



March 24, 2022

Ali Shaikh  
Technical Advisor  
Nunavut Water Board  
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Sent via Email: [ali.shaikh@nwb-oen.ca](mailto:ali.shaikh@nwb-oen.ca)

**Re: Water License 2AM-DOH1335 – Conditions Applying to Construction and Operation – Development of Sump (Sump 1) at Madrid North Contact Water Pond**

Dear Mr. Shaikh,

This letter represents Agnico Eagle Mines (**Agnico**) written notification to the Nunavut Water Board (**NWB**) regarding the planned installation of a shallow groundwater sump in the Madrid North Contact Water Pond (CWP) area. This notification is being provided to the NWB prior to commencement of work, as required under the Type A Water License 2AM-DOH1335 Part D Item 1. Final design and Issue for Construction (IFC) drawings are provided in Attachment 1. The accompanying design report is presented as a drawing included as part of the IFC package.

Agnico plans to install an underflow interception sump (Sump 1) to enhance the existing water management system at the Madrid North CWP site. The sump is meant to act as additional contingency in the event any water from the Madrid North CWP exits the water management area.

The sump will be placed in the active layer on the tundra downstream of the Madrid North CWP. The sump (see attachment) is located at a distance greater than 31 meters from the ordinary high-water mark of any adjacent water body. Any water captured in the sump will be returned to the Madrid North CWP via an automated float operated pump. The proposed location of Sump 1 is based on topography of the area and visual assessments of freshet flows which have been conducted as part of the annual seepage survey since the installation of the Madrid North CWP. A localized seep has been identified during these assessments downstream of CWP. The installation of Sump 1 will improve efficiency of water management in this area to ensure all contact water is captured effectively.

Sump 1 will be installed by hand excavation to minimize damage to the surrounding tundra and to prevent excessive over-excavation. Consistent with other sumps installed at Madrid North, water level or water quality monitoring is not required in the sump as the water is transferred to the Contact Water Pond (monitoring station MMS-1). Installation is scheduled to occur prior to freshet in 2022 and is expected to last no more than a few days.

If required, effective erosion and sediment control measures will be installed prior to construction. Once constructed, the sump will be regularly inspected by the Environment Department to ensure



it is functioning as intended. Additionally, this sump will be included in the annual geotechnical inspection and results will be submitted to the NWB in annual reports.

Should you have any questions please feel free to contact me at [nancy.harvey@agnicoeagle.com](mailto:nancy.harvey@agnicoeagle.com)

Sincerely,

**Nancy Duquet Harvey**  
**Environmental Superintendent - Agnico Eagle Mines Limited - Hope Bay Mine**

Cc:  
Licencing (NWB)

Attachments  
Issued for Construction Madrid CWP Sump 1 Design Drawings

# Engineering Drawings for the Madrid Contact Water Pond Sump #1 Hope Bay, Nunavut, Canada

## Active Drawing Status

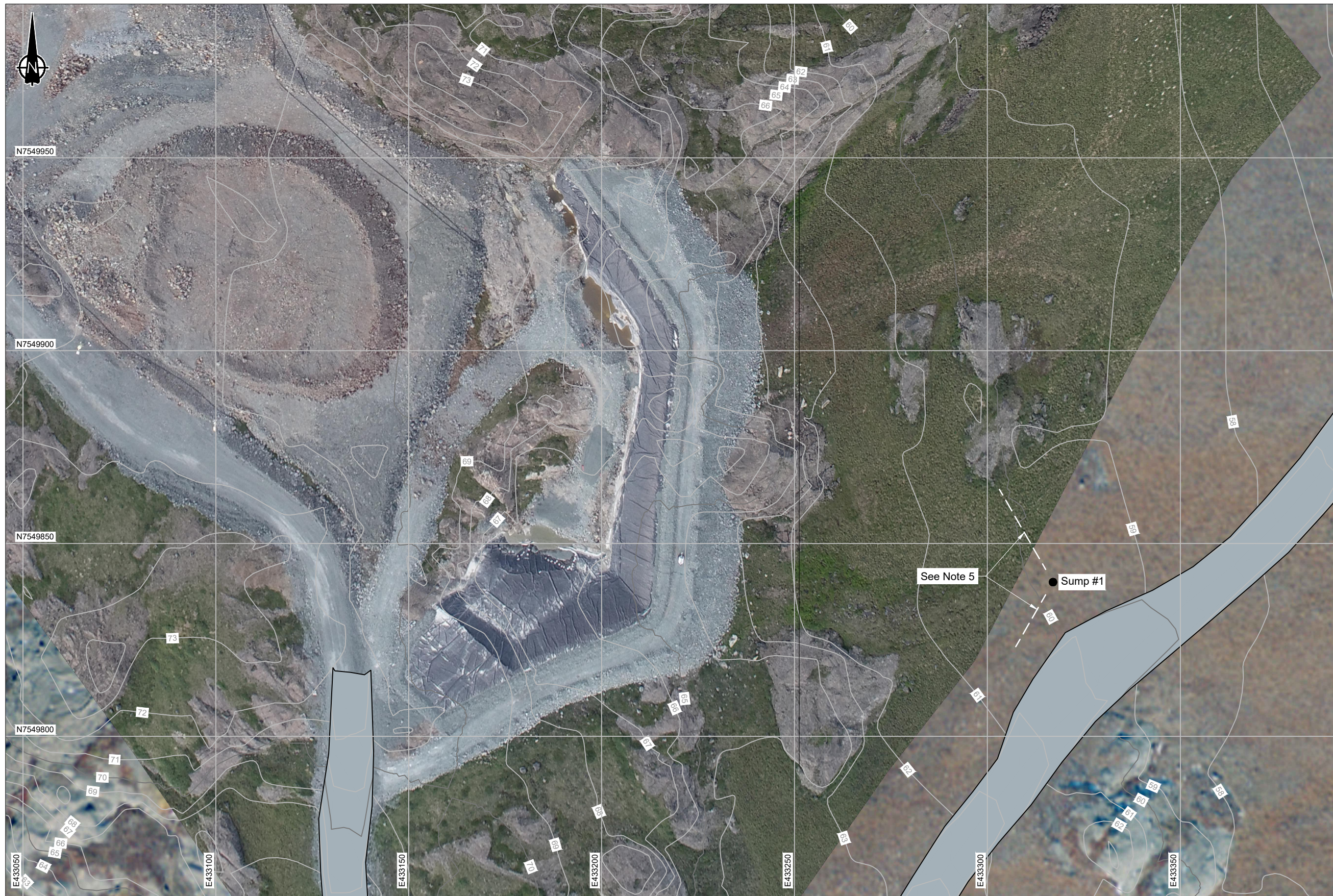
Drawing Number	Drawing Title	Issue	Date	Revision
MCWP-Sump-100	General Arrangements	Issued for Construction	2022/03/22	0
MCWP-Sump-200	Typical Sump Details	Issued for Construction	2022/03/22	0



**AGNICO EAGLE**







### LEGEND

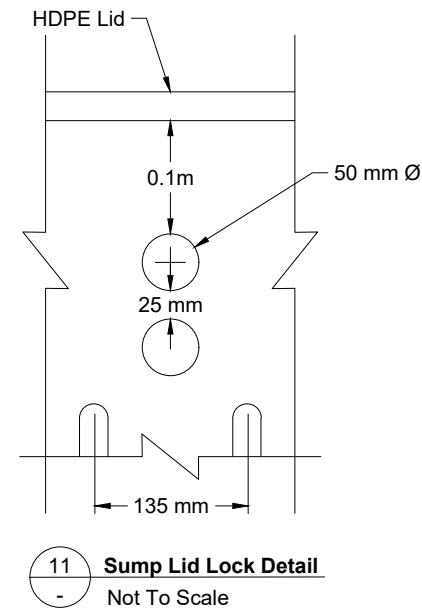
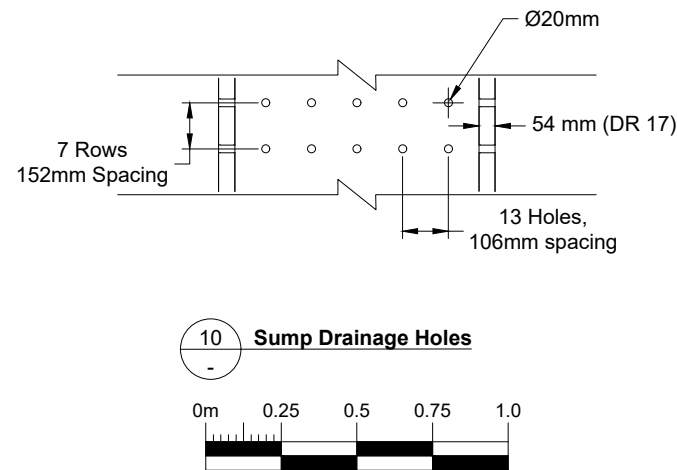
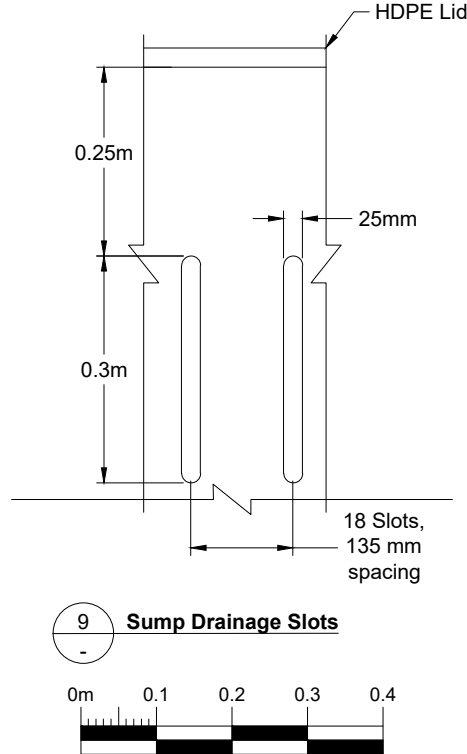
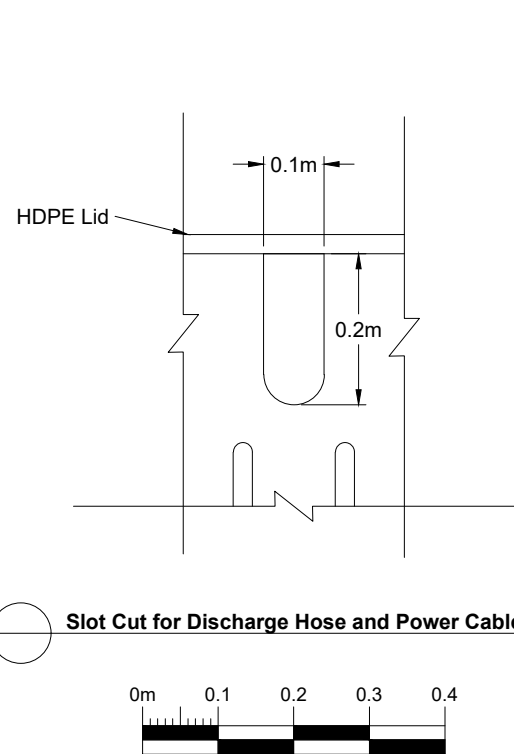
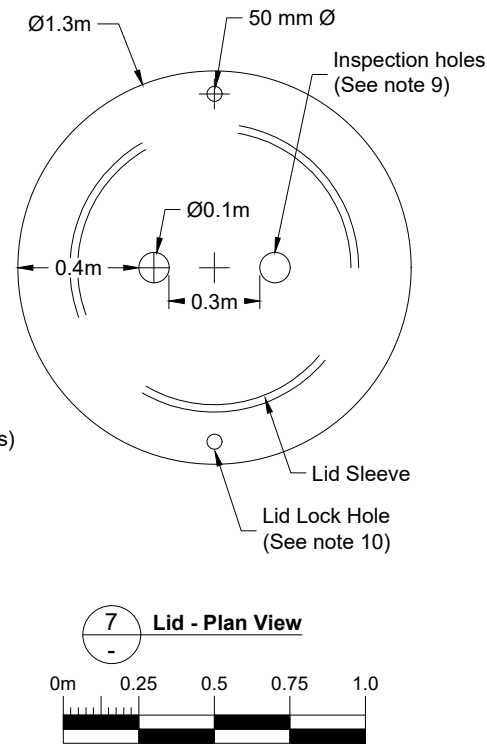
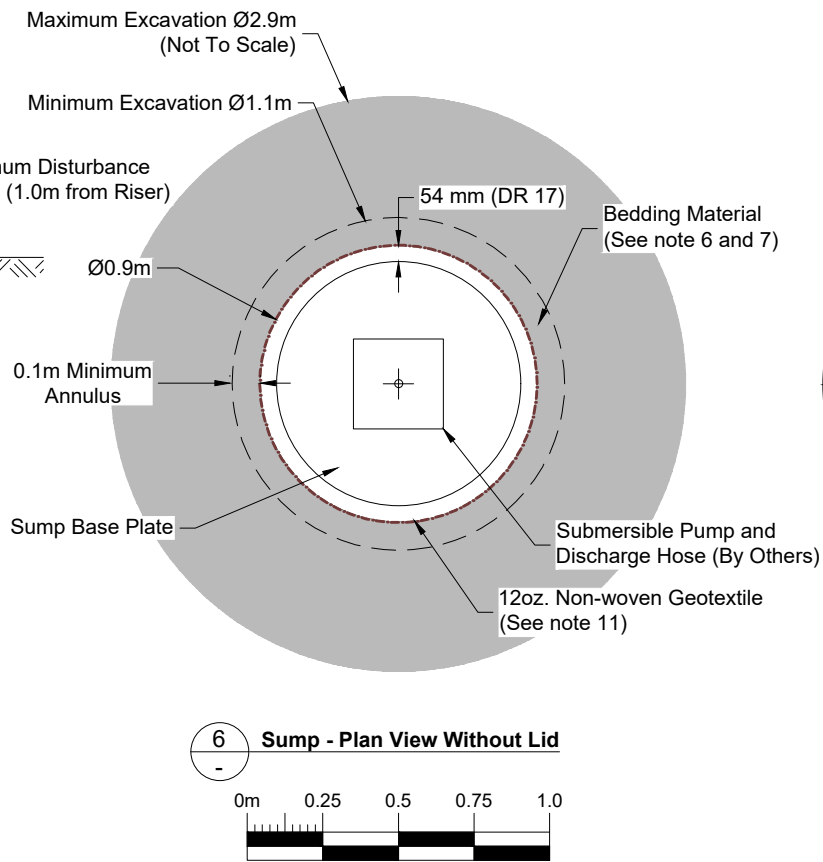
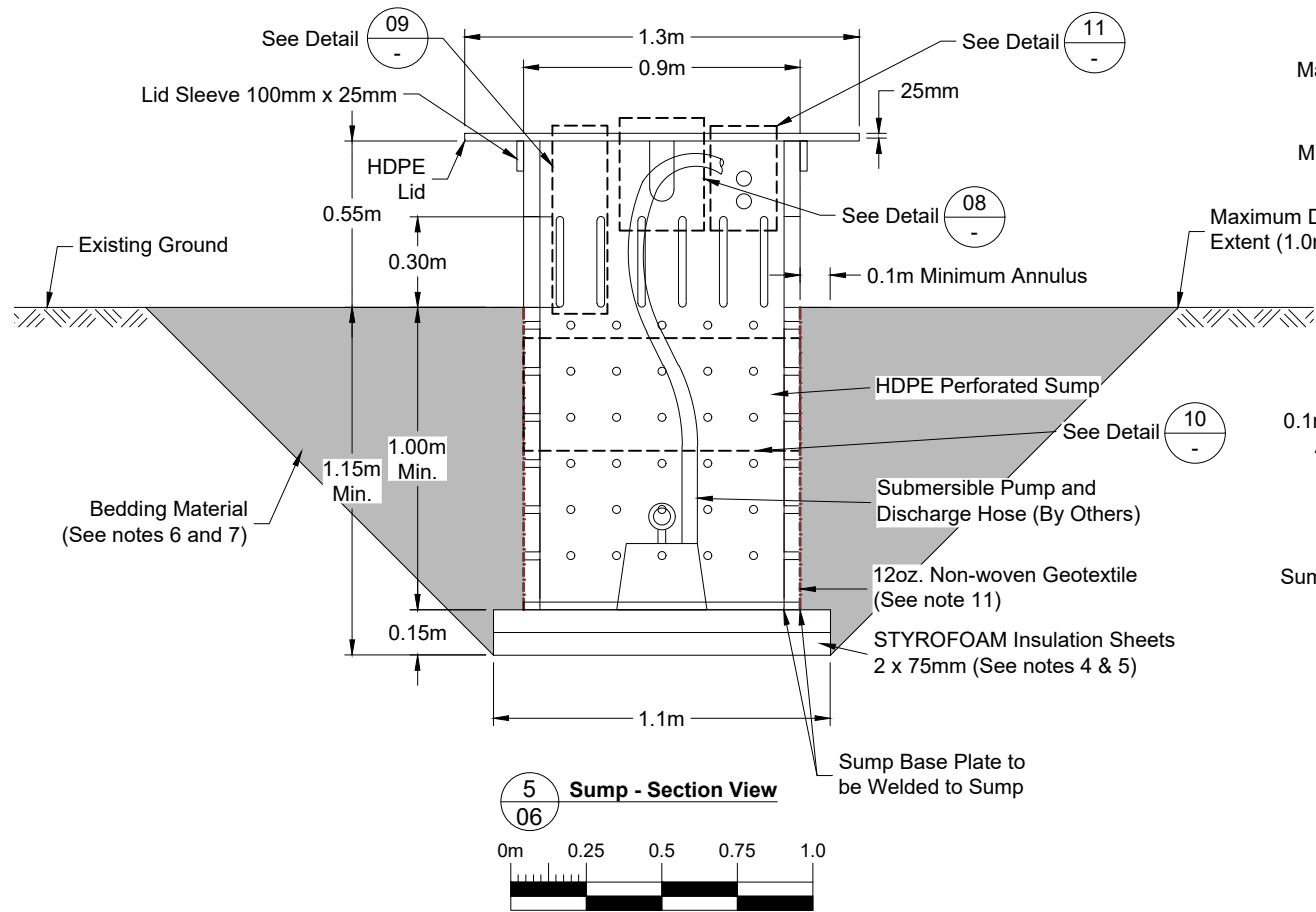
## NOTES

## REFERENCES

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#### LEGEND

- 12oz. Non-Woven Geotextile
- Bedding Material

#### NOTES

- All units in meters unless otherwise specified.
- Construction shall be in accordance with the following Technical Specifications: Earthworks and Geotechnical Engineering. Hope Bay Project, Nunavut, Canada. Revision H - Issued for Construction.
- The size and type of pump shall be specified by others, but no continuous or intermittent heat source shall be located within the sump.
- The insulation sheets shall be of type STYROFOAM Highload 40 manufactured by Dow Chemical Company, or equivalent. Adjacent horizontal layers of STYROFOAM insulation shall be rotated by 90 degrees.
- Contractor to place STYROFOAM insulation by cutting to suit.
- Special hand excavation techniques shall be used for inserting the sump into the ground to minimize disturbance. The minimum annulus between the outside edge of the sump and the excavation is 100 mm to allow passage of the sump base. Excavation of the tundra beyond the sump footprint shall be minimized to the extent possible, submersible pumping during excavation may be required. Excavation of the tundra must be limited to the maximum slope angle which the overburden will support, and be no more than 1.0m radius beyond the sump riser. A 10 m buffer zone on the undisturbed tundra around the sump shall be established, and not tracked or wheeled construction equipment is allowed within this buffer zone.
- Bedding material to be backfilled in thin layers (<0.3 m) and compacted by hand with crowbar or similar to ensure no bridging or large voids within backfill
- Excavated overburden to be disposed of on existing Naartok East Overburden Stockpile. No excavated overburden to be left on tundra surrounding sump.
- Inspection holes to be covered with wire mesh to prevent animal entry.
- Lid to be secured to sump via lid lock holes with rope or straps (by others).
- Geotextile to be secured to sump prior to placement in excavation.

												Original Drawings Stamped and Signed by Engineer				srk consulting				AGNICO EAGLE				Madrid CWP Sump #1			
												This drawing is uncontrolled when printed unless stamped / certified in accordance with the requirements of the applicable jurisdiction and recorded on a Distribution Register.				DESIGN: JBK				DRAWN: TAH				DRAWING TITLE:			
																CHECKED: PDL / NDH / AM				APPROVED: JBK				Typical Sump Details			
																				DATE: 2022/03/22				DRAWING NO.			
DRAWING NO.				DRAWING TITLE				NO.				DESCRIPTION				CHK'D				APPD				MCWP-Sump-200			
REFERENCE DRAWINGS												PROFESSIONAL ENGINEERS STAMP				FILE NAME: Madrid CWP Sump - Details.dwg				SRK JOB NO.: 1CT022.071				REVISION NO.			
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