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## Memo

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**To:** Cam Scott **Date:** Oct. 30, 08  
**cc:** **From:** Peter Mikes  
**Subject:** Faro SIS Site Visit – October 29, 2008 **Project #:** 1CY001.021.003

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This memo summarizes the site visit completed on October 29, 2008 to investigate the constructability of the SIS located in the “S-Cluster” area near the North Fork Rock Drain at the Faro Mine site. Present at the site visit was Wayne from Arctic Backhoe Services, Peter Mikes and Dan from Deliotte & Touche who provided assistance with discussing sources of clean backfill material and access options around the site.

The objective of the visit was to excavate a test pit in the location of the proposed sump and observe the amount of slumping into the pit to help the contractor determine the best method of construction (i.e. with or without sheet piles), as well as to help determine the location of the backfill that will be used in the SIS and the access route between the two areas.

### 1 Sump Test Pit

The test pit was excavated in the proposed sump location and was estimated to a total depth of approximately 5.5 m (limit of excavator). Accurate depth measurements were difficult to obtain due to safety concerns of the sloughing of the pit walls. The general stratigraphy of the excavation is summarized in Table 1 below:

**Table 1: Test Pit Stratigraphy**

Depth (m)	Description
0 to 1.5 m	Silty SAND with gravel, moist, inter-bedded layers of organics.
1.5 to 3.5 m	Sandy GRAVEL with some silt, wet. Gravel is rounded, well graded.
3.5 to 5.5 m	Silty SAND with gravel, moist.

Upon reaching the gravel water began pouring into the hole and sloughing began to occur, primarily on the upgradient (north) side of the excavation (see attached photos). The pit wall in the lower silty sand layer was fairly competent.

### 2 Trench Backfill and Access

Ray the excavator operator mentioned that there may be some suitable borrow material along the access road into the site. While the excavator was walking into the site, some exploratory shallow holes were dug to expose the material. In all instances, the material consisted of silty sands and was unsuitable for access material.

Access to the SIS site from the main access road into the Faro mine site follows a single lane access road for a distance of 1 km and is generally access able for tandems or rock trucks. Several pull-outs are available or could easily be constructed along the route.

The notable exception for access is the last 50 m where the road turns south down a slope away from the toe of the waste rock dump. It is expected that a tandem would not be able to travel up this slope loaded. Road improvements would also have to be made in this area to allow a rock truck to travel up this slope.

The closest borrow source to the site is the Haul Road Borrow Pit located just across the North Fork Rose Creek. Access options to the site were discussed with Deloitte and Touche staff on site. Specifically the option of establishing a road from the main road to site to the borrow pit. It was noted by D&T that a road used to exist there but was decommissioned. The route also passes through a trapping cabin, and it was determined that for the amount of material needed for the project, it was not worth the permitting that would need to be required to re-establish the road.

The material in the Haul Road Borrow Pit was investigated. It was noted by D&T that there was a stockpile of screened oversized material in one location of the pit. The volume is estimated at 100 to 150 m<sup>3</sup> of gravelly material that would be ideal as backfill material. This material is shown in photos 19 to 21. The pit run material was also looked at with the exposed areas of the pit appearing to contain a significant amount of gravels (Photos 22 and 23).





Photo 1: View of seepage infiltration trench area taken from the proposed sump location looking west.



Photo 2: View of access road down to the trench area taken from the sump location looking north.



Photo 3: Start of excavation of the test pit taken from the access road looking south.



Photo 4: Excavation of the test pit. Water began to pour into the excavation at a depth of 1.5m.





Photo 5: Excavation of test pit.



Photo 7: Significant sloughing of the pit began to occur primarily on the upgradient side of the test pit upon reaching the coarser sandy gravel layer.



Photo 8: Excavation of the test pit with sloughing.



Photo 10: View of water seeping into the test pit.





Photo 11: Excavation of test pit



Photo 12: Excavation of test pit. The material below the gravel layer was relatively dry.



Photo 14: Excavation of test pit (end of hole)



Photo 15: View of test pit after approximately 2 minutes after completion of hole.





Photo 16: View of test pit after approximately 2 minutes after completion of hole.



Photo 18: View of test pit after approximately 2 minutes after completion of hole.



Photo 19: View of screened oversized reject stockpile in Haul Road Borrow Pit.

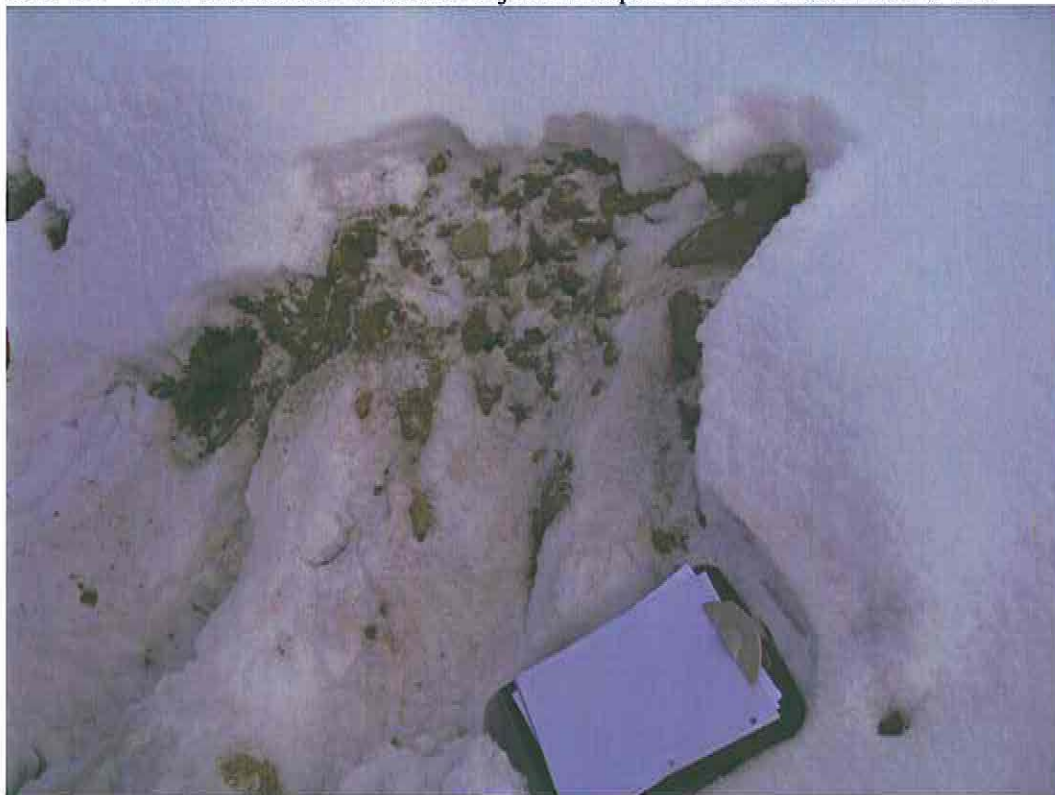


Photo 20: View of screened oversized reject stockpile in Haul Road Borrow Pit.





Photo 21: View of screened oversized reject stockpile in Haul Road Borrow Pit.



Photo 22: View of exposed pit run in the Haul Road Borrow Pit.



Photo 23: View of exposed pit run in the Haul Road Borrow Pit.