

Instructions: Bold fields must be completed.

| Station Summary | | | |
|--------------------------------------|------------------------|--|--|
| Waterbody Name UNNAMED | | Waterbody ID Code 2949600 | Sample ID (YYYYMMDD-CY-FD) 20191009-26-07 |
| Sampling Location 30 m US Bridge. | | | Database Key 209649656 |
| SWIMS Station ID 10051590 | | SWIMS Station Name UNNAMED (2949600) TRIB TO PINE LAKE 20 M US OLSON RD | |
| Latitude 46.25119 | Longitude -90.12735 | Lat/Long Determination Method (circle) SWIMS SWDV GPS | Datum Used if using GPS WGS84 or NAD83 |
| Basin (WMU) LAKE SUPERIOR | | Watershed Name MONTREAL RIVER | County IRON |

| Sample and Site Descriptors | |
|--|---|
| Sample Collector (Last Name, First) JOSEPH CUNNINGHAM | Project Name MONTREAL RIVER TWA 2017-2018-2019 |

Sampling Device

D-Frame Kick Net
 Surber Sampler
 Eckman
 Ponar
 Artificial Substrate
 Hess Sampler
 Other: _____

Habitat Sampled

Riffle
 Run
 Pool
 Other
 Shoreline Composite
 Proportionally-Sampled Habitat
 Littoral Zone
 Profundal Zone
 Wetland

| | | | |
|--------------------------------|---|-------------------------------------|------------------------------------|
| Total Sampling Time (min) 1 | Estimated Area Sampled (m ²) 1 | Number of Samples in Composite 3 | Replicate No. <u>1</u> of <u>1</u> |
|--------------------------------|---|-------------------------------------|------------------------------------|

Reason For Sampling

Least Impacted Reference
 Baseline
 Impact / Treatment Site
 Control Site
 Trend
 Other: TWA

| | | | | | |
|-------------------------|--------------------|-----------------------|----------------|---------------------------------|--------------------------|
| Water Temp. (C) 11.2 | D.O. (mg/l) 9.6 | D.O. (% sat.) 87.7 | pH (su) 6.8 | Conductivity (umhos/cm) 42.2 | Transparency (cm) 105 |
|-------------------------|--------------------|-----------------------|----------------|---------------------------------|--------------------------|

Water Color

Clear
 Turbid
 Stained

Estimated Stream Velocity (m/s)

Slow (< 0.15 m/s)
 Moderate (0.15 m/s - 0.5 m/s)
 Fast (> 0.5 m/s)

| | | | |
|--------------------------|--|--|--|
| Measured Velocity 0.6 | circle units m/s or f/s 0 | Average Stream Depth of reach (m) 0.3 | Average Stream Width of reach (m) 4 |
|--------------------------|--|--|--|

Composition of Substrate Sampled (Percent):

Bedrock: _____ Boulders (basketball or larger): 10 Rubble (tennisball to basketball): 50 Gravel (ladybug to tennisball): 30
 Sand: 10 Clay: _____ Silt/Muck: _____ Overhanging Vegetation: _____
 Aquatic Macrophytes: _____ Leaf Snags: _____ Coarse Woody Debris: _____ Other (_____): _____

Embeddedness of Substrate at Sample Site (%) 10
 Canopy Cover at Sample Site (%) 100

Stream and Watershed Descriptors

N = Not a problem
 U = Uncertain
 PL = Present, Low Impact
 PH = Present, High Impact

| Factors that may be influencing Water Resource Integrity | Local | Watershed | Factors that may be influencing Water Resource Integrity | Local | Watershed |
|--|-------|-----------|--|-------|-----------|
| Biological | | | Chemical | | |
| Algae: - Diatoms / Periphyton | PL | PL | Chlorine | N | N |
| - Filamentous Algae | N | N | Dissolved Oxygen | N | N |
| - Planktonic Algae | PL | U | Nutrients (P, N...) | N | N |
| Iron Bacteria | N | U | Toxics: - Inorganic (Metals) | N | N |
| Macrophytes | N | N | - Organic (PCBs, pesticides...) | N | N |
| Slimes | N | N | Other - Specify: | | |
| Other - Specify: | | | Sources of Stream Impacts | | |
| | | | Bank Erosion | PL | PL |
| | | | Point Source - Specify: | N | N |
| Physical | | | Pasturing of Livestock | N | N |
| Bank Erosion | PL | PL | Runoff: - Barnyard | N | N |
| Channelization: - Upstream | N | N | - Construction | N | N |
| - Downstream | N | N | - Cropland | N | N |
| Hydraulic Scour / Channel Incision | N | N | - Urban | N | N |
| Impoundment: - Upstream | N | PL | Septic Systems | N | N |
| - Downstream | N | N | Tile Drainage - Organic Soils | N | N |
| Low Flow | N | N | - Mineral Soils | N | N |
| Sedimentation | N | N | Springs | N | U |
| Sludge | N | N | Tributary(s) | N | U |
| Thermal | N | N | Wetland | N | PL |
| Turbidity | N | N | Other - Specify: | | |
| Other - Specify: | | | | | |

Comments

Special Instructions for Laboratory

For Lab Use Only

| | | |
|-------------------------------|--|--|
| Sample Sorter Logan Cutler | Taxonomist Derrick Jeffrey | Estimated Percent of Sample Sorted 7% |
| Date Processed 2/27/2020 | Specimens Saved 136 subsample archived in ABL cabinet JU 2023 | |

U

| Taxa | Life Stage | Bench Tally | Count | Taxonomic Reference | Condition | Unique Taxon |
|----------------------------------|------------|-------------|-------|---------------------|-----------|--------------|
| Ephemera | L | II | 2 | Kub 2016 | imm | N |
| E. subvarra | L | XII | 12 | " | | |
| Acanemna maddamoughi | L | I | 1 | " | | |
| Paraleptophlebia | L | 0III | 23 | " | deaf/imm | N |
| P. mollis | L | -I | 6 | " | | |
| Paracania angulata | L | III | 3 | Hatch 1974 | | |
| Acrocheura | L | I | 1 | Hils 1995 | imm | |
| Paragnetina medra | L | I | 1 | " | | |
| Taeniopteryx | L | I | 1 | " | imm | N |
| T. burksi | L | II | 3 | Full Stew 1980 | | |
| Micrasema rusticum | L | - | 5 | Hils 1995 | | |
| Glossosoma | L | II | 2 | Hils 1995 | imm | N |
| G. intermedium | L | I | 1 | Wym Mar 2000 | | |
| Ceratopsyche alhedra | L | I | 1 | Schm Hils 1986 | | |
| Chematopsyche | L | II | 3 | Hils 1995 | | |
| Limnephilidae | L | I | 1 | " | imm | |
| Chimarra | L | -I | 6 | " | imm | N |
| Ch. aterrima | L | XIII | 14 | Hils 1982 | | |
| Nephylax | L | II | 2 | Hils 1995 | imm | |
| Nigronia semicornis | L | X | 10 | Menzies 1966 | | |
| Optioservus | L | II | 2 | Hils Schm 1992 | imm | N |
| O. fastidius | L | III | 3 | " | | |
| Stenelmis | L | I | 1 | " | | |
| Bezzia/Palomyia | L | I | 1 | Hils 1995 | | |
| Hamerochromia | L | I | 1 | Mar 10/13/2019 | | |
| Antocha | L | - | 5 | Hils 1995 | | |
| Dicranota | L | II | 2 | " | | |
| Mermithidae | A | III | 3 | Thorp Reg 2016 | imm | |
| Trombidiformes | A | I | 1 | " | | Y |
| Sperchon | A | I | 1 | Pluchino 1984 | | |
| Lumbriculus | A | 8- | 35 | Thorp Reg 2016 | | |
| Pisidium | A | II | 3 | Mackie 2007 | | |
| split A2 Chironomidae | L | II-III | | | | |
| Parametriocnemus | L | III | 3 | And + 3 2013 | | |
| Neostempellina reissi | L | I | 1 | EpI et al 2013 | | |
| Rheotanytarsus | L | III | 3 | " | | |
| Tanypodinae 08270000 | L | I | 1 | Cranston 2013 | imm | |

