



**LEGEND:**

- MINE EFFLUENT DISCHARGE LOCATION
- ENVIRONMENTAL EFFECTS MONITORING STATION (EEM) (WATER, SEDIMENT, BENTHICS AND FISH)
- EEM STUDY DESIGN EXPOSURE AREA
- FISH BARRIER
- EXISTING TOTE ROAD
- PROPOSED RAILWAY ALIGNMENT
- PROPOSED CONSTRUCTION ACCESS ROAD
- PROPOSED SITE INFRASTRUCTURE
- RIVER/STREAM/DRAINAGE
- WATER

**ENVIRONMENTAL EFFECTS MONITORING PROGRAM (EEM):**

- SECOND LEVEL MONITORING FOCUSES ON THE MINE EFFLUENT AND THE RECEIVING AQUATIC ENVIRONMENT AT AND IMMEDIATELY DOWNSTREAM OF DISCHARGE.
- REQUIRED BY LAW - METAL MINING EFFLUENT REGULATIONS (MMER).
- MONITORS MINE EFFLUENT DISCHARGES FROM PIT, ORE STOCKPILES AND WASTE ROCK STOCKPILES (SHOWN AS GREEN SQUARE ICONS).
- INCLUDES SITE CHARACTERIZATION OF "EXPOSURE AREAS" IMMEDIATELY DOWNSTREAM (NEAR FIELD) AND FURTHER DOWNSTREAM OF DISCHARGES (LIGHT GREEN HIGHLIGHTING).
- INCLUDES MONITORING OF EFFLUENT, INCLUDING WATER QUALITY AND AQUATIC TOXICITY TESTING.
- ALSO INCLUDES MONITORING OF WATER AND SEDIMENT QUALITY, BENTHIC INVERTEBRATES AND FISH POPULATIONS.
- RESULTS COMPARED TO MONITORING OF "REFERENCE SITES" FOUND AWAY FROM THE DISTURBANCE OF THE MINE.
- THERE IS ONE MINE EFFLUENT DISCHARGE TO A TRIBUTARY OF CAMP LAKE (FROM MS-09, THE WEST WASTE ROCK STORMWATER POND).
- THERE ARE THREE MINE EFFLUENT DISCHARGES TO THE MARY RIVER: THE EAST WASTE ROCK POND (MS-10), THE RUN OF MINE ORE STOCKPILE POND (MS-08), AND THE MAIN ORE STOCKPILE POND (MS-07).

**NOTES:**

1. BASE MAP: © HER MAJESTY THE QUEEN IN RIGHTS OF CANADA, DEPARTMENT OF NATURAL RESOURCES (2004). ALL RIGHTS RESERVED.
2. COORDINATE GRID IS UTM (WGS84/NAD83) ZONE17.
3. CONTOUR ARE IN METRES. CONTOUR INTERVAL VARIES.
4. LAKE SAMPLE LOCATIONS VARY SLIGHTLY DURING WINTER MONTHS DUE TO ICE CONDITIONS.

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SCALE

BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

PROPOSED ENVIRONMENTAL EFFECTS MONITORING PROGRAM (EEM)

**Knight Piésold**  
CONSULTING

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FIGURE 6.1

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