

September 15, 2016

EDI Project No: 16Y0089

Assessment and Abandoned Mines Branch (AAM) K-149
Department of Energy, Mines and Resources, Yukon Government
Room 2C Royal Center, 4114-4th Avenue
PO 2703, Whitehorse, YT, Y1A 2C6

Attention: Emilie Hamm, A/Project Manager

RE: Mount Nansen Water Resources Investigations – Field Memo: September 6 to 8, 2016 - FINAL

The following memo provides a record of the activities conducted during EDI's September 2016 trip to Mount Nansen; sampling conducted as part of the 2016/17 Water Resources Investigations. This memo provides a record of site conditions and tasks that were completed at each hydrometric station and water quality site. A detailed monthly report on the data collected during the trip will be provided once the water quality lab results are received and all data has been checked for quality assurance/quality control.

Trip Dates:	September 6-8, 2016
EDI Field Staff:	Dawn Hansen, Alexandre Mischler and Danny Skookum
Weather conditions during monitoring:	Air temperatures ranged from 5 to 8°C, with mainly cloudy skies and light to moderate rainfall.
Any changes to project scope, schedule or budget:	None. All sampling and monitoring was conducted within scope.
Additional Comments:	Site conditions were reflective of summer; water levels were moderate.
Wildlife Sightings:	Snowshoe hares and spruce grouses were observed at multiple locations around the Mount Nansen site.
Site concerns (safety):	None.



Table 1. Summary of hydrometric program tasks completed and station conditions during the September 2016 sampling event.

HYDROLOGY

Station	Hydrometric Measurement Type	Notes & Comments
ATM-VC5	None	Barometric logger downloaded successfully.
H-PC-DSP	Volumetric	Volumetric discharge measurement collected at culvert outlet. Placer mining activity upstream of site.
H-DC-DX+105	Volumetric	Volumetric discharge measurement collected.
H-DC-D1b	Volumetric	Volumetric discharge measurement collected.
H-DC-B	Salt Tracer	Salt tracer discharge measurement collected. Logger downloaded successfully.
H-DC-M-WP	Salt Tracer	Salt tracer discharge measurement was completed.
H-DC-R	Salt Tracer	Salt tracer discharge measurement collected. Logger downloaded successfully.
H-VC-U	ADV	Velocity-area discharge measurement completed using an ADV. Logger downloaded successfully.
H-VC-DBC	ADV	Velocity-area discharge measurement completed using an ADV. Logger downloaded successfully.
H-BC	Salt Tracer	Salt tracer discharge measurement completed. High flow rate in channel. Logger downloaded successfully.
H-VC-UMN	ADV	Velocity-area discharge measurement completed using an ADV. Logger downloaded successfully.
H-VC-R+290	ADV	Velocity-area discharge measurement completed using an ADV. Water level is high. Logger downloaded successfully.
H-SEEP	Volumetric	Volumetric measurement collected in addition to reading the flow meter in the seepage pond shack.
H-TP	None	Water level is low; lowest staff gauge wetted.



Table 2. Summary of water quality program tasks completed and site conditions during the September 2016 sampling event.

WATER QUALITY

Site	Sampled? (Yes/No)	Notes / Explanations
WQ-SEEP	Yes	Moderate flow rate from pipe outlet with clear water.
WQ-TP	Yes	Low water level with lightly turbid water.
WQ-DC-DX	Yes	Moderate flow rate with clear water.
WQ-DC-DX+105	Yes	Moderate to high flow rate with clear water.
WQ-DC-D1b	Yes	Moderate flow rate with turbid water.
WQ-DC-B	Yes	Moderate flow rate with moderately turbid water.
WQ-DC-U	Yes	Moderate flow rate with moderately turbid water.
WQ-DC-R	Yes	Low flow with lightly turbid water.
WQ-VC-U	Yes	High flow rate with clear water.
WQ-VC-R	Yes	High flow rate with lightly turbid water.
WQ-VC-DBC	Yes	Moderate flow with lightly turbid water. Back Creek contributing suspended sediment into Victoria Creek at confluence.
WQ-VC-UMN	Yes	High water level with lightly turbid water.
WQ-BC	Yes	Moderate to high flow with highly turbid water.
WQ-PC-U	Yes	Flow is moderate and water is highly turbid. Placer mining activities upstream of site.
WQ-PC-D	Yes	Moderate flow with highly turbid water. Placer mining activities upstream of site.
WQ-CH-P-13-01	Yes	High flow from seep with clear water.
WQ-NW-SEEP-02	Yes	Reduced volume of water collected due to slow flowrate.
WQ-PW	Yes	Pump flow rate is moderate and water is clear. Drinking water and bacteriological samples were collected.



Quality
Assurance/Quality
Control Samples

Site	Sampled? (Yes/No)	Notes / Explanations
Field Replicate 1	Yes	Collected at WQ-DC-U.
Field Replicate 2	Yes	Collected at WQ-VC-UMN.
Field Blank	Yes	Sample bottles filled with deionized water supplied by ALS; samples were filtered and preserved as instructed. Collected at WQ-PC-U.
Travel Blank	Yes	Samples were provided by the lab and were transported to and from site.
