crusher could not be accessed, is in shut-down, or crushed stockpile reaches its full capacity under the dome due to problems with the mill feed, two temporary stockpiles were also identified. These, at planning stage, should temporarily accommodate the ore coming from the mining operations. The surface area of those two temporary ore pads was designed to be large enough to accommodate the planned stockpiling (as shown in Table 2-1), but also to accommodate for unplanned material. In case of extended interruption of the crushing and milling operations, beyond the capacity of the temporary pads, transportation could also be delayed until the operations are restarted and stockpiling infrastructures becomes available.

8.0 CLOSURE

We trust that the information presented in this report meets your current requirements. Should you have any questions or concerns, please do not hesitate to contact us.

Yours very truly,

GOLDER ASSOCIÉS LTÉE

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9.0 REFERENCES

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