

We are committed to providing <u>accessible customer service</u>. If you need accessible formats or communications supports, please <u>contact us</u>.

Nous tenons à améliorer <u>l'accessibilité des services à la clientèle</u>. Si vous avez besoin de formats accessibles ou d'aide à la communication, veuillez <u>nous contacter</u>.



Assessment Report Based on the 2022 Geological Mapping Program

Warrior Copper Project

Unwin, Stull, Leask, and Valin Townships

Chris Verzyden, P.Geo Senior Project Geologist Exploration Services October 2022



Summary

This report describes the work completed by KGHM in 2022 for the field geological mapping and sampling program.

The field program was completed in 5 days between September 1st and September 29th, 2022 in the Leask and Valin townships. A total of 215 sites were recorded, which included 89 outcrops, 11 subcrops and 115 float specimens. Detailed information was captured for 42 sites, with additional samples collected to be analyzed at a later date.

Locational data for the soil sampling and outcrop mapping programs was recorded in the NAD83 UTM 17N coordinate system using handheld GPS units.

High resolution imagery was obtained from SkyWatch Space Applications Inc. in order to assist in identifying outcrops in areas of interest prior to the field program.

The total expenditures for the work reported herein were CAD\$29,669.



Table of Contents

Summary1
List of Figures
List of Tables4
Introduction5
Property Location and Access5
Claim Status6
Property Geology8
History12
Outcrop Mapping Program13
Introduction13
Field Logistics14
Field Crew14
List of Equipment Used14
Results15
Discussion15
Health, Safety and Environment16
Expenditures17
References
Statement of Qualification20
Appendix A: Geological Field Station Data21
Appendix B: Geological Field Station Photographs30
Appendix C: Geological Map of Field Area53
Appendix D: Invoices and Receipts55



List of Figures

Figure 1: Warrior Property Location and Access	6
Figure 2: Warrior Claims	8
Figure 3: Warrior Property Geology (lithologies from Ayer, 2010)	9
Figure 4: Lithostratigraphic Section of the Huronian Supergroup (Baumann, 20	11)11
Figure 5: Mapping Areas for 2022 Field Program	13
Figure 6: Field station WM-22-01	30
Figure 7: Field Station WM-22-02	31
Figure 8: Field Station WM-22-03	31
Figure 9: Field Station WM-22-04	32
Figure 10: Field Station WM-22-05	32
Figure 11: Field Station WM-22-06	33
Figure 12: Field Station WM-22-07	33
Figure 13: Field Station WM-22-08	34
Figure 14: Field Station WM-22-09	34
Figure 15: Field Station WM-22-11	35
Figure 16: Field Station WM-22-12	35
Figure 17: Field Station WM-22-12	36
Figure 18: Field Station WM-22-13	36
Figure 19: Field Station WM-22-14 (shoreline)	37
Figure 20: Field Station WM-22-14 (structural fabric detail)	37
Figure 21: Field Station WM-22-14 (under moss mat)	38
Figure 22: Field Station WM-22-14 (Quartz vein boudin)	38
Figure 23: Field Station WM-22-15	39
Figure 24: Field Station WM-22-15 (close)	39
Figure 25: Field Station WM-22-15 (Layer contrasts)	40
Figure 26: Field Station WM-22-16	40
Figure 27: Field Station WM-22-17	41
Figure 28: Field Station WM-22-18	41
Figure 29: Field Station WM-22-19	42
Figure 30: Field Station WM-22-20	42

🗢 КСНМ

13
13
14
14
15
15
16
16
17
17
18
18
19
19
50
50
51
51
52
52

List of Tables

7
14
17
22



Introduction

The Warrior Property is a group of 22 unpatented mining claims owned by FNX Mining Company Inc. (FNX), a subsidiary of KGHM International Ltd (KGHM). 20 claims comprise the "main block" originally staked in 2019-2020, and 2 claims comprise the "south block" which were staked in 2021.

In 2022 KGHM completed a field geological mapping and sampling program on the property. The field program took place over 5 days between September 1st and September 29th, 2022. To assist in identifying outcrops in areas of interest prior to the field program, KGHM obtained high resolution satellite imagery for the property from SkyWatch Space Applications Inc.

The objective of the 2022 field program was to attempt to identify potential sources for soil geochemical anomalies identified from the results of the 2020 and 2021 soil sampling programs on the property completed by KGHM.

Property Location and Access

The Warrior claim group is located approximately 70 kilometers north of Sudbury within the townships of Unwin, Stull, Leask, Valin, and McNamara. The main block is bordered by Welcome Lake in Stull and Valin townships to the east, and Burwash Lake in Valin Township to the southeast. The south block is approximately 5 kilometers south of the main block in McNamara Township.

The property is accessible on the eastern side of Welcome Lake via Sandy Lake Road which is located approximately 8.5 km to the SSW of Shining Tree, and extends southwards approximately 60 km from Highway 560. An alternative route exists by travelling north from Capreol on Portelance Rd and other logging roads for 75 km. The western side of the property is inaccessible by road. During the field program, geologists traveled via float plane from True North Airways in Azilda, Ontario. See Figure 1 for the property location and access.





Figure 1: Warrior Property Location and Access

Claim Status

The Warrior Property was staked in 2019 as 20 multi-cell mining claims with an area of 9,172 hectares. In 2020 an additional 5 multi-cell mining claims were staked in the north east side of the main block, bringing the total area to approximately 11,058 hectares (110.6 km²). In 2021 5 multi-cell mining claims located in the south and west of the main block were dropped after internal review. In September of 2021 an additional 2 multi-cell mining claims were staked approximately 5 kilometers south of the main block which represent the south block. In 2022 a handful of claims were allowed to expire, based in large part on relative prospectivity based on findings from field programs in 2020 and 2021. Following the dropping of claims, the total area held by KGHM at the end of 2022 was approximately 6,578 hectares (65.8 km²).



All mining claims in the Warrior claim group are 100% owned by FNX Mining Company Inc., a subsidiary of KGHM International Ltd. Work was completed on mining claims 561507, 561508, 561509, 561563 and 561594 located in provincial cell grids 41P03I and 41P03J. A summary of these claims is shown in Table 1. For a layout of the Warrior claims, see Figure 2.

Table 1: Summary of Individual Claim Units												
Claim	Area	Status	Claim	Area	Status							
Number	(ha)		Number	(ha)								
561507	548.2	Active	610093	328.6	Active							
561508	548.2	Active	610094	328.6	Active							
561509	548.2	Active	680160	549	Active							
561593	526.1	Active	680161	307.6	Active							
561594	526.1	Active	561504	548.4	Expired							
561595	526.1	Active	561591	548.2	Expired							
561596	526.1	Active	561592	504.2	Expired							
561597	131.5	Active	561600	219.1	Expired							
561599	306.8	Active	561601	460	Expired							
610064	525.9	Active	562027	394.6	Expired							
610091	350.5	Active	610154	350.5	Expired							





Property Geology

The Warrior claim group is dominated by Proterozoic metasediments of the Cobalt Group, the uppermost member of the Huronian Supergroup. This is underlain by Archean age granite and granodiorite plutons and mafic metavolcanics.





Figure 3: Warrior Property Geology (lithologies from Ayer, 2010)

The Cobalt Group displays a maturing sequence of sandstones and conglomerates, with the amount of quartz relative to feldspars and lithic fragments increasing upwards through younger formations. There are four main formations within the Cobalt Group, all of which are present in, or near, the Warrior Property.

The basal Gowganda Formation is composed primarily of diamictites which grade upwards into the sandstones (quartzites) of the Lorrain Formation (Baumann, 2011). The Lorrain Formation is the thickest of the formations and can be subdivided into three members. The Lower Member is made-up of medium to coarse grained feldspar-rich quartzites and quartz pebble conglomerates. The Middle Member contains thin units of jasperoidal conglomerates and feldspar-rich arkoses and quartzites. The Upper Member contains pale green and white to red-stained



quartzites interbedded with quartz pebble conglomerates (Tindale, 1995). The Lorrain Formation grades upwards into the Gordon Lake Formation, which is characterized as a dolomitic feldspathic argillite with abundant orange, grey and light brown chert, and red fine-grained sandstone. The base of the Gordon Lake Formation contains minor lenses of anhydrite locally, as well as evaporite-related forms of silicate minerals suggesting that the depositional setting was a coastal sabkha, or coastal supratidal zone (Chandler, 1986). The Gordon Lake Formation grades upwards into the Bar River Formation, characterized as thinly bedded, well sorted white arenites with lenses of white kaolin (Baumann, 2011). See Figure 4 for a lithostratigraphic section of the Huronian Supergroup.

Nipissing diabase intrudes into the Huronian as large sills. These intrusions are generally gabbroic, but when contaminated by quartz sand (ie. From the Cobalt Group) the gabbro becomes enriched in quartz and forms quartz gabbro or diorite (Sarkar, 1984).

Stratabound copper mineralization has been found in different locales generally at the boundary between the Lorrain and Gordon Lake formations. The presence of pyritic beds in the Gordon Lake Formation suggests a sufficient source of sulphur, however the source of the copper has been difficult to identify as there are no mafic volcanics within the Cobalt Group sequence. It has alternatively been suggested that the stratabound copper sulphide mineralization may be related to the Nipissing diabase sills that crosscut the Cobalt Group (Chandler, 1986).





Figure 4: Lithostratigraphic Section of the Huronian Supergroup (Baumann, 2011)



History

In 1970 Chimo Gold Mines contracted McPhar Geophysics Limited to complete an induced polarization (IP) and resistivity survey on the eastern side of Welcome Lake in Valin Township. This was initiated after chalcopyrite-bearing float was discovered in the area and a prospecting party located mineralization associated with gabbro and quartzite.

In 1984 as part of a gold prospecting program, Golden Shield Resources Limited and McFinley Gold Mines Ltd. completed a mapping and sampling program around the eastern side of Welcome Lake. There were no significant results from this campaign, and it was concluded that any mineralization may have been remobilized via supergene solution migration (Sarkar, 1984).

In 1988 the Geological Survey of Canada compiled a large dataset of lake sediment geochemistry through the Regional Lake Sediment and Water Geochemical Reconnaissance Data project (Hornbrook, 1988).

In 1992 prospecting work was completed under M. J. Perkins in Stull, Unwin and Valin townships bordering the Warrior project area. The objective was to determine the possibility of paleoplacer gold mineralization within the Huronian sediments. The most significant results included 1610 ppm Cu within the Lorrain Formation on the eastern side of Welcome Lake (Perkins, 1992).

In 1994 Asquith Resources Inc. completed a soil geochemical and ground IP work program in Stull and Valin townships to the east of Welcome Lake. The IP survey lines across known mineralization failed to detect the showings or any possible extensions. The copper anomalies in the humus samples were not detected in the underlying soils, however it was concluded that the copper anomalies were real and that the source could not be determined other than that it was nearby or underlying the swamps (Tindale, 1994).



Outcrop Mapping Program

Introduction

In September of 2022 a field geological mapping and sampling program was completed on the Warrior property. The work was completed from September 1st to 29th by two KGHM geologists. The mapping was primarily around the eastern half of Prune Lake, as well as the area to the northwest of Burwash Lake. The areas of focus were chosen based on the results of the 2020 and 2021 soil sampling programs completed by KGHM, and are shown in Figure 5.



Figure 5: Mapping Areas for 2022 Field Program



Field Logistics

The crew during the field program would depart from True North Airways in Azilda, Ontario in a Beaver or Cessna 185 aircraft, and proceed to the chosen drop point. An emergency pack would be placed at the start of the day, which would also mark the pickup point at the end of the day that could be easily recognized by the pilot. On the second day in the field, a canoe was brought in on the aircraft, which was utilized to map the shoreline of Prune Lake.

Field communications consisted of a Garmin InReach Explorer+ handheld satellite communicator unit. Drop off and pick up points were communicated with KGHM personnel and True North Airways staff prior to departure, and pick up points were confirmed to be suitable with the aircraft pilot before beginning sampling for the day.

Locational data was recorded using a Garmin GPSMAP 62st handheld, with additional GIS information made available in the field using a Samsung Galaxy Tab S6 running ESRI Field Maps. Photos of outcrop sites taken using a Samsung Galaxy A52.

Field Crew

The field program was performed by two KGHM geologists. The field personnel are shown in Table 2.

Name	Position	Days
Steven Gregory	Area Geologist	September 1, 8, 14, 22, 29 (5 days)
Chris Verzyden	Senior Project Geologist	September 1, 8, 14, 22, 29 (5 days)

Table 2: Field Crew for Geological Mapping

List of Equipment Used

The equipment used by the field crew included:

- 6 mil poly sample bags
- Reel tape measure
- Sample tag booklet
- Permanent Markers



- Pens
- Maps of the area depicting sampling grid, access, and other geographic features and boundaries accessible via Samsung Galaxy Tab S6
- Garmin GPSMAP 62st handheld GPS
- Samsung Galaxy A52
- Garmin InReach Explorer+

Results

During the course of the mapping program a total of 215 sites were recorded, which included 89 outcrops, 11 subcrops and 115 float specimens. Detailed information was captured for 42 sites, with additional samples collected to be analyzed at a later date. Outcrop data recorded included lithological, mineralogical and structural data, which will be utilized to refine the geological interpretation for the property once analytical results for collected samples has been received.

Discussion

As the target horizon of interest was the contact between the Gordon Lake and Lorrain formations, the focus in the field was to attempt to identify these locations. The property is dominated by quartzites and quartz pebble conglomerates of the Lorrain Formation, particularly in the areas of focus. There was just one location where Gordon Lake was identified in outcrop, located on the eastern shore of Prune Lake. Other samples of Gordon Lake recorded and sampled included float samples of meter-scale boulders.

Of the samples collected in the field, those containing mineralization which may be the source of geochemical anomalies identified from the results of the 2020 and 2021 soil sampling programs were generally limited to two lithologies: the fine-grained phase of Nipissing diabase, and the red arenites of the top of the Lorrain Formation. A further discussion of the results will accompany the report containing the assay results of the samples collected and updated geological interpretation.



Health, Safety and Environment

Prior to the commencement of fieldwork, a high-level risk assessment was completed for the project, taking into account all aspects of risk with respect to successful project completion. One of the major risks to the Warrior project was the field work aspect coupled with the remote location of the project area. To mitigate this risk, a task-based risk assessment was completed, which focused on risk of incident or injury during soil sampling or outcrop mapping. The primary sources of risk during fieldwork included:

- Slips, trips or falls on uneven ground, wet surfaces or hidden tripping hazards
- Wildlife encounters (large animals to insects)
- Musculoskeletal injury from carrying a heavy load
- Becoming lost or stranded in the field
- Loss of communication with offsite personnel (supervisors or pilot)
- Exposure to the elements
- Fuel spills from float plane
- Incident during use of canoe

In order to mitigate these risks, several controls were put into place:

- Each team member participated in Wilderness First Aid training in 2020
- Emergency Response Plan created and distributed to team, supervisors and flight crew, which listed contact numbers for emergency services, family members and field location details
- Work plan for each day communicated to all Exploration Services members prior to start of work
- Field work completed group of 2 geologists
- Traverses were planned follow terrain as much as possible
- Survival kit utilized, including provisions for overnight shelter and food if necessary
- Survival kit was placed drop-off and pickup location, establishing a meeting point with the pilot in case communication was lost
- Field work planned to avoid adverse weather conditions



- Flight crew experienced in flying to regional lakes with established safety record
- Each team member completed Paddle Sports Safety Course

At the end of the program there were no reportable incidents for the field program.

Expenditures

A total of \$29,669 was spent during the 2022 work program on the Warrior Property. A summary of expenditures is shown in Table 3.

Table 3: Warrior Property 2022 Field Program Expenditure Summary

Warrior 2022 Work Program Expenditures								
Geological Mapping Program								
Salaries								
Manager (Project Coordination) 1 days @ \$800/day	\$	800.00						
Area Geologist (Project Supervision/Planning): 6 days @ \$700/day	\$	4,200.00						
Senior Project Geologist (Project Supervision/Planning/Analysis) 21 days @ \$600/day	\$	12,600.00						
GIS Technician (Project Design/Analysis): 2 days @ \$450/day	\$	900.00						
Subtotal	\$	18,500.00						
Transportation								
Float Plane (5 days)	\$	7,478.00						
Flight Insurance	\$	2,415.00						
Subtotal	\$	9,893.00						
Other								
Skywatch Space Applications Inc. – High Resolution Imagery	\$	1,275.60						
2022 TOTAL	\$	29,668.60						



References

Ayer, J.A., Chartrand, J.E., Trowell, N.F. and Wilson, A. 2010. Geological compilation of the Maple Mountain area, Abitibi greenstone belt; Ontario Geological Survey, Preliminary Map P.3620, scale 1:100 000.

Baumann, S.D.J., T. Arrospide, and A. E. Wolosyzn, 2011. Preliminary Redefinition of the Cobalt Group (Huronian Supergroup), in the Southern Geologic Province, Ontario, Canada. Midwest Institute of Geosciences and Engineering, Chicago, Illinois.

Brynjolfson, S., 1996. British Columbia Field Sampling Manual: For Continuous Monitoring Plus the Collection of Air, Air-emission, Water, Wastewater, Soil, Sediment, and Biological Samples. BC Environment. Environmental Protection Department. Laboratory and Systems Management.

Chandler, F. W., 1986. Sedimentology and paleoclimatology of the Huronian (Early Aphebian) Lorrain and Gordon Lake formations and their bearing on models for sedimentary copper mineralization; in Current Research, Part A, Geological Survey of Canada, Paper 86-1A, p. 121-132.

Goudle, M. A. and Bell, R. A., 1970. Report on the Induced Polarization and Resistivity Survey at Welcome Lake, Valin Township, Ontario. AFRO Number 63.2817. Prepared for Chimo Gold Mines Limited.

Hamilton, S. M., 2007. Major advances in soil geochemical exploration methods for areas of thick glacial drift cover: advances in prospect-scale geochemical methods; in Proceedings of Exploration 07: Fifth Decennial International Conference on Mineral Exploration.

Hornbrook, E. H. W., Friske, P. W. B., 1988. Regional lake sediment and water geochemical reconnaissance data, Gogama area, Ontario (041 P, part of 031 M). Geological Survey of Canada, Open File 1640, 131 pages (29 sheets), <u>https://doi.org/10.4095/130515</u>

Perkins, M. J., 1992. Natal Township and Cobalt Embayment Projects. AFRO Number OP92-538.



Sarkar, P. K. and Wilson, B. H., 1984. Huronian Joint Venture, Welcome Lake-Sudbury District, Ontario. AFRO Number 63.4308. Prepared for Golden Shield Resources Limited and McFinley Gold Mines Ltd.

Tindale, J. L., 1995. Report on 1994 Program for the Evaluation of Base Metal Potential in the Huronian Stratigraphy of the Northwestern Cobalt Plain. AFRO Number om94-024. Prepared for Asquith Resources Inc.



Statement of Qualification

I, Christopher Verzyden of the City of Greater Sudbury, Province of Ontario, do hereby certify that:

- 1. I am a geologist residing at 3221 Lammi's Rd, Sudbury Ontario P3G 1M7.
- 2. I am a graduate of Carleton University (Ottawa, Ontario) having received a Bachelor of Science (Honours) in Earth Sciences in 2009.
- 3. I have been practicing in my profession as a geologist continuously since July 6th, 2009.
- 4. I have been an employee of KGHM International Ltd. (formerly FNX Mining Company Inc.) from July 2009 to November 2015, and February 2018 to Present.
- 5. I am a current practicing registered professional geoscientist with PGO (registration #3048).
- 6. The information presented in this document is true and accurate to the best of my knowledge. This information was gathered from such various sources as assessment files, publications and contractor-provided reports.
- 7. I performed the preparation and geochemical field work covered in this report.
- 8. I have no personal interest in the property covered by this report.

Dated in Sudbury, Ontario, this 4th day of October, 2022.

Respectfully Submitted,

ChEVal

Christopher Verzyden, B.Sc., P. Geo. Senior Project Geologist KGHM International Ltd. October 4th, 2022



Appendix A: Geological Field Station Data

The following pages contain the data collected in the field for each outcrop station. "Field Station" represents unique numbers based on the order in which sites were visited. Prefixes of "OC" represent quick points recorded with limited site data collected, while prefixes of "WM" represent points where additional information was collected, photographs were taken, and in some cases samples collected. Locational data is recoded in the UTM NAD83 Zone 17 datum.



Table 4: Outcrop Station Data

Field	Station	Easting	Northing	Elevation	Date	Formation	Lithology	Alteration	Minoralization	Structures	Description
Station	Туре	(m)	(m)	(m)	Date	ronnation	Lititology	Alteration	witteralization	structures	Description
OC-22-001	Outcrop	491196.0	5225837.6	410.9	1-Sep-22	Nipissing	Diabase		-		
OC-22-002	Float	491147.4	5225690.4	460.0	1-Sep-22	Nipissing	Diabase	(- 3)		-	-
OC-22-003	Float	491149.5	5225659.5	473.6	1-Sep-22	Lorrain Upper	Quartzite	-	-	-	()
OC-22-004	Float	491148.1	5225652.0	477.2	1-Sep-22	Nipissing	Diabase	120	020	~	-
OC-22-005	Float	491161.2	5225629.3	485.2	1-Sep-22	Lorrain Upper	Quartzite	-	5 5 1	-	
OC-22-006	Subcrop	491175.8	5225574.2	500.9	1-Sep-22	Lorrain Upper	Ouartzite	-		-	
OC-22-007	Outcrop	491164.6	5225577.9	502.1	1-Sep-22	Lorrain Upper	Ouartzite	-	-	-	-
OC-22-008	Outcrop	491140.6	5225544.6	509.4	1-Sep-22	Lorrain Upper	Quartzite	120	12	2	
OC-22-009	Float	491139.6	5225544.4	506.8	1-Sep-22	Nipissing	Diabase	-		-	> - <
OC-22-010	Float	491156.5	5225461.1	511.0	1-Sep-22	Lorrain Upper	Ouartzite	-	-	-	
OC-22-011	Subcrop	491161.3	5225464.4	510.4	1-Sep-22	Nipissing	Diabase	-	-	-	-
00-22-012	Eloat	4911193	5225443.0	515.2	1-Sep-22	Lorrain Upper	Quartzite	Hematite	5 <u>4</u> 7	-	TR HE
00-22-013	Float	491140.0	5225391.1	512.9	1-Sep-22	Ninissing	Diabase	-	-	-	-
00-22-014	Float	491079.4	5225342.7	509.0	1-Sen-22	Lorrain Linner	Quartzite	Hematite	-	-	STR HE
OC LE OTT	Tiode	13107311	SELOS ILIT	50510		contain oppor	Quartz pebble				Stitle
OC-22-015	Float	491089.4	5225322.2	506.1	1-Sep-22	Lorrain Middle	conglomerate	-	-		SOME JSP
							Ouartz nehble				
OC-22-016	Float	491034.4	5225318.1	505.3	1-Sep-22	Lorrain Middle	conglomerate	(= 1)	5 - 1	-	JSP MINOR
00-22-017	Float	490861.1	52252736	513.4	1-Sen-22	Ninissing	Diahase	-	-		
00-22-019	Float	490841.3	5225273.0	508.9	1-Sep-22	Nipissing	Diabase		-		
00-22-018	Outcrop	490844.1	5225231.2	510.2	1-Sep-22	Lorrain Linner	Quartzite	-	-	-	-
00-22-010	Eleat	490044.1	5225194.0	507.9	1-Sep-22	Ninissing	Diabase			-	2000 (c)
00-22-020	Float	490774.8	5225734.0	505.8	1-Sep-22	Lorrain Upper	Quartzite			-	
00-22-021	Float	490724.2	5225220.3	510.7	1 Son 22	Lorrain Upper	Quartzite	-	-	-	
00-22-022	Outcrop	490073.0	5225255.0	407.7	1 Sop 22	Lorrain Upper	Quartzite	•		-	
00-22-023	Cuberop	490497.0	5225325.0	497.7	1-5ep-22	Lorrain Upper	Quartzite	750	570	- 200/80 Vertical feature	STREAMPED 20047
00-22-024	Subcrop	490302.3	5225525.0	496.1	1.0 22	Nipissing	Ouentrite	-	-	200789 Vertical leature	STREAMBED 200AZ
00-22-025	Outcrop	490473.7	5225246.5	508.9	1-sep-22	Lorrain upper	Quartzite	-	-	-	-
00-22-026	Subcrop	490564.2	5225114.8	495.1	1-Sep-22	Nipissing	Diabase	· • C	-	-	BOULDER GP
00-22-027	Float	490554.2	5225131.4	495.5	1-Sep-22	Nipissing	Diabase			2 7	1. Contraction (1. Contraction)
00-22-028	Outcrop	490570.7	5225088.9	488.1	1-Sep-22	Lorrain Upper	Quartzite	5 - 3			
00-22-029	Float	490613.6	5224987.6	474.8	1-Sep-22	Lorrain Upper	Quartzite	-	-	-	
00-22-030	Outcrop	490707.4	5224789.3	482.2	1-Sep-22	Lorrain Upper	Quartzite	- C		-	-
00-22-031	Outcrop	490738.3	5224784.5	479.0	1-Sep-22	Lorrain Upper	Quartzite	7 <u>8</u> 5	1		CLIFF
00-22-032	Outcrop	490789.6	5225030.1	4/6.1	1-Sep-22	Lorrain Upper	Quartzite	(- 3	(-)	-	i
00-22-033	Supcrop	490799.7	5225092.5	482.9	1-Sep-22	Nipissing	Diabase	-	-	-	()
0C-22-034	Float	490801.9	5225120.5	489.8	1-Sep-22	Nipissing	Diabase	-	-	-	4 <u>0</u> 0.
OC-22-035	Float	490813.5	5225252.0	502.9	1-Sep-22	Lorrain Upper	Quartzite	75	570	-	2 .
OC-22-036	Float	490899.8	5225740.4	424.3	1-Sep-22	Lorrain Upper	Quartzite	.•.		•	3-1
OC-22-037	Float	490932.3	5225750.6	423.7	1-Sep-22	Lorrain Upper	Quartzite	-	-	-	-
OC-22-038	Float	490969.8	5225752.8	423.3	1-Sep-22	Nipissing	Diabase	120	-		-
OC-22-039	Float	491087.0	5225792.5	426.1	1-Sep-22	Nipissing	Diabase				2.5.5
OC-22-040	Float	491169.2	5225839.9	422.0	1-Sep-22	Nipissing	Diabase	(- 1)			
OC-22-041	Float	491645.6	5226358.7	423.0	8-Sep-22	Lorrain Upper	Quartzite	-	-	-	(# 7
06-22-042	Float	491889 5	5226396.5	474 2	8-Sen-22	Lorrain Middle	Quartz pebble				
02-22-042	Tioat		5220350.5	727.2	556422	contain middle	conglomerate	-			
OC-22-043	Float	491965.4	5226402.2	426.1	8-Sep-22	Gordon Lake	Siltstone	-	-	-	(=)
OC-22-044	Outcrop	492052.4	5226314.3	426.9	8-Sep-22	Gordon Lake	Siltstone	2-3	2-3	-	1-1
OC-22-045	Outcrop	491955.4	5226289.3	425.3	8-Sep-22	Gordon Lake	Siltstone	120	3 4 7	<u>~</u>	2 4 0
OC-22-046	Float	492003.1	5226153.4	425.1	8-Sep-22	Lorrain Upper	Quartzite	1978	8 .		5.02
OC-22-047	Float	491956.6	5226151.0	425.4	8-Sep-22	Gordon Lake	Siltstone	-	-		Large boulder



Field	Station	Easting	Northing	Elevation	-	Llouiseren		and the second second			
Station	Type	(m)	(m)	(m)	Date	Formation	Lithology	Alteration	Mineralization	Structures	Description
OC-22-048	Float	491816.6	5226162.0	426.0	8-Sep-22	Lorrain Middle	Quartz pebble conglomerate	3412	7 1 1	-	
OC-22-049	Float	491800.6	5226156.4	426.3	8-Sep-22	Lorrain Middle	Quartz pebble conglomerate	-	-	-	20
OC-22-050	Outcrop	491694.1	5226117.9	425.6	8-Sep-22	Lorrain Upper	Quartzite		0 5 1		
OC-22-051	Float	491435.9	5226013.3	426.2	8-Sep-22	Nipissing	Diabase	-	: - -	-	(*)
OC-22-052	Float	491373.8	5226015.5	426.4	8-Sep-22	Lorrain Upper	Quartzite	(- 1)	19 - 1	-	-
OC-22-053	Float	491362.9	5226024.8	426.3	8-Sep-22	Gordon Lake	Siltstone	121	2 <u>4</u> 0	-	-
OC-22-054	Float	491284.2	5225986.4	425.1	8-Sep-22	Lorrain Middle	Quartz pebble conglomerate	3 1 17		<u>.</u>	Mix of diabase, quartite and siltstone boulders
OC-22-055	Outcrop	490886.2	5226050.7	427.0	8-Sep-22	Lorrain Upper	Quartzite	-	1 4 1	•	n de cala contra de cala de cal En cala contra de cala d
OC-22-056	Float	490847.9	5226193.3	427.1	8-Sep-22	Lorrain Middle	Quartz pebble conglomerate			-	
OC-22-057	Float	490693.3	5226010.4	427.5	8-Sep-22	Nipissing	Diabase	-			Large boulder
OC-22-058	Float	490461.9	5226112.4	429.3	8-Sep-22	Lorrain Upper	Quartzite	(- 2)	2 - 2	-	-
OC-22-059	Float	490252.3	5226048.1	428.2	8-Sep-22	Nipissing	Diabase	1 2 1	- - -	<u>'</u>	1
OC-22-060	Outcrop	489992.8	5226180.3	424.8	8-Sep-22	Lorrain Upper	Quartzite	: ::	6 		
OC-22-061	Outcrop	490005.3	5226277.0	425.0	8-Sep-22	Lorrain Upper	Quartzite		-		95% of float on shoreline
OC-22-062	Float	494512.0	5224117.9	489.3	14-Sep-22	Nipissing	Diabase	1-11	5 - 5	-	-
OC-22-063	Float	494792.7	5224157.5	503.6	14-Sep-22	Nipissing	Diabase	1 <u>4</u> 11	5 4 0	<u>~</u>	2
OC-22-064	Float	495261.2	5223881.9	410.4	1 4 -Sep-22	Gordon Lake	Siltstone	Hematite, Chlorite	-	-	Banded red and green cherty/siltstone layers
OC-22-065	Float	495142.3	5224078.4	432.0	1 4 -Sep-22	Lorrain Middle	Quartz pebble conglomerate	-	-	-	Large boulder (10ft)
OC-22-066	Outcrop	494577.2	5223610.8	504.8	1 4 -Sep-22	Lorrain Middle	Quartz pebble conglomerate	3 1 12		<u>.</u>	
OC-22-067	Outcrop	494541.7	5223651.9	519.1	1 4 -Sep-22	Lorrain Middle	Quartz pebble conglomerate	-	-	-	25
OC-22-068	Outcrop	494495.1	5223738.5	472.1	1 4 -Sep-22	Lorrain Middle	Quartz pebble conglomerate	8 1 10	-		-
OC-22-069	Outcrop	494438.8	5224014.4	457.3	14-Sep-22	Lorrain Middle	Quartz pebble conglomerate	-	-	-	Rare quartz pebbles
OC-22-070	Outcrop	494412.0	5224044.7	472.2	14-Sep-22	Lorrain Middle	Quartz pebble conglomerate	327	121	-	~
OC-22-071	Outcrop	495033.3	5224137.0	475.6	1 4 -Sep-22	Lorrain Middle	Quartz pebble conglomerate	-	-		Rare quartz pebbles
OC-22-072	Float	494789.6	5223513.0	471.7	1 4 -Sep-22	Lorrain Upper	Quartzite		0 .	-	
OC-22-073	Float	494664.9	5223527.0	485.8	14-Sep-22	Lorrain Upper	Quartzite	-	1 7 0	-	(*)
OC-22-074	Outcrop	494416.3	5224031.8	468.0	1 4 -Sep-22	Lorrain Upper	Quartzite		39 - 0	-	-
OC-22-075	Outcrop	494495.5	5224115.7	487.0	14-Sep-22	Lorrain Upper	Quartzite	Chlorite	5 4 6	-	Greenish hue
OC-22-076	Outcrop	494586.7	5224199.3	510.2	14-Sep-22	Lorrain Upper	Quartzite	1998	8 	5	4.52
OC-22-077	Outcrop	494814.4	5224168.4	494.1	14-Sep-22	Lorrain Upper	Quartzite	-	-		(*)
OC-22-078	Float	495066.8	5224119.9	459.7	14-Sep-22	Gordon Lake	Siltstone	1-11		-	Banded grey cherty/siltstone layers
OC-22-081	Outcrop	494681.2	5224159.2	491.9	22-Sep-22	Lorrain Upper	Quartzite	1 0 12	276	ht.	Rare quartz pebbles
OC-22-082	Float	494520.5	5224210.5	495.4	22-Sep-22	Gordon Lake	Siltstone	1.43	(A)		2
OC-22-083	Float	494519.7	5224213.0	495.6	22-Sep-22	Nipissing	Diabase	-	-	•	-
OC-22-084	Float	494514.7	5224215.7	495.9	22-Sep-22	Gordon Lake	Siltstone	120	020	-	-
OC-22-085	Outcrop	494497.9	5224245.0	507.6	22-Sep-22	Lorrain Middle	Quartz pebble		. . .	NT.	1
OC-22-086	Outcrop	494596.4	5224553.3	502.9	22-Sep-22	Lorrain Upper	Quartzite	1.23	(, 1)	075/75 Fracture surface	-
OC-22-087	Outcrop	494704.9	5224615.2	508.6	22-Sep-22	Lorrain Upper	Quartzite	-	-	-	Rare jasper pebbles to 2mm



Field	Station	Easting	Northing	Elevation	Date	Formation	Lithology	Altoration	Minoralization	Structuros	Description
Station	Туре	(m)	(m)	(m)	Date	Formation	Litilology	Arteration	wineralization	Structures	Description
OC-22-088	Outcrop	494718.9	5224612.7	503.6	22-Sep-22	Lorrain Upper	Quartzite	250	0 <u></u> ?;	a.	5 1 .2
OC-22-089	Outcrop	494734.2	5224619.9	502.4	22-Sep-22	Lorrain Upper	Quartzite	-	-	278/89 Shear foliation	-
OC-22-090	Outcrop	494732.2	5224631.1	506.9	22-Sep-22	Lorrain Upper	Quartzite	140	3 4	-	2 4 3
OC-22-091	Outcrop	494681.1	5224624.4	511.5	22-Sep-22	Lorrain Upper	Quartzite	2 <u>-</u> 2	- <u>-</u>	-	-
OC-22-092	Float	494694.0	5224621.8	509.2	22-Sep-22	Lorrain Upper	Quartzite	Hematite	0. 5 5	5	Mottled white/red sandstone
OC-22-093	Float	494722.8	5224634.9	506.1	22-Sep-22	Nipissing	Diabase	-	-	-	(**)
OC-22-094	Float	494576.3	5224688.9	500.6	22-Sep-22	Gordon Lake	Siltstone	Hematite	24	-	Reddish bands, no mineralization
OC-22-095	Float	494346.5	5224620.1	505.2	22-Sep-22	Nipissing	Diabase	1 <u>2</u> 1	3 4 7	-	-
OC-22-096	Float	494250.1	5224647.3	511.4	22-Sep-22	Nipissing	Diabase	250	Pyrite		Minor pyrite
00.007	0	40.4252.2	5224652.7	E40.4	22 6 22	Leurete Ministre	Quartz pebble				
00-22-097	Outcrop	494253.2	5224055.7	512.4	22-5ep-22	Lonan Midule	conglomerate	-	-	-	2 7 .
OC-22-098	Float	494242.1	5224656.1	513.7	22-Sep-22	Nipissing	Diabase	120	8 <u>4</u> 1	21	120
OC-22-099	Outcrop	494227.0	5224660.1	512.6	22-Sep-22	Lorrain Upper	Quartzite		-	-	2 .
OC-22-100	Float	494144.3	5224641.2	523.9	22-Sep-22	Nipissing	Diabase	-		-	Large boulder (5m)
OC-22-101	Outcrop	494137.7	5224645.7	523.0	22-Sep-22	Lorrain Upper	Quartzite	-		-	(•)
OC-22-102	Outcrop	494124.7	5224656.8	526.5	22-Sep-22	Lorrain Upper	Quartzite	5 2 0	5 2	<u>-</u>	
00000	0	10 11 22 7	5004604 6	F 22 2			Quartz pebble				
OC-22-103	Outcrop	494123.7	5224691.6	523.3	22-Sep-22	Lorrain Middle	conglomerate	-	-	335/25 Quartz pebble beds	1 <u>-</u> 1
OC-22-104	Outcrop	494063.2	5224665.8	533.0	22-Sep-22	Lorrain Upper	Quartzite	-	-	-	1 - 1
OC-22-105	Float	494029.9	5224639.3	540.1	22-Sep-22	Nipissing	Diabase	1	-	7 <u>4</u>	Approximately 1m boulder
OC-22-106	Outcrop	494005.8	5224634.3	540.1	22-Sep-22	Lorrain Upper	Quartzite	150	1 7 2	-	4 . 2
	-						Quartz pebble				
OC-22-107	Float	494038.2	5224564.2	533.2	22-Sep-22	Lorrain Middle	conglomerate	-	-	-	-
							Quartz pebble				
OC-22-108	Outcrop	494072.0	5224535.0	532.5	22-Sep-22	Lorrain Middle	conglomerate		0.00	345/52 Quartz pebble beds	1.0
							Quartz pebble				
OC-22-109	Outcrop	494064.4	5224464.9	534.7	22-Sep-22	Lorrain Middle	conglomerate	-	-	(-	
a construction from the second							Ouartz pebble				
OC-22-110	Outcrop	494053.9	5224457.8	535.2	22-Sep-22	Lorrain Middle	conglomerate			345/15 Quartz pebble beds	1.00
							Ouartz pebble				
OC-22-111	Outcrop	494066.6	5224427.6	539.6	22-Sep-22	Lorrain Middle	conglomerate	-	-	345/15 Quartz pebble beds	÷.
							Ouartz pebble				
OC-22-112	Outcrop	494088.2	5224365.4	545.1	22-Sep-22	Lorrain Middle	conglomerate		0-0	-	-
							Ouartz pebble				
OC-22-113	Outcrop	494124.6	5224304.8	535.0	22-Sep-22	Lorrain Middle	conglomerate	-	-	÷	÷.
00-22-114	Float	494141.7	5224267.6	529.6	22-Sep-22	Nipissing	Diabase	120	12	2	-
OC-22-115	Float	494143.1	5224263.9	529.7	22-Sep-22	Gordon Lake	Siltstone	-	-	-	Approximately 20cm boulder
00-22-116	Float	494147.9	5224262.2	529.2	22-Sep-22	Gordon Lake	Siltstone				Uniform-appearance mudstone
00-22-117	Float	494182.6	5224243.7	527.6	22-Sep-22	Ninissing	Diabase	-	-		-
		10 110 210		00110			Ouartz pebble				
OC-22-118	Outcrop	494197.5	5224243.6	532.4	22-Sep-22	Lorrain Middle	conglomerate	1.	1. .	-	1 4 1
							Quartz nebble				
OC-22-119	Outcrop	494223.8	5224245.2	541.0	22-Sep-22	Lorrain Middle	conglomerate	-	-	e de la companya de	-
							Quartz pebble				
OC-22-120	Outcrop	494338.9	5224249.5	516.7	22-Sep-22	Lorrain Middle	conglomerate	200		-	3 .
00-22-121	Float	494387.2	5224268.6	513.9	22-Sep-22	Ninissing	Diabase	-	Pyrite	-	Minor pyrite
00022121	our		522.200.0	5.5.5		- All and a second	Ouartz pebble		, yr ice		innor pyrite
OC-22-122	Outcrop	494440.0	5224237.7	510.4	22-Sep-22	Lorrain Middle	conglomerate	3 33	11 5 1	204/80 Shear foliation	1.5
0(-22-123	Outcrop	494477 1	5224198.0	502.8	22-Sen-22	Ninissing	Diabase			-	
00-22-124	Eloat	491202 7	5226358.0	426.3	29-Sep-22	Lorrain Unner	Quartzite		-	-	
OC-22-125	Float	491219.5	5226403.0	430.0	29-Sep-22	Nipissing	Diabase				



Field	Station	Easting	Northing	Elevation	Date	Formation	Lithology	Altoration	Minoralization	Structuros	Description
Station	Туре	(m)	(m)	(m)	Date	Formation	Litilology	Arteration	winteralization	Structures	Description
OC-22-126	Float	491225.2	5226413.2	432.3	29-Sep-22	Nipissing	Diabase	1996	0 2 0	4.1	Coarse grained
OC-22-127	Float	491242.4	5226548.4	452.1	29-Sep-22	Nipissing	Diabase			-	Approximately 4m boulder
OC-22-128	Float	491262.6	5226579.1	455.5	29-Sep-22	Nipissing	Diabase	-	8 - 0	-	Approximately 2m boulder
OC-22-129	Float	491317.7	5226623.8	463.1	29-Sep-22	Nipissing	Diabase	121	Pyrrhotite	* <u>=</u>	Trace blebby pyrrhotite
OC-22-130	Float	491354.1	5226714.0	472.2	29-Sep-22	Lorrain Upper	Quartzite	150	0 		Massive quartz
OC-22-131	Float	491373.8	5226722.2	471.4	29-Sep-22	Nipissing	Diabase		-	-	
OC-22-132	Subcrop	491372.6	5226742.6	474.7	29-Sep-22	Lorrain Upper	Quartzite			-	8 1 0
OC-22-133	Subcrop	491363.0	5226758.4	476.2	29-Sep-22	Lorrain Upper	Quartzite	1	3 1 0	<u>~</u>	Boulder 4m, likely shifted
OC-22-134	Outcrop	491356.5	5226760.0	478.1	29-Sep-22	Lorrain Upper	Quartzite	1250	0. 		4mm quartz pebble framework
OC-22-135	Subcrop	491369.8	5226834.5	496.6	29-Sep-22	Nipissing	Diabase	-	Pyrite		Trace pyrite
OC-22-136	Subcrop	491367.2	5226850.9	501.9	29-Sep-22	Nipissing	Diabase			-	3 2 0
OC-22-137	Outcrop	491357.8	5226851.8	500.7	29-Sep-22	Nipissing	Diabase	-	- -	-	-
OC-22-138	Outcrop	491371.8	5226867.4	504.2	29-Sep-22	Nipissing	Diabase	1250	0.5.C	-	5.00 S
OC-22-139	Outcrop	491373.2	5226897.5	504.8	29-Sep-22	Nipissing	Diabase	-	-	-	-
OC-22-140	Float	491376.6	5226933.1	504.6	29-Sep-22	Lorrain Upper	Quartzite		(m)	-	Approximately 2m boulder
OC-22-141	Outcrop	491370.9	5226946.8	501.0	29-Sep-22	Nipissing	Diabase	1	5 <u>4</u> 0	<u>~</u>	Outcrop 20m high
OC-22-142	Outcrop	491375.3	5226956.2	496.6	29-Sep-22	Nipissing	Diabase	1990	0. 		
OC-22-143	Outcrop	491389.5	5226999.8	496.1	29-Sep-22	Lorrain Upper	Quartzite	•	-	064/68 Shear foliation	Outcrop approximately 30m trending N-S
OC-22-144	Outcrop	491384.0	5227043.9	495.7	29-Sep-22	Lorrain Upper	Quartzite	5 <u>2</u> 0	5 1	<u>-</u>	-
OC-22-145	Outcrop	491387.5	5227046.7	496.6	29-Sep-22	Lorrain Upper	Quartzite				
OC-22-146	Float	491337.6	5227156.1	513.0	29-Sep-22	Lorrain Upper	Quartzite	. - 2		-	Approximately 5m boulder
OC-22-147	Outcrop	491325.5	5227186.8	516.6	29-Sep-22	Lorrain Upper	Quartzite	-	-	-	-
OC-22-148	Float	491564.1	5227243.5	508.1	29-Sep-22	Lorrain Upper	Quartzite	7 2 0		<u>~</u>	12
OC-22-149	Float	491565.2	5227243.9	508.1	29-Sep-22	Nipissing	Diabase	. 5 3		-	5 .
OC-22-150	Float	491669.3	5227216.8	508.5	29-Sep-22	Lorrain Upper	Quartzite	(#1)	(A)	-	Rare 2cm quartz pebbles
OC-22-151	Outcrop	491688.7	5227227.1	506.9	29-Sep-22	Lorrain Upper	Quartzite	1 4 0		-	Approximately 30m outcrop
OC-22-152	Outcrop	491725.6	5227205.8	488.6	29-Sep-22	Lorrain Upper	Quartzite	3 2 0	5 4 7	2	Shoreline boulders
00-22-153	Outcrop	491735.0	5227183.0	489.0	29-Sen-22	Lorrain Unner	Quartzite	_	-	<u>.</u>	Occasional 1cm pebbles not in pebble
0022135	outerop	431733.0	5227 105.0	405.0	LS SEP LL	contain opper	Qualizite				beds
OC-22-154	Float	491750.1	5227179.6	489.5	29-Sep-22	Gordon Lake	Siltstone	-	· ·	-	Approximately 1ft boulder
OC-22-155	Outcrop	491779.2	5227164.8	488.8	29-Sep-22	Lorrain Upper	Quartzite	-	- - -	314/89 Shear foliation	Approximate shear trace
OC-22-156	Outcrop	491840.8	5227129.9	504.6	29-Sep-22	Lorrain Upper	Quartzite	250	0 	47	5.57
OC-22-157	Float	491852.7	5227122.7	512.9	29-Sep-22	Nipissing	Diabase				Approximately 2m boulder
OC-22-158	Outcrop	491907.6	5227127.7	526.4	29-Sep-22	Lorrain Upper	Quartzite	-	3 - 0	-	Approximately 50m outcrop
OC-22-159	Outcrop	491916.1	5227083.7	529.3	29-Sep-22	Lorrain Upper	Quartzite	120	3 4	-	
OC-22-160	Float	491979.8	5227080.8	527.9	29-Sep-22	Nipissing	Diabase	250	0520	5 0	Coarse grained
OC-22-161	Outcrop	492013.0	5227075.4	524.8	29-Sep-22	Lorrain Middle	Quartz pebble conglomerate	-	-	190/05 Quartz pebble beds	Rare jasper
OC-22-162	Outcrop	492077.6	5227047.7	515.9	29-Sep-22	Lorrain Middle	Quartz pebble conglomerate	-		-	Approximately horizontal pebble beds
OC-22-163	Float	492093.5	5227030.2	513.2	29-Sep-22	Gordon Lake	Siltstone		-	-	Approximately 1 m boulder
OC-22-164	Float	492097.9	5227035.8	512.8	29-Sep-22	Nipissing	Diabase		1 × 1	<u>*</u>	Approximately 2m boulder
OC-22-165	Subcrop	492195.0	5226957.6	485.0	29-Sep-22	Lorrain Middle	Quartz pebble conglomerate	-	-	-	
OC-22-166	Float	492262.9	5226879.2	476.8	29-Sep-22	Lorrain Upper	Quartzite			-	-
OC-22-167	Float	492330.3	5226737.7	434.7	29-Sep-22	Lorrain Upper	Ouartzite		-	· · ·	Shoreline boulders
OC-22-168	Float	492319.8	5226730.2	435.1	29-Sep-22	Lorrain Upper	Ouartzite	Hematite	5 <u>8</u> 5	<u>~</u>	White-red mottling
OC-22-169	Float	492279.9	5226714.9	435.3	29-Sep-22	Lorrain Upper	Quartzite	-	-	-	Occasional vugs, quartz pebbles not
00.00.470	Clean t	400450.0	E006645 5	420 7	20.0- 22	Lamain	Quatelte				arranged in beds
00-22-170	Float	492159.8	5220045.5	439.7	29-Sep-22	Lorrain upper	Quartzite	0.00	1040	-	Approximately 4m boulder



Field	Station	Easting	Northing	Elevation	Date	Formation	Lithology	Alteration	Mineralization	Structures	Description
Station	Type	(m)	(m)	(m)	20.0 00		Output to the				
00-22-171	Float	492149.4	5226495.3	438.4	29-Sep-22	Lorrain Upper	Quartzite	Hematite	5 .	A .	white-red mottling
00-22-172	Float	492149.3	5226488.6	437.3	29-Sep-22	Nipissing	Diabase	(* 2			
00-22-173	Float	492101.9	5226457.7	433.6	29-Sep-22	Lorrain Upper	Quartzite	-	-	-	-
00-22-174	Float	492038.8	5226426.5	430.7	29-Sep-22	Lorrain Upper	Quartzite	Hematite	13 1 10	•	White-red mottling
											Siltstone with void infilios of pyrite,
WM-22-01	Subcrop	491156.7	5225494.6	508.7	1-Sep-22	Gordon Lake	Siltstone	Chlorite	Pvrite	-	quartz, strongly chloritized, soft.
									,		Possible subcrop, nearby quartzite
-											boulders
WM-22-02	Float	491118.6	5225429.3	514.5	1-Sep-22	Lorrain Upper	Ouartzite	Hematite	11 - 1	2 <u>4</u>	Quartz boulder with layer of
					0.92403-04550						pervasive hematite
							Ouartz pebble				Quartz pebble conglomerate boulder
WM-22-03	Float	491089.7	5225322.1	505.9	1-Sep-22	Lorrain Middle	conglomerate	-	-	-	with minor issper fragments
							congionnerate				With Hintor Jusper Hughlenes
WM-22-04	Outcrop	491004 5	5225290.1	505.9	1-Sen-22	Lorrain Unner	Quartzite	-	12	260/54 Shear foliation	Quartzite outcrop, multiple
VIII 22 04	outcrop	451004.5	5225250.1	505.5	Toch rr	contain opper	Quantence			200/54 Shear tonation	foliations/cleavages
											Diabase boulders, fine-grained,
WM-22-05	Float	490620.0	5225260.5	519.0	1-Sep-22	Nipissing	Diabase	1 8 3		-	massive, trace fine grained
											disseminated pyrite
14/14/22:06	Outcrop	1005125	5225219.0	502.7	1 Son 22	Lorrain Linner	Quartzite	Homatito		166/60 Cleavage	Quartzite outcrop, faint orange
WWW-22-00	Outerop	490315.5	5225516.0	502.7	1-36h-55	conain upper	Qualizite	Hematile	10 - 00	175/60 Cleavage	staining, massive quartz
1414 33 07	Outeren	4004726	5005000 4	500.0	1 (33		Ou ortelito	Llomotito		240/00 Chase faliation	Quartzite outcrop, shear foliation with
WWW-22-07	Outcrop	490472.0	5225250.4	509.2	1-36h-55	Lonain opper	Qualizite	nematite	-	240/60 Shear fonation	dark fracture staining
											Diabase boulder with epidote veinlet
14/14/22 00	Elect	400570.0	5225100.0	402.1	1 6 22	Mininging	Dishaas	Epidote,	Du unula a trita a		<1cm, adjacent large fragment with
WW-22-08	Float	490570.9	5225100.9	492.1	1-5ep-22	Nipissing	Diabase	hematite	Pyrmotite	-	hematite veinlets and fine-grained
											pyrrhotite
									Dennika		Diabase boulders, medium grained
WM-22-09	Float	490671.8	5224823.5	476.6	1-Sep-22	Nipissing	Diabase	Hematite	Pyrite,	-	with trace sulphides, vuggy
						_			pyrrhotite		weathered surface
									Pyrite,		Diabase boulder, coarse grained with
WM-22-10	Float	490756.4	5224781.2	477.9	1-Sep-22	Nipissing	Diabase	Hematite	pyrrhotite		sulphide burns
									1.2		Diabase boulder near top of hill, fine
											grained with disseminated pyrite
WM-22-11	Float	490822.4	5225363.1	508.8	1-Sep-22	Nipissing	Diabase	-	Pyrite	-	throughout, possible metamorphosed
											mudstone
WM-22-12	Float	490710.4	5225618.5	461.7	1-Sep-22	Gordon Lake	Siltstone	-	12		-
-											21 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
											Shoreline boulder mix, possible
WM-22-13	Float	491913.6	5226404.8	425.5	8-Sep-22	Gordon Lake	Siltstone	-	-	-	Gordon Lake mudstone, occasional
											boulder of mustone with sandstone
											having angular and rounded clasts
7											
								Hematite.			Gordon Lake mudstone outcrop,
WM-22-14	Outcrop	492062.5	5226320.7	425.9	8-Sep-22	Gordon Lake	Siltstone	Chlorite	Pyrite	030 Aziumth trending shear	interlayered chert bands ~4cm, pyrite
											grains oxidizing on weathered surface
										200/78 Shear Foliation	Gordon Lake siltstone outcrop. less
										112/80 Shear Foliation	green than previous interlayered
WM-22-15	Outcrop	492049.0	5226311.6	426.4	8-Sep-22	Gordon Lake	Siltstone	Chlorite	Pyrite	275/15 Bedding Foliation	chert 2-3cm thick, minor fine grained
										250/25 Bedding Foliation	nyrite
										230723 Deduing Follation	pyric



Field Station	Station Type	Easting (m)	Northing (m)	Elevation (m)	Date	Formation	Lithology	Alteration	Mineralization	Structures	Description
WM-22-16	Outcrop	492005.2	5226310.5	428.4	8-Sep-22	Gordon Lake	Siltstone	Hematite	Pyrite	033/86 Chert Layer 010/82 Chert Layer	Possible upper Gordon Lake, fine grained silicified siltstone and sandstone, no chlorite, minor chert layers ~1cm thick with hematite altered surfaces and interstitial pyrite in non-chert layers, very fissile when breaking, chert is pale yellow-green
WM-22-17	Outcrop	492010.0	5226178.4	425.2	8-Sep-22	Nipissing	Diabase	Chlorite	Pyrite, chalcopyrite	066 (Az only) Contact Trace	Outcrop trends 066 Azimuth behind peninsula of Gordon Lake. Blebby pyrite +/- chalcopyrite interstitially, appears to sill under peninsula
WM-22-18	Float	491443.8	5225989.8	425.4	8-Sep-22	Lorrain Upper	Quartzite	Hematite	Pyrite	-	Large boulders on shore, apparent quartzite, coarse grained with weathered out vugs of pyrite accompanied by yellow-orange staining on weathered surface
WM-22-19	Outcrop	491260.2	5225972.4	426.5	8-Sep-22	Gordon Lake	Siltstone	-	-	228/68 Shear Foliation 230/60 Shear Foliation 244/58 Shear Foliation	Strong shear fabric through rock, western tip of island (remainder of island mostly boulders of mixed lithologies)
WM-22-20	Outcrop	494901.2	5223498.0	465.6	14-Sep-22	Lorrain Upper	Quartzite	199	(1 <u>2)</u>	-	Coarse grained quartzite, very faintly pink-purple with scattered quartz pebbles to 3cm (poorly sorted, not lavered)
WM-22-21	Outcrop	494663.0	5223553.4	489.1	1 4 -Sep-22	Lorrain Middle	Quartz pebble conglomerate	(. .)		228/85 Pebble bed foliation	Quartz pebble conglomerate with rare jasper pebbles
WM-22-22	Outcrop	494563.8	5223633.7	507.3	14-Sep-22	Lorrain Middle	Quartz pebble conglomerate		-	295/60 Pebble bed foliation 285/60 Bedding foliation	Quartz pebble conglomerate with rare jasper pebbles, 5-10cm pebble beds separated by meter-scale quartzite beds
WM-22-23	Outcrop	494445.4	5223870.7	466.5	14-Sep-22	Lorrain Middle	Quartz pebble conglomerate	-		280/63 Pebble bed foliation	Quartz pebble conglomerate with rare jasper pebbles, 5-10cm pebble beds separated by meter-scale quartzite beds
WM-22-24-1	Outcrop	494409.0	5224060.3	473.2	14-Sep-22	Lorrain Upper	Arenite	•			Red quartzite/arenite, outcrop possibly slumped/shifted, weathered cubic void, pervasive hematite, no fresh pyrite cubes remain. Remaining outcrop has pervasive weak to moderate chlorite, pale green on weathered surface and very faint greenish hue on fresh surface



Field Station	Station Type	Easting (m)	Northing (m)	Elevation (m)	Date	Formation	Lithology	Alteration	Mineralization	Structures	Description
WM-22-24-2	Outcrop	494453.2	5224090.1	482.5	14-5ep-22	Lorrain Upper	Arenite				Red quartzite/arenite, outcrop possibly slumped/shifted, weathered cubic void, pervasive hematite, no fresh pyrite cubes remain. Remaining outcrop has pervasive weak to moderate chlorite, pale green on weathered surface and very faint greenish hue on fresh surface
WM-22-25	Float	494548.3	5224156.2	492.3	1 4- Sep-22	Lorrain Upper	Arenite	Hematite	Chalcopyrite		Red quartz arenite boulder, ~1ft diameter, <1% blebby chalcopyrite inside
WM-22-26	Float	494555.4	5224141.9	488.7	14-Sep-22	Gordon Lake	Siltstone	-	Chalcopyrite		Mudstone float, cherty layers, ~1mm chalcopyrite veinlet crosscutting with quartz
WM-22-27	Float	494531.7	5224162.9	497.6	1 4 -Sep-22	Gordon Lake	Siltstone	Hematite			20cm boulder; sandstone, siltstone
WM-22-28	Float	494548.6	5224190.4	509.1	14-Sep-22	Gordon Lake	Siltstone	Hematite	Pyrite		Mudstone float, -2ft, with banding of quartz/chert lenses and 5-7% disseminated pyrite, stretched along fabric
WM-22-29	Float	494533. 7	5224183.3	509.7	14-Sep-22	Lorrain Upper	Arenite	Hematite	Chalcopyrite	-	Red quartz arenite boulder, ~4ft diameter, <1% blebby chalcopyrite inside
WM-22-30	Float	494523.7	5224190.1	511.4	14-Sep-22	Nipissing	Diabase		Pyrite		Diabase boulder ~10ft, coarse grained with minor fine grained pyrite
WM-22-31	Float	494521.6	5224190.5	510.8	14-Sep-22	Gordon Lake	Siltstone	Hematite	8 . 9		Red-purple banded with minor chert
WM-22-32	Float	494506.7	5224216.1	499.2	22-Sep-22	Nipissing	Diabase	Epidote	Pyrrhotite	-	Fine-grained and coarse-grained diabase boulders 1-2ft, disseminated pyrrhotite in fine grained phase, epidote veinlets/fracture-filling throughout
WM-22-33	Float	494477.2	5224227.7	502.4	22-Sep-22	Lorrain Middle	Quartz pebble conglomerate	1_20	8 8	260/40 Quartz pebble beds	Quartz pebble conglomerate, 3cm pebbles, 10m boulder likely rotated
WM-22-34	Outcrop	494555.9	5224348.8	499.5	22-Sep-22	Lorrain Mìddle	Quartz pebble conglomerate	120	2 <u>8</u> 7	296/35 Quartz pebble beds 185/80 Quartz vein (3cm) 310/40 Quartz pebble beds	Quartz pebble conglomerate, 3cm pebbles in 10-20cm beds, rare jasper pebbles
WM-22-35	Float	494703.5	5224628.0	510.1	22-Sep-22	Gordon Lake	Siltstone				Top of double-peak hill with saddle running through, outcrop is quartzite with float if diabase, red arenite and mottled quartzite. Site of geochem copper anomaly, source likely float- derived
WM-22-36	Outcrop	494310.2	5224217.7	531.5	22-Sep-22	Lorrain Middle	Quartz pebble conglomerate	-		236/65 Quartz pebble beds	Quartz pebble conglomerate, pebble beds 5-10cm every 1-3ft, quartz and jasper pebbles to 3cm





Appendix B: Geological Field Station Photographs

The photographs taken for each sample site are included as an attachment to this report under the folder "/Appendix B – Outcrop Sampling Photos".



Figure 6: Field station WM-22-01





Figure 7: Field Station WM-22-02



Figure 8: Field Station WM-22-03





Figure 9: Field Station WM-22-04



Figure 10: Field Station WM-22-05





Figure 11: Field Station WM-22-06



Figure 12: Field Station WM-22-07





Figure 13: Field Station WM-22-08



Figure 14: Field Station WM-22-09





Figure 15: Field Station WM-22-11



Figure 16: Field Station WM-22-12





Figure 17: Field Station WM-22-12



Figure 18: Field Station WM-22-13





Figure 19: Field Station WM-22-14 (shoreline)



Figure 20: Field Station WM-22-14 (structural fabric detail)





Figure 21: Field Station WM-22-14 (under moss mat)



Figure 22: Field Station WM-22-14 (Quartz vein boudin)





Figure 23: Field Station WM-22-15



Figure 24: Field Station WM-22-15 (close)



Figure 25: Field Station WM-22-15 (Layer contrasts)

Figure 26: Field Station WM-22-16

Figure 27: Field Station WM-22-17

Figure 28: Field Station WM-22-18

Figure 29: Field Station WM-22-19

Figure 30: Field Station WM-22-20

Figure 31: Field Station WM-22-21

Figure 32: Field Station WM-22-22

Figure 33: Field Station WM-22-23

Figure 34: Field Station WM-22-24

Figure 35: Field Station WM-22-24 (hand sample)

Figure 36: Field Station WM-22-25

Figure 37: Field Station WM-22-25 (close)

Figure 38: Field Station WM-22-26

Figure 39: Field Station WM-22-26 (veinlet)

Figure 40: Field Station WM-22-27

Figure 41: Field Station WM-22-28

Figure 42: Field Station WM-22-29

Figure 43: Field Station WM-22-30

Figure 44: Field Station WM-22-31

Figure 45: Field Station WM-22-37

Figure 46: Field Station WM-22-38

Figure 47: Field Station WM-22-39

Figure 48: Field Station WM-22-41

Figure 49: Field Station WM-22-41 (adjacent similar boulder)

Figure 50: Field Station WM-22-42

Appendix C: Geological Map of Field Area

The following map displays the spatial arrangement of field stations and corresponding lithological classifications. The underlying geological interpretation is based on the document "Assessment Report Based on the 2021 Soil Sampling Program and Airborne Magnetic Survey Inversion, Warrior Copper Project, Unwin, Still, Leask, Valin and McNamara Townships" submitted previously by KGHM.

0 0.2

0.4

Kilometers

1.2

1.6

2

0.8

490000

🖉 КСНМ

495000

495000

54