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# Technical Report # 1

CREELMAN, FRALECK, BERRESFORD Project

Prepared by: Michel Lavoie

Date of completion: February 21, 2019

Person who performed the work: Guy Richard (413475)

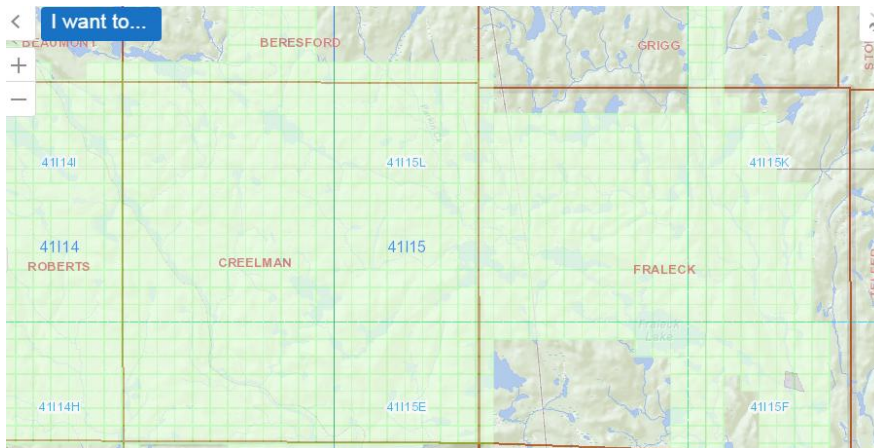
Mining lands work was performed on: 20-07-2017 to 28-11-2017

Township: FRALECK, CREELMAN, BERRESFORD

Claim #: 117032 (\$127) , 126209 (\$73), 127106 (\$189), 128138 (\$998), 128205 (\$1,087), 128206 (\$220), 155100 (\$64), 155504 (\$73), 163496 (\$299), 163497 (\$609), 171514 (\$73), 172082 (\$73), 172241 (\$158), 174527 (\$73), 200770 (\$747), 209013 (\$118), 219362 (\$23), 220446 (\$39), 222858 (\$1,438), 222859 (\$878), 226182 (\$560), 227669 (\$300), 227670 (\$63), 228224 (\$2,970), 228225 (\$63), 228363 (\$127), 228365 (\$284), 232789 (\$421), 236399 (\$147), 256250 (\$694), 257633 (\$73), 267660 (\$23), 271410 (\$12), 275643 (\$73), 292802 (\$232), 294215 (\$73), 312221 (\$644), 318814 (\$127), 324260 (\$63), 323664 (\$36), 320727 (\$73), 323722 (\$460), 323724 (\$46), 336062 (\$99), 336108 (\$77)

- Land owned by:
- 1) Guy Richard (413475)
  - 2) Ryan McIlvenna (413402)
  - 3) Michel Lavoie (302893)
  - 4) Corrina Bonhomme (404160)

Map showing where the grass roots work was done:



Number of samples analysed: 166 samples. (All analysis certificates are included with this report.)

Total cost of samples were \$11,664

Grass Roots Prospecting and sample cutting cost were \$3,436

Total assessment work performed by Guy Richard in 2017 was \$15,100

Access to FRALECK, CREELMAN, ROBERTS, BERRESFORD

In 1967, the Ontario Department of Mines mapped ROBERTS, CREELMAN and FRALECK townships.

The three townships together comprise of about 108 square miles. These properties are located about 25 km north of Capreol and 48 km from Sudbury, Ontario.

To access to the eastern part of FRALECK township, you take the old highway 69, now highway 84 to Capreol. Highway 84 turns into Moose Mountain Mine Road. About 6 km past Capreol, turn right on Portelance Road (Gravel). Continue past Taighwenini Trail Rd. (Paved)

PARKIN township ends and FRALECK begins a few Kilometers before the North River Bridge turn off. Stay on Portelance Rd pasted the North River turn off and continue North, parallel to the Wanapitei River.

To access the Northern part of FRALECK township or the Southern part of GRIGG township continue passed the bridge that crosses the Wanapitei River.

To access the Western part of FRALECK township and the Eastern part of CREELMAN township, turn left (Before the bridge) on the service road for the 500-kilowolt transmission line of the Hydro-Electric Power Commission of Ontario. FRALECK township ends and CREELMAN township begins about 1.4 km after the power lines.

To access the Southern part of BERRESFORD township, just continue straight on the gravel service road past Frog lake.

The Canadian National railway crosses the South-Western part of CREELMAN township and the North-Eastern part of Roberts township.

The property has the Vermillion river in the West end and the North Wahnapiatae river in the east. There is a history of alluvial gold being discovered south west and south east of the CREELMAN - FRALECK Properties. People have paned for gold in these areas for over 100 years, with the source of the gold never being discovered.

Sampling in CREELMAN, FRALECK and BERRESFORD Townships has indicated good Au – Cu – Co – Ni - V values in several areas.

# Technical Report # 2

CREELMAN, FRALECK, BERRESFORD Project

Prepared by: Michel Lavoie

Date of completion: February 28, 2019

Person who performed the work: Corrina Bonhomme (404160) and Michel Lavoie (302893)

This report only includes the 2017 work performed by Michel Lavoie and Corrina Bonhomme. Michel and Corrina looked for outcrops and documented them with pictures. We used a metal detector to find hot spots in the bedrock. We did some acid test for Calcite and checked for magnetic in different areas.

I am including maps, co-ordinates and pictures of 871 different locations on CD. I will deliver it to the MNDM. The CD will also include the GPS tracking for 2017.

I am also including a file that describes each of these areas. (2017 Michel Lavoie Folder description)

The file that indicates who attended and on which days is in file (2017 Michel Lavoie Just attendances)

Guy Richard (413475) 2017 assessment work / sample cutting was reported in transaction ID 35088. The resulting pending distribution was transaction ID 35100. Guy did some of the cutting of samples and did a few days of exploration with us.

Ryan Mcilvenna (304083) also did some cutting of samples and several days of exploring with Michel and Corrina but his assessment work is not included in this report.

I am also including Corrina's expense for 13 samples. (Corrina's 2017 sampling cost) The samples were taken in Claims : 128205, 128206, 163497, 222858, 276814

Corrina's cost to analyse 13 samples was \$954.85. (Rounded to \$955) All analysis certificates are included with this report.

A total of 74 days of assessment work was done in 2017 by Michel Lavoie.

A total of 58 days of assessment work was done in 2017 by Corrina Bonhomme.

Michel Lavoie's food expenses for 2017 was \$1,756. (\$25/day)

Corrina Bonhomme's food expenses for 2017 was \$1,369. (\$25 / day)

Corrina Bonhomme's 2017 expense for the use of her quad was \$350. (\$100/day)

The 2017 Travelling is claimed by Michel Lavoie. The cost for 2017 was \$7,504. (0.50/km)

Michel Lavoie's sweat equity totals \$30,825. (\$450/day) (\$225/ ½ day) (\$150/ 1/3 day) (74 days)

Corrina Bonhomme's sweat equity totals \$16,050. (\$300/day) (\$150/ ½ day) (\$100/ 1/3 day) (58 days)

The total assessment work for Michel Lavoie and Corrina Bonhomme for 2017 was \$57,854

The total assessment work + sample cost for Corrina Bonhomme in 2017 was

$\$1,369 + \$350 + 16,050 + \$955 = \$18,724.$

The total assessment work for Michel Lavoie in 2017 was

$\$1,756 + \$7,504 + \$30,825 = \$40,085$ .

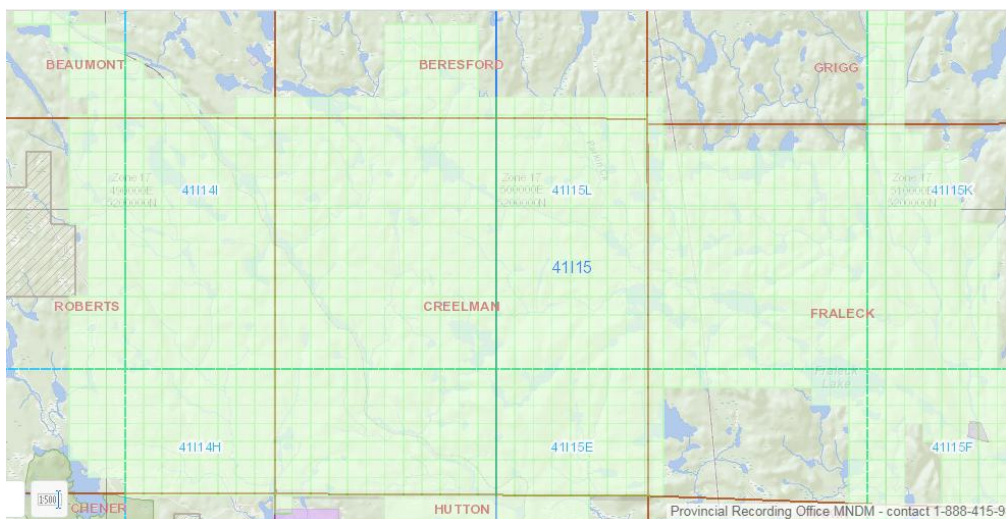
The total assessment work for Michel Lavoie and Corrina Bonhomme and sample cost for Corrina Bonhomme were  $\$57,854 + \$955 = \$58,809$

Mining lands assessment work was performed on claims: 100545, 115884, 117032, 118431, 122095, 125501, 126209, 126210, 126211, 127106, 127107, 128138, 128205, 128206, 132667, 135628, 138410, 140177, 142726, 143383, 148703, 154435, 155092, 155100, 155504, 155625, 155628, 163496, 163497, 168031, 171514, 171570, 172081, 172082, 172241, 172271, 173802, 173892, 174471, 174527, 189837, 198838, 200770, 207045, 209000, 209013, 213273, 215068, 219362, 220385, 220446, 220475, 222858, 222859, 226182, 226183, 227669, 227670, 228224, 228225, 228363, 228365, 228455, 228859, 229470, 229616, 230213, 230214, 232789, 233890, 234756, 236398, 236399, 248339, 256250, 257633, 257679, 267650, 267660, 271410, 274959, 274960, 275634, 275643, 276814, 277397, 283454, 287648, 287749, 292802, 294215, 294349, 294350, 294353, 295068, 301243, 301327, 301328, 303628, 304541, 305470, 311749, 312221, 312222, 315849, 317995, 318813, 318814, 320727, 323664, 323700, 323722, 323724, 324033, 324260, 325537, 331377, 332963, 336062, 336108, 336109, 343216

Township: CREELMAN, FRALECK, BERESFORD

- Land owned by:
- 1) Guy Richard (413475)
  - 2) Ryan McIlvenna (413402)
  - 3) Michel Lavoie (302893)
  - 4) Corrina Bonhomme (404160)
  - 5) Walter Collins (304083) (Some claims)

Map showing where the grass roots prospecting was done:



## Access to FRALECK, CREELMAN, ROBERTS, BERRESFORD

In 1967, the Ontario Department of Mines mapped ROBERTS, CREELMAN and FRALECK townships.

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Sampling in CREELMAN, FRALECK and BERRESFORD Townships has indicated good Au – Cu – Co – Ni - V values in several areas.



## 2017 Exploration log (Michel Lavoie)

### 05-04-2017 attended property

- Prospected different locations.
- Michel Lavoie & Corrina Bonhomme attended.
- Used Corrina's Truck 168 km
- Road was too rough to continue with truck
- 1/3 day

### 08-04-2017 attended property

- Prospected different locations.
- Michel Lavoie & Corrina Bonhomme attended.
- Used Corrina's truck 113 km & quad
- 1/3 day

### 16-04-2017 attended property

- Prospected different locations.
- Michel Lavoie & Corrina Bonhomme attended.
- Took some samples back to view at camp
- Used Corrina's Truck 172 km
- 1 / 2 day

### 22-04-2017 attended property

- Prospected different locations.
- Michel Lavoie & Corrina Bonhomme attended.
- Used Corrina's Truck 219 km

### 23-04-2017 attended property

- Prospected different locations.
- Michel Lavoie & Corrina Bonhomme attended.
- Used Corrina's Truck 219 km

### 26-04-2017 attended property.

- Prospected different locations.
- Michel Lavoie & Corrina Bonhomme attended.
- Used Corrina's Truck. 227km
- Used Gps, tools, safety equipment, camera.
- Took GPS reading of 5 different places
- Took pictures of 5 different locations
- We took 4 small rock samples to examine (Not analyzed)
- A total of 86 pictures were taken

### 28-04-2017 attended property.

- Prospected different locations.
- Michel Lavoie & Corrina Bonhomme attended.
- Used Corrina's Truck. 208 km
- Used Gps, tools, safety equipment, camera.

- Took GPS readings of 5 places and pictures of 1 place
- We took 6 small rock samples to examine (Not analyzed)
- A total of 21 pictures were taken

29-04-2017 attended property.

- Prospected different locations.
- Michel Lavoie & Corrina Bonhomme attended.
- Used Corrina's Truck. 204 km
- Used Gps, tools, safety equipment, camera.
- Took GPS reading of 9 different places
- Took 22 pictures of 3 different places
- Took 6 sample (Got one analysed)

02-05-2017 attended property.

- Prospected different locations.
- Michel Lavoie & Corrina Bonhomme attended.
- Used Corrina's Truck. 206 km
- Used Gps, tools, safety equipment, camera.
- Took 33 pictures and GPS location of 2 different places

03-05-2017 attended property.

- Prospected different locations.
- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended.
- Used Corrina's Truck. 207 km
- Used Gps, tools, safety equipment, camera.
- Took GPS readings and pictures of 15 different places
- Took 152 pictures
- Took 10 sample (1 Analyzed)

06-05-2017 attended property.

- Prospected different locations.
- Michel Lavoie, Corrina Bonhomme and Ryan McIlvenna attended.
- Used Corrina's Truck. 208 km
- Used Gps, tools, safety equipment, camera.
- Took 32 pictures and GPS reading at 9 different places
- We looked at the rock type at the different location to be staked.
- We originally planned on 5 claims.
- The geology supported more claim acquisition.
- Examined the porphyritic quartz monzonite and surrounding area
- We took 5 small rock samples to examine (Not analyzed)
- We finished looking at the location to be staked.
- Decided to get Walter McGregor, from the Wanapetei First Nation, to stake a 16 claim unit for us. We tried to get as much of the Porphyritic Quartz Monzonite and surrounding area as possible. Tried to include all the known sulfide areas as well.

12-05-2017 attended property

- Prospected different locations.
- Michel Lavoie, Corrina Bonhomme and Ryan McIlvenna attended.

- Used Corrina's Truck. 210 km
- Used Gps, tools, safety equipment, camera.
- Took 20 pictures and GPS reading at 3 different places
- We took 2 small rock samples to examine (Not analyzed)

16-05-2017 attended property.

- Prospected different locations.
- Michel Lavoie and Ryan McIlvenna attended.
- Used Corrina's Truck 113 km and her quad and Ryan's quad.
- Used Gps, tools, safety equipment, camera.
- Took 87 pictures and GPS reading at 15 different places

17-05-2017 attended property.

- Prospected different locations.
- Michel Lavoie, Corrina Bonhomme and Ryan McIlvenna attended.
- Used Corrina's Truck. 210 km
- Used Gps, tools, safety equipment, camera.
- Was having camera troubles again
- Took 43 pictures and GPS reading at 9 different places but 2 areas had errors in location
- We took 3 small rock samples to examine (Not analyzed)

20-05-2017 attended property

- Prospected different locations.
- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended.
- Used Corrina's Truck. 211 km
- Used Gps, tools, safety equipment, camera.
- Took 132 pictures and GPS reading at 15 different places
- We took 16 samples. 7 analyzed

23-05-2017 attended property

- Prospected different locations.
- Michel Lavoie & Corrina Bonhomme and Ryan McIlvenna attended.
- Used Corrina's Truck. 210 km
- Used Gps, tools, safety equipment, camera.
- Took 106 pictures and GPS reading at 17 different places

26-05-2017 attended property

- Prospected different locations.
- Michel Lavoie and Ryan McIlvenna attended.
- Used Corrina's Truck. 208 km
- Used safety equipment

20-06-2017 attended property

- Prospected different locations.
- Michel Lavoie and Corrina Bonhomme attended.
- Used Corrina's Truck. 204 km
- Used Gps, tools, safety equipment, camera.
- Took 167 pictures and GPS reading at 10 different places

24-06-2017 attended property

- Prospected different locations and took samples.
- Michel Lavoie, Corrina Bonhomme and Ryan McIlvenna attended.
- Used Corrina's Truck. 202 km
- Used Gps, tools, safety equipment, camera.
- Took 56 pictures of 7 spots and GPS reading at 8 different places
- Took 10 samples 5 we sent away for analysis

02-07-2017 - attended property

- Prospected different locations and took samples.
  - Michel Lavoie, Ryan McIlvenna and Walter Collins attended.
  - Used Corrina's Truck. 206 km
  - Used cut saw and equipments
  - Used Walter's Gps, tools, safety equipment, camera.
  - Saw was missing spacer. Only got one cut done before stopping
  - Lots of rain. Did mostly exploring
  - Took 1 sample
  - Took 39 pictures and GPS reading at 4 different places
- See Pictures 171

04-07-2017 - attended property

- Prospected different locations and started looking for a path and making a trail to Framan lake
- Michel Lavoie and Corrina Bonhomme attended
- Used Corrina's Truck
- Used Gps, tools, safety equipment, camera
- Took 159 pictures and GPS reading at 20 different places

05-07-2017 - attended property

- Michel Lavoie and Corrina Bonhomme attended
- Used Corrina's Truck
- Used Corrina's quad
- Used Michel's Trailer
- Too hot to prospected in sun
- Cut a trail to Framan Lake.
- The trail starts in the pit created by Gervais Forest. We marked a trail to the lake.
- Map 2212 indicate Breccia near a small island and a quartz diabase dike that runs through the lake.
- The map also indicates the same quartz diabase by the pit. (We found a quartz monzonite there)

07-07-2017 attended property

- Prospected different locations
- Michel Lavoie and Ryan McIlvenna attended
- Used Corrina's Truck 214 km
- Cutting saw and equipment
- Used Gps, tools, safety equipment, camera
- Took 35 pictures and GPS reading at 5 different places
- Took 2 samples

08-07-2017 attended property

- Prospected different locations
- Michel Lavoie and Corrina Bonhomme & Ryan McIlvenna attended
- Used Corrina's Truck 214 km
- Cutting saw and equipment
- Used Gps, axe, brume, shovel, safety equipment, camera
- Took 69 pictures and GPS reading at 10 different places
- Excavated 2m x 3m . Very little overburden.
- Took 3 samples

14-07-2017 attended property

- Prospected different locations
- Michel Lavoie and Corrina Bonhomme & Ryan McIlvenna Stacy Homes & Guy Richards attended
- Used Corrina's Truck 219 km & Guy's truck
- Excavated
- Used Gps, axe, brume, shovel, safety equipment, camera
- Took 94 pictures and GPS reading at 11 different places

15-07-2017 attended property

- Prospected different locations and excavated
- Michel Lavoie and Corrina Bonhomme and Ryan McIlvenna attended
- Used Corrina's Truck 196 km and Ryan 's Truck
- Used Gps, axe, brume, shovel, safety equipment, camera
- Took 188 pictures and GPS reading at 26 different places

17-07-2017 attended property

- Excavated and took 2 samples
- Michel Lavoie and Ryan McIlvenna attended
- Used Corrina's Truck 191 km and Ryan got in at camp
- Used Gps, cut saw, axe, brume, shovel, safety equipment, camera
- Had truck problems (Ryan's)
- Took 6 pictures and GPS reading at 1 area
- Took 2 samples

20-07-2017 attended property

- Prospected different locations and took samples
- Michel Lavoie and Ryan McIlvenna and Guy Richard attended
- Used Corrina's Truck 113 km and Ryan's truck to camp and Guy's truck in bush (212 km + His house to town)
- Broke first axe
- Used Gps, cut saw, axe, brume, shovel, safety equipment, camera
- Took 233 pictures and GPS reading at 34 different locations
- Took 2 samples

23-07-2017 attended property

- Lots of rain
- Prospected different locations

- Michel Lavoie & Corrina Bonhomme attended
- Used Corrina's Truck 241 km
- Used Gps, safety equipment, camera
- Took 73 pictures and GPS reading at 11 different locations

25-07-2017 attended property

- Prospected different locations
- Michel Lavoie & Corrina Bonhomme attended
- Used Corrina's Truck 149 km & trailer and Quad
- Used Gps, safety equipment, camera
- Took 126 pictures and GPS reading at 17 different locations
- Checked claim line accuracy at two different areas

26-07-2017 attended property

- Prospected different locations
- Lots of rain
- Michel Lavoie & Corrina Bonhomme attended
- Used Corrina's Truck 186 km
- Used Gps, safety equipment, camera
- Took 282 pictures and GPS reading at 46 different locations

28-07-2017 attended property

- Prospected different locations
- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended
- Used Corrina's truck 181 km and Ryan's truck
- Broke 2<sup>nd</sup> axe
- Used Cutting saw, Gps, safety equipment, camera, brume, shovel
- Took 55 pictures and GPS reading at 9 different locations
- Took 2 Samples and pictures of 1 sample

29-07-2017 attended property

- Prospected different locations and tried to get to upper par of Beresford clams
- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended
- Used Corrina's truck 253 km and Ryan's truck
- Used Gps, safety equipment, camera, cut saw
- Took 52 pictures and GPS reading at 15 different locations

03-08-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna & Guy Richard & Reg Charon & John Brady and Mark attended
- Used Corrina's truck 191 km, Guy's, Ryan's and Reg's truck
- Prospected different locations
- Reg & John confirm the presence of the porphyry, green chlorite, provided info regarding Vermilion river area and Fraleck property (What they found) etc.
- Did some washing of rocks 1m x 3m
- Used Water pump, safety equipment, phone camera, hammers, shovels and brumes
- Pump had to low of pressure (need other parts)
- Took 1 picture and GPS reading at 1 location

06-08-2017 attended property

- Michel Lavoie & Corrina Bonhomme attended
- Used Corrina's truck 205 km
- Prospected different locations
- Used Gps, safety equipment, camera, hammers
- Took 186 pictures and GPS reading at 27 different locations

07-08-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended
- Used Corrina's truck 193 km & Ryan's truck
- Prospected different locations
- Used Gps, safety equipment, camera, hammers
- Took 114 pictures and GPS reading at 22 different locations

08-08-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna & Walter Collins & Shirley Peloquin & Alex from MNM attended
- Guy Richard also attended but couldn't find us until late in the day
- Corrina's truck 194 km & Walter's blue truck & Ministry vehicle
- Prospected different locations
- Used safety equipment (Glasses), Phone camera, hammers & chisel
- Took 7 pictures of one location
- Pictures 399 Ministry exploration of property

13-08-2017 attended property

- Michel Lavoie & Corrina Bonhomme attended
- Used Corrina's truck 193 km
- Prospected different locations
- Used Gps, safety equipment, camera, hammers
- Took 316 pictures and GPS reading at 61 different locations

15-08-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended
- Prospected different locations
- We brought the trailer and tried to level it
- Used Corrina's Truck 239 km
- Used Gps, safety equipment, camera
- Took 121 pictures and GPS reading at 19 different locations

16-08-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended
- Prospected different locations
- Brought new battery
- Worked on trying to level the trailer
- Used Corrina's Truck 246 km
- Used Gps, safety equipment, camera
- Took 21 pictures and GPS reading at 4 different locations

- Took 1 sample

18-08-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended
- Coco towing delivered the steel storage container.
- We finished leveling the trailer but could not get the side out. Guy Richard got the side to come out by going direct current to motor. Not sure what day he came after this date.
- Prospected different locations
- Used Corrina's Truck 193 km and Ryan's Jeep
- Used Gps, safety equipment, camera
- Took 10 pictures and GPS reading at 2 different locations

20-08-2017 attended property

- Michel Lavoie & Ryan McIlvenna attended
- Prospected different locations
- Used Argo
- Used Corrina's Truck 237 km & trailer
- Used Gps, safety equipment, camera
- Took 229 pictures and GPS reading at 38 different locations

23-08-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended
- Prospected different locations
- Cut Sample 23 and pick up sample 24
- Used Argo
- Used Corrina's Truck 237 km
- Used Gps, safety equipment, camera, cut saw
- Took 113 pictures and GPS reading at 18 different locations
- Took 1 sample

25-08-2017 attended property

- Michel Lavoie & Ryan McIlvenna & Guy Richard attended
- Prospected different locations
- Used Argo
- Used Corrina's Truck 237 km
- Used Gps, safety equipment, camera
- Took 348 pictures and GPS reading at 53 different locations

27-08-2017 attended property

- Michel Lavoie & Ryan McIlvenna attended
- Prospected different locations
- Used Argo
- Used Corrina's Truck 237 km
- Used Gps, safety equipment, camera, saw and cleaning tools
- Took 151 pictures and GPS reading at 25 different locations
- Took 1 sample

28-08-2017 attended property



- Michel Lavoie & Corrina Bonhomme attended
- Camera batteries were low so did mostly prospected different locations
- Used Corrina's Truck 247 km
- Used safety equipment

29-08-2017 attended property

- Michel Lavoie & Corrina Bonhomme attended
- Used Corrina's Truck 240 km
- Used Gps, safety equipment, camera
- Took 10 pictures and GPS reading at 2 different locations

30-08-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended
- Excavated and prospected the same location
- Used Corrina's Truck 181 km, Ryan drove to camp
- Used Gps, safety equipment, excavating equipment, camera
- Took 8 pictures and GPS reading at 1 location

02-09-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended
- Excavated and prospected different locations
- Used Corrina's Truck 195 km Ryan drove to camp 1
- Used Gps, safety equipment, excavating equipment, camera, saw and cleaning equipment
- Pump failed (adapter was wrong kind)
- Took 123 pictures and GPS reading at 21 different locations
- Took 1 sample

03-09-2017 attended property

- Michel Lavoie & Ryan McIlvenna attended
- Prospected different locations but did most of the work on excavated site
- Forgot camera and GPS
- Used Corrina's Truck 195 km Ryan drove to camp 1
- Used safety equipment, excavating equipment, cut saw
- Took 2 samples

05-09-2017 attended property

- Michel Lavoie & Corrina Bonhomme attended
- Prospected different locations
- Used Corrina's Truck 189 km
- Used Gps, safety equipment, camera
- Took 81 pictures and GPS reading at 17 different locations

06-09-2017 attended property

- Michel Lavoie & Corrina Bonhomme attended
- Prospected different locations
- Used Corrina's Truck 205 km & trailer
- Brought wood to camp
- Used Gps, safety equipment, camera

- Took 84 pictures and GPS reading at 15 different locations

09-09-2017 attended property

- Michel Lavoie & Ryan McIlvenna attended
- Prospected different locations
- Used Corrina's Truck 246 km
- Used Argo & metal detector
- Used Gps, safety equipment, camera
- On this day we found a spot that made the metal detector sign. See pic 339 for area.
- Took 43 pictures and GPS reading at 8 different locations

12-09-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Guy Richard & Ryan McIlvenna Dr. Peter Lightfoot attended
- Prospected different locations and examined bedrock to determine rock type and potential targets.
- Dr. Lightfoot confirmed potential mineralized targets. CREELMAN & FRALECK Township
- Used Corrina's Truck 205 km and Guy's truck
- Used Gps, safety equipment, camera
- Took 8 pictures 1 location  
Pictures 683 Dr. Lightfoot

13-09-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended
- Prospected different locations
- Used Corrina's Truck 240 km
- Used metal detector
- Took samples
- Used Gps, safety equipment, camera, cut saw
- Took 60 pictures and GPS reading at 10 different locations
- Took 7 samples

16-09-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended
- Prospected different locations
- Used Corrina's Truck 239 km
- Used Argo
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera, cut saw
- Took 37 pictures and GPS reading at 6 different locations
- Took 4 samples

17-09-2017 attended property

- Michel Lavoie & Ryan McIlvenna attended
- Prospected different locations
- Used Corrina's Truck 240 km
- Used Argo
- Used metal detector and cleaning tools

- Used Gps, safety equipment, camera, cut saw
- Took 49 pictures and GPS reading at 7 different locations
- Took 9 samples

19-09-2017 attended property

- Michel Lavoie & Ryan McIlvenna & Guy Richard & Justin attended
- Prospected different locations
- Took samples
- Used argo (Guy destroyed 2 tires in Vermillion river)
- Used Corrina's Truck 195 km and guy's truck
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera, cut saw
- Took 80 pictures and GPS reading at 7 different locations and 3 samples
- Took 11 samples

20-09-2017 attended property

- Michel Lavoie & Ryan McIlvenna & Guy Richard & Justin attended
- Prospected different locations
- Excavated & took samples
- Used Corrina's Truck 241 km and guy's truck
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera, cut saw
- Took 37 pictures and GPS reading at 6 different locations
- Took 6 samples

23-09-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended
- Prospected different locations
- Excavated & took samples
- Used Corrina's Truck 195 km and guy's truck
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera
- Took 44 pictures and GPS reading at 3 different locations

26-09-2017 attended property

- Michel Lavoie & Ryan McIlvenna & Walter Collins attended
- Prospected different locations
- Excavated & took samples
- Used Corrina's Truck 209 km and Walter's truck
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera, cut saw
- Took 100 pictures and GPS reading at 10 different locations
- Took 33 pictures of sample 70
- Took 5 samples

27-09-2017 attended property

- Michel Lavoie & Ryan McIlvenna attended
- Prospected different locations and excavated

- Used Corrina's Truck 184 km
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera
- Took 63 pictures and GPS reading at 11 different locations

28-09-2017 attended property

- Michel Lavoie & Ryan McIlvenna attended
- Used Corrina's Truck 206 km
- Lost exploration information.
- This day, the reserve road was closed due to flooding. We had to use Ella Lake Road to get our supplies.
- We prospected different locations.
- Used Gps, safety equipment, camera

30-09-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended
- Prospected different locations and excavated
- Used Corrina's Truck 196 km & Ryan's Jeep to Camp 1
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera and saw
- Took 168 pictures and GPS reading at 8 different locations
- Took 1 sample

01-10-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna & his friend attended
- Prospected different locations and excavated
- Used Corrina's Truck 208 km and Ryan's friends vehicle
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera and saw
- Took 69 pictures and GPS reading at 8 different locations
- Took 12 samples

03-10-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna & Guy Richard & Walter Collins & Stuart Winters attended
- Prospected different locations and excavated
- Used Corrina's Truck 205 km and Guy's truck vehicle
- Ryan and Stuart used their vehicle to Capreol
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera and saw
- Took 117 pictures and GPS reading at 13 different locations
- Took 3 samples
- Pictures 759 Stuart and crew

11-10-2017 attended property

- Michel Lavoie & Ryan McIlvenna & Stuart Winters attended
- Prospected different location and took samples
- Used Corrina's Truck 194 km

- Ryan and Stuart used their vehicle to Capreol
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera and saw
- Took 104 pictures and GPS reading at 6 different locations
- Examines samples and took pictures at camp
- Took 3 samples

#### 17-10-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna & Walter Collins & Walter Jr. Collins attended property.
- Prospected different location
- Used Corrina's Truck 190 km & Walter's van
- Used Argo
- Used metal detector and cleaning tools
- Used saw
- Used Gps (Batteries died), safety equipment, camera
- Took 25 pictures and GPS reading at 4 different locations

#### 18-10-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna & Walter Collins & Walter Jr. Collins attended property.
- Prospected different location
- Used Corrina's Truck 206 km & Walter's van
- Used Argo
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera
- Took 49 pictures and GPS reading at 9 different locations

#### 20-10-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna & Walter Collins & Stuart attended property.
- Prospected different location & took samples
- Used Corrina's Truck 193 km & Walter's van
- Used Argo
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera and saw
- Took 49 pictures and GPS reading at 6 different locations
- Took 11 samples

#### 21-10-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended property.
- Prospected different location & took samples
- Used Corrina's Truck 198 km & Ryan's Jeep
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera and saw
- Took 39 pictures and GPS reading at 8 different locations
- Took 9 samples

22-10-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna & Stuart Winters attended property.
- Prospected different location & took samples
- Used Corrina's Truck 211 km & Ryan's Jeep
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera and saw
- Took 105 pictures and GPS reading at 19 different locations
- Took 3 samples

26-10-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended property.
- Prospected different location & took samples
- Used Corrina's Truck 205 km & Ryan's Jeep
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera and saw
- Took 71 pictures and GPS reading at 13 different locations
- Took 16 samples

29-10-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna attended property.
- Prospected different location & took samples
- Used Corrina's Truck 203 km & Ryan's Jeep
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera and saw
- Took 65 pictures and GPS reading at 8 different locations
- Took 13 samples

31-10-2017 attended property

- Michel Lavoie & Corrina Bonhomme & Ryan McIlvenna & Guy Richard attended property.
- Prospected different location & took samples
- Used Corrina's truck 201 km and Guy's truck
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera and saw
- Took 85 pictures and GPS reading at 16 different locations
- Took 13 samples

08-11-2017 attended property

- Michel Lavoie & Ryan McIlvenna & Stuart Winters & Walter Collins and Walter Collins Jr. attended property.
- Prospected different location & took samples
- Used Guy's truck 184 km & Walter's Van
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera and saw
- Took 69 pictures and GPS reading at 10 different locations
- Took 10 samples

24-11-2017 attended property

- Michel Lavoie & Corrina Bonhomme attended property.

- Took pictures of the container.
- Prospected different location & did acid test & took samples
- Used Guy's truck 161 km
- Used Gps, safety equipment, camera
- Took 59 pictures and GPS reading at 6 different locations

28-11-2017 attended property

- Michel Lavoie & Corrina Bonhomme & David Proulx attended
- Prospected different location and took samples
- Used Guy's Truck 159 km
- Used metal detector and cleaning tools
- Used Gps, safety equipment, camera and saw
- Took 90 pictures and GPS reading at 3 different locations.
- Took 10 samples (1 sample was from a prior time)
- Lost prospecting hammer

05/04/2017

- This started our mining exploration. We wanted to prospect the Wanapetei river and the logging roads in the Northern Capreol area. We passed the last claims after the North river bridge and started looking.
- Map 2212 does not indicate the type of bedrock in this area.
- The area was previously clear cut by logging company.
- The replanted pines are mature and doing well.
- These claims are covered by rounded gravels and small boulders.
- Large gravel mounds could be seen on the side of the road. Glacial till.
- Gervais Forest has a gravel plant on the west side of the road.
- Gravel was also excavated on the East side of the road.
- The gravel here could be a combination of glacial till and old Wanapetei river bed.
- There is also some beach sand near the gravel deposits.
- In the area of the beach sand, the nearby river has a bend in it and looks like the river was wider in the past. This is an area where water would have slowed down and deposited gold.
- Took half a 5 gallon pail to pan for gold. (None discovered)
- The road in this area runs parallel to the Wanapetei river.
- The river is on the right side of the road on the way to property. (Visible in a few areas)
- The water level was high and riverbed was not visible.
- On the left side is a large mountain that runs parallel to the road.
- There is evidence on the mountain face that large landslides occurred.
- There is also a mountain range on the other side of the river.
- Road was terrible, had some large areas of road washed out. Couldn't get safely to area of interest
- Claim 317995, 301243 and 332963 were prospected before the land was staked.

08/04/2017

- Map 2212 indicates quartz diabase (Nipissing Type), granitic rocks (ARCHEAN) and metavolcanics (ARCHEAN)
- Found some quartz/calcite veins with minerals on the side of the mountain at the bridge.
- Looks like Bornite and pyrite.
- The veins run North – South and are small to several cm wide.
- The veins are next to the road at the bridge.
- The bedrock is dark with pink spots (Quartz diabase) or dark metavolcanics.
- Large boulders of dark metavolcanics hang on the edge of the top of the hill. (Dangerous)
- Past the bridge, going North we looked for the Quartz diabase (Nipissing type) but was unable to locate it. Except for a few specks of pyrite, no minerals were visible.
- There is a trail from the road to Beaver lake.
- The river has large dark sedimentary boulders. One area had some conglomerates in the river outcrop. (By the island)
- We continued into GRIGG township to prospect new logging roads.
- Too muddy even for quad.
- Claim 128138, 229470, 304541 and 324033 were prospected before the land was staked.



16/04/2017

- Map 2212 indicates quartz diabase (Nipissing Type), granitic rocks (ARCHEAN) and metavolcanics (ARCHEAN)
- The map also indicates at least 6 large fault lines in the area.
- On this day we prospected claim 128138, 229470 and 304541.
- Claim 128138 is very interesting because of the visible bornite in the quartz/calsite veins.
- Took a few samples from the bridge area to view at camp.
- One sample was the 31000 ppm Cu sample.
- The sample looked like magnetite. (Very magnetic)
- The sample had some chunks of minerals on it.
- There was also some light hydrothermal sediments with the sample.
- The bedrock changed as you go towards Beaver lake.
- The trail to Beaver lake has some small outcrops and some rock faces nearby.
- No substantial minerals visible.
- There is a large change in elevation and a river joining Beaver lake and the Wanapetei river.
- Looks like there was some early exploration activity at the Western end of Beaver lake.
- A few drill holes were drilled nearby looking for Uranium in the late Huronian Mississagi Formation south of Beaver lake.
- These areas were prospected prior to staking claims

22/04/2017

- We prospected in claim 155100 and found some large conglomerate boulders. The area has lots of granite.
- Claim 323722 also had lots of granite.
- There is a small lake in the middle of the claim.
- The porphyritic quartz monzonite pluton is just West of this area.
- Claim 323724 was low lying area with no outcrops visible.
- There is a small lake on the claim that is part of Frog creek.
- We drove all the roads up to claim 172271. We saw lots of granite and some pegmatites.
- The area is mountainous with small lakes on the sides.
- In claim 336108 we found some conglomerate in the bedrock.
- The boulders are rounded.
- In claim 295068 we found some more conglomerates. Under the conglomerate is a dark burgundy bedrock. The water is really rusty in this area.
- In claim 301327 we found some banded bedrock. It is quite a large outcrop. The bedrock fractures in layers. Maybe good for slate pool tables. The fine grain bedrock erodes to a yellow color.
- These areas were prospected prior to staking claims.

23-04-2017

- We started prospecting in claim 248339. There is no visible outcrops. Lots of gravel / glacial till.
- Someone dug a pit that is full of rounded pebbles.
- There is also a small trail that runs north to south through the claim.
- The Wanapetei river runs parallel to the road (Portalance)
- This is where Fire Lake road starts.
- We stopped in claim 311749. There was some dark fractured bedrock with white precipitate.
- Could not find more outcrops in the area.
- Prospected on claim 294350. This claim is part of the electric power lines. There are large pink granite boulders in this area.
- There is an access road to the pole line and a small lake here. No outcrops in lower elevations.
- Lost a hammer yesterday and had to go down roads after pole line to get it.
- Prospected on claim 228224. There was lots of greenish bedrock in this area. The swamp area had no visible outcrops. The bedrock type changed after the swamp.

- Map 2212 indicates Archean metavolcanics contacting porphyritic quartz monzonite.
- In claim 172081, 142726 all the bedrock outcrops were the same type. Porphyritic.
- We stopped and looked at the conglomerates again in claim 336108. Looked for more outcrops. Found some rusted bedrock further up the road.
- We stopped again at the burgundy rockface in claim 295068. Some of the bedrock is highly fractured at the bottom. This could be a result of the road building.
- The conglomerates at the top of the mountain have small rounded boulders. The boulders are mostly pink granite. Needs more exploration here.
- These areas were prospected prior to staking claims.

Pictures 1 Conglomerate Boulders with Pseudotachylite

17T 0503648            Elevation = 391m  
5199155

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation)
- There is an un-named fault line approximately 120m North
- There are two faults intersecting approximately 360m North – West at 127°
- The map indicates Breccia approximately 190m South – East at 124°
- The map indicates that there is a massive fault of #12 Olivine diabase about 246m South
- The map indicates that there is a massive fault of #11 Quartz diabase (Nipissing type) about 330m South - East
- Large conglomerate boulders. (Size of small car)
- One boulder has a large fragment of pink granite in a black sedimentary matrix
- Some small white angular fragments are also present
- One large boulder has pseudotachylite
- There is another boulder made of pink granite with a large white quartz vein

Pictures 2 Conglomerate Boulders

17T 0503644            Elevation = 401m  
5200007

- Map 2212 also indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite in this area ARCHEAN Granitic Rocks (Algoman)
- There is a fault about 370m North – West at 292°
- There is a fault about 760m East
- There is a fault about 730 m South
- There is an intrusion of #4 Diabase, metadiabase (Early Mafic Intrusive Rocks) about 665m South – East at 305°
- Boulders in pictures 1 are about 858m South of these boulders
- Large conglomerate boulder.
- Small and medium fragments
- The fragments are not uniform in composition, size or colour (Polymictic)
- White Crystals protruding out of the Granite Boulder (Bottom Right)
- Lots of small rounded stones in boulder.
- The larger fragments, about 6" are different in colour and composition.
- Some fragments are White & Black granite; others are fine grain and vary in colour from green to grey. One fragment was really rusty.

### Pictures 3 Glossy Conglomerate

17T0497825      Elevation = 455m  
5200162

- The closest outcrop on the map is 9c Finely bedded argillite (HURONIAN Gowganda formation)
- Conglomerate in Glassy textured Bedrock
- The fragments are inconsistent in size, colour and composition (Polymictic)
- Some of the 4-5", rounder fragment are diorite, one was grey (fine grain).
- Some fragments are small and white.

### Pictures 4 Mega conglomerate – breccias

17T0497841      Elevation 430m  
5200464

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite HURONIAN Gowganda Formation in the area
- Large 12" rounded pink-white-black granite fragments.
- Black, fine grain matrix. Mud like.
- Weird rounded fragment that appears to be melted or something.
- Center of fragment has larger crystals than the surrounding matrix.
- The fragment has a thin, whiter ring that is broken on the bottom.
- There appears to be a pink intrusion that could indicate a dike.
- There is a large face nearby. The bedrock is pink and heavily fractured.
- There are small mega conglomerate in the area.

### Pictures 5 Banded gneiss

17T0498176      Elevation = 451m  
5202038

- Map 2212 indicates 9c Finely bedded argillite HURONIAN Gowganda Formation in the area
- Banded gneiss. Sedimentary bedrock that has been turned over 90°.
- When broken, you find dark blue, fine grain bedrock.
- Some of the bands oxidized orange-brown, the rest oxidized white.

17T0498060      Elevation = 422m  
5202283

- Breccia boulders.
- See pictures 18 Large breccias boulder

17T0498170      Elevation = 451m  
5202040

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite
- Weird stripes. Sedimentary bedrock that has been turned over 90°.
- Same area as Pictures 5 Banded gneiss

### Pictures 6 Altered bedrock and Conglomerate

17T0497844      Elevation 414m  
5200478

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- Same type of bedrock as in pictures 4. The bedrock is pink/burgandy and heavily fractured.
- Lots of rust in water at base of cliff. (Iron in water)

- Mineralized conglomerate on top of mountain.

17T0497852            Elevation = 444m  
5200471

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- Conglomerates on top of mountain.
- Mineralization in the conglomerate. Pyrite.

17T0498714            Elevation = 455m  
5199786

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- Conglomerate. Glacial deposit maybe.
- On GPS as conglomerate 8.

17T0497864            Elevation = 431m  
5200406

- Map 2212 shows 9b Polymictic conglomerates (HURONIAN Gowganda formation)
- Conglomerate. Glacial deposit maybe.
- On GPS as conglomerate 10.

Pictures 7 Mineralization & greywacke & Sample 1

17T0498414            Elevation = 451m  
5199961

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- Mineralization in bedrock. (Pyrite)& (Metallic)
- The Pyrite cubes are massive in some areas.
- Lots of surface rust. (Iron oxide - Limonite)
- Bedrock is dark blue/grey in colour.
- Locks like greywacke
- Samples were taken. Sent in later for analysis with pieces from the samples in pictures 180

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.009	39	67	174

17T0498375            Elevation = 443m  
5199850

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- Conglomerate. Glacial deposit maybe.
- On GPS as conglomerate 3.

17T0498428            Elevation = 444m  
5199777

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a conglomerate
- On GPS as Conglomerate

17T0498642            Elevation = 455m  
5199771

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a conglomerate
- On GPS as conglomerate 4

17T0498661 Elevation = 450m

5199810

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- On GPS as conglomerate 5.
- Small & medium fragments of white quartz/diorite.
- Some rusted matrix.
- The bedrock matrix is light blue/grey in colour and fine grain.
- A layer of white/brown quartz is eroded, only small amount left.
- Same area as pic 15

17T0498683 Elevation = 448m

5199820

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- On GPS as conglomerate 6.
- Small & medium fragments of white quartz.
- The bedrock matrix is light blue/grey in colour and fine grain.
- Same area as pic 14

17T0498693 Elevation 454m

5199816

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- On GPS as conglomerate 7.
- Small & medium fragments of white quartz.
- The bedrock matrix is light blue/grey in colour and fine grain.

Pictures 8 Conglomerate

17T0498433 Elevation = 451m

5200016

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- Large, medium, small rounded fragments.
- Fragments are White-Pink-Black in colour.
- There is also a top layer of quartz that has not eroded. Partial remains.
- There are some line patterns. Fracturing.

Pictures 9 Mega conglomerate

17T0498389 Elevation = 442m

5199783

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- Small showing of small and medium rounded fragments.
- Mega conglomerate.
- The fragments are white and look like quartz.
- Rounded particles are of white quartz / diorite

Pictures 10 Mega Conglomerate

17T0498465 Elevation = 452m

5199726

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- Large, medium, small rounded fragments.
- Fragments are White-Black-Pink in colour.
- Some fracturing. Pink colour.
- Some rust.

Pictures 11 Pseudotachylite

17T0498367 Elevation = 440m

5199323

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- Mineralization in bedrock.
- Large & medium size fragments.
- Fragment are White-Black-Pink in colour
- Some large white quartz veins run in several directions
- Some red color in some quartz
- There is some pseudotachylite on the outcrop face
- This is the edge of the porphyry.
- A few porphyritic fragments are found

Pictures 12 Quartz veins

17T0498336 Elevation = 450m

5199323

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- Large white quartz veins.

Pictures 13 Quartz & Sample 5

17T0497838 Elevation 435m

5199163

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- Quartz veins. Raised quartz.
- Fracture lines. Some quartz.
- The bedrock looks like it was covered by water and is sedimentary.
- There is a small outcrop of heavily fractured bedrock.
- This outcrop oxidized very white.
- Mineralization (scattered Pyrite cubes) in dark blue bedrock. Sample 5.
- Some rust on sample 5.
- Dark blue rock is fine grain.

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	94	88	39.2

Pictures 14 Conglomerate

17T0498683 Elevation = 448m

5199820

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- A few small & medium fragments.
- Fragments are white Quartz.
- The bedrock is grey and dark blue.
- A few fractures. One with some rust.

Pictures 15 Conglomerate & raised quartz

17T0498661 Elevation = 450m

5199810

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)

- Small, rounded fragments.
- A few larger fragments.
- Fragments are white quartz and diorite.
- Raised orange quartz.
- The bedrock is grey in colour.
- Some rust.

#### Pictures 16 Porphyry

17T 0499736      Elevation = 420m  
5199256

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks (Algomian)
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square.
- The outcrop is large and white in colour.
- The water nearby is rusty colour.

#### Pictures 17 Mega Conglomerate

17T 0498434      Elevation = 456m  
5200176

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- Mega Conglomerate.
- The fragments are rounded and vary in size.
- Most fragments oxidized white/light grey.
- A few fragments are dark brown/black.
- Contact zone is sheered and black.
- Several feet from the contact is sedimentary bedrock.

#### Pictures 18 Conglomerate

17T 0498060      Elevation = 422m  
5202283

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- Map 2212 also indicates some Olivine diabase nearby
- Small outcrop by road has small fragments.
- Large boulders with fragments.
- Fragments are White-Black-Pink in colour.
- In a pool of water is large fragments and resembles mega conglomerate due to the amount of fragments of different sizes.
- I think the fragments exist below the road and overburden.
- North and east of this site is a deposit of gravel. Could be an old river bed.

#### Pictures 19 Conglomerates

17T 0498365      Elevation = 450m  
5200247

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Small, medium and large rounded fragments.
- The fragments are diorite, (fine grain / dark grey) or white-black-pink in colour.
- The bedrock (Matrix) is pale grey.

#### Pictures 20 Conglomerates

17T 0498330      Elevation = 449m

5200277

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Lots of small and medium rounded fragments.
- Most fragments are white.
- The bedrock (Matrix) is pale grey.

Pictures 21 Conglomerates

17T0498312 Elevation = 466m

5200291

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Lots of small and medium rounded fragments.
- Most fragments are white.
- The bedrock (Matrix) is pale grey.

Pictures 22 Breccia (Pseudotachylite)

17T0498300 Elevation = 449m

5200339

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Lots of small and medium rounded fragments.
- Larger fragments are rounded with a tail.
- Most fragments are white.
- The bedrock (Matrix) is pale grey.
- Look like pseudotachylite
- The top of a small hill shows the bedrock that eroded above the fault line.
- The bedrock above the Breccia is fractured and white.

Pictures 23 Sedimentary with pyrite

17T0497172 Elevation 418m

5200783

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Surface of bedrock is beige to brown in colour.
- The surface looks like sedimentary rock.
- The inside shows dark blue, fine grain quartz.
- There are some pyrite and rust visible.

Pictures 24 Greywacke

17T0497852 Elevation = 440m

5200596

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in the area (HURONIAN Gowganda formation)
- Greywacke
- Lots of rust spots on greywacke.

Pictures 25 Conglomerate

17T0495986 Elevation = 398m

5199434

- Map 2212 shows 9a Polymictic conglomerates 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- A few small fragments



- The fragments are white
- Bedrock is light grey

Pictures 26 Conglomerate

17T 0496034          Elevation = 404m  
5199463

- Map 2212 shows 9a Polymictic conglomerates 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- A few small fragments
- The fragments are white
- Bedrock is light grey

Pictures 27 Conglomerate

17T 0496141          Elevation = 404m  
5199462

- Map 2212 shows 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- A few medium size fragments
- The fragments are diorite
- Bedrock is light grey

Pictures 28 Conglomerate

17T 0496669          Elevation = 421m  
5199731

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- A few small size fragments
- The fragments are white - diorite
- Bedrock is light grey

Pictures 29 Conglomerate

17T 0496765          Elevation = 421m  
5199805

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- A few small size fragments
- The fragments are white
- One fragment is large and dark grey. Fine grain.
- Bedrock is light grey
- A nearby ditch has rusty water.
- Outcrop is on the road.

Pictures 30 Conglomerate boulder

17T 0497170          Elevation = 430m  
5199560

- Map 2212 shows 9a Polymictic conglomerate 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Small boulder with rounded fragments.
- Fragments are white.
- Boulder is grey.

Pictures 31 Conglomerate

17T 0497114            Elevation        439m  
5199439

- Map 2212 shows 9a Polymictic conglomerate 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- A lot small size and medium fragments
- One large fragment visible
- The fragments are white – diorite or dark grey.
- Bedrock is light grey

Pictures 32 Rusty Undifferentiated

17T 0497167            Elevation = 430m  
5199625

- Map 2212 shows 9a Polymictic conglomerate 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Greywacke
- Lots of rust spots.

Pictures 33 Mega conglomerate boulder

17T 0497170            Elevation = 430 m  
5199633

- Map 2212 shows 9a Polymictic conglomerate 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Mega conglomerate boulder
- The fragments are white in colour.
- A few small fragments are black.

Pictures 34 Pseudotachylite & Quartz

17T 0498417            Elevation = 447m  
5200497

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Lava flow is grey in colour.
- Fragments look partially melted.
- Fragments the size of a prospectors hammer.
- Bedrock is white and clumpy.
- Nearby is a lava flow with large fragments and layering.
- Lots of small black lines in the bedrock
- I see a few white quartz veins

Pictures 35 Pseudotachylite

17T 0498442            Elevation = 441m  
5200503

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Pseudotachylite
- Country rock has oxidized white and is fractured.
- The matrix is dark grey. Fine grain.

Pictures 36 Pseudotachylite & Undifferentiated

17T 0497257            Elevation = 430m  
5200643

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- I see pseudotachylite in Undifferentiated bedrock
- Bands of dark and light colour
- Banding 2 - 6 feet wide
- Lots of white fragments, Breccia/conglomerates
- Beautiful looking fault line

Pictures 37 Hematite & Pyrite

17T 0502963            Elevation = 402m  
5200643

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) biotite schist in the area ARCHEAN Metavolcanics and Metasediments
- Rust (Limonite) on bedrock surface.
- Looks like hematite
- Magnetic
- Visible pyrite cubes
- Some fractures
- Some white lines and staining
- Dark grey bedrock (fine grain)

17T 0499556            Elevation = 433m  
5197305

- Pictures 38 were lost.

Pictures 39 Conglomerate & lines

17T 0495608            Elevation = 1286 ft  
5198904

- Map 2212 shows 9a Polymictic conglomerate 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Small and medium rounded fragments.
- The fragments are white or diorite
- A few pressure cracks (looks like epidote)
- One cross cut. (Rusty – pink)

Pictures 40 Conglomerate boulders

17T 0495561            Elevation = 1293 ft  
5198835

- Map 2212 shows 9a Polymictic conglomerate 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Small conglomerate boulder
- Fragments are Diorite, white or dark grey in colour
- Sandy beach nearby

Pictures 41 Yellow boulder

17T 0497017            Elevation = 406m  
5200083

- Map 2212 shows 9a Polymictic conglomerate 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Yellow Porphyritic boulder
- The circular porphyry are white
- The matrix is a granite (White-black-beige) oxidizes (to a yellow dust)
- One boulder is of white quartz

- One boulder is of a greenish – white gabbro

Pictures 42 Conglomerate

17T 0499356            Elevation = 1449 ft  
5199715

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Conglomerate
- Fragments are small and rounded
- Fragments look like diorite or are white in colour

Pictures 43 Porphyry

17T 0499653            Elevation = 446m  
5200072

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 15 mm)
- Lots of feldspar crystals that are close to each other
- There is one white pressure crack

Pictures 44 Large quartz veins

17T 0499931            Elevation = 427m  
5198938

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Large white quartz veins

Pictures 45 Porphyry & pink dikes

17T 0499821            Elevation = 1367 ft  
5198799

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)
- Lots of feldspar crystals that are close to each other
- Two parallel pink dikes cross the porphyry

Pictures 46 Pseudotachylite

17T 0499817            Elevation = 1372 ft  
5198815

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN nearby (South and East)
- Conglomerate/Breccia.
- Large angular fragments are diorite, white or grey in colour (polymictic)
- The medium fragments are diorite or white
- The small fragments are white
- The matrix is grey in colour
- I think this is pseudotachylite

Pictures 47 Pseudotachylite & swirl

17T 0498459            Elevation = 1367 ft  
5196916

- Map 2212 shows 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Pseudotachylite with small white fragments
- Breccia with large white quartz fragments
- Contact zone. Dark line and change in bedrock.
- Weird shape in bedrock. Rounded swirl.

Pictures 48 Pseudotachylite & quartz veins

17T 0498585            Elevation = 1370 ft = 422m  
5196965

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Large, medium and small fragments (pseudotachylite)
- The small fragments are white
- Surrounding bedrock and large fragments are greywacke
- Lava is dark grey
- Could be on a fault line
- 4-5 quartz veins cross the breccias
- Some minerals and rust is visible in the white quartz

Pictures 49 Pseudotachylite & Greywacke

17T 0498638            Elevation = 1391 ft  
5196889

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Large grey fragment of Greywacke
- Dark grey lava with small white blobs (Looks like Sudbury Breccia, pseudotachylite)
- Looks like the continuation of the fault line.

Pictures 50 Conglomerate & Rust

17T 0498800            Elevation = 1349 ft  
5196483

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- A few small fragments.
- Rust
- Bedrock is light grey

17T 0498593            Elevation = 1323 ft  
5196338

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Large white quartz vein
  - Bedrock is dark green-grey in colour
- Pictures 51 Large white quartz

17T 0497498            Elevation = 397m  
5195247

- Map 2212 shows 9a Polymictic conglomerate 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Conglomerate with large and medium fragments
- Fragments are white
- Lots of long pressure cracks (Stringers)

- Bedrock is oxidized white (Large outcrop)  
Pictures 52 Large breccia & lots of stringers

17T 0509712            Elevation = 353m  
5199334

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman) 1 Undifferentiated mafic to intermediate metavolcanics ARCHEAN Metavolcanics and Metavolcanics
- Large quartz vein. About 1m across.
- Quartz is fractured  
Pictures 53 Large quartz veins

17T 0500355            Elevation = 434m  
5197680

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Not porphyry
- Large white quartz vein  
Pictures 54 Large quartz veins

17T 0500034            Elevation = 419m  
5198134

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Dark grey bedrock
- Lots of fractures and cross fractures
- Some pink staining
- Nearby is some Epidote  
Pictures 55 Epidote & stringers

17T 0500775            Elevation = 431m  
5197896

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Not porphyry
- Dark grey bedrock Conglomerate
- Lots of fractures and cross fractures  
Pictures 56 Conglomerate & Stringers

Pictures 57 lost

17T 0500859            Elevation = 1422 ft  
5198394

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation)
- Map 2212 also indicate Breccia
- Conglomerate
- Fragments are white and beige  
Pictures 58 Conglomerate

Pictures 59 was same as Pictures 61

17T 0500948            Elevation = 1383 ft  
5199676

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)

- Not as many feldspar crystals
  - About 80 mm vein of white quartz
- Pictures 60 Porphyry

17T 0498003            Elevation = 1396 ft  
5201292

- Map 2212 indicates 12 Olivine diabase PRECAMBRIAN PROTEROZOIC Late mafic intrusive rocks
  - About a 70 mm vein of white quartz
  - The bedrock is light beige
- Pictures 61 White quartz vein

17T 0498086            Elevation = 447m  
5199392

- Map 2212 shows 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Banded gneiss
- Dark blue in colour. (Fine grain)
- Oxidizes to a yellow dust that covers the rock.
- Some mineralization in dark blue boulders.
- Rock fractures in slices. (Same as weird lines area)
- Pictures 62 same as Banded gneiss area

17T 0499377            Elevation = 452m  
5199392

- Map 2212 shows 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Conglomerate
  - Bedrock is light blue in colour
  - Fragments are white quartz or diorite
  - Fragments are small or medium in size
  - There is a meter wide structure of fractures.
- Pictures 63 conglomerate

17T 0499479            Elevation = 444m  
5199380

- Map 2212 shows 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Mega conglomerate
  - Small & medium fragments
  - Fragments are white and a few are small and dark grey
  - Small amount of mineralization visible
  - Nearby seems to be a contact zone between pink granite and glossy bedrock
- Pictures 64 Mega Conglomerate & contact

7T 0501324            Elevation = 422m  
5199017

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
  - Not as many feldspar crystals
- Pictures 65 Porphyry

17T 0501392            Elevation = 428m

5197923

- Map 2212 shows 9b Polymictic conglomerate 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Breccia (Ministry calls this Breccia on the Creelman map)
  - I see pseudotachylite (Sudbury Breccia)
  - Large & medium fragments
  - Egg shape fragments
  - Fragments are white in colour
  - The matrix is dark grey
  - Looks like a fault line. Fragments seem to be traveling east – west (Continues on other road)
- Pictures 66 Pseudotachylite & fault line

17T 0502071            Elevation = 421m

5198072

- Map 2212 shows 9b Polymictic conglomerate 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Conglomerate
  - Fragments are white or diorite in colour
  - Fragments are small and rounded
  - Not lots of fragments
  - Mostly small fragments
  - Bedrock is light grey in colour
- Pictures 67 Conglomerate

17T 0501825            Elevation = 424m

5198040

- Map 2212 shows 9b Polymictic conglomerate 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Conglomerate
  - Fragments are small & medium
  - Fragments are white and grey in colour
  - Sudbury Breccia (Pseudotachylite)
  - Fragments are large
  - This could be a fault line
- Pictures 68 Breccia & Pseudotachylite

17T 0501703            Elevation = 424m

5198083

- Map 2212 shows 9b Polymictic conglomerate 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Conglomerate
  - Fragments are small & medium
  - Fragments are white and grey colour
  - Breccia (Pseudotachylite)
  - Some fragments are egg shape and dark grey in colour
  - There is a cross bedding, small, white quartz vein
- Pictures 69 Breccia & Pseudotachylite

17T 0501717            Elevation = 419m

5198409

- Map 2212 shows 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)



- Pseudotachylite
  - Fragments are small medium and large
  - Fragments are white quartzite
  - Nearby looks like Pillow lava
  - Dark basalt & Rhyolite
- Pictures 70 Pseudotachylite & Pillow lava

17T 0502621            Elevation = 407m  
5198547

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) biotite schist in the area ARCHEAN Metavolcanics and Metasediments
  - 6 cm wide white quartz vein
  - Bedrock looks like glossy grey quartz
  - Lots of small stringers in bedrock
  - One quartz vein has lots of rust in it
- Pictures 71 Rusty quartz

17T 0501712            Elevation = 418m  
5198505

- Map 2212 shows 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Conglomerate
  - Fragments are small & medium in size
  - Fragments are rounded
  - Fragments are white quartz
  - Bedrock is light grey
- Pictures 72 Conglomerate

17T 0503128            Elevation = 382m  
5198483

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) biotite schist in the area ARCHEAN Metavolcanics and Metasediments
  - Map 2212 also indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite just South of this area ARCHEAN Granitic Rocks (Algoman)
  - Pseudotachylite
  - Fragments are small & medium in size
  - Fragments are rounded
  - Fragments are white quartz
  - Some are elongated
  - Bedrock is light grey
  - Lots of stringers
  - Bedrock is dark grey
- Pictures 73 Pseudotachylite & stringers

17T 0503126            Elevation = 382m  
5198481

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) biotite schist in the area ARCHEAN Metavolcanics and Metasediments
- Map 2212 also indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite just South of this area ARCHEAN Granitic Rocks (Algoman)
- Pseudotachylite
- Some fragments are small & medium in size
- Some fragments are rounded

- Some fragments are white/pink quartz
  - Bedrock is dark grey
- Pictures 74 Pseudotachylite

17T 0504048            Elevation = 394m  
5198703

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation)
  - Map 2212 also indicate 12 Olivine diabase just South of this area
  - Conglomerate
  - Fragments are Large & rounded
  - Fragments are white/grey quartz
  - Bedrock is light grey
- Pictures 75 Large conglomerate

17T 0502389            Elevation = 406m  
5198768

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) biotite schist in the area ARCHEAN Metavolcanics and Metasediments
  - Dark grey bedrock with lots of fractures (stringers) ARCHEAN Quartz feldspar (hornblend) Biotite Shist
  - I see large white stringers
  - Conglomerate / Breccia beside
  - Could be pseudotachylite
  - Large, medium and small white quartz fragments
  - A few small, dark fragments with rust
  - Dark grey, glossy bedrock
- Pictures 76 Pseudotachylite & Conglomerate & stringers

17T 0502367            Elevation = 405m  
5199102

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) biotite schist in the area ARCHEAN Metavolcanics and Metasediments
  - Mega small & medium conglomerate
  - Fragments are rounded and white in colour
  - Some small, rounded dark grey fragments
  - Dark grey bedrock
- Pictures 77 Mega small conglomerate

17T 0502389            Elevation = 405m  
5199078

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) biotite schist in the area ARCHEAN Metavolcanics and Metasediments
  - Mega small conglomerate
  - Fragments are rounded and white in colour
  - Some small, rounded dark grey fragments
  - Dark grey, fine grain, quartzite 3cm below the conglomerate layer
  - The upper conglomerate layer is braking off
- Pictures 78 Flaky mega small conglomerate

17T 0502408            Elevation = 413m  
5198736

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) biotite schist in the area ARCHEAN Metavolcanics and Metasediments

- Conglomerate
  - Large, medium and small rounded fragments
  - The fragments are white in colour
  - Bedrock is light grey
- Pictures 79 Conglomerate

17T 0502239            Elevation = 422m  
5198721

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - Flattened and elongated mafic enclaves of the Creelman pluton defining tectonic foliation and lineation.
  - Magmatic enclaves are volumes of rock surrounded by emplaced host rock of related but distinct composition and of separated genesis (incomplete magmatic mixing)
  - It crosses the road (South-West to North-East)
  - On claim map there is a depression that goes to frog creek (No fault line indicated on map)
  - Some rust
  - Similar to the sample given to Shirley at M.N.D.M.
  - Excavated 1 square meter
- Pictures 80 tectonic foliation and lineation

17T 0502005            Elevation = 415m  
5198845

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) biotite schist in the area ARCHEAN Metavolcanics and Metasediments
  - Dark blue igneous rock
  - Quartz – feldspar (Hornblende) Biotite schist
  - Some reddish staining (Hematite)
  - Some brown staining
  - Magnetic
  - Mega small white stringers
- Pictures 81 Hornblende Biotite Schist

17T 0501353            Elevation = 419m  
5199048

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
  - Pressure cracks that look like veins of quartz
  - Also is cross veins
  - Some small rust spots
  - Contact zone of porphyry
  - Dark blue igneous rock
  - Quartz – feldspar (Hornblende) Biotite schist
- Pictures 82 Edge of porphyry

17T 0500714            Elevation = 428m  
5199344

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Mega Conglomerate
- Fragments are small, medium and large
- Fragments are mostly rounded
- Fragments are diorite, white, light grey or dark grey in colour

- This conglomerate outcrop is between two outcrops of porphyry  
Pictures 83 Mega conglomerate

17T 0500522            Elevation = 431  
5199391

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)
- A few pressure cracks
- Some small rusted pyrite cubes  
Pictures 84 Porphyritic quartz monzonite

17T 0500373            Elevation = 434m  
5199616

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)
- A few pressure cracks
- About ½ " of quartz is on top of porphyry
- Quartz is white & pink  
Pictures 85 Porphyry & quartz on top

17T 0500413            Elevation = 434m  
5199674

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)
- About a 30mm white quartz vein  
Pictures 86 Porphyry & quartz vein

17T 0499526            Elevation = 445m  
5199341

- Map 2212 shows 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Conglomerate
- Fragments are small and mostly concentrated in a bolder shape
- Fragments are diorite or white
- The bedrock is dark grey
- The bedrock has a rough texture
- The bedrock has larger white and black grains with really fine grey grains
- Could be lake/ocean bed or volcanic ash  
Pictures 87 Conglomerate

17T 0499358            Elevation = 445m  
5199646

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Undifferentiated
- Some rust (Limonite)
- A few fractures
- Took a sample to review under microscope (Sample not analysed in lab)
- Sample has 3 veins in it (Yellow / white quartz)

- Veins don't follow sedimentary pattern
  - I see pyrite cubs (Gold and silver colour)
  - I see a few black triangles that look like magnetite
  - The Undifferentiated bedrock consists of fine grain, dark grey quartz grains and larger white quartz grains
- Pictures 88 Undifferentiated & yellow mineralized stringers

17T 0500003            Elevation = 443m  
5199646

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)
- Pictures 89 Porphyry

17T 0499012            Elevation = 446m  
5200350

- Map 2212 indicates 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Breccia (Pseudodachylite)
  - Fragments are angular but a few are rounded
  - One fragment is in the shape of a pentagon
  - Fragments are diorite or white
  - Fragments are small and a few medium
  - 17 cm vein of white (? Quartz) Dike
  - A few small fractures also
  - Bedrock is light grey
- Pictures 90 Pseudotachylite & large quartz dike

17T 0499083            Elevation = 446m  
5200392

- Map 2212 indicates 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Finely bedded argillite (9C)
  - Fine grain
  - dark grey almost black in colour
- Pictures 91 Finely bedded argillite

17T 0499054            Elevation = 446m  
5200379

- Map 2212 indicates 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Finely bedded argillite (9C)
- Some rust
- Oxidized white with blotches of black
- Rough surface
- Pictures 92 Finely bedded argillite

17T 0497144            Elevation = 436m  
5201443

- Map 2212 indicates Quartz diabase (Nipissing type) PRECAMBRIAN PROTEROZOIC Late intrusive rocks
- One large outcrop looks dark green
- Conglomerate

- Fragments are small and medium
  - Fragments are diorite, white or black
- Pictures 93 Quartz diabase & Conglomerate

17T 0500641            Elevation = 443m  
5199362

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Polymictic conglomerate
  - Fragments are rounded
  - Fragments are pink granite, white or dark grey in colour
- Pictures 94 Polymictic conglomerate

17T 0500604            Elevation = 430m  
5199390

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Mega Conglomerate
  - Polymictic conglomerate
  - Small and medium fragments are rounded
  - Large fragments are angular
  - Fragments are pink granite, white or dark grey in colour
  - Some rust
  - Glossy bedrock (Matrix)
- Pictures 95 Polymictic conglomerate

17T 0500567            Elevation = 440m  
5199393

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
  - Large outcrop
- Pictures 96 Porphyry

17T 0500696            Elevation = 433m  
5199353

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Polymictic conglomerate
  - Only a few small and medium fragments that are white
  - Bedrock is dark grey
  - Has some orange spots. (Could be olivine diabase)
  - Oxidizes to yellow dust
- Pictures 97 Polymictic conglomerate

17T 0500714            Elevation = 432m  
5199336

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Mega Conglomerate
  - Polymictic conglomerate
  - Small and medium and large fragments are rounded
  - The fragments are mostly diorite and pink granite
- Pictures 98 Polymictic conglomerate

17T 0500764            Elevation = 436m  
5199286

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
  - Some rusted cubes
  - Small, white quartz vein
  - Edge of porphyry, contact zone
  - Some pink staining (Feldspar)
- Pictures 99 Edge of porphyry

17T 0500847            Elevation = 426m  
5199266

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
  - Small, white quartz vein
  - Edge of porphyry, contact zone
  - Nearby is pink feldspar intrusion
  - Intrusion is fractured. Can't tell if it granite or fragments. Need further investigation
  - Nearby is a rock face with light grey to black colours
  - This rock face has rounded fragments on top
  - Therefore it is a conglomerate
  - There is a large white dike that crosses the conglomerate
- Pictures 100 Porphyry & Conglomerate

17T 0500797            Elevation = 437m  
5199068

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
- Pictures 101 Porphyry

17T 0500775            Elevation = 439m  
5199050

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
- Pictures 102 Porphyry

17T 0500729            Elevation = 428m  
5199015

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
  - There is an intrusion of basalt in the porphyry
- Pictures 103 Porphyry & basalt

17T 0500653            Elevation = 429m  
5198982

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)
- Nearby is a large rounded outcrop of porphyry
- It has a small white quartz vein

## Pictures 104 Porphyry

17T 0500579      Elevation = 430m  
5198936

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)

## Pictures 105 Porphyry

17T 0500871      Elevation = 435m  
5198910

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)

- A few fractures

## Pictures 106 Porphyry

17T 0500901      Elevation = 425m  
5198822

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)

- Not as many large feldspar crystals

- Same as Pic 145

## Pictures 107 Porphyry

17T 0500941      Elevation = 425m  
5198777

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)

- A few small fractures cut at 45° by a 30mm white quartz vein

- Nearby the porphyry has a medium size pink dike

- There are four parallel veins along the dike

## Pictures 108 Porphyry & Pink Dike

17T 0500894      Elevation = 423m  
5198584

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)

- Not as many large feldspar crystals

- Nearby is porphyry with a large and medium dike running parallel to each other

## Pictures 109 Porphyry & Pink Dike

17T 0498987      Elevation = 448m  
5199120

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite

- Some of the feldspar crystals are large and square. (About 10 mm)

- Same as Pic 157

## Pictures 110 Porphyry



17T 0500664 Elevation = 431m

5198131

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - I see a polymictic Breccia
  - Medium fragments are porphyritic but most are diorite like.
  - Some medium fragments are white or medium grey Polymictic.
  - A small fracture has pink in it
  - The fragments are mostly angular.
  - There is a few rounded fragments
  - Bedrock is light grey
  - Nearby I see some dark grey bedrock with small white fragments in it. Could be some dark pseudotachylite. Large fault line.
- Pictures 111 Polymictic Breccia Pseudotachylite

17T 0500662 Elevation = 431m

5198102

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - White quartz pebbles in a beige quartz boulder
  - The boulder is made of white and brown quartz
  - Looks like sedimentary process formed this bedrock
  - Similar to the pebble beds in the Lorrain Formation, North of Fraleck Lake p.23 Report 91
- Pictures 112 Quartz pebble in boulder

17T 0500708 Elevation = 431m

5198125

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN granitic rocks in this area
  - Polymictic conglomerate
  - Some medium fragments are granite (Pink-white-black)
  - Some small fragments are white and rounded
  - On the edge of the conglomerate is an outcrop of epidote with white quartz
  - The quartz has (Gold colour) pyrite cubes and rust
  - The quartz that covers the epidote is thin but there are other quartz veins
  - The quartz also has a bit of green chlorite
  - The epidote is yellow
  - The bedrock beside the epidote is dark Grey/ green
  - Excavated 2m x 2m of conglomerate
- Pictures 113 Epidote Pyrite conglomerate & area of Sample 23

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.031	811	16	19.80

17T 0501694 Elevation = 414m

5198860

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - Quartz – feldspar (- hornblende) – biotite schist
  - Some hematite staining
  - Small white veins
  - Some rust in veins
  - The bedrock is dark green/grey in colour
- Pictures 114 Hornblende biotite schist

17T 0501524 Elevation = 418m

5198942

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - Quartz – feldspar (- hornblende) – biotite schist
  - Some epidote in small veins
  - Small white vein
  - The bedrock is dark grey in colour
- Pictures 115 Hornblende biotite schist

17T 0501039            Elevation = 439m

5199057

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
  - Lots of rust on surface of porphyry (rust came from soil I think)
- Pictures 116 Porphyry & Rust

17T 0501034            Elevation = 423m

5199035

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
- Pictures 117 Porphyry

17T 0501014            Elevation = 423m

5199058

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
  - A bit of rust in a small fracture
  - A few small quartz veins
- Pictures 118 Porphyry

17T 0500923            Elevation = 440m

5199094

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
- Pictures 119 Porphyry

17T 0500801            Elevation = 443m

5199024

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
- Pictures 120 Porphyry

17T 0500931            Elevation = 427m

5198619

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)
- Large pink dike

- Several smaller quartz veins  
Pictures 121 Porphyry & dike

17T 0500935            Elevation = 427m  
5198615

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)
- Lots of epidote
- Large pink dike
- Several smaller quartz veins  
Pictures 122 Porphyry epidote & dike

17T 0500873            Elevation = 439m  
5198429

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation)
- Map 2212 also indicate Breccia
- Polymictic conglomerate
- A few small, rounded fragments of diorite like.
- Bedrock is light grey
- One area has lots of fracturing and cross fractures (stringers)
- Some white staining (Bedrock mixing)
- At the contact zone the bedrock is dark blue/black vs a white/pink bedrock
- The map says it's the contact between Porphyritic Quartz Monzonite vs Undifferentiated
- The map also indicate Breccia in the area (slightly west of this position)  
Pictures 123 Conglomerate stringers & Contact zone

17T 0501868            Elevation = 415m  
5198884

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- Quartz – feldspar (- hornblende) – biotite schist
- Small white veins
- Some rust in veins
- The bedrock is dark grey in colour  
Pictures 124 Hornblende biotite schist

17T 0501791            Elevation = 415m  
5198705

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- Quartz – feldspar (- hornblende) – biotite schist
- Medium size white veins
- Some rust in veins
- The bedrock is dark grey in colour  
Pictures 125 Hornblende biotite schist

17T 0500664            Elevation = 431m  
5198131

- Map 2212 shows 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Polymictic conglomerate
- Fragments are small and white

- Bedrock is light grey / beige
  - Inside the bedrock is dark blue/grey
- Pictures 126 Polymictic conglomerate

17T 0502101            Elevation = 411m  
5198757

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - Diorite
  - Small quartz veins
  - Lots of surface rust (From surrounding soils)
  - One larger quartz vein
- Pictures 127 Diorite & rust

17T 0500067            Elevation = 423m  
5198067

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Mineralized ball in a small diorite boulder (About 45mm diameter)
  - The diorite becomes pegmatitic on one edge of the boulder
  - I think this boulder can from this area because there is a lot of Diorite around here
- Pictures 128 Mineralized Diorite boulder

17T 0503305            Elevation = 403m  
5198356

- Map 2212 also indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite just South of this area ARCHEAN Granitic Rocks (Algoman)
  - South of Gervais camp
  - North of Framan lake
  - This area looks like an old river bed. Frog creek must have run through this area in the past at higher volumes
  - There is potential for alluvial Gold in this area do to the porphyry in area (North-West)
- Pictures 129 South of Gervais camps

17T 0501395            Elevation = 411m  
5197918

- Map 2212 indicates 9 Undifferentiated 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Map 2212 also indicate Breccia
  - No fault line indicated on map
  - I see pseudotachylite
  - Similar Sudbury Breccia is found nearby going west
  - Some fragments are white and rounded or elongated egg shape
  - The larger fragments look like Greywacke
  - The flow appears to be traveling about 30° North - South
  - The matrix is dark blue to dark grey
  - The matrix has small white spots indicative of Sudbury Breccia
  - The matrix also has small rounded pebbles of Diorite
- Pictures 130 Pseudotachylite

17T 0501335            Elevation = 417m  
5197877

- Map 2212 indicates 9 Undifferentiated 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)

- Map 2212 also indicate Breccia
  - Polymictic conglomerate
  - The medium size fragments are white-grey quartz
  - Nearby is feldspathic greywacke with scratches from a backhoe
- Pictures 131 Polymictic Conglomerate

17T 0501729            Elevation = 421m  
5198065

- Map 2212 indicates 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Breccia
  - Large fragments of dark blue feldspathic greywacke
  - Some smaller angular fragments are white in colour
  - Some fragments are dark grey and are shaped like elongated eggs (Pseudotachylite)
  - The matrix is dark grey-brown
  - Some fragments - sections have been altered to a white colour
  - Nearby looks like there is a large dike that needs more investigation
- Pictures 132 Pseudotachylite - dike

17T 0501831            Elevation = 417m  
5198039

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Sedimentary greywacke with elongated egg shaped fragments (Pseudotachylite)
  - The fragments look like they are made of the same material as the matrix
  - There are some large rounded fragments that are made of a fine grain, dark green – grey colour
  - A few small and medium white fragments
  - The direction was hard to determine. It looked like and East – West direction
- Pictures 133 Pseudotachylite - Breccia

17T 0498396            Elevation = 451m  
5199945

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Undifferentiated
  - The picture of this actual location was lost and is now estimated
  - Massive mineralization about 15mm x 10mm visible in two spots
  - The mineralization looks flaky and is silver in colour. Pyrite
  - The other spot is rusted
  - These mineral balls are in a matrix of dark blue Undifferentiated bedrock
- Pictures 134 Mineralized Undifferentiated

17T 0501999            Elevation = 424m  
5198847

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - Dark blue igneous rock
  - High alteration
  - Some rust
  - Quartz – feldspar (Hornblende) Biotite schist
  - Magnetic
  - (took 6 samples)
- Same as area in Pictures 81 Hornblende Biotite Schist

17T 0500054 Elevation = 420m

5198061

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Dark grey – black bedrock
  - Magnification shows white grains, black grains, yellow grains, some orange (rusty) grains and a few blue and green grains
  - Some silver mineralization visible
  - Lots of alteration in area
  - Sample 7 came from here
  - Sample 2 b2 was sent in as sample 20
  - Sample 20 looks like an amphibolite – gabbro
  - See Sample 20 pictures in pictures 135
- Pictures 135 Sample 7 & 20 amphibolite - gabbro

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.003	158	58	65.1

Sample 7

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.003	120	106	60.8

Sample 20

17T 0500012 Elevation = 416m

5197863

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Pegmatite
  - Massive mafic metavolcanics
  - Diorite is black and white or black and pink in colour
  - Crystals are amphibole and orthoclase
  - Some small white veins
  - Some rust
  - Sample 4 was pegmatite – diorite (No pictures)
  - Sample 12 was very dark in colour (almost black) with pink intrusions
  - The pyrite was in contact with the pink intrusion
  - Largest pyrite cube found on property about 10mm
- Pictures 136 Sample 4 & 12 Pegmatite - metavolcanics

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Ti (%)
0.003	169	100	95.5	1.37

Sample 4

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Ti (%)
0	44	315	48.5	0.43

Sample 12

17T 0500006 Elevation = 415m

5197881

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Grano Diorite fragments
- Massive mafic metavolcanics
- Medium size white fragments
- Beautiful pseudotachylite (Greenish intrusion with small white fragments)
- Diorite is black and white or black and pink in colour

- Crystals are amphibole and orthoclase
  - There some white quartz stringers
  - Some rust
- Pictures 137 Pseudotachylite

17T 0500016            Elevation = 417m  
5197873

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Massive mafic metavolcanics (Looks like quartz feldspar (hornblend) Biotite shist
- There is lots of green epidote
- Has white fragments in a flow/sheer patern
- Has some larger fragments
- Pictures 138 Pseudotachylite – epidote

17T 0500329            Elevation = 421m  
5197654

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Massive mafic metavolcanics
  - Looks like quartz feldspar (hornblend) Biotite shist and some diorite
  - I see a dark green intrusion with white medium fragments (Could be pseudotachylite)
  - Very dark (black) intrusion (Basalt)in some white/altered bedrock
  - I see some white and pink quartz
  - A lot of white stringers in diorite
- Pictures 139 metavolcanics & diorite & pseudotachylite

17T 0500354            Elevation = 424m  
5197680

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Map does not show this outcrop
  - Looks like bedded arkose
  - There is a white and orange quartz vein (About 50 mm)
  - The quartz veins go several directions
  - There is a vein of green chlorite (About 15 mm)
  - Also see pictures 171
- Pictures 140 Arkose & Quartz & Green chlorite

17T 0500029            Elevation = 419m  
5198140

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Massive mafic metavolcanics
  - Very dark blue intrusion
  - Some diorite on edge of samples
  - Visible mineralization
  - Samples not sent for analysis
- Pictures 141 Mineralized metavolcanics

17T 0498977            448m  
5199120

- Pink sedimentary boulder (maybe from a geyser)
- Nothing like it in area.
- Lots of sedimentary lines with a few small fragments in it
- The boulder is rounded and most likely foren to this area
- Forgot axe

Pictures 142 Pink/purple sedimentary boulder

17T 0499058      448m  
5199054

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyry
  - Some of the crystals are large and square. (About 10 mm)
  - Crystals have cleavage at 90°
  - Crystals are white in colour
  - Looks more like plagioclase feldspar crystals
  - No pink like potassium feldspar
  - Large quartz - feldspar dike
  - Same area as Pictures 156
- Pictures 143 Porphyry (Orthoclase) & dike

17T 0498398      Elevation = 452m  
5199963

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- Massive mineralization about 20mm x 10mm and smaller are visible
- The mineralization looks flaky and is silver in colour. Pyrite
- These mineral balls are in a matrix of dark blue feldspathic greywacke
- Pictures 144 Mineralized greywacke & Sample 6

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.033	12	63	91.6

17T 0500905      Elevation = 434m  
5198824

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Plagioclase feldspar crystals (White)
  - Some of the feldspar crystals are large (About 10 mm)
  - Same location as Pictures 107
- Pictures 145 Porphyry

17T 0500867      Elevation = 438m  
5198387

- Map 2212 indicates 9 undifferentiated HURONIAN COBALT GROUP Gowganda Formation
  - I think it is bedded arkose 9b
  - Oxidized pink in colour
  - Lots of rust (limonite)
  - Fresh cut shows a dark blue sedimentary bedrock
  - It is also fine grain
- Pictures 146 bedded arkose

17T 0500885      Elevation = 439m  
5198369

- Map 2212 indicates 9 undifferentiated HURONIAN COBALT GROUP Gowganda Formation
- I think there is some bedded arkose 9b with schistosity occurring
- I think this is greywacke
- The greywacke is smooth except for the numerous fractures
- The fractures look like they are quartz and feldspar



- Fragments are small
- One area is very fractured (Numerous events)
- Some rust
- The fractures look like they got filled with white or orange quartz
- There is a larger white/orange quartz
- There is a large dike that schists
- I see some breccia
- This could be pseudotachylite
- Needs to be sampled

Pictures 147 Pseudotachylite & greywacke & quartz veins

17T 0500779            Elevation = 437m  
5198197

- Map 2212 indicates 9 undifferentiated HURONIAN COBALT GROUP Gowganda Formation
- Two large fractures are in the form of a cross
- There is a lot of small white stringers
- The bedrock is light grey on surface but dark blue inside
- The bedrock is fine grain
- Found 3 freshly broken samples (Not analyzed)
- The samples showed some mineralization (Small silvery cubes of pyrite)
- There was some rust (Limonite)

Pictures 148 Mineralization in undifferentiated

17T 0500662            Elevation = 440m  
5198114

- Pebble boulder
- The matrix seems to be quartz monzonite
- Most likely from a pebble bed like in the Larrain Formation, north of Fraleck lake. The sediments in the Larrain Formation were probably derived from a granitic terrain, transported over appreciable distances and deposited in a moderately deep-water, coastal environment where planar cross-bedding and turbidity current activity was still strong.
- The pebbles are white or blue quartz. Also there is some red banded pebbles (Iron rich)

Pictures 149 Pebble boulder

17T 0500668            Elevation = 438m  
5198120

- Found some different boulders
- One is a different porphyry then what I find on these properties
- One is of the contact between a diorite and greywacke
- 5 small boulder/rock samples were photographed and taken to camp for examination

Pictures 150 Boulders – porphyry – contact

17T 0499323            Elevation = 443m  
5198812

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Porphyritic quartz monzonite
- Orthoclase feldspar crystals (White), some potassium feldspar crystals
- Some of the feldspar crystals are large (about 10 mm)
- There are also some white pebbles in the quartz monzonite and in a nearby boulder

Pictures 151 Porphyry and Pebbles

17T 0499281            Elevation = 442m  
5198855

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Orthoclase feldspar crystals (White), lots of potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
  - Rusted pyrite cubes
  - A small quartz vein
  - Rounded & egg shape xenoliths
  - Xenoliths are dark grey in colour (Magnified it is diorite)
- Pictures 152 Porphyry pyrite & xenoliths

17T 0499234            Elevation = 443m  
5198936

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
  - A few white quartz veins
- Pictures 153 Porphyry & quartz veins

17T 0499187            Elevation = 444m  
5198965

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
- Pictures 154 Porphyry

17T 0499082            Elevation = 450m  
5199056

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
  - Some rust
- Pictures 155 Porphyry & rust

17T 0499057            Elevation = 451m  
5199055

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Potassium feldspar crystals
  - Some of the feldspar crystals are large (some larger 10 mm)
  - Some rust
- Pictures 156 Porphyry & rust

17T 0498985            Elevation = 448m  
5199119

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
  - Same as location 110
- Pictures 157 Porphyry

- 17T 0498968            Elevation = 446m  
5199018
- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Orthoclase and potassium feldspar crystals
  - Some of the feldspar crystals are large (some > 10 mm)
- Pictures 158 Porphyry
- 17T 0499403            Elevation = 449m  
5198735
- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
  - A small white quartz veins
- Pictures 159 Porphyry
- 17T 0499513            Elevation = 439m  
5198659
- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - I see Porphyritic quartz monzonite with Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
  - Look like a Thin layer of some iron on the face of the outcrop
  - Some small and large white – pink quartz veins
  - Contact between porphyry and pink bedrock (Looks like pink intruded into porphyry)
  - This pink intrusion and dikes are not shown on map 2212
  - There is some Gabbro with small pink intrusions
  - Really dark colour (almost black in some areas) Map shows only porphyritic quartz monzonite
- Pictures 160 Porphyry & Gabbro & Rust
- 17T 0499527            Elevation = 434m  
5198620
- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
  - A small white quartz veins
- Pictures 161 Porphyry
- 17T 0499588            Elevation = 434m  
5198599
- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
  - A large white/ pink dike
  - Looks like a small basalt fragment in the porphyry
- Pictures 162 Porphyry & pink dike
- 17T        0499577            Elevation = 436m  
5198590
- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN

- Porphyritic quartz monzonite
  - Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
  - Some rust
  - Some large fractures
- Pictures 163 Porphyry & rust

17T 0499649            Elevation = 432m  
5198626

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
  - A small white quartz vein
  - Some large fractures
- Pictures 164 Porphyry

17T 0499805            Elevation = 425m  
5198815

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Mega conglomerate / Breccia
  - Lots of small, medium and large fragments
  - The smaller fragments are rounded but some really large ones are angular
  - The large fragments are diorite, sedimentary, felsic meta volcanic and one is an elongated mafic enclave
  - This could be some pseudotachylite
  - Flattened and elongated mafic enclaves of the Creelman pluton defining tectonic foliation and lineation.
  - Magmatic enclaves are volumes of rock surrounded by emplaced host rock of related but distinct composition and of separated genesis (incomplete magmatic mixing).
  - Similar to the sample given to Shirley at M.N.D.M.
  - The small fragments are numerous and white in colour
  - Nearby is porphyritic quartz monzonite with a few small white quartz veins and large fractures
- Pictures 165 Pseudotachylite – enclave fragment - porphyry

17T 0497114            Elevation = 438m  
5199437

- Map 2212 shows 9a Polymictic conglomerate 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Map 2212 also indicates that this area has a fault line
  - Mega conglomerate
  - Fragments are small medium and large in size
  - The 2 large fragments are rounded, one is black and one is diorite like
  - The medium fragments are rounded, some are white and others are diorite
  - The small fragments are white
  - Nearby are mineral balls in greywacke
  - One mineral ball is rusted, has pyrite cubes all around outside the ball. The colour is golden
  - The other mineral ball is rusted, has a more silvery material (Maybe pyrite) and has pyrite cubes all around outside the ball
  - See pictures 31
- Pictures 166 mega conglomerate & mineral balls

17T 0499298 Elevation = 434m

5198152

- Map 2212 shows 9c Finely bedded argillite in the area (HURONIAN Gowganda formation)
  - Contact zone between the finely bedded argillite and a conglomerate
  - Could be the sediments between two finely bedded argillite mountains
  - Looks like ocean bed (deep water) sediments
- Pictures 167 Finely bedded argillite & conglomerates

17T 0497778 Elevation = 449m

5199528

- Map 2212 shows 9c Finely bedded argillite in the area (HURONIAN Gowganda formation)
  - Fine grain light blue bedrock
  - white/pink feldspar
  - Lots of banding (Schistosity) in argillite
  - Lots of feldspathic stringers
  - Nearby is argillite with a small, very dark, basalt intrusion
- Pictures 168 Argillite & basalt fragment & Undifferentiated

17T 0497266 Elevation = 430m

5198868

- Map indicates Massive feldspathic greywacke & finely bedded argillite
  - Lots of banding (Gneiss) indicating some Undifferentiated
  - Lots of feldspathic enclaves
- Pictures 169 greywacke & Undifferentiated

17T 0498398 Elevation = 454m

5199966

- Map says 9d massive feldspathic greywacke
  - The Greywacke is light grey out surface (>2mm)
  - The Greywacke is dark blue and white quartz / feldspar crystals with black grains
  - The Greywacke is fine/course grain
  - Several small, collections of minerals (about <15mm each)
  - The mineralization is metallic or is gold in colour
  - Did two cuts but had no axe to remove sample
  - Took samples with sledge hammer
- Pictures 170 Greywacke & Mineralization Sample 3 & 8

Sample 3

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.008	10	62	115

Sample 8

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.001	10	66	81.6

17T 0500354 Elevation = 424m

5197680

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Map 2212 does not show this outcrop
- Looks like bedded arkose
- There is a white and orange quartz vein (About 50 mm)
- The quartz veins go several directions
- There is a vein of green chlorite (About 15 mm)

- One cut was done across the vein and into arkose
- Saw was missing the spacer and was vibrating excessively (Dangerous – stopped cutting)
- See Pictures 140  
Pictures 171 Arkose & Quartz & Green Chlorite

17T 0498334            Elevation = 449m  
5199334

- Map 2212 says 9c finely bedded argillite (Mud stone) & 9d massive feldspathic greywacke
  - Large white & Pink quartz dike in arkose (About 30 cm)
  - Several quartz stringers
  - Large pink feldspar dike
  - Nearby is solidified mud flows of argillite with extensive black basalt stringers and a few intrusions
  - The argillite is also a conglomerate with large rounded fragments
  - The fragments are dark grey arkose and white/dark grey quartz
  - Looks like there is some pseudotachyline
  - Nearby is a white quartz veins and green epidote veins and staining (Almost yellow)
  - There is some rust (Limonite)
- Pictures 172 Pseudotachylite & argillite & Greywacke & quartz & epidote & Basalt

17T 0498339            Elevation = 453m  
5199323

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - I also see some Undifferentiated bedrock
  - Large white with some pink quartz dike (about 40 cm)
  - Has some green chlorite
  - Took sample 11 from this green chlorite in arkose
  - See sample 11 folder
- Pictures 173 Undifferentiated & Quartz dike & green chlorite & sample 11

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.003	21	75	19

17T 0500055            Elevation = 422m  
5198023

- Two different boulders
  - One boulder is like green Malachite that seems to take the form of rounded peas. (about 60 mm each)
  - The Malachite looking rock is in contact with feldspathic pegmatite
  - The feldspathic pegmatite consists of coarse black and white minerals with a little pink in it
  - The second boulder consist of rounded fragments of coarse black and white minerals with a little pink in it. This would make it a conglomerate boulder.
  - We sampled the malachite like rock early in 2018. See below. Not Malachite!
- Pictures 174 Malachite like & conglomerate boulders

See samples 180 and 181

Rb (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Ba (ppm)	Li (ppm)	Sr (ppm)
396	9	777	66.3	479	96	135

Rb (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Ba (ppm)	Li (ppm)	Sr (ppm)
510	12	230	43.6	699	121	595

17T 0500354 Elevation = 434m

5197680

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Map does not show this outcrop
  - Looks like bedded arkose
  - There is a white and orange quartz vein (About 50 mm)
  - The quartz veins go several directions
  - There is a vein of green chlorite (About 15 mm)
  - Finished the cut that was done across the vein and into the arkose
  - See pictures 54 & 140 & 171
  - Sample had lots of arkose in it and only a bit of quartz and chlorite
  - See sample folder
  - Took sample 2
- Pictures 175 Arkose & Quartz & Chlorite & Sample 2

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.003	25	17	9.8

17T 0499571 Elevation = 437m

5198002

- Map 2212 shows 9c Finely bedded argillite in the area (HURONIAN Gowganda formation)
  - Map 2212 also indicates that there is a fault line and a contact with 3b Porphyritic quartz monzonite
  - A white and dark grey with a bit of orange quartz vein
  - I think the bedrock is arkose
  - Some fracturing
- Pictures 176 Quartz & fractures

17T 0499590 Elevation = 432m

5198352

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
  - Large pink feldspathic dike
- Pictures 177 Porphyry & pink dike

17T 0499664 Elevation = 424m

5198676

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
  - Several large pink feldspathic quartz dike
  - White quartz vein
- Pictures 178 Porphyry & pink dike & Quartz

17T 0499803 Elevation = 440m note same area in pic 165 says 426m

5198810

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Mega conglomerate
- Lots of small, medium and large fragments

- The smaller fragments are rounded but some really large ones are angular
  - The large fragments are diorite, sedimentary, felsic meta volcanic and one is an elongated mafic enclave
  - Fragment similar to the sample given to Shirley at M.N.D.M.
  - The small fragments are numerous and white in colour
  - Excavated about 3 square meters. It involved mostly sweeping and a little shovel work. Most of outcrop was already exposed by the logging company (Gervais) during their road building.
- Pictures 179 Excavation of conglomerate with enclave

17T 0498415            Elevation = 453m  
5199960

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Mineralization in bedrock. (Pyrite)& (Metallic)
  - The Pyrite cubes are massive in some areas.
  - Lots of surface rust. (Iron oxide - Limonite)
  - Bedrock is dark blue/grey in colour. Locks like Quartz.
  - Looks like greywacke
  - Sent in for analysis with a pieces from the samples in pictures 7
  - This formed part of sample one. Prior sample was to small to send away for analysis
- Pictures 180 Mineralized greywacke & samples 1

17T 0497900            Elevation = 448m  
5199102

- Map 2212 indicates finely bedded argillite 9c & massive feldspathic greywacke 9d
  - I see argillite and undifferentiated
  - There is some green chlorite in the argillite
  - There is some white quartz veins
  - Sample 13 was taken from here (argillite with green chlorite)
  - Lots of green chlorite and white quartz in area (Large structure)
- Pictures 181 Argillite & undifferentiated & Quartz & green chlorite & sample 13

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	39	66	27

17T 0498336            Elevation = 450m  
5199323

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - The Greywacke is light blue/ white quartz / feldspar crystals with black grains
  - The Greywacke is fine/course grain
  - Vein of white quartz (about 10 cm) turns into multiple stringers
  - The white quartz veins runs east-west with a slight northern dip in the west (Not on map)
  - There is soft, green chlorite with metallic particles in it
  - A large white quartz dike (about 30 cm) runs North – South (Not on map)
  - Nearby is a large white quartz vein that seems to run in the same direction as a fault line on the map (East – West direction with rising north about 54°)
  - Multiple tectonic events in the area
  - Excavated and area 3m x 3m (Not much overburden or trees)
- Pictures 182 Excavation & quartz & fault & green chlorite

17T 0498374            Elevation = 448m  
5199289



- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Map 2212 also indicates 9d Massive feldspathic greywacke East of this area (HURONIAN Gowganda formation)
  - Porphyritic quartz monzonite
  - Looks like orthoclase feldspar crystals (White in colour)
  - Some of the feldspar crystals are large (about 10 mm)
  - Lots of greenish epidote stringers in the porphyry
  - This is the edge of the porphyry near the intersection of two fault lines
  - Ryan did some panning and found one flake of gold from the top of the outcrop
- Pictures 183 Edge of porphyry with epidote stringers

17T 0503795            Elevation = 419m  
5199487

- Map 2212 indicates 3a (quartz monzonite, granite, grano-diorite, pegmatite) ARCHEAN Granitic Rocks (Algoman)
  - I see a contact between Quartz monzonite and granite
  - At the bottom of the granite mountain is the contact zone with quartz monzonite
  - The visible contact is on the bottom edge of a large 90° granite face
  - After the contact, the quartz monzonite dips at about 45°
  - There is about 6m x 2m exposed of quartz monzonite
  - Nearby seems to be a large outcrop of pure white quartz monzonite (See Pictures)
- Pictures 184 Contact & quartz monzonite

17T 0503645            Elevation = 434m  
5199748

- Map 2212 indicates 3a (quartz monzonite, granite, grano-diorite, pegmatite) ARCHEAN Granitic Rocks (Algoman)
  - I see pegmatite (Large, pink potassium feldspar crystals & white quartz crystals)
  - I see granite all around the pegmatite
  - I see a very small outcrop or boulder of what seems to be argillite with lots of fractures and weathering to a beige colour
- Pictures 185 Pegmatite & granite

17T 0503420            Elevation = 404m  
5200119

- Map 2212 indicates 3a (quartz monzonite, granite, grano-diorite, pegmatite) ARCHEAN Granitic Rocks (Algoman)
  - I see white quartz veins with beige quartz mixing with it
  - I see large stringers of white quartz
  - I see granite
  - I see some quartz monzonite
- Pictures 186 White and Brown Quartz & granite

17T 0503421            Elevation = 402m  
5200111

- Pegmatite and granite boulder
  - Visible biotite mica
- Pictures 187 Pegmatite & mica boulder

17T 0503420            Elevation = 398m  
5200109

- Map 2212 indicates 3a (quartz monzonite, granite, grano-diorite, pegmatite) ARCHEAN Granitic Rocks (Algoman)

- I see a white quartz vein (about 10 cm) in a pink and white granite  
Pictures 188 quartz & granite

17T 0503420            Elevation = 385m  
5200109

- Map 2212 indicates 3a (quartz monzonite, granite, grano-diorite, pegmatite) ARCHEAN Granitic Rocks (Algoman)
- I see a diorite outcrop with white quartz stringers and some rust (Limonite)( iron oxide)
- The boulder is large and angular indicating its origin is nearby
- Other angular boulders descend into the overburden directly below this boulder
- Nearby there appears to be some greywacke and it is oxidizing to a fine yellow grain  
Pictures 189 Diorite & Quartz

17T 0499956            Elevation = 428m  
5198953

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Looks like plagioclase feldspar crystals (White in colour)
- Some of the feldspar crystals are large (about 10 mm)
- It is also a contact zone  
Pictures 190 Porphyry & contact

17T 0499935            Elevation = 430m  
5198960

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- Looks like orthoclase feldspar crystals (White in colour)
- Some of the feldspar crystals are large (about 10 mm)  
Pictures 191 Porphyry

17T 0499930            Elevation = 431m  
5198938

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- I see a large white quartz vein (about 10 cm) in bedrock that looks a bit like greywacke
- I see a small outcrop that is pink diorite just like the Malachite like boulder has
- I also see greenish round bacteria or actual Malachite like nobules (Did not check at the time)
- Nearby are some other large white quartz veins
- Lots of large fractures in bedrock
- Excavated 1 square meter and exposed white quartz vein
- Nearby is a contact between porphyritic quartz monzonite and greywacke
- The greywacke has lots of stringers near the contact
- A fresh break reveals the Greywacke is massive, coarse grain, dark blue and white quartz / feldspar crystals with black fine grains  
Pictures 192 Contact & excavation & greywacke & Quartz & Malachite like nobules

17T 0499645            Elevation = 452m  
5198126

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
- I see quartz monzonite with large, light green epidote intrusions
- I also see just as large rounded and elongated dark grey xenoliths  
Pictures 193 Large epidote & quartz monzonite

17T 0499655            Elevation = 448m  
5198111

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN

- I see quartz monzonite with large, light green epidote intrusions
  - I also see several large pink dikes
  - There is lots of fractures in many different directions
- Pictures 194 Large epidote & pink dikes & quartz monzonite

17T 0499656            Elevation = 444m  
5198070

- Map 2212 shows 9c Finely bedded argillite in the area (HURONIAN Gowganda formation)
  - There is stringers of green chlorite
  - There is some white quartz
  - Some of the stringers have rusted pyrite cubes
- Pictures 195 argillite & green chlorite & Pyrite

17T 0499674            Elevation = 440m  
5198081

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - The bedrock is dark grey
  - There are some epidote intrusions
  - There is also some pink granite like bedrock
  - There is a bit of white quartz
  - Nearby is what looks like conglomerates
  - When the conglomerate peels off, revealing a smooth, rounded dark grey bedrock
  - Possibility it's pillow lava or old river bed
- Pictures 196 Epidote & Conglomerates

17T 0499649            Elevation = 436m  
5198191

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Contact between diorite and a dark grey basaltic bedrock
  - The basaltic bedrock is fractured and altered
  - There is a white quartz vein in between the two different bedrocks
  - Small outcrop
- Pictures 197 Diorite & contact & quartz

17T 0499576            Elevation = 436m  
5198114

- Map 2212 shows 9c Finely bedded argillite in the area (HURONIAN Gowganda formation)
  - I see Diorite (Altered)
  - I see a large white quartz vein
  - I see a large orange dike
  - I see a contact zone between a dark grey and pink bedrock
  - There is also a large pink vein crossing the darker bedrock
  - The darker bedrock jumps between diorite and sedimentary
  - The darker bedrock looks like it was intruded by the pink. (Pink younger)
- Pictures 198 Diorite & Quartz & orange dike & contact

17T 0499538            Elevation = 435m  
5198133

- Map 2212 shows 9c Finely bedded argillite in the area (HURONIAN Gowganda formation)
  - There is a contact zone between gabbro and what looks like finely bedded argillite
- Pictures 199 contact & Gabbro & argillite

17T 0499530            Elevation = 435m

5198126

- Map 2212 shows 9c Finely bedded argillite in the area (HURONIAN Gowganda formation)
  - Water is contaminated with Metallic, red, blue and purple colours
- Pictures 200 Contaminated water

17T 0499518 Elevation = 437m

5198121

- Map 2212 shows 9c Finely bedded argillite in the area (HURONIAN Gowganda formation)
  - I see small white stringers in what appears to be massive feldspathic greywacke and diorite
  - There is white quartz (Like like a vein/dike)
  - There is some epidote and rust
- Pictures 201 greywacke & diorite & Quartz & epidote

17T 0499419 Elevation = 439m

5198121

- Map 2212 shows 9c Finely bedded argillite in the area (HURONIAN Gowganda formation)
  - Lots of triangle shape holes
  - Lots of bacterial covering bedrock
  - Looks like there is some quartz monzonite nearby
  - Looks like there is some greywacke nearby
  - There are a lot of fracturing (stringers) in the greywacke
- Pictures 202 greywacke & quartz monzonite

17T 0499372 Elevation = 437m

5198140

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation)(sedimentary)
  - Map also shows 9d in area (Massive feldspathic greywacke)
  - Looks like the bedrock was uplifted and caused the bedrock to shift 80°
  - There are a lot of stringers
- Pictures 203 undifferentiated & stringers

17T 0499322 Elevation = 437m

5198157

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation) (sedimentary)
  - Map also shows 9d in area (Massive feldspathic greywacke)
  - Some white stringers
  - Some fracturing
- Pictures 204 undifferentiated

17T 0499296 Elevation = 436m

5198154

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation) (sedimentary)
  - Map also shows 9d in area (Massive feldspathic greywacke)
  - Contact zone with rounded conglomerates
  - Odd elongated shape of fragments
- Pictures 205 Pseudotachylite with elongated shapes & undifferentiated

17T 0499298 Elevation = 441m

5198136

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation) (sedimentary)
  - Map also shows 9d in area (Massive feldspathic greywacke)
- Pictures 206 Undifferentiated

17T 0499270 Elevation = 435m

5198168

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation) (sedimentary)
  - Map also shows 9d in area (Massive feldspathic greywacke)
  - More eroded, banding very visible
  - Gneiss looking
  - Bands are dark grey vs light grey
- Pictures 207 Undifferentiated & gneiss

17T 0499019 Elevation = 443m

5198210

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation) (sedimentary)
  - Map also shows 9d in area (Massive feldspathic greywacke)
  - More eroded, banding very visible
  - Gneiss looking
  - Bands are dark grey vs light grey
  - Some rust
  - Lots of fractures
- Pictures 208 Undifferentiated & gneiss & rust & fractures

17T 0499029 Elevation = 442m

5198213

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation) (sedimentary)
  - Map also shows 9d in area (Massive feldspathic greywacke)
  - More eroded, banding very visible
  - Schistosity do to erosion
  - Gneiss looking
  - Bands are dark grey vs light grey
- Pictures 209 Undifferentiated & gneiss & schistosity

17T 0498990 Elevation = 446m

5198202

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation) (sedimentary)
  - Map also shows 9d in area (Massive feldspathic greywacke)
  - More eroded, banding very visible
  - Schistosity do to erosion
  - Gneiss looking
  - Bands are dark grey vs light grey
- Pictures 210 Undifferentiated & gneiss & schistosity

17T 0498995 Elevation = 443m

5198214

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation) (sedimentary)
  - Map also shows 9d in area (Massive feldspathic greywacke)
  - More eroded, banding very visible
  - Schistosity do to erosion
  - Gneiss looking
  - Bands are dark grey vs light grey
- Pictures 211 Undifferentiated & gneiss & schistosity

17T 0498999 Elevation = 442m

5198229

- Map 2212 indicates 9 Undifferentiated (HURONIAN Gowganda formation) (sedimentary)
  - Map also shows 9d in area (Massive feldspathic greywacke)
  - More eroded, banding very visible
  - Gneiss looking
  - Bands are dark grey vs light grey
- Pictures 212 Undifferentiated & gneiss & schistosity

17T 0499622            Elevation = 431m  
5198288

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Lots of Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
- Pictures 213 Porphyry & lots of crystals

17T 0499564            Elevation = 431m  
5198413

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Porphyritic quartz monzonite
  - Potassium feldspar crystals
  - Some of the feldspar crystals are large (about 10 mm)
- Pictures 214 Porphyry

17T 0499616            Elevation = 433m  
5198059

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic rocks ALGOMAN
  - Map 2212 also shows 9c Finely bedded argillite South of this area (HURONIAN Gowganda formation)
  - Nearby on the map indicates 1a Massive mafic, metavolcanics, amphibolites, amphibolitic schist
  - I see highly fractured diorite, lots of stringers
  - Large epidote staining next to large white/pink dike
  - Nearby are several large white dikes
  - Large quartz stringers
  - Numerous small stringers
  - Fractured Gneiss
- Pictures 215 Diorite & dikes & Quartz & stringers & gneiss & epidote

17T 0498515            Elevation = 416m  
5197115

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - I see 9c finely bedded argillite covered by a conglomerate
- Pictures 216 argillite covered by a conglomerate

17T 0498617            Elevation = 427m  
5196735

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
- I see Sudbury Breccia with extremely large fragments
- Most of the fragment are quartz monzonite, one has a quartz stringer
- The small and medium fragments are white in colour

- It looks like there was an intrusion of Sudbury breccia (Pseudotachylite)
  - Some large fragments look like a greywacke
  - Some fragments are elongated
- Pictures 217 Pseudotachylite & Greywacke

17T 0498585            Elevation = 427m  
5196966

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - I see grano-diorite with several white quartz stringers
  - The stringers run east west
  - Map 2212 indicates a fault line in this area running east west (Almost same direction)
  - The stringers have some rust and mineralization visible
  - Excavated about 1 meter x 5 meter (Very little overburden)
  - Nearby is a white quartz vein and a green chlorite vein
  - Nearby I see pseudotachylite with large rounded fragments
  - Some fragments are sedimentary in origin, some are quartz
  - Found a boulder of quartz monzonite with white, red and dark blue pebbles in it
  - Nearby is some fragments of pink granite
- Pictures 218 Mineralized stringers & Pseudotachylite & Excavated

17T 0498338            Elevation = 457m  
5199325

- Map 2212 shows 9d Massive feldspathic greywacke in the area (HURONIAN Gowganda formation)
  - Map 2212 also indicates 3b Porphyritic quartz monzonite East of this area ARCHEAN Granitic rocks ALGOMAN
  - See pictures 12 for description of area
  - Took 2 samples (9 & 10)
  - Sample 9 was the bottom left cut area (Crack in bedrock on right)
  - In Sample 9 I see coarse grain massive feldspathic greywacke
  - The inner surface was dark grey in colour
  - Small white stringers in sample
  - White and brown quartz on top only
  - Sample was done across the quartz vein therefore only a small section of the quartz vein was sampled (See pictures)
  - Sample 10 was the top right cut area (Crack in bedrock on right)
  - The top surface of the sample was eroded to a brown
  - Very little quartz
  - The inner surface was dark grey in colour
  - There are yellow stringers
  - There is some mineralization in the yellow quartz
  - The mineralization is cubic and in the small stringers (See pictures)
- Pictures 219 Samples 9 & 10

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	29	50	18

Sample 9

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.006	113	57	25.1

Sample 10

17T 0503064 Elevation = 407m

5200442

- Map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) ARCHEAN Granitic Rocks (Algoman)
  - I see a porphyritic outcrop I call popcorn breccias.
  - It looks like a feldspar porphyry in a mafic intrusive
  - Orthoclase feldspar = Potassium feldspar =  $KAlSi_3O_8$
  - Plagioclase feldspar =  $NaAlSi_3O_8$  =  $CaAl_2Si_2O_8$
  - The sample had a lot of Ca and K
  - This outcrop is not on map 2212
  - The xenoliths are rounded, numerous and white.
  - They are also small and have variable size.
  - The matrix is fine grain and dark grey in colour
  - Excavated 1m x 3m (Not much overburden)
  - Ryan and Guy did a bit of panning (Did not find anything)
  - Some rust
- Pictures 220 Intrusive porphyry & Excavated & sample 24

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	K (%)	Mg (%)
0	109	58	42.20	1.56	3.19

Al (%)	Ca (%)	Fe (%)	Si (%)	S (%)	P (%)
8.9	6.58	8.62	20.9	0.12	0.04

17T 0503051 Elevation = 403m

5200456

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) ARCHEAN Granitic Rocks (Algoman)
  - I see quartz monzonite intruded by:
  - Large pink pegmatite dikes (Several)
  - Several white quartz veins cut the pegmatite
- Pictures 221 Quartz monzonite intruded by pegmatite

17T 0503048 Elevation = 380m

5199345

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite)
  - ARCHEAN Granitic Rocks (Algoman)
  - The map indicates a fault line in this area (Runs east – west)
  - I see pink / orange granite
- Pictures 222 Pink / orange granite

17T 0503009 Elevation = 378m

5199360

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) ARCHEAN Granitic Rocks (Algoman)
- The map indicates a fault line in this area (Runs east – west)
- I see pink / orange granite
- A few white quartz stringers
- This position is on the water's edge (Drop off on edge of lake)
- Edge of lake is a rock face



Pictures 223 Pink / orange granite

17T 0503013      Elevation = 381m  
5199377

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) ARCHEAN Granitic Rocks (Algoman)
- The map indicates a fault line in this area (Runs east – west)
- I see pink / orange granite
- A few white quartz pegmatite intrusions  
Pictures 224 Pink / orange granite & pegmatite

17T 0503022      Elevation = 383m  
5199373

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) ARCHEAN Granitic Rocks (Algoman)
- The map indicates a fault line in this area (Runs east – west)
- I see white quartz & pink potassium feldspar pegmatite (Large pegmatites)  
Pictures 225 large quartz feldspar pegmatite

17T 0503300      Elevation = 418m  
5201060

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) ARCHEAN Granitic Rocks (Algoman)
- The map indicates a fault line in this area (Runs east – west)
- I see pink granite
- I see white quartz & pink potassium feldspar pegmatite intrusions
- White quartz vein
- It looks like there may garnets here  
Pictures 226 pink granite & large pegmatite & quartz

17T 0503310      Elevation = 416m  
5201055

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) ARCHEAN Granitic Rocks (Algoman)
- The map indicates a fault line east of this location (Runs North – South at east end of lake)
- I see potassium feldspar and white quartz pegmatite
- I see a lot biotite mica in the quartz  
Pictures 227 feldspar & quartz pegmatite & biotite mica

17T 0503060      Elevation = 395m  
5198559

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist ARCHEAN Metavolcanics and Metasediments
- I see white quartz intrusions
- I see a bluish/black hornblende with rusted pyrite cubes
- Lots of white stringers
- Lots of fracturing  
Pictures 228 Hornblende & stringers & pyrite

17T 0503056      Elevation = 395m  
5198568

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist ARCHEAN Metavolcanics and Metasediments

- I see white quartz stringers
  - I see what looks like a hornblende
- Pictures 229 Hornblende & stringers

17T 0502694            Elevation = 403m  
5198692

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist ARCHEAN Metavolcanics and Metasediments
  - I see a quartz- feldspar (Hornblende)
  - I see a green epidote vein
  - It looks like there might be a bit of diorite near the epidote vein
  - There is some rust
  - It looks like a contact zone
  - 1b Quartz-feldspar (hornblende) contacts dark grey, highly fractured greywacke
  - Lots of white stringers
  - There are white quartz veins
  - Excavated 1m x 1m
- Pictures 230 hornblende & epidote & rust & stringers & greywacke & quartz

17T 0502619            Elevation = 404m  
5198568

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist ARCHEAN Metavolcanics and Metasediments
  - I see what looks like Quartz-feldspar (hornblende)
  - I see white quartz veins crossing a large yellow dike
  - I also see a yellow intrusion beside the dike
  - The surrounding bedrock is sedimentary with light to medium grey in colour
  - I see lots of alteration and fracturing
  - Lots of stringers
  - Nearby I see a breccia with dark grey fragments
  - I see a smaller pink dike that is also eroding yellow
  - Pink dike eroded yellow could be a Kimberlite dike maybe
- Pictures 231 hornblende & Kimberlite dike & stringer & breccias

17T 0502620            Elevation = 404m  
5198581

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist ARCHEAN Metavolcanics and Metasediments
  - I see lots of fractures and stringers
  - Some of the stringers are pink and the others are white
  - Some rust (Iron oxide)
- Pictures 232 hornblende & lots of stringers & rust

17T 0502621            Elevation = 404m  
5198550

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist ARCHEAN Metavolcanics and Metasediments
  - I see two large white quartz veins
  - I see what appears to be a shear zone (More altered section in middle of first picture)
  - Lots of white stringers
  - Some rust (Iron oxide) in the large white quartz veins
- Pictures 233 hornblende & lots of stringers & rust

17T 0502619 Elevation = 402m

5198552

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist ARCHEAN Metavolcanics and Metasediments
  - I see a white quartz vein with some pink staining
  - I see some white stringers
  - Took sample 14 (See pictures)
  - I see a bit of red quartz and rust in sample
- Pictures 234 hornblende & quartz & stringers & sample 14

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.009	148	72	40.2

17T 0502673 Elevation = 400m

5197826

- Map 2212 indicates 1a Massive mafic metavolcanics, amphibolites, amphibolitic schist ARCHEAN Metavolcanics and Metasediments
  - I see quartz & pink feldspar crystals mixing
  - I see a white quartz vein (About 50 mm wide)
  - I see a rusted pyrite cube and some mineralization in the quartz
  - The bedrock is really dark with light grey patches
  - Nearby is the contact zone between 1a and 3a (Massive mafic metavolcanics contact Quartz monzonite, granite)
- Pictures 235 mafic metavolcanics & granite contact & rust & quartz

17T 0502696 Elevation = 399m

5197842

- Map 2212 indicates 1a Massive mafic metavolcanics, amphibolites, amphibolitic schist ARCHEAN Metavolcanics and Metasediments
  - I see very dark bedrock
  - The bedrock looks rough
  - I see a diorite Fine grain dark crystals with larger white crystals
  - I see a lot of fracturing and white stringers
- Pictures 236 Diorite & lots of stringers

17T 0498586 Elevation = 422m

5196966

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda formation
  - Same are as pictures 48 & 218
  - Sample 15 (Sampled white & orange quartz vein) See pictures
  - Mineralization was in the quartz
  - Had some red iron oxide
- Pictures 237 Sample 15 & quartz veins by Bessie lake

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.026	109	77	44.6

17T 0499508 Elevation = 431m

5195544

- Map 2212 shows this location is on a fault line between (North) #10 Quartzite, argillite, conglomerates (Lorrain formation) vs (South) #9c Finely bedded argillite (Gowganda formation)
  - I see a medium size, rounded fragment (Fault line breccias) pseudotachylite
  - The fragment is a pale quartzite
  - I see a pink and white vein
  - I see a large dark grey dike
  - I see a dark intrusion
- Pictures 238 Pseudotachylite & quartz

17T 0499357            Elevation = 447m  
5199416

- Map 2212 indicates 3b Porphyritic quartz monzonite (Archean) (Algoman – Granitic rocks)
  - There some pressure fractures 90° from each other
  - Nearby is a small white quartz vein
- Pictures 239 Porphyry & quartz

17T 0499378            Elevation = 446m  
5199394

- Map 2212 indicates 9d Massive feldspathic greywacke
  - I see 9a polymictic conglomerate - Huronian – Cobalt group - (Gowganda formation)
  - The fragments are white or pink quartz
  - The fragments are small or medium in size
  - There is an area of heavy fracturing
  - I see a pink quartz vein and stringers
  - Nearby is large fragments and stringers
- Pictures 240 Conglomerate & fracturing & stringers

17T 0499399            Elevation = 447m  
5199367

- Map 2212 indicates 3b Porphyritic quartz monzonite (Archean) (Algoman – Granitic rocks)
  - I see a black/rusted vein (Different)
  - Excavated about 1m x 1m to expose more of outcrop
  - Nearby I see some 9a Polymictic conglomerate (Gowganda formation)
- Pictures 241 Conglomerates & black vein

17T 0499377            Elevation = 447m  
5199394

- Map 2212 indicates 9d Massive feldspathic greywacke (Gowganda formation)
  - I see some 9a Polymictic conglomerate (Gowganda formation)
  - The fragments are small and medium in size
  - The fragments are white or diorite in colour
  - Most fragments are angular but some are rounded
  - The bedrock is light grey in colour (Surface)
  - There are some fractures
- Pictures 242 Conglomerates

17T 0499415            Elevation = 446m  
5199407

- Map 2212 indicates 3b Porphyritic quartz monzonite (Archean) (Algoman – Granitic rocks)
  - I see mostly quartz monzonite. Only a small amount of potassium feldspar crystals
  - I see a quartz vein (50mm to 80mm) and a bit of rust
- Pictures 243 Porphyry & quartz

17T 0499408 Elevation = 446m

5199410

- Map 2212 indicates 3b Porphyritic quartz monzonite (Archean) (Algoman – Granitic rocks)
  - I also see a rusted/brown vein (about 50mm)
  - Sample 16 was a cut across the vein (See pictures)
  - Sample was mostly porphyry
- Pictures 244 Porphyry & brown vein & Sample 16

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.006	19	17	38.8

17T 0499447 Elevation = 447m

5199403

- Map 2212 indicates 9d Massive feldspathic greywacke (Gowganda formation)
  - I see mega conglomerates
  - Most of the fragments are porphyritic quartz monzonite
  - Some fragments are very dark (Basalt like)
  - Some fragments are angular but most are rounded
- Pictures 245 Mega Conglomerate

17T 0499467 Elevation = 447m

5199390

- Map 2212 indicates 9d Massive feldspathic greywacke (Gowganda formation)
  - I see mega conglomerates
  - The fragments are small and medium in size
  - The larger fragments are mostly angular but some are round
  - Some fragments are dark grey sedimentary and others are white quartz monzonite
  - The matrix is full of small angular fragments (Maybe volcanic breccias) pseudotachylite
- Pictures 246 Mega conglomerates & volcanic breccias pseudotachylite

17T 0499478 Elevation = 447m

5199377

- Map 2212 indicates 9d Massive feldspathic greywacke (Gowganda formation) Cobalt group - Huronian
  - I see conglomerates
  - The larger fragments are rounded
  - The fragments are white
  - The matrix is full of small angular fragments (Maybe volcanic breccias)
  - Nearby is some porphyritic quartz monzonite
- Pictures 247 porphyry & conglomerates & volcanic breccias

17T 0499504 Elevation = 445m

5199348

- Map 2212 indicates 9d Massive feldspathic greywacke (Gowganda formation)
  - I see some 9a polymictic conglomerates
- Pictures 248 conglomerate

17T 0499427 Elevation = 449m

5199400

- Map 2212 indicates 3b Porphyritic quartz monzonite (Archean) (Algoman – Granitic rocks)
- I also see a white quartz vein (about 20mm)
- Sample 17 was a cut across the vein (See pictures)

Pictures 249 quartz vein & Sample 17

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.003	37	23	6.2

17T 0498336 Elevation = 457m  
5199325

- Map 2212 indicates 9d Massive feldspathic greywacke (Gowganda formation)
  - This is the area we call bottom of the hill
  - I see a large white quartz dike with a section of pink quartz
  - The sample was mostly pink and white quartz
  - Took sample 18 (See pictures)
- Pictures 250 large quartz sample 18

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.078	105	19	2.6

17T 0498338 Elevation = 456m  
5199336

- Map 2212 indicates 9d Massive feldspathic greywacke (Gowganda formation)
  - This is the area we call bottom of the hill
  - I see a small vein of black chlorite with some rust in vein
  - Took sample 19 (See pictures)
- Pictures 251 Black chlorite & sample 19

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	9	112	36.8

17T 0498342 Elevation = 457m  
5199318

- Map 2212 indicates 9d Massive feldspathic greywacke (Gowganda formation)
  - This is the area we call bottom of the hill
  - We excavated about 1m x 2m
  - We exposed a large white quartz vein
- Pictures 252 Excavated & large quartz

17T 0503118 Elevation = 410m  
5200524

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) Archean (Granitic rocks (Algoman))
  - We found small boulders of porphyry similar to the outcrop in Pictures 220 Intrusive porphyry & Excavated & sample 24
  - The sample did not show any ore. Outcrop was sampled see sample 24
- Pictures 253 feldspar porphyry boulders

17T 0503049 Elevation = 407m  
5200482

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) Archean (Granitic rocks (Algoman))
- I see a quartz monzonite with a pink pegmatite dike
- It looks like a piece of gold in the black hole

- I see a few rusted pyrite cubes  
Pictures 254 Pegmatite dike in quartz monzonite

17T 0503027          Elevation = 403m  
5200477

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) Archean (Granitic rocks (Algoman))
- I see some granite & some pegmatite
- I see a large pink dike
- I see some biotite mica (Black in colour)
- This site is at the bottom of a cliff (Mountain)  
Pictures 255 Granite & pegmatite & pink dike & mica

17T 0502991          Elevation = 419m  
5200473

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) Archean (Granitic rocks (Algoman))
- I see some white quartz  
Pictures 256 Quartz

17T 0502998          Elevation = 420m  
5200493

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) Archean (Granitic rocks (Algoman))
- I see Granite
- I see a large white quartz boulder  
Pictures 257 Granite

17T 0502965          Elevation = 425m  
5200502

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) Archean (Granitic rocks (Algoman))
- I see Granite & some pegmatite
- I see some red staining in the quartz  
Pictures 258 Granite & pegmatite & red staining

17T 0502938          Elevation = 421m  
5200493

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) Archean (Granitic rocks (Algoman))
- I see a granite  
Pictures 259 Granite

17T 0502902          Elevation = 425m  
5200486

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) Archean (Granitic rocks (Algoman))
- I see Granite & some pegmatite  
Pictures 260 Granite & pegmatite

17T 0502902          Elevation = 423m  
5200434

- The map 2212 indicates 3a in the area (Quartz monzonite, granite, grano-diorite, pegmatite) Archean (Granitic rocks (Algonian))
  - I see Granite & some pegmatite
  - I see some white quartz (Not sure if it is a dike or not)
  - I see some quartz monzonite in the area
- Pictures 261 Granite & pegmatite & quartz & quartz monzonite

17T 0497389            Elevation = 426m  
5200602

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke (Huronian – cobalt group – Gowganda formation)
  - I see what looks like a porphyritic boulder
  - The boulder could also be small fragments of yellow diorite in a mud matrix
- Pictures 262 Yellow porphyry boulder

17T 0506464            Elevation = 346m  
5197320

- Map 2212 indicate 12 Olivine diabase (Late mafic intrusive rocks) Precambrian – Proterozoic
  - We stopped on the shore of Pine lake
  - Lots of boulders on shoreline
  - One very large boulder is beige in colour and sedimentary in nature.(Mud stone)
  - Many boulders have small, round, yellow balls imbedded into the host rock
  - The boulder matrix has fine grain and coarse grain
  - The colour is Black to diorite
  - Some of the yellow nodules protrude the host rock
  - One boulder has red crystals
  - A few small boulders look like basalt. One has both grey and yellow balls (Xenoliths)
- Pictures 263 Olivine diabase & yellow balls

17T 0505192            Elevation = 367m  
5197650

- Map 2212 indicate 9b Bedded arkose, feldspathic greywacke (Gowganda formation) Cobalt group – Huronian
  - This is on the pole line
  - I see bedded arkose with a beige colour with some pink staining
  - The bedrock is magnetic
- Pictures 264 bedded arkose

17T 0505174            Elevation = 369m  
5197646

- Map 2212 indicate 9b Bedded arkose, feldspathic greywacke (Huronian – cobalt group – Gowganda formation)
  - This is on the pole line
  - I see bedded arkose
  - I see a black intrusion with a large elongated fragment (Breccea) pseudotachylite
  - Map 2212 indicates Breccea in this area but no fault line or dike
- Pictures 265 Arkose & Pseudotachylite

17T 0505163            Elevation = 374m  
5197615

- Map 2212 indicate 9b Bedded arkose, feldspathic greywacke (Huronian – cobalt group – Gowganda formation)
- Map 2212 indicates Breccea in this area but no fault line or dike



- This is on the pole line
- I see a large black basalt intrusion (Fine grain)  
Pictures 266 Intrusive basalt

17T 0505183            Elevation = 379m  
5197535

- Map 2212 indicate 9b Bedded arkose, feldspathic greywacke (Huronian – cobalt group – Gowganda formation)
- Map 2212 indicates Breccia in this area but no fault line or dike
- This is on the pole line
- I see grano diorite (Black and white in colour) Fine grain  
Pictures 267 Grano diorite

17T 0505185            Elevation = 381m  
5197513

- Map 2212 indicate 9b Bedded arkose, feldspathic greywacke (Huronian – cobalt group – Gowganda formation)
- Map 2212 indicates Breccia in this area but no fault line or dike
- This is on the pole line
- I see a conglomerate with a medium size fragment
- The fragment is white quartz monzonite  
Pictures 268 Conglomerate

17T 0505185            Elevation = 381m  
5197479

- Map 2212 indicate 9b Bedded arkose, feldspathic greywacke (Huronian – cobalt group – Gowganda formation)
- Map 2212 indicates Breccia in this area but no fault line or dike
- This is on the pole line
- I see a conglomerate with a few medium size fragments
- Most fragments are quartz monzonite but one is really rusty
- There is a bit of dirty quartz  
Pictures 269 Conglomerates & quartz

17T 0505187            Elevation = 382m  
5197419

- Map 2212 indicate 9b Bedded arkose, feldspathic greywacke (Huronian – cobalt group – Gowganda formation)
- Map 2212 indicates Breccia in this area but no fault line or dike
- This is on the pole line
- I see highly fractured granite
- The top of the granite and it's cracks are filled with a fine grain basalt
- Nearby I see a polymictic conglomerate with a large pink dike
- The fragments look like quartz monzonite, diorite or a sedimentary arkose
- The fragments are medium in size  
Pictures 270 Conglomerates & granite & Basalt & dike

17T 0505159            Elevation = 377m  
5197231

- Map 2212 indicate 9b Bedded arkose, feldspathic greywacke 9d Massive feldspathic greywacke (Huronian – cobalt group – Gowganda formation)
- This is on the pole line
- I see feldspar fragments in a dark matrix.

- Some feldspar fragments are small and square others are larger and rounded (Maybe melted)
  - The matrix is a mixture of dark fine grain basalt and larger quartz & feldspar grains
  - I see a bit of quartz
  - Nearby I see feldspathic greywacke with pink staining
  - Nearby I see a conglomerate with one medium size diorite fragment
  - Nearby I see a rock face with a lot of white precipitate
- Pictures 271 Conglomerates & breccias & White precipitate & Quartz

17T 0505204            Elevation = 381m  
5196967

- Map 2212 indicate 9b Bedded arkose, feldspathic greywacke 9d Massive feldspathic greywacke (Huronian – cobalt group – Gowganda formation)
  - This is on the pole line
  - I see a white quartz vein
  - The bedrock is orange in colour
- Pictures 272 Quartz

17T 0505299            Elevation = 395m  
5196808

- Map 2212 indicate 9b Bedded arkose, feldspathic greywacke 9d Massive feldspathic greywacke (Huronian – cobalt group – Gowganda formation)
  - This is on the pole line
  - I see a highly fractured greywacke with a few white quartz stringers
  - Nearby is an outcrop of pointy boulders with lots of precipitate
- Pictures 273 greywacke & Pointy outcrop with precipitate

17T 0505301            Elevation = 390m  
5196768

- Map 2212 indicate 9b Bedded arkose, feldspathic greywacke 9d Massive feldspathic greywacke (Huronian – cobalt group – Gowganda formation)
  - I see 9b feldspathic greywacke
- Pictures 274 greywacke

17T 0505021            Elevation = 392m  
5198652

- Map 2212 indicates we are on the border of 9 Undifferentiated and 10 Quartz, argillite, conglomerate
  - I see a white quartz vein in argillite
  - Nearby I see some foliated dark bedrock
- Pictures 275 Argillite & foliation

17T 0505012            Elevation = 389m  
5198768

- Map 2212 indicates we are on the border of 9 Undifferentiated and 10 Quartz, argillite, conglomerate
  - I see a small white quartz vein with a bit of pink and rust
  - I see a sedimentary bedrock
- Pictures 276 Quartz & sedimentary

17T 0504888            Elevation = 428m  
5199628

- Map 2212 indicates 4 Diabase, metadiabase Archean Early mafic intrusive rocks

- Map 2212 also indicates 3a area (Quartz monzonite, granite, grano-diorite, pegmatite) Archean (Granitic rocks (Algoman))
  - I see what looks like a quartz monzonite – pink feldspar mixture (like a granite)
  - I see a large white quartz veins
- Pictures 277 Quartz & Granite

17T 0504870            Elevation = 427m  
5199600

- Map 2212 indicates 3a area (Quartz monzonite, granite, grano-diorite, pegmatite) Archean (Granitic rocks (Algoman))
  - I see a large white quartz vein intruding feldspathic greywacke
- Pictures 278 Quartz & greywacke

17T 0504678            Elevation = 404m  
5200483

- Map 2212 indicates 3a area (Quartz monzonite, granite, grano-diorite, pegmatite) Archean (Granitic rocks (Algoman))
  - I see a lot of boulders that are rusted.
  - The boulder face is totally rusted except for circular shapes
  - This could be doo to erosion process
  - The bedrock is light blue in colour on surface and dark blue inside (Fine grain) (Looks like a greywacke)
- Pictures 279 Rusted shapes in boulders & greywacke

17T 0501764            Elevation = 454m  
5199062

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - The map also indicates vertical schistosity
  - I see a dark blue Quartz – feldspar (Hornblende)
  - I see lots of white stringers
- Pictures 280 hornblende & lots of stringers

17T 0501694            Elevation = 457m  
5199162

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a darker coloured surface on the outcrop
  - We are near the swamp and the terrain is rising
  - I see some quartz monzonite
  - I see some white precipitate
- Pictures 281 quartz monzonite & precipitate

17T 0501715            Elevation = 459m  
5199160

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a Quartz monzonite
  - Hard to see, exposed about 1m x 0.5m
- Pictures 282 Quartz Monzonite

17T 0501777            Elevation = 456m  
5198993

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a Quartz – feldspar (Hornblende)
  - I see lots of stringers
  - The bedrock is dark blue
  - There is some epidote in the stringers
  - I see a white quartz vein
- Pictures 283 hornblende & lots of stringers & epidote & quartz

17T 0501778            Elevation = 433m  
5198975

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a Quartz – feldspar (Hornblende)
  - I see lots of stringers and feldspar staining (Pink)
  - I see a white quartz vein
  - Some epidote in some stringers
  - Some elongated white staining
- Pictures 284 hornblende & lots of stringers & epidote & quartz

17T 0501773            Elevation = 426m  
5198972

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a Quartz – feldspar (Hornblende)
  - I see some large stringers (Pink and white in colour)
  - I see some small white stringers
  - The bedrock is dark blue in colour
  - Some pink feldspar staining
- Pictures 285 hornblende & stringers & quartz

17T 0501645            Elevation = 417m  
5198870

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a Quartz – feldspar (Hornblende)
  - The bedrock is dark green in colour
  - There are a lot of small white stringers
  - I see some rust
  - I see epidote
  - I see white quartz veins
- Pictures 286 hornblende & stringers & rust & epidote & Quartz

17T 0501654            Elevation = 418m  
5198867

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- I see Quartz – feldspar (Hornblende)
- The bedrock is dark green in colour
- There are a lot of small white stringers
- Nearby I see a bit of white quartz

- Nearby I see a bit of pink feldspar
  - Nearby I see red staining between layers
- Pictures 287 hornblende & stringers & red staining

17T 0501791            Elevation = 417m

5198899

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a mineralized spot with yellow/orange quartz surrounding it
  - The mineralization is metallic, gold colour
  - I see some white stringers
  - I see some white bands that are biotite-chlorite schist
  - I see some rust
  - I see some epidote
  - I see some white quartz
  - I see lots of alteration
  - This is the area for sample 22. Sample not taken this day.
- Pictures 288 hornblende & stringers & epidote & quartz & minerals

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.254	4020	130	86.10

17T 0501846            Elevation = 418m

5198891

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see some white stringers
  - I see some white bands that are biotite-chlorite schist
  - I see some rust
  - I see lots of alteration
- Pictures 289 hornblende & stringers

17T 0501853            Elevation = 420m

5198879

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see quartz feldspar (hornblende)
  - I see some white stringers
- Pictures 290 hornblende & stringers

17T 0501863            Elevation = 420m

5198882

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see quartz feldspar (hornblende)
  - I see biotite – chlorite banding or a sheer zone
  - I see some white stringers
  - Bedrock looks like a metasediment
  - I see a bit of rust
  - I see epidote
- Pictures 291 hornblende & stringers & sheer zone – biotite chlorite banding & epidote

17T 0501892            Elevation = 419m

5198875

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see quartz feldspar (hornblende)
  - I see biotite – chlorite banding
  - I see small white stringers
  - I see disseminated mineralization in a rusted matrix
- Pictures 292 hornblende & banding & stringers & mineralization

17T 0501912          Elevation = 419m

5198879

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see quartz feldspar (hornblende)
  - I see a few rusted pyrite cubes
- Pictures 293 hornblende & rusted pyrite

17T 0501902          Elevation = 419m

5198860

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see quartz feldspar (hornblende)
  - I see biotite – chlorite banding or a sheer zone
  - I see some white stringers
  - I see some rust
- Pictures 294 hornblende & sheer zone & stringers & rust

17T 0501887          Elevation = 419m

5198840

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see quartz feldspar (hornblende)
  - I see biotite – chlorite banding or a sheer zone
  - I see some white stringers
- Pictures 295 hornblende & sheer zone & stringers

17T 0501883          Elevation = 420m

5198822

- I see a mega polymictic conglomerate boulder
  - The fragments are all very different in composition and colour
  - Some of the fragments are rounded others are angular
- Pictures 296 mega polymictic conglomerate boulder

17T 0501882          Elevation = 421m

5198836

- I see an iron rich boulder
- Pictures 297 Iron rich boulder

17T 0501959          Elevation = 419m

5198885

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- I see I see quartz feldspar (hornblende)

- I see several quartz veins
  - I see white stringers
  - Some disseminated pyrite cubes
- Pictures 298 hornblende & quartz veins & stringers & pyrite

17T 0501947          Elevation = 421m  
5198867

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see I see quartz feldspar (hornblende)
  - I see several quartz veins
  - I see white stringers
- Pictures 299 hornblende & quartz veins & stringers

17T 0502010          Elevation = 420m  
5198863

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see I see quartz feldspar (hornblende) & a gabbro (Quartz feldspar)
  - Contact zone
  - Stringers in hornblende and alteration
  - Epidote in the hornblende
- Pictures 300 hornblende & contact zone & stringers & epidote & alteration

17T 0502251          Elevation = 425m  
5198715

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see I see quartz feldspar (hornblende)
  - I see tectonic lineation
  - I see white stringers
  - I see some white quartz on top of the hornblende.
- Pictures 301 hornblende & tectonic lineation & stringers & quartz

17T 0502279          Elevation = 426m  
5198696

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see I see quartz feldspar (hornblende)
  - I see some very yellow quartz with white quartz
  - The yellow may be epidote
  - I see a quartz vein
  - I see stringers
  - I see tectonic lineation
- Pictures 302 hornblende & tectonic lineation & stringers & quartz

17T 0502348          Elevation = 422m  
5198679

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see I see quartz feldspar (hornblende)
  - I see a few stringers
- Pictures 303 hornblende & stringers

17T 0502366            Elevation = 420m  
5198680

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- I see I see quartz feldspar (hornblende)
- I see pink stringers

Pictures 304 hornblende & stringers

17T 0502379            Elevation = 420m  
5198681

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- I see I see quartz feldspar (hornblende)
- I see pink stringers
- I see epidote

Pictures 305 hornblende & stringers & epidote

17T 0502415            Elevation = 418m  
5198654

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- I see white and grey quartz with a bit of orange staining
- Lots of white quartz veins
- I see some rust

Pictures 306 hornblende & quartz & rust

17T 0502034            Elevation = 419m  
5198841

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- I see diorite with a few stringers and pink staining in one area

Pictures 307 diorite

17T 0502053            Elevation = 417m  
5198816

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- I see diorite
- I see rusty quartz veins of quartz
- There is red and orange in the white quartz

Pictures 308 diorite & rust quartz

17T 0502059            Elevation = 417m  
5198814

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- I see diorite
- I see a few white stringers

Pictures 309 diorite & white stringers



17T 0502076          Elevation = 420m  
5198795

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see diorite
  - I see a few pink stringers
- Pictures 310 diorite & pink stringers

17T 0502064          Elevation = 420m  
5198777

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see diorite
  - I see some small rust spots
  - It may be the contact between the diorite and the hornblende
  - I see small white stringers
- Pictures 311 Contact & hornblende & diorite & stringers & rust

17T 0502058          Elevation = 421m  
5198793

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see diorite with a bit of pink staining in the fractures
- Pictures 312 Diorite & pink staining

17T 0502047          Elevation = 420m  
5198803

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see hornblende
  - I see white stringers
  - I see a vein of white quartz
- Pictures 313 hornblende & stringers & quartz

17T 0502036          Elevation = 421m  
5198803

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see diorite
  - I see hornblende nearby (Contact is close)
  - I see white stringers
- Pictures 314 diorite & hornblende contact nearby & stringers

17T 0502141          Elevation = 420m  
5198757

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see diorite
  - Nearby I see small and large white stringers
  - Nearby I see fractures
  - Nearby I see a quartz vein (White / yellow in colour)
- Pictures 315 diorite & stringers & Quartz

- 17T 0502130            Elevation = 419m  
5198736
- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see diorite
  - I see a rusty white quartz veins
  - This is mile marker 12 on fire lake rd
- Pictures 316 diorite & rusty quartz
- 17T 0502167            Elevation = 422m  
5198727
- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see diorite
  - I see a rusty white quartz veins
- Pictures 317 diorite & rusty quartz
- 17T 0502178            Elevation = 422m  
5198744
- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see diorite
  - I see a rusty white quartz
  - I see a few small stringers
  - Nearby I see a pink vein in pegmatitic diorite
- Pictures 318 diorite & quartz & pegmatitic diorite
- 17T 0502187            Elevation = 421m  
5198738
- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see diorite
  - I see two large rusty yellow & white quartz
- Pictures 319 diorite & rusty yellow quartz
- 17T 0502198            Elevation = 422m  
5198737
- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see diorite
  - I see a large rusty white - pink quartz
  - I see contact with black hornblende
  - Nearby is some lighter hornblende with mafic lineation
- Pictures 320 diorite & rusty white – pink quartz & hornblende & mafic lineation
- 17T 0502204            Elevation = 422m  
5198733
- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a hornblende
  - I see some evidence of flattened and elongated mafic enclaves, defining tectonic foliation and lineation.

- I see some schisting
  - I see white stringers, some with rust (Iron oxide)
  - The bedrock surface is dark blue/green
- Pictures 321 hornblende & tectonic foliation and lineation & stringers

17T 0502220            Elevation = 422m  
5198731

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a hornblende
  - I see some evidence of flattened and elongated mafic enclaves, defining tectonic foliation and lineation.
  - Lots of small stringers
  - Surface has a green glossy look
  - Some rust
- Pictures 322 hornblende & tectonic foliation and lineation & stringers & glossy

17T 0502229            Elevation = 422m  
5198724

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a hornblende
  - I see lots of small white stringers
  - I see a white quartz with a bit of feldspar overlying the hornblende
- Pictures 323 hornblende & stringers & quartz

17T 0502238            Elevation = 422m  
5198719

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see flattened and elongated mafic enclaves of the Creelman pluton defining tectonic foliation and lineation.
  - Magmatic enclaves are volumes of rock surrounded by emplaced host rock of related but distinct composition and of separated genesis (incomplete magmatic mixing).
  - It crosses the road (South-West to North-East)
  - On claim map there is a depression that goes to frog creek (No fault line indicated on map)
  - Some rust
  - Similar to the sample given to Shirley at M.N.D.M.
- Pictures 324 tectonic foliation and lineation

17T 0502244            Elevation = 423m  
5198713

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a boulder of diorite intruding into hornblende
- Pictures 325 diorite intruding into hornblende boulder

17T 0501891            Elevation = 392m  
5198882

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- Excavated 1m x 1m with brume and shovel
- I see hornblende

- I see mineralization in the bedrock (Gold coloured)(Possibly disseminated pyrite)
- Same area as pictures 292  
Pictures 326 hornblende & mineralization & sample 21

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.006	382	95	77.40

17T 0501793            Elevation = 407m  
5198899

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- Excavated 1m x 2m with brume and shovel
- I see hornblende
- I see mineralization in the bedrock (Gold coloured)(Possibly disseminated pyrite)
- I see lots of stringers
- I see some epidote and some quartz
- See sample 22 pictures  
Pictures 327 hornblende & stringers & epidote & quartz & mineralization & sample 22

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.254	4020	130	86.10

17T 0499986            Elevation = 422m  
5198230

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman))
- I see a diorite with large dikes (Zebra like)  
Pictures 328 Zebra boulder

17T 0502915            Elevation = 409m  
5198702

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- I see Quartz – feldspar (hornblende)
- I see a stringer
- I see medium size quartz/feldspar mafic breccia (pseudotachylite)
- I see flattened and elongated mafic enclaves of the Creelman pluton defining tectonic foliation and lineation.
- Magmatic enclaves are volumes of rock surrounded by emplaced host rock of related but distinct composition and of separated genesis (incomplete magmatic mixing).
- I see schisting  
Pictures 329 hornblende & gness & pseudotachylite

17T 0502926            Elevation = 410m  
5198700

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- I see tectonic foliation and lineation
- I see a small quartz xenolith in the tectonic foliation and lineation  
Pictures 330 hornblende & tectonic lineation

17T 0505664            Elevation = 396m  
5199635

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman))
  - I see pink granite and pegmatite
  - I see red crystals in the pegmatite (garnite like)
  - Nearby is a large pink dike in a boulder
- Pictures 331 granite & pegmatite & pink dike

17T 0508270            Elevation = 380m  
5200153

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman))
  - I see a large pink pegmatitic dike
  - The dike intrudes a black basalt like bedrock
  - The black bedrock has white crystals in it (Gabbro like)
  - There is a lot of rust on the dark bedrock
  - There is some mineralization in the dark bedrock
  - Took 3 hand samples to examine at camp
- Pictures 332 mineralization & pike dike

17T 0508270            Elevation = 380m  
5200153

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman))
  - These coordinates are approximated
  - I see many boulder with rusty surfaces
  - The rusted surfaces have circular shapes that are not rusted (Could be caused by erosion process, fractures in the rock)
  - The boulders are on the edge of a small lake
- Pictures 333 Rusty boulders with round shapes

17T 0498168            Elevation = 414m  
5203023

- Map 2261 8a Quartz gabbro (hornblende only)
  - I see a lot of rust
  - I see mineralization in the white, yellow and pink quartz
  - I see green chlorite
  - I see large white quartz and a few stringers overlying a dark smooth bedrock
- Pictures 334 Mineralization & chlorite & Quartz

17T 0498155            Elevation = 417m  
5203039

- Map 2261 8a Quartz gabbro (hornblende only)
  - I see a pebbly mudstone (Conglomerate)
  - There are different types of fragments and pebbles
  - Nearby are several large fragments
- Pictures 335 Conglomerate

17T 0498136            Elevation = 423m  
5202999

- Map 2261 8a Quartz gabbro (hornblende only)
- I see a pebbly mudstone
- A fresh break shows a fine grain dark blue quartz
- I see a few rusted pyrite cubes

Pictures 336 Conglomerate & a few pyrite cubes

17T 0498169      Elevation = 430m  
5203048

- Map 2261 8a Quartz gabbro (hornblende only)
  - I see a mudstone
  - The mudstone is dark grey and erodes to beige
  - I see a few small white fragments
  - There is an area with lineation (bedded and turned 90°)
- Pictures 337 Conglomerate & ripples

17T 0498175      Elevation = 434m  
5203069

- Map 2261 8a Quartz gabbro (hornblende only)
  - I see pseudotachylite
  - The matrix is a very dark grey, fine grain mudstone and erodes to a beige colour
  - The fragments are quartz gabbro (hornblende)
  - The fragments are large and medium in size
  - Nearby is the contact zone for the hornblende and mudstone
  - The gabbro has white staining on the dark grey/green color
- Pictures 338 Pseudotachylite & mudstone & gabbro & contact zone

17T 0498175      Elevation = 434m  
5203069

- Map 2261 8a Quartz gabbro (hornblende only)
  - I see pseudotachylite
  - I see a quartz gabbro
  - The matrix of the Sudbury breccia is light grey
  - The fragments are small to medium in size
  - The fragments are white in colour
  - I also see large quartz fragments
  - I see elongated fragments
  - There seems to be another intrusion that is mineral rich
  - Some rust
- Pictures 339 gabbro & Pseudotachylite & conglomerate & minerals

17T 0498187      Elevation = 436m  
5203088

- Map 2261 8a Quartz gabbro (hornblende only)
  - I see granite and pegmatite
  - The colours of the bedrock are white – pink – light grey
- Pictures 340 Granite & pegmatite

17T 0498206      Elevation = 440m  
5203160

- Map 2261 2a Pink and grey albite quartz monzonite, albite syenodiorite, quartz diorite, albite granodiorite, albite trondhjemite and granite with pegmatites
- I see granite
- I see pegmatites with some rust
- I see some white quartz
- I see lots of small grouping of biotite mica inside the white quartz
- Bedrock is smooth with some fractures
- Nearby is a rusty fracture

Pictures 341 Granite & pegmatite & rust & mica

17T 0498206      Elevation = 440m  
5203160

- Map 2261 2a Pink and grey albite quartz monzonite, albite syenodiorite, quartz diorite, albite granodiorite, albite trondhjemite and granite with pegmatites
  - I see Pink and grey albite quartz monzonite
  - I see a small, light grey, fine grain intrusion into the Pink and grey albite quartz monzonite
  - The intrusion is in a horizontal position (Comes out in a granite rock face)
- Pictures 342 Pink and grey albite quartz monzonite & intrusions

17T 0498306      Elevation = 446m  
5203362

- Map 2261 2a Pink and grey albite quartz monzonite, albite syenodiorite, quartz diorite, albite granodiorite, albite trondhjemite and granite with pegmatites
  - I see Pink and grey albite quartz monzonite
  - I see a small, light grey, fine grain intrusion into the Pink and grey albite quartz monzonite
  - Nearby I see potassium feldspar mixing with a hornblende
  - I see a bit of quartz
  - I see some stringers in the albite quartz monzonite
- Pictures 343 Pink and grey albite quartz monzonite & intrusions & quartz & stringers

17T 0498368      Elevation = 453m  
5203798

- Map 2261 2a Pink and grey albite quartz monzonite, albite syenodiorite, quartz diorite, albite granodiorite, albite trondhjemite and granite with pegmatites
  - I see pegmatites in granodiorite
  - I see some white quartz
- Pictures 344 pegmatites in granodiorite & Quartz

17T 0498357      Elevation = 454m  
5203809

- Map 2261 2a Pink and grey albite quartz monzonite, albite syenodiorite, quartz diorite, albite granodiorite, albite trondhjemite and granite with pegmatites
  - I see Pink and grey albite quartz monzonite
  - I see small dark grey/black basaltic intrusion
  - The basalt is fine grain
  - The basalt has angular fragments of albite quartz monzonite
  - One area has lots of small angular white fragments
  - The intrusions are horizontal (On side of rock face)
- Pictures 345 dark grey-black basaltic intrusion in albite quartz monzonite

17T 0498380      Elevation = 473m  
5204133

- Map 2261 2a Pink and grey albite quartz monzonite, albite syenodiorite, quartz diorite, albite granodiorite, albite trondhjemite and granite with pegmatites
  - I see Pink and grey albite quartz monzonite
  - I see large dark grey/black basaltic intrusions
  - The basalt has angular fragments of albite quartz monzonite
  - The intrusions are horizontal (On side of rock face)
- Pictures 346 dark grey-black basaltic intrusion in albite quartz monzonite

- 17T 0498356            Elevation = 475m  
5204130
- Map 2261 2a Pink and grey albite quartz monzonite, albite syenodiorite, quartz diorite, albite granodiorite, albite trondhjemite and granite with pegmatites
  - I see breccia with angular fragments
  - I see potassium and orthoclase feldspar
  - I see white - red quartz as the matrix
  - I see pegmatites with small intrusions
  - Nearby is beautiful hydrothermal breccia
- Pictures 347 Hydrothermal breccia & pegmatites & intrusions & feldspar
- 17T 0498346            Elevation = 471m  
5204277
- Map 2261 2a Pink and grey albite quartz monzonite, albite syenodiorite, quartz diorite, albite granodiorite, albite trondhjemite and granite with pegmatites
  - I see a dark green quartz diorite
- Pictures 348 Green quartz diorite
- 17T 0498367            Elevation = 454m  
5199332
- Washed of bedrock. (about 6 in of overburden)
  - Exposed a large white quartz vein
- Pictures 349 group prospecting
- 17T 0508421            Elevation = 354m  
5200218
- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman))
  - I see a grano-diorite with sedimentary fragments
  - Some of the fragments are elongated
  - I see a large white and pink pegmatite vein
  - Nearby is a contact zone between pink granite and a sedimentary bedrock
  - The sedimentary bedrock has a few small white veins
- Pictures 350 Grano-diorite & pegmatite vein & contact
- 17T 0508283            Elevation = 361m  
5200200
- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman))
  - I see a large white quartz vein (About 200mm to 300mm)
  - The quartz cuts true quartz feldspar hornblende with quartz monzonite fragments
  - Nearby I see grano-diorite
  - Nearby I see hornblende contacting pink granite
- Pictures 351 Large quartz & contact & hornblende & granite & grano-diorite
- 17T 0508290            Elevation = 360m  
5200205
- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman))
  - I see boulders with a lot of rust. The rust forms circular shapes that are not rusted.
  - The rust also doesn't form all around the boulder
- Pictures 352 Circular shapes of rust in boulder



17T 0508288            Elevation = 358m  
5200220

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman))
- I see a large white quartz vein
- I see diorite mixing with a grey intrusive magma (Fine grain)
- The grey magma has small white grains in it
- Nearby I see a pink pegmatite mixing with the grey magma

Pictures 353 large quartz vein & diorite & pegmatite & magma

17T 0508285            Elevation = 359m  
5200218

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman))
- I see a large pink dike contacting a dark blue, small grain quartz feldspar hornblende with disseminated pyrite cubes
- I see rust on the hornblende

Pictures 354 pink dike & pyrite in hornblende

17T 0508312            Elevation = 361m  
5200218

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman))
- I see a quartz feldspar hornblende
- I see dark fragments in a grano-diorite matrix
- I see large white quartz veins
- I see lots of smaller white quartz veins
- This area beside a small lake is littered with pink and dark grey boulders

Pictures 355 Quartz dike & veins & grano-diorite & hornblende

17T 0508288            Elevation = 361m  
5200224

- We took some hand sample to examine at camp

Pictures 356 hand sample for examination

17T 0498367            Elevation = 432m  
5199327

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a large white quartz dike
- The dike runs east – west
- This is the area we had washed
- The dike cuts through a polymictic conglomerate
- The fragments are rounded, some are elongated
- Some fragments are porphyritic quartz monzonite others are just grey
- It looks like there was a grey intrusion

Pictures 357 large white quartz dike & conglomerate & intrusion

17T 0498111            Elevation = 439m  
5199075

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see 9d Massive feldspathic greywacke

- I see a pink feldspar vein  
Pictures 358 Massive feldspathic greywacke

17T 0497898          Elevation = 447m  
5199100

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a dark grey bedrock contact white quartz – feldspar
- I see some light grey intrusive
- Nearby I see finely bedded argillite with green chlorite in white quartz  
Pictures 359 argillite & Quartz & Chlorite

17T 0497884          Elevation = 449m  
5199145

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see contact zone between quartz feldspar Hornblende and 9c Finely bedded argillite
- The hornblende is dark blue / green in colour
- The hornblende has a lot of white quartz or feldspar mixing (almost looks like grano-diorite in some places)
- The argillite is light grey in colour (Looks like mudstone)
- There is some fracturing in the argillite
- I see some schisting in the hornblende
- I see some rust in the hornblende  
Pictures 360 argillite & hornblende

17T 0497891          Elevation = 451m  
5199147

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see contact zone between quartz feldspar Hornblende and 9c Finely bedded argillite
- The hornblende is dark blue / green in colour
- The hornblende has a lot of white quartz or feldspar mixing (almost looks like grano-diorite in some places)
- The argillite is light grey in colour (Looks like mudstone)
- There is some fracturing in the argillite
- I see some schisting in the argillite
- Nearby is an outcrop of white quartz & feldspar  
Pictures 361 argillite & hornblende & quartz & feldspar

17T 0497867          Elevation = 446m  
5199154

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see finely bedded argillite with pebbles and rounded fragments
- I see some quartz feldspar hornblende underlying the argillite
- Nearby is some hornblende with some rust in it
- The hornblende is really green
- The hornblende has white stringers  
Pictures 362 green hornblende & argillite & stringers

17T 0497845          Elevation = 441m  
5199168

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see what looks like 2a felsic gneiss - schists of metasedimentary origin
  - I see disseminated pyrite
- Pictures 363 felsic gneiss-schist of metasedimentary origin & pyrite

17T 0497827            Elevation = 438m  
5199210

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see a light grey bedrock with small black and white grains (Most likely massive feldspathic greywacke)
  - I see sedimentary layers
- Pictures 364 greywacke

17T 0497836            Elevation = 439m  
5199221

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see a diorite with a bit of rust and a rust ball
- Pictures 365 diorite & rust ball

17T 0497828            Elevation = 431m  
5199261

- We found a heavily mineralized boulder
  - The boulder is black with orange quartz and massive sulfides (See pictures)
  - This boulder was found on the side of the logging road
- Pictures 366 Mineralized boulder

17T 0497828            Elevation = 431m  
5199261

- I see large greywacke boulders with large rust spots
  - Some of the rust spots have small massive pyrite cubes
  - The mineral balls are numerous
  - There is a bit of white quartz
- Pictures 367 Mineralized greywacke boulder

17T 0499358            Elevation = 438m  
5199641

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see 9 Undifferentiated
  - The undifferentiated consist of grey and light grey lines
  - A fresh fracture reveals a dark blue and yellow quartz
- Pictures 368 Undifferentiated & yellow quartz

17T 0499357            Elevation = 440m  
5199716

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see 9a Polymictic conglomerates
  - The fragments are mostly diorite
- Pictures 369 Polymictic conglomerates

17T 0499398            Elevation = 437m  
5199783  
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)  
- I see a conglomerate  
- The fragments are mostly diorite  
Pictures 370 Porphyry conglomerates

17T 0499426            Elevation = 433m  
5199788  
- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)  
- I see porphyritic quartz monzonite  
- This is a contact zone for porphyry and conglomerate  
- The fragments are mostly diorite or quartz monzonite  
- Nearby I see a large white quartz dike  
Pictures 371 porphyry & conglomerate & quartz

17T 0499410            Elevation = 433m  
5199809  
- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)  
- I see Porphyritic quartz monzonite  
- Some of the feldspar crystals are large and square. (About 10 mm)  
- I see a rusted quartz vein  
- Nearby is the contact zone between porphyry and conglomerates  
- The fragments are mostly porphyritic quartz monzonite  
- The fragments are small medium and large  
Pictures 372 porphyry & conglomerate & contact & rusty vein

17T 0499427            Elevation = 435m  
5199813  
- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)  
- I see Porphyritic quartz monzonite  
- Some of the feldspar crystals are large and square. (About 10 mm)  
- I see some fracturing  
Pictures 373 Porphyry

17T 0499486            Elevation = 431m  
5200009  
- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)  
- I see Porphyritic quartz monzonite  
- Some of the feldspar crystals are large and square. (About 10 mm)  
- I see a few fractures  
Pictures 374 Porphyry

17T 0497918            Elevation = 440m  
5201774  
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)  
- I see 9 Undifferentiated  
- A fresh break shows a dark blue/grey colour and fine grains  
- He bedrock has been turned 90°  
Pictures 375 Undifferentiated

17T 0498233            Elevation = 453m  
5199187  
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)  
- I see Undifferentiated contacting conglomerate  
- The Undifferentiated isn't as obvious here  
- A fresh break shows a dark blue and white (Quartz – feldspar) interior  
- There is disseminated mineralization inside  
Pictures 376 Undifferentiated contacting conglomerate

17T 0497868            Elevation = 436m  
5199225  
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)  
- I see a dark blue quartz/feldspar with small black grains  
- The surface is light grey  
- I think it is 9d Massive feldspathic greywacke  
- I see a rusted circle that could be a mineral ball  
Pictures 377 Massive feldspathic greywacke & mineral ball

17T 0497888            Elevation = 442m  
5199206  
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)  
- I see a dark grey fine grain quartz / feldspar greywacke  
- The top layer is breaking off in some locations  
Pictures 378 Massive feldspathic greywacke

17T 0497887            Elevation = 445m  
5199191  
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)  
- I see a dark grey fine grain quartz / feldspar greywacke  
- The top layer is breaking off in some locations  
Pictures 379 Massive feldspathic greywacke

17T 0497898            Elevation = 446m  
5199187  
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)  
- I see a dark grey fine grain quartz / feldspar greywacke  
Pictures 380 Massive feldspathic greywacke

17T 0497901            Elevation = 447m  
5199180  
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)  
- I see quartz / feldspar greywacke  
Pictures 381 Massive feldspathic greywacke

17T 0497907            Elevation = 448m  
5199172

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see green chlorite
  - I see white quartz
  - I see a polymictic conglomerates
- Pictures 382 Conglomerates & quartz & Green Chlorite

17T 0497932            Elevation = 441m  
5199190

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - It looks like a 2a felsic schists of metavolcanics and metasedimentary origin
  - Nearby I see green chlorite and rust
- Pictures 383 felsic schists of metavolcanics & Green Chlorite

17T 0497948            Elevation = 439m  
5199198

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see large white quartz
  - I see lots of green chlorite around the quartz
  - I see greywacke
  - Nearby I see an outcrop of 1.5m x 2m of white quartz veins
- Pictures 384 Green Chlorite & mega quartz

17T 0497983            Elevation = 440m  
5199223

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see Massive feldspathic greywacke
- Pictures 385 Massive feldspathic greywacke

17T 0497904            Elevation = 434m  
5199265

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see Massive feldspathic greywacke
  - I see red staining indicating iron rich greywacke
- Pictures 386 Iron rich massive feldspathic greywacke

17T 0497901            Elevation = 447m  
5199180

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see Massive feldspathic greywacke
  - I see a bit of rust
- Pictures 387 Massive feldspathic greywacke

17T 0497825            Elevation = 437m  
5199312

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see Massive feldspathic greywacke

- I see a bit of rust  
Pictures 388 Massive feldspathic greywacke

17T 0497828          Elevation = 431m  
5199261

- I see large greywacke boulders with large rust spots
- Some of the rust spots have small massive pyrite cubes
- The mineral balls are numerous
- There is a few white quartz veins in the boulder  
Pictures 389 Mineralized greywacke boulder

17T 0497807          Elevation = 442m  
5199416

- I see large greywacke boulders with a large rust spot
- Some of the rust spots have small massive pyrite cubes  
Pictures 390 Mineralized greywacke boulder

17T 0497827          Elevation = 441m  
5199407

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see feldspathic greywacke
- Some areas have rust staining
- Looks like there has been some 90° uplift in some areas (Sedimentary line are now vertical)  
Pictures 391 Greywacke & rust

17T 0497754          Elevation = 441m  
5199466

- Map 2212 indicates 9c Finely bedded argillite (Mud stone)
- I see a bedrock that looks like a dried up lake bed
- Large rectangle shapes (cracks) are everywhere  
Pictures 392 Finely bedded argillite & fractured mud

17T 0497778          Elevation = 448m  
5199479

- I see a beige quartz with rounder pure white pebbles in it (Can't see through)
- Some pebbles are egg shaped
- There also a few red and grey fragments  
Pictures 393 Quartz boulder with pebbles in it

17T 0497821          Elevation = 454m  
5199507

- Map 2212 indicates 9c Finely bedded argillite (Mud stone)
- I see a very fine grain, light grey bedrock (Mud stone)
- In that light grey bedrock are some black disseminated, fine grains
- I see sedimentary lines and some schisting in the rock
- I see some rust  
Pictures 394 Finely bedded argillite

17T 0497843          Elevation = 449m  
5199576

- Map 2212 indicates 9c Finely bedded argillite (Mud stone)
- I see a very fine grain, light grey bedrock (Mud stone)

- In that light grey bedrock are some black disseminated, fine grains
  - I see a very large white and orange quartz vein
- Pictures 395 Large quartz in finely bedded argillite

17T 0497847            Elevation = 452m  
5199552

- Map 2212 indicates 9c Finely bedded argillite (Mud stone)
  - I see a very fine grain, light grey bedrock (Mud stone)
  - I see vertical sedimentary lines
  - A pattern can be seen in the sediments
  - Example: Bands are 4 inches apart then 10 inches then 4 then 8 then 4 then 9 .....
  - This could be a seasonal deposits or represent a repeating events
- Pictures 396 finely bedded argillite & sediment pattern

17T 0497798            Elevation = 440m  
5199224

- This is a huge boulder with lots of white quartz veins
  - The boulder looks like it might be finely bedded argillite.
- Pictures 397 argillite boulder with quartz

17T 0497771            Elevation = 439m  
5199205

- I see an extremely large boulder
  - The boulder looks like it might be finely bedded argillite
  - There are some straight sedimentary patters and some no pattern
- Pictures 398 argillite boulder

17T 0502899            Elevation = 398m  
5198645

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
  - It looks like Quartz-feldspar (hornblende) biotite schist
  - I see lots of small stringers
- Pictures 400 hornblende & stringers

17T 0502913            Elevation = 398m  
5198650

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a few white stringers and a few fractures
  - It looks like hornblende
- Pictures 401 hornblende & stingers

17T 0502925            Elevation = 399m  
5198643

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see several white quartz veins
  - It looks like there are some pebbles in the bedrock
  - Nearby is a small boulder of beige quartz and imbedded white pebbles
  - There are also a few dark grey / blue pebbles, and two light green quartz
  - Nearby is several large white quartz veins that intersect at different angles
  - I think there is a small black chlorite intrusion
  - Nearby is some hornblende with small white stringers
- Pictures 402 hornblende & lots of quartz & stringers & chlorite



17T 0502930 Elevation = 398m

5198643

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende contact with a greywacke
- Nearby there are some alteration (Fracturing) sheer zone
- Some areas appear to have grano-diorite intruding
- Pictures 403 hornblende contact with greywacke & sheer zone

17T 0502839 Elevation = 398m

5198691

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see hornblende with small white stringers
- Nearby are some white quartz veins
- Pictures 404 hornblende & stringers & quartz

17T 0501698 Elevation = 415m

5198877

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see hornblende with large rust spot
- I bit off alteration
- Pictures 405 hornblende & large rust spot

17T 0498316 Elevation = 447m

5199692

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- The bedrock is smooth, dark blue with some feldspar
- I think it is massive feldspathic greywacke
- Pictures 406 Massive feldspathic greywacke

17T 0498232 Elevation = 452m

5199188

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see undifferentiated
- I see some fracturing and displacement of lines
- I also see some greywacke with mineralization
- The greywacke is dark grey quartz and white feldspar
- Pictures 407 Undifferentiated & greywacke

17T 0497847 Elevation = 440m

5199241

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a gabbro / diorite
- There are some dark grey, some black and some white crystals
- Pictures 408 gabbro

17T 0497845 Elevation = 438m

5199247

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a gabbro / diorite

- There are some dark grey and some white crystals  
Pictures 409 gabbro

17T 0497866            Elevation = 438m  
5199243

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see Massive feldspathic greywacke
- The bedrock is dark grey in colour
- I see a rusted pyrite cube  
Pictures 410 greywacke

17T 0497826            Elevation = 443m  
5199425

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see Massive feldspathic greywacke
- The bedrock is dark grey in colour
- I see a bit of rust  
Pictures 411 greywacke

17T 0497858            Elevation = 442m  
5199431

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see greywacke and some fractures  
Pictures 412 Greywacke

17T 0497874            Elevation = 439m  
5199412

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see greywacke
- We are in a swamp area  
Pictures 413 Greywacke

17T 0497857            Elevation = 439m  
5199397

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see greywacke  
Pictures 414 Greywacke

17T 0497860            Elevation = 449m  
5199083

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see the contact between argillite and greywacke
- The fine bedded argillite is also a conglomerates
- The fragments are large and rounded except for a few angular ones
- The fragments are argillite

Pictures 415 argillite & greywacke contact & conglomerates

- 17T 0497879            Elevation = 448m  
5199098
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see Greywacke with a bit of undifferentiated
  - I see a white quartz vein
  - I see a pink feldspar vein intersecting the quartz vein
  - I see a bit of rust and minerals nearby
- Pictures 416 undifferentiated & greywacke & quartz

- 17T 0497948            Elevation = 449m  
5199134
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see greywacke and a white stringer
- Pictures 417 Greywacke

- 17T 0497947            Elevation = 447m  
5199155
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see greywacke
- Pictures 418 Greywacke

- 17T 0497959            Elevation = 449m  
5199162
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see greywacke
  - I see several large fragments (Conglomerate)
  - The fragments are red / pink / white quartz
- Pictures 419 greywacke & pink conglomerates

- 17T 0498019            Elevation = 450m  
5199102
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see some greywacke and some undifferentiated
- Pictures 420 undifferentiated

- 17T 0498052            Elevation = 449m  
5199073
- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see some undifferentiated and some greywacke bedrock
- Pictures 421 Undifferentiated

- 17T 0498188            Elevation = 451m  
5198970

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see some undifferentiated and some greywacke bedrock  
Pictures 422 Undifferentiated

17T 0498205            Elevation = 453m  
5198974

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see some greywacke bedrock  
Pictures 423 Greywacke

17T 0498232            Elevation = 453m  
5199007

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see some greywacke bedrock  
Pictures 424 Greywacke

17T 0498238            Elevation = 455m  
5199024

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a conglomerate
- The fragments are small and are diorite
- Nearby I see greywacke  
Pictures 425 Conglomerate

17T 0498214            Elevation = 449m  
5199142

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see Undifferentiated
- I see some quartz  
Pictures 426 Undifferentiated and quartz

17T 0498248            Elevation = 445m  
5199227

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see Undifferentiated
- I see some schisting and fracturing and displacement in the undifferentiated
- I see egg shape mineral balls
- In the mineral ball is rust and metallic minerals  
Pictures 427 Undifferentiated & rust % mineral balls

17T 0498633            Elevation = 455m  
5199757

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a dark bedrock
- I see a conglomerate
- I see small and large fragments
- The large and small fragments are quartz monzonite

- The fragments are rounded  
Pictures 428 large conglomerate of quartz monzonite

17T 0498727            Elevation = 456m  
5199745

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a feldspathic greywacke  
Pictures 429 Greywacke

17T 0498770            Elevation = 455m  
5199740

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a polymictic conglomerate
- One fragments looks like a finely bedded argillite others are diorite
- I see several small fractures  
Pictures 430 conglomerate

17T 0498774            Elevation = 458m  
5199726

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a conglomerate
- The fragments looks like diorite  
Pictures 431 conglomerate

17T 0498818            Elevation = 456m  
5199711

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a conglomerate
- I see one rounded and elongated fragments that looks like diorite  
Pictures 432 conglomerate

17T 0498927            Elevation = 455m  
5199699

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a conglomerate
- There is only a few small diorite fragment in the greywacke intrusion
- I see greywacke contact a finely bedded argillite  
Pictures 433 conglomerate & contact between argillite & greywacke

17T 0498943            Elevation = 454m  
5199686

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a feldspathic greywacke  
Pictures 434 greywacke

17T 0498957            Elevation = 453m  
5199670

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a polymictic conglomerate
- The fragments are small and medium in size
- Smaller fragments are rounded diorite the larger ones are pink granite  
Pictures 435 conglomerates

17T 0498979            Elevation = 452m  
5199659

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see white and pink quartz
- I see an x fracture filled in with fine grain dark grey mud like
- Nearby I see a lot of white quartz veins
- I see a conglomerate
- The fragments are small in size
- I also see what looks like an old water funnel (Very smooth and round)
- Looks like old underground water flow

Pictures 436 conglomerate & Intrusion & large quartz & water funnel

17T 0499629            Elevation = 447m  
5199332

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a conglomerate
- The fragments are small, rounded and quartz monzonite

Pictures 437 conglomerate

17T 0499616            Elevation = 446m  
5199314

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a conglomerate
- I see a few medium size fragments of angled diorite
- The bedrock is dark grey and flaky
- I see a bit of rust

Pictures 438 conglomerate

17T 0499679            Elevation = 445m  
5199299

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
- I see Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (About 10 mm)
- Lots of large feldspar crystals

Pictures 439 Porphyry

17T 0499777            Elevation = 450m  
5199216

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
- I see Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (about 10 mm)
- Lots of large feldspar crystals (Some of the largest seen)

Pictures 440 Porphyry

17T 0499867            Elevation = 441m  
5199166

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
- I see Porphyritic quartz monzonite
- Some of the feldspar crystals are large and square. (about 10 mm)
- Lots of large feldspar crystals

Pictures 441 large Porphyry

17T 0499878 Elevation = 441m

5199162

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
  - Less large feldspar crystals
- Pictures 442 Porphyry

17T 0499911 Elevation = 441m

5199187

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
  - Less large feldspar crystals
- Pictures 443 Porphyry

17T 0499970 Elevation = 434m

5199130

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
  - Less large feldspar crystals
  - I see a rusted stringer
- Pictures 444 Porphyry & rust

17T 0500241 Elevation = 446m

5198973

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
  - Less large feldspar crystals
  - I see a few small fractures
- Pictures 445 Porphyry

17T 0500249 Elevation = 449m

5198965

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
  - Less large feldspar crystals
  - I see lots of small fractures
- Pictures 446 Porphyry

17T 0500304 Elevation = 446m

5198954

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
  - Lots of large feldspar crystals
  - I see a few white quartz veins
- Pictures 447 Porphyry & quartz

17T 0500317 Elevation = 446m

5198916

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
  - I see epidote and rust stringers
  - Less large feldspar crystals
- Pictures 448 Porphyry & Epidote & rust

17T 0500393 Elevation = 447m

5198892

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
  - Lots of large feldspar crystals
- Pictures 449 Porphyry

17T 0500378 Elevation = 445m

5198860

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm) (A few even larger)
  - Lots of large feldspar crystals
  - I see a few pressure cracks
- Pictures 450 Large Porphyry

17T 0500416 Elevation = 446m

5198836

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm) (A few even larger)
  - Lots of large feldspar crystals
- Pictures 451 Large Porphyry

17T 0500424 Elevation = 446m

5198817

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm) (A few even larger)
  - Lots of large feldspar crystals
- Pictures 452 Porphyry

17T 0500487 Elevation = 445m

5198884

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
  - Lots of large feldspar crystals
  - Smooth surface of porphyry
  - One white stringer and a few pressure cracks
- Pictures 453 Porphyry



17T 0500490 Elevation = 447m

5198863

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm) (A few even larger)
  - The amount of feldspar crystals is not consistent
  - I see a few fine grain, dark grey xenoliths on the surface of the porphyry
- Pictures 454 Porphyry & xenoliths

17T 0500538 Elevation = 446m

5198863

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm) (A few even larger)
  - There is a large outcrop exposed here
  - I see a few pressure cracks
  - I see a few stringers
  - I see a few fine grain, dark grey xenoliths on the surface of the porphyry
- Pictures 455 Porphyry & xenoliths

17T 0501187 Elevation = 424m

5198998

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
  - The contact between Porphyritic quartz monzonite & greywacke
  - I see a few large white stringers nearby
- Pictures 456 Porphyry & contact with greywacke & stringers

17T 0501244 Elevation = 424m

5199000

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
- Pictures 457 Porphyry

17T 0501349 Elevation = 427m

5199042

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
  - I see a small quartz / epidote vein
  - I see a few fractures
- Pictures 458 Porphyry & quartz & epidote

17T 0504018 Elevation = 401m

5198671

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see a conglomerate
  - The fragments are medium in size and consist of quartz monzonite
  - I also see a massive feldspathic greywacke
- Pictures 459 Conglomerate & greywacke

- 17T 0503980            Elevation = 402m  
5198687
- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see Feldspathic greywacke with lots of white stringers
  - The greywacke is intruded by a large gabbro dike
  - The gabbro is dark fine grain with larger white rectangle shape crystals
  - I see some quartz and alterations
- Pictures 460 greywacke & gabbro dike & stringers
- 17T 0497948            Elevation = 442m  
5201229
- Camp site picked
- Pictures 461 Camp number 2
- 17T 0499909            Elevation = 440m  
5199187
- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
  - There are less large feldspar crystals
  - I see a yellow / white quartz dike
- Pictures 462 porphyry & yellow dike
- 17T 0500121            Elevation = 434m  
5199005
- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (about 10 mm)
  - I see a disseminated rusted pyrite in the porphyry
- Pictures 463 Porphyry & rusted pyrite
- 17T 0502584            Elevation = 409m  
5198670
- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see hornblende with small white stringers
  - I see some white quartz veins and pink feldspar
  - Nearby looks like a contact zone
- Pictures 464 hornblende & stringers & quartz & large rust spot & contact
- 17T 0502764            Elevation = 403m  
5198691
- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see hornblende with small white stringers
- Pictures 465 hornblende
- 17T 0502809            Elevation = 405m  
5198686
- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see hornblende with small white and yellow stringers
  - I see a small white quartz vein
  - I see yellow epidote
  - I see some rust
- Pictures 466 hornblende & rust & epidote & quartz & stringers

17T 0502902            Elevation = 407m  
5198682  
- Map indicates 1b Quartz-feldspar (hornblende) biotite schist  
- I see hornblende  
- I see a large white and pink quartz vein  
- I see lots of black lines in the white quartz  
- I see a bit of yellow epidote  
- I see some rust  
Pictures 467 hornblende & rust & epidote & quartz & stringers

17T 0502903            Elevation = 405m  
5198647  
- Map indicates 1b Quartz-feldspar (hornblende) biotite schist  
- I see hornblende  
- I see a few small white quartz veins  
- I see a white stringers  
Pictures 468 hornblende & quartz & stringers

17T 0502915            Elevation = 403m  
5198651  
- Map indicates 1b Quartz-feldspar (hornblende) biotite schist  
- I see hornblende  
- I see a small white quartz veins  
- I see small white stringers  
Pictures 469 hornblende & quartz & stringers

17T 0502928            Elevation = 403m  
5198643  
- Map indicates 1b Quartz-feldspar (hornblende) biotite schist  
- I see hornblende  
- I see a few small white quartz veins  
- I see yellow epidote  
Pictures 470 hornblende & quartz & epidote

17T 0503030            Elevation = 395m  
5198587  
- Map indicates 1b Quartz-feldspar (hornblende) biotite schist  
- I see hornblende  
- We found a mineralized boulder  
- The boulder was rusty and the minerals where layered with hornblende  
- A piece of the boulder was sent away for analysis Sample 26  
Pictures 471 hornblende & Sample 26 Boulder

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.005	945	450	650

17T 0503110            Elevation = 393m  
5198524  
- Map indicates 1b Quartz-feldspar (hornblende) biotite schist  
- I see feldspathic hornblende  
- I see alteration

- I see lots of stringers and nearby is lots of stringers together
  - I see some white and smoky quartz and yellow epidote
  - I see a large brown dike
- Pictures 472 hornblende & epidote & quartz & stringers & brown dike

17T 0503117            Elevation = 394m  
5198519

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see hornblende
  - I see a white / smoky quartz
- Pictures 473 hornblende & quartz

17T 0503132            Elevation = 390m  
5198486

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see Pseudotachylite
  - The fragments are medium in size
  - The fragments are rounded and pink granite
- Pictures 474 Pseudotachylite

17T 0503164            Elevation = 384m  
5198470

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see Pseudotachylite
  - The fragments are large and medium and small in size
  - The fragments are rounded and pink granite
  - I see pink granite (Contact zone I think) large fragments
  - I see rust in some areas
- Pictures 475 Pseudotachylite & rust

17T 0503168            Elevation = 382m  
5198465

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see Pseudotachylite
  - The fragments are rounded and pink granite
  - I see a lot of rust in some areas
- Pictures 476 Pseudotachylite & rust

17T 0507843            Elevation = 393m  
5199710

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN (Granitic Rocks (Algoman))
  - I see a conglomerate
  - The fragments are rounded and consists of quartz monzonite
  - I see what looks like a quartz feldspar hornblende
  - I see white stringers
  - I see diorite mixing with the hornblende
  - Nearby is the contact between the hornblende and the pink granite
- Pictures 477 Conglomerate & contact & granite & hornblende & stringers

17T 0507843            Elevation = 393m  
5199697

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN (Granitic Rocks (Algoman))
  - I see a diorite
  - I see small white vein
  - I see a large white and pink dike
  - The map doesn't show any dikes in the area
  - This may be a contact zone
- Pictures 478 Diorite & pink dike & contact

17T 0507854            Elevation = 393m  
5199707

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN (Granitic Rocks (Algoman))
  - I see quartz feldspar hornblende
  - I see some (white / orange) (quartz / feldspar)
- Pictures 479 hornblende & quartz – feldspar

17T 0497858            Elevation = 445m  
5201699

- Map 2212 indicates 12 Olivine diabase PRECAMBRIAN PROTEROZOIC Late mafic intrusive rocks
  - I see a granite like with white, black and red colours
  - Small coarse grains with large, white, rectangle orthoclase feldspar crystals
  - Nearby the crystals get larger
- Pictures 480 Olivine diabase

17T 0497931            Elevation = 442m  
5201220

- Pictures of storage container and trailer
- Pictures 481 Storage container

17T 0498098            Elevation = 468m  
5199918

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see undifferentiated only
  - I see schisting of the dark and light lines
  - Nearby is a different looking bedrock (mixture of undifferentiated and feldspathic greywacke)
  - I see large white quartz boulders or fragments in a greywacke and undifferentiated mixture
  - Could be contact area or start of sediments
- Pictures 482 Undifferentiated & greywacke & alteration & quartz

17T 0498229            Elevation = 465m  
5199859

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see feldspathic greywacke
  - I see a bit of undifferentiated like
  - I see a few small quartz veins and a bit of alteration
- Pictures 483 greywacke & Undifferentiated & quartz vein

17T 0501636            Elevation = 435m  
5198842

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see quartz-feldspar hornblende
- I see epidote & quartz veins

- I see small white stringers  
Pictures 484 hornblende & quartz & epidote

17T 0499351            Elevation = 467m  
5199460

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a Pseudotachylite
- The fragments are large and angular porphyritic quartz monzonite
- The surrounding bedrock looks like greywacke
- Nearby is a polymictic conglomerate (Small fragments)
- Nearby is a mega conglomerate with small and medium size fragments
- Contact zone between porphyry and greywacke conglomerate  
Pictures 485 Pseudotachylite & conglomerates & contact zone of porphyry

17T 0503129            Elevation = 358m  
5198652

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist in this area and just south the map indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite
- I see orange and white granite
- The white crystals are square and large
- This is a large rock face  
Pictures 486 orange and white granite

17T 0503124            Elevation = 365m  
5198664

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist in this area and just south the map indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite
- I see orange and white granite
- The white crystals are square and large
- This is a large mountain top
- Nearby is some pegmatite  
Pictures 487 granite & pegmatite

17T 0503076            Elevation = 379m  
5198603

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist in this area and just south the map indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite
- I think this is hornblende
- The surface is really dark and has black lines just like the mineral boulder Sample 26
- This location is only 47m from sample area  
Pictures 488 hornblende & metamorphic gneiss

17T 0503101            Elevation = 375m  
5198600

- Map indicates 1b Quartz-feldspar (hornblende) biotite schist in this area and just south the map indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite
- I think this is hornblende
- I see lots of small white stringers
- I see small white quartz veins  
Pictures 489 hornblende & stringers & quartz

17T 0498298            Elevation = 442m  
5199436

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see feldspathic greywacke
  - Nearby I see white quartz cut by a fine grain basalt
- Pictures 490 greywacke & quartz with basalt

17T 0498235            Elevation = 444m  
5199475

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see feldspathic greywacke
- Pictures 491 greywacke

17T 0498229            Elevation = 443m  
5199464

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see feldspathic greywacke
  - I see mineralization (A silver metallic metal) cubic like pyrite
- Pictures 492 greywacke & minerals

17T 0498247            Elevation = 447m  
5199444

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see a white quartz vein
  - I see large fragments of porphyritic quartz monzonite (Contact zone with greywacke)
- Pictures 493 contact & porphyry fragments & quartz

17T 0498181            Elevation = 443m  
5199455

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see feldspathic greywacke
  - I see large white crystals in the greywacke
- Pictures 494 greywacke

17T 0498093            Elevation = 441m  
5199403

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see feldspathic greywacke
- Pictures 495 greywacke

17T 0498074            Elevation = 446m  
5199373

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see feldspathic greywacke
- Pictures 496 greywacke

17T 0498047            Elevation = 450m  
5199309

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see feldspathic greywacke
- Pictures 497 greywacke

17T 0498034          Elevation = 447m  
5199283

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see feldspathic greywacke
- Pictures 498 greywacke

17T 0498037          Elevation = 446m  
5199272

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see feldspathic greywacke
- I see a fragment in the greywacke
- The fragment is angular and looks like diorite
- Pictures 499 greywacke & fragment

17T 0498045          Elevation = 446m  
5199258

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see feldspathic greywacke
- I see sedimentary layers (even distribution- yearly deposit or event)
- Pictures 500 greywacke and layers

17T 0497950          Elevation = 446m  
5198847

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a pink/orange granite
- I see some rust
- The large granite outcrop is cut by a large greywacke dike (Several feet across)
- The dike is about 85°
- Pictures 501 greywacke and large dike

17T 0498009          Elevation = 447m  
5198920

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see feldspathic greywacke
- Pictures 502 greywacke

17T 0498008          Elevation = 447m  
5198924

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see a mega polymictic conglomerate
- The fragments are small, medium in size
- The fragment are rounded and polymictic



Pictures 503 Mega conglomerate

17T 0498014      Elevation = 447m  
5198930

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see a mega conglomerate
  - The fragments are small, medium in size
  - The fragment are rounded and angular
  - Most of the fragments are greywacke and angular
  - Nearby I see some quartz and rust
- Pictures 504 Mega conglomerate & quartz

17T 0498056      Elevation = 447m  
5198864

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see greywacke
  - Nearby I see greywacke turned white (Lots of white)
  - Nearby I see thick layered rock
  - The third layer requires further exploration
- Pictures 505 greywacke & altered white

17T 0498075      Elevation = 452m  
5198867

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see feldspathic greywacke
- Pictures 506 greywacke

17T 0498057      Elevation = 446m  
5198852

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see feldspathic greywacke
  - A fresh break reveals a fine grain blue quartz with slightly larger white feldspar crystals and a few black grains
- Pictures 507 greywacke

17T 0498123      Elevation = 450m  
5198926

- Map 2212 shows 9c Finely bedded argillite 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I see feldspathic greywacke
  - I see sedimentary layers (close horizontal layers)
- Pictures 508 greywacke

17T 0498948      Elevation = 443m  
5200396

- Map 2212 shows 9b Bedded arkose, feldspathic greywacke 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
  - I cannot see the bedrock but I see heavy rust in a depression in the gravel
- Pictures 509 Heavy rust in gravel

17T 0499153          Elevation = 429m

5200771

- Map 2212 shows breccia in this area
  - Map 2212 also shows a fault line in this area
  - Map 2212 also shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation in the area
  - Map 2212 also shows 12 Olivine diabase (Late mafic intrusive) in the area
  - I see a black basalt that oxidized orange in some spots
  - The texture is really rough only a few smooth areas
  - The outcrop is next to frog lake
  - The matrix is a black, fine grain basalt with small white disseminated grains
- Pictures 510 Basalt with orange spots

17T 0499141          Elevation = 428m

5200790

- Map 2212 shows breccia in this area
  - Map 2212 also shows a fault line in this area
  - Map 2212 also shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation in the area
  - Map 2212 also shows 12 Olivine diabase (Late mafic intrusive) in the area
  - I see a black basalt that oxidized orange in some spots
  - The texture is rough with more smooth areas than pictures 510
  - The outcrop is next to frog lake
  - The matrix is a black, fine grain basalt with small white disseminated grains (Gabbro)
  - I see felsic stringers
- Pictures 511 Basalt with orange spots

17T 0499129          Elevation = 427m

5200829

- Map 2212 shows breccia in this area
  - Map 2212 also shows a fault line in this area
  - Map 2212 also shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation in the area
  - Map 2212 also shows 12 Olivine diabase (Late mafic intrusive) in the area
  - I see a fine grain, black basalt with pink feldspar crystals and orange spots
  - I also see a white quartz vein
  - The texture is rough with more smooth areas than pictures 510
  - The outcrop is next to frog lake
  - The matrix is a black, fine grain basalt with small white disseminated grains
  - I see a large, square feldspar crystal
  - Nearby are some rusted and magnetic boulders
- Pictures 512 Basalt & orange spots & Quartz

17T 0499795          Elevation = 428m

5200337

- Map 2212 indicates 12 Olivine diabase
  - I see a small grain white quartz with larger black crystals
  - I see lots of fractures
  - The outer surface is white with little black spots
  - I see some rust
  - The texture is rough
- Pictures 513 Olivine diabase & rust

17T 0499879            Elevation = 429m

5200359

- Map 2212 indicates 12 Olivine diabase to the South
  - Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN granitic rocks in the area
  - I see Olivine diabase
  - The olivine diabase has fine grain black and white crystals with large pink/orange crystals
- Pictures 514 Olivine diabase

17T 0499996            Elevation = 427m

5200253

- Map 2212 indicates 12 Olivine diabase in this area
  - Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN granitic rocks north and south of this area
  - I see Olivine diabase with rust on a lower section
  - I see lots of fractures in the nearby rock face
  - The fractures are also bleeding out a white precipitate
  - Nearby is some orange/rusty stringers
- Pictures 515 Olivine diabase & orange stringers

17T 0499175            Elevation = 429m

5200722

- Map 2212 shows breccia in this area
  - Map 2212 also shows a fault line in this area
  - Map 2212 also shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation in the area
  - Map 2212 also shows 12 Olivine diabase (Late mafic intrusive) in the area
  - I see what looks like massive feldspathic greywacke
  - The outcrop is next to frog lake
- Pictures 516 Greywacke

17T 0499138            Elevation = 424m

5200900

- Map 2212 shows breccia in this area
  - Map 2212 also shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation in the area
  - Map 2212 also shows 12 Olivine diabase (Late mafic intrusive) in the area
  - I see a mega polymictic conglomerate
  - The surface is really ruff and full of stones (Fragments)
  - I see orange spots
  - I see some feldspar crystals in the bedrock that looks like quartz monzonite (Hard to see) could be a large fragment
- Pictures 517 Mega conglomerate & orange spots

17T 0499014            Elevation = 425m

5200778

- Map 2212 also shows 12 Olivine diabase (Late mafic intrusive) in this area
  - Map 2212 also shows 9d Massive feldspathic greywacke and 9b Bedded arkose, feldspathic greywacke (HURONIAN Gowganda formation) in the area
  - I see what looks like a greywacke with lots of orange erosion. (Massive orange spots)
  - This bedrock is lighter colour than the basalt in pictures 510-511
- Pictures 518 greywacke & massive orange spots

17T 0498906 Elevation = 425m

5200693

- Map 2212 also shows 9d Massive feldspathic greywacke and 9b bedded arkose, feldspathic greywacke (HURONIAN Gowganda formation in this area)
  - I see some greywacke with lots of orange spots
  - Nearby I see pink/orange 9b bedded arkose
- Pictures 519 greywacke & arkose & orange spots

17T 0498896 Elevation = 425m

5200715

- Map 2212 shows 9d Massive feldspathic greywacke and 9b bedded arkose, feldspathic greywacke (HURONIAN Gowganda formation in this area)
  - I see a large white quartz vein in bedded arkose
  - I see lots of orange spots
- Pictures 520 quartz & arkose & orange spots

17T 0498697 Elevation = 424m

5200826

- Map 2212 shows 9b bedded arkose, feldspathic greywacke (HURONIAN Gowganda formation in this area)
  - I see a lot of white quartz vein in greywacke
  - I see a lot of large white stringers
- Pictures 521 quartz & stringers & greywacke

17T 0498691 Elevation = 424m

5200833

- Map 2212 shows 9b bedded arkose, feldspathic greywacke (HURONIAN Gowganda formation in this area)
  - I see a white quartz vein in arkose
  - There is a circular depression that is filled with water and has eroded to an orange colour
  - I see a few orange spots
  - I see a some white quartz
  - I see wing like stringers (Lots of flat veins) (High water pressure caused these fractures to open) (Orogenic gold deposits are associated with high water pressure)
  - This is a high fluid pressure area
- Pictures 522 quartz & stringers & greywacke

17T 0503010 Elevation = 399m

5198627

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a hornblende with white stringers
  - Flattened and elongated mafic enclaves of the Creelman pluton defining tectonic foliation and lineation.
  - I see magmatic enclaves are volumes of rock surrounded by emplaced host rock of related but distinct composition and of separated genesis (incomplete magmatic mixing)
- Pictures 523 hornblende & stringers & magmatic enclaves

17T 0503010 Elevation = 399m

5198627

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- I see a hornblende with white bands that I think are biotite-chlorite schist

- I see a few pieces of white quartz
  - Three hand samples showed mineralization
  - The minerals had a silver metallic look
- Pictures 524 hornblende & biotite chlorite schist & minerals

17T 0502991            Elevation = 404m  
5198677

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a hornblende
- Pictures 525 hornblende

17T 0503044            Elevation = 398m  
5198674

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a hornblende
- Pictures 526 hornblende

17T 0503053            Elevation = 396m  
5198667

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a hornblende with large quartz monzonite fragments
  - I also see smaller elongated fragments that look like volcanic breccia
  - I see pseudotachylite
  - I see white quartz veins
- Pictures 527 Pseudotachylite & hornblende & quartz

17T 0503059            Elevation = 391m  
5198710

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - I see a hornblende with a few squares that look like potassium feldspar crystals
  - Lots of pink feldspar mixing in
  - I see a small black intrusion with quartz monzonite fragments
  - Could be a fault line
  - I see small white stringers
- Pictures 528 hornblende & stringers & fault line

17T 0503040            Elevation = 394m  
5198736

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
  - Quartz – feldspar (Hornblende)
  - I see white quartz veins
- Pictures 529 hornblende & quartz

17T 0502996            Elevation = 401m  
5198693

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- Quartz – feldspar (Hornblende)

- I see a large white quartz vein  
Pictures 530 hornblende & quartz

17T 0502931            Elevation = 400m  
5198718

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- Quartz – feldspar (Hornblende)
- I see a few white quartz veins and stringers  
Pictures 531 hornblende & quartz & stringers

17T 0502916            Elevation = 400m  
5198728

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- Quartz – feldspar (Hornblende)
- I see a large fragment of white / yellow quartz monzonite
- I see a lot of white quartz veins
- Could be a fault line
- Pictures 532 hornblende & quartz in fragment & fault line

17T 0502925            Elevation = 400m  
5198742

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- I see a Quartz – feldspar (Hornblende)
- I see lots of alteration, possible fault line
- I see a few pink feldspar fragments
- I see a few quartz veins  
Pictures 533 hornblende & quartz & Fault line

17T 0503120            Elevation = 386m  
5198487

- Map 2212 indicates 1b Quartz – feldspar (Hornblende) – Biotite schist (Archean – Metavolcanics and Metasediments)
- Quartz – feldspar (Hornblende) Biotite schist is contacting pseudotachylite
- The hornblende is darker in colour and has lots of white stringers
- The pseudotachylite is light grey in colour
- Most of the fragments are quartz monzonite but a few are of hornblende
- I think this is Sudbury Breccia
- The Breccia runs NNW - SSE  
Pictures 534 hornblende & Stringers & pseudotachylite & contact

17T 0500708            Elevation = 424m  
5198119

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN granitic rocks in this area
- Polymictic conglomerate
- Some medium fragments are granite (Pink-white-black)
- Some small fragments are white and rounded
- On the edge of the conglomerate is an outcrop of epidote with white quartz
- The quartz has (Gold colour) pyrite cubes and rust
- The quartz that covers the epidote is thin but there are other quartz veins
- The quartz also has a bit of green chlorite

- The epidote is yellow
- The bedrock beside the epidote is dark Grey/ green
- We took sample 23 today
- In the sample I see green epidote and a white / orange quartz (See pictures)  
Pictures 535 Epidote Pyrite conglomerate & Sample 23

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.031	811	16	19.80

17T 0501706            Elevation = 416m  
5197996

- Map 2212 indicated 9 Undifferentiated 9d Massive feldspathic greywacke
- I see greywacke
- The surface is altered to a white colour  
Pictures 536 greywacke

17T 0501612            Elevation = 417m  
5197910

- Map 2212 indicated 9 Undifferentiated 9d Massive feldspathic greywacke
- I see greywacke covered by a white / brown quartz  
Pictures 537 greywacke

17T 0501624            Elevation = 418m  
5197995

- Map 2212 indicated 9 Undifferentiated 9d Massive feldspathic greywacke
- I see conglomerates
- The fragments are small and medium in size
- The fragments are rounded and are made of quartz monzonite
- I see some white quartz  
Pictures 538 Conglomerates & quartz

17T 0501622            Elevation = 416m  
5198007

- Map 2212 indicated 9 Undifferentiated 9d Massive feldspathic greywacke
- I see massive feldspathic greywacke  
Pictures 539 Greywacke

17T 0501639            Elevation = 421m  
5198021

- Map 2212 indicated 9 Undifferentiated 9d Massive feldspathic greywacke
- I see a conglomerate with large, medium and small fragments
- The surface has a yellow appearance
- The fragments are white quartz monzonite and rounded
- Nearby are a few black fragments
- I see a bit of white quartz
- Looks like the flow is N - S  
Pictures 540 Conglomerate & quartz

17T 0498026            Elevation = 369m  
5200849

- Map 2212 indicates 12 Olivine diabase and a fault line in this area

- I see a white rock surface with lots of cracks
  - A piece of the surface indicates a white quartz monzonite
  - The quartz has lots of black stringers
  - The quartz seems to have a beige colour deeper down
  - Not Olivine diabase
- Pictures 541 Fault line & mostly white quartzite

17T 0497794            Elevation = 393m  
5200845

- Map 2212 indicates 12 Olivine diabase 9c finely bedded argillite and a fault line in this area
  - I see a quartzite boulder
  - I see fractured greywacke
  - Potential fault line in this area
- Pictures 542 greywacke

17T 0497817            Elevation = 398m  
5200804

- Map 2212 indicates 12 Olivine diabase 9c finely bedded argillite and a fault line in this area
  - I see a large white quartz dike
  - The quartz is cutting what looks like feldspathic greywacke
  - Nearby I see some rust
- Pictures 543 White dike & greywacke & rust

17T 0497811            Elevation = 403m  
5200804

- Map 2212 indicates 12 Olivine diabase in this area
  - I see feldspathic greywacke
- Pictures 544 Greywacke

17T 0497901            Elevation = 413m  
5200802

- Map 2212 indicates 12 Olivine diabase in this area
  - I see feldspathic greywacke
  - I see a small piece of whit quartz
- Pictures 545 Greywacke

17T 0497897            Elevation = 420m  
5200632

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite and a fault line in this area
  - I see massive feldspathic greywacke
  - Nearby is an altered zone
- Pictures 546 Greywacke & altered zone

17T 0497908            Elevation = 420m  
5200633

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see massive feldspathic greywacke
  - Nearby is large angular land vertical layers
- Pictures 547 Greywacke

17T 0497872            Elevation = 435m  
5200365



- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see massive feldspathic greywacke
- Pictures 548 Greywacke

17T 0497889            Elevation = 437m  
5200368

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see massive feldspathic greywacke
  - I see a chlorite vein
  - I see a conglomerate
  - The fragments are small and angular
- Pictures 549 Greywacke & Chlorite vein & Conglomerate

17T 0497951            Elevation = 441m  
5200380

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see massive feldspathic greywacke
- Pictures 550 Greywacke

17T 0497999            Elevation = 445m  
5200375

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see a conglomerate
  - The fragments are small and medium in size and round
  - The conglomerate is polymictic but most fragments are quartz monzonite
  - This is the contact zone between the conglomerates and the quartz monzonite
- Pictures 551 Conglomerate & contact zone

17T 0498008            Elevation = 444m  
5200375

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see a conglomerate
  - The fragments are small and medium in size and round
  - The conglomerate is polymictic but most fragments are quartz monzonite
- Pictures 552 Conglomerate

17T 0497953            Elevation = 445m  
5200396

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see a conglomerate
  - The fragments are small and medium in size and round
  - The conglomerate is polymictic but most fragments are quartz monzonite
- Pictures 553 Conglomerate

17T 0497954            Elevation = 450m  
5200530

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see massive feldspathic greywacke
  - I see some quartz
- Pictures 554 greywacke & quartz

17T 0498010            Elevation = 462m  
5200621

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see massive feldspathic greywacke
  - I see a bunch of small quartz veins together
  - One rock that I picked up had orange and purple quartz
- Pictures 555 greywacke & orange and purple quartz

17T 0498122            Elevation = 455m  
5200356

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see a mega polymictic conglomerate
- Pictures 556 Mega conglomerates

17T 0498032            Elevation = 451m  
5200184

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see a feldspathic greywacke
  - I see a sheer zone about 30 cm wide and full of quartz stringers
- Pictures 557 Greywacke & sheer zone & stringers

17T 0497960            Elevation = 451m  
5200200

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see a feldspathic greywacke with lots of small rust spots
- Pictures 558 Greywacke & rust balls

17T 0497942            Elevation = 450m  
5200203

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see a feldspathic greywacke with some small rust spots
  - You can also see the sedimentary lines
- Pictures 559 Greywacke & Undifferentiated & rust balls

17T 0499814            Elevation = 427m  
5198078

- Map 2212 indicates 3b Porphyritic quartz monzonite in this area
  - I see a large white quartz vein
  - I see a few small white quartz veins
  - I see extremely lots of small crisscrossing each other
  - I see a large vein of yellow epidote
  - (Not sure this gps reading was correct)
- Pictures 560 Quartz & stringers & epidote

17T 0497973            Elevation = 452m  
5200228

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area
  - I see feldspathic greywacke
  - I see a quartz vein
  - I see some rust and red staining
- Pictures 561 Greywacke & quartz

17T 0497978            Elevation = 453m  
5200229

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke 9c Finely bedded argillite in area

- I see feldspathic greywacke with Large pink & angular fragments
  - The large fragments are odd shaped and look like a pegmatite or granite
  - I see the sedimentary bedrock
- Pictures 562 Greywacke & odd shaped pink fragment

17T 0499408            Elevation = 450m  
5199528

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke in area
  - I see massive feldspathic greywacke
- Pictures 563 Greywacke

17T 0499447            Elevation = 451m  
5199496

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke in area
  - I see massive feldspathic greywacke
  - Sounds like a bell when two pieces of rock are hit together
  - Really magnetic bedrock
- Pictures 564 Greywacke & sounds like a bell

17T 0500103            Elevation = 416m  
5198166

- Map 2212 indicates 3b Porphyritic quartz monzonite
  - I see pink quartz vein
  - I see a bedrock that looks like a grano diorite but it's got orange white and black crystals
  - Nearby is some rust and what looks like metallic mineralization
  - Nearby I see some layered slate as a fragment
- Pictures 565 grano-diorite & metallic minerals & slate

17T 0500163            Elevation = 419m  
5198069

- Map 2212 indicates 3b Porphyritic quartz monzonite
  - I see grano diorite with a lot of quartz veins
  - The diorite was white and black-green
- Pictures 566 grano-diorite & quartz

17T 0500081            Elevation = 421m  
5197939

- Map 2212 indicates 3b Porphyritic quartz monzonite
  - I see White-yellow-orange-red quartz
  - I see some rust
  - Large orange stain
- Pictures 567 White-yellow-orange-red quartz

17T 0499949            Elevation = 422m  
5197948

- Map 2212 indicates 3 & 1a Massive mafic metavolcanics, amphibolites, amphibolitic schist ARCHEAN Metavolcanics and Metasediments
  - I see some black and white grano-diorite (Amphibole)
  - I see a breccia
  - Large and medium size pink feldspar fragments
  - Nearby I see a large white quartz vein
  - Nearby looks like mafic metavolcanics
- Pictures 568 Grano-diorite & Breccia & Quartz & hornblende

17T 0499890            Elevation = 423m  
5197980

- Map 2212 indicates 3 & 1a Massive mafic metavolcanics, amphibolites, amphibolitic schist ARCHEAN Metavolcanics and Metasediments
- I see some black and white diorite
- I see some rust and a bit of white quartz
- I see some stringers

Pictures 569 Diorite & stringers

17T 0499872            Elevation = 425m  
5198038

- Map 2212 indicates 3 & 1a Massive mafic metavolcanics, amphibolites, amphibolitic schist ARCHEAN Metavolcanics and Metasediments
- Map 2212 indicates 3b Porphyritic quartz monzonite in area
- I see a large pink quartz dike cutting mafic metavolcanics
- I see lots of white stringers

Pictures 570 Hornblende & stringers

17T 0499883            Elevation = 423m  
5198049

- Map 2212 indicates 3 & 1a Massive mafic metavolcanics, amphibolites, amphibolitic schist ARCHEAN Metavolcanics and Metasediments
- Map 2212 indicates 3b Porphyritic quartz monzonite in area
- I see some grano-diorite (Amphibole) and mafic meta volcanics
- I see some yellow oxidized mineral (Maybe epidote)
- I see some quartz monzonite

Pictures 571 Grano-diorite & hornblende & quartz monzonite & epidote

17T 0499836            Elevation = 425m  
5198067

- Map 2212 indicates 3 & 1a Massive mafic metavolcanics, amphibolites, amphibolitic schist ARCHEAN Metavolcanics and Metasediments
- Map 2212 indicates 3b Porphyritic quartz monzonite in area
- I see diorite and grano-diorite (Amphibole)

Pictures 572 Diorite

17T 0499830            Elevation = 426m  
5197954

- Map 2212 indicates 3 & 1a Massive mafic metavolcanics, amphibolites, amphibolitic schist ARCHEAN Metavolcanics and Metasediments
- Map 2212 indicates 3b Porphyritic quartz monzonite in area
- I see grano-diorite (Amphibole)
- I see yellow epidote
- I see a large white quartz intrusion
- I see some mafic metavolcanics
- There is a bit of rust
- Nearby is a white quartz vein

Pictures 573 Diorite & quartz & epidote & mafic metavolcanics

17T 0499847            Elevation = 425m  
5197942

- Map 2212 indicates 3 & 1a Massive mafic metavolcanics, amphibolites, amphibolitic schist ARCHEAN Metavolcanics and Metasediments
  - Map 2212 indicates 3b Porphyritic quartz monzonite in area
  - I see diorite and grano-diorite (Amphibole)
  - I see some rust
  - Nearby is some mafic metavolcanics
- Pictures 574 Diorite & mafic metavolcanics

17T 0499842            Elevation = 425m  
5197935

- Map 2212 indicates 3 & 1a Massive mafic metavolcanics, amphibolites, amphibolitic schist ARCHEAN Metavolcanics and Metasediments
  - I see grano-diorite (Amphibole)
- Pictures 575 grano-diorite

17T 0499892            Elevation = 423m  
5197886

- Map 2212 indicates 3 & 1a Massive mafic metavolcanics, amphibolites, amphibolitic schist ARCHEAN Metavolcanics and Metasediments
  - I see a white quartz surface
  - A fresh break shows a red, rusty quartz (Some hematite in it)
  - I see minerals in the quartz and hematite
  - Nearby I see grano-diorite (Amphibole)
- Pictures 576 grano-diorite & hematite & minerals

17T 0499929            Elevation = 425m  
5197851

- Map 2212 indicates 3 & 1a Massive mafic metavolcanics, amphibolites, amphibolitic schist ARCHEAN Metavolcanics and Metasediments
  - I see a small white quartz vein
  - The surface rock look dark grey (Like a hornblende)
  - Nearby is grano-diorite (amphibole)with epidote
  - Nearby is some yellow grano-diorite
  - Nearby is some pink feldspar
- Pictures 577 Quartz & grano-diorite & epidote & feldspar

17T 0499933            Elevation = 424m  
5197841

- Map 2212 indicates 3 & 1a Massive mafic metavolcanics, amphibolites, amphibolitic schist ARCHEAN Metavolcanics and Metasediments
  - I see diorite with some rust and spots of pink feldspar (Mafic metavolcanics)
  - Nearby is some grano-diorite (amphibole)
- Pictures 578 diorite & rust & feldspar & mafic metavolcanics

17T 0500104            Elevation = 419m  
5197469

- Map 2212 indicates 9 Undifferentiated & 9c Finely bedded argillite in area
  - I see the surface of the bedrock looks like a diorite (Black and white)(Diorite like)
  - A fresh break shows a dark blue and white with small amount of black grains (feldspathic greywacke like)
- Pictures 579 Greywacke

17T 0500095      Elevation = 419m

5197430

- Map 2212 indicates 9 Undifferentiated & 9c Finely bedded argillite in area
  - I see what looks like feldspathic greywacke
- Pictures 580 Greywacke

17T 0500093      Elevation = 420m

5197412

- Map 2212 indicates 9 Undifferentiated & 9c Finely bedded argillite in area
  - I see black fine grain bedrock
  - Looks like argillite
  - The bedrock is smooth on one side of the fracture and the other side looks like a river bed with different elongated shapes
- Pictures 581 Argillite & elongated shapes

17T 0500107      Elevation = 420m

5197378

- Map 2212 indicates 9 Undifferentiated & Breccia in the area
  - This area is on the shores of a small lake
  - I see a conglomerate in a dark grey bedrock
  - The fragments are small and medium in size
  - The fragments are polymictic with one fragment that has large white quartz crystals and others like diorite or granite or just grey
  - More small fragments than medium fragments
- Pictures 582 Conglomerate

17T 0500125      Elevation = 419m

5197373

- Map 2212 indicates 9 Undifferentiated & Breccia in the area
  - I see a white quartz vein in a fine grain bedrock
  - The white quartz vein gets large in some places
  - I see a conglomerate with small and medium fragments
  - The fragments are rounded and have large white orthoclase crystals and large black crystals
  - Nearby I see a mega conglomerate with a bit of quartz on top (Quartz sill)
- Pictures 583 Quartz & sill & mega conglomerate

17T 0500172      Elevation = 419m

5197345

- Map 2212 indicates 9 Undifferentiated & Breccia in the area
  - I see a conglomerate with small and medium fragments
  - The fragments are rounded and a mostly white in colour
  - I see a white quartz vein
  - Nearby I see some alteration (Several fractures)
- Pictures 584 conglomerate & quartz

17T 0500173      Elevation = 419m

5197319

- Map 2212 indicates 9 Undifferentiated & Breccia in the area
- I see few white quartz veins
- The fragments are the same as the host bedrock
- I see some rounded fragments with elongated tails
- Nearby I see some cool shapes in the rock (Flow around boulders and stuff)
- Looks like it could be a diorite intrusion

- 
- I see what looks like white pseudotachylite  
Pictures 585 White Pseudotachylite & cool conglomerate & quartz

17T 0500176          Elevation = 418m  
5197329

- Map 2212 indicates 9 Undifferentiated & Breccia in the area
- I see pseudotachylite with some large, rounded and elongated fragments
- The fragments are mostly the same as the host bedrock but I also see some quartz monzonite fragments  
Pictures 586 pseudotachylite

17T 0500188          Elevation = 420m  
5197329

- Map 2212 indicates 9 Undifferentiated & Breccia in the area
- I see feldspathic greywacke  
Pictures 587 Greywacke

17T 0500120          Elevation = 417m  
5197365

- Map 2212 indicates 9 Undifferentiated & Breccia in the area
- This area is in the water
- I see a conglomerate with large and medium rounded boulders in the bedrock
- The water is clear. No visible signs of minerals leaching in water.  
Pictures 588 Conglomerate & clear water

17T 0509675          Elevation = 356m  
5199198

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
- I see a pink/red potassium feldspar and white quartz pegmatite like
- Nearby I see pink/red potassium feldspar with a white quartz vein in it
- Nearby looks like finely bedded argillite
- Nearby is some solid pink/red potassium feldspar  
Pictures 589 Potassium feldspar & quartz & Argillite

17T 0509679          Elevation = 357m  
5199209

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
- I see pink granite
- I see a few white quartz veins
- There is also some dark, smooth sedimentary bedrock on the edge of the granite
- The dark sediments also fill the cracks in the granite  
Pictures 590 Granite & Quartz & Alteration

17T 0509711          Elevation = 358m  
5199187

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
- I see what looks like white plagioclase feldspar crystals
- The fragments are angular and small
- This could part of the Fraleck porphyry

## Pictures 591 Porphyry

17T 0509727      Elevation = 358m  
5199193

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see what looks like medium size white fragments
  - The surrounding matrix seems to be porphyry
  - Looks like porphyritic quartz monzonite
- Pictures 592 Porphyry

17T 0509746      Elevation = 358m  
5199197

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a large white quartz vein
  - The host rock looks like a pink granite
- Pictures 593 Quartz & granite

17T 0500841      Elevation = 430m  
5198503

- Map 2212 indicates 9 Undifferentiated HURONIAN COBALT GROUP (Gowganda Formation)
  - Map 2212 also indicated Breccia in the area
  - I see some Undifferentiated
  - I see a bit of rust
  - Nearby looks like feldspathic greywacke
- Pictures 594 Undifferentiated

17T 0500762      Elevation = 432m  
5198512

- Map 2212 indicates 9 Undifferentiated HURONIAN COBALT GROUP (Gowganda Formation)
  - Map 2212 also indicated Breccia in the area
  - I see what looks like feldspathic greywacke
  - Nearby are some small pillow lava like structures
  - At the bottom of this structure is a small white quartz vein with what looks like two stringers of green chlorite
  - A fresh break shows a Gabbro with fine grain dark blue matrix with larger white plagioclase feldspar crystals. Could be olivine diabase
- Pictures 595 Greywacke & Pillow lava & Gabbro & maybe Olivine diabase

17T 0500699      Elevation = 428m  
5198546

- Map 2212 indicates 9 Undifferentiated HURONIAN COBALT GROUP (Gowganda Formation)
  - Map 2212 also indicated Breccia in the area
  - I see Porphyritic quartz monzonite
  - Some of the feldspar crystals are large and square. (About 10 mm)
  - Nearby there is a large rusted rock face
- Pictures 596 Porphyry & rusted rock face

17T 0500662      Elevation = 429m  
5198518

- Map 2212 indicates 9 Undifferentiated HURONIAN COBALT GROUP (Gowganda Formation)
- I see what looks like feldspathic greywacke



## Pictures 597 Greywacke

17T 0500656      Elevation = 420m  
5198492

- Map 2212 indicates 9 Undifferentiated HURONIAN COBALT GROUP (Gowganda Formation)
- This area is beside a small lake
- The area is covered by large angular boulders
- I see what looks like feldspathic greywacke
- The surface of the greywacke is really dark here (Almost black)

Pictures 598 Greywacke

17T 0500768      Elevation = 429m  
5198471

- Map 2212 indicates 9 Undifferentiated HURONIAN COBALT GROUP (Gowganda Formation)
- Map 2212 also indicated Breccia in the area
- I see what looks like finely bedded argillite (You can see the individual layers)
- Here again the surface is really dark (Black)
- Nearby a fresh cut shows a light pink / white colour with some small black grains (Granite like)

Pictures 599 Argillite & granite

17T 0500793      Elevation = 432m  
5198424

- Map 2212 indicates 9 Undifferentiated HURONIAN COBALT GROUP (Gowganda Formation)
- Map 2212 also indicated Breccia in the area
- I see a white quartz vein
- The bedrock was hard to see without cleaning (Didn't have the excavation tools with us)
- We just pulled the organic matter by hand
- I see what looks like finely bedded argillite
- Nearby a fresh cut shows a brownish colour quartz / feldspar bedrock

Pictures 600 Argillite & quartz

17T 0500783      Elevation = 433m  
5198406

- Map 2212 indicates 9 Undifferentiated HURONIAN COBALT GROUP (Gowganda Formation)
- Map 2212 also indicated Breccia in the area
- I see what looks like a feldspathic greywacke

Pictures 601 Greywacke

17T 0500844      Elevation = 433m  
5198348

- Map 2212 indicates 9 Undifferentiated HURONIAN COBALT GROUP (Gowganda Formation)
- I see what looks like a feldspathic greywacke and a few lines of Undifferentiated

Pictures 602 Greywacke & Undifferentiated

17T 0500881      Elevation = 430m  
5198470

- Map 2212 indicates 9 Undifferentiated HURONIAN COBALT GROUP (Gowganda Formation)
- I see a conglomerate
- The fragment is rounded and white in colour (Large grain)

Pictures 603 Conglomerate

17T 0498203      Elevation = 435m  
5199642

- Map 2212 indicates 9d Massive feldspathic greywacke
  - Had to walk in because too hard to get in with Argo
  - I see Massive feldspathic greywacke
- Pictures 604 Greywacke

17T 0502415            Elevation = 413m  
5198721

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a hornblende contact with a conglomerate
  - I see pseudotachylite
  - Nearby the hornblende has large white quartz / feldspar veins and stringers
  - The matrix of the conglomerate is a fine grain light grey in colour
  - The fragments are small to medium in size
  - The larger fragments are diorite and the smaller one just look white
- Pictures 605 Hornblende & stringers & Pseudotachylite & contact

17T 0502400            Elevation = 416m  
5198740

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a conglomerate and maybe some pseudotachylite
  - The fragments are small, medium and large in size
  - The fragments look like they are quartz monzonite and diorite
  - I see what looks like elongated holes in the conglomerate was filled in by a black, fine grain sediment
- Pictures 606 Pseudotachylite and black sediments elongated shapes & Conglomerate

17T 0502394            Elevation = 416m  
5198754

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see Pseudotachylite
  - The fragments are small, medium and large in size
  - The fragments look like they are quartz monzonite and diorite
  - I see what looks like elongated, angular and rounded fragments
  - Nearby the matrix changes to a white quartzite instead of dark quartzite
- Pictures 607 Pseudotachylite & Quartzite

17T 0502386            Elevation = 414m  
5198768

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see the end of the conglomerate
  - There is only a few fragments
  - The fragments look like they are quartz monzonite and diorite
  - The fragments are rounded and one is really black and rusted
- Pictures 608 Conglomerates & rust

17T 0502391            Elevation = 414m  
5198772

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a hornblende
  - I see pink and white stringers
- Pictures 609 Hornblende & stringers

17T 0502381 Elevation = 416m

5198794

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a hornblende with some small stringers
  - The bedrock is dark
  - Nearby is the bedrock is dark with lots of stringers and large white biotite schist
  - I see a bit of rust
- Pictures 610 Hornblende & stringers

17T 0502383 Elevation = 413m

5198811

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a hornblende with some small stringers
  - The bedrock is dark grey whit a bit of white quartz
- Pictures 611 Hornblende & stringers

17T 0502407 Elevation = 413m

5198842

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see what looks like quartz monzonite with a rusted mineral ball
  - I see a bit of epidote
  - Nearby the quartz monzonite is broken up into large fragments and has sedimentary rock between the fragments
- Pictures 612 Quartz monzonite & conglomerate & mineral ball & epidote

17T 0502371 Elevation = 412m

5198869

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a hornblende with large white biotite schist intrusion
  - I see a rusted stringer
- Pictures 613 Hornblende & rusted stringer

17T 0502323 Elevation = 405m

5198971

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a hornblende with large white biotite schist
  - I see an altered / sheer zone
- Pictures 614 Hornblende & sheer zone

17T 0502366 Elevation = 401m

5199097

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a mega conglomerate
  - The fragments are small & medium in size
  - The fragments are quartz monzonite
- Pictures 615 mega conglomerate

17T 0502399 Elevation = 400m

5199109

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a mega conglomerate
- The fragments are mostly small in size
- The fragments are mostly quartz monzonite

Pictures 616 mega conglomerate

17T 0501996      Elevation = 417m  
5198872

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- I see some rust

Pictures 617 Hornblende & rust

17T 0501988      Elevation = 419m  
5198857

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- The total outcrop was small < 1m x 1m
- We cleaned the Sample area < 1m x 1m
- This area had already been excavated by the Lumber company Gervais in order to put in a road
- Took sample 25 parallel to the small stringer
- We cut further to see if what the stringer did
- The stringer had a slight dip and varied in size
- There was visible mineralization on the surface and in the stringer
- Sample 25 included the stringer and some host rock from both side
- Sample 25 had some metallic mineralization

Pictures 618 Hornblende & Sample 25 & Excavated

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.016	885	142	729

17T 0502058      Elevation = 423m  
5198896

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a coarse grain bedrock
- I see some quartz and feldspar (dark blue, a white and orange coloured)
- The white grains are larger
- Looks like an intrusive granite

Pictures 619 Granite

17T 0502055      Elevation = 414m  
5198900

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a quartz-feldspar (hornblende) biotite schist
- I see a large quartz – feldspar vein
- I see a few white stringers

Pictures 620 Hornblende & stringers & quartz

17T 0501986      Elevation = 410m  
5198853

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a quartz-feldspar (hornblende) biotite schist
- I see a large quartz – feldspar vein
- I see a few white stringers
- We excavated 3m x 3m
- The overburden varied from none to about 30 cm

- This area had already been excavated by the Lumber company Gervais in order to put in a road
  - Can't find GPS picture
- Pictures 621 Hornblende & stringers & Excavated

17T 0509804            Elevation = 326m  
5199184

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a porphyry
  - I see large, white feldspar crystals
  - Some crystals are square, octagon or rounded
  - The surface of the porphyry matrix is dark grey
  - I see a few fractures
  - I see one small white vein with yellow epidote on each side (Contact alteration)
  - I see a contact zone right beside
  - The other bedrock is oxidized white and looks sedimentary in nature
  - I see lots of alteration in the contact sedimentary bedrock
- Pictures 622 Porphyry & epidote & contact

17T 0509803            Elevation = 333m  
5199162

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see what looks like quartz monzonite
  - There is some fracturing into large rectangles
  - I few fresh break shows quartz monzonite on top and what looks light a bleu massive feldspathic greywacke
- Pictures 623 Quartz Monzonite & greywacke

17T 0509782            Elevation = 340m  
5199147

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a light blue feldspathic greywacke
  - I see a bit of rust in the greywacke
  - Nearby I see the dark porphyry again
  - The crystals are white, large and square
- Pictures 624 Greywacke & porphyry

17T 0509775            Elevation = 342m                            Pictures 625  
5199154

17T 0509777            Elevation = 351m                            Pictures 625  
5199148

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
- We excavated < 1m x 1m
- We excavated because we saw some light green colour in the quartz but it turned out to be bacterial growth
- We excavated the second location < 0.5m x 0.5m
- It was also bacterial growth and the same bedrock
- I think it is quartz monzonite

- I see a bit of rust  
Pictures 625 Quartz monzonite & rust & Excavated x 2

17T 0509727            Elevation = 348m  
5199190

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
- I see porphyritic quartz monzonite
- Some of the feldspar crystals are large and square (about 10mm)
- Nearby I see more porphyry with really large feldspar crystals  
Pictures 626 Porphyry & Large crystals

17T 0509694            Elevation = 350m  
5199178

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
- Map 2212 also indicates 2 Undifferentiated felsic metavolcanics nearby on the other side of river
- I see metavolcanics and some metasedimentary origin
- I see several large white quartz dikes  
Pictures 627 Metavolcanics & metasedimentary & Quartz

17T 0501992            Elevation = 420m  
5198861

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende with quartz and stringers
- The stringer showed mineralization when the top was broken off
- The mineralization was metallic
- Broke a few samples with a hammer to examine at camp  
Pictures 628 hornblende & stringers & minerals in quartz

17T 0501961            Elevation = 420m  
5198888

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see minerals in the quartz stringer
- The mineralization is metallic and silver and gold in colour
- I see a bit of rust
- The host rock is a diorite / amphibole
- There is diorite about 85 m South – East of this location but hornblende all around  
Pictures 629 Diorite & Minerals in quartz

17T 0501856            Elevation = 420m  
5198912

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende with a white quartz vein and a pink dike
- The white quartz vein and the hornblende are cut by a pink felsic dike  
Pictures 630 Hornblende & quartz & Pink dike

17T 0501772            Elevation = 419m  
5198944

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see an altered hornblende with some white stringers that altered the contact bedrock to form some yellow epidote

Pictures 631 Hornblende & stringers & epidote

17T 0501802      Elevation = 415m  
5199074

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a conglomerate
- I see one large, rounded, fine grain, black fragment
- I see several small, rounded, white quartz

Pictures 632 Conglomerate

17T 0501801      Elevation = 416m  
5199064

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a mega conglomerate
- I see medium and small, rounded fragment
- The fragments are white quartz monzonite and diorite
- The outcrop is small

Pictures 633 Mega conglomerate

17T 0501808      Elevation = 425m  
5199229

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende with lots of white stringers

Pictures 634 Hornblende & stringers

17T 0501830      Elevation = 432m  
5199293

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende with lots of white stringers

Pictures 635 Hornblende & stringers

17T 0501856      Elevation = 434m  
5199318

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende with lots of white stringers
- I see a bit of rust in some of the stringers

Pictures 636 Hornblende & stringers & rust

17T 0501888      Elevation = 434m  
5199378

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende with lots of white stringers
- I see a bit of rust in some of the stringers

Pictures 637 Hornblende & stringers & rust

17T 0501914      Elevation = 435m  
5199367

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende with lots of white stringers and some epidote
- I see some rust in the stringers

Pictures 638 Hornblende & stringers & rust

17T 0502106      Elevation = 426m

5198775

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a dark grey bedrock with lots of small elongated crystals (Gabbro like)
  - Must be intrusive in nature
  - I see some rust on the surface of the bedrock
- Pictures 639 Gabbro & rust

17T 0502103            Elevation = 421m

5198756

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a diorite
  - Lots of surface rust
  - I see some soft, fine grain, black rock
  - I was able to cut it with a knife
  - A nearby analysis showed high in ZN – Pb - Sr
- Pictures 640 Dark soft cut by knife

Cu (ppm)	Zn (ppm)	Pb (ppm)	Sr (ppm)
196	1630	463	504

17T 0507685            Elevation = 399m

5199817

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a diorite
  - I see a white / pink quartz – feldspar dike
  - I see a few stringers
  - I see a few large white / pink veins
  - Nearby the large dyke goes from 1.5 ft to 20 ft wide
  - Too much overburden to see if this is a contact zone
- Pictures 641 Diorite & dike & contact

17T 0507873            Elevation = 395m

5199646

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a pegmatite intrusions in pink granite
  - The pegmatites are large
  - The colours are red, orange white
  - There are a few cracks that cut the pegmatites (about 60°)
- Pictures 642 Granite & Pegmatite

17T 0501988            Elevation = 409m

5198857

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- The bedrock is quartz – feldspar (hornblende)
- We took samples 27 – 28 from this site (No camera, see pictures 652)

17T 0504057            Elevation = 418m

5198693

- Map 2212 indicates 9d Massive feldspathic greywacke HURONIAN Cobalt Group (Gowganda Formation)



- I See a conglomerate
  - The fragments are small and medium in size
  - The fragments are pink granite
- Pictures 643 Conglomerate

17T 0504052            Elevation = 385m  
5198696

- Map 2212 indicates 9d Massive feldspathic greywacke HURONIAN Cobalt Group (Gowganda Formation)
  - I See a conglomerate
  - The fragments are small and medium in size
  - The fragments are pink granite
- Pictures 644 Conglomerate

17T 0504057            Elevation = 389m  
5198649

- Map 2212 indicates 9d Massive feldspathic greywacke HURONIAN Cobalt Group (Gowganda Formation)
  - We excavated about 0.3m x 0.3m (Not much overburden)
  - I See some white quartz
  - Thr host rock look like feldspathic greywacke
- Pictures 645 Greywacke & quartz

17T 0504046            Elevation = 388m  
5198656

- Map 2212 indicates 9d Massive feldspathic greywacke HURONIAN Cobalt Group (Gowganda Formation)
  - I see some schist
  - I see a large white quartz
  - There appears to be some pink granite conglomerates
  - There appears to be some kind of gneiss looking bedrock. There are bands of potassium feldspar
- Pictures 646 Schist & gneiss & conglomerate & quartz

17T 0504019            Elevation = 387m  
5198668

- Map 2212 indicates 9d Massive feldspathic greywacke HURONIAN Cobalt Group (Gowganda Formation)
  - I see small white quartz
  - I see what looks like a feldspathic greywacke
- Pictures 647 Greywacke & quartz

17T 0504052            Elevation = 389m  
5198701

- Map 2212 indicates 9d Massive feldspathic greywacke HURONIAN Cobalt Group (Gowganda Formation)
  - I see a conglomerate
  - The fragments are rounded and medium in size
  - The fragments look like quartz monzonite
- Pictures 648 Conglomerate

17T 0504029            Elevation = 387m  
5198708

- Map 2212 indicates 9d Massive feldspathic greywacke HURONIAN Cobalt Group (Gowganda Formation)
- I see a dark grey vein
- The bedrock looks like feldspathic greywacke  
Pictures 649 Greywacke & Grey vein

17T 0502191            Elevation = 409m  
5198721

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a diorite with a small, white, rusted quartz vein  
Pictures 650 Diorite & small rusted vein

17T 0502183            Elevation = 409m  
5198722

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a diorite with a small, white, rusted quartz veins & stringers  
Pictures 651 Diorite & rusted vein & stringers

17T 0501988            Elevation = 408m  
5198858

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see hornblende with mineralized white stringers
- The bedrock is quartz – feldspar (hornblende)
- We took sample 27 from this site on 03-09-2017

17T 0501987            Elevation = 408m  
5198857

- The bedrock is quartz – feldspar (hornblende)
- I see hornblende with mineralized white stringers
- We took sample 28 from this site on 03-09-2017  
Pictures 652 Hornblende & Samples 27 – 28



Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.006	328	61	215

Sample 27

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.004	333	93	131

Sample 28

17T 0501872            Elevation = 415m  
5198896

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende  
Pictures 653 Hornblende

17T 0498085            Elevation = 460m  
5199934

- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)
- I see undifferentiated
- I see schisting of the dark and light lines
- I see medium size, white feldspathic boulders or fragments in undifferentiated  
Pictures 654 Undifferentiated & Conglomerate

17T 0497981            Elevation = 450m  
5199983  
- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)  
- I see undifferentiated  
- The undifferentiated is discrete here, more alteration  
Pictures 655 Undifferentiated

17T 0497952            Elevation = 451m  
5199995  
- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)  
- I see undifferentiated  
Pictures 656 Undifferentiated

17T 0497940            Elevation = 449m  
5200018  
- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)  
- I see undifferentiated  
- I see lots of small, pink feldspathic or white quartz veins  
Pictures 657 Undifferentiated & Quartz & feldspar

17T 0497929            Elevation = 450m  
5200028  
- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)  
- I see undifferentiated  
- I see schist and shifting of the dark and light lines  
- I see lots of small, pink feldspathic or white quartz veins  
Pictures 658 Undifferentiated & alteration

17T 0497905            Elevation = 449m  
5200001  
- Map 2212 shows 9d Massive feldspathic greywacke (HURONIAN Gowganda formation)  
- I see undifferentiated  
- Nearby the undifferentiated turns into a greywacke  
Pictures 659 Undifferentiated

17T 0502756            Elevation = 398m  
5197850  
- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)  
- Map 2212 also indicates a fault line South and East of this location  
- I see a mega conglomerate with lots of small and some medium fragments  
- Some fragments are angular but most are rounded  
- There is some precipitate around some of the boulders or fractures  
Pictures 660 Mega conglomerate & precipitate

17T 0502771            Elevation = 404m  
5197853  
- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)  
- Map 2212 also indicates a fault line South and East of this location  
- I see a feldspathic greywacke  
Pictures 661 Greywacke

17T 0502772          Elevation = 406m  
5197866

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - Map 2212 also indicates a fault line South and East of this location
  - I see a mega polymictic conglomerate with lots of small and some medium fragments
  - The fragments are rounded
- Pictures 662 Mega conglomerate

17T 0502788          Elevation = 409m  
5197891

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - Map 2212 also indicates a fault line South and East of this location
  - I see a what looks like a quartz - feldspar intrusion in greywacke
- Pictures 663 greywacke & quartz intrusion

17T 0502777          Elevation = 406m  
5197934

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - Map 2212 also indicates a fault line South and East of this location
  - I see a highly fractured pink quartz - feldspar granite
  - Nearby is a greywacke
- Pictures 664 Pink granite

17T 0502744          Elevation = 403m  
5197943

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - Map 2212 also indicates a fault line South and East of this location
  - I see large square pink feldspar crystals (looks like porphyry but I think it's quartz monzonite)
  - I see a little white quartz intrusion
- Pictures 665 Quartz & quartz monzonite

17T 0502749          Elevation = 404m  
5197955

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - Map 2212 also indicates a fault line South and East of this location
  - I see a pink feldspathic granite
- Pictures 666 Granite

17T 0502666          Elevation = 396m  
5197935

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a pink granite contact a dark sedimentary bedrock
  - The dark sedimentary bedrock is highly fractured and has some stringers. Could be hornblende.
- Pictures 667 Hornblende contact with pink granite & stringers

17T 0502673          Elevation = 397m

5197884

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see I see a pink granite with a white quartz vein
  - The pink quartz is highly rusted in one area (Run-off from gravel) the rest of the granite is not rusted
- Pictures 668 Granite & quartz & rust

17T 0502664            Elevation = 398m  
5197963

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a few small quartz veins in pink granite
- Pictures 669 Granite & quartz

17T 0502656            Elevation = 405m  
5198117

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a few small quartz veins in quartz monzonite
- Pictures 670 Quartz monzonite & quartz

17T 0502694            Elevation = 402m  
5198193

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a bit of white quartz in pink granite
  - I see a bit of rust in the white quartz
- Pictures 671 Granite & quartz & rust

17T 0502679            Elevation = 402m  
5198227

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see pink / orange granite
  - The surface is flaky and fractured
- Pictures 672 Granite

17T 0502654            Elevation = 403m  
5198351

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see pink granite
  - Nearby I see a few white quartz veins and small black stringers
- Pictures 673 Granite & black stringers & quartz

17T 0502650            Elevation = 402m  
5198388

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see pink granite
  - The granite is flaky some places
- Pictures 674 Granite

17T 0502755            Elevation = 387m

5197663

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman) North and West of this location
  - Map 2212 also indicates a fault line South in this location
  - Map 2212 also indicates 9b Bedded arkose, feldspathic greywacke HURONIAN Gowganda Formation South and East of this area
  - I see a feldspathic greywacke with some white square or rectangle feldspar crystals
  - I see some quartz (Need to investigate more)
- Pictures 675 Greywacke & quartz

17T 0502739            Elevation = 389m

5197667

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman) North and West of this location
  - Map 2212 also indicates a fault line South in this location
  - Map 2212 also indicates 9b Bedded arkose, feldspathic greywacke HURONIAN Gowganda Formation South and East of this area
  - I see a feldspathic greywacke with some small white feldspar crystals
- Pictures 676 Greywacke

17T 0501811            Elevation = 441m

5199377

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a white quartz monzonite with some rust in cracks
- Pictures 677 Quartz monzonite & rust

17T 0501825            Elevation = 442m

5199388

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a dark hornblende with lots of alteration
  - I see some veining and stringers
  - I see a bit of epidote
  - A fresh break shows a dark quartz-feldspar (hornblende) with a pink quartz feldspar stringer
- Pictures 678 Hornblende & quartz & stringers & epidote

17T 0496353            Elevation = 407m

5200325

- Map 2212 indicates 9a Polymictic conglomerates and 9d Massive feldspathic greywacke HURONIAN Gowganda Formation
  - I see a lot of white precipitate
  - Looks like quartz monzonite (Lots of bacterial growth on surface)
  - This area is a large rock face
- Pictures 679 Quartz monzonite

17T 0496344            Elevation = 407m

5200336

- Map 2212 indicates 9a Polymictic conglomerates and 9d Massive feldspathic greywacke HURONIAN Gowganda Formation
- I see what looks like finely bedded argillite (Mud stone)
- The argillite is flaky and on the bottom of the rock face

- The top and nearby looks more like quartz monzonite  
Pictures 680 Flaky argillite & quartz monzonite

17T 0496334          Elevation = 404m  
5200350

- Map 2212 indicates 9a Polymictic conglomerates and 9d Massive feldspathic greywacke HURONIAN Gowganda Formation
- I see a very dark surface (I think it's bacterial growth)
- I see white lines that maybe the result of a backhoe scrapping
- I see stringers  
Pictures 681 quartz monzonite & stringers

17T 0495963          Elevation = 412m  
5200713

- Map 2212 indicates to the East is 9a Polymictic conglomerates and 9d Massive feldspathic greywacke HURONIAN Gowganda Formation and to the West is 3a Quartz monzonite, granite, grano-diorite, pegmatite
- I see a diorite and grano-diorite with some rust on it
- I see a large rust spot  
Pictures 682 Gabbro & rust

17T 0503710          Elevation = 420m  
5198542

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke and 9c Finely bedded argillite HURONIAN Gowganda Formation in the area
- Map 2212 also indicates 11 Quartz diabase to the West of this location. We are almost on the contact between the two bedrocks.
- Map 2212 also indicates 12 Olivine diabase just north of this location.
- I see what looks like feldspathic greywacke with some metallic mineralization
- Took a few samples home to examine at camp
- These samples were broken off the large rock face  
Pictures 684 Greywacke & mineralization

17T 0503732          Elevation = 415m  
5198535

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke and 9c Finely bedded argillite HURONIAN Gowganda Formation in the area
- Map 2212 also indicates 11 Quartz diabase to the West of this location. We are almost on the contact between the two bedrocks.
- Map 2212 also indicates 12 Olivine diabase just north of this location.
- This is the area between the two access roads
- I see large white quartz veins. The veins are fractured and cross cut (numerous events)
- The host bedrock appears to be finely bedded argillite
- There are lots of fractured rock
- Looks like a Breccia  
Pictures 685 Breccia & Argillite & Lot of quartz

17T 0503567          Elevation = 398m  
5198349

- Map 2212 indicates 11 Quartz diabase (Nipissing type) PROTEROZOIC
- Map 2212 also indicates 9b Bedded arkose, feldspathic greywacke and 9c Finely bedded argillite HURONIAN Gowganda Formation East of this area

- Map 2212 also indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman) West of this location
  - I see some areas that look like white quartz with larger rectangle feldspar crystals (Pink)
  - I do see lots of pink with the quartz
  - It looks like a pink granite with lots of fractures
  - I also see a pink fine grain quartz – feldspar with pure white pebbles and smaller fragments (Diabase like)
  - Did not get a favorable response on this site with the metal detector
  - This area needs to be panned for gold
- Pictures 686 Quartz diabase (Nipissing type)

17T 0503560            Elevation = 397m  
5198342

- Map 2212 indicates 11 Quartz diabase (Nipissing type) PROTEROZOIC
  - Map 2212 also indicates 9b Bedded arkose, feldspathic greywacke and 9c Finely bedded argillite HURONIAN Gowganda Formation East of this area
  - Map 2212 also indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman) West of this location
  - I see It looks like a pink granite with lots of fractures
  - Did not get a favorable response on this site with the metal detector
  - I see a white quartz vein
- Pictures 687 Quartz diabase (Nipissing type) & quartz

17T 0498193            Elevation = 454m  
5203082

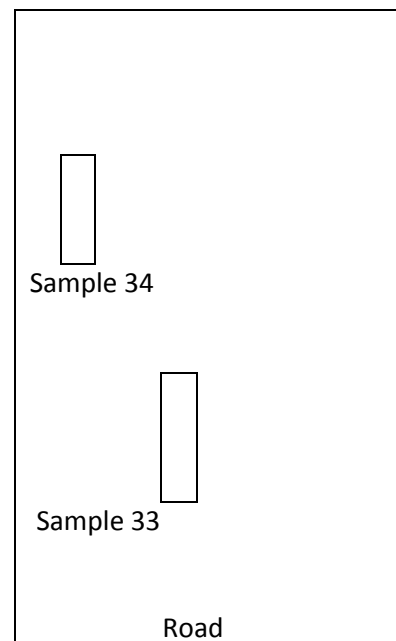
- Sample 33
- I see a conglomerate
- The fragments are small and medium in size
- The metal detector detected high background mineralization

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	130	54	51.1

17T 0498185            Elevation = 455m  
5203076

- Sample 34
- I see a conglomerate
- The fragments are small and medium in size
- The large fragment looks like pink granite
- The metal detector detected high background mineralization
- Part of the fragment was taken in the sample
- Pictures 688 Conglomerate & Samples 33 – 34

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	23	96	33



17T 0498118            Elevation = 454m  
5202015

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
- I see the same kind of banded gneiss as across the street
- A fresh break reveals a Dark blue, fine grain bedrock
- Oxidizes to a yellow dust that covers the rock.



- Some mineralization in dark blue boulders.
  - Rock fractures in slices. (Same as banded gneiss area)
  - I see disseminated, rusty pyrite
- Pictures 689 Banded gneiss & Pyrite & Sample 35

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	178	74	21.2

17T 0499925      Elevation = 426m  
5198290

- Map 2212 does not show this outcrop (Map 2212 indicates Porphyritic quartz monzonite)
  - I see a rusty boulder of Massive mafic metavolcanics
  - The boulder has rust on it
  - I see a fragment of diorite
  - I see epidote stringers
  - I see green diorite at the end of the boulder
  - The metal detector had a strong signal on some areas of the boulder
- Pictures 690 metavolcanic boulder & rust & Stringers & Epidote & Sample 32

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Sr (ppm)
0	98	78	54.1	1273

17T 0500033      Elevation = 423m  
5198135

- Map 2212 does not show this outcrop (Map 2212 indicates Porphyritic quartz monzonite)
  - I see a conglomerate
  - The fragments are small and white
  - I see few small stringers
  - I see a bit of mineralization (Rusted pyrite cubes)
  - The metal detector had a strong signal here
- Pictures 691 Conglomerate & stringers & sample 31

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Ti (%)
0	78	78	47.9	1.25

17T 0500033      Elevation = 421m  
5198136

- Map 2212 does not show this outcrop (Map 2212 indicates Porphyritic quartz monzonite)
  - I see a conglomerate
  - The fragments are small and white
  - I see some rust on the stringers
  - I see lots of mineralization. More than sample 31 right beside.
  - The mineralization is in the stringer (See sample 29 pictures)
  - The minerals are metallic silver and gold in colour
  - The mineral are fine grain
  - The metal detector had a strong signal here
  - Sample 29 intersects sample 31
- Pictures 692 Conglomerate & stringers & Sample 29

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Ti (%)

0	128	60	69.7	1.25
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17T 0500043 Elevation = 423m

5198132

- Map 2212 does not show this outcrop (Map 2212 indicates Porphyritic quartz monzonite)
- I see a red and white quartz stringer
- I see some disseminated mineralization
- The metal detector had a strong signal here

Pictures 693 Red and white quart stringers & Sample 30

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	74	50	48.5

17T 0502115 Elevation = 383m

5198762

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- The pictures don't show it but I know the area is either a gabbro or a diorite
- I see a few small stringers

Pictures 694 stringers & gabbro & sample 48

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	W (ppm)
0	234	61	27.9	49

17T 0501960 Elevation = 421m

5198884

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- Same area as Pictures 298
- I see I see quartz feldspar (hornblende)
- I see several quartz veins
- I see white stringers
- Nearby is some diorite
- We took sample 47 from here

Pictures 695 Hornblende & stringers & quartz & sample 47

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	109	29	27.7

17T 0502257 Elevation = 423m

5198716

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- This area is right beside pictures 301
- I see I see quartz feldspar (hornblende)
- Nearby I see tectonic lineation
- I see white stringers
- Sample 46 was taken from here

Pictures 696 Hornblende & tectonic lineation & sample 46

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)

0	72	96	38
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17T 0502417 Elevation = 412m

5198732

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a conglomerate
  - I see small, medium and large fragments of quartz monzonite
  - The fragments are rounded and angular
  - Nearby is porphyritic quartz monzonite (Could be a buried boulder)
  - Sample 45 was taken from here
  - We sampled the conglomerate matrix
- Pictures 697 Porphyry & Conglomerate & Sample 45

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	70	77	28.1

17T 0500740 Elevation = 427m

5197930

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see a Quartz-feldspar (hornblende)
  - I see some rust
  - I see some white quartz
  - I see a large quartz vein
- Pictures 698 hornblende & quartz

17T 0500770 Elevation = 427m

5197953

- Map 2212 shows 3b Porphyritic quartz monzonite ARCHEAN granitic rocks (Algoman)
  - I see gabbro with small white fragments or crystals
  - Can't tell is it a breccia or a porphyry
  - The gabbro is a mafic intrusive rock, the white fragments ?
  - Some of the fragments are round, some are square and others are irregular
  - The fragment size varies from very small to pebble size
  - I see a few small rusted stringers
- Pictures 699 Gabbro & rust & Breccia or porphyry

17T 0505220 Elevation = 370m

5199329

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a conglomerate
  - The fragments are medium and large in size
  - I see what looks like a feldspathic greywacke
- Pictures 700 Conglomerate

17T 0505200 Elevation = 366m

5199323

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see what looks like a feldspathic greywacke
- Pictures 701 Greywacke

17T 0504053 Elevation = 397m

5198674

- Map 2212 indicates 9d Massive feldspathic greywacke HURONIAN Cobalt Group (Gowganda Formation)
  - I see what looks like a feldspathic greywacke
  - The metal detector signal was strong here
  - We took sample 44 from here
- Pictures 702 Greywacke & sample 44

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	10	51	13.2

17T 0504043 Elevation = 399m

5198656

- Map 2212 indicates 9d Massive feldspathic greywacke HURONIAN Cobalt Group (Gowganda Formation)
  - I see some schist
  - I see a large white quartz
  - There appears to be some pink granite conglomerates
  - There appears to be some kind of gneiss looking bedrock. There are bands of potassium feldspar
  - See pictures 646
  - The metal detector signal was strong here
  - We took sample 42 from here
- Pictures 703 Conglomerate & gneiss & sample 42

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.008	113	60	11.1

17T 0503056 Elevation = 396m

5198563

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see quartz-feldspar hornblende
  - I see a few stringers
  - The metal detector signal was strong here
  - These 4 samples can from this area
  - These samples came from between pictures 228 and 229
- Pictures 704 Hornblende & Samples 39-40-41-43

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	10	34	35

Sample 39

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	30	34	28.8

Sample 40

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	93	33	25.9

Sample 41

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	38	32	30.8

Sample 43

17T 0501995 Elevation = 422m

5198871

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- I see some rust
- The metal detector signal was strong here
- This is beside pictures 617
- We took sample 36 from here

Pictures 705 Hornblende & rust & Sample 36

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Pb (ppm)
0.010	1241	102	138	283

17T 0501966 Elevation = 421m

5198891

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- I see some stringers
- We took sample 37-38 from here

Pictures 706 Hornblende & rust & Sample 37-38

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	28	12	29.7

Sample 37

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	79	24	23

Sample 38

17T 0501768 Elevation = 418m

5198914

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- I see rust and a few stringers
- A sample was broken off with a hammer
- The metal detector signal was strong here
- I see some metallic minerals in the sample

Pictures 707 Hornblende & rust & Sample 49

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	174	72	36.8

17T 0501765 Elevation = 419m

5198925

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- I see a few stringers
- The metal detector signal was strong here
- I see some metallic minerals in the sample

Pictures 708 Hornblende & Sample 50

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	375	134	65

17T 0501779 Elevation = 413m

5199071

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a conglomerate
  - The fragments are porphyritic quartz monzonite
  - The fragments are small and medium in size
  - Some fragments are round but most are angular
  - Nearby I see porphyritic quartz monzonite
- Pictures 709 Porphyry & Conglomerate

17T 0501781 Elevation = 418m

5198981

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I can't find pictures for this site or sample
- Guy Richards and Justin cut this sample when I was not there
- Sample 51 was taken from here

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	166	34	22.5

17T 0501872 Elevation = 416m

5198824

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see hornblende
  - I see a few stringers
  - The metal detector signal was strong here
  - Sample 52 was taken from here
- Pictures 710 Hornblende & stringers & Sample 52

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	111	98	41.8

17T 0501877 Elevation = 425m

5198793

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see hornblende
  - I see a few stringers
  - The metal detector signal was strong here
  - Sample 53 was taken from here
  - I see mineralization in the stringer we sampled
- Pictures 711 Hornblende & stringers & Sample 53

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.010	1770	135	59.3

17T 0501847 Elevation = 426m

5198758

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see hornblende
- I see a large rust spot with purple in it

- We had to sweep some overburden off but the outcrop is large due to past logging activity (Road building)
  - The rust spot had very dark discharge when cutting
  - I see some white and pink quartz
  - I see a large piece of sulfide that looks like ore (Wow)
  - I see a few stringers
  - The metal detector signal was strong here
  - Samples 64-65-66 were taken from here (See Pictures of samples)
- Pictures 712 Hornblende & stringers & Sample 64-65-66

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	As (ppm)
0.056	1198	169	588	22

Sample 64

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	As (ppm)
0.069	1385	158	513	17

Sample 65

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	As (ppm)
0.076	1921	176	602	21

Sample 66

17T 0501845      Elevation = 425m  
5198760

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I can't find pictures for this site or samples
- Guy Richards and Justin cut these samples when I was not there
- They cut sample 54 and 56

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.036	667	131	223

Sample 54

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.023	464	105	98.5

Sample 56

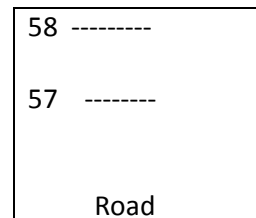
17T 0501837      Elevation = 422m  
5198753

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see hornblende
  - I see a few stringers
  - The metal detector signal was strong here
  - Sample 55 was taken from here
  - I see a bit of epidote in the sample
- Pictures 713 Hornblende & stringers & Epidote & Sample 55

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	18	92	28.3

17T 0500058      Elevation = 405m  
5198110

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see hornblende
  - I see a few stringers
  - The metal detector signal was strong here
  - Sample 57-58 was taken from here
- Pictures 714 Hornblende & stringers & Sample 57-58



Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.006	184	58	57.5

Sample 57

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.006	206	43	45.8

Sample 58

17T 0500064 Elevation = 409m

5198028

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see diorite
  - We excavated about 1m x 1m
  - The metal detector signal was strong here on the entire outcrop
- Pictures 715 Diorite

17T 0500062 Elevation = 413m

5198029

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - This is the same area as Pictures 715
  - I see diorite
  - We excavated about 1m x 1m extra
  - The metal detector signal was strong here on the entire outcrop
- Pictures 716 Diorite & Sample 59 - 60

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Ti (%)
0.006	200	50	54.6	1.26

Sample 59

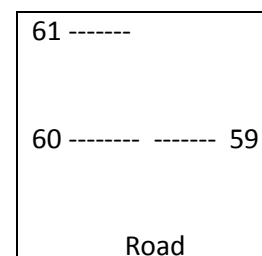
Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Ti (%)
0.012	372	57	81	1.39

Sample 60

17T 0500066 Elevation = 422m

5198029

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see diorite
  - This is the same area as Pictures 715 and 716
  - The metal detector signal was strong here on the entire outcrop
- Pictures 717 Diorite & Sample 61



Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Ti (%)
0.008	194	52	63.5	1.25



17T 0500059 Elevation = 422m

5198001

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a feldspathic greywacke
  - I see a few white stringers
  - The entire outcrop had high signal on the metal detector
- Pictures 718 Greywacke & Stringers

17T 0500060 Elevation = 419m

5198008

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a feldspathic greywacke
  - We took sample 62 from this location
- Pictures 719 Greywacke & Sample 62

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	93	15	17.4

17T 0501839 Elevation = 415m

5198759

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - Map 2212 also indicates that there is a fault line in the area
  - We excavated 2m x 2m
  - The sulfides were deposited in a dark, fine grain hornblende biotite schist
  - There is high mineralization (about 12 inches x 12 inches of massive pyrite)
  - There is a lot of rust
  - There is a white quartz vein exiting below the sulfides
  - There is also a pink quartz vein
  - This could be a shear zone
  - The metal detector did not sign but showed 4 bars
  - For more pictures see pictures 748 and 749
- Pictures 720 Biotite schist & high sulfide & Quartz & Excavation

17T 0504686 Elevation = 395m

5199256

- Map 2212 indicates 9 Undifferentiated HURONIAN Gowganda Formation
  - Map 2212 also indicates that a fault line runs just east of this location
  - I see an old river bed with lots of rounded boulders
  - I see some orange spots on some of the river boulders
  - I see some rust on the boulders
- Pictures 721 River bed boulders

17T 0510094 Elevation = 308m

5198778

- Map 2212 is blank in this area
- I see a dark fractured bedrock with white precipitate in the cracks
- The white precipitate did not fizz when I applied diluted sulfuric acid on it
- The outcrop looks like footwall breccia
- The original bedrock looked like a greywacke before it was altered
- The precipitate is a white / light green colour
- It looks like it was forced through the rock by a heat source (Porphyry)

Pictures 722 Footwall Breccia

17T 0497664      Elevation = 421m  
5200461

- Map 2212 indicates 9c Finely bedded argillite 9b Bedded arkose, feldspathic greywacke (HURONIAN Gowganda formation)
- I see a white / pink bedrock with lots of fracturing
- Some areas look like granite others like quartz monzonite
- Looks just like the quartz diabase (Nipissing type) found in the Gervais pit Pictures  
Pictures 723 Quartz diabase

17T 0497638      Elevation = 422m  
5200432

- Map 2212 indicates 9c Finely bedded argillite 9b Bedded arkose, feldspathic greywacke (HURONIAN Gowganda formation)
- Map 2212 also indicates a fault line in this area
- I see a white / pink bedrock with lots of fracturing
- Some areas look like granite others like quartz monzonite
- Looks just like the quartz diabase (Nipissing type) found in the Gervais pit Pictures
- The quartz diabase seems to contact a sedimentary greenish / grey finely bedded argillite
- The argillite has rust on a broken piece
- Nearby seem to be the largest fault system seem (Large rectangle quartz faults)
- Looks like steps (Different faulting events)  
Pictures 724 Quartz Diabase & contact & argillite & Large faults

17T 0497693      Elevation = 423m  
5200430

- Map 2212 indicates 9c Finely bedded argillite 9b Bedded arkose, feldspathic greywacke (HURONIAN Gowganda formation)
- Map 2212 also indicates a fault line in this area
- I see what looks like a greywacke with rust and orange/brown/purple staining  
Pictures 725 Greywacke

17T 0496811      Elevation = 409m  
5201067

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
- Map 2212 also indicate 11 Quartz diabase (Nipissing type) in the area
- I looks like we are on the contact zone between the two bedrock types
- I see a small white quartz vein
- I did not break open a fresh cut but it looks like a quartz diabase  
Pictures 726 Quartz & quartz diabase

17T 0496808      Elevation = 410m  
5201058

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
- Map 2212 also indicate 11 Quartz diabase (Nipissing type) in the area
- I see a contact between a greywacke and an orange quartz diabase
- I see a white quartz vein
- Pictures 727 Quartz & contact & greywacke & quartz diabase

17T 0496814 Elevation = 411m

5201060

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - Map 2212 also indicate 11 Quartz diabase (Nipissing type) in the area
  - Here we excavated 2m x 2m & washed
  - The bedrock is an orange rusty quartz
  - I see a lot of metallic mineralization cubes
  - The hand samples looked more mineralized then the cut samples
  - There are some small massive sulfides balls
  - The bedrock is fractured
  - I see the first two inches are orange then the bedrock turns into a greywacke
- Pictures 728 Excavated & mineralization & greywacke & orange quartz

17T 0496814 Elevation = 411m

5201060

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - Map 2212 also indicate 11 Quartz diabase (Nipissing type) in the area
  - I see an orange diabase with metallic Mineralization
  - The mineralization is cubic
  - I also see a white quartz vein
  - We took two cut samples and a few hand samples for review
  - The two cut samples were sent right away 67 – 68
  - Sample 179 was sent at the end of year
- Pictures 729 Orange diabase & Mineralization & Quartz & Samples 67-68-179

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Mo (ppm)
0.013	22	24	155	23

Sample 67

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Mo (ppm)
0.006	16	20	128	29

Sample 68

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Mo (ppm)
0.057	2080	17	25.1	2

Sample 179

17T 0496841 Elevation = 418m

5200992

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a feldspathic greywacke
- Pictures 730 Greywacke

17T 0497168 Elevation = 426m

5199621

- Map 2212 indicates 9a Polymictic Conglomerates and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a lot of rust spots in Undifferentiated bedrock
  - We took sample 69 from here
- Pictures 731 Undifferentiated & mineral balls & Sample 69

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	43	59	27.5

17T 0497156 Elevation = 429m

5199034

- Map 2212 indicates 9c Finely bedded argillite in the area HURONIAN Gowganda Formation
  - I see an undifferentiated bedrock with white quartz veins
  - The quartz vein we sampled was rusty
  - Quartz veins crossed each other indicating separate events
  - A picture of the sample shows how the sulfides were distributed in the greywacke
- Pictures 732 Greywacke & Quartz & Sample 70

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.073	2223	96	98.5

17T 0501889 Elevation = 433m

5198720

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - Map 2212 also indicates 9a Polymictic conglomerate 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a white quartz vein
  - I see orange looking bedrock (Need to strip and wash)
- Pictures 733 quartz

17T 0501871 Elevation = 441m

5198720

- Map 2212 indicates 9a Polymictic conglomerate 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a greywacke
- Pictures 734 Greywacke

17T 0501837 Elevation = 411m

5198776

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a hornblende
  - I see white stringers
  - The metal detector did not have a strong signal here
- Pictures 735 Hornblende & stringers

17T 0501842 Elevation = 414m

5198787

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a dark hornblende
  - I see a large rock face here
  - I see some rust and white precipitate
  - The metal detector did not have a strong signal here
- Pictures 736 Hornblende & precipitate

17T 0501856 Elevation = 414m

5198804

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a large rock face with large white quartz dike

- I see some greywacke on a fresh break
  - I see some precipitate
  - I see a large rusted spot
  - I see what looks like hornblende
  - The metal detector did not have a strong signal here
- Pictures 737 Hornblende & precipitate & greywacke & Quartz dike

17T 0501854          Elevation = 413m  
5198835

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see some greywacke
  - The metal detector did not have a strong signal here
- Pictures 738 Greywacke

17T 0501863          Elevation = 414m  
5198848

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see some greywacke
  - The metal detector did not have a strong signal here
- Pictures 739 Greywacke

17T 0509418          Elevation = 343m  
5200193

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman)) and 1 Undifferentiated mafic to intermediate metavolcanics (ARCEAN Metavolcanics and Metasediments)
  - I see a light grey sedimentary bedrock with small pink veins and white quartz veins
  - Nearby the grey bedrock is full of pink quartz veins
  - Nearby I see pink angular fragments, breccia
  - Beyond that the bedrock is pink with lots of smoky white quartz veins
- Pictures 740 Breccia & quartz

17T 0509431          Elevation = 352m  
5200190

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman)) and 1 Undifferentiated mafic to intermediate metavolcanics (ARCEAN Metavolcanics and Metasediments)
  - I see a rusty feldspathic greywacke
- Pictures 741 Greywacke

17T 0509425          Elevation = 354m  
5200188

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman)) and 1 Undifferentiated mafic to intermediate metavolcanics (ARCEAN Metavolcanics and Metasediments)
  - I see a rusty feldspathic greywacke
  - I see some white precipitate
  - I see a large rock face
- Pictures 742 Greywacke & precipitate

17T 0509416          Elevation = 353m  
5200177

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman)) and 1 Undifferentiated mafic to intermediate metavolcanics (ARCEAN Metavolcanics and Metasediments)
  - I see a pink granite
  - I see a large rock face
- Pictures 743 Granite

17T 0509970            Elevation = 299m  
5199032

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman)) west of this location and the map is blank on this area and to the East of this area
  - I see a dark blue bedrock (Greywacke) that oxidized orange
  - Nearby, the bedrock is oxidized white
  - Nearby the bedrock looks like a mud tone Argillite
  - Bedrock is not smooth
  - I see some rust and red staining (Hematite)
- Pictures 744 Argillite & Greywacke & rust & orange staining

17T 0509968            Elevation = 348m  
5199063

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman)) west of this location and the map is blank on this area and to the East of this area
  - I see a fractured greywacke like bedrock
  - I see some orange stained sheer zone
  - The sheer is at about 70°
  - There is some fractures with precipitate, could be footwall
  - Nearby the bedrock looks sheered
- Pictures 745 footwall & Greywacke & rust & orange staining & precipitate

17T 0507683            Elevation = 404m  
5199809

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a diorite
  - I see a white / pink granite dike
  - I see a few stringers
  - I see a few large white / pink veins
  - Nearby the large dyke goes from 1.5 ft to 20 ft wide
  - Too much overburden to see if this is a contact zone
- Pictures 746 Diorite & dike & contact

17T 0507678            Elevation = 403m  
5199799

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a diorite
  - I see a few white veins
  - Nearby the bedrock is oxidized white
- Pictures 747 Diorite

17T 0501839 Elevation = 415m

5198759

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see hornblende
- I see a large rust spot with purple in it
- We had to sweep and shovel some more overburden off and wash it (with buckets)
- We took 3 samples for demonstration and size estimation
- The rust spot had very dark discharge when cutting
- I see some white and pink quartz
- I see a large piece of sulfide that looks like ore (Wow)
- I see a few stringers
- The metal detector signal was strong here
- Many samples & pictures were taken from here (Pictures 712 & 720)  
Pictures 748 Hornblende & stringers & Excavated & samples

17T 0501839 Elevation = 415m

5198760

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see hornblende
- We took 1 sample with disseminated mineralization (Sample 71)
- I see some white quartz
- The metal detector signal was strong here  
Pictures 749 Hornblende & Sample 71

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	55	103	40.2

17T 0509578 Elevation = 368m

5199990

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
- I see a small white quartz vein in a pink granite  
Pictures 750 Pink granite & quartz

17T 0509595 Elevation = 369m

5199983

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
- I see a large white quartz veins and lots of smaller veins in a pink granite  
Pictures 751 Pink granite & quartz

17T 0498230 Elevation = 436m

5199183

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
- I see Undifferentiated bedrock with lots of small black fractures and disseminated mineralization
- Dark blue in colour with black lines  
Pictures 752 Undifferentiated & Sample 72

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	20	97	43.2

17T 0497828 Elevation = 404m

5199275

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a hornblende with lots of small black fractures and disseminated mineralization
  - Dark blue in colour with lots of black dots
  - The bedrock looks like a greywacke
- Pictures 753 Greywacke & Sample 73

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	0	73	22.8

17T 0497837 Elevation = 411m

5199218

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a diorite with a mineralized stringer and rust
  - We sampled the stringer and surrounding diorite
  - The metal detector had a high signal here
- Pictures 754 Mineralized stringer & diorite & Sample 74 - 75

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.026	302	63	106

Sample 74

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.066	524	67	402

Sample 75

17T 0500055 Elevation = 424m

5198066

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a gabbro (Black – grey – white crystals)
  - I see a yellow wavy stringer
  - Stringers are vertical, horizontal and at different degrees
  - The metal detector had a high signal here
- Pictures 755 Gabbro & stringers & Sample 76

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	92	56	30.6

17T 0500031 Elevation = 421m

5197923

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a gabbro (Black – light green crystals)
  - I see some pink/red mineral
  - The metal detector had a high signal here
- Pictures 756 Gabbro & Sample 77

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	177	9	11.7

17T 0500035 Elevation = 421m



5197926

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a gabbro like bedrock (Black – light green crystals)
  - The metal detector had a high signal here
- Pictures 757 Gabbro like & Sample 78

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0	107	10	8.7

17T 0500011 Elevation = 420m

5197888

- Map 2212 indicates 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman)
  - I see a mixture of black and light green bedrock (Gabbro like)
  - The metal detector had a high signal here
- Pictures 758 Gabbro like mixture & Sample 79

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	W (ppm)
0	157	44	62.3	61

17T 0497850 Elevation = 379m

5199258

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a gabbro like bedrock
  - The crystals are black – white – grey in colour
  - I see disseminated mineralization
  - The metal detector had a high signal here
  - Sample 80 was taken from here
- Pictures 760 Gabbro & Mineralization & Sample 80

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
<0.005	172	52	47.9

17T 0497177 Elevation = 423m

5200782

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a greywacke
  - The surface is oxidized brown and the inside is dark blue
  - The metal detector had a high signal here
  - Sample 81 was taken from here
- Pictures 761 Greywacke & Sample 81

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
<0.005	42	96	40.6

17T 0497121 Elevation = 442m

5199376

- Map 2212 indicates 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation

- I see an Undifferentiated bedrock
  - I see mineralized balls (Up to 14 mm in size)
  - The metal detector sang all over the bedrock
  - Sample 82 was taken from here
- Pictures 762 Undifferentiated & mineral balls & Sample 82

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.006	39	46	89.8

17T 0496966      Elevation = 431m  
5199799

- Map 2212 indicates 9a Polymictic conglomerates & 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a conglomerate
  - The fragments are small, rounded and white/pink with a few black spots
- Pictures 763 Conglomerate

17T 0496869      Elevation = 434m  
5199754

- Map 2212 indicates 9a Polymictic conglomerates & 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a conglomerate with lots of pink stringers
  - The fragments are small, rounded and white with a few black spots
- Pictures 764 Conglomerate & stringers

17T 0496856      Elevation = 436m  
5199737

- Map 2212 indicates 9a Polymictic conglomerates & 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a conglomerate in argillite
  - The fragments are small, rounded and white with a few black spots
  - There is however one rusted dark grey, rounded fragment
- Pictures 765 Conglomerate

17T 0496827      Elevation = 434m  
5199756

- Map 2212 indicates 9a Polymictic conglomerates & 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a polymictic conglomerate
  - The fragments are small and medium, rounded and white with a few black spots or just white
- Pictures 766 Conglomerate

17T 0496805      Elevation = 428m  
5199800

- Map 2212 indicates 9a Polymictic conglomerates & 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a conglomerate
  - The fragments are small and medium
  - The fragments are angular and pink (Granite) or white and rounded
  - I see a lot of fractures and stringers that cross each other at 90°
  - I see a large pink stringer
- Pictures 767 Conglomerate & stringers

17T 0496856 Elevation = 417m

5199941

- Map 2212 indicates 9a Polymictic conglomerates & 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
- I see a white bedrock with some rust
- Nearby the quartz is light green
- I see a white quartz vein (Looks like quartz diabase)
- This area was marked for a strong magnetic signal in an aireal survey  
Pictures 768 Quartz diabase, high magnetic

17T 0496978 Elevation = 417m

5200053

- Map 2212 indicates 9a Polymictic conglomerates & 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
- I see a light green quartz (Looks like quartz diabase)
- The bedrock has light green and white crystals
- This area was marked for a strong magnetic signal in an aireal survey  
Pictures 769 Quartz diabase

17T 0496996 Elevation = 416m

5200067

- Map 2212 indicates 9a Polymictic conglomerates & 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
- I see a lots of white quartz veins in a pink quartz (Looks like quartz diabase)
- Nearby I see some pink quartz diabase
- I also see the bedrock varies in colour from light pink to light grey (Greywacke)  
Pictures 770 Quartz diabase & greywacke & quartz

17T 0497110 Elevation = 434m

5200229

- Map 2212 indicates 9a Polymictic conglomerates & 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
- I see a greywacke
- The colour is dark blue and white
- The crystals are massive and fine grain  
Pictures 771 Greywacke

17T 0510279 Elevation = 292m

5199135

- Map 2212 indicates 11 Quartz diabase (Nipissing type) PRECAMBRIAN Late mafic intrusive rocks
- Map 2212 also indicates that 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman) and 1 Undifferentiated mafic to intermediate metavolcanics ARCHEAN Metavolcanics and Metasediments in the area
- I see a dark (Black) bedrock with lots of calcite veins
- I see metasediments
- Sample 83 was broken off here
- The chlorite has some bornite in it (Bornite is Yellow-dark blue-green-orange-pink in colour)
- I see some chalcopyrite in the calcite (Metallic gold colour)
- I see a bit of pink-brown staining in the stringer
- Lots of calcite stringer and veins  
Pictures 772 Metasediments & Calcite & Sample 83

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
<0.005	4373	52	25.2

17T 0510260 Elevation = 292m

5199142

- Map 2212 indicates 11 Quartz diabase (Nipissing type) PRECAMBRIAN Late mafic intrusive rocks
- Map 2212 also indicates that 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman) and 1 Undifferentiated mafic to intermediate metavolcanics ARCHEAN Metavolcanics and Metasediments in the area
- I see a dark grey bedrock with a few large calcite veins
- I see metasediments
- Sample 84 was broken off a large calcite vein
- I see some chalcopyrite in the calcite (Metallic gold colour)
- Larger calcite veins

Pictures 773 Metasediments & Calcite & Sample 84

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Ca (%)
0.008	11000	12	8.4	>25

17T 0510283 Elevation = 331m

5199150

- Map 2212 indicates 11 Quartz diabase (Nipissing type) PRECAMBRIAN Late mafic intrusive rocks
- Map 2212 also indicates that 3a Quartz monzonite, granite, grano-diorite, pegmatite ARCHEAN Granitic Rocks (Algoman) and 1 Undifferentiated mafic to intermediate metavolcanics ARCHEAN Metavolcanics and Metasediments in the area
- I see a dark sample that was taken from a fracture containing calcite and metasediments
- The calcite & contact zone have mineralization in it
- I see some rust
- The sample was highly magnetic (Magnetite maybe the cause)
- I could also see disseminated mineralization in the heavy part of the sample and none in the light parts of the sample
- The heavy part of the sample had some chunks of chalcopyrite on the outer edges of the sample (Largest piece and really heavy) just like the contact wall had
- The rest of the sample was very light, porous rock
- This sample was taken and stored until the land was claimed (Sometime in early April 2017)

Pictures 774 Metasediments & Calcite & Sample 85

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	W (ppm)	Mo (ppm)	As (ppm)
0.179	31700	43	153	401	13	7

17T 0497884 Elevation = 447m

5199147

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
- I see a sedimentary bedrock with a large intrusion of green chlorite
- Nearby are some more small intrusions of green chlorite
- I see some white stringers

Pictures 775 Green chlorite & stringers & sedimentary

17T 0497891 Elevation = 446m

5199151

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see some white quartz and some green chlorite
  - I see some rust
- Pictures 776 Green chlorite & Quartz

17T 0497909            Elevation = 445m  
5199175

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see some white quartz and some green chlorite
  - I see some rust
  - I see a conglomerate
  - The fragments are round and white quartz monzonite
- Pictures 777 Green chlorite & Quartz & Conglomerate

17T 0499747            Elevation = 446m  
5198373

- Map 2212 indicates 3b Porphyritic quartz monzonite
  - I see green chlorite and sedimentary bedrock
  - I see some rust
  - I see a large white quartz vein
  - I see a conglomerate
  - The fragments are white and rounded
- Pictures 778 Green chlorite & conglomerate & quartz

17T 0499943            Elevation = 434m  
5198278

- Map 2212 indicates 3b Porphyritic quartz monzonite
  - I see a pink granite with extremely lots of pink stringers
  - Looks like this could be a contact zone
  - Nearby I see a grano-diorite
  - I see some rust
- Pictures 779 Granite & granodiorite & contact zone

17T 0499941            Elevation = 432m  
5198289

- Map 2212 indicates 3b Porphyritic quartz monzonite
  - I see a pink granite dike in a diorite
  - I see a small white vein
- Pictures 780 Granite dike & diorite

17T 0499935            Elevation = 429m  
5198278

- Map 2212 indicates 3b Porphyritic quartz monzonite
  - I see some pink granite with epidote staining
  - I also see some red staining (Hematite)
  - Might be a contact zone
- Pictures 781 Epidote & granite

17T 0497834            Elevation = 441m  
5199258

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see tree kinds of bedrock
  - One looks like grey/black sedimentary bedrock (Argillite I think)
  - The other is light grey and smooth (Greywacke)
  - I see a small outcrop of a gabbro like bedrock (Black and white in colour)
  - There is also some white/red/yellow quartz
  - The third outcrop looks like a quartz-feldspar hornblende
  - This area is really close to the mineralized boulder found
- Pictures 782 Argillite & Greywacke & hornblende & Quartz & Sample 86

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	37	70	25.2

17T 0497493 Elevation = 412m  
5199340

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a small lake nearby
  - I see what looks like a green gabbro
  - A fresh break indicated some epidote / quartz mixture
  - I see a yellow / green crystals and dark grey / black crystals (Gabbro like)
  - The bedrock was magnetic and had a strong signal on the metal detector
- Pictures 783 Green gabbro & Sample 87

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Ti (%)	Sr (ppm)
0.007	86	45	28.1	1.28	1000

17T 0497493 Elevation = 413m  
5199348

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a gabbro (Black and white crystals)
  - I see some rusted quartz
  - I see some red staining
  - I see some mineralization in the quartz
  - Metal detector had a high signal here
- Pictures 784 Gabbro & Rusted quartz & mineralization & Sample 88

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Ti (%)	Sr (ppm)
0.001	66	27	20	0.76	647

17T 0497503 Elevation = 413m  
5199001

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a lots of large boulders
  - A fresh break showed mineralization in it
  - The sample is really dark with a bit of rust
  - I think the bedrock is a feldspathic greywacke
- Pictures 785 Mineralization & greywacke & Sample 89

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	141	26	24.6

17T 0497449 Elevation = 407m  
5198965

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a boulder with lot of stones imbedded in it (Conglomerate boulder)
  - The stones are mostly white quartz but red and blue stone are also visible (Polymictic)
- Pictures 786 Conglomerate boulder

17T 0497316 Elevation = 413m  
5198188

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see a very dark, fine grain, greywacke
  - The metal had a high signal here
  - The bedrock was magnetic
- Pictures 787 Greywacke & Magnetic

17T 0497317 Elevation = 416m  
5198152

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see what looks like some undifferentiated bedrock
  - I see a schist
  - I see a fragment with some rust around it
- Pictures 788 Undifferentiated & schist

17T 0497306 Elevation = 415m  
5198181

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see what looks like a greywacke
  - We excavated about 1.5m x 1m (Pull back roots)
  - The metal had a high signal here
  - We took sample 90 from here
- Pictures 789 Greywacke & Sample 90

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.001	17	84	33.5

17T 0497299 Elevation = 438m  
5198920

- Map 2212 indicates 9c Finely bedded argillite and 9d Massive feldspathic greywacke in the area HURONIAN Gowganda Formation
  - I see what looks like some undifferentiated bedrock
  - I see a white
- Pictures 790 Undifferentiated

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.044	1100	207	375

Sample 91

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.039	1090	269	342

Sample 92

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.028	871	152	177

Sample 93

17T 0501789 Elevation =

400m

5198897

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- I see a small epidote vein in the sample
- We took two samples from this location
- This was an area close to our 2<sup>nd</sup> highest gold value yet the Au values are low
- Also had 4020 ppm Cu near here (Sample 22)

Pictures 791 Hornblende & Samples 94 - 95

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.008	490	56	52.00

Sample 94

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.008	546	58	49.30

Sample 95

17T 0501791 Elevation = 417m

5198901

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- We took two samples from this location
- This was an area close to our 2<sup>nd</sup> highest gold value yet the Au values are low
- Also had 4020 ppm Cu near here (Sample 22)

Pictures 792 Hornblende & Samples 96 - 97

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	90	87	31.00

Sample 96

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.007	279	107	38.40

Sample 97

17T 0501701 Elevation = 420m

5198875

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- The metal detector had a strong signal here
- We took a sample from here #98

Pictures 793 Hornblende & Sample 98



Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.006	745	107	149.00

17T 0501725 Elevation = 418m

5198862

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- The metal detector had a strong signal here
- We took a sample from here #99

Pictures 794 Hornblende & Sample 99

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.006	640	58	72.00

17T 0501727 Elevation = 414m

5198881

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- The metal detector had a strong signal here. We are 1.4 km away from sample 26 high Co.
- We took three samples from here #100–101-102

Pictures 795 Hornblende & Sample 100–101-102

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.004	1560	277	277.00

Sample 100

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.007	1690	689	776.00

Sample 101

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.001	1170	183	235.00

Sample 102

17T 0501726 Elevation = 418m

5198879

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- The metal detector had a strong signal here
- We took a sample from here #103 – 104 (Sampled two different stringers)

Pictures 796 Hornblende & Sample 103 - 104

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.003	403	150	79.60

Sample 103

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	230	71	46.20

Sample 104

17T 0501667 Elevation = 404m

5198871

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist

- I see a hornblende
  - The metal detector had a strong signal here
  - We took a sample from here #105 (Edge of small outcrop)
  - Highest gold value on property (Bottom of arrow)
- Pictures 797 Hornblende & high gold & Sample 105

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.830	69	153	42.80

17T 0501665      Elevation = 411m  
5198870

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a hornblende
  - The metal detector had a strong signal here
  - We took a sample from here #105 (Edge of small outcrop)
  - Highest gold value on property (Bottom of arrow)
- Pictures 798 Hornblende & Sample 106

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.028	146	148	47.00

17T 0501848      Elevation = 414m  
5198896

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a hornblende
  - The metal detector had a strong signal here
  - We took a sample from here #107 – 108
- Pictures 799 Hornblende & Sample 107 - 108

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.015	758	124	173.00

Sample 107

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.005	365	85	70.90

Sample 108

17T 0501830      Elevation = 415m  
5198898

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a hornblende
  - The metal detector had a strong signal here
  - We took a sample from here #109
  - I see small white stringers in the sample
- Pictures 800 Hornblende & Sample 109

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.004	659	138	111.00

17T 0502102 Elevation = 416m

5198758

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a hornblende
  - The metal detector had a strong signal here
  - We took a sample from here #109
  - I see small white stringers in the sample
- Pictures 801 Hornblende & Sample 110

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Zn (ppm)	Pb (ppm)
0.003	196	62	24.40	1630	463

17T 0502695 Elevation = 406m

5198689

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a hornblende
  - The metal detector had a strong signal here
  - We took two samples from here #111 - 112
- Pictures 802 Hornblende & Sample 111 - 112

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	147	44	63.40

Sample 111

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	142	19	50.10

Sample 112

17T 0500702 Elevation = 438m

5199358

- Map 2212 indicates 3b Porphyritic quartz monzonite
  - I see a conglomerate
  - We took a sample from here
- Pictures 803 Conglomerate & Sample 113

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
<0.001	18	71	27.20

17T 0499410 Elevation = 432m

5198124

- Map 2212 indicates 9c Finely bedded argillite in the area HURONIAN Gowganda Formation
  - Map 2212 indicated a fault line in the area
  - I see finely bedded argillite
  - I see a small white quartz sill (Small outcrop need to expose more)
- Pictures 804 quartz sill & argillite

17T 0499498 Elevation = 434m

5198122

- Map 2212 indicates 9c Finely bedded argillite in the area HURONIAN Gowganda Formation
- Map 2212 indicated a fault line in the area
- I see diorite and some grano-diorite
- I see a few stringers

Pictures 805 Diorite & grano diorite

17T 0499542            Elevation = 431m  
5198132

- Map 2212 indicates 9c Finely bedded argillite & 9d Massive feldspathic greywacke HURONIAN  
Map 2212 also indicated a fault line in the area
  - Map 2212 also indicates 3b Porphyritic quartz monzonite in the area
  - I see a quartz monzonite contacting a finely bedded argillite
  - I see a bit of epidote in the argillite
- Pictures 806 Epidote & argillite & contact & quartz monzonite

17T 0499523            Elevation = 433m  
5198125

- Map 2212 indicates 9c Finely bedded argillite HURONIAN Gowganda Formation in the area
  - Map 2212 also indicated a fault line in the area
  - Map 2212 also indicates 3b Porphyritic quartz monzonite in the area
  - I see a conglomerate
  - The fragments are white, angular (quartz monzonite)
  - I see some stringers. A few with white precipitate
- Pictures 807 Conglomerate & stringers

17T 0499570            Elevation = 436m  
5198118

- Map 2212 indicates 9c Finely bedded argillite & 9d Massive feldspathic greywacke HURONIAN  
Gowganda Formation in the area
  - Map 2212 also indicated a fault line in the area
  - Map 2212 also indicates 3b Porphyritic quartz monzonite in the area
  - I see a contact zone with quartz monzonite and a greywacke
- Pictures 808 Contact zone & quartz monzonite & greywacke

17T 0499628            Elevation = 438m  
5198120

- Map 2212 also indicated a fault line in the area
  - Map 2212 also indicates 3b Porphyritic quartz monzonite in the area
  - Map 2212 indicates 9c Finely bedded argillite & 9d Massive feldspathic greywacke HURONIAN  
Gowganda Formation in the area
  - I see a large white quartz dike in greywacke
- Pictures 809 Quartz dike & greywacke

17T 0499553            Elevation = 441m  
5197889

- Map 2212 indicates 9c Finely bedded argillite & 9d Massive feldspathic greywacke HURONIAN  
Gowganda Formation in the area
  - I see Undifferentiated bedrock
  - I see a lot of fractures / stringers
- Pictures 810 Undifferentiated & Stringers

17T 0498603            Elevation = 417m  
5196957

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke & 9d Massive feldspathic  
greywacke HURONIAN Gowganda Formation in the area
- I see a conglomerate
- The fragments look like white quartz monzonite

- I see a few large white quartz veins with green chlorite in them
- The white quartz vein cuts through the fragment, therefore, the quartz can in at a different time than the conglomerates.
- Nearby is some more white quartz veins
- Sample 123 was taken here (Pictures 827)  
Pictures 811 Conglomerate & quartz & Green chlorite

17T 0498604            Elevation = 417m  
5196963

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke & 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
- I see a conglomerate
- I see a large green chlorite intrusion  
Pictures 812 Green chlorite & conglomerate

17T 0498612            Elevation = 416m  
5196954

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke & 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
- I see a pseudotachylite
- The fragments are angular and rounded
- The fragments are small medium and large in size
- The smaller fragments are white and the larger fragments are grey and from the host bedrock  
Pictures 813 pseudotachylite

17T 0498406            Elevation = 426m  
5193992

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke & 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
- I see a Pseudotachylite
- The fragments are angular and rounded
- The fragments are small medium and large in size
- The small white fragments look like Sudbury Breccia
- The larger fragments are grey and from the host bedrock
- The location is incorrect(GPS was malfunctioning)  
Pictures 814 Pseudotachylite (Bad location, looks like Bessie lake area)

17T 0498538            Elevation = 421m  
5197137

- Map 2212 indicates 9a Polymictic Conglomerates 9b Bedded Arkose 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
- I see white quartz veins in a pink granite  
Pictures 815 Quartz & pink granite

17T 0498465            Elevation = 417m  
5193054

- Map 2212 indicates 9a Polymictic Conglomerates 9b Bedded Arkose 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
- I see white quartz veins in white quartz monzonite
- The location is incorrect(GPS was malfunctioning)  
Pictures 816 Quartz & quartz monzonite (Bad location)

17T 0498438 Elevation = 423m

5194259

- Map 2212 indicates 9a Polymictic Conglomerates 9b Bedded Arkose 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a polymictic conglomerate
  - The fragments are rounded
  - The fragments are small medium and large in size
  - The location is incorrect(GPS was malfunctioning)
- Pictures 817 Conglomerate (Bad location)

17T 0498642 Elevation = 428m

5196741

- Map 2212 indicates 9b Bedded Arkose 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a conglomerate
  - The fragments are angular
  - The fragments are small medium and large in size
  - I see some green chlorite and some rusty white quartz
- Pictures 818 Conglomerate & Green Chlorite & Rust & Quartz

17T 0498592 Elevation = 424m

5196732

- Map 2212 indicates 9b Bedded Arkose 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a conglomerate
  - We took a sample from here (Sample 114)
- Pictures 819 Conglomerate & Sample 114

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.003	56	60	21.60

17T 0498390 Elevation = 453m

5199973

- Map 2212 indicates 9b Bedded Arkose 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see an undifferentiated bedrock
  - I see some mineralization. In a stringer.
  - We took a sample from here (Sample 115)
- Pictures 820 mineralized stringer & undifferentiated & Sample 115

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.004	12	58	49.10

17T 0498424 Elevation = 457m

5200212

- Map 2212 indicates 9a Polymictic Conglomerate 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see some white quartz and some green/black chlorite
  - I see a conglomerate
  - The fragments are small and medium and white in colour
- Pictures 821 Conglomerates & quartz & green black chlorite

17T 0498418 Elevation = 458m

5200207

- Map 2212 indicates 9a Polymictic Conglomerate 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
- I see some white quartz veins
- I see a conglomerate
- The fragments are small and medium and white in colour
- We took sample 116 from here

Pictures 822 Conglomerates & quartz & Sample 116

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.003	15	47	12.40

17T 0502410 Elevation = 416m

5198657

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- I see a few stringers
- I see a bit of rust
- The metal detector had a strong signal here
- We took two cuts here. One sample was too large so it was cut in half and sent as two samples

Pictures 823 Hornblende & Samples 117-118-119

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.011	1030	72	127

Sample 117

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.010	579	47	51.8

Sample 118

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.011	728	53	69.5

Sample 119

17T 0502410 Elevation = 417m

5198659

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende
- I see a few stringers
- I see some quartz
- The metal detector had a strong signal here
- We took three samples next to here. Samples 117 to 119

Pictures 824 Hornblende & Samples 120

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.005	698	53	70.8

17T 0502416 Elevation = 418m

5198652

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see a hornblende

- I see a few stringers
  - I see some white quartz
  - I see a bit of rust
  - I see some pyrite
  - The metal detector had a strong signal here
  - We took four samples next to here. Samples 117 to 120
- Pictures 825 Hornblende & Samples 121

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
<0.001	67	204	52.6

17T 0502417          Elevation = 414m  
5198655

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see a hornblende
  - I see a few stringers
  - I see some quartz pink and white
  - I see minerals in the quartz
  - We took five samples next to here. Samples 117 to 121
  - The metal detector had a strong signal here
- Pictures 826 Hornblende & Samples 122

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.040	1160	101	52.9

17T 0498602          Elevation = 413m  
5196955

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a conglomerate
  - I see a green chlorite vein (about 1.5 inch)
  - We sampled that vein (Sample 123)
  - It scratched green
  - The conglomerate is fine grain, dark grey in colour
  - I see some mineralization
  - The metal detector had a strong signal here
  - I see some schisting nearby (Undifferentiated bedrock)
  - I see some small pink intrusions. Under magnification the intrusions look like early feldspar crystals
- Pictures 827 Conglomerate & Undifferentiated & Minerals & Samples 123

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
<0.001	23	247	45.1

17T 0498600          Elevation = 415m  
5196956

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke HURONIAN Gowganda Formation in the area
- I see a conglomerate
- I see some rust
- I see a small white and pink quartz vein (Sample 124)



- Under magnification I see feldspathic greywacke with small pink inclusions
  - The colours are pink – beige – black in the bedrock
- Pictures 828 Conglomerate & greywacke & Sample 124

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.008	33	47	32.4

17T 0498610 Elevation = 429m  
5196940

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke HURONIAN Gowganda Formation in the area
- I see a conglomerate
- Under magnification, sample 125 has white and pink quartz intruding sedimentary like lines.
- Under magnification, sample 126 has white and pink quartz in fine grain, black
- Pictures 829 Conglomerate & Sample 125 - 126

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
<0.001	15	57	21.1

Sample 125

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.001	8	48	17.0

Sample 126

17T 0498620 Elevation = 413m  
5196947

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke HURONIAN Gowganda Formation in the area
- I see a conglomerate
- I see a white – pink quartz vein
- I see some rust
- The metal detector had a strong signal here
- Under magnification, sample 127 has dark, fine grain with white – pink quartz
- It also has a bit of mineralization
- Under magnification, sample 128 has fine grain, white, black and pink quartz
- Pictures 830 Conglomerate & quartz & Sample 127 - 128

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.022	122	57	18.2

Sample 127

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	33	58	22.2

Sample 128

17T 0498641 Elevation = 423m  
5196889

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke HURONIAN Gowganda Formation in the area
- I see large fractures in the bedrock with large, medium and small fragments in a darker intrusion matrix, pseudotachylite
- The large and medium fragments are the same as the host bedrock (Grey surface – greywacke)
- The smaller fragments are angular and white (Like Sudbury Breccia)

Pictures 831 Breccia & Pseudotachylite & Greywacke & Sample 129

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
<0.001	8	75	24.9

17T 0498590 Elevation = 421m

5196969

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a conglomerate
  - I see lots of close white – pink quartz vein
  - I see some rust
  - The metal detector had a strong signal here
  - Under magnification, sample 130 has dark grey, fine grain matrix with white – red quartz
  - It also has a bit of mineralization
  - Under magnification, sample 131 is gabbro like with quartz and some rust
- Pictures 832 Conglomerates & Quartz & Sample 130 - 131

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.007	227	55	25.6

Sample 130

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.004	80	44	21.2

Sample 131

17T 0498557 Elevation = 416m

5196978

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a conglomerate
  - I see a bit of quartz
  - I see some minerals
  - The sample was taken from the edge of a large pink fragment
- Pictures 833 Conglomerate & quartz & minerals & Sample 132

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.001	56	19	6.8

17T 0498136 Elevation = 424m

5196906

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a conglomerate
  - Some fragment are white quartz monzonite and one is elongated on one end
  - I see darker fragments that are rounded and angular
  - Nearby are lots of white fragments
- Pictures 834 Conglomerate

17T 0498124 Elevation = 423m

5196920

- Map 2212 indicates 9b Bedded arkose, feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a conglomerate
  - The fragments are undifferentiated and rounded
- Pictures 835 Conglomerate & Undifferentiated

17T 0497914 Elevation = 451m

5199135

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a gabbro like bedrock with some white – pink quartz
  - I see a mineralized stringer (Metallic silver colour)
  - There is also some green chlorite
  - The metal detector had a strong signal here
- Pictures 836 Gabbro & mineralized stringer & green chlorite & Samples 133 -134

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.020	1340	54	34.3

Sample 133

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.191	5340	74	47.6

Sample 134

17T 0497908 Elevation = 453m

5199138

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a gabbro like bedrock with some white – black - green quartz
  - I see some white – pink quartz
  - I see mineralization in the gabbro
  - There is also some green chlorite
  - The metal detector had a strong signal here
- Pictures 837 Gabbro & green chlorite & mineralization & Samples 135

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	57	49	20.7

17T 0497892 Elevation = 451m

5199148

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a gabbro
  - I see green chlorite
  - I see white and orange quartz
  - I see good mineralization in the samples
  - The metal detector had a strong signal here
- Pictures 838 Gabbro & Green chlorite & quartz & Samples 136 – 137 - 138

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
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0.004	148	86	45.6
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Sample 136

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.003	108	112	45.7

Sample 137

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	138	127	65.0

Sample 138

17T 0497885 Elevation = 452m  
5199149

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a hornblende
  - I see some green chlorite
  - I see a few white stringers
  - The metal detector had a strong signal here
- Pictures 839 Hornblende & green chlorite & stringers & Sample 139

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.027	1400	76	53.7

17T 0497890 Elevation = 448m  
5199158

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a gabbro like bedrock
  - I see some green chlorite
  - I see a bit of white and red quartz
  - I see some mineralization
- Pictures 840 Gabbro – green chlorite & quartz & mineralization & Sample 140

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	69	52	88.7

17T 0497869 Elevation = 444m  
5199159

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - We did some excavating here. 1m x 1m
  - I see a Pseudotachylite
  - Nearby the bedrock is wet and look really green
  - The sample was very dark, black when wet
  - I see disseminated Nickel
  - We took three samples here
- Pictures 841 Pseudotachylite & Mineralization & Samples 141 – 142 – 143

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
<0.001	236	358	144.0

Sample 141

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
<0.001	76	711	68.2

Sample 142

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
<0.001	166	281	83.1

Sample 143

17T 0497856 Elevation = 446m  
5199156

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see some epidote
  - I see some mineralization in some black lines
  - I see pink and white and blue quartz (Like a granite)
- Pictures 842 Epidote & minerals & Granite & Sample 144

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.004	142	68	14.6

17T 0497842 Elevation = 439m  
5199148

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see black – grey – white grains
  - I see a section that is all black with small and large mixed grains
  - I see mineralized pyrite cubes
  - Nearby I see some oxidized white bedrock with lots of white fractures (Looks like heated hornblende)
- Pictures 843 Hornblende & Pyrite & Sample 145

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
<0.001	121	43	56.7

17T 0501847 Elevation = 426m  
5198758

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see hornblende
  - I see a large rust spot with purple in it
  - The rust spot had very dark discharge when cutting
  - I see some white and pink quartz
  - I see a large piece of sulfide that looks like ore
  - I see a few stringers
  - The metal detector signal was strong here
  - Samples 64-65-66 were taken from here
- Pictures 844 Hornblende & stringers & Sample for polishing

17T 0501847 Elevation = 418m  
5198767

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see hornblende
  - I see some white quartz
  - I see good mineralization (Pyrite)
  - The metal detector had a strong signal here
  - We took sample 146 from here
- Pictures 845 Hornblende & Pyrite & Sample 146

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.012	466	91	67.9

17T 0501850      Elevation = 417m  
5198766

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
  - I see hornblende
  - I see white and black quartz mixed together
  - I see some mineralization (Pyrite)
  - We took sample 147 from here
- Pictures 846 Hornblende & Pyrite & Sample 147

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.004	46	88	51.7

17T 0499659      Elevation = 431m  
5198115

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic Rocks ALGOMAN
  - I see green epidote mixed with grey quartz
  - I see a few stringers
  - The matrix looks sedimentary in origin
  - We took a sample of a green epidote outcrop
- Pictures 847 Epidote & Sample 148

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Sr (ppm)
<0.001	21	10	3.7	1480

17T 0499660      Elevation = 431m  
5198111

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic Rocks ALGOMAN
  - I see black & white crystals like diorite
  - I see good mineralization
  - I see some yellow/pink quartz (Small amount)
  - We took sample 149 from here
- Pictures 848 Diorite & mineralization & Sample 149

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.003	382	16	41.8

17T 0499674      Elevation = 431m  
5198084

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic Rocks ALGOMAN
  - I see black & green crystals like diorite (Wet)
  - I see good mineralization
  - We took sample 150 from here
- Pictures 849 Diorite & mineralization & Sample 150

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Sr (ppm)
0.002	16	12	30.0	1660

17T 0499659            Elevation = 432m  
5198110

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic Rocks ALGOMAN
  - I see a large pink dike and some sedimentary bedrock
  - I see lots of fracturing
  - I see some pyrite cubes
  - The bedrock is black – white – green mixture
  - We sampled the large pink dike and some of the host bedrock
- Pictures 850 Pink dike & fractures & Sample 151

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Sr (ppm)
<0.001	14	8	4.0	623

17T 0499742            Elevation = 433m  
5198130

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic Rocks ALGOMAN
  - I see some dirty pink granite
  - I see a bit of white quartz
  - I see a few pyrite cubes
- Pictures 851 Granite & Sample 152

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Sr (ppm)
<0.001	5	7	7.7	335

17T 0499741            Elevation = 432m  
5198129

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic Rocks ALGOMAN
  - I see a pink & white & black granite
  - I see some rust on the surface
- Pictures 852 Granite & Sample 153

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Sr (ppm)
<0.001	7	8	7.6	325

17T 0499763            Elevation = 430m  
5198141

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic Rocks ALGOMAN
  - I see a diorite
  - (Black and white crystals)
  - I see a large white/pink quartz dike and veins
- Pictures 853 diorite & large white - pink quartz dike and veins

17T 0499753 Elevation = 431m  
5198142

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic Rocks ALGOMAN
  - I see a diorite
  - (Black and white crystals)
  - This is only a small outcrop
- Pictures 854 diorite

17T 0499763 Elevation = 431m  
5198142

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic Rocks ALGOMAN
  - I see a diorite
  - (Black and white crystals)
  - We took sample 154 from here
- Pictures 855 Diorite & Sample 154

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.001	43	77	46.6

17T 0499542 Elevation = 430m  
5198130

- Map 2212 indicates 3b Porphyritic quartz monzonite ARCHEAN Granitic Rocks ALGOMAN
  - Map 2212 also indicates 9c Finely bedded argillite (Mud stone) in the area
  - I see a pink granite contacting a greywacke (Green & black crystals)
  - I see some epidote
  - We took sample 155 from here
- Pictures 856 Granite & greywacke & Contact & Sample 155

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Sr (ppm)	V (ppm)
0.003	262	43	71.0	1230	724

17T 0499411 Elevation = 434m  
5198123

- Map 2212 indicates 9c Finely bedded argillite (Mud stone) in the area
  - We had to excavate about 1m x 1m in this area
  - I see pink granite and a large white quartz vein
  - We took sample 156 from here
  - The quartz was only 2 inches deep then it was a form of gabbro (black and green)
- Pictures 857 Quartz sill & Granite & Gabbro & Sample 156

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	35	24	16.9

17T 0499499 Elevation = 433m  
5198122

- Map 2212 indicates 9c Finely bedded argillite (Mud stone) in the area
- I see a pegmatitic diorite (Black and white-pink)
- The metal detector had a strong signal here
- We took sample 157 from here



Pictures 858 Pegmatitic diorite & Sample 157

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Ti (%)	V (ppm)
<0.001	75	31	73.7	1.15	851

17T 0499490 Elevation = 432m  
5198127

- Map 2212 indicates 9c Finely bedded argillite (Mud stone) in the area
- I see what looks like a diorite
- I see some mineralization
- We took sample 158 from here

Pictures 859 Diorite & mineralization & Sample 158

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Sr (ppm)	V (ppm)
0.012	270	133	90.7	1560	806

17T 0503127 Elevation = 371m  
5198505

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see small pink quartz veins
- The bedrock is slightly magnetic
- I see epidote
- The main mass is black fibrous crystals and some grey crystals
- I see mineralization in the black spotted rock
- Each spot has fine grain, golden coloured pyrite
- There is also mineralization in the white quartz

Pictures 860 Quartz & epidote & mineralization & Sample 159

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	Sr (ppm)
0.023	1680	24	41.4	627

17T 0503121 Elevation = 385m  
5198484

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see hornblende
- The sample was taken from here, in hornblende
- I see a bit of rust
- The bedrock is slightly magnetic
- The metal detector had a strong signal here
- I see epidote
- The main mass is black fibrous crystals and some grey crystals
- I see mineralization in the black spotted rock
- Each spot has fine grain, golden coloured pyrite
- There is also mineralization in the pink quartz stringers

Pictures 861 Quartz & Hornblende & mineralization & Sample 160

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.003	288	92	48.3

17T 0503119 Elevation = 387m

5198486

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see hornblende
- Not magnetic to slightly magnetic
- Bluish and brownish limonite in fractures
- Gabbro like
- Small 1 mm white and pink quartz stringers
- Fine grain black bedrock and fiber like bedrock

Pictures 862 Hornblende & Stringers & Sample 161

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.003	145	75	47.4

17T 0503113 Elevation = 391m

5198492

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see hornblende
- Not magnetic but some spots are slightly magnetic
- Metal detector had a strong signal here
- Dark gabbro like
- Medium to low mineralization

Pictures 863 Hornblende & Sample 162

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	1380	208	140.0

17T 0501917 Elevation = 436m

5199367

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see hornblende
- Not magnetic except for a few spots
- Metal detector had a strong signal here
- I see a rusted surface with extensive cracking and epidote stringers
- I see a fine grain blue quartz

Pictures 864 Hornblende & Sample 163

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.003	272	48	98.3

17T 0501889 Elevation = 435m

5199382

- Map 2212 indicates 1b Quartz-feldspar (hornblende) biotite schist
- I see hornblende
- I see some white quartz stringers
- I see fine grain blue quartz
- I see some epidote with disseminated minerals
- The bedrock is slightly magnetic

Pictures 865 Hornblende & Sample 164

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
<0.001	140	111	45.3

17T 0497157 Elevation = 430m

5199021

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a greywacke
  - I see cross cutting of stringers
  - I see rusted quartz veins
  - I see good mineralization in the white and orange quartz
  - Slightly magnetic all over
  - Metal detector had a strong signal here
- Pictures 866 Greywacke & Sample 165

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.008	195	75	44.3

17T 0497152 Elevation = 428m

5199025

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a greywacke
  - I see a lot of fractures
  - I see limonite (Rust)
  - I see rusted quartz veins
  - I see mineralization in the epidote
  - I see good mineralization in the white and orange quartz
  - Slightly magnetic all over
  - Metal detector had a strong signal here
- Pictures 867 Greywacke & Epidote & Quartz & Sample 166

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.041	922	83	71.3

17T 0497155 Elevation = 429m

5199025

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
  - I see a greywacke
  - I see pink mineralized veins criss crossing
  - I see a mineralized epidote vein
  - Under magnification, the sample looks like Gabbro
  - I see limonite
  - I see white quartz with some minerals
  - Slightly magnetic all over
  - Metal detector had a strong signal here
- Pictures 868 Greywacke & Epidote & Quartz & Sample 167

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)

0.011	109	51	47.0
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17T 0497231 Elevation = 427m

5199044

- Map 2212 indicates 9c Finely bedded argillite 9d Massive feldspathic greywacke HURONIAN Gowganda Formation in the area
- I see a greywacke
- I see a mineralized epidote vein
- The epidote vein has a bit of pink quartz
- Under magnification, the sample looks like gabbro
- I see limonite
- Slightly magnetic all over
- Metal detector had a strong signal here

Pictures 869 Greywacke & Epidote & Quartz & Sample 168

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.006	228	57	20.5

17T 0497931 Elevation =

442m

5201220

- Took out generator #2 from container (Winter storage)
- Cleaned up location
- Took a few pictures
- Snow everywhere

Pictures 870 remove generator

17T 0510088 Elevation = 460m

5198775

- Map 2212 is blank on this area
- Map 2212 does indicate 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman)) and 1 Undifferentiated mafic to intermediate metavolcanics (ARCEAN Metavolcanics and Metasediments) in the area
- Map 2212 also indicates 10 Quartzite, argillite, conglomerate PRECAMBRIAN HURONIAN Lorrain formation in the area
- I see what looks like footwall breccia
- The white precipitate did not fizz with the diluted sulfuric acid test (Temperature was low)
- The fragments are angular and medium in size
- The footwall is dark blue and fine grain
- The precipitate is white

Pictures 871 Footwall Breccia & acid test

17T 0510183 Elevation = 301m

5198628

- Map 2212 is blank on this area
- Map 2212 does indicate 3a Quartz monzonite, granite, grano-diorite, pegmatite (ARCEAN Granitic Rocks (Algoman)) and 1 Undifferentiated mafic to intermediate metavolcanics (ARCEAN Metavolcanics and Metasediments) in the area
- Map 2212 also indicates 10 Quartzite, argillite, conglomerate PRECAMBRIAN HURONIAN Lorrain formation in the area
- I see a large rock face
- The bedrock is really dark and in some places heavily fractured, could be metavolcanics

- Lots of stringers
  - I see some red staining
  - I see lots of fractures some are pink in colour
  - I see some precipitate nearby
- Pictures 872 Rock face & stringers & Metavolcanics

17T 0510261            Elevation = 285m  
5199146

- Map 2212 indicates 11 Quartz diabase (Nipissing type) PRECAMBRIAN Late mafic intrusive rocks
  - I see a positive acid test here
  - Calcite  $\text{CaCO}_3$  Calcium carbonate or Dolomite  $\text{CaMg}(\text{CO}_3)_2$  Calcium / magnesium carbonate
  - Assay    Ca %    Mg%
  - 83        11.5    1.68
  - 84        >25    0.25
  - 85        9.5     3.11
- Pictures 873 Positive test Calcite

17T 0510278            Elevation = 283m  
5199138

- Map 2212 indicates 11 Quartz diabase (Nipissing type) PRECAMBRIAN Late mafic intrusive rocks
  - I see a positive acid test on small white rock in crack
  - Calcite  $\text{CaCO}_3$  Calcium carbonate or Dolomite  $\text{CaMg}(\text{CO}_3)_2$  Calcium / magnesium carbonate
  - I see chalcopyrite  $\text{CuFeS}_2$
  - I see Calcite / Dolomite
  - The direction in North 1 degree east – South 1 degree west
- Pictures 874 Positive test Calcite

17T 0510278            Elevation = 288m  
5199149

- Map 2212 indicates 11 Quartz diabase (Nipissing type) PRECAMBRIAN Late mafic intrusive rocks
  - I see a positive acid test on small white rock in crack
  - Calcite  $\text{CaCO}_3$  Calcium carbonate or Dolomite  $\text{CaMg}(\text{CO}_3)_2$  Calcium / magnesium carbonate
  - Took sample to view under microscope
  - Magnified, I found a blue squares that looked like small azurite crystals  $\text{Cu}_3(\text{CO}_3)_2(\text{OH})_2$
  - The blue squares could also be bornite
  - I see chalcopyrite  $\text{CuFeS}_2$
  - I see Calcite / Dolomite
  - I see a brown mineral composed of different fine grains
  - The direction in North 1 degree east – South 1 degree west
- Pictures 875 Positive test Calcite

17T 0510283            Elevation = 331m  
5199150

- Map 2212 indicates 11 Quartz diabase (Nipissing type) PRECAMBRIAN Late mafic intrusive rocks
  - Brownish rock (Rusted)
  - Chunks of minerals on contact between dark rock and calcite / dolomite
  - Some of the sample was light & spongy looking
  - Under magnification I see spongy material is made of different small grains
  - Lots of empty squares from eroded sulfides
  - No calcite é dolomite in this sample
  - Just a bit of dark blue / green bedrock in sample
  - This was to sample the contact between the calcite and host rock
- Pictures 876 Sample 169 Contact zone

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.030	19900	84	37.3

17T 0510283 Elevation = 286m  
5199137

- Map 2212 indicates 11 Quartz diabase (Nipissing type) PRECAMBRIAN Late mafic intrusive rocks
  - Samples 170 and 171 was taken from here (One foot off road, one foot elevation)
  - Sample 170 and 171 was taken from a small calcite / dolomite sill (about 1.5 inches thick)
  - The large sample was cut into two samples to determine mineral content in calcite vs content in host rock
  - Under magnification I see lots of calcite / dolomite in sample 170
  - I see some bornite (Blue – green – orange – purple)
  - I see what looks like native copper with spots of a metallic mineral in it
  - I see some pink mineral
  - I see some chalcopyrite in the calcite / dolomite
  - The sample had about 60% host bedrock and 40% calcite / dolomite veins
  - The mineralization is mostly in the contact zone and in the calcite / dolomite but some can be found in the host rock
  - Sample 171 did not have lots of calcite / dolomite
  - There was one small mineralized calcite stringer in it
  - It also had a bit of calcite on the side of the sample
  - Most of the sample, about 90% was host bedrock
  - The host bedrock is dark grey / black and fine grain
  - There is more mineralization in the calcite / dolomite but there is a smaller amount scattered in the darker host rock
  - On the side of the sample is larger pinkish flaky quartz
  - I see some small white crystals with pink intrusions
- Pictures 877 Sample 170 60% - 40% C - 171 90% - 10% C

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.001	21000	32	14.4

Sample 170

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.022	10100	77	30.9

Sample 171

17T 0510283 Elevation = 286m  
5199137

- Map 2212 indicates 11 Quartz diabase (Nipissing type) PRECAMBRIAN Late mafic intrusive rocks
- Samples 172 and 173 was taken from here. One foot away from samples 170-171.
- This sample was along a 1 inch calcite / dolomite vein
- The large sample was cut into two samples
- In sample 172 I see a large piece of calcite / dolomite and a smaller vein
- There is about 50% calcite / dolomite and 50 % host bedrock
- I see minerals with gold, blue, orange colours
- I see fine grain spotted mineralization in the calcite / dolomite
- I see some small formation of biotite mica (Black sheets)
- The host bedrock has black – white – pink crystals
- In sample 173 I see a calcite / dolomite vein with host bedrock on both sides
- The host bedrock has black – white – pink crystals

- I see more minerals in the calcite / dolomite
  - Mineralization is spotted in the host bedrock
- Pictures 878 Sample 172 50% - 50% C - 173 50% - 50% C

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.002	5130	50	23.6

Sample 172

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.011	5420	48	17

Sample 173

17T 0510275 Elevation = 297m

5199141

- Map 2212 indicates 11 Quartz diabase (Nipissing type) PRECAMBRIAN Late mafic intrusive rocks
  - In order to get sample 174 we had to cut back the upper layer. The section separated and slid off like a separate layer. This was the upper section, near the 31700 ppm sample
  - Sample 174 has a bit of contact with mostly host bedrock
  - Contact has rusty mineralization
  - Only contains a small amount of calcite / dolomite
  - The dark host bedrock is fine grain quartz in some areas
  - The quartz is blue and oxidized brown on the surface
  - The sample is slightly magnetic but more on the contact zone
  - In sample 175 there is a bit of the contact zone but most of the sample is host bedrock.
  - I see some rust
  - There is mineralization on two of the ten sample pieces
  - Sample 176 is mostly calcite / dolomite with mineralization
  - There is also some fine grain, dark blue – grey bedrock with very fine mineralization inside
  - Good mineralization in the calcite / dolomite (Fine grain, massive for 1 inch and smaller)
  - Gold – pink – orange colours
  - In sample 177 there is about 50% calcite / dolomite and 50% host bedrock
  - There is spotted mineralization in the calcite / dolomite < 1 inch
  - I see a bit of pink feldspar
  - It looks like a small grain diabase when magnified
- Pictures 879 Samples 174 – 175 – 176 - 177

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.010	3610	109	36.8

Sample 174

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.014	5430	67	39.4

Sample 175

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.012	1690	98	27

Sample 176

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.009	4520	28	12.8

Sample 177

17T 0510283 Elevation = 286m

5199137

- Map 2212 indicates 11 Quartz diabase (Nipissing type) PRECAMBRIAN Late mafic intrusive rocks
  - Sample 178 has pink and black crystals with a bit of white crystals under magnification
  - The mineralization was fine grain and scattered throughout
  - There was a bit of calcite / dolomite on the largest piece
  - The mineralization in the calcite / dolomite was fine grain and scattered
- Pictures 880 Sample 178

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.008	2040	82	33.2

17T 0496815 Elevation = 416m

5201061

- Sample 179 was taken earlier in the season on 26-09-2017
- I see a pink granite
- I see dark orange staining
- I see large black staining
- I see some black quartz
- Some of the light orange quartz is clear like a crystal
- Minerals are a golden colour in dark quartz
- I see some orange minerals
- I see some muscovite mica
- I see some light green quartz
- Surface is white quartz with small amount of rusty minerals
- I see one eroded mineral ball (about 1.5 to 1.25 inch)
- Mineral balls have silver metallic minerals

Pictures 881 Sample 179

Au (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)
0.057	2080	17	25.1



## SUMMARY OF QUALIFICATIONS: Michel Lavoie

- Worked in the Diamond Drilling industry from 1987 to 1992.
- Had a prospecting licence since 1998
- Diverse background in the field of Diamond Drilling and Exploration
- Researched and prepared notes, sketches and maps relating to mining activity for Premier Exploration
- Graduated with Honors from Business Administration Program at Cambrian College
- Attended Laurentian University's Chemistry program specializing in Environmental Chemistry
- Related courses taken:
  - GEOL 1006 Introductory Geology I  
Building a Planet, Minerals: the building blocks of life, Introduction to the major rock groups, Igneous rocks: solid from melts, Volcanism, Weathering and erosion, Sediments and sedimentary rocks, Metamorphic rocks, Mineral Resources, Folds, Faults and other records of rock deformation, Earthquakes, The Earth's interior, plate tectonics: The unifying theory, Deformation and structures of the continental crust  
Labs: Geologic perspective, Mineral Properties/Identification, Igneous rocks I, Igneous rocks II, Sudbury Geology, Optical Microscopy, Sedimentary rocks I, Sedimentary rocks II, Metamorphic rocks, Dating of rocks, fossils and Geological events
  - GEOL 1026 Intro to Physical Geography  
A geographical investigation of the natural environment and its links with humankind. An introduction to environmental concepts and spatial systems. Development of skills to describe and interpret environmental data.
  - GEOL 3397 Introductory Soil Science  
An introduction to the formation and classification of soils, including their physical, chemical and biological properties. Also considers environmental issues involving soil.
  - CHMI 1006 General Chemistry I, CHMI 1007 General Chemistry II
  - CHMI 1041 Chemical Concepts
  - CHMI 1202 Organic Chemistry & Biochemistry
  - CHMI 2041 Introductory Environmental Chemistry
  - CHMI 2117 Introductory Quantitative Analysis (Analytical Chemistry)
  - CHMI 2316 Inorganic Chemistry I
  - CHMI 2426 Organic Chemistry I, CHMI 2427 Organic Chemistry II
  - CHMI 2516 Introductory Physical Chemistry I
  - ENGR 3126 Occupational Health Engineering
  - ENGR 1007 Engineering Graphics and Design
  - BIOL 1506 Biology I, BIOL 1507 Biology II



CLIENT NAME: MISC AGAT CLIENT ON, ON

ATTENTION TO: Michael Lavoie

PROJECT:

AGAT WORK ORDER: 17T242319

SOLID ANALYSIS REVIEWED BY: Kevin Motomura, Data Review Supervisor

DATE REPORTED: Aug 04, 2017

PAGES (INCLUDING COVER): 10

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 17T242319

PROJECT:

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Jul 26, 2017

DATE RECEIVED: Jul 27, 2017

DATE REPORTED: Aug 04, 2017

SAMPLE TYPE: Other

Analyte:	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
Unit:	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
RDL:	1	0.01	30	20	0.5	5	0.1	0.05	0.2	0.1	0.5	0.005	0.1	5
Sample ID (AGAT ID)														
Sample 1 (8592300)	<1	7.96	<30	31	258	<5	3.6	2.19	<0.2	59.9	174	0.014	5.0	39
Sample 2 (8592301)	<1	5.38	<30	<20	118	<5	0.2	1.73	<0.2	62.6	9.8	<0.005	0.7	25
Sample 3 (8592302)	<1	8.59	<30	31	514	<5	1.7	1.49	<0.2	72.8	115	0.014	6.3	10
Sample 4 (8592303)	<1	6.89	<30	64	339	<5	0.9	7.16	0.3	10.3	95.5	<0.005	0.4	169
Sample 5 (8592304)	<1	6.44	<30	25	438	<5	0.2	3.87	0.2	32.3	39.2	0.014	2.1	94
Sample 6 (8592305)	<1	8.11	<30	30	484	<5	1.3	1.60	<0.2	63.1	91.6	0.014	6.5	12
Sample 7 (8592306)	<1	7.56	<30	42	575	5	0.4	5.50	<0.2	13.3	65.1	<0.005	14.0	158
Sample 8 (8592307)	<1	8.41	<30	30	485	<5	0.9	1.42	<0.2	65.7	81.6	0.014	6.4	10
Analyte:	Dy	Er	Eu	Fe	Ga	Gd	Ge	Hf	Ho	In	K	La	Li	Lu
Unit:	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
RDL:	0.05	0.05	0.05	0.01	0.01	0.05	1	1	0.05	0.2	0.05	0.1	10	0.05
Sample ID (AGAT ID)														
Sample 1 (8592300)	2.88	1.80	0.97	6.43	18.9	3.60	2	5	0.69	<0.2	1.55	29.1	30	0.32
Sample 2 (8592301)	2.81	1.76	1.03	4.14	16.5	3.36	2	5	0.63	<0.2	0.30	39.6	11	0.35
Sample 3 (8592302)	3.48	1.99	1.13	5.58	22.6	4.35	2	6	0.76	<0.2	2.61	35.1	36	0.34
Sample 4 (8592303)	1.65	1.08	0.60	13.1	22.7	1.60	2	<1	0.41	<0.2	0.71	5.0	43	0.17
Sample 5 (8592304)	2.30	1.29	0.79	5.23	18.9	2.74	1	3	0.48	<0.2	0.86	16.7	22	0.23
Sample 6 (8592305)	3.05	1.78	1.07	5.44	21.6	3.84	2	5	0.71	<0.2	2.31	31.2	34	0.30
Sample 7 (8592306)	2.57	1.68	0.72	10.6	20.7	2.29	2	2	0.62	<0.2	1.77	6.1	80	0.26
Sample 8 (8592307)	3.18	1.81	1.12	5.72	20.8	4.20	2	5	0.70	<0.2	2.62	32.6	37	0.29
Analyte:	Mg	Mn	Mo	Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Sc	Si
Unit:	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%
RDL:	0.01	10	2	1	0.1	5	0.01	5	0.05	0.2	0.01	0.1	5	0.01
Sample ID (AGAT ID)														
Sample 1 (8592300)	1.34	1080	<2	8	22.8	67	0.09	15	7.03	131	1.10	<0.1	14	27.4
Sample 2 (8592301)	0.74	393	<2	6	25.6	17	0.06	6	7.61	16.7	0.11	<0.1	10	33.4
Sample 3 (8592302)	1.36	829	<2	9	27.7	62	0.08	12	8.71	176	0.43	<0.1	15	28.3
Sample 4 (8592303)	5.16	1360	<2	<1	5.2	100	0.03	17	1.43	37.6	1.50	0.1	45	18.6
Sample 5 (8592304)	3.06	1200	3	4	15.0	88	0.06	21	4.30	36.6	0.49	<0.1	9	27.5
Sample 6 (8592305)	1.37	904	<2	9	24.3	63	0.07	13	7.86	178	0.40	0.1	15	27.2
Sample 7 (8592306)	3.15	1520	<2	3	7.4	58	0.03	13	1.98	184	0.53	<0.1	33	21.3
Sample 8 (8592307)	1.45	867	<2	8	26.0	66	0.07	12	8.01	178	0.28	<0.1	15	28.0

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T242319

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Jul 26, 2017

DATE RECEIVED: Jul 27, 2017

DATE REPORTED: Aug 04, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Sm	Sn	Sr	Ta	Tb	Th	Ti	Tl	Tm	U	V	W	Y	Yb
	Unit:	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	RDL:	0.1	1	0.1	0.5	0.05	0.1	0.01	0.5	0.05	0.05	5	1	0.5	0.1
Sample 1 (8592300)		4.0	<1	293	<0.5	0.60	14.4	0.40	1.1	0.27	5.55	113	1	16.6	1.9
Sample 2 (8592301)		4.5	<1	320	<0.5	0.56	3.4	0.25	<0.5	0.30	1.03	40	<1	15.1	2.0
Sample 3 (8592302)		5.0	1	273	<0.5	0.74	15.7	0.42	1.3	0.29	6.41	120	2	18.4	2.0
Sample 4 (8592303)		1.3	<1	605	<0.5	0.31	0.3	1.37	<0.5	0.17	0.36	868	<1	9.6	0.9
Sample 5 (8592304)		2.9	<1	356	<0.5	0.46	5.5	0.36	<0.5	0.20	1.58	116	<1	12.9	1.3
Sample 6 (8592305)		4.6	1	285	<0.5	0.65	14.7	0.41	1.3	0.29	5.40	124	1	17.5	1.8
Sample 7 (8592306)		2.0	<1	360	<0.5	0.45	2.6	1.16	1.4	0.27	1.00	616	<1	15.4	1.7
Sample 8 (8592307)		4.6	<1	267	<0.5	0.64	14.1	0.41	1.3	0.29	5.50	121	1	17.9	1.9

Sample ID (AGAT ID)	Analyte:	Zn	Zr
	Unit:	ppm	ppm
	RDL:	5	0.5
Sample 1 (8592300)		70	189
Sample 2 (8592301)		40	195
Sample 3 (8592302)		73	195
Sample 4 (8592303)		130	19.2
Sample 5 (8592304)		102	127
Sample 6 (8592305)		72	196
Sample 7 (8592306)		135	53.6
Sample 8 (8592307)		79	179

Comments: RDL - Reported Detection Limit

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T242319

PROJECT:

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MISSISSAUGA, ONTARIO  
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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

### (202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

DATE SAMPLED: Jul 26, 2017

DATE RECEIVED: Jul 27, 2017

DATE REPORTED: Aug 04, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Au	Pd	Pt
	Unit:	ppm	ppm	ppm
	RDL:	0.001	0.001	0.005
Sample 1 (8592300)		0.009	0.002	<0.005
Sample 2 (8592301)		0.003	<0.001	<0.005
Sample 3 (8592302)		0.008	0.002	<0.005
Sample 4 (8592303)		0.003	<0.001	<0.005
Sample 5 (8592304)		0.002	<0.001	<0.005
Sample 6 (8592305)		0.033	0.002	<0.005
Sample 7 (8592306)		0.003	<0.001	<0.005
Sample 8 (8592307)		0.001	0.002	<0.005

Comments: RDL - Reported Detection Limit

Certified By:



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	REPLICATE #1				RPD													
	Sample ID	Original	Replicate	RPD														
Ag	8592300	< 1	< 1	0.0%														
Al	8592300	7.96	7.61	4.5%														
As	8592300	< 30	< 30	0.0%														
B	8592300	31	30	3.3%														
Ba	8592300	258	258	0.0%														
Be	8592300	< 5	< 5	0.0%														
Bi	8592300	3.60	3.66	1.7%														
Ca	8592300	2.19	2.11	3.7%														
Cd	8592300	< 0.2	< 0.2	0.0%														
Ce	8592300	59.9	59.2	1.2%														
Co	8592300	174	171	1.7%														
Cr	8592300	0.014	0.014	0.0%														
Cs	8592300	5.0	5.1	2.0%														
Cu	8592300	39	38	2.6%														
Dy	8592300	2.88	2.90	0.7%														
Er	8592300	1.80	1.61	11.1%														
Eu	8592300	0.97	1.00	3.0%														
Fe	8592300	6.43	6.22	3.3%														
Ga	8592300	18.9	19.6	3.6%														
Gd	8592300	3.60	3.79	5.1%														
Ge	8592300	2	2	0.0%														
Hf	8592300	5	5	0.0%														
Ho	8592300	0.69	0.67	2.9%														
In	8592300	< 0.2	< 0.2	0.0%														
K	8592300	1.55	1.47	5.3%														
La	8592300	29.1	28.7	1.4%														
Li	8592300	30	29	3.4%														
Lu	8592300	0.32	0.32	0.0%														
Mg	8592300	1.34	1.34	0.0%														
Mn	8592300	1080	1080	0.0%														
Mo	8592300	< 2	< 2	0.0%														



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

Nb	8592300	8	8	0.0%															
Nd	8592300	22.8	22.5	1.3%															
Ni	8592300	67	67	0.0%															
P	8592300	0.087	0.083	4.7%															
Pb	8592300	15	15	0.0%															
Pr	8592300	7.03	7.02	0.1%															
Rb	8592300	131	127	3.1%															
S	8592300	1.10	1.13	2.7%															
Sb	8592300	< 0.1	< 0.1	0.0%															
Sc	8592300	14	14	0.0%															
Si	8592300	27.4	26.3	4.1%															
Sm	8592300	3.97	4.15	4.4%															
Sn	8592300	< 1	1																
Sr	8592300	293	291	0.7%															
Ta	8592300	< 0.5	< 0.5	0.0%															
Tb	8592300	0.597	0.589	1.3%															
Th	8592300	14.4	14.2	1.4%															
Ti	8592300	0.398	0.379	4.9%															
Tl	8592300	1.1	1.1	0.0%															
Tm	8592300	0.27	0.28	3.6%															
U	8592300	5.55	5.48	1.3%															
V	8592300	113	113	0.0%															
W	8592300	1	< 1																
Y	8592300	16.6	16.4	1.2%															
Yb	8592300	1.85	1.62	13.3%															
Zn	8592300	70	69	1.4%															
Zr	8592300	189	185	2.1%															

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	REPLICATE #1				RPD															
	Sample ID	Original	Replicate	RPD																
Au	8592300	0.0087	0.0082	5.9%																
Pd	8592300	0.002	0.002	0.0%																
Pt	8592300	< 0.005	< 0.005	0.0%																



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	CRM #1 (ref.SY-4)																	
	Expect	Actual	Recovery	Limits														
Al	10.95	10.87	99%	90% - 110%														
Ba	340	313	92%	90% - 110%														
Be	2.6	3	115%	90% - 110%														
Ca	5.72	5.79	101%	90% - 110%														
Ce	122	122	100%	90% - 110%														
Co	2.8	2.4	85%	90% - 110%														
Cs	1.5	1.5	99%	90% - 110%														
Cu	7	7	93%	90% - 110%														
Dy	18.2	18.2	100%	90% - 110%														
Er	14.2	14.8	104%	90% - 110%														
Eu	2.0	2	100%	90% - 110%														
Fe	4.34	4.36	100%	90% - 110%														
Ga	35	37	105%	90% - 110%														
Gd	14	15	109%	90% - 110%														
Hf	10.6	10.3	98%	90% - 110%														
Ho	4.3	4.7	110%	90% - 110%														
K	1.37	1.37	100%	90% - 110%														
La	58	61	106%	90% - 110%														
Li	37	37	100%	90% - 110%														
Lu	2.1	2.3	108%	90% - 110%														
Mg	0.325	0.293	90%	90% - 110%														
Mn	836	792	95%	90% - 110%														
Nb	13	13	102%	90% - 110%														
Nd	57	56	97%	90% - 110%														
Pb	10	10	102%	90% - 110%														
Pr	15.0	16.5	110%	90% - 110%														
Rb	55	52	95%	90% - 110%														
Si	23.3	22.3	96%	90% - 110%														
Sm	12.7	12.3	97%	90% - 110%														
Sn	7.1	6.6	93%	90% - 110%														
Sr	1191	1170	98%	90% - 110%														





CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

Ta	0.9	1	111%	90% - 110%													
Tb	2.6	2.9	110%	90% - 110%													
Th	1.4	1.4	102%	90% - 110%													
Ti	0.172	0.176	102%	90% - 110%													
Tm	2.3	2.5	109%	90% - 110%													
U	0.8	0.8	98%	90% - 110%													
V	8	10	119%	90% - 110%													
Yb	14.8	15	102%	90% - 110%													
Zn	93	98	106%	90% - 110%													
Zr	517	536	104%	90% - 110%													

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

CRM #1 (ref.PG124)																	
Parameter	Expect	Actual	Recovery	Limits													
Au	0.321	0.343	107%	90% - 110%													
Pd	0.037	0.037	99%	90% - 110%													
Pt	0.09	0.09	99%	90% - 110%													



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T242319

PROJECT:

ATTENTION TO: Michael Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Ag			ICP/MS
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/MS
B	MIN-200-12001		ICP/OES
Ba	MIN-200-12001		ICP/OES
Be	MIN-200-12001		ICP/OES
Bi	MIN-200-12001		ICP-MS
Ca	MIN-200-12001		ICP/OES
Cd	MIN-200-12001		ICP-MS
Ce	MIN-200-12001		ICP-MS
Co	MIN-200-12001		ICP/MS
Cr	MIN-200-12001		ICP/OES
Cs	MIN-200-12001		ICP-MS
Cu	MIN-200-12001		ICP/OES
Dy	MIN-200-12001		ICP-MS
Er	MIN-200-12001		ICP-MS
Eu	MIN-200-12001		ICP-MS
Fe	MIN-200-12001		ICP/OES
Ga	MIN-200-12001		ICP-MS
Gd	MIN-200-12001		ICP-MS
Ge	MIN-200-12001		ICP-MS
Hf	MIN-200-12001		ICP-MS
Ho	MIN-200-12001		ICP-MS
In	MIN-200-12001		ICP-MS
K	MIN-200-12001		ICP/OES
La	MIN-200-12001		ICP-MS
Li	MIN-200-12001		ICP/OES
Lu	MIN-200-12001		ICP-MS
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/MS
Nb	MIN-200-12001		ICP-MS
Nd	MIN-200-12001		ICP-MS
Ni	MIN-200-12001		ICP/OES
P			ICP/OES
Pb	MIN-200-12001		ICP/MS
Pr	MIN-200-12001		ICP-MS
Rb	MIN-200-12001		ICP/MS
S	MIN-200-12001		ICP/OES
Sb	MIN-200-12001		ICP-MS
Sc	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
Sm	MIN-200-12001		ICP-MS
Sn	MIN-200-12001		ICP/MS
Sr	MIN-200-12001		ICP-OES
Ta	MIN-200-12001		ICP-MS
Tb	MIN-200-12001		ICP-MS
Th	MIN-200-12001		ICP-MS
Ti	MIN-200-12001		ICP/OES

## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T242319

PROJECT:

ATTENTION TO: Michael Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Tl	MIN-200-12001		ICP-MS
Tm	MIN-200-12001		ICP-MS
U	MIN-200-12001		ICP-MS
V	MIN-200-12001		ICP/OES
W	MIN-200-12001		ICP-MS
Y	MIN-200-12001		ICP-MS
Yb	MIN-200-12001		ICP-MS
Zn	MIN-200-12001		ICP/OES
Zr	MIN-200-12001		ICP-MS
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES



CLIENT NAME: MISC AGAT CLIENT ON, ON

ATTENTION TO: Michael Lavoie

PROJECT:

AGAT WORK ORDER: 17T242303

SOLID ANALYSIS REVIEWED BY: Kevin Motomura, Data Review Supervisor

DATE REPORTED: Aug 04, 2017

PAGES (INCLUDING COVER): 10

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 17T242303

PROJECT:

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MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Jul 26, 2017

DATE RECEIVED: Jul 27, 2017

DATE REPORTED: Aug 04, 2017

SAMPLE TYPE: Other

Analyte:	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
Unit:	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
RDL:	1	0.01	30	20	0.5	5	0.1	0.05	0.2	0.1	0.5	0.005	0.1	5
Sample ID (AGAT ID)														
Sample 9A (8592231)	<1	7.26	<30	<20	390	<5	0.6	1.48	<0.2	47.6	18.0	0.011	3.1	29
Sample 10 (8592232)	<1	7.07	<30	<20	443	<5	0.8	1.58	<0.2	53.5	25.1	0.012	3.4	113
Sample 11 (8592233)	<1	9.10	<30	<20	648	<5	0.1	2.20	<0.2	80.0	19.0	0.018	3.6	21
Sample 12 (8592234)	<1	6.71	<30	34	608	<5	0.1	5.21	<0.2	39.9	48.5	0.073	2.0	44
Sample 9B (8592235)	<1	7.84	<30	<20	709	<5	0.8	1.67	<0.2	72.6	27.0	0.013	5.1	39
Analyte:	Dy	Er	Eu	Fe	Ga	Gd	Ge	Hf	Ho	In	K	La	Li	Lu
Unit:	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
RDL:	0.05	0.05	0.05	0.01	0.01	0.05	1	1	0.05	0.2	0.05	0.1	10	0.05
Sample ID (AGAT ID)														
Sample 9A (8592231)	2.04	1.32	0.87	3.61	17.1	2.83	1	5	0.40	<0.2	1.14	22.6	31	0.18
Sample 10 (8592232)	2.42	1.36	1.04	4.43	17.6	3.28	1	5	0.49	<0.2	1.28	25.1	30	0.22
Sample 11 (8592233)	3.14	1.93	1.18	4.13	23.1	4.59	1	5	0.61	<0.2	1.69	39.1	49	0.25
Sample 12 (8592234)	2.43	1.36	0.81	7.08	19.6	3.00	1	3	0.47	<0.2	1.25	18.7	63	0.22
Sample 9B (8592235)	3.17	1.70	1.36	4.75	18.6	4.77	1	5	0.62	<0.2	1.73	34.1	44	0.25
Analyte:	Mg	Mn	Mo	Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Sc	Si
Unit:	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%
RDL:	0.01	10	2	1	0.1	5	0.01	5	0.05	0.2	0.01	0.1	5	0.01
Sample ID (AGAT ID)														
Sample 9A (8592231)	1.37	826	<2	7	19.0	50	0.06	43	5.58	58.3	0.28	<0.1	11	31.6
Sample 10 (8592232)	1.40	787	<2	10	21.6	57	0.08	32	6.24	69.8	0.41	<0.1	12	30.7
Sample 11 (8592233)	1.58	726	<2	10	30.8	75	0.08	63	9.23	82.5	0.05	<0.1	16	28.1
Sample 12 (8592234)	6.09	1340	<2	4	18.1	315	0.13	10	4.91	70.6	0.14	<0.1	27	23.5
Sample 9B (8592235)	1.81	1270	<2	13	30.7	66	0.11	48	8.51	97.9	0.30	<0.1	15	29.0
Analyte:	Sm	Sn	Sr	Ta	Tb	Th	Ti	Tl	Tm	U	V	W	Y	Yb
Unit:	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
RDL:	0.1	1	0.1	0.5	0.05	0.1	0.01	0.5	0.05	0.05	5	1	0.5	0.1
Sample ID (AGAT ID)														
Sample 9A (8592231)	3.3	1	356	1.0	0.40	7.4	0.28	0.5	0.21	2.78	79	<1	12.0	1.3
Sample 10 (8592232)	3.8	<1	377	1.0	0.48	7.6	0.42	0.7	0.22	2.70	97	<1	14.3	1.5
Sample 11 (8592233)	5.3	2	591	1.0	0.57	13.1	0.42	0.6	0.25	5.19	115	<1	17.7	1.8
Sample 12 (8592234)	3.4	<1	350	<0.5	0.44	3.2	0.43	0.7	0.22	1.12	226	<1	13.9	1.4
Sample 9B (8592235)	5.5	1	386	2.5	0.60	8.2	0.62	0.9	0.25	3.00	111	<1	16.2	1.6

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T242303

PROJECT:

5623 McADAM ROAD  
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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Jul 26, 2017

DATE RECEIVED: Jul 27, 2017

DATE REPORTED: Aug 04, 2017

SAMPLE TYPE: Other

Analyte:	Zn	Zr
Unit:	ppm	ppm
RDL:	5	0.5
Sample ID (AGAT ID)		
Sample 9A (8592231)	89	176
Sample 10 (8592232)	95	175
Sample 11 (8592233)	71	191
Sample 12 (8592234)	145	90.7
Sample 9B (8592235)	123	171

Comments: RDL - Reported Detection Limit

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T242303

PROJECT:

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

### (202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

DATE SAMPLED: Jul 26, 2017

DATE RECEIVED: Jul 27, 2017

DATE REPORTED: Aug 04, 2017

SAMPLE TYPE: Other

Analyte:	Au	Pd	Pt
Unit:	ppm	ppm	ppm
RDL:	0.001	0.001	0.005
Sample ID (AGAT ID)			
Sample 9A (8592231)	0.002	<0.001	<0.005
Sample 10 (8592232)	0.006	<0.001	<0.005
Sample 11 (8592233)	0.003	<0.001	<0.005
Sample 12 (8592234)	<0.001	<0.001	<0.005
Sample 9B (8592235)	0.002	<0.001	<0.005

Comments: RDL - Reported Detection Limit

Certified By:



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	REPLICATE #1				RPD													
	Sample ID	Original	Replicate	RPD														
Ag	8592231	< 1	< 1	0.0%														
Al	8592231	7.26	7.30	0.5%														
As	8592231	< 30	< 30	0.0%														
B	8592231	< 20	< 20	0.0%														
Ba	8592231	390	394	1.0%														
Be	8592231	< 5	< 5	0.0%														
Bi	8592231	0.6	0.6	0.0%														
Ca	8592231	1.48	1.50	1.3%														
Cd	8592231	< 0.2	< 0.2	0.0%														
Ce	8592231	47.6	47.9	0.6%														
Co	8592231	18.0	18.0	0.0%														
Cr	8592231	0.011	0.011	0.0%														
Cs	8592231	3.14	3.16	0.6%														
Cu	8592231	29	28	3.5%														
Dy	8592231	2.04	2.04	0.0%														
Er	8592231	1.32	1.26	4.7%														
Eu	8592231	0.873	0.843	3.5%														
Fe	8592231	3.61	3.64	0.8%														
Ga	8592231	17.1	17.1	0.0%														
Gd	8592231	2.83	2.88	1.8%														
Ge	8592231	1	1	0.0%														
Hf	8592231	5	5	0.0%														
Ho	8592231	0.40	0.41	2.5%														
In	8592231	< 0.2	< 0.2	0.0%														
K	8592231	1.14	1.14	0.0%														
La	8592231	22.6	22.5	0.4%														
Li	8592231	31	30	3.3%														
Lu	8592231	0.18	0.18	0.0%														
Mg	8592231	1.37	1.39	1.4%														
Mn	8592231	826	762	8.1%														
Mo	8592231	< 2	< 2	0.0%														





CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

Nb	8592231	7	7	0.0%																
Nd	8592231	19.0	18.4	3.2%																
Ni	8592231	50	52	3.9%																
P	8592231	0.065	0.068	4.5%																
Pb	8592231	43	42	2.4%																
Pr	8592231	5.58	5.38	3.6%																
Rb	8592231	58.3	60.7	4.0%																
S	8592231	0.277	0.261	5.9%																
Sb	8592231	< 0.1	< 0.1	0.0%																
Sc	8592231	11	11	0.0%																
Si	8592231	31.6	31.7	0.3%																
Sm	8592231	3.3	3.3	0.0%																
Sn	8592231	1	< 1																	
Sr	8592231	356	366	2.8%																
Ta	8592231	0.96	0.94	2.1%																
Tb	8592231	0.40	0.39	2.5%																
Th	8592231	7.41	7.48	0.9%																
Ti	8592231	0.284	0.288	1.4%																
Tl	8592231	0.5	0.5	0.0%																
Tm	8592231	0.206	0.201	2.5%																
U	8592231	2.78	2.72	2.2%																
V	8592231	79	81	2.5%																
W	8592231	< 1	< 1	0.0%																
Y	8592231	12.0	11.7	2.5%																
Yb	8592231	1.26	1.20	4.9%																
Zn	8592231	89	90	1.1%																
Zr	8592231	176	169	4.1%																

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	REPLICATE #1				RPD																		
	Sample ID	Original	Replicate	RPD																			
Au	8592231	0.002	0.003																				
Pd	8592231	< 0.001	< 0.001	0.0%																			
Pt	8592231	< 0.005	< 0.005	0.0%																			



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	CRM #1 (ref.SY-4)																		
	Expect	Actual	Recovery	Limits															
Al	10.95	10.66	97%	90% - 110%															
Ba	340	332	98%	90% - 110%															
Be	2.6	3.1	120%	90% - 110%															
Ca	5.72	5.75	100%	90% - 110%															
Ce	122	132	108%	90% - 110%															
Co	2.8	2.3	83%	90% - 110%															
Cs	1.5	1.7	113%	90% - 110%															
Cu	7	5	78%	90% - 110%															
Dy	18.2	18.4	101%	90% - 110%															
Er	14.2	14.4	101%	90% - 110%															
Eu	2.0	1.9	93%	90% - 110%															
Fe	4.34	4.29	99%	90% - 110%															
Ga	35	36	102%	90% - 110%															
Gd	14	15	105%	90% - 110%															
Hf	10.6	10.7	101%	90% - 110%															
Ho	4.3	4.5	104%	90% - 110%															
K	1.37	1.36	99%	90% - 110%															
La	58	62	107%	90% - 110%															
Li	37	35	96%	90% - 110%															
Lu	2.1	2.2	102%	90% - 110%															
Mg	0.325	0.303	93%	90% - 110%															
Mn	836	828	99%	90% - 110%															
Nb	13	15	118%	90% - 110%															
Nd	57	58	101%	90% - 110%															
Pb	10	10	101%	90% - 110%															
Pr	15.0	16.1	107%	90% - 110%															
Rb	55	54	99%	90% - 110%															
Si	23.3	22.4	96%	90% - 110%															
Sm	12.7	12.3	97%	90% - 110%															
Sn	7.1	7.5	105%	90% - 110%															
Sr	1191	1236	104%	90% - 110%															



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michael Lavoie

Tb	2.6	2.7	104%	90% - 110%													
Th	1.4	1.5	107%	90% - 110%													
Ti	0.172	0.172	100%	90% - 110%													
Tm	2.3	2.3	101%	90% - 110%													
V	8	10	120%	90% - 110%													
Yb	14.8	15.6	105%	90% - 110%													
Zn	93	92	99%	90% - 110%													
Zr	517	550	106%	90% - 110%													

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

CRM #1 (ref.PG129)																	
Parameter	Expect	Actual	Recovery	Limits													
Au	1.1	1.1	98%	90% - 110%													
Pd	0.115	0.114	99%	90% - 110%													
Pt	0.239	0.234	98%	90% - 110%													



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T242303

PROJECT:

ATTENTION TO: Michael Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Ag			ICP/MS
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/MS
B	MIN-200-12001		ICP/OES
Ba	MIN-200-12001		ICP/OES
Be	MIN-200-12001		ICP/OES
Bi	MIN-200-12001		ICP-MS
Ca	MIN-200-12001		ICP/OES
Cd	MIN-200-12001		ICP-MS
Ce	MIN-200-12001		ICP-MS
Co	MIN-200-12001		ICP/MS
Cr	MIN-200-12001		ICP/OES
Cs	MIN-200-12001		ICP-MS
Cu	MIN-200-12001		ICP/OES
Dy	MIN-200-12001		ICP-MS
Er	MIN-200-12001		ICP-MS
Eu	MIN-200-12001		ICP-MS
Fe	MIN-200-12001		ICP/OES
Ga	MIN-200-12001		ICP-MS
Gd	MIN-200-12001		ICP-MS
Ge	MIN-200-12001		ICP-MS
Hf	MIN-200-12001		ICP-MS
Ho	MIN-200-12001		ICP-MS
In	MIN-200-12001		ICP-MS
K	MIN-200-12001		ICP/OES
La	MIN-200-12001		ICP-MS
Li	MIN-200-12001		ICP/OES
Lu	MIN-200-12001		ICP-MS
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/MS
Nb	MIN-200-12001		ICP-MS
Nd	MIN-200-12001		ICP-MS
Ni	MIN-200-12001		ICP/OES
P			ICP/OES
Pb	MIN-200-12001		ICP/MS
Pr	MIN-200-12001		ICP-MS
Rb	MIN-200-12001		ICP/MS
S	MIN-200-12001		ICP/OES
Sb	MIN-200-12001		ICP-MS
Sc	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
Sm	MIN-200-12001		ICP-MS
Sn	MIN-200-12001		ICP/MS
Sr	MIN-200-12001		ICP-OES
Ta	MIN-200-12001		ICP-MS
Tb	MIN-200-12001		ICP-MS
Th	MIN-200-12001		ICP-MS
Ti	MIN-200-12001		ICP/OES

## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T242303

PROJECT:

ATTENTION TO: Michael Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Tl	MIN-200-12001		ICP-MS
Tm	MIN-200-12001		ICP-MS
U	MIN-200-12001		ICP-MS
V	MIN-200-12001		ICP/OES
W	MIN-200-12001		ICP-MS
Y	MIN-200-12001		ICP-MS
Yb	MIN-200-12001		ICP-MS
Zn	MIN-200-12001		ICP/OES
Zr	MIN-200-12001		ICP-MS
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES



CLIENT NAME: MISC AGAT CLIENT ON, ON

ATTENTION TO: Michel Lavoie

PROJECT: Michel Lavoie

AGAT WORK ORDER: 17T241916

SOLID ANALYSIS REVIEWED BY: Kevin Motomura, Data Review Supervisor

DATE REPORTED: Aug 04, 2017

PAGES (INCLUDING COVER): 10

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 17T241916

PROJECT: Michel Lavoie

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Jul 25, 2017

DATE RECEIVED: Jul 26, 2017

DATE REPORTED: Aug 04, 2017

SAMPLE TYPE: Other

Analyte:	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
Unit:	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
RDL:	1	0.01	30	20	0.5	5	0.1	0.05	0.2	0.1	0.5	0.005	0.1	5
Sample ID (AGAT ID)														
Sample14 (8589089)	<1	5.02	<30	32	91.4	<5	1.9	6.05	<0.2	9.8	40.2	0.007	1.2	148
Sample15 (8589090)	<1	6.39	<30	36	246	<5	0.4	1.60	<0.2	36.7	44.6	0.009	6.0	109
Sample16 (8589091)	<1	8.45	<30	<20	2120	12	2.4	1.53	<0.2	90.5	38.8	0.006	3.9	19
Sample17 (8589092)	<1	5.49	<30	<20	1580	10	0.3	1.52	<0.2	62.8	6.2	<0.005	6.3	37
Sample18 (8589093)	<1	0.61	<30	<20	79.9	<5	1.2	0.19	<0.2	2.1	2.6	<0.005	0.7	105
Sample19 (8589094)	<1	10.5	<30	41	1370	7	1.1	2.87	<0.2	61.3	36.8	0.015	12.8	9
Sample20 (8589095)	<1	8.24	<30	42	612	6	1.2	7.37	0.3	8.2	60.8	<0.005	8.9	120

Analyte:	Dy	Er	Eu	Fe	Ga	Gd	Ge	Hf	Ho	In	K	La	Li	Lu
Unit:	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
RDL:	0.05	0.05	0.05	0.01	0.01	0.05	1	1	0.05	0.2	0.05	0.1	10	0.05
Sample ID (AGAT ID)														
Sample14 (8589089)	3.58	2.21	0.77	8.16	15.5	3.23	2	2	0.86	<0.2	0.45	3.9	19	0.42
Sample15 (8589090)	2.97	1.97	0.86	7.11	16.3	3.28	1	3	0.72	<0.2	1.74	18.8	59	0.28
Sample16 (8589091)	3.11	1.59	1.88	2.28	23.8	5.51	1	5	0.63	<0.2	2.73	43.7	45	0.22
Sample17 (8589092)	2.09	0.92	1.30	2.12	17.2	3.84	1	3	0.41	<0.2	2.04	30.8	51	0.16
Sample18 (8589093)	0.09	0.05	0.09	0.74	1.26	0.10	<1	<1	<0.05	<0.2	0.20	1.1	<10	<0.05
Sample19 (8589094)	2.53	1.68	1.12	7.28	27.4	3.81	2	4	0.57	<0.2	3.80	31.6	87	0.28
Sample20 (8589095)	1.58	0.88	0.72	9.69	22.2	1.60	2	<1	0.37	<0.2	1.52	4.0	65	0.14

Analyte:	Mg	Mn	Mo	Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Sc	Si
Unit:	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%
RDL:	0.01	10	2	1	0.1	5	0.01	5	0.05	0.2	0.01	0.1	5	0.01
Sample ID (AGAT ID)														
Sample14 (8589089)	2.61	1270	<2	2	7.4	72	0.05	6	1.65	25.6	0.35	0.1	26	26.7
Sample15 (8589090)	2.47	527	<2	8	16.4	77	0.06	9	4.83	139	0.44	0.1	20	29.4
Sample16 (8589091)	0.73	413	6	9	40.2	17	0.11	23	11.7	123	0.21	<0.1	7	30.0
Sample17 (8589092)	0.93	621	<2	7	28.1	23	0.07	14	8.23	137	<0.01	<0.1	<5	32.2
Sample18 (8589093)	0.20	63	<2	<1	1.0	19	<0.01	6	0.28	12.2	<0.01	0.1	<5	41.7
Sample19 (8589094)	3.23	1460	6	5	26.3	112	0.09	39	7.68	278	0.02	<0.1	17	20.9
Sample20 (8589095)	3.32	1410	<2	<1	4.8	106	0.02	18	1.16	156	0.64	0.1	30	20.0

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T241916

PROJECT: Michel Lavoie

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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Jul 25, 2017

DATE RECEIVED: Jul 26, 2017

DATE REPORTED: Aug 04, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Sm	Sn	Sr	Ta	Tb	Th	Ti	Tl	Tm	U	V	W	Y	Yb
	Unit:	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	RDL:	0.1	1	0.1	0.5	0.05	0.1	0.01	0.5	0.05	0.05	5	1	0.5	0.1
Sample14 (8589089)		2.2	1	139	<0.5	0.59	0.3	0.59	<0.5	0.38	0.11	246	<1	20.8	2.3
Sample15 (8589090)		3.2	<1	218	<0.5	0.58	5.4	0.51	1.0	0.32	2.35	129	<1	17.0	1.8
Sample16 (8589091)		6.8	1	243	<0.5	0.76	10.3	0.25	0.7	0.24	3.06	76	2	16.9	1.3
Sample17 (8589092)		5.0	<1	220	<0.5	0.54	5.8	0.16	0.9	0.14	1.58	54	1	11.0	0.8
Sample18 (8589093)		0.2	<1	25.8	<0.5	<0.05	0.5	0.04	<0.5	<0.05	0.14	10	<1	<0.5	<0.1
Sample19 (8589094)		4.4	1	584	<0.5	0.52	11.8	0.56	2.7	0.24	3.25	171	<1	13.6	1.6
Sample20 (8589095)		1.3	<1	463	<0.5	0.28	0.3	0.93	1.2	0.14	0.16	575	<1	8.2	0.9

Sample ID (AGAT ID)	Analyte:	Zn	Zr
	Unit:	ppm	ppm
	RDL:	5	0.5
Sample14 (8589089)		88	64.4
Sample15 (8589090)		82	106
Sample16 (8589091)		44	192
Sample17 (8589092)		72	132
Sample18 (8589093)		12	10.1
Sample19 (8589094)		175	137
Sample20 (8589095)		119	25.3

Comments: RDL - Reported Detection Limit

Certified By:





## Certificate of Analysis

AGAT WORK ORDER: 17T241916

PROJECT: Michel Lavoie

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

DATE SAMPLED: Jul 25, 2017

DATE RECEIVED: Jul 26, 2017

DATE REPORTED: Aug 04, 2017

SAMPLE TYPE: Other

Analyte:	Au	Pd	Pt
Unit:	ppm	ppm	ppm
RDL:	0.001	0.001	0.005
Sample ID (AGAT ID)			
Sample14 (8589089)	0.009	0.001	<0.005
Sample15 (8589090)	0.026	0.002	<0.005
Sample16 (8589091)	0.006	0.001	<0.005
Sample17 (8589092)	0.003	<0.001	<0.005
Sample18 (8589093)	0.078	0.001	<0.005
Sample19 (8589094)	0.002	0.002	<0.005
Sample20 (8589095)	0.003	<0.001	<0.005

Comments: RDL - Reported Detection Limit

Certified By:



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	REPLICATE #1				RPD													
	Sample ID	Original	Replicate	RPD														
Ag	8589089	< 1	< 1	0.0%														
Al	8589089	5.02	5.03	0.2%														
As	8589089	< 30	< 30	0.0%														
B	8589089	32	33	3.1%														
Ba	8589089	91.4	90.2	1.3%														
Be	8589089	< 5	< 5	0.0%														
Bi	8589089	1.9	1.9	0.0%														
Ca	8589089	6.05	6.04	0.2%														
Cd	8589089	< 0.2	< 0.2	0.0%														
Ce	8589089	9.78	9.61	1.8%														
Co	8589089	40.2	38.3	4.8%														
Cr	8589089	0.007	0.007	0.0%														
Cs	8589089	1.2	1.1	8.7%														
Cu	8589089	148	147	0.7%														
Dy	8589089	3.58	3.39	5.5%														
Er	8589089	2.21	2.26	2.2%														
Eu	8589089	0.77	0.82	6.3%														
Fe	8589089	8.16	8.10	0.7%														
Ga	8589089	15.5	14.5	6.7%														
Gd	8589089	3.23	2.99	7.7%														
Ge	8589089	2	2	0.0%														
Hf	8589089	2	2	0.0%														
Ho	8589089	0.86	0.86	0.0%														
In	8589089	< 0.2	< 0.2	0.0%														
K	8589089	0.45	0.45	0.0%														
La	8589089	3.9	3.9	0.0%														
Li	8589089	19	17	11.1%														
Lu	8589089	0.42	0.42	0.0%														
Mg	8589089	2.61	2.58	1.2%														
Mn	8589089	1270	1260	0.8%														
Mo	8589089	< 2	< 2	0.0%														



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

Nb	8589089	2	2	0.0%															
Nd	8589089	7.4	7.4	0.0%															
Ni	8589089	72	68	5.7%															
P	8589089	0.047	0.040	16.1%															
Pb	8589089	6	6	0.0%															
Pr	8589089	1.65	1.63	1.2%															
Rb	8589089	25.6	24.8	3.2%															
S	8589089	0.349	0.331	5.3%															
Sb	8589089	0.1	< 0.1																
Sc	8589089	26	26	0.0%															
Si	8589089	26.7	26.6	0.4%															
Sm	8589089	2.2	2.4	8.7%															
Sn	8589089	1	< 1																
Sr	8589089	139	137	1.4%															
Ta	8589089	< 0.5	< 0.5	0.0%															
Tb	8589089	0.594	0.619	4.1%															
Th	8589089	0.3	0.3	0.0%															
Ti	8589089	0.593	0.599	1.0%															
Tl	8589089	< 0.5	< 0.5	0.0%															
Tm	8589089	0.38	0.36	5.4%															
U	8589089	0.11	0.11	0.0%															
V	8589089	246	243	1.2%															
W	8589089	< 1	< 1	0.0%															
Y	8589089	20.8	20.1	3.4%															
Yb	8589089	2.3	2.5	8.3%															
Zn	8589089	88	87	1.1%															
Zr	8589089	64.4	60.3	6.6%															

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	REPLICATE #1				RPD															
	Sample ID	Original	Replicate	RPD																
Au	8589089	0.009	0.006																	
Pd	8589089	0.001	< 0.001																	
Pt	8589089	< 0.005	< 0.005	0.0%																



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	CRM #1 (ref.SY-4)																	
	Expect	Actual	Recovery	Limits														
Al	10.95	10.87	99%	90% - 110%														
Ba	340	313	92%	90% - 110%														
Be	2.6	3	115%	90% - 110%														
Ca	5.72	5.79	101%	90% - 110%														
Ce	122	122	100%	90% - 110%														
Co	2.8	2.4	85%	90% - 110%														
Cs	1.5	1.5	99%	90% - 110%														
Cu	7	7	93%	90% - 110%														
Dy	18.2	18.2	100%	90% - 110%														
Er	14.2	14.8	104%	90% - 110%														
Eu	2.0	2	100%	90% - 110%														
Fe	4.34	4.36	100%	90% - 110%														
Ga	35	37	105%	90% - 110%														
Gd	14	15	109%	90% - 110%														
Hf	10.6	10.3	98%	90% - 110%														
Ho	4.3	4.7	110%	90% - 110%														
K	1.37	1.37	100%	90% - 110%														
La	58	61	106%	90% - 110%														
Li	37	37	100%	90% - 110%														
Lu	2.1	2.3	108%	90% - 110%														
Mg	0.325	0.293	90%	90% - 110%														
Mn	836	792	95%	90% - 110%														
Nb	13	13	102%	90% - 110%														
Nd	57	56	97%	90% - 110%														
Pb	10	10	102%	90% - 110%														
Pr	15.0	16.5	110%	90% - 110%														
Rb	55	52	95%	90% - 110%														
Si	23.3	22.3	96%	90% - 110%														
Sm	12.7	12.3	97%	90% - 110%														
Sn	7.1	6.6	93%	90% - 110%														
Sr	1191	1170	98%	90% - 110%														



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

Ta	0.9	1	111%	90% - 110%												
Tb	2.6	2.9	110%	90% - 110%												
Th	1.4	1.4	102%	90% - 110%												
Ti	0.172	0.176	102%	90% - 110%												
Tm	2.3	2.5	109%	90% - 110%												
U	0.8	0.8	98%	90% - 110%												
V	8	10	119%	90% - 110%												
Yb	14.8	15	102%	90% - 110%												
Zn	93	98	106%	90% - 110%												
Zr	517	536	104%	90% - 110%												

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

CRM #1 (ref.PG124)																
Parameter	Expect	Actual	Recovery	Limits												
Au	0.321	0.343	107%	90% - 110%												
Pd	0.037	0.037	99%	90% - 110%												
Pt	0.09	0.09	99%	90% - 110%												



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON  
 PROJECT: Michel Lavoie  
 SAMPLING SITE:

AGAT WORK ORDER: 17T241916  
 ATTENTION TO: Michel Lavoie  
 SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Ag			ICP/MS
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/MS
B	MIN-200-12001		ICP/OES
Ba	MIN-200-12001		ICP/OES
Be	MIN-200-12001		ICP/OES
Bi	MIN-200-12001		ICP-MS
Ca	MIN-200-12001		ICP/OES
Cd	MIN-200-12001		ICP-MS
Ce	MIN-200-12001		ICP-MS
Co	MIN-200-12001		ICP/MS
Cr	MIN-200-12001		ICP/OES
Cs	MIN-200-12001		ICP-MS
Cu	MIN-200-12001		ICP/OES
Dy	MIN-200-12001		ICP-MS
Er	MIN-200-12001		ICP-MS
Eu	MIN-200-12001		ICP-MS
Fe	MIN-200-12001		ICP/OES
Ga	MIN-200-12001		ICP-MS
Gd	MIN-200-12001		ICP-MS
Ge	MIN-200-12001		ICP-MS
Hf	MIN-200-12001		ICP-MS
Ho	MIN-200-12001		ICP-MS
In	MIN-200-12001		ICP-MS
K	MIN-200-12001		ICP/OES
La	MIN-200-12001		ICP-MS
Li	MIN-200-12001		ICP/OES
Lu	MIN-200-12001		ICP-MS
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/MS
Nb	MIN-200-12001		ICP-MS
Nd	MIN-200-12001		ICP-MS
Ni	MIN-200-12001		ICP/OES
P			ICP/OES
Pb	MIN-200-12001		ICP/MS
Pr	MIN-200-12001		ICP-MS
Rb	MIN-200-12001		ICP/MS
S	MIN-200-12001		ICP/OES
Sb	MIN-200-12001		ICP-MS
Sc	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
Sm	MIN-200-12001		ICP-MS
Sn	MIN-200-12001		ICP/MS
Sr	MIN-200-12001		ICP-OES
Ta	MIN-200-12001		ICP-MS
Tb	MIN-200-12001		ICP-MS
Th	MIN-200-12001		ICP-MS
Ti	MIN-200-12001		ICP/OES

## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T241916

PROJECT: Michel Lavoie

ATTENTION TO: Michel Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Tl	MIN-200-12001		ICP-MS
Tm	MIN-200-12001		ICP-MS
U	MIN-200-12001		ICP-MS
V	MIN-200-12001		ICP/OES
W	MIN-200-12001		ICP-MS
Y	MIN-200-12001		ICP-MS
Yb	MIN-200-12001		ICP-MS
Zn	MIN-200-12001		ICP/OES
Zr	MIN-200-12001		ICP-MS
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES



CLIENT NAME: MISC AGAT CLIENT ON, ON

ATTENTION TO: Michel Lavoie

PROJECT: Michel Lavoie

AGAT WORK ORDER: 17T244103

SOLID ANALYSIS REVIEWED BY: Kevin Motomura, Data Review Supervisor

DATE REPORTED: Aug 04, 2017

PAGES (INCLUDING COVER): 9

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.





## Certificate of Analysis

AGAT WORK ORDER: 17T244103

PROJECT: Michel Lavoie

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Jul 31, 2017

DATE RECEIVED: Aug 01, 2017

DATE REPORTED: Aug 04, 2017

SAMPLE TYPE: Other

Analyte:	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
Unit:	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
RDL:	1	0.01	30	20	0.5	5	0.1	0.05	0.2	0.1	0.5	0.005	0.1	5
Sample ID (AGAT ID)														
Sample 21 (8603504)	<1	7.34	<30	40	297	<5	2.4	6.78	0.7	18.8	77.4	0.009	4.1	382
Sample 22 (8603505)	7	7.14	<30	32	50.1	<5	2.3	8.44	1.1	5.1	66.1	0.017	0.2	4020
Analyte:	Dy	Er	Eu	Fe	Ga	Gd	Ge	Hf	Ho	In	K	La	Li	Lu
Unit:	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
RDL:	0.05	0.05	0.05	0.01	0.01	0.05	1	1	0.05	0.2	0.05	0.1	10	0.05
Sample ID (AGAT ID)														
Sample 21 (8603504)	7.13	5.02	1.55	10.2	22.5	5.92	2	3	1.80	<0.2	0.93	7.6	39	0.82
Sample 22 (8603505)	2.31	1.57	0.55	7.35	19.0	1.78	2	1	0.60	<0.2	0.18	2.0	<10	0.29
Analyte:	Mg	Mn	Mo	Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Sc	Si
Unit:	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%
RDL:	0.01	10	2	1	0.1	5	0.01	5	0.05	0.2	0.01	0.1	5	0.01
Sample ID (AGAT ID)														
Sample 21 (8603504)	2.36	2140	3	5	13.9	95	0.07	15	3.25	55.3	1.43	0.1	40	21.4
Sample 22 (8603505)	2.11	1210	<2	<1	3.9	130	0.04	25	0.91	5.6	0.97	0.2	26	24.0
Analyte:	Sm	Sn	Sr	Ta	Tb	Th	Ti	Tl	Tm	U	V	W	Y	Yb
Unit:	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
RDL:	0.1	1	0.1	0.5	0.05	0.1	0.01	0.5	0.05	0.05	5	1	0.5	0.1
Sample ID (AGAT ID)														
Sample 21 (8603504)	4.4	<1	295	<0.5	1.22	1.0	1.06	0.6	0.76	0.57	393	<1	43.7	4.7
Sample 22 (8603505)	1.3	<1	339	<0.5	0.38	<0.1	0.36	<0.5	0.24	0.11	249	<1	13.5	1.5
Analyte:	Zn	Zr												
Unit:	ppm	ppm												
RDL:	5	0.5												
Sample ID (AGAT ID)														
Sample 21 (8603504)	176	114												
Sample 22 (8603505)	105	35.2												

Comments: RDL - Reported Detection Limit

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T244103

PROJECT: Michel Lavoie

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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

DATE SAMPLED: Jul 31, 2017

DATE RECEIVED: Aug 01, 2017

DATE REPORTED: Aug 04, 2017

SAMPLE TYPE: Other

Analyte:	Au	Pd	Pt
Unit:	ppm	ppm	ppm
RDL:	0.001	0.001	0.005
Sample ID (AGAT ID)			
Sample 21 (8603504)	0.006	<0.001	<0.005
Sample 22 (8603505)	0.254	0.004	<0.005

Comments: RDL - Reported Detection Limit

Certified By:



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	REPLICATE #1				RPD													
	Sample ID	Original	Replicate	RPD														
Ag	8603504	< 1	< 1	0.0%														
Al	8603504	7.34	7.34	0.0%														
As	8603504	< 30	< 30	0.0%														
B	8603504	40	43	7.2%														
Ba	8603504	297	296	0.3%														
Be	8603504	< 5	< 5	0.0%														
Bi	8603504	2.36	2.29	3.0%														
Ca	8603504	6.78	6.80	0.3%														
Cd	8603504	0.7	0.6	15.4%														
Ce	8603504	18.8	18.9	0.5%														
Co	8603504	77.4	78.6	1.5%														
Cr	8603504	0.009	0.009	0.0%														
Cs	8603504	4.14	4.42	6.5%														
Cu	8603504	382	399	4.4%														
Dy	8603504	7.13	6.98	2.1%														
Er	8603504	5.02	4.78	4.9%														
Eu	8603504	1.55	1.58	1.9%														
Fe	8603504	10.2	10.3	1.0%														
Ga	8603504	22.5	22.5	0.0%														
Gd	8603504	5.92	6.32	6.5%														
Ge	8603504	2	2	0.0%														
Hf	8603504	3	3	0.0%														
Ho	8603504	1.80	1.76	2.2%														
In	8603504	< 0.2	< 0.2	0.0%														
K	8603504	0.93	0.94	1.1%														
La	8603504	7.6	7.5	1.3%														
Li	8603504	39	39	0.0%														
Lu	8603504	0.818	0.792	3.2%														
Mg	8603504	2.36	2.35	0.4%														
Mn	8603504	2140	2120	0.9%														
Mo	8603504	3	3	0.0%														



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

Nb	8603504	5	5	0.0%																
Nd	8603504	13.9	14.0	0.7%																
Ni	8603504	95	92	3.2%																
P	8603504	0.07	0.07	0.0%																
Pb	8603504	15	16	6.5%																
Pr	8603504	3.25	3.25	0.0%																
Rb	8603504	55.3	56.1	1.4%																
S	8603504	1.43	1.42	0.7%																
Sb	8603504	0.1	0.1	0.0%																
Sc	8603504	40	41	2.5%																
Si	8603504	21.4	21.5	0.5%																
Sm	8603504	4.4	4.5	2.2%																
Sn	8603504	< 1	1																	
Sr	8603504	295	301	2.0%																
Ta	8603504	< 0.5	< 0.5	0.0%																
Tb	8603504	1.22	1.20	1.7%																
Th	8603504	1.0	1.0	0.0%																
Ti	8603504	1.06	1.06	0.0%																
Tl	8603504	0.6	0.6	0.0%																
Tm	8603504	0.761	0.797	4.6%																
U	8603504	0.57	0.57	0.0%																
V	8603504	393	400	1.8%																
W	8603504	< 1	< 1	0.0%																
Y	8603504	43.7	42.7	2.3%																
Yb	8603504	4.7	4.7	0.0%																
Zn	8603504	176	172	2.3%																
Zr	8603504	114	116	1.7%																

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	REPLICATE #1				RPD																	
	Sample ID	Original	Replicate	RPD																		
Au	8603504	0.006	0.006	0.0%																		
Pd	8603504	< 0.001	< 0.001	0.0%																		
Pt	8603504	< 0.005	< 0.005	0.0%																		



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	CRM #1 (ref. Till-2)																	
	Expect	Actual	Recovery	Limits														
Al	8.47	8.01	95%	90% - 110%														
As	26	25	94%	90% - 110%														
Ba	540	496	92%	90% - 110%														
Be	4.0	4	100%	90% - 110%														
Ca	0.907	0.981	108%	90% - 110%														
Ce	98	103	105%	90% - 110%														
Co	15	15	100%	90% - 110%														
Cu	150	157	105%	90% - 110%														
Er	3.7	4	107%	90% - 110%														
Fe	3.77	3.77	100%	90% - 110%														
Hf	11	10	95%	90% - 110%														
K	2.55	2.35	92%	90% - 110%														
La	44	47	106%	90% - 110%														
Li	47	44	94%	90% - 110%														
Lu	0.6	0.6	100%	90% - 110%														
Mg	1.1	1.1	97%	90% - 110%														
Mn	780	722	93%	90% - 110%														
Mo	14	14	98%	90% - 110%														
Nb	20	18	92%	90% - 110%														
Pb	31	34	109%	90% - 110%														
Rb	144	150	104%	90% - 110%														
Sb	0.8	0.7	92%	90% - 110%														
Sc	12	12	96%	90% - 110%														
Si	28.4	26.3	93%	90% - 110%														
Sm	7.4	7.8	105%	90% - 110%														
Sr	144	155	107%	90% - 110%														
Tb	1.2	1.3	109%	90% - 110%														
Th	18.4	20.4	111%	90% - 110%														
Ti	0.527	0.514	98%	90% - 110%														
U	5.7	6	106%	90% - 110%														
V	77	83	108%	90% - 110%														



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

W	5	5	91%	90% - 110%												
Y	40	38	94%	90% - 110%												
Zn	130	131	101%	90% - 110%												
Zr	390	395	101%	90% - 110%												
<b>(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish</b>																
CRM #1 (ref.PG129)																
Parameter	Expect	Actual	Recovery	Limits												
Au	1.1	1.1	102%	90% - 110%												
Pd	0.115	0.115	100%	90% - 110%												
Pt	0.239	0.243	102%	90% - 110%												



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON  
 PROJECT: Michel Lavoie  
 SAMPLING SITE:

AGAT WORK ORDER: 17T244103  
 ATTENTION TO: Michel Lavoie  
 SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Ag			ICP/MS
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/MS
B	MIN-200-12001		ICP/OES
Ba	MIN-200-12001		ICP/OES
Be	MIN-200-12001		ICP/OES
Bi	MIN-200-12001		ICP-MS
Ca	MIN-200-12001		ICP/OES
Cd	MIN-200-12001		ICP-MS
Ce	MIN-200-12001		ICP-MS
Co	MIN-200-12001		ICP/MS
Cr	MIN-200-12001		ICP/OES
Cs	MIN-200-12001		ICP-MS
Cu	MIN-200-12001		ICP/OES
Dy	MIN-200-12001		ICP-MS
Er	MIN-200-12001		ICP-MS
Eu	MIN-200-12001		ICP-MS
Fe	MIN-200-12001		ICP/OES
Ga	MIN-200-12001		ICP-MS
Gd	MIN-200-12001		ICP-MS
Ge	MIN-200-12001		ICP-MS
Hf	MIN-200-12001		ICP-MS
Ho	MIN-200-12001		ICP-MS
In	MIN-200-12001		ICP-MS
K	MIN-200-12001		ICP/OES
La	MIN-200-12001		ICP-MS
Li	MIN-200-12001		ICP/OES
Lu	MIN-200-12001		ICP-MS
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/MS
Nb	MIN-200-12001		ICP-MS
Nd	MIN-200-12001		ICP-MS
Ni	MIN-200-12001		ICP/OES
P			ICP/OES
Pb	MIN-200-12001		ICP/MS
Pr	MIN-200-12001		ICP-MS
Rb	MIN-200-12001		ICP/MS
S	MIN-200-12001		ICP/OES
Sb	MIN-200-12001		ICP-MS
Sc	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
Sm	MIN-200-12001		ICP-MS
Sn	MIN-200-12001		ICP/MS
Sr	MIN-200-12001		ICP-OES
Ta	MIN-200-12001		ICP-MS
Tb	MIN-200-12001		ICP-MS
Th	MIN-200-12001		ICP-MS
Ti	MIN-200-12001		ICP/OES

## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T244103

PROJECT: Michel Lavoie

ATTENTION TO: Michel Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Tl	MIN-200-12001		ICP-MS
Tm	MIN-200-12001		ICP-MS
U	MIN-200-12001		ICP-MS
V	MIN-200-12001		ICP/OES
W	MIN-200-12001		ICP-MS
Y	MIN-200-12001		ICP-MS
Yb	MIN-200-12001		ICP-MS
Zn	MIN-200-12001		ICP/OES
Zr	MIN-200-12001		ICP-MS
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES





CLIENT NAME: MISC AGAT CLIENT ON, ON

ATTENTION TO: Michel Lavoie

PROJECT:

AGAT WORK ORDER: 17T254660

DATE REPORTED: Sep 14, 2017

PAGES (INCLUDING COVER): 10

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



**AGAT** Laboratories

# Certificate of Analysis

AGAT WORK ORDER: 17T254660

PROJECT:

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

## (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Aug 29, 2017

DATE RECEIVED: Aug 30, 2017

DATE REPORTED: Sep 14, 2017

SAMPLE TYPE: Other

Analyte:	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
Unit:	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
RDL:	1	0.01	30	20	0.5	5	0.1	0.05	0.2	0.1	0.5	0.005	0.1	5
Sample ID (AGAT ID)														
23 (8676884)	<1	3.71	<30	<20	47.1	<5	0.6	4.00	<0.2	20.1	19.8	0.017	0.4	811
24 (8676885)	<1	8.90	<30	30	424	<5	<0.1	6.58	0.4	17.5	42.2	0.014	3.1	109
25 (8676886)	8	5.59	<30	65	619	<5	18.4	5.22	2.1	13.7	729	0.017	5.6	885
26 (8676887)	1	1.67	<30	155	98.3	<5	4.9	2.74	<0.2	6.8	650	0.006	0.8	945
Analyte:	Dy	Er	Eu	Fe	Ga	Gd	Ge	Hf	Ho	In	K	La	Li	Lu
Unit:	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
RDL:	0.05	0.05	0.05	0.01	0.01	0.05	1	1	0.05	0.2	0.05	0.1	10	0.05
Sample ID (AGAT ID)														
23 (8676884)	1.32	0.55	0.43	3.11	12.1	1.34	2	1	0.20	<0.2	0.21	9.8	<10	0.11
24 (8676885)	4.55	2.77	1.02	8.62	20.5	3.66	1	2	0.94	<0.2	1.56	7.9	28	0.38
25 (8676886)	4.91	2.92	1.33	17.9	22.6	3.99	2	2	0.94	<0.2	0.96	6.2	46	0.43
26 (8676887)	1.68	1.09	0.24	38.7	7.91	1.39	1	<1	0.37	<0.2	0.07	3.1	11	0.20
Analyte:	Mg	Mn	Mo	Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Sc	Si
Unit:	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%
RDL:	0.01	10	2	1	0.1	5	0.01	5	0.05	0.2	0.01	0.1	5	0.01
Sample ID (AGAT ID)														
23 (8676884)	0.26	532	4	2	8.8	16	0.03	33	2.26	6.9	0.17	0.7	<5	34.3
24 (8676885)	3.19	2050	<2	5	10.4	58	0.04	64	2.34	211	0.12	<0.1	33	20.9
25 (8676886)	1.59	1320	12	5	10.3	142	0.05	149	2.05	79.3	10.3	0.2	22	16.7
26 (8676887)	2.88	913	3	<1	3.9	450	0.02	13	0.84	6.3	14.7	<0.1	20	8.32
Analyte:	Sm	Sn	Sr	Ta	Tb	Th	Ti	Tl	Tm	U	V	W	Y	Yb
Unit:	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
RDL:	0.1	1	0.1	0.5	0.05	0.1	0.01	0.5	0.05	0.05	5	1	0.5	0.1
Sample ID (AGAT ID)														
23 (8676884)	1.5	3	785	<0.5	0.18	3.1	0.12	<0.5	0.08	1.68	55	19	5.8	0.6
24 (8676885)	2.9	<1	230	<0.5	0.63	1.5	0.66	1.4	0.39	0.34	254	<1	24.4	2.7
25 (8676886)	3.2	2	310	<0.5	0.65	0.4	0.68	1.4	0.38	1.42	287	7	24.6	2.9
26 (8676887)	1.0	<1	3.4	<0.5	0.23	0.6	0.08	<0.5	0.17	6.81	179	<1	11.0	1.2

Certified By: \_\_\_\_\_



**AGAT** Laboratories

# Certificate of Analysis

AGAT WORK ORDER: 17T254660

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Aug 29, 2017      DATE RECEIVED: Aug 30, 2017      DATE REPORTED: Sep 14, 2017      SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Zn	Zr
	Unit:	ppm	ppm
	RDL:	5	0.5
23 (8676884)		17	57.5
24 (8676885)		224	85.2
25 (8676886)		174	61.5
26 (8676887)		63	51.1

Comments: RDL - Reported Detection Limit

Certified By: \_\_\_\_\_



**AGAT** Laboratories

# Certificate of Analysis

AGAT WORK ORDER: 17T254660

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

DATE SAMPLED: Aug 29, 2017	DATE RECEIVED: Aug 30, 2017	DATE REPORTED: Sep 14, 2017	SAMPLE TYPE: Other
Analyte:	Au	Pd	Pt
Unit:	ppm	ppm	ppm
RDL:	0.001	0.001	0.005
Sample ID (AGAT ID)			
23 (8676884)	0.031	0.001	<0.005
24 (8676885)	<0.001	0.002	<0.005
25 (8676886)	0.016	0.002	<0.005
26 (8676887)	0.005	0.002	<0.005

Comments: RDL - Reported Detection Limit

Certified By: \_\_\_\_\_



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	REPLICATE #1				RPD													
	Sample ID	Original	Replicate	RPD														
Ag	8676884	< 1	< 1	0.0%														
Al	8676884	3.71	3.72	0.3%														
As	8676884	< 30	< 30	0.0%														
B	8676884	< 20	< 20	0.0%														
Ba	8676884	47.1	46.6	1.1%														
Be	8676884	< 5	< 5	0.0%														
Bi	8676884	0.55	0.51	7.5%														
Ca	8676884	4.00	3.94	1.5%														
Cd	8676884	< 0.2	< 0.2	0.0%														
Ce	8676884	20.1	19.8	1.5%														
Co	8676884	19.8	19.6	1.0%														
Cr	8676884	0.017	0.017	0.0%														
Cs	8676884	0.4	0.4	0.0%														
Cu	8676884	811	808	0.4%														
Dy	8676884	1.32	1.12	16.4%														
Er	8676884	0.55	0.59	7.0%														
Eu	8676884	0.431	0.440	2.1%														
Fe	8676884	3.11	3.11	0.0%														
Ga	8676884	12.1	11.7	3.4%														
Gd	8676884	1.34	1.43	6.5%														
Ge	8676884	2	1															
Hf	8676884	1	1	0.0%														
Ho	8676884	0.20	0.20	0.0%														
In	8676884	< 0.2	< 0.2	0.0%														
K	8676884	0.21	0.20	4.9%														
La	8676884	9.78	9.52	2.7%														
Li	8676884	< 10	< 10	0.0%														
Lu	8676884	0.105	0.092	13.2%														
Mg	8676884	0.26	0.26	0.0%														
Mn	8676884	532	516	3.1%														
Mo	8676884	4	3	28.6%														



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

Nb	8676884	2	2	0.0%															
Nd	8676884	8.8	8.4	4.7%															
Ni	8676884	16	17	6.1%															
P	8676884	0.027	0.022	20.4%															
Pb	8676884	33	31	6.3%															
Pr	8676884	2.26	2.33	3.1%															
Rb	8676884	6.9	6.8	1.5%															
S	8676884	0.17	0.17	0.0%															
Sb	8676884	0.7	0.7	0.0%															
Sc	8676884	< 5	< 5	0.0%															
Si	8676884	34.3	34.2	0.3%															
Sm	8676884	1.52	1.72	12.3%															
Sn	8676884	3	3	0.0%															
Sr	8676884	785	789	0.5%															
Ta	8676884	< 0.5	< 0.5	0.0%															
Tb	8676884	0.18	0.20	10.5%															
Th	8676884	3.1	3.1	0.0%															
Ti	8676884	0.12	0.12	0.0%															
Tl	8676884	< 0.5	< 0.5	0.0%															
Tm	8676884	0.085	0.093	9.0%															
U	8676884	1.68	1.64	2.4%															
V	8676884	55	55	0.0%															
W	8676884	19	18	5.4%															
Y	8676884	5.8	5.5	5.3%															
Yb	8676884	0.6	0.6	0.0%															
Zn	8676884	17	17	0.0%															
Zr	8676884	57.5	58.4	1.6%															

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	REPLICATE #1				RPD															
	Sample ID	Original	Replicate	RPD																
Au	8676884	0.031	0.058																	
Pd	8676884	0.001	< 0.001																	
Pt	8676884	< 0.005	< 0.005	0.0%																



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	CRM #1 (ref.SY-4)																	
	Expect	Actual	Recovery	Limits														
Al	10.95	10.64	97%	90% - 110%														
Ba	340	343	101%	90% - 110%														
Be	2.6	2.8	108%	90% - 110%														
Ca	5.72	5.89	103%	90% - 110%														
Ce	122	126	103%	90% - 110%														
Co	2.8	2.5	90%	90% - 110%														
Cs	1.5	1.6	107%	90% - 110%														
Cu	7	7	98%	90% - 110%														
Dy	18.2	19.4	107%	90% - 110%														
Er	14.2	14.6	103%	90% - 110%														
Eu	2.0	1.8	92%	90% - 110%														
Fe	4.34	4.36	100%	90% - 110%														
Ga	35	39	110%	90% - 110%														
Gd	14	15	105%	90% - 110%														
Hf	10.6	9.8	93%	90% - 110%														
Ho	4.3	4.3	100%	90% - 110%														
K	1.37	1.35	98%	90% - 110%														
La	58	61	104%	90% - 110%														
Li	37	36	98%	90% - 110%														
Lu	2.1	2	97%	90% - 110%														
Mg	0.325	0.312	96%	90% - 110%														
Mn	836	805	96%	90% - 110%														
Nb	13	14	105%	90% - 110%														
Nd	57	61	107%	90% - 110%														
Ni	9	7	75%	90% - 110%														
Pb	10	10	100%	90% - 110%														
Pr	15.0	15.3	102%	90% - 110%														
Rb	55	53	97%	90% - 110%														
Si	23.3	21.5	92%	90% - 110%														
Sm	12.7	13.6	107%	90% - 110%														
Sn	7.1	7.1	99%	90% - 110%														



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

Sr	1191	1157	97%	90% - 110%															
Ta	0.9	1.1	123%	90% - 110%															
Tb	2.6	2.8	106%	90% - 110%															
Th	1.4	1.5	108%	90% - 110%															
Ti	0.172	0.175	102%	90% - 110%															
Tm	2.3	2.2	95%	90% - 110%															
U	0.8	0.9	115%	90% - 110%															
V	8	10	122%	90% - 110%															
Y	119	113	95%	90% - 110%															
Yb	14.8	15.8	107%	90% - 110%															
Zn	93	96	103%	90% - 110%															
Zr	517	523	101%	90% - 110%															
<b>(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish</b>																			
CRM #1 (ref.PG129)																			
Parameter	Expect	Actual	Recovery	Limits															
Au	1.1	1.1	98%	90% - 110%															
Pd	0.115	0.121	106%	90% - 110%															
Pt	0.239	0.25	105%	90% - 110%															





## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T254660

PROJECT:

ATTENTION TO: Michel Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Ag			ICP/MS
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/MS
B	MIN-200-12001		ICP/OES
Ba	MIN-200-12001		ICP/OES
Be	MIN-200-12001		ICP/OES
Bi	MIN-200-12001		ICP-MS
Ca	MIN-200-12001		ICP/OES
Cd	MIN-200-12001		ICP-MS
Ce	MIN-200-12001		ICP-MS
Co	MIN-200-12001		ICP/MS
Cr	MIN-200-12001		ICP/OES
Cs	MIN-200-12001		ICP-MS
Cu	MIN-200-12001		ICP/OES
Dy	MIN-200-12001		ICP-MS
Er	MIN-200-12001		ICP-MS
Eu	MIN-200-12001		ICP-MS
Fe	MIN-200-12001		ICP/OES
Ga	MIN-200-12001		ICP-MS
Gd	MIN-200-12001		ICP-MS
Ge	MIN-200-12001		ICP-MS
Hf	MIN-200-12001		ICP-MS
Ho	MIN-200-12001		ICP-MS
In	MIN-200-12001		ICP-MS
K	MIN-200-12001		ICP/OES
La	MIN-200-12001		ICP-MS
Li	MIN-200-12001		ICP/OES
Lu	MIN-200-12001		ICP-MS
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/MS
Nb	MIN-200-12001		ICP-MS
Nd	MIN-200-12001		ICP-MS
Ni	MIN-200-12001		ICP/OES
P			ICP/OES
Pb	MIN-200-12001		ICP/MS
Pr	MIN-200-12001		ICP-MS
Rb	MIN-200-12001		ICP/MS
S	MIN-200-12001		ICP/OES
Sb	MIN-200-12001		ICP-MS
Sc	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
Sm	MIN-200-12001		ICP-MS
Sn	MIN-200-12001		ICP/MS
Sr	MIN-200-12001		ICP-OES
Ta	MIN-200-12001		ICP-MS
Tb	MIN-200-12001		ICP-MS
Th	MIN-200-12001		ICP-MS
Ti	MIN-200-12001		ICP/OES

## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T254660

PROJECT:

ATTENTION TO: Michel Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Tl	MIN-200-12001		ICP-MS
Tm	MIN-200-12001		ICP-MS
U	MIN-200-12001		ICP-MS
V	MIN-200-12001		ICP/OES
W	MIN-200-12001		ICP-MS
Y	MIN-200-12001		ICP-MS
Yb	MIN-200-12001		ICP-MS
Zn	MIN-200-12001		ICP/OES
Zr	MIN-200-12001		ICP-MS
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES



CLIENT NAME: MISC AGAT CLIENT ON, ON

ATTENTION TO: Michel Lavoie

PROJECT: Michel Lavoie

AGAT WORK ORDER: 17T257046

SOLID ANALYSIS REVIEWED BY: Kevin Motomura, Data Review Supervisor

DATE REPORTED: Sep 19, 2017

PAGES (INCLUDING COVER): 9

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 17T257046

PROJECT: Michel Lavoie

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MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Sep 06, 2017		DATE RECEIVED: Sep 06, 2017					DATE REPORTED: Sep 19, 2017					SAMPLE TYPE: Other				
	Analyte:	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	
	Unit:	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	
Sample ID (AGAT ID)	RDL:	1	0.01	30	20	0.5	5	0.1	0.05	0.2	0.1	0.5	0.005	0.1	5	
27 (8694142)		2	4.78	<30	27	514	5	3.1	2.22	1.2	5.4	215	<0.005	3.8	328	
28 (8694143)		2	7.48	<30	44	942	<5	3.9	6.94	1.2	20.6	131	0.013	6.6	333	
	Analyte:	Dy	Er	Eu	Fe	Ga	Gd	Ge	Hf	Ho	In	K	La	Li	Lu	
	Unit:	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
Sample ID (AGAT ID)	RDL:	0.05	0.05	0.05	0.01	0.01	0.05	1	1	0.05	0.2	0.05	0.1	10	0.05	
27 (8694142)		2.16	1.46	0.72	7.01	9.72	1.93	1	1	0.48	<0.2	0.90	2.2	45	0.20	
28 (8694143)		7.67	4.63	1.74	11.6	25.0	6.28	3	3	1.57	<0.2	1.46	8.4	73	0.69	
	Analyte:	Mg	Mn	Mo	Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Sc	Si	
	Unit:	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%	
Sample ID (AGAT ID)	RDL:	0.01	10	2	1	0.1	5	0.01	5	0.05	0.2	0.01	0.1	5	0.01	
27 (8694142)		1.10	693	4	2	4.2	61	0.04	49	0.82	58.6	2.94	<0.1	11	31.0	
28 (8694143)		2.00	1860	<2	4	16.3	93	0.07	84	3.02	112	3.01	0.3	41	21.1	
	Analyte:	Sm	Sn	Sr	Ta	Tb	Th	Ti	Tl	Tm	U	V	W	Y	Yb	
	Unit:	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Sample ID (AGAT ID)	RDL:	0.1	1	0.1	0.5	0.05	0.1	0.01	0.5	0.05	0.05	5	1	0.5	0.1	
27 (8694142)		1.2	4	204	<0.5	0.38	0.5	0.35	0.8	0.24	0.74	108	<1	12.9	1.3	
28 (8694143)		5.0	<1	383	<0.5	1.09	0.7	1.03	1.5	0.70	0.35	432	2	38.7	4.7	
	Analyte:	Zn	Zr													
	Unit:	ppm	ppm													
Sample ID (AGAT ID)	RDL:	5	0.5													
27 (8694142)		119	39.2													
28 (8694143)		196	105													

Comments: RDL - Reported Detection Limit

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T257046

PROJECT: Michel Lavoie

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

DATE SAMPLED: Sep 06, 2017

DATE RECEIVED: Sep 06, 2017

DATE REPORTED: Sep 19, 2017

SAMPLE TYPE: Other

Analyte:	Au	Pd	Pt
Unit:	ppm	ppm	ppm
RDL:	0.001	0.001	0.005
Sample ID (AGAT ID)			
27 (8694142)	0.006	<0.001	<0.005
28 (8694143)	0.004	<0.001	<0.005

Comments: RDL - Reported Detection Limit

Certified By:



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	REPLICATE #1				REPLICATE #2											
	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD								
Ag	8694142	2	2	0.0%	8694143	2	2	0.0%								
Al	8694142	4.78	4.79	0.2%	8694143	7.48	7.45	0.4%								
As	8694142	< 30	< 30	0.0%	8694143	< 30	< 30	0.0%								
B	8694142	27	26	3.8%	8694143	44	47	6.6%								
Ba	8694142	514	530	3.1%	8694143	942	918	2.6%								
Be	8694142	5	5	0.0%	8694143	< 5	< 5	0.0%								
Bi	8694142	3.1	3.3	6.3%	8694143	3.94	3.65	7.6%								
Ca	8694142	2.22	2.21	0.5%	8694143	6.94	6.90	0.6%								
Cd	8694142	1.2	1.1	8.7%	8694143	1.2	1.7									
Ce	8694142	5.44	5.76	5.7%	8694143	20.6	20.1	2.5%								
Co	8694142	215	218	1.4%	8694143	131	125	4.7%								
Cr	8694142	< 0.005	< 0.005	0.0%	8694143	0.013	0.013	0.0%								
Cs	8694142	3.8	3.9	2.6%	8694143	6.6	6.6	0.0%								
Cu	8694142	328	331	0.9%	8694143	333	328	1.5%								
Dy	8694142	2.16	2.39	10.1%	8694143	7.67	6.93	10.1%								
Er	8694142	1.46	1.38	5.6%	8694143	4.63	4.41	4.9%								
Eu	8694142	0.722	0.684	5.4%	8694143	1.74	1.87	7.2%								
Fe	8694142	7.01	6.96	0.7%	8694143	11.6	11.5	0.9%								
Ga	8694142	9.72	9.92	2.0%	8694143	25.0	24.1	3.7%								
Gd	8694142	1.93	2.06	6.5%	8694143	6.28	6.26	0.3%								
Ge	8694142	1	1	0.0%	8694143	3	3	0.0%								
Hf	8694142	1	1	0.0%	8694143	3	3	0.0%								
Ho	8694142	0.48	0.53	9.9%	8694143	1.57	1.44	8.6%								
In	8694142	< 0.2	< 0.2	0.0%	8694143	< 0.2	< 0.2	0.0%								
K	8694142	0.90	0.89	1.1%	8694143	1.46	1.45	0.7%								
La	8694142	2.23	2.31	3.5%	8694143	8.36	7.94	5.2%								
Li	8694142	45	43	4.5%	8694143	73	74	1.4%								
Lu	8694142	0.202	0.212	4.8%	8694143	0.693	0.698	0.7%								
Mg	8694142	1.10	1.12	1.8%	8694143	2.00	2.00	0.0%								
Mn	8694142	693	667	3.8%	8694143	1860	1870	0.5%								
Mo	8694142	4	4	0.0%	8694143	< 2	< 2	0.0%								



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

Nb	8694142	2	2	0.0%	8694143	4	3	28.6%								
Nd	8694142	4.2	4.2	0.0%	8694143	16.3	15.6	4.4%								
Ni	8694142	61	62	1.6%	8694143	93	94	1.1%								
P	8694142	0.04	0.04	0.0%	8694143	0.068	0.063	7.6%								
Pb	8694142	49	50	2.0%	8694143	84	82	2.4%								
Pr	8694142	0.822	0.892	8.2%	8694143	3.02	2.95	2.3%								
Rb	8694142	58.6	61.4	4.7%	8694143	112	111	0.9%								
S	8694142	2.94	2.97	1.0%	8694143	3.01	2.95	2.0%								
Sb	8694142	< 0.1	< 0.1	0.0%	8694143	0.29	0.24	18.9%								
Sc	8694142	11	12	8.7%	8694143	41	40	2.5%								
Si	8694142	31.0	30.2	2.6%	8694143	21.1	20.7	1.9%								
Sm	8694142	1.25	1.44	14.1%	8694143	5.0	4.5	10.5%								
Sn	8694142	4	1		8694143	< 1	< 1	0.0%								
Sr	8694142	204	209	2.4%	8694143	383	376	1.8%								
Ta	8694142	< 0.5	< 0.5	0.0%	8694143	< 0.5	< 0.5	0.0%								
Tb	8694142	0.38	0.38	0.0%	8694143	1.09	1.19	8.8%								
Th	8694142	0.48	0.43	11.0%	8694143	0.7	0.7	0.0%								
Ti	8694142	0.347	0.343	1.2%	8694143	1.03	1.02	1.0%								
Tl	8694142	0.8	0.8	0.0%	8694143	1.53	1.45	5.4%								
Tm	8694142	0.24	0.23	4.3%	8694143	0.703	0.655	7.1%								
U	8694142	0.740	0.777	4.9%	8694143	0.35	0.36	2.8%								
V	8694142	108	110	1.8%	8694143	432	427	1.2%								
W	8694142	< 1	< 1	0.0%	8694143	2	2	0.0%								
Y	8694142	12.9	13.5	4.5%	8694143	38.7	38.3	1.0%								
Yb	8694142	1.31	1.46	10.8%	8694143	4.67	4.19	10.8%								
Zn	8694142	119	121	1.7%	8694143	196	195	0.5%								
Zr	8694142	39.2	35.4	10.2%	8694143	105	103	1.9%								

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	REPLICATE #1				REPLICATE #2											
	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD								
Au	8694142	0.006	0.004		8694143	0.004	0.004	0.0%								
Pd	8694142	< 0.001	< 0.001	0.0%	8694143	< 0.001	0.002									
Pt	8694142	< 0.005	< 0.005	0.0%	8694143	< 0.005	< 0.005	0.0%								



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	CRM #1 (ref.SY-4)																	
	Expect	Actual	Recovery	Limits														
Al	10.95	10.7	98%	90% - 110%														
Ba	340	336	99%	90% - 110%														
Be	2.6	2.8	109%	90% - 110%														
Ca	5.72	5.71	100%	90% - 110%														
Ce	122	131	107%	90% - 110%														
Co	2.8	2.4	85%	90% - 110%														
Cs	1.5	1.5	100%	90% - 110%														
Cu	7	6	80%	90% - 110%														
Dy	18.2	19.5	107%	90% - 110%														
Er	14.2	15.1	106%	90% - 110%														
Eu	2.0	2	100%	90% - 110%														
Fe	4.34	4.34	100%	90% - 110%														
Ga	35	36	102%	90% - 110%														
Gd	14	15	107%	90% - 110%														
Hf	10.6	11.3	107%	90% - 110%														
Ho	4.3	4.7	109%	90% - 110%														
K	1.37	1.34	98%	90% - 110%														
La	58	62	106%	90% - 110%														
Li	37	39	105%	90% - 110%														
Lu	2.1	2.3	107%	90% - 110%														
Mg	0.325	0.307	94%	90% - 110%														
Mn	836	836	100%	90% - 110%														
Nb	13	13	100%	90% - 110%														
Nd	57	62	109%	90% - 110%														
Ni	9	9	96%	90% - 110%														
Pb	10	10	98%	90% - 110%														
Pr	15.0	15.5	103%	90% - 110%														
Rb	55	55	100%	90% - 110%														
Si	23.3	22.3	96%	90% - 110%														
Sm	12.7	13.8	109%	90% - 110%														
Sn	7.1	6.7	94%	90% - 110%														







## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T257046

PROJECT: Michel Lavoie

ATTENTION TO: Michel Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Ag			ICP/MS
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/MS
B	MIN-200-12001		ICP/OES
Ba	MIN-200-12001		ICP/OES
Be	MIN-200-12001		ICP/OES
Bi	MIN-200-12001		ICP-MS
Ca	MIN-200-12001		ICP/OES
Cd	MIN-200-12001		ICP-MS
Ce	MIN-200-12001		ICP-MS
Co	MIN-200-12001		ICP/MS
Cr	MIN-200-12001		ICP/OES
Cs	MIN-200-12001		ICP-MS
Cu	MIN-200-12001		ICP/OES
Dy	MIN-200-12001		ICP-MS
Er	MIN-200-12001		ICP-MS
Eu	MIN-200-12001		ICP-MS
Fe	MIN-200-12001		ICP/OES
Ga	MIN-200-12001		ICP-MS
Gd	MIN-200-12001		ICP-MS
Ge	MIN-200-12001		ICP-MS
Hf	MIN-200-12001		ICP-MS
Ho	MIN-200-12001		ICP-MS
In	MIN-200-12001		ICP-MS
K	MIN-200-12001		ICP/OES
La	MIN-200-12001		ICP-MS
Li	MIN-200-12001		ICP/OES
Lu	MIN-200-12001		ICP-MS
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/MS
Nb	MIN-200-12001		ICP-MS
Nd	MIN-200-12001		ICP-MS
Ni	MIN-200-12001		ICP/OES
P			ICP/OES
Pb	MIN-200-12001		ICP/MS
Pr	MIN-200-12001		ICP-MS
Rb	MIN-200-12001		ICP/MS
S	MIN-200-12001		ICP/OES
Sb	MIN-200-12001		ICP-MS
Sc	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
Sm	MIN-200-12001		ICP-MS
Sn	MIN-200-12001		ICP/MS
Sr	MIN-200-12001		ICP-OES
Ta	MIN-200-12001		ICP-MS
Tb	MIN-200-12001		ICP-MS
Th	MIN-200-12001		ICP-MS
Ti	MIN-200-12001		ICP/OES



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T257046

PROJECT: Michel Lavoie

ATTENTION TO: Michel Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Tl	MIN-200-12001		ICP-MS
Tm	MIN-200-12001		ICP-MS
U	MIN-200-12001		ICP-MS
V	MIN-200-12001		ICP/OES
W	MIN-200-12001		ICP-MS
Y	MIN-200-12001		ICP-MS
Yb	MIN-200-12001		ICP-MS
Zn	MIN-200-12001		ICP/OES
Zr	MIN-200-12001		ICP-MS
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES



**Certificate of Analysis**  
**Work Order : SU1700878**  
**[Report File No.: 0000012110]**

Date: October 12, 2017

To: **Guy\_Richard**  
**COD SGS MINERALS - GEOCHEM LAKEFIELD**  
c/o Mr. Michel Lavoie  
ON

P.O. No.: 2017-21110 for Characterization of 7 Sam  
Project No.: -  
Samples: 7  
Received: Sep 20, 2017  
Pages: Page 1 to 9  
(Inclusive of Cover Sheet)

**Methods Summary**

<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
7	SHIP	Shipping
7	G_WGH79	Weighing of samples and reporting of weights
7	G_PRP89	Weigh, Dry, to 3kg, Crush 75% -2mm, Split to 250g, Pulverise to 85% -75µm
7	GE_FAA313	@Au, FAS, AAS, 30g-5ml
7	ZMS_ICM90A	Package Price - GE_ICM90A (GE_IC90A+GE_IC90M)
7	GE_IC90A	@Package, ICPAES after Sodium Peroxide Fusion-Graphite Crucibles
7	GE_IC90M	@Package, ICPMS after Sodium Peroxide Fusion-Graphite Crucibles

**Storage: Pulp & Reject**

PULP STORAGE :  
REJECT STORAGE :

**Comments:**

Ag may be considered partial, depending upon the sample matrix and its` retention in HNO3 acid  
Assays not suitable for commercial exchange.

Certified By :   
Debbie Waldon  
Project Coordinator

**SGS Minerals Services (Lakefield) is accredited by Standards Council of Canada (SCC) and conforms to the requirements of ISO/IEC 17025 for specific tests as indicated on the scope of accreditation to be found at <http://www.scc.ca/en/programs/lab/mineral.shtml>**

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample  
n.a. = Not applicable -- = No result  
\*INF = Composition of this sample makes detection impossible by this method  
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion  
Methods marked with an asterisk (e.g. \*NAA08V) were subcontracted  
Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

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Element Method Det.Lim. Units	WtKg G_WGH79 kg	@Au GE_FAA313 ppb	@Al GE_ICM90A %	@Ba GE_ICM90A ppm	@Be GE_ICM90A ppm	@Ca GE_ICM90A %	@Cr GE_ICM90A ppm	@Cu GE_ICM90A ppm
Sample 29	2.052	<5	7.88	523	7	5.0	39	128
Sample 30	2.262	<5	7.07	464	<5	4.6	43	74
Sample 31	2.146	<5	7.96	499	8	5.8	43	78
Sample 32	1.550	<5	7.79	906	7	8.2	76	98
Sample 33	2.545	<5	7.36	232	<5	4.8	33	130
Sample 34	2.006	<5	7.88	177	<5	4.5	170	23
Sample 35	2.707	6	8.93	544	<5	1.4	150	178
*Rep Sample 29		<5						
*Std OREAS-224		2266						
*Blk BLANK		5						
*Rep Sample 35			8.91	549	<5	1.4	153	168
*Std SY-4			11.4	344	<5	5.8	11	<10
*Blk BLANK			<0.01	<10	<5	<0.1	<10	<10

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Element Method Det.Lim. Units	@Fe	@K	@Li	@Mg	@Mn	@Ni	@P	@Sc
	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
	0.01	0.1	10	0.01	10	5	0.01	5
	%	%	ppm	%	ppm	ppm	%	ppm
Sample 29	10.7	1.3	54	2.67	1088	60	0.15	29
Sample 30	8.13	0.9	40	1.63	895	50	0.11	21
Sample 31	10.9	1.2	48	2.70	1159	78	0.15	31
Sample 32	9.65	1.2	65	3.54	1439	78	0.04	33
Sample 33	9.20	2.2	28	2.07	931	54	0.06	35
Sample 34	7.05	2.1	28	2.80	935	96	0.03	25
Sample 35	4.75	1.7	34	1.53	548	74	0.07	14
*Rep Sample 35	4.79	1.7	34	1.53	552	69	0.07	14
*Std SY-4	4.49	1.4	39	0.28	807	14	0.05	<5
*Blk BLANK	<0.01	<0.1	<10	<0.01	<10	<5	<0.01	<5

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Element Method Det.Lim. Units	Si	@Sr	@Ti	@V	@Zn	@Ag	@As	@Bi
	GE_ICM90A 0.1 %	GE_ICM90A 10 ppm	GE_ICM90A 0.01 %	GE_ICM90A 5 ppm	GE_ICM90A 5 ppm	GE_ICM90A 1 ppm	GE_ICM90A 5 ppm	GE_ICM90A 0.1 ppm
Sample 29	22.9	438	1.25	226	103	<1	<5	0.4
Sample 30	27.4	311	0.87	216	71	<1	<5	0.2
Sample 31	23.6	448	1.25	258	104	<1	<5	0.4
Sample 32	22.7	1273	0.87	424	114	<1	<5	1.2
Sample 33	27.8	192	0.73	319	76	<1	<5	0.4
Sample 34	28.8	137	0.33	155	82	<1	<5	0.3
Sample 35	>30.0	324	0.33	101	52	<1	<5	0.2
*Rep Sample 35	29.2	326	0.33	100	54	<1	<5	0.2
*Std SY-4	23.4	1248	0.17	10	97	<1	<5	<0.1
*Blk BLANK	<0.1	<10	<0.01	<5	<5	<1	<5	<0.1

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Element Method Det.Lim. Units	@Cd GE_ICM90A 0.2 ppm	@Ce GE_ICM90A 0.1 ppm	@Co GE_ICM90A 0.5 ppm	@Cs GE_ICM90A 0.1 ppm	@Dy GE_ICM90A 0.05 ppm	@Er GE_ICM90A 0.05 ppm	@Eu GE_ICM90A 0.05 ppm	@Ga GE_ICM90A 1 ppm
Sample 29	<0.2	33.7	69.7	5.5	6.26	3.85	1.77	21
Sample 30	<0.2	28.0	48.5	2.6	4.87	2.75	1.43	18
Sample 31	<0.2	36.7	47.9	4.0	6.63	3.90	1.96	21
Sample 32	0.3	12.3	54.1	11.6	2.11	1.22	0.75	24
Sample 33	<0.2	44.9	51.1	7.9	5.90	3.51	1.36	22
Sample 34	<0.2	38.3	33.0	7.0	3.08	1.89	0.71	21
Sample 35	<0.2	59.1	21.2	2.6	2.48	1.31	1.00	20
*Rep Sample 35	<0.2	59.6	21.8	2.7	2.45	1.34	1.05	20
*Std SY-4	<0.2	125	2.7	1.7	19.4	14.9	2.12	36
*Blk BLANK	<0.2	<0.1	<0.5	0.1	<0.05	<0.05	<0.05	<1

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Element Method Det.Lim. Units	@Gd	@Ge	@Hf	@Ho	@In	@La	@Lu	@Mo
	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
	0.05	1	1	0.05	0.2	0.1	0.05	2
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Sample 29	6.26	2	5	1.35	<0.2	15.0	0.63	<2
Sample 30	4.99	2	3	0.98	<0.2	12.6	0.45	<2
Sample 31	7.08	2	5	1.40	<0.2	16.2	0.62	<2
Sample 32	2.23	3	1	0.43	<0.2	6.3	0.21	<2
Sample 33	5.96	2	4	1.20	<0.2	21.1	0.58	<2
Sample 34	3.32	2	3	0.64	<0.2	19.6	0.33	<2
Sample 35	3.31	1	4	0.50	<0.2	29.9	0.21	<2
*Rep Sample 35	3.25	1	4	0.49	<0.2	30.4	0.23	<2
*Std SY-4	15.3	1	11	4.43	<0.2	61.0	2.22	<2
*Blk BLANK	<0.05	<1	<1	<0.05	<0.2	<0.1	<0.05	<2

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Element Method Det.Lim. Units	@Nb	@Nd	@Pb	@Pr	@Rb	@Sb	@Sm	@Sn
	GE_ICM90A 1 ppm	GE_ICM90A 0.1 ppm	GE_ICM90A 5 ppm	GE_ICM90A 0.05 ppm	GE_ICM90A 0.2 ppm	GE_ICM90A 0.1 ppm	GE_ICM90A 0.1 ppm	GE_ICM90A 1 ppm
Sample 29	9	20.3	8	4.59	80.4	0.2	5.2	2
Sample 30	6	16.5	8	3.82	56.2	0.2	4.3	2
Sample 31	8	22.5	9	5.07	63.0	0.2	6.0	2
Sample 32	2	7.3	14	1.66	108	0.2	1.8	1
Sample 33	9	22.2	23	5.50	289	0.4	5.1	3
Sample 34	9	16.0	24	4.33	303	0.2	3.5	6
Sample 35	7	24.4	7	6.59	83.5	<0.1	4.1	2
*Rep Sample 35	6	24.5	7	6.65	81.4	<0.1	4.2	2
*Std SY-4	13	58.7	10	15.3	53.1	<0.1	13.0	8
*Blk BLANK	<1	<0.1	<5	<0.05	0.4	<0.1	<0.1	<1

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Element Method Det.Lim. Units	@Ta GE_ICM90A 0.5 ppm	@Tb GE_ICM90A 0.05 ppm	@Th GE_ICM90A 0.1 ppm	@Tl GE_ICM90A 0.5 ppm	@Tm GE_ICM90A 0.05 ppm	@U GE_ICM90A 0.05 ppm	@W GE_ICM90A 1 ppm	@Y GE_ICM90A 0.5 ppm
Sample 29	0.5	1.04	2.3	0.7	0.58	1.28	<1	33.7
Sample 30	<0.5	0.79	2.6	<0.5	0.45	0.80	1	25.9
Sample 31	0.5	1.11	2.3	0.6	0.62	1.02	<1	35.6
Sample 32	<0.5	0.36	0.7	0.9	0.19	0.52	1	11.2
Sample 33	0.8	0.96	7.3	2.3	0.53	3.65	<1	31.9
Sample 34	1.0	0.53	8.5	2.4	0.30	3.69	<1	18.3
Sample 35	0.7	0.46	10.9	0.6	0.23	3.80	2	13.0
*Rep Sample 35	0.7	0.47	11.1	0.5	0.19	3.82	2	12.5
*Std SY-4	0.8	2.85	1.3	<0.5	2.43	0.75	<1	118
*Blk BLANK	<0.5	<0.05	<0.1	<0.5	<0.05	<0.05	<1	<0.5

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Element	@Yb	@Zr
Method	GE_ICM90A	GE_ICM90A
Det.Lim.	0.1	0.5
Units	ppm	ppm
Sample 29	3.8	166
Sample 30	2.8	125
Sample 31	3.8	170
Sample 32	1.2	39.0
Sample 33	3.6	118
Sample 34	2.1	83.7
Sample 35	1.4	128
*Rep Sample 35	1.3	131
*Std SY-4	15.4	553
*Blk BLANK	<0.1	<0.5

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**Certificate of Analysis**  
**Work Order : SU1700879**  
**[Report File No.: 0000012151]**

Date: October 13, 2017

To: **Guy\_Richard**  
**COD SGS MINERALS - GEOCHEM LAKEFIELD**  
c/o Mr. Michel Lavoie  
ON

P.O. No.: 2017-21110 for Characterization of 31sam  
Project No.: -  
Samples: 31  
Received: Sep 21, 2017  
Pages: Page 1 to 12  
(Inclusive of Cover Sheet)

**Methods Summary**

<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
31	SHIP	Shipping
31	G_WGH79	Weighing of samples and reporting of weights
31	G_PRP89	Weigh, Dry, to 3kg, Crush 75% -2mm, Split to 250g, Pulverise to 85% -75µm
31	GE_FAA313	@Au, FAS, AAS, 30g-5ml
31	ZMS_ICM90A	Package Price - GE_ICM90A (GE_IC90A+GE_IC90M)
31	GE_IC90A	@Package, ICPAES after Sodium Peroxide Fusion-Graphite Crucibles
31	GE_IC90M	@Package, ICPMS after Sodium Peroxide Fusion-Graphite Crucibles

**Storage: Pulp & Reject**

PULP STORAGE :  
REJECT STORAGE :

**Comments:**

Ag may be considered partial, depending upon the sample matrix and its` retention in HNO3 acid  
Assays not suitable for commercial exchange.

Certified By :   
Debbie Waldon  
Project Coordinator

**SGS Minerals Services (Lakefield) is accredited by Standards Council of Canada (SCC) and conforms to the requirements of ISO/IEC 17025 for specific tests as indicated on the scope of accreditation to be found at <http://www.scc.ca/en/programs/lab/mineral.shtml>**

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample  
n.a. = Not applicable -- = No result  
\*INF = Composition of this sample makes detection impossible by this method  
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion  
Methods marked with an asterisk (e.g. \*NAA08V) were subcontracted  
Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

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Element Method Det.Lim. Units	WtKg	@Au	@Al	@Ba	@Be	@Ca	@Cr	@Cu
	G_WGH79	GE_FAA313	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
	0.001	5	0.01	10	5	0.1	10	10
	kg	ppb	%	ppm	ppm	%	ppm	ppm
Sample 36	1.723	10	7.56	648	<5	3.5	172	1241
Sample 37	1.886	<5	9.49	2106	8	3.9	173	28
Sample 38	2.003	<5	8.30	1382	7	5.8	147	79
Sample 39	3.239	<5	9.03	372	<5	2.4	68	10
Sample 40	2.002	<5	7.77	308	<5	2.5	73	30
Sample 41	1.356	<5	7.24	326	<5	2.6	75	93
Sample 42	2.258	8	8.44	1040	<5	1.0	148	113
Sample 43	2.817	<5	8.92	376	<5	2.7	70	38
Sample 44	2.228	<5	7.28	642	<5	1.1	118	10
Sample 45	2.725	<5	7.75	901	<5	2.9	187	70
Sample 46	3.620	<5	8.66	579	<5	4.4	184	72
Sample 47	3.382	<5	8.56	1373	8	5.7	135	109
Sample 48	3.253	<5	9.56	1166	36	4.1	196	234
Sample 49	3.294	<5	7.81	565	140	7.0	209	174
Sample 50	1.664	<5	8.20	339	<5	7.9	258	375
Sample 51	3.143	<5	10.5	260	<5	5.8	52	166
Sample 52	2.676	<5	7.66	183	6	8.1	151	111
Sample 53	1.753	10	7.21	415	<5	6.7	136	1770
Sample 54	1.143	36	2.00	146	<5	2.4	64	667
Sample 55	1.563	<5	7.33	129	9	10.1	167	18
Sample 56	1.342	23	2.41	188	<5	2.3	83	464
Sample 57	2.914	6	7.82	1834	7	2.4	65	184
Sample 58	2.603	6	6.98	934	6	5.0	46	206
Sample 59	2.665	8	7.82	501	12	6.3	17	200
Sample 60	3.581	12	7.32	314	9	6.3	19	372
Sample 61	2.538	8	7.53	470	12	5.4	22	194
Sample 62	2.136	<5	7.68	533	5	3.5	24	93
Sample 63	2.961	<5	9.10	863	<5	0.9	170	109
Sample 64	1.035	56	1.41	161	<5	1.1	51	1198
Sample 65	1.859	69	1.44	106	<5	1.1	52	1385
Sample 66	0.802	76	1.08	87	<5	0.7	41	1921
*Rep Sample 47		<5						
*Std OREAS-217		346						
*Std OXL118		5925						
*Blk BLANK		5						
*Rep Sample 66			1.08	86	<5	0.7	40	1869
*Std SY-4			11.2	341	<5	6.0	19	<10
*Std RTS-3A			N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
*Blk BLANK			N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
*Blk BLANK			<0.01	<10	<5	<0.1	<10	<10

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Element	@Al	@Ba	@Be	@Ca	@Cr	@Cu
Method	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
Det.Lim.	0.01	10	5	0.1	10	10
Units	%	ppm	ppm	%	ppm	ppm
*Std RTS-3A	5.28	122	<5	2.3	195	2444

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Element Method Det.Lim. Units	@Fe	@K	@Li	@Mg	@Mn	@Ni	@P	@Sc
	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
	0.01 %	0.1 %	10 ppm	0.01 %	10 ppm	5 ppm	0.01 %	5 ppm
Sample 36	8.31	1.2	46	1.92	949	102	0.02	17
Sample 37	8.24	3.9	152	4.06	1488	12	0.17	29
Sample 38	6.65	2.6	82	2.68	1323	24	0.14	25
Sample 39	9.84	1.4	83	3.32	1733	34	0.04	29
Sample 40	8.20	1.1	66	2.81	1525	34	0.04	27
Sample 41	7.33	1.1	61	2.30	1344	33	0.04	24
Sample 42	4.51	3.4	27	1.19	417	60	0.06	14
Sample 43	8.66	1.4	78	3.00	1586	32	0.05	29
Sample 44	3.50	2.5	19	1.27	398	51	0.04	9
Sample 45	5.60	1.8	86	2.65	1401	77	0.04	22
Sample 46	12.0	2.2	95	2.30	1307	96	0.06	38
Sample 47	6.10	1.8	57	2.77	1283	29	0.13	24
Sample 48	5.33	2.7	180	2.84	969	61	0.11	18
Sample 49	9.04	1.3	54	3.46	1464	72	0.04	37
Sample 50	9.47	0.6	34	3.76	1705	134	0.03	38
Sample 51	6.90	0.7	34	1.49	813	34	0.04	22
Sample 52	9.83	0.5	29	3.38	1722	98	0.05	39
Sample 53	12.9	1.0	36	3.35	1525	135	0.04	35
Sample 54	21.8	0.6	16	0.84	482	131	<0.01	<5
Sample 55	8.74	0.5	18	3.66	1747	92	0.02	35
Sample 56	12.6	0.7	23	1.04	551	105	<0.01	7
Sample 57	14.3	3.6	124	3.66	1403	58	0.06	48
Sample 58	11.9	1.8	72	3.41	1807	43	0.07	40
Sample 59	11.8	1.2	47	3.61	1358	50	0.02	40
Sample 60	12.6	0.8	30	3.03	1337	57	0.03	38
Sample 61	12.7	1.1	48	3.35	1356	52	0.02	38
Sample 62	6.97	1.5	70	0.90	802	15	0.17	15
Sample 63	6.53	3.9	54	1.40	788	80	0.07	19
Sample 64	>25.0	0.7	20	0.74	323	169	<0.01	<5
Sample 65	>25.0	0.4	13	0.40	240	158	0.01	<5
Sample 66	>25.0	0.4	<10	0.34	179	176	<0.01	<5
*Rep Sample 66	>25.0	0.3	10	0.33	174	167	<0.01	<5
*Std SY-4	4.36	1.5	39	0.31	782	16	0.05	<5
*Std RTS-3A	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
*Blk BLANK	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
*Blk BLANK	<0.01	<0.1	<10	<0.01	<10	5	<0.01	<5

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Element	@Fe	@K	@Li	@Mg	@Mn	@Ni	@P	@Sc
Method	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
Det.Lim.	0.01	0.1	10	0.01	10	5	0.01	5
Units	%	%	ppm	%	ppm	ppm	%	ppm
*Std RTS-3A	20.6	0.5	15	2.39	1584	55	0.04	15

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Element Method Det.Lim. Units	Si	@Sr	@Ti	@V	@Zn	@Ag	@As	@Bi
	GE_ICM90A 0.1 %	GE_ICM90A 10 ppm	GE_ICM90A 0.01 %	GE_ICM90A 5 ppm	GE_ICM90A 5 ppm	GE_ICM90A 1 ppm	GE_ICM90A 5 ppm	GE_ICM90A 0.1 ppm
Sample 36	26.1	191	0.30	129	173	6	9	7.4
Sample 37	21.8	422	0.58	245	233	<1	<5	0.6
Sample 38	24.5	551	0.48	240	150	<1	<5	1.3
Sample 39	24.8	177	0.47	228	137	<1	<5	0.2
Sample 40	26.7	170	0.42	205	118	<1	<5	0.2
Sample 41	28.3	175	0.40	188	103	<1	<5	0.6
Sample 42	29.5	273	0.34	104	38	<1	<5	0.2
Sample 43	25.2	201	0.47	221	133	<1	<5	0.2
Sample 44	>30.0	298	0.23	70	34	<1	<5	0.4
Sample 45	28.0	242	0.41	149	152	<1	<5	0.6
Sample 46	22.9	206	0.45	247	74	1	<5	0.4
Sample 47	24.8	599	0.44	206	121	<1	<5	0.9
Sample 48	24.6	618	0.35	138	334	1	7	4.4
Sample 49	21.9	224	0.69	298	115	<1	<5	2.5
Sample 50	22.0	258	0.54	282	137	<1	<5	0.6
Sample 51	23.7	675	0.55	182	92	<1	<5	3.1
Sample 52	22.5	232	0.81	350	138	<1	<5	0.5
Sample 53	21.3	240	0.76	318	138	2	<5	0.9
Sample 54	18.6	128	0.10	70	44	<1	17	10.2
Sample 55	21.8	630	0.40	265	114	<1	<5	1.8
Sample 56	24.4	136	0.12	71	46	<1	16	6.1
Sample 57	19.8	212	0.93	457	201	<1	<5	0.3
Sample 58	22.2	276	0.88	399	168	<1	<5	0.3
Sample 59	20.7	581	1.26	537	127	<1	<5	1.3
Sample 60	21.3	597	1.39	536	104	<1	<5	1.6
Sample 61	20.4	540	1.25	506	132	<1	<5	1.4
Sample 62	27.6	392	0.62	42	104	<1	<5	0.7
Sample 63	26.6	100	0.43	143	99	<1	<5	2.2
Sample 64	10.2	66	0.06	68	49	<1	22	14.1
Sample 65	10.5	87	0.07	61	32	<1	17	14.3
Sample 66	8.2	56	0.05	60	32	1	19	13.7
*Rep Sample 66	8.1	56	0.05	57	30	<1	21	13.6
*Std SY-4	22.1	1184	0.17	10	95	<1	<5	<0.1
*Std RTS-3A	N.A.	N.A.	N.A.	N.A.	N.A.	10	18	30.2
*Blk BLANK	N.A.	N.A.	N.A.	N.A.	N.A.	<1	<5	<0.1
*Blk BLANK	<0.1	<10	<0.01	<5	<5			

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Element	Si	@Sr	@Ti	@V	@Zn
Method	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
Det.Lim.	0.1	10	0.01	5	5
Units	%	ppm	%	ppm	ppm
*Std RTS-3A	19.1	49	0.39	107	2914

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Element Method Det.Lim. Units	@Cd	@Ce	@Co	@Cs	@Dy	@Er	@Eu	@Ga
	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
	0.2	0.1	0.5	0.1	0.05	0.05	0.05	1
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Sample 36	3.1	19.6	138	4.7	3.66	2.24	0.96	18
Sample 37	<0.2	62.7	29.7	19.3	5.01	2.65	1.88	24
Sample 38	0.3	54.5	23.0	13.5	4.58	2.40	1.78	25
Sample 39	<0.2	22.9	35.0	9.0	3.33	2.00	0.97	20
Sample 40	<0.2	21.2	28.8	6.0	3.15	1.87	0.85	18
Sample 41	0.9	20.6	25.9	7.2	2.75	1.67	0.90	16
Sample 42	<0.2	58.3	11.1	4.3	3.32	1.75	1.16	23
Sample 43	<0.2	23.2	30.8	7.1	3.33	1.94	0.96	20
Sample 44	<0.2	44.3	13.2	4.6	2.14	1.07	0.82	17
Sample 45	<0.2	38.3	28.1	5.6	3.48	1.99	1.15	19
Sample 46	<0.2	26.4	38.0	14.9	4.35	2.74	1.04	20
Sample 47	0.3	45.1	27.7	6.5	4.22	2.18	1.46	20
Sample 48	3.2	40.6	27.9	207	3.10	1.74	1.16	19
Sample 49	0.2	13.9	36.8	6.8	4.63	2.77	1.13	21
Sample 50	0.3	7.5	65.0	2.4	3.55	2.16	0.86	18
Sample 51	<0.2	39.8	22.5	2.5	7.43	4.59	1.66	23
Sample 52	0.3	11.8	41.8	1.0	5.06	3.07	1.22	19
Sample 53	0.3	12.6	59.3	1.8	4.58	2.79	1.09	18
Sample 54	<0.2	2.6	223	4.2	0.34	0.32	0.09	7
Sample 55	<0.2	11.0	28.3	1.2	2.90	1.97	0.71	24
Sample 56	<0.2	3.0	98.5	5.8	0.52	0.43	0.13	8
Sample 57	0.2	32.6	57.5	23.5	6.49	3.67	1.04	28
Sample 58	0.3	35.5	45.8	10.3	6.31	3.75	1.44	20
Sample 59	0.5	8.4	54.6	6.9	2.02	1.08	0.71	20
Sample 60	0.8	13.2	81.0	3.5	2.24	1.39	0.84	19
Sample 61	0.4	8.8	63.5	5.2	2.22	1.28	0.73	19
Sample 62	0.2	50.0	17.4	6.8	8.90	5.14	2.14	21
Sample 63	<0.2	68.6	72.5	14.5	4.34	2.37	1.32	24
Sample 64	0.3	1.4	588	4.8	0.21	0.16	0.05	4
Sample 65	<0.2	3.0	513	3.2	0.35	0.25	0.10	5
Sample 66	0.3	2.2	602	2.5	0.26	0.15	0.09	3
*Rep Sample 66	0.3	2.2	607	2.6	0.28	0.16	0.09	3
*Std SY-4	<0.2	121	2.9	1.8	20.3	14.8	2.10	37
*Std RTS-3A	8.8	25.8	153	0.6	3.62	1.86	1.14	42
*Blk BLANK	<0.2	<0.1	0.6	<0.1	<0.05	<0.05	<0.05	<1

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Element Method Det.Lim. Units	@Gd	@Ge	@Hf	@Ho	@In	@La	@Lu	@Mo
	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
	0.05	1	1	0.05	0.2	0.1	0.05	2
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Sample 36	2.99	2	3	0.78	<0.2	9.4	0.42	4
Sample 37	6.26	2	4	0.95	<0.2	29.7	0.41	<2
Sample 38	5.41	2	3	0.85	<0.2	26.3	0.39	<2
Sample 39	3.00	1	2	0.70	<0.2	11.1	0.33	<2
Sample 40	2.76	1	2	0.62	<0.2	10.4	0.33	<2
Sample 41	2.74	1	2	0.58	<0.2	10.1	0.28	<2
Sample 42	3.95	2	4	0.63	<0.2	28.8	0.28	<2
Sample 43	3.16	1	2	0.67	<0.2	11.4	0.40	<2
Sample 44	2.56	2	4	0.40	<0.2	22.3	0.22	<2
Sample 45	3.85	2	4	0.69	<0.2	19.1	0.33	3
Sample 46	4.02	1	3	0.94	<0.2	13.3	0.51	3
Sample 47	4.56	2	3	0.79	<0.2	21.3	0.35	<2
Sample 48	3.68	2	2	0.62	<0.2	19.8	0.30	<2
Sample 49	3.95	2	2	0.98	<0.2	5.7	0.45	<2
Sample 50	2.88	2	2	0.76	<0.2	2.8	0.38	3
Sample 51	6.20	1	6	1.57	<0.2	18.7	0.83	<2
Sample 52	4.31	2	2	1.09	<0.2	4.5	0.53	<2
Sample 53	3.79	2	2	0.94	<0.2	5.3	0.46	<2
Sample 54	0.29	1	<1	0.09	<0.2	1.4	0.08	10
Sample 55	2.37	4	1	0.63	<0.2	5.2	0.33	<2
Sample 56	0.43	1	<1	0.13	<0.2	1.4	0.11	6
Sample 57	5.54	1	4	1.32	<0.2	14.5	0.60	<2
Sample 58	5.43	2	4	1.31	<0.2	16.8	0.64	<2
Sample 59	1.81	2	<1	0.40	<0.2	3.6	0.21	<2
Sample 60	2.11	2	1	0.51	<0.2	5.2	0.23	<2
Sample 61	1.93	2	1	0.44	<0.2	3.5	0.27	<2
Sample 62	8.28	2	7	1.75	<0.2	22.5	0.86	<2
Sample 63	5.25	1	4	0.84	<0.2	36.4	0.37	<2
Sample 64	0.18	<1	<1	<0.05	<0.2	0.7	0.06	2
Sample 65	0.33	<1	<1	0.07	<0.2	1.4	0.06	<2
Sample 66	0.29	<1	<1	0.06	<0.2	1.1	0.10	<2
*Rep Sample 66	0.24	<1	<1	0.05	<0.2	1.1	<0.05	<2
*Std SY-4	14.8	1	11	4.57	<0.2	57.8	2.27	<2
*Std RTS-3A	3.79	15	2	0.66	1.6	10.8	0.30	3
*Blk BLANK	<0.05	<1	<1	<0.05	<0.2	<0.1	<0.05	<2

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Element Method Det.Lim. Units	@Nb	@Nd	@Pb	@Pr	@Rb	@Sb	@Sm	@Sn
	GE_ICM90A 1 ppm	GE_ICM90A 0.1 ppm	GE_ICM90A 5 ppm	GE_ICM90A 0.05 ppm	GE_ICM90A 0.2 ppm	GE_ICM90A 0.1 ppm	GE_ICM90A 0.1 ppm	GE_ICM90A 1 ppm
Sample 36	4	10.5	283	2.61	70.3	<0.1	2.6	2
Sample 37	6	33.6	29	8.22	239	<0.1	7.0	1
Sample 38	6	28.8	46	7.05	153	0.2	5.9	2
Sample 39	4	12.0	6	2.93	95.5	<0.1	2.8	1
Sample 40	3	11.6	7	2.73	79.7	<0.1	2.8	1
Sample 41	3	10.8	7	2.60	82.9	<0.1	2.5	2
Sample 42	8	25.4	21	6.97	199	<0.1	4.7	3
Sample 43	4	12.8	7	3.02	99.2	<0.1	3.0	<1
Sample 44	6	19.7	9	5.21	135	<0.1	3.4	1
Sample 45	5	19.5	12	4.95	84.3	<0.1	3.9	1
Sample 46	4	14.5	12	3.38	150	<0.1	3.3	2
Sample 47	5	24.1	41	5.90	93.1	0.2	5.3	2
Sample 48	5	20.2	163	5.27	286	<0.1	4.0	4
Sample 49	4	9.9	14	2.09	90.6	0.3	2.9	2
Sample 50	2	6.3	8	1.24	29.1	<0.1	2.2	3
Sample 51	9	21.4	13	5.19	33.1	<0.1	5.3	2
Sample 52	4	9.6	15	1.92	13.2	0.2	3.2	<1
Sample 53	4	9.4	26	1.97	40.4	0.2	3.0	1
Sample 54	<1	1.2	9	0.32	44.2	<0.1	0.3	<1
Sample 55	2	6.4	15	1.43	18.8	0.2	1.7	1
Sample 56	<1	1.5	8	0.36	60.7	<0.1	0.4	2
Sample 57	7	18.5	12	4.35	300	<0.1	4.9	<1
Sample 58	7	19.3	15	4.66	139	0.1	4.6	1
Sample 59	3	6.0	30	1.24	86.7	0.2	1.5	4
Sample 60	4	7.7	33	1.63	55.4	0.6	2.0	3
Sample 61	4	5.8	21	1.30	73.7	0.2	1.6	2
Sample 62	11	29.6	21	6.90	109	<0.1	7.4	3
Sample 63	10	30.8	6	8.44	331	<0.1	5.6	3
Sample 64	<1	0.6	7	0.17	51.7	<0.1	0.2	2
Sample 65	<1	1.4	7	0.38	32.6	<0.1	0.4	<1
Sample 66	<1	1.1	7	0.30	26.3	<0.1	0.3	2
*Rep Sample 66	<1	1.2	11	0.28	26.4	<0.1	0.3	1
*Std SY-4	14	59.7	10	15.6	56.2	<0.1	13.1	8
*Std RTS-3A	4	16.5	226	3.74	12.4	2.6	4.0	250
*Blk BLANK	<1	<0.1	<5	<0.05	<0.2	<0.1	<0.1	<1

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Element Method Det.Lim. Units	@Ta	@Tb	@Th	@Ti	@Tm	@U	@W	@Y
	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
	0.5 ppm	0.05 ppm	0.1 ppm	0.5 ppm	0.05 ppm	0.05 ppm	1 ppm	0.5 ppm
Sample 36	<0.5	0.59	4.9	0.8	0.36	1.71	5	20.8
Sample 37	<0.5	0.86	4.1	2.3	0.40	1.16	<1	25.5
Sample 38	<0.5	0.78	3.6	1.5	0.38	1.12	<1	24.0
Sample 39	<0.5	0.55	3.5	0.8	0.32	1.26	<1	18.6
Sample 40	<0.5	0.48	3.0	0.7	0.28	0.91	<1	17.3
Sample 41	<0.5	0.44	2.8	0.7	0.27	0.86	3	15.4
Sample 42	1.0	0.58	11.8	1.3	0.29	4.14	<1	16.9
Sample 43	<0.5	0.51	3.4	0.9	0.31	1.05	<1	18.3
Sample 44	0.5	0.39	7.6	0.9	0.18	2.70	<1	10.9
Sample 45	<0.5	0.60	4.0	0.7	0.31	1.28	<1	19.0
Sample 46	<0.5	0.71	3.4	1.8	0.42	1.09	<1	27.1
Sample 47	<0.5	0.71	3.4	0.9	0.34	1.05	<1	21.4
Sample 48	<0.5	0.54	3.6	2.4	0.27	1.01	49	16.3
Sample 49	<0.5	0.71	0.6	1.0	0.43	0.27	2	25.1
Sample 50	<0.5	0.55	0.2	<0.5	0.33	0.11	<1	19.5
Sample 51	0.8	1.13	7.2	<0.5	0.77	2.87	2	42.1
Sample 52	<0.5	0.78	0.4	<0.5	0.49	0.15	<1	28.3
Sample 53	<0.5	0.71	0.4	0.6	0.42	0.23	1	24.8
Sample 54	<0.5	<0.05	0.1	0.5	0.06	0.11	2	2.3
Sample 55	<0.5	0.42	0.4	<0.5	0.30	0.98	<1	17.4
Sample 56	<0.5	0.07	0.4	0.7	0.09	0.17	2	3.5
Sample 57	<0.5	1.07	3.7	2.9	0.57	1.01	1	35.6
Sample 58	<0.5	0.98	4.1	1.3	0.59	1.00	<1	34.7
Sample 59	<0.5	0.31	0.4	0.7	0.17	0.67	<1	10.4
Sample 60	<0.5	0.40	1.9	<0.5	0.22	0.90	1	12.9
Sample 61	<0.5	0.33	1.2	0.6	0.22	0.87	1	12.5
Sample 62	1.1	1.41	6.4	0.8	0.78	1.73	<1	47.4
Sample 63	1.0	0.78	15.7	2.7	0.39	5.84	3	23.3
Sample 64	<0.5	<0.05	0.2	0.6	<0.05	0.10	6	1.3
Sample 65	<0.5	0.06	0.6	<0.5	<0.05	0.19	3	2.0
Sample 66	<0.5	<0.05	0.6	<0.5	<0.05	0.18	2	1.5
*Rep Sample 66	<0.5	<0.05	0.7	<0.5	<0.05	0.17	3	1.5
*Std SY-4	0.8	2.90	1.4	<0.5	2.53	0.81	<1	120
*Std RTS-3A	<0.5	0.60	1.0	4.2	0.29	0.32	7	17.4
*Blk BLANK	<0.5	<0.05	<0.1	<0.5	<0.05	<0.05	<1	<0.5

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Report File No.: 0000012151

Element Method Det.Lim. Units	@Yb	@Zr
	GE_ICM90A	GE_ICM90A
	0.1	0.5
	ppm	ppm
Sample 36	2.4	100
Sample 37	2.5	139
Sample 38	2.4	127
Sample 39	2.0	90.6
Sample 40	1.8	82.3
Sample 41	1.6	77.1
Sample 42	1.8	149
Sample 43	2.0	91.5
Sample 44	1.2	138
Sample 45	2.0	136
Sample 46	2.7	104
Sample 47	2.2	115
Sample 48	1.6	87.8
Sample 49	2.7	82.1
Sample 50	2.2	54.1
Sample 51	5.0	210
Sample 52	3.1	86.5
Sample 53	2.8	80.7
Sample 54	0.4	10.5
Sample 55	1.9	38.6
Sample 56	0.6	15.2
Sample 57	3.5	139
Sample 58	3.7	143
Sample 59	1.1	28.4
Sample 60	1.2	39.6
Sample 61	1.3	35.2
Sample 62	5.1	243
Sample 63	2.3	150
Sample 64	0.2	8.0
Sample 65	0.2	15.8
Sample 66	0.2	18.1
*Rep Sample 66	0.2	16.2
*Std SY-4	15.7	582
*Std RTS-3A	1.8	80.0
*Blk BLANK	<0.1	<0.5

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**Certificate of Analysis**  
**Work Order : SU1700910**  
**[Report File No.: 0000012260]**

Date: October 20, 2017

To: **Guy\_Richard**  
**COD SGS MINERALS - GEOCHEM LAKEFIELD**  
c/o Mr. Michel Lavoie  
ON

P.O. No.: 2017-21110 for Characterization of 4 Sam  
Project No.: -  
Samples: 4  
Received: Sep 28, 2017  
Pages: Page 1 to 9  
(Inclusive of Cover Sheet)

**Methods Summary**

<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
4	SHIP	Shipping
4	G_WGH79	Weighing of samples and reporting of weights
4	G_PRP89	Weigh, Dry, to 3kg, Crush 75% -2mm, Split to 250g, Pulverise to 85% -75µm
4	GE_FAA313	@Au, FAS, AAS, 30g-5ml
4	ZMS_ICM90A	Package Price - GE_ICM90A (GE_IC90A+GE_IC90M)
4	GE_IC90A	@Package, ICPAES after Sodium Peroxide Fusion-Graphite Crucibles
4	GE_IC90M	@Package, ICPMS after Sodium Peroxide Fusion-Graphite Crucibles

**Storage: Pulp & Reject**

PULP STORAGE :  
REJECT STORAGE :

**Comments:**

Ag may be considered partial, depending upon the sample matrix and its` retention in HNO3 acid  
Assays not suitable for commercial exchange.

Certified By :   
Debbie Waldon  
Project Coordinator

**SGS Minerals Services (Lakefield) is accredited by Standards Council of Canada (SCC) and conforms to the requirements of ISO/IEC 17025 for specific tests as indicated on the scope of accreditation to be found at <http://www.scc.ca/en/programs/lab/mineral.shtml>**

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample  
n.a. = Not applicable -- = No result  
\*INF = Composition of this sample makes detection impossible by this method  
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion  
Methods marked with an asterisk (e.g. \*NAA08V) were subcontracted  
Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

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Element Method Det.Lim. Units	WtKg G_WGH79 0.001 kg	@Au GE_FAA313 5 ppb	@Al GE_ICM90A 0.01 %	@Ba GE_ICM90A 10 ppm	@Be GE_ICM90A 5 ppm	@Ca GE_ICM90A 0.1 %	@Cr GE_ICM90A 10 ppm	@Cu GE_ICM90A 10 ppm
Sample 67	2.081	13	9.24	155	<5	0.2	13	22
Sample 68	1.876	6	9.77	223	<5	0.3	15	16
Sample 69	2.277	<5	8.66	292	<5	2.2	142	43
Sample 70	2.000	73	6.77	323	<5	2.6	127	2223
*Blk BLANK		8						
*Rep Sample 70			6.84	317	<5	2.6	124	2159
*Std SY-4			10.8	334	<5	5.6	10	<10
*Blk BLANK			0.01	<10	<5	<0.1	<10	<10
*Std OXL118		5590						

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Element	@Fe	@K	@Li	@Mg	@Mn	@Ni	@P	@Sc
Method	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
Det.Lim.	0.01	0.1	10	0.01	10	5	0.01	5
Units	%	%	ppm	%	ppm	ppm	%	ppm
Sample 67	3.87	0.8	<10	0.07	58	24	<0.01	<5
Sample 68	2.93	1.1	10	0.10	83	20	<0.01	<5
Sample 69	5.62	1.6	33	1.37	1189	59	0.09	16
Sample 70	8.05	1.3	32	1.24	715	96	0.09	11
*Rep Sample 70	8.16	1.3	31	1.26	720	97	0.09	11
*Std SY-4	4.42	1.4	42	0.30	811	15	0.06	<5
*Bik BLANK	<0.01	<0.1	<10	<0.01	<10	<5	<0.01	<5

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Element Method Det.Lim. Units	Si	@Sr	@Ti	@V	@Zn	@Ag	@As	@Bi
	GE_ICM90A 0.1 %	GE_ICM90A 10 ppm	GE_ICM90A 0.01 %	GE_ICM90A 5 ppm	GE_ICM90A 5 ppm	GE_ICM90A 1 ppm	GE_ICM90A 5 ppm	GE_ICM90A 0.1 ppm
Sample 67	28.9	77	0.06	<5	6	<1	7	3.9
Sample 68	26.2	88	0.06	<5	8	<1	6	1.5
Sample 69	28.4	342	0.40	109	73	<1	<5	0.8
Sample 70	27.2	334	0.24	92	65	2	19	15.7
*Rep Sample 70	27.7	346	0.24	91	65	1	16	14.9
*Std SY-4	22.8	1153	0.17	<5	94	<1	<5	0.1
*Bik BLANK	<0.1	<10	<0.01	<5	<5	<1	<5	<0.1

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Element Method Det.Lim. Units	@Cd GE_ICM90A 0.2 ppm	@Ce GE_ICM90A 0.1 ppm	@Co GE_ICM90A 0.5 ppm	@Cs GE_ICM90A 0.1 ppm	@Dy GE_ICM90A 0.05 ppm	@Er GE_ICM90A 0.05 ppm	@Eu GE_ICM90A 0.05 ppm	@Ga GE_ICM90A 1 ppm
Sample 67	<0.2	2.4	155	1.2	0.47	0.34	<0.05	19
Sample 68	<0.2	8.1	128	1.9	0.78	0.50	0.07	24
Sample 69	<0.2	68.2	27.5	5.6	3.34	1.84	1.10	20
Sample 70	0.3	39.9	98.5	2.8	1.98	1.14	0.73	18
*Rep Sample 70	0.2	39.5	104	2.6	1.91	1.13	0.77	18
*Std SY-4	<0.2	125	2.0	1.7	19.8	14.5	1.92	36
*Bik BLANK	<0.2	<0.1	<0.5	0.1	<0.05	<0.05	<0.05	<1

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Element Method Det.Lim. Units	@Gd GE_ICM90A 0.05 ppm	@Ge GE_ICM90A 1 ppm	@Hf GE_ICM90A 1 ppm	@Ho GE_ICM90A 0.05 ppm	@In GE_ICM90A 0.2 ppm	@La GE_ICM90A 0.1 ppm	@Lu GE_ICM90A 0.05 ppm	@Mo GE_ICM90A 2 ppm
Sample 67	0.25	1	4	0.11	<0.2	2.3	0.10	23
Sample 68	0.60	1	3	0.15	<0.2	5.0	0.12	29
Sample 69	3.92	2	5	0.65	<0.2	32.8	0.26	<2
Sample 70	2.20	2	2	0.40	<0.2	19.9	0.18	<2
*Rep Sample 70	2.21	2	2	0.40	<0.2	19.3	0.23	<2
*Std SY-4	14.9	1	12	4.61	<0.2	58.9	2.09	<2
*Bik BLANK	<0.05	<1	<1	<0.05	<0.2	<0.1	<0.05	<2

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Element Method Det.Lim. Units	@Nb GE_ICM90A 1 ppm	@Nd GE_ICM90A 0.1 ppm	@Pb GE_ICM90A 5 ppm	@Pr GE_ICM90A 0.05 ppm	@Rb GE_ICM90A 0.2 ppm	@Sb GE_ICM90A 0.1 ppm	@Sm GE_ICM90A 0.1 ppm	@Sn GE_ICM90A 1 ppm
Sample 67	29	0.5	70	0.17	53.4	0.2	0.2	4
Sample 68	21	2.5	51	0.77	85.3	0.2	0.5	2
Sample 69	9	27.4	16	7.41	119	0.2	5.0	2
Sample 70	4	16.4	56	4.48	52.6	0.5	2.9	3
*Rep Sample 70	4	16.7	54	4.36	52.0	0.4	3.0	2
*Std SY-4	13	59.3	11	15.2	54.9	<0.1	13.4	8
*Bik BLANK	<1	<0.1	<5	<0.05	0.2	<0.1	<0.1	<1

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Element Method Det.Lim. Units	@Ta	@Tb	@Th	@Tl	@Tm	@U	@W	@Y
	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
	0.5	0.05	0.1	0.5	0.05	0.05	1	0.5
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Sample 67	7.8	0.07	7.8	<0.5	0.07	1.54	<1	2.4
Sample 68	4.8	0.11	11.8	<0.5	0.09	1.90	<1	4.5
Sample 69	0.9	0.55	13.3	1.0	0.28	4.99	<1	16.7
Sample 70	<0.5	0.33	6.5	<0.5	0.18	3.11	1	10.7
*Rep Sample 70	<0.5	0.32	6.3	<0.5	0.17	2.95	<1	10.5
*Std SY-4	0.9	2.68	1.3	<0.5	2.33	0.83	<1	118
*Bik BLANK	<0.5	<0.05	<0.1	<0.5	<0.05	<0.05	<1	<0.5

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Element	@Yb	@Zr
Method	GE_ICM90A	GE_ICM90A
Det.Lim.	0.1	0.5
Units	ppm	ppm
Sample 67	0.5	93.4
Sample 68	0.7	80.9
Sample 69	1.8	184
Sample 70	1.3	74.2
*Rep Sample 70	1.3	74.0
*Std SY-4	15.4	576
*Blk BLANK	<0.1	<0.5

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**Certificate of Analysis**  
**Work Order : SU1700931**  
**[Report File No.: 0000012394]**

**Date:** October 30, 2017

**To: Guy\_Richard**  
**COD SGS MINERALS - GEOCHEM LAKEFIELD**  
 c/o Mr. Michel Lavoie  
 ON

**P.O. No.:** 2017-21110 for Characterization of 9 Sam  
**Project No.:** -  
**Samples:** 9  
**Received:** Oct 2, 2017  
**Pages:** Page 1 to 9  
 (Inclusive of Cover Sheet)

**Methods Summary**

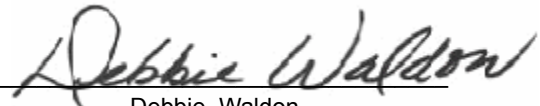
<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
9	SHIP	Shipping
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9	G_PRP89	Weigh, Dry, to 3kg, Crush 75% -2mm, Split to 250g, Pulverise to 85% -75µm
9	GE_FAA313	@Au, FAS, AAS, 30g-5ml
9	ZMS_ICM90A	Package Price - GE_ICM90A (GE_IC90A+GE_IC90M)
9	GE_IC90A	@Package, ICPAES after Sodium Peroxide Fusion-Graphite Crucibles
9	GE_IC90M	@Package, ICPMS after Sodium Peroxide Fusion-Graphite Crucibles

**Storage: Pulp & Reject**

PULP STORAGE :  
 REJECT STORAGE :

**Comments:**

Ag may be considered partial, depending upon the sample matrix and its` retention in HNO3 acid  
 Assays not suitable for commercial exchange.

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 Debbie Waldon  
 Project Coordinator

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Sample 71	2.920	<5	7.42	591	6	4.4	176	55
Sample 72	1.550	<5	9.19	854	<5	1.5	175	20
Sample 73	3.427	<5	9.82	870	<5	0.8	170	<10
Sample 74	2.428	28	8.33	388	<5	5.3	212	302
Sample 75	3.165	66	7.10	297	<5	4.5	150	524
Sample 76	1.926	<5	7.83	546	7	4.1	91	92
Sample 77	2.263	<5	7.40	487	<5	2.4	24	177
Sample 78	2.111	<5	7.64	817	<5	2.9	27	107
Sample 79	3.495	<5	7.80	542	8	8.5	13	157
*Rep Sample 71		<5						
*Std OREAS-217		323						
*Rep Sample 79			7.89	538	8	8.6	14	156
*Std SY-4			11.0	329	<5	5.7	10	<10

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Element Method Det.Lim. Units	@Fe	@K	@Li	@Mg	@Mn	@Ni	@P	@Sc
	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
	0.01	0.1	10	0.01	10	5	0.01	5
	%	%	ppm	%	ppm	ppm	%	ppm
Sample 71	8.75	2.5	100	3.94	1656	103	0.03	35
Sample 72	5.75	2.1	60	2.00	650	97	0.06	17
Sample 73	7.17	3.2	44	1.54	1453	73	0.08	20
Sample 74	8.13	0.9	28	3.24	1323	63	0.02	36
Sample 75	13.5	0.7	20	2.59	1093	87	0.02	26
Sample 76	8.63	1.6	69	2.04	1305	56	0.10	23
Sample 77	4.90	0.9	41	0.60	400	9	0.08	12
Sample 78	4.96	1.2	38	0.48	475	10	0.08	13
Sample 79	13.1	1.4	63	3.24	1650	44	0.10	39
*Rep Sample 79	13.2	1.4	64	3.28	1667	44	0.10	39
*Std SY-4	4.51	1.4	38	0.30	817	17	0.06	<5

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Element Method Det.Lim. Units	Si	@Sr	@Ti	@V	@Zn	@Ag	@As	@Bi
	GE_ICM90A 0.1 %	GE_ICM90A 10 ppm	GE_ICM90A 0.01 %	GE_ICM90A 5 ppm	GE_ICM90A 5 ppm	GE_ICM90A 1 ppm	GE_ICM90A 5 ppm	GE_ICM90A 0.1 ppm
Sample 71	24.4	282	0.44	196	184	<1	<5	0.7
Sample 72	27.1	408	0.36	102	93	<1	<5	3.1
Sample 73	27.4	101	0.46	137	86	<1	<5	0.2
Sample 74	24.1	517	0.43	194	97	<1	<5	1.5
Sample 75	20.9	465	0.35	151	81	2	11	5.9
Sample 76	26.5	455	0.87	209	114	<1	<5	0.6
Sample 77	29.1	377	0.34	21	33	<1	<5	1.4
Sample 78	>30.0	370	0.32	11	26	<1	<5	0.6
Sample 79	19.8	757	1.27	622	132	<1	<5	1.0
*Rep Sample 79	20.2	760	1.29	613	131	<1	<5	0.9
*Std SY-4	23.2	1179	0.17	<5	96	<1	<5	<0.1

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Element Method Det.Lim. Units	@Cd	@Ce	@Co	@Cs	@Dy	@Er	@Eu	@Ga
	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
	0.2	0.1	0.5	0.1	0.05	0.05	0.05	1
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Sample 71	<0.2	11.1	40.2	24.2	2.79	1.70	0.67	19
Sample 72	<0.2	36.5	43.2	3.2	2.42	1.42	0.70	23
Sample 73	<0.2	75.6	22.8	8.5	4.44	2.53	1.31	24
Sample 74	0.4	5.6	106	1.8	2.67	1.83	0.51	16
Sample 75	0.5	4.5	402	1.3	1.89	1.37	0.40	14
Sample 76	<0.2	31.0	30.6	11.4	3.95	2.42	1.33	21
Sample 77	<0.2	39.2	11.7	4.0	6.88	4.54	1.35	18
Sample 78	<0.2	44.7	8.7	3.1	6.56	4.25	1.45	21
Sample 79	<0.2	11.6	62.3	7.3	2.61	1.45	1.03	22
*Rep Sample 79	0.2	11.5	61.8	7.2	2.67	1.45	1.03	22
*Std SY-4	<0.2	125	2.1	1.6	19.1	14.9	1.93	35

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Element Method Det.Lim. Units	@Gd	@Ge	@Hf	@Ho	@In	@La	@Lu	@Mo
	GE_ICM90A 0.05 ppm	GE_ICM90A 1 ppm	GE_ICM90A 1 ppm	GE_ICM90A 0.05 ppm	GE_ICM90A 0.2 ppm	GE_ICM90A 0.1 ppm	GE_ICM90A 0.05 ppm	GE_ICM90A 2 ppm
Sample 71	2.46	2	1	0.59	<0.2	4.9	0.31	<2
Sample 72	2.61	1	3	0.53	<0.2	18.3	0.24	<2
Sample 73	5.10	2	4	0.85	<0.2	39.7	0.37	<2
Sample 74	2.06	2	1	0.59	<0.2	2.3	0.33	<2
Sample 75	1.54	1	1	0.41	<0.2	2.0	0.21	<2
Sample 76	3.88	2	3	0.84	<0.2	14.4	0.37	<2
Sample 77	5.68	1	7	1.44	<0.2	16.6	0.67	<2
Sample 78	5.77	1	7	1.38	<0.2	19.9	0.69	2
Sample 79	2.84	2	<1	0.53	<0.2	4.7	0.19	<2
*Rep Sample 79	2.68	2	<1	0.51	<0.2	4.7	0.20	<2
*Std SY-4	14.6	1	10	4.41	<0.2	58.9	2.14	<2

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Element Method Det.Lim. Units	@Nb	@Nd	@Pb	@Pr	@Rb	@Sb	@Sm	@Sn
	GE_ICM90A 1 ppm	GE_ICM90A 0.1 ppm	GE_ICM90A 5 ppm	GE_ICM90A 0.05 ppm	GE_ICM90A 0.2 ppm	GE_ICM90A 0.1 ppm	GE_ICM90A 0.1 ppm	GE_ICM90A 1 ppm
Sample 71	2	7.1	12	1.51	226	0.2	2.0	2
Sample 72	7	15.9	18	4.19	89.7	0.2	2.8	2
Sample 73	10	32.0	8	8.63	184	0.2	5.9	4
Sample 74	3	4.2	27	0.85	29.9	0.2	1.3	1
Sample 75	2	3.0	27	0.60	21.9	0.2	1.0	2
Sample 76	5	15.9	11	3.81	151	0.1	3.7	3
Sample 77	11	20.8	13	4.94	71.3	0.1	5.1	3
Sample 78	10	23.0	11	5.49	74.4	0.1	5.2	4
Sample 79	2	8.8	15	1.76	106	0.3	2.4	2
*Rep Sample 79	2	8.6	15	1.71	107	0.6	2.2	2
*Std SY-4	14	59.1	11	15.0	53.9	<0.1	12.7	8

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Element Method Det.Lim. Units	@Ta GE_ICM90A 0.5 ppm	@Tb GE_ICM90A 0.05 ppm	@Th GE_ICM90A 0.1 ppm	@Tl GE_ICM90A 0.5 ppm	@Tm GE_ICM90A 0.05 ppm	@U GE_ICM90A 0.05 ppm	@W GE_ICM90A 1 ppm	@Y GE_ICM90A 0.5 ppm
Sample 71	<0.5	0.41	1.0	2.5	0.25	0.52	<1	15.0
Sample 72	0.7	0.37	10.9	0.7	0.23	3.06	1	13.4
Sample 73	1.0	0.74	16.0	1.4	0.37	5.82	3	23.4
Sample 74	<0.5	0.38	0.5	<0.5	0.28	0.37	<1	15.4
Sample 75	<0.5	0.28	0.4	<0.5	0.20	0.26	<1	11.5
Sample 76	<0.5	0.61	4.3	1.1	0.33	1.04	<1	20.8
Sample 77	0.8	1.01	5.8	0.5	0.68	1.83	<1	38.5
Sample 78	1.1	0.96	5.3	0.5	0.64	1.73	<1	36.4
Sample 79	<0.5	0.40	0.1	1.1	0.19	0.10	61	12.8
*Rep Sample 79	<0.5	0.41	0.1	1.0	0.20	0.12	62	12.7
*Std SY-4	0.8	2.64	1.3	<0.5	2.27	1.03	<1	115

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Report File No.: 0000012394

Element Method Det.Lim. Units	@Yb	@Zr
	GE_ICM90A	GE_ICM90A
	0.1	0.5
	ppm	ppm
Sample 71	1.6	52.4
Sample 72	1.4	114
Sample 73	2.4	147
Sample 74	1.9	47.2
Sample 75	1.3	35.5
Sample 76	2.4	106
Sample 77	4.5	277
Sample 78	4.2	278
Sample 79	1.3	15.9
*Rep Sample 79	1.3	15.4
*Std SY-4	15.1	537

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**Certificate of Analysis**  
**Work Order : SU1700969**  
**[Report File No.: 0000012616]**

**Date:** November 13, 2017

**To: Guy\_Richard**  
**COD SGS MINERALS - GEOCHEM LAKEFIELD**  
 c/o Mr. Michel Lavoie  
 ON

**P.O. No.:** 2017-21110 for Characterization of 3 Sam  
**Project No.:** -  
**Samples:** 3  
**Received:** Oct 10, 2017  
**Pages:** Page 1 to 9  
 (Inclusive of Cover Sheet)

**Methods Summary**

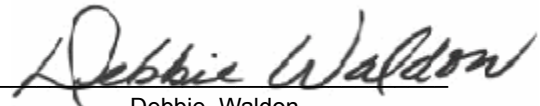
<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
3	SHIP	Shipping
3	G_WGH79	Weighing of samples and reporting of weights
3	G_PRP89	Weigh, Dry, to 3kg, Crush 75% -2mm, Split to 250g, Pulverise to 85% -75µm
3	GE_FAA313	@Au, FAS, AAS, 30g-5ml
3	ZMS_ICM90A	Package Price - GE_ICM90A (GE_IC90A+GE_IC90M)
3	GE_IC90A	@Package, ICPAES after Sodium Peroxide Fusion-Graphite Crucibles
3	GE_IC90M	@Package, ICPMS after Sodium Peroxide Fusion-Graphite Crucibles

**Storage: Pulp & Reject**

PULP STORAGE :  
 REJECT STORAGE :

**Comments:**

Ag may be considered partial, depending upon the sample matrix and its` retention in HNO3 acid  
 Assays not suitable for commercial exchange.

Certified By :   
 Debbie Waldon  
 Project Coordinator

**SGS Minerals Services (Lakefield) is accredited by Standards Council of Canada (SCC) and conforms to the requirements of ISO/IEC 17025 for specific tests as indicated on the scope of accreditation to be found at <http://www.scc.ca/en/programs/lab/mineral.shtml>**

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample  
 n.a. = Not applicable -- = No result  
 \*INF = Composition of this sample makes detection impossible by this method  
 M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion  
 Methods marked with an asterisk (e.g. \*NAA08V) were subcontracted  
 Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

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Element Method Det.Lim. Units	WtKg G_WGH79 kg	@Au GE_FAA313 ppb	@Al GE_ICM90A %	@Ba GE_ICM90A ppm	@Be GE_ICM90A ppm	@Ca GE_ICM90A %	@Cr GE_ICM90A ppm	@Cu GE_ICM90A ppm
Sample 80	3.150	<5	8.26	158	<5	6.5	137	172
Sample 81	2.593	<5	8.62	380	<5	2.2	274	42
Sample 82	1.972	6	8.31	559	<5	1.1	129	39
*Std OREAS-224		2048						
*Blk BLANK		<5						
*Rep Sample 82			8.46	557	<5	1.1	128	39
*Std SY-4			N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
*Blk BLANK			N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
*Rep Sample 82		<5						
*Blk BLANK			<0.01	<10	<5	<0.1	<10	<10
*Std SY-4			10.3	334	<5	5.9	<10	<10

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Element Method Det.Lim. Units	@Fe	@K	@Li	@Mg	@Mn	@Ni	@P	@Sc
	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
	0.01	0.1	10	0.01	10	5	0.01	5
	%	%	ppm	%	ppm	ppm	%	ppm
Sample 80	9.49	0.5	30	3.38	1447	52	0.03	42
Sample 81	7.01	2.4	66	2.94	1027	96	0.05	24
Sample 82	5.79	2.8	44	1.23	734	46	0.06	13
*Rep Sample 82	5.67	2.8	45	1.27	731	54	0.06	14
*Std SY-4	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
*Bik BLANK	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
*Bik BLANK	<0.01	<0.1	<10	<0.01	<10	5	<0.01	<5
*Std SY-4	4.36	1.5	39	0.32	840	6	0.06	<5

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Element Method Det.Lim. Units	Si	@Sr	@Ti	@V	@Zn	@Ag	@As	@Bi
	GE_ICM90A 0.1 %	GE_ICM90A 10 ppm	GE_ICM90A 0.01 %	GE_ICM90A 5 ppm	GE_ICM90A 5 ppm	GE_ICM90A 1 ppm	GE_ICM90A 5 ppm	GE_ICM90A 0.1 ppm
Sample 80	22.9	716	0.65	310	116	<1	13	0.6
Sample 81	24.7	191	0.33	158	81	<1	<5	0.2
Sample 82	29.3	222	0.34	103	61	<1	13	2.1
*Rep Sample 82	28.6	221	0.34	103	64	<1	12	2.1
*Std SY-4	N.A.	N.A.	N.A.	N.A.	N.A.	<1	<5	<0.1
*Bik BLANK	N.A.	N.A.	N.A.	N.A.	N.A.	<1	<5	<0.1
*Bik BLANK	<0.1	<10	<0.01	<5	<5			
*Std SY-4	23.7	1204	0.18	<5	106			

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Element Method Det.Lim. Units	@Cd GE_ICM90A 0.2 ppm	@Ce GE_ICM90A 0.1 ppm	@Co GE_ICM90A 0.5 ppm	@Cs GE_ICM90A 0.1 ppm	@Dy GE_ICM90A 0.05 ppm	@Er GE_ICM90A 0.05 ppm	@Eu GE_ICM90A 0.05 ppm	@Ga GE_ICM90A 1 ppm
Sample 80	0.3	11.0	47.9	1.6	4.15	2.84	0.93	21
Sample 81	<0.2	44.0	40.6	15.6	2.65	1.69	0.96	23
Sample 82	<0.2	55.8	89.8	9.4	3.01	1.79	1.02	22
*Rep Sample 82	<0.2	55.6	88.1	9.5	2.97	1.81	1.06	21
*Std SY-4	<0.2	121	2.6	1.7	18.5	14.7	2.07	39
*Blk BLANK	<0.2	<0.1	<0.5	<0.1	<0.05	<0.05	<0.05	<1

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Element Method Det.Lim. Units	@Gd GE_ICM90A 0.05 ppm	@Ge GE_ICM90A 1 ppm	@Hf GE_ICM90A 1 ppm	@Ho GE_ICM90A 0.05 ppm	@In GE_ICM90A 0.2 ppm	@La GE_ICM90A 0.1 ppm	@Lu GE_ICM90A 0.05 ppm	@Mo GE_ICM90A 2 ppm
Sample 80	3.60	2	2	0.91	<0.2	4.5	0.46	<2
Sample 81	3.17	1	3	0.57	<0.2	23.9	0.28	<2
Sample 82	3.62	1	5	0.59	<0.2	29.3	0.27	<2
*Rep Sample 82	3.72	1	5	0.59	<0.2	29.2	0.28	<2
*Std SY-4	14.8	1	12	4.37	<0.2	60.1	2.26	<2
*Bik BLANK	<0.05	<1	<1	<0.05	<0.2	<0.1	<0.05	<2

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Element Method Det.Lim. Units	@Nb	@Nd	@Pb	@Pr	@Rb	@Sb	@Sm	@Sn
	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
	1	0.1	5	0.05	0.2	0.1	0.1	1
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Sample 80	3	8.4	30	1.74	23.3	0.3	2.8	2
Sample 81	7	19.8	10	5.37	179	0.2	3.7	3
Sample 82	8	23.9	16	6.61	179	0.2	4.5	3
*Rep Sample 82	8	23.8	16	6.67	177	0.2	4.4	3
*Std SY-4	14	59.7	13	15.4	56.5	0.1	13.1	9
*Bik BLANK	<1	<0.1	<5	<0.05	<0.2	0.1	<0.1	<1

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Element Method Det.Lim. Units	@Ta GE_ICM90A 0.5 ppm	@Tb GE_ICM90A 0.05 ppm	@Th GE_ICM90A 0.1 ppm	@Tl GE_ICM90A 0.5 ppm	@Tm GE_ICM90A 0.05 ppm	@U GE_ICM90A 0.05 ppm	@W GE_ICM90A 1 ppm	@Y GE_ICM90A 0.5 ppm
Sample 80	<0.5	0.68	0.9	<0.5	0.43	0.27	<1	25.2
Sample 81	0.6	0.49	10.0	1.9	0.28	3.52	<1	16.1
Sample 82	0.8	0.55	12.3	1.5	0.27	4.49	2	17.5
*Rep Sample 82	0.9	0.52	12.2	1.5	0.28	4.68	2	17.5
*Std SY-4	0.8	2.83	1.3	<0.5	2.47	0.82	1	124
*Blk BLANK	<0.5	<0.05	<0.1	<0.5	<0.05	<0.05	<1	<0.5

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Element	@Yb	@Zr
Method	GE_ICM90A	GE_ICM90A
Det.Lim.	0.1	0.5
Units	ppm	ppm
Sample 80	2.7	66.8
Sample 81	1.6	85.3
Sample 82	1.6	162
*Rep Sample 82	1.7	160
*Std SY-4	15.2	542
*Blk BLANK	<0.1	1.2

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**Certificate of Analysis**  
**Work Order : SU1700975**  
**[Report File No.: 0000012565]**

**Date:** November 09, 2017

**To: Guy\_Richard**  
**COD SGS MINERALS - GEOCHEM LAKEFIELD**  
 c/o Mr. Michel Lavoie  
 ON

**P.O. No.:** 2017-21110 for Characterization of 3 Sam  
**Project No.:** -  
**Samples:** 3  
**Received:** Oct 12, 2017  
**Pages:** Page 1 to 9  
 (Inclusive of Cover Sheet)

**Methods Summary**

<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
3	SHIP	Shipping
3	G_WGH79	Weighing of samples and reporting of weights
3	G_PRP89	Weigh, Dry, to 3kg, Crush 75% -2mm, Split to 250g, Pulverise to 85% -75µm
3	GE_FAA313	@Au, FAS, AAS, 30g-5ml
3	ZMS_ICM90A	Package Price - GE_ICM90A (GE_IC90A+GE_IC90M)
3	GE_IC90A	@Package, ICPAES after Sodium Peroxide Fusion-Graphite Crucibles
3	GE_IC90M	@Package, ICPMS after Sodium Peroxide Fusion-Graphite Crucibles
2	GO_XRF77B	Ore Quality Pyrosulfate fusion, XRF (0.4 g if Mo)

**Storage: Pulp & Reject**

PULP STORAGE :  
 REJECT STORAGE :

**Comments:**

Ag may be considered partial, depending upon the sample matrix and its` retention in HNO3 acid  
 Assays not suitable for commercial exchange.

Certified By :   
 Debbie Waldon  
 Project Coordinator

**SGS Minerals Services (Lakefield) is accredited by Standards Council of Canada (SCC) and conforms to the requirements of ISO/IEC 17025 for specific tests as indicated on the scope of accreditation to be found at <http://www.scc.ca/en/programs/lab/mineral.shtml>**

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample  
 n.a. = Not applicable -- = No result  
 \*INF = Composition of this sample makes detection impossible by this method  
 M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion  
 Methods marked with an asterisk (e.g. \*NAA08V) were subcontracted  
 Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

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Element Method Det.Lim. Units	WtKg G_WGH79 0.001 kg	@Au GE_FAA313 5 ppb	@Al GE_ICM90A 0.01 %	@Ba GE_ICM90A 10 ppm	@Be GE_ICM90A 5 ppm	@Ca GE_ICM90A 0.1 %	@Cr GE_ICM90A 10 ppm	@Cu GE_ICM90A 10 ppm
Sample 83	1.135	<5	5.00	260	<5	11.5	16	4373
Sample 84	1.189	8	0.57	54	<5	>25.0	42	>10000
Sample 85	0.260	179	3.74	59	<5	9.5	<10	>10000
*Std OXD144		393						
*Blk BLANK		<5						
*Rep Sample 85			3.48	58	<5	9.3	<10	>10000
*Std SY-4			11.4	329	<5	5.8	<10	13
*Blk BLANK			<0.01	<10	<5	<0.1	<10	<10

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Element	@Fe	@K	@Li	@Mg	@Mn	@Ni	@P	@Sc
Method	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
Det.Lim.	0.01	0.1	10	0.01	10	5	0.01	5
Units	%	%	ppm	%	ppm	ppm	%	ppm
Sample 83	5.97	2.1	16	1.68	1363	52	0.02	23
Sample 84	2.14	0.4	11	0.25	1450	12	<0.01	7
Sample 85	17.3	0.3	16	3.11	1425	43	<0.01	11
*Rep Sample 85	17.2	0.3	17	3.07	1413	41	<0.01	11
*Std SY-4	4.55	1.5	39	0.31	815	9	0.06	<5
*Bik BLANK	<0.01	<0.1	<10	<0.01	<10	<5	<0.01	<5

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Element Method Det.Lim. Units	Si	@Sr	@Ti	@V	@Zn	@Ag	@As	@Bi
	GE_ICM90A 0.1 %	GE_ICM90A 10 ppm	GE_ICM90A 0.01 %	GE_ICM90A 5 ppm	GE_ICM90A 5 ppm	GE_ICM90A 1 ppm	GE_ICM90A 5 ppm	GE_ICM90A 0.1 ppm
Sample 83	21.4	75	0.29	138	64	<1	<5	0.7
Sample 84	13.9	148	0.03	19	12	<1	<5	2.1
Sample 85	15.2	81	0.11	58	52	1	7	2.4
*Rep Sample 85	15.0	80	0.11	58	50	1	7	2.4
*Std SY-4	23.0	1204	0.17	<5	99	<1	<5	<0.1
*Bik BLANK	<0.1	<10	<0.01	<5	<5	<1	<5	<0.1

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Element Method Det.Lim. Units	@Cd GE_ICM90A 0.2 ppm	@Ce GE_ICM90A 0.1 ppm	@Co GE_ICM90A 0.5 ppm	@Cs GE_ICM90A 0.1 ppm	@Dy GE_ICM90A 0.05 ppm	@Er GE_ICM90A 0.05 ppm	@Eu GE_ICM90A 0.05 ppm	@Ga GE_ICM90A 1 ppm
Sample 83	<0.2	24.4	25.2	0.3	3.42	1.92	1.29	14
Sample 84	<0.2	10.0	8.4	0.1	3.59	2.28	0.79	2
Sample 85	<0.2	60.3	153	0.4	12.4	6.33	2.48	21
*Rep Sample 85	<0.2	58.6	153	0.3	12.7	6.43	2.45	21
*Std SY-4	<0.2	122	2.7	1.8	19.8	14.7	2.16	38
*Blk BLANK	<0.2	<0.1	<0.5	0.1	<0.05	<0.05	<0.05	<1

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Element Method Det.Lim. Units	@Gd GE_ICM90A 0.05 ppm	@Ge GE_ICM90A 1 ppm	@Hf GE_ICM90A 1 ppm	@Ho GE_ICM90A 0.05 ppm	@In GE_ICM90A 0.2 ppm	@La GE_ICM90A 0.1 ppm	@Lu GE_ICM90A 0.05 ppm	@Mo GE_ICM90A 2 ppm
Sample 83	3.67	<1	1	0.70	<0.2	11.7	0.27	<2
Sample 84	3.54	<1	<1	0.79	<0.2	4.1	0.35	<2
Sample 85	13.9	1	1	2.34	0.7	29.4	0.99	13
*Rep Sample 85	13.5	1	1	2.36	0.7	28.3	1.01	12
*Std SY-4	15.2	1	11	4.49	<0.2	57.7	2.21	<2
*Blk BLANK	<0.05	<1	<1	<0.05	<0.2	<0.1	<0.05	<2

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Element Method Det.Lim. Units	@Nb	@Nd	@Pb	@Pr	@Rb	@Sb	@Sm	@Sn
	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A	GE_ICM90A
	1	0.1	5	0.05	0.2	0.1	0.1	1
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Sample 83	2	12.6	<5	3.06	75.0	0.3	3.2	4
Sample 84	<1	7.7	<5	1.49	13.9	0.2	2.4	3
Sample 85	2	34.1	5	8.09	11.7	0.3	11.4	24
*Rep Sample 85	2	32.9	<5	7.80	11.3	0.4	11.4	22
*Std SY-4	14	57.3	11	15.1	57.8	<0.1	13.4	10
*Bik BLANK	<1	0.1	<5	<0.05	0.2	0.1	<0.1	2

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Element Method Det.Lim. Units	@Ta GE_ICM90A 0.5 ppm	@Tb GE_ICM90A 0.05 ppm	@Th GE_ICM90A 0.1 ppm	@Tl GE_ICM90A 0.5 ppm	@Tm GE_ICM90A 0.05 ppm	@U GE_ICM90A 0.05 ppm	@W GE_ICM90A 1 ppm	@Y GE_ICM90A 0.5 ppm
Sample 83	<0.5	0.57	1.3	<0.5	0.26	0.64	<1	21.2
Sample 84	<0.5	0.55	0.2	<0.5	0.32	0.10	1	27.0
Sample 85	<0.5	2.23	1.8	<0.5	0.97	4.31	401	62.5
*Rep Sample 85	<0.5	2.23	1.8	<0.5	1.01	4.27	411	63.2
*Std SY-4	0.8	2.83	1.3	<0.5	2.41	0.82	<1	124
*Blk BLANK	<0.5	<0.05	<0.1	<0.5	<0.05	<0.05	<1	<0.5

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Element	@Yb	@Zr	Cu
Method	GE_ICM90A	GE_ICM90A	GO_XRF77B
Det.Lim.	0.1	0.5	0.01
Units	ppm	ppm	%
Sample 83	1.5	38.6	N.A.
Sample 84	2.1	4.6	1.10
Sample 85	6.0	46.6	3.17
*Rep Sample 85	6.1	45.8	
*Std SY-4	15.2	568	
*Blk BLANK	<0.1	0.8	

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CLIENT NAME: MISC AGAT CLIENT ON, ON

ATTENTION TO: Michel Lavoie

PROJECT:

AGAT WORK ORDER: 17T274302

SOLID ANALYSIS REVIEWED BY: Kevin Motomura, Data Review Supervisor

DATE REPORTED: Nov 14, 2017

PAGES (INCLUDING COVER): 10

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 17T274302

PROJECT:

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Oct 19, 2017

DATE RECEIVED: Oct 20, 2017

DATE REPORTED: Nov 14, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
	Unit:	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	RDL:	1	0.01	30	20	0.5	5	0.1	0.05	0.2	0.1	0.5	0.005	0.1	5
86 (8836392)		<1	7.58	<30	<20	88.6	<5	0.4	3.61	<0.2	9.0	25.2	0.022	1.2	37
87 (8836393)		<1	6.72	<30	51	380	<5	0.8	6.93	<0.2	30.3	28.1	<0.005	4.5	86
88 (8836394)		<1	7.82	<30	27	146	<5	1.3	5.66	<0.2	22.1	20.0	0.009	1.2	66
89 (8836395)		<1	7.53	<30	32	343	<5	0.8	6.37	<0.2	15.7	24.6	0.005	2.1	141
90 (8836396)		<1	9.46	<30	53	617	<5	0.2	1.27	<0.2	67.0	33.5	0.019	6.5	17
91 (8836397)		1	0.52	<30	119	60.8	<5	11.9	1.36	0.3	0.5	375	0.016	2.1	1100
92 (8836398)		2	1.83	43	95	183	<5	13.7	2.66	0.3	2.6	342	0.017	6.8	1090
93 (8836399)		1	1.55	<30	74	168	<5	11.0	2.06	<0.2	2.0	177	0.022	5.6	871
Sample ID (AGAT ID)	Analyte:	Dy	Er	Eu	Fe	Ga	Gd	Ge	Hf	Ho	In	K	La	Li	Lu
	Unit:	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	RDL:	0.05	0.05	0.05	0.01	0.01	0.05	1	1	0.05	0.2	0.05	0.1	10	0.05
86 (8836392)		2.11	1.63	0.59	5.24	16.6	1.59	1	3	0.46	<0.2	0.44	5.0	23	0.23
87 (8836393)		8.92	6.44	2.35	12.7	24.7	7.31	2	5	1.89	<0.2	1.30	13.2	35	0.89
88 (8836394)		5.49	4.07	1.39	6.60	19.6	4.57	2	3	1.13	<0.2	0.59	10.2	15	0.52
89 (8836395)		5.19	3.78	1.40	8.83	22.5	4.37	2	3	1.05	<0.2	0.80	6.6	26	0.50
90 (8836396)		3.97	2.38	1.46	6.79	25.0	4.96	2	4	0.71	<0.2	2.31	36.6	63	0.30
91 (8836397)		0.10	0.08	<0.05	31.5	2.00	0.10	<1	<1	<0.05	<0.2	0.26	0.3	<10	<0.05
92 (8836398)		0.33	0.25	0.13	26.0	6.42	0.38	<1	<1	0.07	<0.2	0.81	1.3	30	<0.05
93 (8836399)		0.23	0.23	0.09	18.7	5.13	0.26	<1	<1	0.06	<0.2	0.69	1.1	25	<0.05
Sample ID (AGAT ID)	Analyte:	Mg	Mn	Mo	Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Sc	Si
	Unit:	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%
	RDL:	0.01	10	2	1	0.1	5	0.01	5	0.05	0.2	0.01	0.1	5	0.01
86 (8836392)		3.23	1970	<2	3	4.4	70	0.04	27	1.04	21.0	0.28	0.2	19	28.7
87 (8836393)		3.33	1430	<2	9	20.2	45	0.11	19	4.16	66.3	0.38	0.3	45	23.4
88 (8836394)		2.45	1270	<2	6	13.3	27	0.07	29	2.86	20.3	1.16	0.3	28	26.9
89 (8836395)		2.81	1250	3	6	11.2	26	0.07	9	2.24	31.7	0.48	0.5	42	25.4
90 (8836396)		1.82	1560	<2	10	31.3	84	0.09	8	7.98	131	0.02	0.1	20	28.9
91 (8836397)		0.19	77	10	<1	0.3	207	<0.01	8	0.07	20.3	34.8	<0.1	<5	10.9
92 (8836398)		0.85	466	10	<1	1.4	269	0.01	11	0.31	76.3	27.1	0.1	<5	13.8
93 (8836399)		0.82	410	8	<1	1.1	152	<0.01	10	0.24	64.1	17.7	<0.1	<5	23.2

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T274302

PROJECT:

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MISSISSAUGA, ONTARIO  
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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Oct 19, 2017

DATE RECEIVED: Oct 20, 2017

DATE REPORTED: Nov 14, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Sm	Sn	Sr	Ta	Tb	Th	Ti	Tl	Tm	U	V	W	Y	Yb
	Unit:	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	RDL:	0.1	1	0.1	0.5	0.05	0.1	0.01	0.5	0.05	0.05	5	1	0.5	0.1
86 (8836392)		1.1	1	181	<0.5	0.29	3.5	0.34	<0.5	0.22	1.03	150	<1	12.6	1.6
87 (8836393)		5.8	2	1000	<0.5	1.26	2.0	1.28	0.5	0.91	1.04	251	1	49.0	6.3
88 (8836394)		3.5	2	647	<0.5	0.81	1.8	0.76	<0.5	0.54	1.05	187	1	29.5	3.8
89 (8836395)		3.4	2	404	<0.5	0.79	2.9	0.86	<0.5	0.53	1.26	388	<1	29.3	3.7
90 (8836396)		5.6	3	155	0.9	0.67	14.4	0.45	0.8	0.33	5.07	152	2	18.7	2.3
91 (8836397)		0.1	1	36.9	<0.5	<0.05	0.1	0.03	<0.5	<0.05	0.07	15	1	0.6	<0.1
92 (8836398)		0.4	2	114	<0.5	<0.05	0.4	0.08	0.6	<0.05	0.14	45	1	2.0	0.3
93 (8836399)		0.3	2	75.0	<0.5	<0.05	0.2	0.09	0.5	<0.05	0.11	44	1	1.6	0.3

Sample ID (AGAT ID)	Analyte:	Zn	Zr
	Unit:	ppm	ppm
	RDL:	5	0.5
86 (8836392)		115	102
87 (8836393)		101	192
88 (8836394)		74	111
89 (8836395)		75	115
90 (8836396)		104	134
91 (8836397)		21	5.2
92 (8836398)		56	13.9
93 (8836399)		49	10.3

Comments: RDL - Reported Detection Limit

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T274302

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

DATE SAMPLED: Oct 19, 2017

DATE RECEIVED: Oct 20, 2017

DATE REPORTED: Nov 14, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Au	Pd	Pt
	Unit:	ppm	ppm	ppm
	RDL:	0.001	0.001	0.005
86 (8836392)		0.002	0.002	<0.005
87 (8836393)		0.007	<0.001	<0.005
88 (8836394)		0.001	0.002	<0.005
89 (8836395)		0.002	<0.001	<0.005
90 (8836396)		0.001	0.003	<0.005
91 (8836397)		0.044	0.029	0.011
92 (8836398)		0.039	0.035	<0.005
93 (8836399)		0.028	0.024	<0.005

Comments: RDL - Reported Detection Limit

Certified By:





CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	REPLICATE #1			RPD																
	Sample ID	Original	Replicate																	
Ag		< 1	< 1	0.0%																
Al		5.48	5.49	0.2%																
As		< 30	< 30	0.0%																
B		< 20	< 20	0.0%																
Ba		356	361	1.4%																
Be		< 5	< 5	0.0%																
Bi		< 0.1	< 0.1	0.0%																
Ca		2.13	2.13	0.0%																
Cd		< 0.2	< 0.2	0.0%																
Ce		0.6	0.6	0.0%																
Co		1.3	1.4	7.4%																
Cr		0.0157	0.0148	5.9%																
Cs		< 0.1	< 0.1	0.0%																
Cu		20	19	5.1%																
Dy		0.217	0.214	1.4%																
Er		0.16	0.14	13.3%																
Eu		0.07	0.07	0.0%																
Fe		2.56	2.64	3.1%																
Ga		0.322	0.302	6.4%																
Gd		0.243	0.224	8.1%																
Ge		< 1	< 1	0.0%																
Hf		< 1	< 1	0.0%																
Ho		< 0.05	< 0.05	0.0%																
In		< 0.2	< 0.2	0.0%																
K		1.43	1.43	0.0%																
La		0.9	1.0	10.5%																
Li		13	12	8.0%																
Lu		< 0.05	< 0.05	0.0%																
Mg		1.20	1.19	0.8%																
Mn		456	449	1.5%																
Mo		< 2	< 2	0.0%																



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

Nb	< 1	< 1	0.0%																
Nd	0.6	0.7	15.4%																
Ni	38	45	16.9%																
P	0.06	0.06	0.0%																
Pb	< 5	< 5	0.0%																
Pr	0.13	0.16	20.7%																
Rb	0.80	0.96	18.2%																
S	0.16	0.16	0.0%																
Sb	0.1	0.1	0.0%																
Sc	9	9	0.0%																
Si	35.5	35.7	0.6%																
Sm	0.13	0.16	20.7%																
Sn	< 1	< 1	0.0%																
Sr	254	258	1.6%																
Ta	< 0.5	0.8																	
Tb	< 0.05	< 0.05	0.0%																
Th	< 0.1	< 0.1	0.0%																
Ti	0.37	0.37	0.0%																
Tl	< 0.5	< 0.5	0.0%																
Tm	< 0.05	< 0.05	0.0%																
U	0.14	0.09																	
V	< 5	< 5	0.0%																
W	< 1	< 1	0.0%																
Y	1.97	2.06	4.5%																
Yb	0.1	0.1	0.0%																
Zn	50	48	4.1%																
Zr	2.72	2.63	3.4%																

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	REPLICATE #1				RPD															
	Sample ID	Original	Replicate	RPD																
Au	8836392	0.002	0.001																	
Pd	8836392	0.002	0.002	0.0%																
Pt	8836392	< 0.005	< 0.005	0.0%																



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	CRM #1 (ref.SY-4)																		
	Expect	Actual	Recovery	Limits															
Al	10.95	11.14	102%	90% - 110%															
Ba	340	340	100%	90% - 110%															
Be	2.6	3.1	119%	90% - 110%															
Ca	5.72	5.94	104%	90% - 110%															
Ce	122	117	96%	90% - 110%															
Co	2.8	2.5	88%	90% - 110%															
Cs	1.5	1.4	97%	90% - 110%															
Dy	18.2	18.2	100%	90% - 110%															
Er	14.2	15.3	108%	90% - 110%															
Eu	2.0	2	100%	90% - 110%															
Fe	4.34	4.26	98%	90% - 110%															
Ga	35	38	109%	90% - 110%															
Gd	14	14	99%	90% - 110%															
Hf	10.6	11.6	109%	90% - 110%															
Ho	4.3	4.2	97%	90% - 110%															
K	1.37	1.41	103%	90% - 110%															
La	58	57	98%	90% - 110%															
Li	37	43	115%	90% - 110%															
Lu	2.1	2	94%	90% - 110%															
Mg	0.325	0.317	98%	90% - 110%															
Mn	836	852	102%	90% - 110%															
Nb	13	14	111%	90% - 110%															
Nd	57	57	101%	90% - 110%															
Ni	9	10	108%	90% - 110%															
Pb	10	12	124%	90% - 110%															
Pr	15.0	14.4	96%	90% - 110%															
Rb	55	58	105%	90% - 110%															
Si	23.3	23.8	102%	90% - 110%															
Sm	12.7	12.7	100%	90% - 110%															
Sn	7.1	7.8	109%	90% - 110%															
Sr	1191	1291	108%	90% - 110%															



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

Tb	2.6	2.6	99%	90% - 110%													
Th	1.4	1.2	85%	90% - 110%													
Ti	0.172	0.169	98%	90% - 110%													
Tm	2.3	2.3	101%	90% - 110%													
U	0.8	0.7	94%	90% - 110%													
Y	119	107	90%	90% - 110%													
Yb	14.8	15.8	107%	90% - 110%													
Zn	93	98	105%	90% - 110%													
Zr	517	572	110%	90% - 110%													

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

CRM #1 (ref.PG129)																	
Parameter	Expect	Actual	Recovery	Limits													
Au	1.1	1.1	99%	90% - 110%													
Pd	0.115	0.113	98%	90% - 110%													
Pt	0.239	0.232	97%	90% - 110%													



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T274302

PROJECT:

ATTENTION TO: Michel Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Ag			ICP/MS
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/MS
B	MIN-200-12001		ICP/OES
Ba	MIN-200-12001		ICP/OES
Be	MIN-200-12001		ICP/OES
Bi	MIN-200-12001		ICP-MS
Ca	MIN-200-12001		ICP/OES
Cd	MIN-200-12001		ICP-MS
Ce	MIN-200-12001		ICP-MS
Co	MIN-200-12001		ICP/MS
Cr	MIN-200-12001		ICP/OES
Cs	MIN-200-12001		ICP-MS
Cu	MIN-200-12001		ICP/OES
Dy	MIN-200-12001		ICP-MS
Er	MIN-200-12001		ICP-MS
Eu	MIN-200-12001		ICP-MS
Fe	MIN-200-12001		ICP/OES
Ga	MIN-200-12001		ICP-MS
Gd	MIN-200-12001		ICP-MS
Ge	MIN-200-12001		ICP-MS
Hf	MIN-200-12001		ICP-MS
Ho	MIN-200-12001		ICP-MS
In	MIN-200-12001		ICP-MS
K	MIN-200-12001		ICP/OES
La	MIN-200-12001		ICP-MS
Li	MIN-200-12001		ICP/OES
Lu	MIN-200-12001		ICP-MS
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/MS
Nb	MIN-200-12001		ICP-MS
Nd	MIN-200-12001		ICP-MS
Ni	MIN-200-12001		ICP/OES
P			ICP/OES
Pb	MIN-200-12001		ICP/MS
Pr	MIN-200-12001		ICP-MS
Rb	MIN-200-12001		ICP/MS
S	MIN-200-12001		ICP/OES
Sb	MIN-200-12001		ICP-MS
Sc	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
Sm	MIN-200-12001		ICP-MS
Sn	MIN-200-12001		ICP/MS
Sr	MIN-200-12001		ICP-OES
Ta	MIN-200-12001		ICP-MS
Tb	MIN-200-12001		ICP-MS
Th	MIN-200-12001		ICP-MS
Ti	MIN-200-12001		ICP/OES

## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T274302

PROJECT:

ATTENTION TO: Michel Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Tl	MIN-200-12001		ICP-MS
Tm	MIN-200-12001		ICP-MS
U	MIN-200-12001		ICP-MS
V	MIN-200-12001		ICP/OES
W	MIN-200-12001		ICP-MS
Y	MIN-200-12001		ICP-MS
Yb	MIN-200-12001		ICP-MS
Zn	MIN-200-12001		ICP/OES
Zr	MIN-200-12001		ICP-MS
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES



CLIENT NAME: MISC AGAT CLIENT ON, ON

ATTENTION TO: Michel Lavoie

PROJECT: Michel Lavoie

AGAT WORK ORDER: 17T276625

SOLID ANALYSIS REVIEWED BY: Sherin Moussa, Senior Technician

DATE REPORTED: Dec 19, 2017

PAGES (INCLUDING COVER): 13

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 17T276625

PROJECT: Michel Lavoie

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
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FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Oct 29, 2017

DATE RECEIVED: Oct 26, 2017

DATE REPORTED: Dec 19, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Ag ppm 1	Al % 0.01	As ppm 30	B ppm 20	Ba ppm 0.5	Be ppm 5	Bi ppm 0.1	Ca % 0.05	Cd ppm 0.2	Ce ppm 0.1	Co ppm 0.5	Cr % 0.005	Cs ppm 0.1	Cu ppm 5
94 (8861386)		<1	8.23	<30	45	383	<5	3.5	8.88	<0.2	24.0	52.0	0.007	2.8	490
95 (8861387)		<1	8.33	<30	43	342	<5	3.9	9.65	0.3	27.1	49.3	0.007	2.6	546
96 (8861388)		<1	7.59	<30	33	56.8	<5	0.6	9.83	<0.2	6.9	31.0	0.021	0.3	90
97 (8861389)		<1	7.54	<30	47	93.3	<5	0.4	8.12	0.3	8.6	38.4	0.026	0.4	279
98 (8861390)		<1	7.21	<30	42	138	<5	0.8	7.18	0.5	21.4	149	0.011	0.6	745
99 (8861391)		<1	7.45	<30	33	59.3	<5	1.0	9.06	0.6	10.7	72.0	0.009	0.3	640
100 (8861392)		1	7.70	<30	66	836	<5	3.2	7.63	0.6	10.9	277	0.021	1.7	1560
101 (8861393)		1	4.88	<30	130	515	<5	7.5	4.12	0.3	6.5	776	0.012	1.7	1690
102 (8861394)		3	7.51	<30	56	2240	<5	1.8	4.26	0.4	23.7	235	0.019	2.6	1170
103 (8861395)		<1	8.10	<30	47	75.8	<5	1.5	9.28	0.5	22.0	79.6	0.012	0.2	403
104 (8861396)		<1	6.79	<30	26	91.0	<5	0.9	7.19	0.4	20.1	46.2	0.013	0.2	230
105 (8861397)		<1	7.87	<30	42	870	<5	0.1	5.30	0.2	16.7	42.8	0.029	2.3	69
106 (8861398)		<1	8.34	<30	48	860	<5	0.2	6.72	<0.2	10.1	47.0	0.032	3.1	146
107 (8861399)		1	7.73	<30	53	374	<5	2.3	6.63	<0.2	16.4	173	0.015	2.3	758
108 (8861400)		<1	7.63	<30	32	443	<5	1.4	6.25	<0.2	16.9	70.9	0.015	3.5	365
109 (8861401)		<1	7.74	<30	35	205	9	3.4	6.61	<0.2	17.9	111	0.011	2.5	659
110 (8861402)		2	8.64	<30	23	1420	22	7.0	3.30	23.2	55.0	24.4	0.023	35.0	196
111 (8861403)		<1	7.86	<30	49	534	9	1.0	4.17	0.2	12.8	63.4	0.007	13.5	147
112 (8861404)		<1	7.28	<30	40	554	7	2.5	3.85	0.3	32.1	50.1	<0.005	14.1	142
113 (8861405)		<1	9.29	<30	33	1050	<5	0.7	1.17	<0.2	67.5	27.2	0.017	8.3	18
114 (8861406)		<1	4.72	<30	<20	151	<5	1.0	1.13	<0.2	24.7	21.6	0.018	4.6	56
115 (8861407)		<1	8.64	<30	29	367	<5	1.0	2.08	<0.2	42.4	49.1	0.016	7.2	12
116 (8861408)		<1	5.85	<30	<20	24.6	<5	0.2	0.22	<0.2	29.4	12.4	0.015	0.3	15

Certified By:





## Certificate of Analysis

AGAT WORK ORDER: 17T276625

PROJECT: Michel Lavoie

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Oct 29, 2017

DATE RECEIVED: Oct 26, 2017

DATE REPORTED: Dec 19, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Dy ppm 0.05	Er ppm 0.05	Eu ppm 0.05	Fe % 0.01	Ga ppm 0.01	Gd ppm 0.05	Ge ppm 1	Hf ppm 1	Ho ppm 0.05	In ppm 0.2	K % 0.05	La ppm 0.1	Li ppm 10	Lu ppm 0.05
94 (8861386)		4.86	3.09	1.47	10.3	24.5	4.73	3	2	1.03	<0.2	1.05	12.3	45	0.45
95 (8861387)		4.48	2.96	1.35	10.2	24.5	4.35	3	2	0.96	<0.2	0.94	14.8	41	0.43
96 (8861388)		3.12	1.99	0.74	7.58	16.5	2.61	2	1	0.65	<0.2	0.25	2.7	22	0.30
97 (8861389)		3.75	2.28	0.91	8.52	16.0	3.20	2	2	0.79	<0.2	0.34	3.4	32	0.34
98 (8861390)		6.13	3.88	1.68	11.0	20.4	5.89	2	3	1.29	<0.2	0.40	9.3	26	0.55
99 (8861391)		3.45	2.28	1.08	9.12	20.9	3.18	2	1	0.76	<0.2	0.22	4.6	19	0.35
100 (8861392)		2.85	1.81	0.99	15.6	20.4	2.67	2	1	0.60	<0.2	0.79	6.0	37	0.26
101 (8861393)		1.50	0.93	0.58	28.7	12.2	1.46	1	<1	0.31	<0.2	0.41	3.8	28	0.13
102 (8861394)		2.42	1.42	1.15	12.1	13.8	2.72	1	2	0.48	<0.2	1.49	12.7	53	0.20
103 (8861395)		6.25	4.11	1.69	10.4	24.1	6.05	2	3	1.27	<0.2	0.22	9.9	17	0.56
104 (8861396)		6.19	3.99	1.63	7.61	19.0	5.82	2	3	1.32	<0.2	0.21	9.0	13	0.56
105 (8861397)		3.05	1.91	0.95	8.87	13.4	3.03	1	2	0.63	<0.2	1.74	7.7	79	0.28
106 (8861398)		4.01	2.56	1.06	9.59	16.6	3.47	2	2	0.82	<0.2	1.50	4.3	57	0.37
107 (8861399)		5.45	3.46	1.22	11.4	18.5	4.83	2	3	1.16	<0.2	0.74	6.5	50	0.51
108 (8861400)		5.97	3.78	1.37	8.41	15.7	5.31	2	3	1.21	<0.2	0.95	6.7	50	0.53
109 (8861401)		5.47	3.44	1.54	9.43	24.0	5.08	2	3	1.11	<0.2	0.63	7.2	31	0.47
110 (8861402)		4.01	2.30	1.64	6.62	16.7	5.57	2	4	0.78	<0.2	3.54	26.9	199	0.33
111 (8861403)		5.39	3.54	1.18	12.0	19.2	4.74	2	2	1.15	<0.2	2.81	4.9	161	0.53
112 (8861404)		10.2	6.54	2.24	10.6	20.0	9.49	2	5	2.14	<0.2	2.73	13.0	152	0.92
113 (8861405)		4.28	2.48	1.42	6.43	21.1	5.71	2	4	0.85	<0.2	2.94	37.0	60	0.34
114 (8861406)		1.88	1.08	0.52	4.21	14.1	2.23	1	2	0.37	<0.2	1.06	12.6	37	0.18
115 (8861407)		2.76	1.76	1.05	6.11	19.3	3.16	1	6	0.54	<0.2	2.06	19.9	40	0.28
116 (8861408)		1.78	1.21	0.39	3.44	16.0	1.69	1	3	0.38	<0.2	0.13	10.0	19	0.18

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T276625

PROJECT: Michel Lavoie

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Oct 29, 2017

DATE RECEIVED: Oct 26, 2017

DATE REPORTED: Dec 19, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Mg %	Mn ppm	Mo ppm	Nb ppm	Nd ppm	Ni ppm	P %	Pb ppm	Pr ppm	Rb ppm	S %	Sb ppm	Sc ppm	Si %
94 (8861386)		2.92	1880	<2	2	13.3	56	0.04	15	3.34	60.6	0.99	0.4	42	22.7
95 (8861387)		2.92	1900	<2	2	14.3	58	0.04	16	3.58	51.5	0.93	0.5	43	22.7
96 (8861388)		3.07	1460	2	1	5.4	87	0.03	16	1.14	8.3	0.25	0.4	32	28.0
97 (8861389)		3.93	1720	<2	2	6.7	107	0.03	13	1.43	11.3	0.30	0.3	37	24.6
98 (8861390)		2.83	1580	<2	4	14.2	107	0.07	26	3.25	14.4	3.16	0.4	37	24.1
99 (8861391)		2.67	1600	4	2	7.7	58	0.03	27	1.69	6.2	0.97	0.6	34	24.8
100 (8861392)		2.67	1320	13	1	6.8	277	0.03	44	1.56	39.2	6.89	0.4	29	18.8
101 (8861393)		1.74	725	28	<1	3.9	689	0.02	33	0.89	22.8	19.6	0.4	15	11.4
102 (8861394)		2.66	1020	10	2	11.0	183	0.04	31	2.93	66.2	4.78	0.4	21	25.4
103 (8861395)		2.89	1680	<2	3	15.1	150	0.07	54	3.28	4.2	1.83	0.4	42	25.6
104 (8861396)		2.52	1480	<2	3	13.8	71	0.07	41	3.07	4.3	0.84	0.9	38	28.3
105 (8861397)		5.16	2010	<2	3	9.2	153	0.06	30	2.28	60.2	0.31	0.3	35	25.3
106 (8861398)		4.11	1820	<2	2	7.3	148	0.04	29	1.60	57.0	0.42	0.3	44	26.1
107 (8861399)		3.23	1390	<2	3	11.2	124	0.06	20	2.53	39.3	3.88	0.4	39	25.2
108 (8861400)		3.31	1400	<2	3	12.1	85	0.07	17	2.69	55.4	2.06	0.3	42	27.0
109 (8861401)		2.45	1770	<2	3	12.3	138	0.06	11	2.76	31.5	1.81	0.4	36	29.0
110 (8861402)		3.86	1440	<2	4	26.7	62	0.15	463	7.17	310	0.59	0.6	25	27.3
111 (8861403)		4.19	1830	4	3	9.8	44	0.06	12	2.08	262	1.06	0.3	51	24.6
112 (8861404)		3.37	1490	3	8	23.3	19	0.18	16	5.23	255	1.33	0.4	39	26.9
113 (8861405)		1.68	1210	<2	7	29.8	71	0.08	8	8.59	217	0.09	0.3	18	31.4
114 (8861406)		1.59	580	<2	4	10.2	60	0.06	6	3.01	63.7	0.11	0.5	8	37.1
115 (8861407)		1.51	1040	<2	8	16.8	58	0.09	14	4.91	148	0.44	0.2	16	30.7
116 (8861408)		2.34	228	<2	3	9.0	47	0.05	6	2.58	4.1	0.10	0.3	11	35.9

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T276625

PROJECT: Michel Lavoie

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Oct 29, 2017

DATE RECEIVED: Oct 26, 2017

DATE REPORTED: Dec 19, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Sm ppm 0.1	Sn ppm 1	Sr ppm 0.1	Ta ppm 0.5	Tb ppm 0.05	Th ppm 0.1	Ti % 0.01	Tl ppm 0.5	Tm ppm 0.05	U ppm 0.05	V ppm 5	W ppm 1	Y ppm 0.5	Yb ppm 0.1
94 (8861386)		3.4	3	343	<0.5	0.77	0.4	0.57	0.7	0.47	0.26	346	4	28.2	3.0
95 (8861387)		3.5	3	387	<0.5	0.72	0.3	0.57	0.6	0.43	0.25	353	6	27.8	2.9
96 (8861388)		1.7	1	247	<0.5	0.45	0.2	0.45	<0.5	0.31	0.07	278	<1	19.1	2.0
97 (8861389)		2.2	<1	194	<0.5	0.57	0.2	0.52	<0.5	0.35	0.08	279	<1	22.5	2.4
98 (8861390)		4.1	2	234	<0.5	0.94	1.4	0.90	<0.5	0.54	0.51	361	1	37.3	3.7
99 (8861391)		2.4	1	287	<0.5	0.53	0.3	0.44	<0.5	0.34	0.56	287	2	22.4	2.3
100 (8861392)		1.9	1	370	<0.5	0.42	0.3	0.40	0.6	0.26	0.12	323	<1	18.6	1.8
101 (8861393)		1.0	<1	209	<0.5	0.23	0.1	0.20	<0.5	0.13	0.08	191	<1	9.7	0.9
102 (8861394)		2.4	<1	230	<0.5	0.41	2.6	0.39	0.9	0.22	0.77	313	<1	15.1	1.4
103 (8861395)		4.3	2	352	<0.5	0.99	0.6	0.98	<0.5	0.56	0.38	415	1	39.9	3.8
104 (8861396)		4.2	2	257	<0.5	0.98	0.6	0.92	<0.5	0.57	0.31	349	<1	38.6	3.9
105 (8861397)		2.3	1	195	<0.5	0.48	1.6	0.54	0.6	0.26	0.46	221	<1	19.2	1.9
106 (8861398)		2.3	1	263	<0.5	0.59	0.3	0.60	0.5	0.37	0.19	287	<1	24.9	2.5
107 (8861399)		3.4	2	247	<0.5	0.81	1.6	0.83	2.1	0.51	0.55	346	<1	33.6	3.5
108 (8861400)		3.7	2	232	<0.5	0.89	1.0	0.93	1.0	0.53	0.32	353	<1	36.6	3.7
109 (8861401)		3.6	2	294	<0.5	0.83	1.4	0.86	<0.5	0.50	0.42	366	<1	34.3	3.5
110 (8861402)		5.2	5	504	<0.5	0.74	4.4	0.44	3.0	0.33	1.32	164	3	23.6	2.3
111 (8861403)		3.3	11	122	<0.5	0.81	0.7	0.83	2.3	0.51	0.26	318	<1	36.2	3.6
112 (8861404)		6.7	11	138	0.6	1.56	1.5	1.18	2.2	0.95	0.67	167	<1	64.4	6.6
113 (8861405)		5.5	3	195	0.9	0.80	13.3	0.44	1.9	0.34	4.53	134	2	26.2	2.4
114 (8861406)		2.0	2	84.7	<0.5	0.33	4.9	0.19	<0.5	0.18	1.73	67	<1	11.6	1.2
115 (8861407)		3.2	2	371	1.0	0.47	12.5	0.42	1.3	0.26	3.11	113	<1	17.7	1.9
116 (8861408)		1.7	2	70.5	<0.5	0.28	5.4	0.21	<0.5	0.18	1.52	82	<1	12.3	1.3

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T276625

PROJECT: Michel Lavoie

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Oct 29, 2017      DATE RECEIVED: Oct 26, 2017      DATE REPORTED: Dec 19, 2017      SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Zn	Zr
	Unit:	ppm	ppm
	RDL:	5	0.5
94 (8861386)		105	48.0
95 (8861387)		103	47.2
96 (8861388)		91	38.8
97 (8861389)		125	47.1
98 (8861390)		129	100
99 (8861391)		93	38.4
100 (8861392)		109	37.5
101 (8861393)		66	18.5
102 (8861394)		130	66.1
103 (8861395)		139	91.2
104 (8861396)		115	91.4
105 (8861397)		167	69.5
106 (8861398)		153	50.5
107 (8861399)		129	83.8
108 (8861400)		133	92.5
109 (8861401)		142	97.4
110 (8861402)		1630	117
111 (8861403)		223	76.0
112 (8861404)		168	155
113 (8861405)		87	141
114 (8861406)		50	63.7
115 (8861407)		70	192
116 (8861408)		21	107

Comments: RDL - Reported Detection Limit

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T276625

PROJECT: Michel Lavoie

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

DATE SAMPLED: Oct 29, 2017

DATE RECEIVED: Oct 26, 2017

DATE REPORTED: Dec 19, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Au	Pd	Pt
	Unit:	ppm	ppm	ppm
	RDL:	0.001	0.001	0.005
94 (8861386)		0.008	0.003	<0.005
95 (8861387)		0.008	0.001	<0.005
96 (8861388)		0.002	0.004	<0.005
97 (8861389)		0.007	0.004	<0.005
98 (8861390)		0.006	0.002	<0.005
99 (8861391)		0.006	0.006	<0.005
100 (8861392)		0.004	0.023	<0.005
101 (8861393)		0.007	0.017	<0.005
102 (8861394)		0.001	0.002	<0.005
103 (8861395)		0.003	0.004	<0.005
104 (8861396)		0.002	0.004	<0.005
105 (8861397)		0.830	0.004	<0.005
106 (8861398)		0.028	0.007	<0.005
107 (8861399)		0.015	0.003	<0.005
108 (8861400)		0.005	0.002	<0.005
109 (8861401)		0.004	0.001	<0.005
110 (8861402)		0.003	0.002	<0.005
111 (8861403)		0.002	<0.001	<0.005
112 (8861404)		0.002	<0.001	<0.005
113 (8861405)		<0.001	0.003	<0.005
114 (8861406)		0.003	0.002	<0.005
115 (8861407)		0.004	0.003	<0.005
116 (8861408)		0.003	0.001	<0.005

Comments: RDL - Reported Detection Limit

Certified By:



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	REPLICATE #1				REPLICATE #2											
	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD								
Ag	8861386	< 1	< 1	0.0%	8861402	2	2	0.0%								
Al	8861386	8.23	8.35	1.4%	8861402	8.64	8.85	2.4%								
As	8861386	< 30	< 30	0.0%	8861402	< 30	< 30	0.0%								
B	8861386	45	44	2.2%	8861402	23	32									
Ba	8861386	383	391	2.1%	8861402	1420	1420	0.0%								
Be	8861386	< 5	< 5	0.0%	8861402	22	22	0.0%								
Bi	8861386	3.5	3.5	0.0%	8861402	7.03	6.83	2.9%								
Ca	8861386	8.88	8.96	0.9%	8861402	3.30	3.40	3.0%								
Cd	8861386	0.2	0.2	0.0%	8861402	23.2	23.2	0.0%								
Ce	8861386	24.0	23.2	3.4%	8861402	55.0	55.6	1.1%								
Co	8861386	52.0	51.3	1.4%	8861402	24.4	24.6	0.8%								
Cr	8861386	0.0073	0.0075	2.7%	8861402	0.0235	0.0237	0.8%								
Cs	8861386	2.79	2.87	2.8%	8861402	35.0	35.1	0.3%								
Cu	8861386	490	497	1.4%	8861402	196	194	1.0%								
Dy	8861386	4.86	4.71	3.1%	8861402	4.01	3.99	0.5%								
Er	8861386	3.09	3.03	2.0%	8861402	2.30	2.31	0.4%								
Eu	8861386	1.02	0.99	3.0%	8861404	0.92	0.92	0.0%								
Fe	8861386	10.3	10.4	1.0%	8861402	6.62	7.03	6.0%								
Ga	8861386	24.5	23.8	2.9%	8861402	16.7	16.7	0.0%								
Gd	8861386	4.73	4.55	3.9%	8861402	5.57	5.53	0.7%								
Ge	8861386	3	3	0.0%	8861402	2	2	0.0%								
Hf	8861386	2	2	0.0%	8861402	4	4	0.0%								
Ho	8861386	1.03	0.98	5.0%	8861402	0.78	0.78	0.0%								
In	8861386	< 0.2	< 0.2	0.0%	8861402	< 0.2	< 0.2	0.0%								
K	8861386	1.05	1.06	0.9%	8861402	3.54	3.62	2.2%								
La	8861386	12.3	11.8	4.1%	8861402	26.9	27.4	1.8%								
Li	8861386	45	47	4.3%	8861402	199	203	2.0%								
Lu	8861386	0.45	0.45	0.0%	8861402	0.33	0.33	0.0%								
Mg	8861386	2.92	3.01	3.0%	8861402	3.86	3.96	2.6%								
Mn	8861386	1880	1910	1.6%	8861402	1440	1420	1.4%								
Mo	8861386	< 2	< 2	0.0%	8861402	< 2	< 2	0.0%								



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

Nb	8861386	2	2	0.0%	8861402	4	4	0.0%								
Nd	8861386	13.3	12.7	4.6%	8861402	26.7	26.4	1.1%								
Ni	8861386	56	58	3.5%	8861402	62	64	3.2%								
P	8861386	0.04	0.04	0.0%	8861402	0.15	0.15	0.0%								
Pb	8861386	15	15	0.0%	8861402	463	458	1.1%								
Pr	8861386	3.34	3.16	5.5%	8861402	7.17	7.19	0.3%								
Rb	8861386	60.6	59.4	2.0%	8861402	310	307	1.0%								
S	8861386	0.99	1.01	2.0%	8861402	0.589	0.597	1.3%								
Sb	8861386	0.35	0.28	22.2%	8861402	0.6	0.3									
Sc	8861386	42	43	2.4%	8861402	25	25	0.0%								
Si	8861386	22.7	23.4	3.0%	8861402	27.3	28.0	2.5%								
Sm	8861386	3.44	3.34	2.9%	8861402	5.2	5.2	0.0%								
Sn	8861386	3	2		8861402	5	5	0.0%								
Sr	8861386	343	351	2.3%	8861402	504	497	1.4%								
Ta	8861386	< 0.5	< 0.5	0.0%	8861402	< 0.5	< 0.5	0.0%								
Tb	8861386	0.768	0.742	3.4%	8861402	0.74	0.76	2.7%								
Th	8861386	0.4	0.4	0.0%	8861402	4.40	4.46	1.4%								
Ti	8861386	0.571	0.580	1.6%	8861402	0.439	0.447	1.8%								
Tl	8861386	0.68	0.63	7.6%	8861402	3.0	3.0	0.0%								
Tm	8861386	0.472	0.434	8.4%	8861402	0.329	0.320	2.8%								
U	8861386	0.26	0.25	3.9%	8861402	1.32	1.33	0.8%								
V	8861386	346	343	0.9%	8861402	164	165	0.6%								
W	8861386	4	4	0.0%	8861402	3	3	0.0%								
Y	8861386	28.2	27.8	1.4%	8861402	23.6	23.2	1.7%								
Yb	8861386	3.0	2.9	3.4%	8861402	2.29	2.20	4.0%								
Zn	8861386	105	109	3.7%	8861402	1630	1700	4.2%								
Zr	8861386	48.0	48.2	0.4%	8861402	117	122	4.2%								

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	REPLICATE #1				REPLICATE #2											
	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD								
Au	8861386	0.0077	0.0063	20.0%	8861404	0.002	0.001									
Pd	8861394	0.002	0.003		8861404	< 0.001	< 0.001	0.0%								
Pt	8861386	< 0.005	< 0.005	0.0%	8861404	< 0.005	< 0.005	0.0%								



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	CRM #1 (ref.SY-4)				CRM #2 (ref.TILL-2)				CRM #3 (ref.GSP4C)				CRM #4 (ref.PG124)			
	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits
Al	10.95	11.0	101%	90% - 110%	8.47	8.56	101%	90% - 110%								
As					26	25	95%	90% - 110%								
Ba	340	370	109%	90% - 110%	540	563	104%	90% - 110%								
Be	2.6	2.9	113%	90% - 110%	4.0	3.6	90%	90% - 110%								
Ca	5.72	6.05	106%	90% - 110%	0.907	0.954	105%	90% - 110%								
Ce	122	131	107%	90% - 110%	98	110	113%	90% - 110%								
Co	2.8	2.4	85%	90% - 110%	15	13	87%	90% - 110%								
Cs	1.5	1.7	112%	90% - 110%												
Cu	7	7.50	107%	90% - 110%	150	161	107%	90% - 110%								
Dy	18.2	20.6	113%	90% - 110%												
Er	14.2	16	113%	90% - 110%	3.7	4.3	116%	90% - 110%								
Eu	2.0	2.1	105%	90% - 110%												
Fe	4.34	4.40	101%	90% - 110%	3.77	4.05	107%	90% - 110%								
Ga	35	34	98%	90% - 110%												
Gd	14	16	114%	90% - 110%												
Hf	10.6	11	104%	90% - 110%	11	11	96%	90% - 110%								
Ho	4.3	4.8	112%	90% - 110%												
K	1.37	1.43	104%	90% - 110%	2.55	2.61	102%	90% - 110%								
La	58	64	111%	90% - 110%	44	49	112%	90% - 110%								
Li	37	38.9	105%	90% - 110%	47	53.9	115%	90% - 110%								
Lu	2.1	2.3	108%	90% - 110%	0.6	0.6	101%	90% - 110%								
Mg	0.325	0.328	101%	90% - 110%	1.1	1.13	103%	90% - 110%								
Mn	836	856	102%	90% - 110%	780	795	102%	90% - 110%								
Mo					14	13	95%	90% - 110%								
Nb	13	11	84%	90% - 110%	20	18	90%	90% - 110%								
Nd	57	61	107%	90% - 110%												
Ni	9	10.4	115%	90% - 110%	32	36.7	115%	90% - 110%								
Pb	10	10	98%	90% - 110%	31	32	103%	90% - 110%								
Pr	15.0	17	113%	90% - 110%												
Rb	55	51	93%	90% - 110%	144	141	98%	90% - 110%								
Sb					0.8	0.9	118%	90% - 110%								





CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

Sc					12	12.2	101%	90% - 110%								
Si	23.3	23.8	102%	90% - 110%	28.4	29.9	105%	90% - 110%								
Sm	12.7	13.5	106%	90% - 110%	7.4	8	108%	90% - 110%								
Sn	7.1	8.6	121%	90% - 110%												
Sr	1191	1290	108%	90% - 110%	144	160	111%	90% - 110%								
Ta	0.9	0.8	89%	90% - 110%	1.9	1.8	93%	90% - 110%								
Tb	2.6	3.1	118%	90% - 110%	1.2	1.3	109%	90% - 110%								
Th	1.4	1.3	92%	90% - 110%	18.4	18.9	103%	90% - 110%								
Ti	0.172	0.172	100%	90% - 110%	0.527	0.532	101%	90% - 110%								
Tm	2.3	2.5	109%	90% - 110%												
U	0.8	0.8	102%	90% - 110%	5.7	5.4	95%	90% - 110%								
V					77	81	105%	90% - 110%								
W					5	5	108%	90% - 110%								
Y	119	142	119%	90% - 110%	40	46	114%	90% - 110%								
Yb	14.8	16.8	113%	90% - 110%												
Zn	93	94.1	101%	90% - 110%	130	126	97%	90% - 110%								
Zr	517	503	97%	90% - 110%	390	360	92%	90% - 110%								

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

	CRM #1 (ref.GS6D)				CRM #2 (ref.PG129)				CRM #3 (ref.GSP4C)				CRM #4 (ref.PG124)			
Parameter	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits
Au	6.09	6.27	103%	90% - 110%					0.362	0.391	108%	90% - 110%				
Pd					0.115	0.127	110%	90% - 110%					0.037	0.0393	106%	90% - 110%
Pt					0.239	0.262	109%	90% - 110%					0.09	0.0934	104%	90% - 110%
	CRM #5 (ref.GSP4C)															
Parameter	Expect	Actual	Recovery	Limits												
Au	0.362	0.391	108%	90% - 110%												



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T276625

PROJECT: Michel Lavoie

ATTENTION TO: Michel Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Ag			ICP/MS
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/MS
B	MIN-200-12001		ICP/OES
Ba	MIN-200-12001		ICP/OES
Be	MIN-200-12001		ICP/OES
Bi	MIN-200-12001		ICP-MS
Ca	MIN-200-12001		ICP/OES
Cd	MIN-200-12001		ICP-MS
Ce	MIN-200-12001		ICP-MS
Co	MIN-200-12001		ICP/MS
Cr	MIN-200-12001		ICP/OES
Cs	MIN-200-12001		ICP-MS
Cu	MIN-200-12001		ICP/OES
Dy	MIN-200-12001		ICP-MS
Er	MIN-200-12001		ICP-MS
Eu	MIN-200-12001		ICP-MS
Fe	MIN-200-12001		ICP/OES
Ga	MIN-200-12001		ICP-MS
Gd	MIN-200-12001		ICP-MS
Ge	MIN-200-12001		ICP-MS
Hf	MIN-200-12001		ICP-MS
Ho	MIN-200-12001		ICP-MS
In	MIN-200-12001		ICP-MS
K	MIN-200-12001		ICP/OES
La	MIN-200-12001		ICP-MS
Li	MIN-200-12001		ICP/OES
Lu	MIN-200-12001		ICP-MS
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/MS
Nb	MIN-200-12001		ICP-MS
Nd	MIN-200-12001		ICP-MS
Ni	MIN-200-12001		ICP/OES
P			ICP/OES
Pb	MIN-200-12001		ICP/MS
Pr	MIN-200-12001		ICP-MS
Rb	MIN-200-12001		ICP/MS
S	MIN-200-12001		ICP/OES
Sb	MIN-200-12001		ICP-MS
Sc	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
Sm	MIN-200-12001		ICP-MS
Sn	MIN-200-12001		ICP/MS
Sr	MIN-200-12001		ICP-OES
Ta	MIN-200-12001		ICP-MS
Tb	MIN-200-12001		ICP-MS
Th	MIN-200-12001		ICP-MS
Ti	MIN-200-12001		ICP/OES

## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T276625

PROJECT: Michel Lavoie

ATTENTION TO: Michel Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Tl	MIN-200-12001		ICP-MS
Tm	MIN-200-12001		ICP-MS
U	MIN-200-12001		ICP-MS
V	MIN-200-12001		ICP/OES
W	MIN-200-12001		ICP-MS
Y	MIN-200-12001		ICP-MS
Yb	MIN-200-12001		ICP-MS
Zn	MIN-200-12001		ICP/OES
Zr	MIN-200-12001		ICP-MS
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES



CLIENT NAME: MISC AGAT CLIENT ON, ON

ATTENTION TO: Michel Lavoie

PROJECT:

AGAT WORK ORDER: 17T278477

SOLID ANALYSIS REVIEWED BY: Kevin Motomura, Data Review Supervisor

DATE REPORTED: Dec 21, 2017

PAGES (INCLUDING COVER): 14

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 17T278477

PROJECT:

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (200-) Sample Login Weight

DATE SAMPLED: Oct 31, 2017

DATE RECEIVED: Oct 31, 2017

DATE REPORTED: Dec 21, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Sample Login Weight
	Unit:	kg
	RDL:	0.01
117 (8868086)		3.521
118 (8868087)		1.482
119 (8868088)		2.5
120 (8868089)		2.381
121 (8868090)		1.389
122 (8868091)		1.698
123 (8868092)		1.641
124 (8868093)		1.62
125 (8868094)		3.022
126 (8868095)		3.372
127 (8868096)		3.328
128 (8868097)		2.271
129 (8868098)		2.364
130 (8868099)		2.519
131 (8868100)		2.197
132 (8868101)		3.582
133 (8868102)		1.7
134 (8868103)		2.933
135 (8868104)		2.422
136 (8868105)		2.497
137 (8868106)		2.048
138 (8868107)		2.896
139 (8868108)		2.388
140 (8868109)		3.068
141 (8868110)		2.344
142 (8868111)		1.546
143 (8868112)		2.464
144 (8868113)		2.606
145 (8868690)		2.544

Comments: RDL - Reported Detection Limit

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T278477

PROJECT:

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MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Oct 31, 2017

DATE RECEIVED: Oct 31, 2017

DATE REPORTED: Dec 21, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Ag ppm 1	Al % 0.01	As ppm 5	B ppm 20	Ba ppm 0.5	Be ppm 5	Bi ppm 0.1	Ca % 0.05	Cd ppm 0.2	Ce ppm 0.1	Co ppm 0.5	Cr % 0.005	Cs ppm 0.1	Cu ppm 5
117 (8868086)		<1	8.45	<5	46	932	8	1.9	6.99	<0.2	19.1	127	0.006	5.8	1030
118 (8868087)		<1	10.2	<5	34	1080	18	1.2	5.09	<0.2	8.7	51.8	<0.005	6.3	579
119 (8868088)		<1	10.1	<5	35	1140	22	1.4	5.50	0.2	10.2	69.5	<0.005	7.2	728
120 (8868089)		<1	8.09	<5	40	571	5	2.0	7.51	0.2	26.1	70.8	0.008	2.7	698
121 (8868090)		<1	8.30	<5	43	530	<5	0.3	6.14	<0.2	4.6	52.6	0.022	3.0	67
122 (8868091)		1	4.99	<5	28	51.0	<5	1.0	5.97	<0.2	7.7	52.9	0.014	0.5	1160
123 (8868092)		<1	9.84	<5	79	68.3	<5	0.1	0.52	<0.2	9.5	45.1	<0.005	0.9	23
124 (8868093)		<1	2.89	<5	<20	69.6	<5	0.5	1.89	<0.2	16.9	32.4	0.007	0.6	33
125 (8868094)		<1	6.00	<5	<20	305	<5	0.4	0.91	<0.2	46.6	21.1	0.016	2.1	15
126 (8868095)		<1	6.65	<5	<20	325	<5	0.4	1.13	<0.2	48.9	17.0	0.015	2.7	8
127 (8868096)		<1	6.38	<5	21	337	<5	0.7	1.13	<0.2	42.8	18.2	0.015	2.5	122
128 (8868097)		<1	4.87	<5	21	241	<5	0.3	0.73	<0.2	26.8	22.2	0.011	1.6	33
129 (8868098)		<1	9.09	<5	39	592	<5	0.3	0.66	<0.2	61.0	24.9	0.020	7.9	8
130 (8868099)		<1	6.72	<5	21	135	<5	0.5	2.12	<0.2	42.8	25.6	0.018	1.7	227
131 (8868100)		2	4.51	<5	<20	92.8	<5	0.4	1.64	<0.2	33.2	21.2	0.019	1.3	80
132 (8868101)		<1	3.85	<5	<20	47.0	<5	0.3	0.95	<0.2	13.0	6.8	0.010	0.3	56
133 (8868102)		<1	7.04	<5	28	439	<5	4.7	1.14	<0.2	32.0	34.3	0.016	1.9	1340
134 (8868103)		1	7.56	<5	27	358	<5	2.3	1.46	<0.2	35.1	47.6	0.013	3.2	5340
135 (8868104)		<1	6.61	<5	<20	44.2	<5	0.6	3.21	<0.2	34.2	20.7	0.017	0.4	57
136 (8868105)		<1	7.18	<5	23	371	<5	0.8	3.85	<0.2	35.8	45.6	0.017	1.7	148
137 (8868106)		<1	7.31	<5	30	540	<5	0.8	4.13	<0.2	40.9	45.7	0.019	2.5	108
138 (8868107)		<1	6.54	<5	29	441	<5	0.8	4.09	0.2	28.9	65.0	0.015	2.1	138
139 (8868108)		<1	7.73	<5	<20	303	<5	0.5	4.24	0.4	46.2	53.7	0.015	1.4	1400
140 (8868109)		<1	5.60	<5	<20	112	<5	0.6	2.98	0.3	35.6	88.7	0.014	1.3	69
141 (8868110)		<1	7.94	<5	66	976	<5	0.5	1.78	<0.2	22.9	144	0.070	10.8	236
142 (8868111)		<1	9.28	<5	32	1080	<5	0.2	1.64	<0.2	25.5	68.2	0.157	12.6	76
143 (8868112)		<1	9.39	<5	34	990	<5	0.3	1.98	<0.2	31.8	83.1	0.071	10.7	166
144 (8868113)		<1	9.37	<5	39	110	<5	3.7	11.2	0.5	38.1	14.6	0.036	0.4	142
145 (8868690)		<1	7.05	<5	45	971	<5	0.7	4.63	<0.2	17.9	56.7	<0.005	8.0	121

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T278477

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Oct 31, 2017

DATE RECEIVED: Oct 31, 2017

DATE REPORTED: Dec 21, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Dy ppm 0.05	Er ppm 0.05	Eu ppm 0.05	Fe % 0.01	Ga ppm 0.01	Gd ppm 0.05	Ge ppm 1	Hf ppm 1	Ho ppm 0.05	In ppm 0.2	K % 0.05	La ppm 0.1	Li ppm 10	Lu ppm 0.05
117 (8868086)		7.31	5.00	1.79	11.1	22.7	6.55	3	3	1.53	<0.2	1.67	7.4	67	0.73
118 (8868087)		3.18	2.20	0.91	5.95	16.1	2.79	1	2	0.66	<0.2	1.96	3.7	67	0.30
119 (8868088)		4.14	2.81	1.10	7.24	17.9	3.45	2	2	0.90	<0.2	2.02	4.2	70	0.39
120 (8868089)		6.09	4.10	1.84	9.85	18.3	6.03	3	3	1.28	<0.2	1.04	11.3	47	0.58
121 (8868090)		1.78	1.24	0.47	8.66	14.9	1.58	2	<1	0.40	<0.2	1.46	2.2	83	0.18
122 (8868091)		1.81	1.18	0.43	5.24	11.8	1.62	2	<1	0.37	<0.2	0.26	3.9	16	0.17
123 (8868092)		0.90	0.52	0.21	15.4	39.3	1.24	2	<1	0.18	<0.2	0.47	6.6	139	0.06
124 (8868093)		2.06	1.40	0.46	3.02	8.29	2.34	1	<1	0.43	<0.2	0.45	12.0	29	0.31
125 (8868094)		2.48	1.48	0.94	3.80	17.1	3.38	1	3	0.48	<0.2	1.14	23.4	43	0.20
126 (8868095)		2.54	1.55	0.98	3.65	17.2	3.55	1	3	0.48	<0.2	1.41	24.3	44	0.23
127 (8868096)		1.96	1.24	0.77	4.35	19.2	2.88	1	3	0.38	<0.2	1.26	21.5	51	0.18
128 (8868097)		1.45	0.91	0.54	4.51	16.4	1.96	1	2	0.29	<0.2	0.93	13.4	51	0.14
129 (8868098)		3.18	1.84	0.89	6.10	22.5	4.18	2	5	0.60	<0.2	3.91	29.8	55	0.30
130 (8868099)		2.41	1.46	0.75	4.43	15.0	3.15	1	4	0.47	<0.2	0.73	21.1	45	0.22
131 (8868100)		2.06	1.21	0.58	3.30	11.0	2.60	1	3	0.40	<0.2	0.54	16.3	33	0.19
132 (8868101)		0.91	0.65	0.23	1.04	6.86	1.03	<1	1	0.20	<0.2	0.26	6.5	13	0.09
133 (8868102)		1.62	1.01	0.62	3.95	17.3	1.99	1	4	0.32	<0.2	1.55	13.9	37	0.16
134 (8868103)		1.70	1.12	0.68	5.06	17.3	2.23	1	4	0.34	<0.2	1.50	16.2	40	0.17
135 (8868104)		2.96	1.83	0.97	3.86	17.1	3.41	2	3	0.61	<0.2	0.23	16.2	25	0.26
136 (8868105)		2.47	1.42	1.09	5.70	22.4	3.01	1	3	0.47	<0.2	0.90	17.8	32	0.18
137 (8868106)		2.54	1.48	1.17	7.19	26.2	3.34	2	4	0.49	<0.2	1.25	20.3	50	0.22
138 (8868107)		2.20	1.32	0.86	7.59	21.7	2.63	1	3	0.42	<0.2	1.09	14.3	42	0.20
139 (8868108)		2.29	1.18	1.10	4.50	18.5	3.81	1	4	0.40	<0.2	0.90	22.9	33	0.15
140 (8868109)		2.25	1.42	1.03	3.86	15.7	3.07	1	3	0.44	<0.2	0.54	18.9	19	0.17
141 (8868110)		2.95	2.01	1.03	15.5	23.6	3.18	2	2	0.61	<0.2	2.50	11.7	98	0.32
142 (8868111)		3.98	2.40	1.32	8.17	21.3	4.39	1	3	0.77	<0.2	3.18	12.6	98	0.34
143 (8868112)		3.60	2.30	1.28	7.80	20.3	4.02	1	3	0.74	<0.2	2.65	15.7	81	0.35
144 (8868113)		6.70	4.16	1.77	7.60	34.6	6.50	4	2	1.36	0.2	0.28	20.2	21	0.53
145 (8868690)		6.18	4.20	1.58	11.0	24.2	5.78	2	3	1.31	<0.2	2.58	7.0	91	0.60

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T278477

PROJECT:

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Oct 31, 2017

DATE RECEIVED: Oct 31, 2017

DATE REPORTED: Dec 21, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Mg %	Mn ppm	Mo ppm	Nb ppm	Nd ppm	Ni ppm	P %	Pb ppm	Pr ppm	Rb ppm	S %	Sb ppm	Sc ppm	Si %
117 (8868086)		3.78	1600	<2	8	15.4	72	0.06	11	2.97	125	2.00	<0.1	52	20.5
118 (8868087)		2.39	734	9	5	6.7	47	0.04	16	1.37	137	0.69	<0.1	22	23.9
119 (8868088)		2.82	944	4	5	8.1	53	0.05	15	1.59	147	1.11	<0.1	29	23.2
120 (8868089)		3.96	1730	<2	6	17.3	53	0.07	17	3.57	64.6	1.21	<0.1	49	21.7
121 (8868090)		5.97	1760	<2	1	3.6	204	0.02	34	0.72	79.8	0.18	<0.1	28	22.7
122 (8868091)		2.60	890	<2	1	4.6	101	0.02	7	1.03	11.4	0.46	<0.1	24	32.6
123 (8868092)		7.88	1820	<2	1	5.6	247	0.02	<5	1.43	11.8	0.02	<0.1	5	16.6
124 (8868093)		1.66	606	<2	2	10.1	47	0.04	<5	2.49	11.5	0.07	<0.1	5	37.5
125 (8868094)		1.59	400	<2	5	20.3	57	0.04	6	5.32	50.1	0.06	<0.1	12	33.9
126 (8868095)		1.47	382	<2	5	21.3	48	0.05	8	5.59	59.7	0.15	<0.1	12	34.1
127 (8868096)		1.95	520	2	5	18.5	57	0.05	11	4.81	53.2	0.03	<0.1	10	34.5
128 (8868097)		2.05	530	<2	3	11.6	58	0.03	7	2.97	34.5	0.03	<0.1	7	35.4
129 (8868098)		1.60	315	<2	9	25.3	75	0.06	6	6.65	190	0.02	<0.1	19	28.3
130 (8868099)		1.63	418	<2	6	18.0	55	0.06	10	4.64	40.8	0.31	<0.1	14	33.7
131 (8868100)		1.21	338	<2	4	14.2	44	0.04	7	3.70	31.7	0.22	5.1	12	36.5
132 (8868101)		0.33	133	<2	2	5.7	19	0.02	<5	1.55	8.5	0.05	<0.1	<5	40.2
133 (8868102)		1.25	594	<2	5	13.5	54	0.05	9	3.64	59.0	0.35	<0.1	10	33.7
134 (8868103)		1.36	623	<2	5	15.6	74	0.05	11	4.14	74.6	0.99	<0.1	10	30.5
135 (8868104)		1.59	1040	<2	4	16.5	49	0.05	18	4.10	5.9	0.24	<0.1	20	33.0
136 (8868105)		2.60	1160	7	5	16.7	86	0.07	22	4.19	31.0	1.48	<0.1	10	29.1
137 (8868106)		3.57	1400	13	5	19.2	112	0.07	21	4.84	46.8	1.80	<0.1	12	26.0
138 (8868107)		3.72	1510	18	4	14.1	127	0.07	18	3.50	37.0	2.51	<0.1	11	26.4
139 (8868108)		3.01	1260	<2	5	22.1	76	0.08	30	5.47	26.4	0.60	<0.1	10	28.7
140 (8868109)		1.65	734	78	6	16.6	52	0.05	23	4.16	18.0	1.24	<0.1	9	31.4
141 (8868110)		5.54	1190	<2	2	12.7	358	0.07	13	2.93	124	1.82	<0.1	49	17.4
142 (8868111)		4.47	1020	7	3	15.1	711	0.05	19	3.32	148	0.33	<0.1	33	22.1
143 (8868112)		3.58	714	7	3	16.5	281	0.05	18	3.87	124	0.77	<0.1	36	24.0
144 (8868113)		2.22	1830	6	10	19.6	68	0.02	36	4.60	7.7	0.22	<0.1	53	21.1
145 (8868690)		3.74	1260	<2	5	14.2	43	0.07	11	2.77	121	1.77	<0.1	42	22.4

Certified By:





## Certificate of Analysis

AGAT WORK ORDER: 17T278477

PROJECT:

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Oct 31, 2017

DATE RECEIVED: Oct 31, 2017

DATE REPORTED: Dec 21, 2017

SAMPLE TYPE: Other

Analyte:	Sm	Sn	Sr	Ta	Tb	Th	Ti	Tl	Tm	U	V	W	Y	Yb
Unit:	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
RDL:	0.1	1	0.1	0.5	0.05	0.1	0.01	0.5	0.05	0.05	5	1	0.5	0.1
117 (8868086)	5.0	5	265	<0.5	1.10	0.9	1.01	1.3	0.69	0.78	348	<1	39.1	4.6
118 (8868087)	2.1	5	380	<0.5	0.47	0.8	0.52	1.4	0.29	0.64	160	<1	18.7	2.0
119 (8868088)	2.6	4	377	<0.5	0.61	0.8	0.63	1.5	0.39	0.72	206	<1	23.9	2.6
120 (8868089)	4.8	2	257	<0.5	0.97	1.1	0.87	0.8	0.56	0.58	327	<1	33.7	3.8
121 (8868090)	1.2	1	165	<0.5	0.27	0.3	0.28	0.7	0.18	0.14	192	<1	10.7	1.2
122 (8868091)	1.2	1	142	<0.5	0.26	0.9	0.23	<0.5	0.16	0.34	157	<1	9.7	1.1
123 (8868092)	1.1	<1	76.3	<0.5	0.17	1.5	0.07	<0.5	0.07	1.19	126	<1	4.6	0.4
124 (8868093)	2.0	2	75.9	<0.5	0.34	1.8	0.08	<0.5	0.20	1.10	29	<1	13.1	1.5
125 (8868094)	3.7	1130	175	<0.5	0.46	7.2	0.25	<0.5	0.20	3.92	78	<1	12.9	1.3
126 (8868095)	3.7	34	220	<0.5	0.48	8.1	0.27	<0.5	0.21	3.69	79	<1	12.9	1.4
127 (8868096)	3.2	64	196	<0.5	0.38	7.2	0.25	<0.5	0.18	2.90	84	<1	10.7	1.2
128 (8868097)	2.1	2	124	<0.5	0.27	4.8	0.16	<0.5	0.12	2.39	67	<1	8.1	0.9
129 (8868098)	4.6	3	71.5	0.6	0.60	13.9	0.43	1.1	0.27	4.36	129	1	15.1	1.9
130 (8868099)	3.4	1	310	<0.5	0.43	9.5	0.34	<0.5	0.21	2.67	103	<1	11.8	1.4
131 (8868100)	2.6	2	209	<0.5	0.36	7.1	0.26	<0.5	0.17	2.37	74	<1	10.4	1.1
132 (8868101)	1.1	1	150	<0.5	0.16	2.9	0.08	<0.5	0.09	1.93	17	<1	5.6	0.7
133 (8868102)	2.4	2	268	<0.5	0.29	7.0	0.25	<0.5	0.16	2.76	75	<1	8.3	1.0
134 (8868103)	2.6	3	329	<0.5	0.32	7.3	0.25	0.7	0.15	2.97	81	<1	8.6	1.1
135 (8868104)	3.2	3	484	<0.5	0.51	3.4	0.39	<0.5	0.25	1.37	128	<1	15.8	1.7
136 (8868105)	3.2	1650	496	<0.5	0.45	5.3	0.37	<0.5	0.19	2.70	107	<1	13.1	1.3
137 (8868106)	3.8	91	506	<0.5	0.46	6.4	0.44	0.5	0.21	2.46	130	<1	13.6	1.4
138 (8868107)	2.8	4	405	<0.5	0.38	5.2	0.37	<0.5	0.19	1.55	120	<1	11.6	1.3
139 (8868108)	4.2	2	366	<0.5	0.47	5.7	0.40	<0.5	0.14	1.59	71	<1	10.7	1.0
140 (8868109)	3.1	6	360	<0.5	0.42	4.2	0.29	<0.5	0.17	1.37	79	<1	12.7	1.2
141 (8868110)	3.1	2	362	<0.5	0.48	3.6	0.37	1.5	0.29	0.94	337	<1	13.8	2.0
142 (8868111)	4.0	2	420	<0.5	0.67	3.4	0.87	1.8	0.33	0.98	234	<1	18.7	2.2
143 (8868112)	3.9	2	521	<0.5	0.61	4.2	0.51	1.5	0.32	1.25	218	<1	18.2	2.2
144 (8868113)	5.0	3	1470	<0.5	1.04	3.0	0.54	<0.5	0.56	3.54	308	<1	38.4	3.6
145 (8868690)	4.3	3	703	<0.5	0.94	0.9	1.20	1.3	0.57	0.30	319	<1	33.4	3.7

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T278477

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Oct 31, 2017

DATE RECEIVED: Oct 31, 2017

DATE REPORTED: Dec 21, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Zn	Zr
	Unit:	ppm	ppm
	RDL:	5	0.5
117 (8868086)		101	115
118 (8868087)		70	55.3
119 (8868088)		77	66.8
120 (8868089)		103	105
121 (8868090)		117	23.8
122 (8868091)		50	28.7
123 (8868092)		302	24.5
124 (8868093)		45	28.6
125 (8868094)		48	116
126 (8868095)		41	127
127 (8868096)		56	93.7
128 (8868097)		55	56.8
129 (8868098)		57	188
130 (8868099)		47	134
131 (8868100)		43	101
132 (8868101)		9	49.9
133 (8868102)		63	145
134 (8868103)		75	127
135 (8868104)		71	129
136 (8868105)		90	122
137 (8868106)		129	149
138 (8868107)		122	119
139 (8868108)		111	138
140 (8868109)		46	99.3
141 (8868110)		217	71.7
142 (8868111)		183	111
143 (8868112)		136	100
144 (8868113)		77	57.2
145 (8868690)		153	103

Comments: RDL - Reported Detection Limit

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T278477

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

DATE SAMPLED: Oct 31, 2017

DATE RECEIVED: Oct 31, 2017

DATE REPORTED: Dec 21, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Au	Pd	Pt
	Unit: RDL:	ppm 0.001	ppm 0.001	ppm 0.005
117 (8868086)		0.011	0.006	<0.005
118 (8868087)		0.010	0.003	<0.005
119 (8868088)		0.011	0.002	<0.005
120 (8868089)		0.005	<0.001	<0.005
121 (8868090)		<0.001	0.007	<0.005
122 (8868091)		0.040	0.013	0.006
123 (8868092)		<0.001	0.002	<0.005
124 (8868093)		0.008	0.001	<0.005
125 (8868094)		<0.001	0.002	<0.005
126 (8868095)		0.001	0.002	<0.005
127 (8868096)		0.022	0.002	<0.005
128 (8868097)		0.002	<0.001	<0.005
129 (8868098)		<0.001	0.003	<0.005
130 (8868099)		0.007	0.002	<0.005
131 (8868100)		0.004	0.002	<0.005
132 (8868101)		0.001	0.001	<0.005
133 (8868102)		0.020	0.002	<0.005
134 (8868103)		0.191	0.003	<0.005
135 (8868104)		0.002	0.002	<0.005
136 (8868105)		0.004	<0.001	<0.005
137 (8868106)		0.003	0.002	<0.005
138 (8868107)		0.002	0.002	<0.005
139 (8868108)		0.027	0.001	<0.005
140 (8868109)		0.002	<0.001	<0.005
141 (8868110)		<0.001	0.010	<0.005
142 (8868111)		<0.001	0.004	<0.005
143 (8868112)		<0.001	0.006	<0.005
144 (8868113)		0.004	0.004	0.014
145 (8868690)		<0.001	0.002	<0.005

Comments: RDL - Reported Detection Limit

Certified By:



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	REPLICATE #1				REPLICATE #2				REPLICATE #3							
	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD				
Ag	8868086	< 1	< 1	0.0%	8868102	< 1	< 1	0.0%	8868111	< 1	< 1	0.0%				
Al	8868086	8.45	8.36	1.1%	8868102	7.04	6.99	0.7%	8868111	9.28	9.35	0.8%				
As	8868086	< 5	< 5	0.0%	8868102	< 5	< 5	0.0%	8868111	< 5	< 5	0.0%				
B	8868086	46	46	0.0%	8868102	28	30	6.9%	8868111	32	33	3.1%				
Ba	8868086	932	914	2.0%	8868102	439	441	0.5%	8868111	1080	1070	0.9%				
Be	8868086	8	8	0.0%	8868102	< 5	< 5	0.0%	8868111	< 5	< 5	0.0%				
Bi	8868086	1.9	1.9	0.0%	8868102	4.7	4.8	2.1%	8868111	0.2	0.2	0.0%				
Ca	8868086	6.99	7.16	2.4%	8868102	1.14	1.13	0.9%	8868111	1.64	1.62	1.2%				
Cd	8868086	< 0.2	< 0.2	0.0%	8868102	< 0.2	< 0.2	0.0%	8868111	< 0.2	< 0.2	0.0%				
Ce	8868086	19.1	17.5	8.7%	8868102	32.0	31.1	2.9%	8868111	25.5	26.2	2.7%				
Co	8868086	127	119	6.5%	8868102	34.3	34.8	1.4%	8868111	68.2	73.8	7.9%				
Cr	8868086	0.006	0.006	0.0%	8868102	0.016	0.016	0.0%	8868111	0.157	0.155	1.3%				
Cs	8868086	5.8	5.7	1.7%	8868102	1.9	2.0	5.1%	8868111	12.6	13.0	3.1%				
Cu	8868086	1030	1000	3.0%	8868102	1340	1330	0.7%	8868111	76	84	10.0%				
Dy	8868086	7.31	6.89	5.9%	8868102	1.62	1.65	1.8%	8868111	3.98	4.03	1.2%				
Er	8868086	5.00	4.74	5.3%	8868102	1.01	1.11	9.4%	8868111	2.40	2.37	1.3%				
Eu	8868086	0.99	1.00	1.0%	8868104	0.988	0.980	0.8%	8868111	0.961	0.986	2.6%				
Fe	8868086	11.1	11.3	1.8%	8868102	3.95	3.95	0.0%	8868111	8.17	8.42	3.0%				
Ga	8868086	22.7	21.3	6.4%	8868102	17.3	17.3	0.0%	8868111	21.3	21.2	0.5%				
Gd	8868086	6.55	6.06	7.8%	8868102	1.99	2.02	1.5%	8868111	4.39	4.43	0.9%				
Ge	8868086	3	3	0.0%	8868102	1	1	0.0%	8868111	1	1	0.0%				
Hf	8868086	3	3	0.0%	8868102	4	4	0.0%	8868111	3	3	0.0%				
Ho	8868086	1.53	1.46	4.7%	8868102	0.321	0.326	1.5%	8868111	0.773	0.792	2.4%				
In	8868086	< 0.2	< 0.2	0.0%	8868102	< 0.2	< 0.2	0.0%	8868111	< 0.2	< 0.2	0.0%				
K	8868086	1.67	1.66	0.6%	8868102	1.55	1.54	0.6%	8868111	3.18	3.29	3.4%				
La	8868086	7.36	6.83	7.5%	8868102	13.9	13.6	2.2%	8868111	12.6	12.9	2.4%				
Li	8868086	67	65	3.0%	8868102	37	37	0.0%	8868111	98	102	4.0%				
Lu	8868086	0.725	0.689	5.1%	8868102	0.16	0.16	0.0%	8868111	0.342	0.347	1.5%				
Mg	8868086	3.78	3.73	1.3%	8868102	1.25	1.25	0.0%	8868111	4.47	4.73	5.7%				
Mn	8868086	1600	1570	1.9%	8868102	594	599	0.8%	8868111	1020	1030	1.0%				
Mo	8868086	< 2	< 2	0.0%	8868102	< 2	< 2	0.0%	8868111	7	6	15.4%				



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Nb	8868086	8	7	13.3%	8868102	5	5	0.0%	8868111	3	3	0.0%			
Nd	8868086	15.4	14.2	8.1%	8868102	13.5	13.2	2.2%	8868111	15.1	15.6	3.3%			
Ni	8868086	72	73	1.4%	8868102	54	56	3.6%	8868111	711	746	4.8%			
P	8868086	0.06	0.06	0.0%	8868102	0.05	0.05	0.0%	8868111	0.05	0.05	0.0%			
Pb	8868086	11	10	9.5%	8868102	9	9	0.0%	8868111	19	19	0.0%			
Pr	8868086	2.97	2.72	8.8%	8868102	3.64	3.54	2.8%	8868111	3.32	3.37	1.5%			
Rb	8868086	125	119	4.9%	8868102	59.0	59.8	1.3%	8868111	148	151	2.0%			
S	8868086	2.00	1.97	1.5%	8868102	0.346	0.341	1.5%	8868111	0.33	0.35	5.9%			
Sb	8868086	< 0.1	< 0.1	0.0%	8868102	< 0.1	< 0.1	0.0%	8868111	< 0.1	< 0.1	0.0%			
Sc	8868086	52	51	1.9%	8868102	10	10	0.0%	8868111	33	34	3.0%			
Si	8868086	20.5	20.4	0.5%	8868102	33.7	33.2	1.5%	8868111	22.1	22.2	0.5%			
Sm	8868086	5.0	4.5	10.5%	8868102	2.4	2.4	0.0%	8868111	4.0	4.2	4.9%			
Sn	8868086	5	6	18.2%	8868102	2	2	0.0%	8868111	2	2	0.0%			
Sr	8868086	265	256	3.5%	8868102	268	260	3.0%	8868111	420	406	3.4%			
Ta	8868086	< 0.5	< 0.5	0.0%	8868102	< 0.5	< 0.5	0.0%	8868111	< 0.5	< 0.5	0.0%			
Tb	8868086	1.10	1.05	4.7%	8868102	0.29	0.29	0.0%	8868111	0.67	0.67	0.0%			
Th	8868086	0.86	0.85	1.2%	8868102	7.0	6.9	1.4%	8868111	3.43	3.56	3.7%			
Ti	8868086	1.01	1.01	0.0%	8868102	0.25	0.25	0.0%	8868111	0.872	0.890	2.0%			
Tl	8868086	1.3	1.3	0.0%	8868102	< 0.5	< 0.5	0.0%	8868111	1.8	1.8	0.0%			
Tm	8868086	0.691	0.664	4.0%	8868102	0.155	0.148	4.6%	8868111	0.328	0.322	1.8%			
U	8868086	0.778	0.730	6.4%	8868102	2.76	2.73	1.1%	8868111	0.98	0.96	2.1%			
V	8868086	348	333	4.4%	8868102	75	75	0.0%	8868111	234	236	0.9%			
W	8868086	< 1	< 1	0.0%	8868102	< 1	< 1	0.0%	8868111	< 1	< 1	0.0%			
Y	8868086	39.1	37.4	4.4%	8868102	8.3	8.3	0.0%	8868111	18.7	18.7	0.0%			
Yb	8868086	4.6	4.3	6.7%	8868102	1.00	1.06	5.8%	8868111	2.2	2.2	0.0%			
Zn	8868086	101	103	2.0%	8868102	63	59	6.6%	8868111	183	190	3.8%			
Zr	8868086	115	110	4.4%	8868102	145	155	6.7%	8868111	111	109	1.8%			

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	REPLICATE #1				REPLICATE #2				REPLICATE #3						
	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD			
Au	8868086	0.011	0.042		8868104	0.002	0.046		8868111	< 0.001	< 0.001	0.0%			
Pd	8868086	0.006	0.002		8868104	0.002	0.001		8868111	0.004	0.004	0.0%			
Pt	8868086	< 0.005	< 0.005	0.0%	8868104	< 0.005	< 0.005	0.0%	8868111	< 0.005	< 0.005	0.0%			



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(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	CRM #1 (ref.SY-4)				CRM #2 (ref.TILL-2)				CRM #3 (ref.PG129)							
	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits				
Al	10.95	11	100%	90% - 110%	8.47	8.39	99%	90% - 110%								
As					26	23	88%	90% - 110%								
Ba	340	337	99%	90% - 110%	540	527	98%	90% - 110%								
Be	2.6	2.7	102%	90% - 110%	4.0	3.5	88%	90% - 110%								
Ca	5.72	5.76	101%	90% - 110%	0.907	0.943	104%	90% - 110%								
Ce	122	130	107%	90% - 110%	98	98	99%	90% - 110%								
Co	2.8	2.5	88%	90% - 110%	15	14	94%	90% - 110%								
Cs	1.5	1.4	92%	90% - 110%												
Cu	7	6	81%	90% - 110%	150	150	100%	90% - 110%								
Dy	18.2	19.4	107%	90% - 110%												
Er	14.2	15.6	110%	90% - 110%	3.7	4	108%	90% - 110%								
Eu	2.0	2.1	105%	90% - 110%												
Fe	4.34	4.3	99%	90% - 110%	3.77	3.76	100%	90% - 110%								
Ga	35	36	103%	90% - 110%												
Gd	14	16	114%	90% - 110%												
Hf	10.6	10.7	101%	90% - 110%	11	9	83%	90% - 110%								
Ho	4.3	4.6	106%	90% - 110%												
K	1.37	1.39	102%	90% - 110%	2.55	2.5	98%	90% - 110%								
La	58	60	103%	90% - 110%	44	43	98%	90% - 110%								
Li	37	40	107%	90% - 110%	47	52	112%	90% - 110%								
Lu	2.1	2.2	105%	90% - 110%	0.6	0.6	95%	90% - 110%								
Mg	0.325	0.295	91%	90% - 110%	1.1	1.1	99%	90% - 110%								
Mn	836	814	97%	90% - 110%	780	733	94%	90% - 110%								
Mo					14	13	95%	90% - 110%								
Nb	13	11	88%	90% - 110%	20	18	90%	90% - 110%								
Nd	57	62	108%	90% - 110%												
Ni	9	12	129%	90% - 110%	32	35	109%	90% - 110%								
Pb	10	9	91%	90% - 110%	31	29	95%	90% - 110%								
Pr	15.0	15.5	103%	90% - 110%												
Rb	55	49	90%	90% - 110%	144	131	91%	90% - 110%								
Sc	1.1	0.8	72%	90% - 110%	12	12	102%	90% - 110%								



CLIENT NAME: MISC AGAT CLIENT ON

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Si	23.3	23.8	102%	90% - 110%	28.4	28.8	101%	90% - 110%								
Sm	12.7	13.9	110%	90% - 110%	7.4	7.6	103%	90% - 110%								
Sr	1191	1247	105%	90% - 110%	144	151	105%	90% - 110%								
Ta	0.9	0.7	73%	90% - 110%	1.9	1.3	70%	90% - 110%								
Tb	2.6	2.8	109%	90% - 110%	1.2	1.2	96%	90% - 110%								
Th	1.4	1.2	83%	90% - 110%	18.4	17.9	98%	90% - 110%								
Ti	0.172	0.172	100%	90% - 110%	0.527	0.528	100%	90% - 110%								
Tm	2.3	2.3	100%	90% - 110%												
U	0.8	1	120%	90% - 110%	5.7	5.2	90%	90% - 110%								
V					77	74	96%	90% - 110%								
W					5	5	96%	90% - 110%								
Y	119	110	92%	90% - 110%	40	38	95%	90% - 110%								
Yb	14.8	15.4	104%	90% - 110%												
Zn	93	92	99%	90% - 110%	130	125	96%	90% - 110%								
Zr	517	548	106%	90% - 110%	390	352	90%	90% - 110%								

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	CRM #1 (ref.GS6D)				CRM #2 (ref.GSP4C)				CRM #3 (ref.PG129)							
	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits				
Au	6.09	5.93	97%	90% - 110%	0.362	0.361	100%	90% - 110%	1.1	1.2	105%	90% - 110%				
Pd									0.115	0.127	110%	90% - 110%				
Pt									0.239	0.262	109%	90% - 110%				



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T278477

PROJECT:

ATTENTION TO: Michel Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Sample Login Weight	MIN-12009		BALANCE
Ag			ICP/MS
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/MS
B	MIN-200-12001		ICP/OES
Ba	MIN-200-12001		ICP/OES
Be	MIN-200-12001		ICP/OES
Bi	MIN-200-12001		ICP-MS
Ca	MIN-200-12001		ICP/OES
Cd	MIN-200-12001		ICP-MS
Ce	MIN-200-12001		ICP-MS
Co	MIN-200-12001		ICP/MS
Cr	MIN-200-12001		ICP/OES
Cs	MIN-200-12001		ICP-MS
Cu	MIN-200-12001		ICP/OES
Dy	MIN-200-12001		ICP-MS
Er	MIN-200-12001		ICP-MS
Eu	MIN-200-12001		ICP-MS
Fe	MIN-200-12001		ICP/OES
Ga	MIN-200-12001		ICP-MS
Gd	MIN-200-12001		ICP-MS
Ge	MIN-200-12001		ICP-MS
Hf	MIN-200-12001		ICP-MS
Ho	MIN-200-12001		ICP-MS
In	MIN-200-12001		ICP-MS
K	MIN-200-12001		ICP/OES
La	MIN-200-12001		ICP-MS
Li	MIN-200-12001		ICP/OES
Lu	MIN-200-12001		ICP-MS
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/MS
Nb	MIN-200-12001		ICP-MS
Nd	MIN-200-12001		ICP-MS
Ni	MIN-200-12001		ICP/OES
P			ICP/OES
Pb	MIN-200-12001		ICP/MS
Pr	MIN-200-12001		ICP-MS
Rb	MIN-200-12001		ICP/MS
S	MIN-200-12001		ICP/OES
Sb	MIN-200-12001		ICP-MS
Sc	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
Sm	MIN-200-12001		ICP-MS
Sn	MIN-200-12001		ICP/MS
Sr	MIN-200-12001		ICP-OES
Ta	MIN-200-12001		ICP-MS
Tb	MIN-200-12001		ICP-MS
Th	MIN-200-12001		ICP-MS



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T278477

PROJECT:

ATTENTION TO: Michel Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Ti	MIN-200-12001		ICP/OES
Tl	MIN-200-12001		ICP-MS
Tm	MIN-200-12001		ICP-MS
U	MIN-200-12001		ICP-MS
V	MIN-200-12001		ICP/OES
W	MIN-200-12001		ICP-MS
Y	MIN-200-12001		ICP-MS
Yb	MIN-200-12001		ICP-MS
Zn	MIN-200-12001		ICP/OES
Zr	MIN-200-12001		ICP-MS
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES

CLIENT NAME: MISC AGAT CLIENT ON, ON

ATTENTION TO: Michel Lavoie

PROJECT:

AGAT WORK ORDER: 17T281631

SOLID ANALYSIS REVIEWED BY: Sherin Moussa, Senior Technician

DATE REPORTED: Dec 06, 2017

PAGES (INCLUDING COVER): 11

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 17T281631

PROJECT:

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Nov 07, 2017	DATE RECEIVED: Nov 08, 2017					DATE REPORTED: Dec 06, 2017					SAMPLE TYPE: Other				
Analyte:	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	
Unit:	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	
RDL:	1	0.01	30	20	0.5	5	0.1	0.05	0.2	0.1	0.5	0.005	0.1	5	
146 (8888348)	<1	5.15	<30	31	291	<5	2.5	4.28	<0.2	18.8	67.9	0.025	5.0	466	
147 (8888349)	<1	7.23	<30	37	319	<5	1.9	6.63	<0.2	14.8	51.7	0.015	3.4	46	
148 (8888350)	<1	6.84	<30	<20	20.1	<5	0.2	8.87	<0.2	47.9	3.7	<0.005	0.2	21	
149 (8888351)	<1	7.27	<30	23	347	<5	0.2	3.56	0.5	44.6	41.8	0.006	3.3	382	
150 (8888352)	<1	6.07	<30	23	57.3	<5	0.6	8.24	<0.2	34.7	30.0	0.007	0.4	16	
151 (8888353)	1	6.22	<30	<20	97.4	<5	0.1	4.21	<0.2	23.2	4.0	0.007	0.6	14	
152 (8888354)	<1	7.46	<30	<20	302	74	0.6	1.84	<0.2	16.6	7.7	<0.005	3.3	5	
153 (8888355)	1	7.75	<30	<20	502	13	1.2	1.92	<0.2	7.6	7.6	0.007	0.7	7	
154 (8888356)	<1	7.70	<30	30	999	6	0.3	5.85	<0.2	10.0	46.6	0.011	7.7	43	
155 (8888357)	<1	8.85	<30	39	114	<5	0.4	12.2	<0.2	13.6	71.0	0.009	0.9	262	
156 (8888358)	<1	2.33	<30	<20	130	<5	0.1	2.26	<0.2	32.9	16.9	0.007	2.8	35	
157 (8888359)	<1	7.33	<30	51	441	<5	0.3	6.70	<0.2	3.8	73.7	<0.005	6.1	75	
158 (8888360)	<1	7.23	<30	43	64.5	<5	0.8	12.0	<0.2	7.9	90.7	<0.005	0.4	270	
Analyte:	Dy	Er	Eu	Fe	Ga	Gd	Ge	Hf	Ho	In	K	La	Li	Lu	
Unit:	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
RDL:	0.05	0.05	0.05	0.01	0.01	0.05	1	1	0.05	0.2	0.05	0.1	10	0.05	
146 (8888348)	2.62	1.65	1.12	7.59	13.8	2.59	2	2	0.57	<0.2	1.06	9.1	47	0.25	
147 (8888349)	4.71	3.05	1.09	8.37	17.9	4.25	2	2	1.05	<0.2	0.95	6.5	40	0.45	
148 (8888350)	4.77	2.87	1.11	5.33	26.1	5.66	3	4	1.01	<0.2	0.09	22.2	<10	0.46	
149 (8888351)	5.23	2.94	1.16	5.88	18.7	5.72	1	4	1.08	<0.2	0.94	19.7	35	0.48	
150 (8888352)	3.50	2.06	1.11	6.25	20.8	3.83	2	3	0.71	<0.2	0.10	16.7	<10	0.32	
151 (8888353)	2.35	1.41	1.13	2.57	21.6	2.59	2	3	0.49	<0.2	0.39	10.3	<10	0.25	
152 (8888354)	2.15	0.63	1.11	1.37	46.5	3.48	4	7	0.26	<0.2	0.19	9.2	<10	0.11	
153 (8888355)	1.83	0.37	1.11	1.67	48.7	2.89	5	7	0.17	<0.2	0.21	3.4	<10	0.07	
154 (8888356)	0.97	0.58	1.08	7.26	16.7	1.11	2	<1	0.21	<0.2	1.60	5.2	102	0.10	
155 (8888357)	1.95	1.11	1.10	9.00	26.3	2.01	3	<1	0.40	<0.2	0.31	7.7	17	0.16	
156 (8888358)	1.89	0.86	1.12	3.34	7.16	3.09	1	2	0.34	<0.2	0.42	14.7	16	0.09	
157 (8888359)	1.06	0.61	1.16	11.8	19.8	1.00	2	<1	0.23	<0.2	1.13	1.7	49	0.08	
158 (8888360)	1.08	0.65	1.14	9.40	22.6	1.14	3	<1	0.25	<0.2	0.11	3.7	<10	0.10	

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T281631

PROJECT:

5623 McADAM ROAD  
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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Nov 07, 2017		DATE RECEIVED: Nov 08, 2017					DATE REPORTED: Dec 06, 2017					SAMPLE TYPE: Other				
Sample ID (AGAT ID)	Analyte: Unit: RDL:	Mg % 0.01	Mn ppm 10	Mo ppm 2	Nb ppm 1	Nd ppm 0.1	Ni ppm 5	P % 0.01	Pb ppm 5	Pr ppm 0.05	Rb ppm 0.2	S % 0.01	Sb ppm 0.1	Sc ppm 5	Si % 0.01	
146 (8888348)		2.31	1190	<2	2	9.3	91	0.04	9	2.25	71.1	2.91	0.2	18	29.8	
147 (8888349)		3.15	1610	<2	3	9.7	88	0.05	10	2.03	48.5	1.11	0.4	38	23.1	
148 (8888350)		0.24	710	<2	7	22.6	10	0.12	12	5.76	3.5	0.22	0.3	15	27.4	
149 (8888351)		1.33	942	<2	7	22.4	16	0.14	54	5.47	62.6	1.28	0.3	17	27.9	
150 (8888352)		0.50	838	<2	5	16.0	12	0.09	20	4.08	4.4	1.11	0.3	12	30.1	
151 (8888353)		0.20	433	<2	5	11.2	8	0.05	15	2.78	20.4	0.12	0.3	7	30.5	
152 (8888354)		0.05	180	<2	32	6.9	7	0.01	6	1.96	64.7	0.23	0.2	<5	31.0	
153 (8888355)		0.04	226	3	26	3.5	8	0.01	9	0.98	19.8	0.51	0.4	<5	30.5	
154 (8888356)		3.69	1190	<2	1	4.3	77	<0.01	9	1.11	178	0.22	0.2	26	22.4	
155 (8888357)		2.15	1070	<2	3	6.6	43	<0.01	13	1.61	14.5	0.93	0.4	45	19.5	
156 (8888358)		1.25	756	<2	10	16.9	24	0.11	18	4.14	32.1	0.06	0.5	8	37.2	
157 (8888359)		4.01	1320	<2	<1	2.6	31	<0.01	15	0.54	97.2	0.37	0.2	43	20.0	
158 (8888360)		2.92	1410	<2	1	3.9	133	<0.01	18	0.96	3.9	1.05	1.4	32	18.5	
Sample ID (AGAT ID)	Analyte: Unit: RDL:	Sm ppm 0.1	Sn ppm 1	Sr ppm 0.1	Ta ppm 0.5	Tb ppm 0.05	Th ppm 0.1	Ti % 0.01	Tl ppm 0.5	Tm ppm 0.05	U ppm 0.05	V ppm 5	W ppm 1	Y ppm 0.5	Yb ppm 0.1	
146 (8888348)		2.2	1	239	<0.5	0.42	2.5	0.37	0.7	0.26	0.93	143	<1	16.6	1.6	
147 (8888349)		3.1	2	291	<0.5	0.74	0.6	0.78	<0.5	0.46	0.40	312	1	32.8	3.0	
148 (8888350)		4.9	1	1480	0.5	0.87	4.2	0.49	<0.5	0.44	1.59	101	<1	33.4	2.8	
149 (8888351)		4.9	<1	316	0.5	0.88	2.8	0.59	<0.5	0.44	1.01	108	<1	35.1	2.9	
150 (8888352)		3.5	<1	1660	<0.5	0.61	1.8	0.44	<0.5	0.31	0.65	114	<1	24.2	2.0	
151 (8888353)		2.4	<1	623	0.5	0.41	11.9	0.22	<0.5	0.22	5.13	60	<1	17.1	1.5	
152 (8888354)		3.0	8	335	36.6	0.61	5.3	0.03	2.1	0.08	3.93	20	<1	15.5	0.6	
153 (8888355)		2.6	8	325	71.2	0.54	3.1	0.03	2.6	0.06	6.13	23	<1	15.0	0.4	
154 (8888356)		0.9	<1	311	<0.5	0.17	1.8	0.97	1.4	0.09	0.35	399	<1	7.1	0.6	
155 (8888357)		1.6	<1	1230	0.7	0.33	0.8	0.77	<0.5	0.17	0.90	724	<1	12.7	1.1	
156 (8888358)		3.3	<1	193	0.7	0.41	1.1	0.61	<0.5	0.10	0.43	107	<1	10.4	0.7	
157 (8888359)		0.8	<1	302	<0.5	0.18	0.1	1.15	0.7	0.09	0.08	851	<1	7.2	0.6	
158 (8888360)		1.0	<1	1560	<0.5	0.19	1.7	0.72	<0.5	0.10	0.52	806	<1	8.0	0.6	

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T281631

PROJECT:

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Nov 07, 2017

DATE RECEIVED: Nov 08, 2017

DATE REPORTED: Dec 06, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Zn	Zr
	Unit:	ppm	ppm
	RDL:	5	0.5
146 (8888348)		112	55.7
147 (8888349)		118	76.3
148 (8888350)		9	161
149 (8888351)		138	178
150 (8888352)		37	106
151 (8888353)		14	94.7
152 (8888354)		<5	62.8
153 (8888355)		<5	41.0
154 (8888356)		99	25.3
155 (8888357)		66	17.2
156 (8888358)		68	62.0
157 (8888359)		119	11.5
158 (8888360)		75	31.1

Comments: RDL - Reported Detection Limit

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T281631

PROJECT:

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

### (202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

DATE SAMPLED: Nov 07, 2017

DATE RECEIVED: Nov 08, 2017

DATE REPORTED: Dec 06, 2017

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Au	Pd	Pt
	Unit:	ppm	ppm	ppm
	RDL:	0.001	0.001	0.005
146 (8888348)		0.012	0.002	<0.005
147 (8888349)		0.004	<0.001	<0.005
148 (8888350)		<0.001	<0.001	<0.005
149 (8888351)		0.003	<0.001	<0.005
150 (8888352)		0.002	<0.001	<0.005
151 (8888353)		<0.001	<0.001	<0.005
152 (8888354)		<0.001	<0.001	<0.005
153 (8888355)		<0.001	<0.001	<0.005
154 (8888356)		0.001	0.002	<0.005
155 (8888357)		0.003	0.002	<0.005
156 (8888358)		0.002	0.005	<0.005
157 (8888359)		<0.001	0.001	<0.005
158 (8888360)		0.012	0.002	<0.005

Comments: RDL - Reported Detection Limit

Certified By:



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	REPLICATE #1				RPD													
	Sample ID	Original	Replicate	RPD														
Ag	8888348	< 1	< 1	0.0%														
Al	8888348	5.15	4.87	5.6%														
As	8888348	< 30	< 30	0.0%														
B	8888348	31	26	17.5%														
Ba	8888348	291	288	1.0%														
Be	8888348	5	5	0.0%														
Bi	8888348	2.55	2.62	2.7%														
Ca	8888348	4.28	4.06	5.3%														
Cd	8888348	< 0.2	< 0.2	0.0%														
Ce	8888348	18.8	17.1	9.5%														
Co	8888348	67.9	71.4	5.0%														
Cr	8888348	0.0245	0.0240	2.1%														
Cs	8888348	4.99	5.07	1.6%														
Cu	8888348	466	462	0.9%														
Dy	8888348	2.62	2.51	4.3%														
Er	8888348	1.65	1.59	3.7%														
Eu	8888348	1.12	1.14	1.8%														
Fe	8888348	7.59	7.03	7.7%														
Ga	8888348	13.8	14.7	6.3%														
Gd	8888348	2.59	2.43	6.4%														
Ge	8888348	2	2	0.0%														
Hf	8888348	2	2	0.0%														
Ho	8888348	0.569	0.576	1.2%														
In	8888348	< 0.2	< 0.2	0.0%														
K	8888348	1.06	1.00	5.8%														
La	8888348	9.06	8.61	5.1%														
Li	8888348	47	44	6.6%														
Lu	8888348	0.251	0.256	2.0%														
Mg	8888348	2.31	2.21	4.4%														
Mn	8888348	1190	1120	6.1%														
Mo	8888348	< 2	< 2	0.0%														



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

Nb	8888348	2	2	0.0%															
Nd	8888348	9.28	8.54	8.3%															
Ni	8888348	91	88	3.4%															
P	8888348	0.04	0.04	0.0%															
Pb	8888348	9	9	0.0%															
Pr	8888348	2.25	2.09	7.4%															
Rb	8888348	71.1	72.9	2.5%															
S	8888348	2.91	2.92	0.3%															
Sb	8888348	0.2	0.2	0.0%															
Sc	8888348	18	17	5.7%															
Si	8888348	29.8	28.1	5.9%															
Sm	8888348	2.2	2.1	4.7%															
Sn	8888348	1	< 1																
Sr	8888348	239	237	0.8%															
Ta	8888348	< 0.5	< 0.5	0.0%															
Tb	8888348	0.419	0.402	4.1%															
Th	8888348	2.5	2.5	0.0%															
Ti	8888348	0.374	0.354	5.5%															
Tl	8888348	0.7	0.7	0.0%															
Tm	8888348	0.26	0.25	3.9%															
U	8888348	0.935	0.947	1.3%															
V	8888348	143	152	6.1%															
W	8888348	< 1	< 1	0.0%															
Y	8888348	16.6	17.4	4.7%															
Yb	8888348	1.6	1.6	0.0%															
Zn	8888348	112	107	4.6%															
Zr	8888348	55.7	57.3	2.8%															

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	REPLICATE #1				RPD															
	Sample ID	Original	Replicate	RPD																
Au	8888348	0.012	0.012	0.0%																
Pd	8888348	< 0.001	0.008																	
Pt	8888348	< 0.005	< 0.005	0.0%																





CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	CRM #1 (ref.SY-4)																	
	Expect	Actual	Recovery	Limits														
Al	10.95	10.41	95%	90% - 110%														
Ba	340	331	97%	90% - 110%														
Be	2.6	2.8	108%	90% - 110%														
Ca	5.72	5.54	97%	90% - 110%														
Ce	122	131	108%	90% - 110%														
Co	2.8	2.5	91%	90% - 110%														
Cs	1.5	1.6	105%	90% - 110%														
Dy	18.2	19.3	106%	90% - 110%														
Er	14.2	14.3	100%	90% - 110%														
Eu	2.0	2	102%	90% - 110%														
Fe	4.34	3.97	91%	90% - 110%														
Ga	35	36	103%	90% - 110%														
Gd	14	16	114%	90% - 110%														
Hf	10.6	10.9	102%	90% - 110%														
Ho	4.3	4.6	108%	90% - 110%														
K	1.37	1.33	97%	90% - 110%														
La	58	63	108%	90% - 110%														
Li	37	40	107%	90% - 110%														
Lu	2.1	2.1	99%	90% - 110%														
Mg	0.325	0.309	95%	90% - 110%														
Mn	836	796	95%	90% - 110%														
Nb	13	11.2	86%	90% - 110%														
Nd	57	58	102%	90% - 110%														
Pb	10	9	91%	90% - 110%														
Pr	15.0	15.7	105%	90% - 110%														
Rb	55	52	94%	90% - 110%														
Si	23.3	22.6	97%	90% - 110%														
Sm	12.7	12.9	102%	90% - 110%														
Sn	7.1	8	113%	90% - 110%														
Sr	1191	1208	101%	90% - 110%														
Ta	0.9	0.7	82%	90% - 110%														



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Michel Lavoie

Tb	2.6	2.9	110%	90% - 110%													
Th	1.4	1.2	84%	90% - 110%													
Ti	0.172	0.163	95%	90% - 110%													
Tm	2.3	2.3	99%	90% - 110%													
U	0.8	0.7	86%	90% - 110%													
V	8	8	99%	90% - 110%													
Y	119	137	115%	90% - 110%													
Yb	14.8	14.6	99%	90% - 110%													
Zn	93	100	108%	90% - 110%													
Zr	517	553	107%	90% - 110%													

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

CRM #1 (ref.PG129)																	
Parameter	Expect	Actual	Recovery	Limits													
Au	1.1	1.15	105%	90% - 110%													
Pd	0.115	0.126	110%	90% - 110%													
Pt	0.239	0.239	100%	90% - 110%													



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON  
 PROJECT:  
 SAMPLING SITE:

AGAT WORK ORDER: 17T281631  
 ATTENTION TO: Michel Lavoie  
 SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Ag			ICP/MS
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/MS
B	MIN-200-12001		ICP/OES
Ba	MIN-200-12001		ICP/OES
Be	MIN-200-12001		ICP/OES
Bi	MIN-200-12001		ICP-MS
Ca	MIN-200-12001		ICP/OES
Cd	MIN-200-12001		ICP-MS
Ce	MIN-200-12001		ICP-MS
Co	MIN-200-12001		ICP/MS
Cr	MIN-200-12001		ICP/OES
Cs	MIN-200-12001		ICP-MS
Cu	MIN-200-12001		ICP/OES
Dy	MIN-200-12001		ICP-MS
Er	MIN-200-12001		ICP-MS
Eu	MIN-200-12001		ICP-MS
Fe	MIN-200-12001		ICP/OES
Ga	MIN-200-12001		ICP-MS
Gd	MIN-200-12001		ICP-MS
Ge	MIN-200-12001		ICP-MS
Hf	MIN-200-12001		ICP-MS
Ho	MIN-200-12001		ICP-MS
In	MIN-200-12001		ICP-MS
K	MIN-200-12001		ICP/OES
La	MIN-200-12001		ICP-MS
Li	MIN-200-12001		ICP/OES
Lu	MIN-200-12001		ICP-MS
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/MS
Nb	MIN-200-12001		ICP-MS
Nd	MIN-200-12001		ICP-MS
Ni	MIN-200-12001		ICP/OES
P			ICP/OES
Pb	MIN-200-12001		ICP/MS
Pr	MIN-200-12001		ICP-MS
Rb	MIN-200-12001		ICP/MS
S	MIN-200-12001		ICP/OES
Sb	MIN-200-12001		ICP-MS
Sc	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
Sm	MIN-200-12001		ICP-MS
Sn	MIN-200-12001		ICP/MS
Sr	MIN-200-12001		ICP-OES
Ta	MIN-200-12001		ICP-MS
Tb	MIN-200-12001		ICP-MS
Th	MIN-200-12001		ICP-MS
Ti	MIN-200-12001		ICP/OES

## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T281631

PROJECT:

ATTENTION TO: Michel Lavoie

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Tl	MIN-200-12001		ICP-MS
Tm	MIN-200-12001		ICP-MS
U	MIN-200-12001		ICP-MS
V	MIN-200-12001		ICP/OES
W	MIN-200-12001		ICP-MS
Y	MIN-200-12001		ICP-MS
Yb	MIN-200-12001		ICP-MS
Zn	MIN-200-12001		ICP/OES
Zr	MIN-200-12001		ICP-MS
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES



CLIENT NAME: MISC AGAT CLIENT ON, ON

ATTENTION TO: MICHEL LAVOIE

PROJECT: MICHEL LAVOIE

AGAT WORK ORDER: 17T282407

SOLID ANALYSIS REVIEWED BY: Sherin Moussa, Senior Technician

DATE REPORTED: Dec 06, 2017

PAGES (INCLUDING COVER): 12

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 17T282407

PROJECT: MICHEL LAVOIE

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

### (200-) Sample Login Weight

DATE SAMPLED: Nov 08, 2017

DATE RECEIVED: Nov 09, 2017

DATE REPORTED: Dec 06, 2017

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Sample Login Weight	Unit:	RDL:
			kg	0.01
159 (8892528)				
160 (8892529)				
161 (8892530)				
162 (8892531)				
163 (8892532)				
164 (8892533)				
165 (8892534)				
166 (8892535)				
167 (8892536)				
168 (8892537)				

Comments: RDL - Reported Detection Limit

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T282407

PROJECT: MICHEL LAVOIE

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MISSISSAUGA, ONTARIO  
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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Nov 08, 2017		DATE RECEIVED: Nov 09, 2017					DATE REPORTED: Dec 06, 2017					SAMPLE TYPE: Rock				
Sample ID (AGAT ID)	Analyte: Unit: RDL:	Ag ppm 1	Al % 0.01	As ppm 30	B ppm 20	Ba ppm 0.5	Be ppm 5	Bi ppm 0.1	Ca % 0.05	Cd ppm 0.2	Ce ppm 0.1	Co ppm 0.5	Cr % 0.005	Cs ppm 0.1	Cu ppm 5	
159 (8892528)		2	7.71	<30	28	84.1	6	2.8	6.70	0.5	34.9	41.4	0.012	0.8	1680	
160 (8892529)		<1	6.94	<30	33	153	<5	0.9	6.88	<0.2	9.2	48.3	0.026	2.0	288	
161 (8892530)		1	7.43	<30	38	301	<5	0.6	5.47	<0.2	14.0	47.4	0.023	2.8	145	
162 (8892531)		1	5.44	<30	51	222	<5	3.0	4.30	<0.2	24.5	140	0.005	3.3	1380	
163 (8892532)		<1	7.62	<30	28	158	<5	0.7	5.73	0.7	37.2	98.3	0.006	2.5	272	
164 (8892533)		<1	7.38	<30	30	355	<5	0.6	7.99	<0.2	12.3	45.3	0.027	1.1	140	
165 (8892534)		1	7.15	<30	21	382	<5	9.4	2.25	<0.2	47.2	44.3	0.019	3.4	195	
166 (8892535)		1	6.55	<30	31	357	<5	7.4	2.09	<0.2	31.8	71.3	0.017	2.8	922	
167 (8892536)		1	4.59	<30	<20	270	<5	9.2	1.06	<0.2	29.9	47.0	0.020	3.2	109	
168 (8892537)		<1	7.37	<30	25	373	<5	5.0	5.20	<0.2	45.9	20.5	0.015	3.1	228	
Sample ID (AGAT ID)	Analyte: Unit: RDL:	Dy ppm 0.05	Er ppm 0.05	Eu ppm 0.05	Fe % 0.01	Ga ppm 0.01	Gd ppm 0.05	Ge ppm 1	Hf ppm 1	Ho ppm 0.05	In ppm 0.2	K % 0.05	La ppm 0.1	Li ppm 10	Lu ppm 0.05	
159 (8892528)		4.06	2.42	1.15	7.58	21.0	4.22	2	2	0.85	<0.2	0.38	17.8	19	0.34	
160 (8892529)		3.08	2.03	1.14	8.52	17.1	2.78	2	1	0.69	<0.2	0.83	3.7	35	0.31	
161 (8892530)		3.69	2.28	1.16	8.81	17.8	3.36	2	2	0.81	<0.2	1.27	6.2	72	0.34	
162 (8892531)		3.26	2.18	1.12	11.6	17.2	3.44	2	2	0.74	<0.2	0.86	13.3	37	0.30	
163 (8892532)		4.02	2.49	1.17	7.30	16.2	4.38	1	3	0.86	<0.2	0.61	16.7	32	0.37	
164 (8892533)		3.01	1.93	1.16	7.14	19.9	2.78	2	1	0.68	<0.2	0.64	4.7	43	0.30	
165 (8892534)		2.33	1.42	1.16	4.63	20.4	3.07	2	3	0.46	<0.2	1.28	23.0	37	0.23	
166 (8892535)		1.30	0.88	1.14	6.58	18.0	1.57	2	3	0.28	<0.2	1.24	17.6	29	0.16	
167 (8892536)		1.31	0.82	1.14	3.85	11.2	1.82	1	2	0.28	<0.2	1.06	15.7	29	0.12	
168 (8892537)		2.08	1.16	1.15	4.39	25.8	2.91	3	3	0.43	<0.2	1.25	21.8	41	0.21	

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T282407

PROJECT: MICHEL LAVOIE

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
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FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Nov 08, 2017		DATE RECEIVED: Nov 09, 2017					DATE REPORTED: Dec 06, 2017					SAMPLE TYPE: Rock				
Sample ID (AGAT ID)	Analyte: Unit: RDL:	Mg % 0.01	Mn ppm 10	Mo ppm 2	Nb ppm 1	Nd ppm 0.1	Ni ppm 5	P % 0.01	Pb ppm 5	Pr ppm 0.05	Rb ppm 0.2	S % 0.01	Sb ppm 0.1	Sc ppm 5	Si % 0.01	
159 (8892528)		2.09	1290	<2	3	16.3	24	0.05	11	4.09	16.8	0.57	0.3	32	24.9	
160 (8892529)		4.16	1670	<2	2	6.5	92	0.04	10	1.34	50.5	0.41	0.3	40	22.4	
161 (8892530)		4.03	1770	2	3	8.5	75	0.04	10	1.89	77.4	0.29	0.2	39	23.9	
162 (8892531)		3.23	1500	4	3	11.4	208	0.03	18	2.84	56.1	3.63	0.3	13	24.7	
163 (8892532)		2.65	1090	<2	5	18.1	48	0.11	28	4.47	40.8	1.30	0.3	32	25.0	
164 (8892533)		4.08	1240	<2	2	7.2	111	0.03	9	1.67	27.0	0.36	0.5	34	23.1	
165 (8892534)		1.62	673	<2	5	19.0	75	0.10	38	5.33	59.2	1.40	0.5	15	27.6	
166 (8892535)		1.44	652	<2	5	10.4	83	0.07	33	3.15	53.7	2.23	0.5	12	28.8	
167 (8892536)		1.04	383	2	3	11.4	51	0.08	24	3.26	41.0	1.52	0.5	8	32.4	
168 (8892537)		1.37	992	<2	5	18.0	57	0.14	34	5.09	55.9	0.23	0.8	11	28.8	
Sample ID (AGAT ID)	Analyte: Unit: RDL:	Sm ppm 0.1	Sn ppm 1	Sr ppm 0.1	Ta ppm 0.5	Tb ppm 0.05	Th ppm 0.1	Ti % 0.01	Tl ppm 0.5	Tm ppm 0.05	U ppm 0.05	V ppm 5	W ppm 1	Y ppm 0.5	Yb ppm 0.1	
159 (8892528)		3.8	4	627	<0.5	0.67	2.8	0.45	<0.5	0.34	0.97	212	1	25.9	2.3	
160 (8892529)		2.1	1	184	<0.5	0.49	0.4	0.54	<0.5	0.30	0.11	280	7	20.6	2.0	
161 (8892530)		2.5	2	171	<0.5	0.57	1.4	0.59	0.6	0.35	0.45	283	<1	24.9	2.2	
162 (8892531)		2.6	2	120	<0.5	0.53	4.2	0.21	1.5	0.30	1.57	83	1	32.6	1.9	
163 (8892532)		4.1	1	213	<0.5	0.70	3.0	0.71	<0.5	0.37	0.79	235	<1	27.2	2.4	
164 (8892533)		2.1	4	205	<0.5	0.49	0.3	0.45	<0.5	0.29	0.12	252	<1	20.8	1.9	
165 (8892534)		3.5	3	472	<0.5	0.44	8.3	0.29	<0.5	0.21	3.86	107	1	14.6	1.4	
166 (8892535)		1.8	3	417	<0.5	0.25	7.0	0.27	<0.5	0.14	2.36	112	<1	9.2	1.1	
167 (8892536)		1.9	2	239	<0.5	0.27	4.7	0.17	<0.5	0.12	1.72	50	<1	8.6	0.8	
168 (8892537)		3.2	4	447	<0.5	0.42	6.7	0.25	<0.5	0.19	3.74	135	<1	13.2	1.3	

Certified By:





## Certificate of Analysis

AGAT WORK ORDER: 17T282407

PROJECT: MICHEL LAVOIE

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Nov 08, 2017

DATE RECEIVED: Nov 09, 2017

DATE REPORTED: Dec 06, 2017

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Zn	Zr
	Unit:	ppm	ppm
	RDL:	5	0.5
159 (8892528)		97	73.1
160 (8892529)		133	49.1
161 (8892530)		154	65.8
162 (8892531)		118	90.6
163 (8892532)		222	125
164 (8892533)		78	42.6
165 (8892534)		76	106
166 (8892535)		71	95.0
167 (8892536)		50	64.4
168 (8892537)		65	85.8

Comments: RDL - Reported Detection Limit

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T282407

PROJECT: MICHEL LAVOIE

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 MISSISSAUGA, ONTARIO  
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 TEL (905)501-9998  
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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

DATE SAMPLED: Nov 08, 2017

DATE RECEIVED: Nov 09, 2017

DATE REPORTED: Dec 06, 2017

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Sample Login Weight	Au	Pd	Pt
	Unit:	kg	ppm	ppm	ppm
	RDL:	0.01	0.001	0.001	0.005
159 (8892528)			0.023	0.002	<0.005
160 (8892529)			0.003	0.006	<0.005
161 (8892530)			0.003	0.007	<0.005
162 (8892531)			0.002	0.001	<0.005
163 (8892532)			0.003	0.001	<0.005
164 (8892533)			<0.001	0.004	<0.005
165 (8892534)			0.008	0.004	<0.005
166 (8892535)			0.041	0.004	<0.005
167 (8892536)			0.011	0.008	<0.005
168 (8892537)			0.006	0.002	<0.005

Comments: RDL - Reported Detection Limit

Certified By:



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	REPLICATE #1				RPD														
	Sample ID	Original	Replicate	RPD															
Ag	8892528	2	1																
Al	8892528	7.71	7.82	1.4%															
As	8892528	< 30	< 30	0.0%															
B	8892528	28	28	0.0%															
Ba	8892528	84.1	84.7	0.7%															
Be	8892528	6	5	18.2%															
Bi	8892528	2.8	2.8	0.0%															
Ca	8892528	6.70	6.68	0.3%															
Cd	8892528	0.54	0.60	10.5%															
Ce	8892528	34.9	32.3	7.7%															
Co	8892528	41.4	41.3	0.2%															
Cr	8892528	0.0118	0.0105	11.7%															
Cs	8892528	0.83	0.96	14.5%															
Cu	8892528	1680	1740	3.5%															
Dy	8892528	4.06	3.83	5.8%															
Er	8892528	2.42	2.30	5.1%															
Fe	8892528	7.58	7.49	1.2%															
Ga	8892528	21.0	21.2	0.9%															
Gd	8892528	4.22	3.97	6.1%															
Ge	8892528	2	2	0.0%															
Hf	8892528	2	2	0.0%															
Ho	8892528	0.853	0.844	1.1%															
In	8892528	< 0.2	< 0.2	0.0%															
K	8892528	0.38	0.38	0.0%															
La	8892528	17.8	16.8	5.8%															
Li	8892528	19	20	5.1%															
Lu	8892528	0.342	0.345	0.9%															
Mg	8892528	2.09	2.18	4.2%															
Mn	8892528	1290	1300	0.8%															
Mo	8892528	< 2	< 2	0.0%															
Nb	8892528	3	3	0.0%															



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

Nd	8892528	16.3	15.0	8.3%																
Ni	8892528	24	23	4.3%																
P	8892528	0.05	0.05	0.0%																
Pb	8892528	11	11	0.0%																
Pr	8892528	4.09	3.87	5.5%																
Rb	8892528	16.8	16.5	1.8%																
S	8892528	0.57	0.57	0.0%																
Sb	8892528	0.32	0.24	28.6%																
Sc	8892528	32	33	3.1%																
Si	8892528	24.9	25.0	0.4%																
Sm	8892528	3.78	3.59	5.2%																
Sn	8892528	4	3	28.6%																
Sr	8892528	627	645	2.8%																
Ta	8892528	< 0.5	< 0.5	0.0%																
Tb	8892528	0.67	0.67	0.0%																
Th	8892528	2.77	2.73	1.5%																
Ti	8892528	0.452	0.455	0.7%																
Tl	8892528	< 0.5	< 0.5	0.0%																
Tm	8892528	0.34	0.34	0.0%																
U	8892528	0.969	0.942	2.8%																
V	8892528	212	213	0.5%																
W	8892528	1	1	0.0%																
Y	8892528	25.9	26.5	2.3%																
Yb	8892528	2.3	2.2	4.4%																
Zn	8892528	97	102	5.0%																
Zr	8892528	73.1	74.5	1.9%																

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	REPLICATE #1				RPD																	
	Sample ID	Original	Replicate	RPD																		
Au	8892528	0.0232	0.0276	17.3%																		
Pd	8892528	0.002	0.002	0.0%																		
Pt	8892528	< 0.005	< 0.005	0.0%																		



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	CRM #1 (ref.TILL-2)																	
	Expect	Actual	Recovery	Limits														
Al	8.47	7.97	94%	90% - 110%														
As	26	25	95%	90% - 110%														
Ba	540	509	94%	90% - 110%														
Be	4.0	3.6	90%	90% - 110%														
Ca	0.907	0.909	100%	90% - 110%														
Ce	98	96	98%	90% - 110%														
Co	15	14	93%	90% - 110%														
Cu	150	152	102%	90% - 110%														
Er	3.7	3.6	96%	90% - 110%														
Fe	3.77	3.48	92%	90% - 110%														
Hf	11	10	90%	90% - 110%														
K	2.55	2.36	93%	90% - 110%														
La	44	44	99%	90% - 110%														
Li	47	48	103%	90% - 110%														
Lu	0.6	0.5	86%	90% - 110%														
Mg	1.1	1	92%	90% - 110%														
Mn	780	738	95%	90% - 110%														
Mo	14	13	92%	90% - 110%														
Nb	20	17	85%	90% - 110%														
Ni	32	35	111%	90% - 110%														
Pb	31	33	105%	90% - 110%														
Rb	144	139	97%	90% - 110%														
Sb	0.8	0.8	104%	90% - 110%														
Sc	12	11	94%	90% - 110%														
Si	28.4	27.1	95%	90% - 110%														
Sm	7.4	7.1	96%	90% - 110%														
Sr	144	152	105%	90% - 110%														
Ta	1.9	1.7	89%	90% - 110%														
Tb	1.2	1.2	99%	90% - 110%														
Th	18.4	17.8	97%	90% - 110%														
Ti	0.527	0.491	93%	90% - 110%														



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

U	5.7	5.5	96%	90% - 110%												
V	77	80	104%	90% - 110%												
W	5	5	93%	90% - 110%												
Y	40	44	110%	90% - 110%												
Zn	130	124	95%	90% - 110%												
Zr	390	366	94%	90% - 110%												

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

CRM #1 (ref.PG129)																
Parameter	Expect	Actual	Recovery	Limits												
Au	1.1	1	90%	90% - 110%												
Pd	0.115	0.12	104%	90% - 110%												
Pt	0.239	0.24	100%	90% - 110%												



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON  
 PROJECT: MICHEL LAVOIE  
 SAMPLING SITE:

AGAT WORK ORDER: 17T282407  
 ATTENTION TO: MICHEL LAVOIE  
 SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Sample Login Weight	MIN-12009		BALANCE
Ag			ICP/MS
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/MS
B	MIN-200-12001		ICP/OES
Ba	MIN-200-12001		ICP/OES
Be	MIN-200-12001		ICP/OES
Bi	MIN-200-12001		ICP-MS
Ca	MIN-200-12001		ICP/OES
Cd	MIN-200-12001		ICP-MS
Ce	MIN-200-12001		ICP-MS
Co	MIN-200-12001		ICP/MS
Cr	MIN-200-12001		ICP/OES
Cs	MIN-200-12001		ICP-MS
Cu	MIN-200-12001		ICP/OES
Dy	MIN-200-12001		ICP-MS
Er	MIN-200-12001		ICP-MS
Eu	MIN-200-12001		ICP-MS
Fe	MIN-200-12001		ICP/OES
Ga	MIN-200-12001		ICP-MS
Gd	MIN-200-12001		ICP-MS
Ge	MIN-200-12001		ICP-MS
Hf	MIN-200-12001		ICP-MS
Ho	MIN-200-12001		ICP-MS
In	MIN-200-12001		ICP-MS
K	MIN-200-12001		ICP/OES
La	MIN-200-12001		ICP-MS
Li	MIN-200-12001		ICP/OES
Lu	MIN-200-12001		ICP-MS
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/MS
Nb	MIN-200-12001		ICP-MS
Nd	MIN-200-12001		ICP-MS
Ni	MIN-200-12001		ICP/OES
P			ICP/OES
Pb	MIN-200-12001		ICP/MS
Pr	MIN-200-12001		ICP-MS
Rb	MIN-200-12001		ICP/MS
S	MIN-200-12001		ICP/OES
Sb	MIN-200-12001		ICP-MS
Sc	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
Sm	MIN-200-12001		ICP-MS
Sn	MIN-200-12001		ICP/MS
Sr	MIN-200-12001		ICP-OES
Ta	MIN-200-12001		ICP-MS
Tb	MIN-200-12001		ICP-MS
Th	MIN-200-12001		ICP-MS



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON  
 PROJECT: MICHEL LAVOIE  
 SAMPLING SITE:

AGAT WORK ORDER: 17T282407  
 ATTENTION TO: MICHEL LAVOIE  
 SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Ti	MIN-200-12001		ICP/OES
Tl	MIN-200-12001		ICP-MS
Tm	MIN-200-12001		ICP-MS
U	MIN-200-12001		ICP-MS
V	MIN-200-12001		ICP/OES
W	MIN-200-12001		ICP-MS
Y	MIN-200-12001		ICP-MS
Yb	MIN-200-12001		ICP-MS
Zn	MIN-200-12001		ICP/OES
Zr	MIN-200-12001		ICP-MS
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES





CLIENT NAME: MISC AGAT CLIENT ON, ON

ATTENTION TO: MICHEL LAVOIE

PROJECT: MICHEL LAVOIE

AGAT WORK ORDER: 17T291172

SOLID ANALYSIS REVIEWED BY: Kevin Motomura, Data Review Supervisor

DATE REPORTED: Jan 16, 2018

PAGES (INCLUDING COVER): 11

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 17T291172

PROJECT: MICHEL LAVOIE

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Dec 03, 2017	DATE RECEIVED: Dec 04, 2017					DATE REPORTED: Jan 16, 2018					SAMPLE TYPE: Other				
Analyte:	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	
Unit:	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	
RDL:	1	0.01	5	20	0.5	5	0.1	0.05	0.2	0.1	0.5	0.005	0.1	5	
Sample ID (AGAT ID)															
169 (8951525)	<1	5.99	<5	35	293	<5	1.7	1.34	<0.2	19.2	37.3	<0.005	<0.1	19900	
170 (8951526)	<1	2.80	6	<20	168	<5	2.1	14.4	<0.2	12.5	14.4	<0.005	<0.1	21000	
171 (8951527)	<1	6.16	<5	43	301	<5	0.8	5.86	<0.2	28.0	30.9	<0.005	0.2	10100	
172 (8951528)	<1	4.14	<5	<20	204	<5	0.5	16.1	<0.2	20.2	23.6	<0.005	<0.1	5130	
173 (8951529)	<1	3.96	<5	25	234	<5	0.4	15.4	<0.2	20.9	17.0	<0.005	<0.1	5420	
174 (8951530)	<1	7.56	<5	48	212	<5	0.3	2.24	<0.2	25.8	36.8	<0.005	0.2	3610	
175 (8951531)	<1	4.99	<5	33	151	<5	0.2	15.7	<0.2	30.0	39.4	<0.005	0.2	5430	
176 (8951532)	<1	7.76	<5	50	252	<5	0.5	2.77	<0.2	18.9	27.0	<0.005	<0.1	1690	
177 (8951533)	<1	1.91	<5	<20	73.0	<5	0.3	28.4	<0.2	31.5	12.8	<0.005	<0.1	4520	
178 (8951534)	<1	7.02	<5	33	284	<5	0.5	6.71	<0.2	28.1	33.2	<0.005	<0.1	2040	
179 (8951535)	<1	9.41	<5	<20	252	<5	0.7	2.71	<0.2	47.4	25.1	<0.005	1.4	2080	
Analyte:	Dy	Er	Eu	Fe	Ga	Gd	Ge	Hf	Ho	In	K	La	Li	Lu	
Unit:	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
RDL:	0.05	0.05	0.05	0.01	0.01	0.05	1	1	0.05	0.2	0.05	0.1	10	0.05	
Sample ID (AGAT ID)															
169 (8951525)	3.48	1.66	1.14	9.72	18.0	3.70	1	1	0.63	0.3	1.94	10.2	21	0.19	
170 (8951526)	1.84	1.11	0.58	4.79	7.44	1.94	<1	<1	0.39	0.2	1.56	6.3	16	0.15	
171 (8951527)	2.72	1.53	1.15	7.42	16.3	3.24	1	1	0.53	<0.2	2.45	14.5	16	0.19	
172 (8951528)	3.46	1.94	1.18	5.08	10.8	3.96	<1	<1	0.70	<0.2	1.61	10.3	<10	0.25	
173 (8951529)	2.84	1.61	1.04	4.63	10.3	3.39	<1	<1	0.58	<0.2	1.76	10.5	11	0.21	
174 (8951530)	3.54	1.71	1.32	11.0	24.0	3.88	2	2	0.65	<0.2	1.51	14.0	25	0.20	
175 (8951531)	3.30	1.62	1.53	7.50	22.1	4.02	2	2	0.62	<0.2	0.91	16.3	15	0.19	
176 (8951532)	4.58	2.45	1.73	10.5	14.8	5.49	1	1	0.94	<0.2	1.76	9.2	23	0.30	
177 (8951533)	8.21	3.84	3.59	3.24	5.88	11.8	<1	<1	1.52	0.2	0.47	14.0	<10	0.37	
178 (8951534)	3.08	1.71	1.40	7.77	17.5	3.96	1	2	0.60	<0.2	2.23	14.4	16	0.21	
179 (8951535)	3.37	1.58	0.66	1.41	21.3	3.66	1	4	0.61	<0.2	1.09	25.2	<10	0.25	

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T291172

PROJECT: MICHEL LAVOIE

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Dec 03, 2017	DATE RECEIVED: Dec 04, 2017					DATE REPORTED: Jan 16, 2018					SAMPLE TYPE: Other				
Analyte:	Mg	Mn	Mo	Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Sc	Si	
Unit:	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%	
RDL:	0.01	10	2	1	0.1	5	0.01	5	0.05	0.2	0.01	0.1	5	0.01	
169 (8951525)	2.68	1680	<2	2	13.0	84	0.03	<5	2.89	65.3	1.87	0.3	31	26.6	
170 (8951526)	0.88	1070	<2	<1	7.3	32	0.01	<5	1.63	49.8	2.58	0.3	13	20.9	
171 (8951527)	2.09	1320	<2	2	14.8	77	0.03	6	3.44	79.0	1.30	0.2	28	24.6	
172 (8951528)	1.44	1640	<2	<1	13.1	50	0.02	<5	2.75	53.8	1.00	0.2	26	18.4	
173 (8951529)	1.36	1410	<2	<1	12.0	48	0.02	<5	2.68	58.4	0.93	0.2	22	19.8	
174 (8951530)	3.44	1930	<2	2	14.5	109	0.03	<5	3.45	46.3	0.39	0.4	33	24.3	
175 (8951531)	2.40	2060	<2	2	16.7	67	0.02	<5	3.79	53.3	0.93	0.3	35	16.5	
176 (8951532)	3.51	1810	<2	1	14.0	98	0.04	<5	2.73	30.8	0.24	0.2	36	24.6	
177 (8951533)	0.96	3010	<2	<1	26.7	28	0.01	<5	4.74	15.5	1.10	0.1	34	7.62	
178 (8951534)	2.51	1610	<2	2	16.0	82	0.04	<5	3.56	72.6	0.51	0.2	36	23.9	
179 (8951535)	0.24	403	2	20	19.3	17	0.02	27	5.16	73.3	0.52	0.1	5	31.5	
Analyte:	Sm	Sn	Sr	Ta	Tb	Th	Ti	Tl	Tm	U	V	W	Y	Yb	
Unit:	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
RDL:	0.1	1	0.1	0.5	0.05	0.1	0.01	0.5	0.05	0.05	5	1	0.5	0.1	
169 (8951525)	3.3	<1	31.1	<0.5	0.57	1.4	0.45	<0.5	0.22	0.53	197	8	16.4	1.4	
170 (8951526)	1.6	<1	72.8	<0.5	0.28	0.6	0.17	<0.5	0.15	0.29	81	1	12.5	1.0	
171 (8951527)	3.1	<1	44.0	<0.5	0.45	1.5	0.40	<0.5	0.20	0.78	187	<1	14.5	1.3	
172 (8951528)	3.3	<1	85.9	<0.5	0.58	1.0	0.26	<0.5	0.25	0.50	132	4	21.2	1.7	
173 (8951529)	2.8	<1	88.1	<0.5	0.48	1.0	0.27	<0.5	0.21	0.55	120	<1	17.7	1.4	
174 (8951530)	3.4	<1	38.2	<0.5	0.55	1.8	0.48	<0.5	0.22	0.79	264	<1	16.2	1.5	
175 (8951531)	3.9	<1	110	<0.5	0.58	1.8	0.31	<0.5	0.24	0.68	174	<1	15.8	1.5	
176 (8951532)	4.1	<1	59.4	<0.5	0.79	1.1	0.48	<0.5	0.30	0.40	250	<1	26.2	2.0	
177 (8951533)	8.2	<1	107	<0.5	1.52	0.4	0.11	<0.5	0.46	0.14	66	<1	46.8	2.7	
178 (8951534)	3.6	<1	54.7	<0.5	0.54	1.7	0.46	<0.5	0.23	0.76	211	1	15.6	1.5	
179 (8951535)	3.7	2	88.6	4.7	0.58	27.4	0.08	<0.5	0.24	6.43	14	<1	16.6	1.7	

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T291172

PROJECT: MICHEL LAVOIE

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Dec 03, 2017

DATE RECEIVED: Dec 04, 2017

DATE REPORTED: Jan 16, 2018

SAMPLE TYPE: Other

Sample ID (AGAT ID)	Analyte:	Zn	Zr
	Unit:	ppm	ppm
	RDL:	5	0.5
169 (8951525)		89	48.9
170 (8951526)		31	19.6
171 (8951527)		86	50.7
172 (8951528)		48	32.2
173 (8951529)		48	32.5
174 (8951530)		120	54.0
175 (8951531)		86	55.9
176 (8951532)		127	35.5
177 (8951533)		30	13.3
178 (8951534)		94	52.8
179 (8951535)		12	102

Comments: RDL - Reported Detection Limit

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 17T291172

PROJECT: MICHEL LAVOIE

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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

DATE SAMPLED: Dec 03, 2017      DATE RECEIVED: Dec 04, 2017      DATE REPORTED: Jan 16, 2018      SAMPLE TYPE: Other

Analyte:	Sample Login Weight	Au	Pd	Pt
Unit:	kg	ppm	ppm	ppm
Sample ID (AGAT ID)	RDL:	0.01	0.001	0.001
169 (8951525)	0.818	0.030	<0.001	<0.005
170 (8951526)	0.748	0.001	<0.001	<0.005
171 (8951527)	0.857	0.022	<0.001	<0.005
172 (8951528)	2.445	0.002	<0.001	<0.005
173 (8951529)	1.236	0.011	<0.001	<0.005
174 (8951530)	1.630	0.010	<0.001	<0.005
175 (8951531)	1.296	0.014	<0.001	<0.005
176 (8951532)	2.061	0.012	<0.001	<0.005
177 (8951533)	1.689	0.009	<0.001	<0.005
178 (8951534)	1.746	0.008	<0.001	<0.005
179 (8951535)	2.394	0.057	<0.001	<0.005

Comments: RDL - Reported Detection Limit

Certified By:



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	REPLICATE #1				RPD													
	Sample ID	Original	Replicate	RPD														
Ag	8951525	< 1	< 1	0.0%														
Al	8951525	5.99	6.04	0.8%														
As	8951525	< 5	< 5	0.0%														
B	8951525	35	40	13.3%														
Ba	8951525	293	293	0.0%														
Be	8951525	< 5	< 5	0.0%														
Bi	8951525	1.7	2.4															
Ca	8951525	1.34	1.36	1.5%														
Cd	8951525	< 0.2	0.5															
Ce	8951525	19.2	19.9	3.6%														
Co	8951525	37.3	37.7	1.1%														
Cr	8951525	< 0.005	< 0.005	0.0%														
Cs	8951525	< 0.1	< 0.1	0.0%														
Cu	8951525	19900	19900	0.0%														
Dy	8951525	3.48	3.57	2.6%														
Er	8951525	1.66	1.70	2.4%														
Eu	8951525	1.14	1.19	4.3%														
Fe	8951525	9.72	9.89	1.7%														
Ga	8951525	18.0	17.6	2.2%														
Gd	8951525	3.70	3.99	7.5%														
Ge	8951525	1	1	0.0%														
Hf	8951525	1	1	0.0%														
Ho	8951525	0.63	0.66	4.7%														
In	8951525	0.3	0.5															
K	8951525	1.94	1.98	2.0%														
La	8951525	10.2	10.7	4.8%														
Li	8951525	21	22	4.7%														
Lu	8951525	0.19	0.19	0.0%														
Mg	8951525	2.68	2.63	1.9%														
Mn	8951525	1680	1680	0.0%														
Mo	8951525	< 2	< 2	0.0%														



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

Nb	8951525	2	2	0.0%															
Nd	8951525	13.0	13.5	3.8%															
Ni	8951525	84	86	2.4%															
P	8951525	0.03	0.03	0.0%															
Pb	8951525	< 5	< 5	0.0%															
Pr	8951525	2.89	2.95	2.1%															
Rb	8951525	65.3	65.6	0.5%															
S	8951525	1.87	1.88	0.5%															
Sb	8951525	0.34	0.41	18.7%															
Sc	8951525	31	31	0.0%															
Si	8951525	26.6	26.7	0.4%															
Sm	8951525	3.3	3.5	5.9%															
Sn	8951525	< 1	< 1	0.0%															
Sr	8951525	31.1	30.9	0.6%															
Ta	8951525	< 0.5	< 0.5	0.0%															
Tb	8951525	0.57	0.60	5.1%															
Th	8951525	1.45	1.56	7.3%															
Ti	8951525	0.45	0.45	0.0%															
Tl	8951525	< 0.5	< 0.5	0.0%															
Tm	8951525	0.22	0.22	0.0%															
U	8951525	0.531	0.575	8.0%															
V	8951525	197	197	0.0%															
W	8951525	8	9	11.8%															
Y	8951525	16.4	16.8	2.4%															
Yb	8951525	1.39	1.46	4.9%															
Zn	8951525	89	90	1.1%															
Zr	8951525	48.9	47.6	2.7%															

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	REPLICATE #1				RPD															
	Sample ID	Original	Replicate	RPD																
Au	8951525	0.030	0.037	20.9%																
Pd	8951525	< 0.001	< 0.001	0.0%																
Pt	8951525	< 0.005	< 0.005	0.0%																



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	CRM #1 (ref.SY-4)																
	Expect	Actual	Recovery	Limits													
Al	10.95	11.15	102%	90% - 110%													
Ba	340	343	101%	90% - 110%													
Be	2.6	2.7	102%	90% - 110%													
Ca	5.72	5.9	103%	90% - 110%													
Ce	122	116	95%	90% - 110%													
Co	2.8	2.3	82%	90% - 110%													
Cs	1.5	1.4	91%	90% - 110%													
Cu	7	8	121%	90% - 110%													
Dy	18.2	19	105%	90% - 110%													
Er	14.2	14	98%	90% - 110%													
Eu	2.0	1.8	92%	90% - 110%													
Fe	4.34	4.28	99%	90% - 110%													
Ga	35	36	104%	90% - 110%													
Gd	14	14	103%	90% - 110%													
Hf	10.6	11	104%	90% - 110%													
Ho	4.3	4.5	104%	90% - 110%													
K	1.37	1.4	102%	90% - 110%													
La	58	57	99%	90% - 110%													
Li	37	37	99%	90% - 110%													
Lu	2.1	2	96%	90% - 110%													
Mg	0.325	0.323	99%	90% - 110%													
Mn	836	858	103%	90% - 110%													
Nb	13	12	93%	90% - 110%													
Nd	57	60	105%	90% - 110%													
Pb	10	11	106%	90% - 110%													
Pr	15.0	15.2	102%	90% - 110%													
Rb	55	51	94%	90% - 110%													
Si	23.3	24.4	105%	90% - 110%													
Sm	12.7	12.9	102%	90% - 110%													
Sn	7.1	7.8	109%	90% - 110%													
Sr	1191	1200	101%	90% - 110%													





CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: MICHEL LAVOIE

Ta	0.9	0.7	75%	90% - 110%												
Tb	2.6	2.6	101%	90% - 110%												
Th	1.4	1.2	87%	90% - 110%												
Ti	0.172	0.174	101%	90% - 110%												
Tm	2.3	2.3	100%	90% - 110%												
U	0.8	0.8	99%	90% - 110%												
V	8	9	119%	90% - 110%												
Y	119	114	96%	90% - 110%												
Yb	14.8	15	101%	90% - 110%												
Zn	93	98	105%	90% - 110%												
Zr	517	573	110%	90% - 110%												

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

Parameter	CRM #1 (ref.PG129)															
	Expect	Actual	Recovery	Limits												
Au	1.1	1.1	100%	90% - 110%												
Pd	0.115	0.124	108%	90% - 110%												
Pt	0.239	0.250	105%	90% - 110%												



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON  
 PROJECT: MICHEL LAVOIE  
 SAMPLING SITE:

AGAT WORK ORDER: 17T291172  
 ATTENTION TO: MICHEL LAVOIE  
 SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Ag			ICP/MS
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/MS
B	MIN-200-12001		ICP/OES
Ba	MIN-200-12001		ICP/OES
Be	MIN-200-12001		ICP/OES
Bi	MIN-200-12001		ICP-MS
Ca	MIN-200-12001		ICP/OES
Cd	MIN-200-12001		ICP-MS
Ce	MIN-200-12001		ICP-MS
Co	MIN-200-12001		ICP/MS
Cr	MIN-200-12001		ICP/OES
Cs	MIN-200-12001		ICP-MS
Cu	MIN-200-12001		ICP/OES
Dy	MIN-200-12001		ICP-MS
Er	MIN-200-12001		ICP-MS
Eu	MIN-200-12001		ICP-MS
Fe	MIN-200-12001		ICP/OES
Ga	MIN-200-12001		ICP-MS
Gd	MIN-200-12001		ICP-MS
Ge	MIN-200-12001		ICP-MS
Hf	MIN-200-12001		ICP-MS
Ho	MIN-200-12001		ICP-MS
In	MIN-200-12001		ICP-MS
K	MIN-200-12001		ICP/OES
La	MIN-200-12001		ICP-MS
Li	MIN-200-12001		ICP/OES
Lu	MIN-200-12001		ICP-MS
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/MS
Nb	MIN-200-12001		ICP-MS
Nd	MIN-200-12001		ICP-MS
Ni	MIN-200-12001		ICP/OES
P			ICP/OES
Pb	MIN-200-12001		ICP/MS
Pr	MIN-200-12001		ICP-MS
Rb	MIN-200-12001		ICP/MS
S	MIN-200-12001		ICP/OES
Sb	MIN-200-12001		ICP-MS
Sc	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
Sm	MIN-200-12001		ICP-MS
Sn	MIN-200-12001		ICP/MS
Sr	MIN-200-12001		ICP-OES
Ta	MIN-200-12001		ICP-MS
Tb	MIN-200-12001		ICP-MS
Th	MIN-200-12001		ICP-MS
Ti	MIN-200-12001		ICP/OES

## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 17T291172

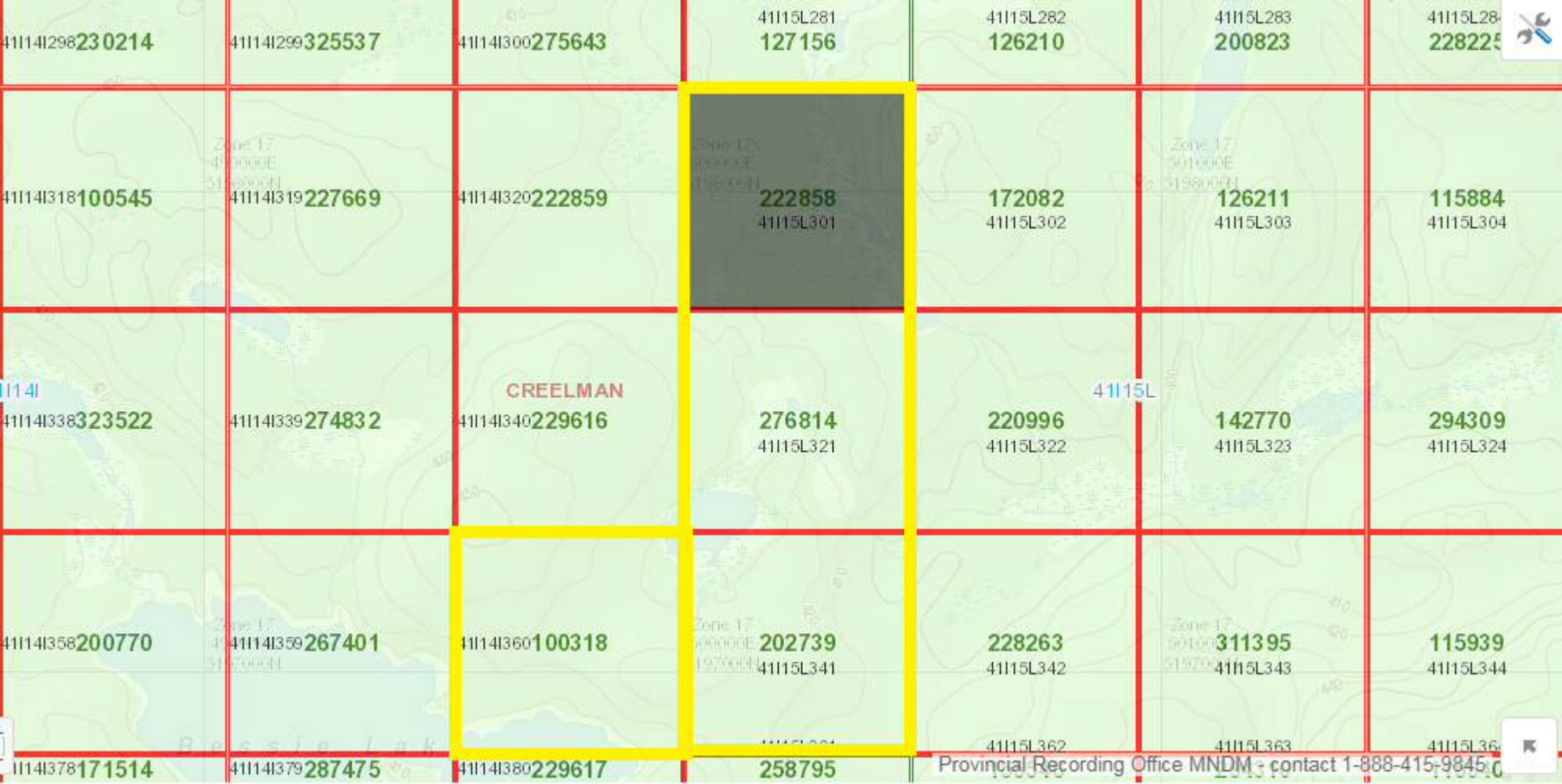
PROJECT: MICHEL LAVOIE

ATTENTION TO: MICHEL LAVOIE

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Tl	MIN-200-12001		ICP-MS
Tm	MIN-200-12001		ICP-MS
U	MIN-200-12001		ICP-MS
V	MIN-200-12001		ICP/OES
W	MIN-200-12001		ICP-MS
Y	MIN-200-12001		ICP-MS
Yb	MIN-200-12001		ICP-MS
Zn	MIN-200-12001		ICP/OES
Zr	MIN-200-12001		ICP-MS
Sample Login Weight	MIN-12009		BALANCE
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES



41114I298**230214**

41114I299**325537**

41114I300**275643**

41115L281  
**127156**

41115L282  
**126210**

41115L283  
**200823**

41115L284  
**228225**

41114I318**100545**

41114I319**227669**

41114I320**222859**

**222858**  
41115L301

**172082**  
41115L302

**126211**  
41115L303

**115884**  
41115L304

41114I338**323522**

41114I339**274832**

**CREELMAN**  
41114I340**229616**

**276814**  
41115L321

**220996**  
41115L322

**142770**  
41115L323

**294309**  
41115L324

41114I358**200770**

41114I359**267401**

41114I360**100318**

**202739**  
41115L341

**228263**  
41115L342

**311395**  
41115L343

**115939**  
41115L344

41114I378**171514**

41114I379**287475**

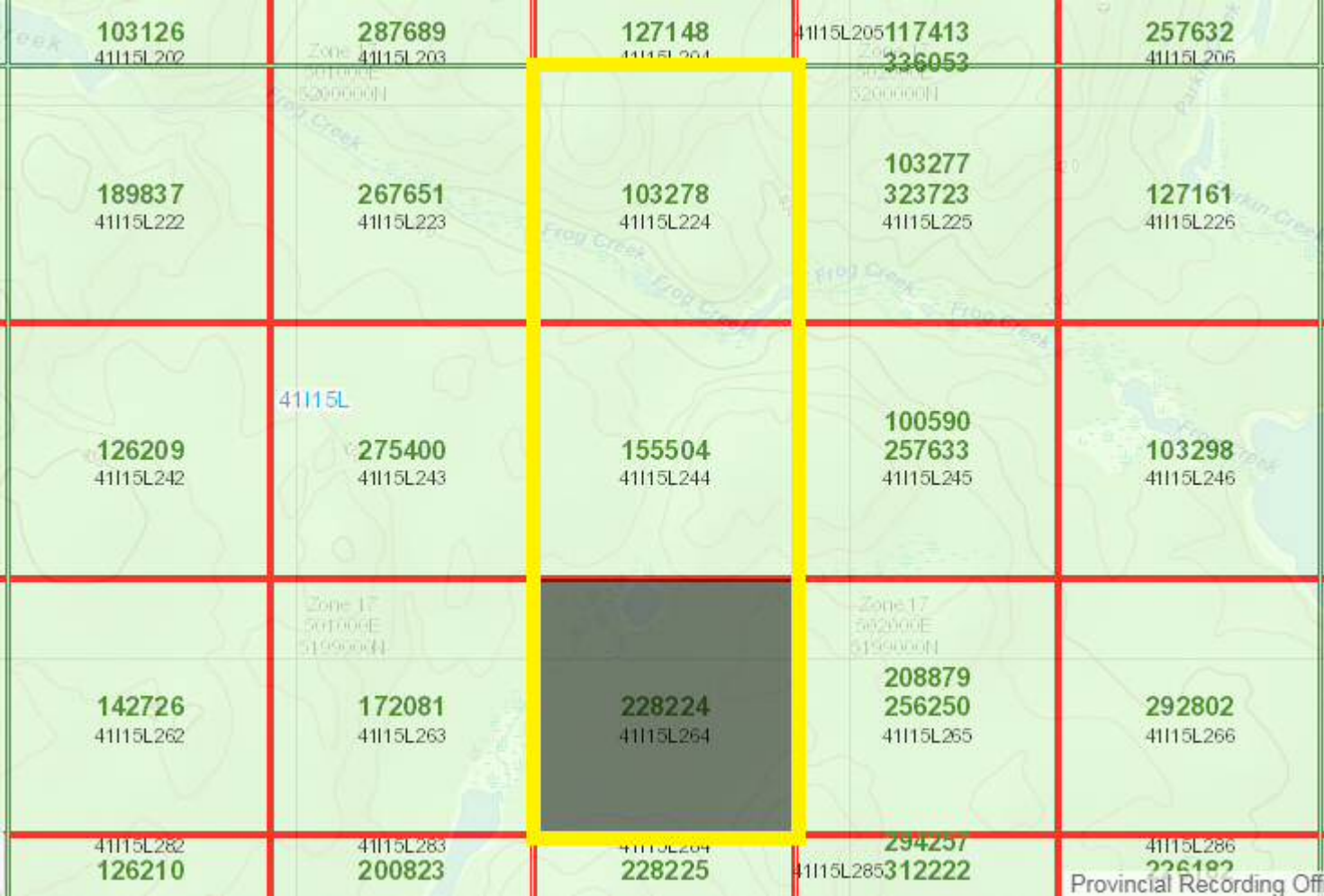
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**258795**

41115L362

41115L363

41115L364



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287689

127148

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257632

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41115L222

267651  
41115L223

103278  
41115L224

103277  
323723  
41115L225

127161  
41115L226

CREELMAN

126209  
41115L242

275400  
41115L243

155504  
41115L244

100590  
257633  
41115L245

103298  
41115L246

142726  
41115L262

172081  
41115L263

228224  
41115L264

208879  
256250  
41115L265

292802  
41115L266

41115L282

41115L283

41115L284

294257

41115L286

want to...



**126209**  
41115L242

**275400**  
41115L243

**155504**  
41115L244

41115L245  
**257633**  
**100590**

**103298**  
41115L246

**323724**  
41115L247

**142726**  
41115L262

**172081**  
41115L263

**228224**  
41115L264

41115L265  
**208879**  
**256250**

**292802**  
41115L266

**305470**  
41115L267

41115L

CREELMAN

**126210**  
41115L282

**200823**  
41115L283

**228225**  
41115L284

41115L285  
**294257**  
**312222**

**226182**  
41115L286

**312221**  
41115L287

41115L302  
**172082**

41115L303  
**126211**

41115L304  
**115884**

41115L305  
**287530**  
**226183**

41115L306  
**219362**

41115L307  
**305471**

0 0.15 0.3km

1:500





I want to...

41115L243  
275400

41115L244  
155504

41115L245  
257633  
100590

41115L246  
103298

41115L247  
323721

41115L

CREELMAN

0 0.15 0.3km

1:500





< I want to... 42

41115L243  
275400

41115L244  
155504

41115L245  
257633  
100590

41115L246  
103298

41115L247  
323721



41115L

CREELMAN



0 0.15 0.3km

1:500



I want to...



I want to...



1:500





**PDF File Name**

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**Content**

Pictures 1 Conglomerate Boulders with pseudotachylite  
Pictures 2 Conglomerate Boulders  
Pictures 3 Glossy conglomerate  
Pictures 4 Mega conglomerate - breccia  
Pictures 5 Banded gneiss  
Pictures 6 Iron and Conglomerate  
Pictures 7 Mineralization & greywacke & Sample 1  
Pictures 8 Conglomerate  
Pictures 9 Mega Conglomerate  
Pictures 10 Mega conglomerate  
Pictures 11 Pseudotachylite  
Pictures 12 Large Quartz veins  
Pictures 13 Quartz & Sample 5  
Pictures 14 Conglomerate  
Pictures 15 Conglomerate & raised quartz

<b><u>PDF File Name</u></b>	<b><u>Content</u></b>
20000017086_03	Pictures 16 Porphyry
20000017086_03	Pictures 17 Mega Conglomerate
20000017086_03	Pictures 18 Conglomerates
20000017086_03	Pictures 19 Conglomerates
20000017086_03	Pictures 20 Conglomerates
20000017086_03	Pictures 21 Conglomerates
20000017086_03	Pictures 22 Breccia in Bedrock
20000017086_03	Pictures 23 Sedimentary with pyrite
20000017086_03	Pictures 24 Greywackey
20000017086_03	Pictures 25 Conglomerate
20000017086_03	Pictures 26 Conglomerate
20000017086_03	Pictures 27 Conglomerate
20000017086_03	Pictures 28 Conglomerate
20000017086_03	Pictures 29 Conglomerate
20000017086_03	Pictures 30 Conglomerate boulder
20000017086_03	Pictures 31 Conglomerate
20000017086_03	Pictures 32 Rusty Undifferentiated
20000017086_03	Pictures 33 Mega conglomerate boulder
20000017086_03	Pictures 34 Conglomerate & Quartz
20000017086_03	Pictures 35 Conglomerates
20000017086_03	Pictures 36 Conglomerate & Undifferentiated
20000017086_03	Pictures 37 Hematite & Pyrite
<i>Pictures 38 not provided</i>	<i>Pictures 38 not provided</i>
20000017086_03	Pictures 39 Conglomerate & lines
20000017086_03	Pictures 40 Conglomerate Boulders
20000017086_03	Pictures 41 Yellow Boulders
20000017086_03	Pictures 42 Conglomerate
20000017086_03	Pictures 43 Porphyry
20000017086_03	Pictures 44 Large quartz veins
20000017086_03	Pictures 45 Porphyry & pink dikes

<b><u>PDF File Name</u></b>	<b><u>Content</u></b>
20000017086_04	Pictures 46 Mega conglomerate
20000017086_04	Pictures 47 Mega conglomerate & swirl
20000017086_04	Pictures 48 Breccia & quartz veins
20000017086_04	Pictures 49 Breccia & Greywackey
20000017086_04	Pictures 50 Conglomerate & rust
20000017086_04	Pictures 51 Large white quartz
20000017086_04	Pictures 52 Conglomerate & lots of lines
20000017086_04	Pictures 53 Large quartz veins
20000017086_04	Pictures 54 Large quartz veins
20000017086_04	Pictures 55 Epidote & stringers
20000017086_04	Pictures 56 Conglomerate & Stringers
<i>Pictures 57 not provided</i>	<i>Pictures 57 not provided</i>
20000017086_04	Pictures 58 Conglomerate
<i>Pictures 59 not provided</i>	<i>Pictures 59 not provided</i>
20000017086_04	Pictures 60 Porphyry
20000017086_04	Pictures 61 White quartz vein
20000017086_04	Pictures 62 like banded gneiss area
20000017086_04	Pictures 63 Conglomerate
20000017086_04	Pictures 64 Mega Conglomerate & contact
20000017086_04	Pictures 65 Porphyry
20000017086_04	Pictures 66 Breccia & fault line
20000017086_04	Pictures 67 Conglomerate
20000017086_04	Pictures 68 Breccia & conglomerate
20000017086_04	Pictures 69 Breccia & Conglomerate
20000017086_04	Pictures 70 Conglomerate & Pillow lava
20000017086_04	Pictures 71 Rusty quart
20000017086_04	Pictures 72 Conglomerate
20000017086_04	Pictures 73 Conglomerate & stringers
20000017086_04	Pictures 74 Conglomerate
20000017086_04	Pictures 75 Large conglomerate
20000017086_04	Pictures 76 Conglomerate & stringers
20000017086_04	Pictures 77 Mega small conglomerate

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**Content**

Pictures 78 Flaky mega small conglomerate  
Pictures 79 Conglomerate  
Pictures 80 tectonic foliation and lineation  
Pictures 81 Horneblend Biotite Schist  
Pictures 82 Edge of porphyry  
Pictures 83 Mega conglomerate  
Pictures 84 Porphyritic quartz monzonite  
Pictures 85 Porphyry & quartz on top  
Pictures 86 Porphyry & quartz vein  
Pictures 87 Conglomerate  
Pictures 88 Undifferentiated & yellow mineralized stringers  
Pictures 89 Porphyry  
Pictures 90 Breccia & large quartz  
Pictures 91 Finely bedded argillite  
Pictures 92 Finely bedded argillite  
Pictures 93 Quartz diabase & Conglomerate  
Pictures 94 Polymictic conglomerate  
Pictures 95 Polymictic conglomerate  
Pictures 96 Porphyry  
Pictures 97 Polymictic conglomerate  
Pictures 98 Polymictic conglomerate  
Pictures 99 Porphyry



<b><u>PDF File Name</u></b>	<b><u>Content</u></b>
20000017086_06	Pictures 100 Porphyry & Conglomerate
20000017086_06	Pictures 101 Porphyry
20000017086_06	Pictures 102 Porphyry
20000017086_06	Pictures 103 Porphyry & basalt
20000017086_06	Pictures 104 Porphyry
20000017086_06	Pictures 105 Porphyry
20000017086_06	Pictures 106 Porphyry
20000017086_06	Pictures 107 Porphyry
20000017086_06	Pictures 108 Porphyry & Pink Dike
20000017086_06	Pictures 109 Porphyry & Pink Dike
20000017086_06	Pictures 110 Porphyry
20000017086_06	Pictures 111 Polymictic conglomerate
20000017086_06	Pictures 112 Quartz pebble in boulder
20000017086_06	Pictures 113 Epidote Pyrite conglomerate & area of Sample 23
20000017086_06	Pictures 114 Hornblende biotite schist
20000017086_06	Pictures 115 Hornblende biotite schist
20000017086_06	Pictures 116 Porphyry & Rust
20000017086_06	Pictures 117 Porphyry
20000017086_06	Pictures 118 Porphyry
20000017086_06	Pictures 119 Porphyry
20000017086_06	Pictures 120 Porphyry
20000017086_06	Pictures 121 Porphyry & dike
20000017086_06	Pictures 122 Porphyry epidote & dike
20000017086_06	Pictures 123 Conglomerate lines & Contact zone
20000017086_06	Pictures 124 Hornblende biotite schist
20000017086_06	Pictures 125 Hornblende biotite schist
20000017086_06	Pictures 126 Polymictic conglomerate
20000017086_06	Pictures 127 Diorite & rust
20000017086_06	Pictures 128 Mineralized Diorite boulder
<i>Pictures 129 not provided</i>	<i>Pictures 129 not provided</i>
20000017086_06	Pictures 130 Real Sudbury Breccia
20000017086_06	Pictures 131 Polymictic Conglomerate
20000017086_06	Pictures 132 Breccia - greywacke - dike
20000017086_06	Pictures 133 Conglomerates - Breccia
20000017086_06	Pictures 134 Mineralized Undifferentiated
20000017086_06	Pictures 135 Sample 7 & 20 amphibolite - gabbro

<b><u>PDF File Name</u></b>	<b><u>Content</u></b>
20000017086_07	Pictures 136 Sample 4 & 12 Pegmatite - metavolcanics
20000017086_07	Pictures 137 Sudbury Breccia - Pegmatite
20000017086_07	Pictures 138 metavolcanics - epidote
20000017086_07	Pictures 139 metavolcanics & diorite
20000017086_07	Pictures 140 Arkose & Quartz & Green chlorite
20000017086_07	Pictures 141 Mineralized metavolcanics
20000017086_07	Pictures 142 Pink sedimentary Hydrothermal boulder
20000017086_07	Pictures 143 Porphyry (Orthoclase) & dike
20000017086_07	Pictures 144 Mineralized greywacke & Sample 6
20000017086_07	Pictures 145 Porphyry
20000017086_07	Pictures 146 bedded arkose
20000017086_07	Pictures 147 bedded arkose greywacke quartz veins
20000017086_07	Pictures 148 Mineralization in undifferentiated
20000017086_07	Pictures 149 Pebble boulder
20000017086_07	Pictures 150 Boulders - porphyry - contact
20000017086_07	Pictures 151 Porphyry and Pebbles
20000017086_07	Pictures 152 Porphyry pyrite & xenoliths
20000017086_08	Pictures 153 Porphyry & quartz veins
20000017086_08	Pictures 154 Porphyry
20000017086_08	Pictures 155 Porphyry & rust
20000017086_08	Pictures 156 Porphyry & rust
20000017086_08	Pictures 157 Porphyry
20000017086_08	Pictures 158 Porphyry
20000017086_08	Pictures 159 Porphyry
20000017086_08	Pictures 160 Porphyry & contact & dike
20000017086_08	Pictures 161 Porphyry
20000017086_08	Pictures 162 Porphyry & pink dike & basalt
20000017086_08	Pictures 163 Porphyry
20000017086_08	Pictures 164 Porphyry
20000017086_08	Pictures 165 Mega conglomerate - enclave fragment - porphyry

<b><u>PDF File Name</u></b>	<b><u>Content</u></b>
20000017086_09	Pictures 166 mega conglomerate & mineral balls
20000017086_09	Pictures 167 Finely bedded argillite & conglomerates
20000017086_09	Pictures 168 Argillite & basalt intrusion
20000017086_09	Pictures 169 greywacke & Undifferentiated
20000017086_09	Pictures 170 Greywacke & Mineralization Sample 3 & 8
20000017086_09	Pictures 171 Arkose & Quartz & Green Chlorite
20000017086_09	Pictures 172 argillite & conglomerate & greywacke & quartz & epi
20000017086_09	Pictures 173 Undifferentiated & Quartz dike & green chlorite & s
20000017086_09	Pictures 174 Malachite like & conglomerate boulders
20000017086_09	Pictures 175 Arkose & Quartz & Chlorite & Sample 2
20000017086_09	Pictures 176 Quartz & fractures
20000017086_09	Pictures 177 Porphyry & pink dike
20000017086_09	Pictures 178 Porphyry & pink dike & Quartz
20000017086_09	Pictures 179 Excavation of conglomerate with enclave
20000017086_09	Pictures 180 Mineralized greywacke & samples 1
20000017086_09	Pictures 181 Argillite & undifferentiated & Quartz & green chlor
20000017086_09	Pictures 182 Excavation & quartz & fault & green chlorite
20000017086_09	Pictures 183 Edge of porphyry with greenish looking stringers
20000017086_09	Pictures 184 Contact & quartz monzonite
20000017086_09	Pictures 185 Pegmatite & granite
20000017086_09	Pictures 186 White and Brown Quartz & granite
20000017086_09	Pictures 187 Pegmatite & mica boulder
20000017086_09	Pictures 188 quartz & granite
20000017086_09	Pictures 189 Diorite & Quartz
20000017086_09	Pictures 190 Porphyry & contact
20000017086_09	Pictures 191 Porphyry
20000017086_09	Pictures 192 Contact & excavation & greywacke & Quartz & maybe M
20000017086_09	Pictures 193 Large epidote & quartz monzonite
20000017086_09	Pictures 194 Large epidote & pike dikes & quartz monzonite
20000017086_09	Pictures 195 argillite & green chlorite & Pyrite
20000017086_09	Pictures 196 Epidote & Conglomerates
20000017086_09	Pictures 197 Diorite & contact & quartz
20000017086_09	Pictures 198 Diorite & Quartz & orange dike & contact
20000017086_09	Pictures 199 contact & Gabbro & argillite
20000017086_09	Pictures 200 Contaminated water
20000017086_09	Pictures 201 greywacke & diorite & Quartz & epidote
20000017086_09	Pictures 202 greywacke & quartz monzonite
20000017086_09	Pictures 203 undifferentiated & stringers
20000017086_09	Pictures 204 undifferentiated
20000017086_09	Pictures 205 Conglomerates with elongated shapes & undifferentia

<b><u>PDF File Name</u></b>	<b><u>Content</u></b>
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