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ASSESSMENT REPORT
ON A 2021 MAPPING AND XRF GEOCHEMISTRY PROGRAM OF THE PEDDIE PROPERTY,
BUCKE TOWNSHIP
LARDER LAKE MINING DIVISION, NORTHEASTERN ONTARIO
FOR
KUYA SILVER CORPORATION

Prepared by:

Shuda Zhou, M.Sc., P.Geo.

Benjamin Mark, B.Sc.

Oct. 13th, 2021

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List of Figures & Tables

1. Summary

This report was prepared and submitted by Shuda Zhou, a registered professional geoscientist employed by Kuya Silver Corporation, and Benjamin Mark, while working on mineral claims of the Silver Kings Joint Venture. The Silver Kings Joint Venture is an option agreement between Kuya Silver Corporation, the operator of the property, and First Cobalt Corporation, who holds the mineral claims through its subsidiary, Cobalt Industries of Canada Ltd.

The Peddie Property is located in Bucke Township, four (4) kilometres west of Haileybury, Ontario (Figure 1) and it consists of eleven (11) cell mining claims. The Peddie property area is prospective for silver, cobalt and diamonds.

In the fall of 2021, Kuya Silver Corp. personnel conducted mapping and portable XRF (pXRF) analysis on bedrock exposures in the Peddie Property (Figure 1). Fifteen (15) outcrops were mapped and fifty-three (53) pXRF analyses were taken on the mapped outcrops. Each outcrop visited was recorded by handheld GPS, photographed, described, and analyzed by pXRF. All spatial data contained in this report reflect a Universal Trans Mercator co-ordinate system using North American Datum 1983 Zone 17. Field co-ordinates were measured using a handheld Garmin GPS unit.

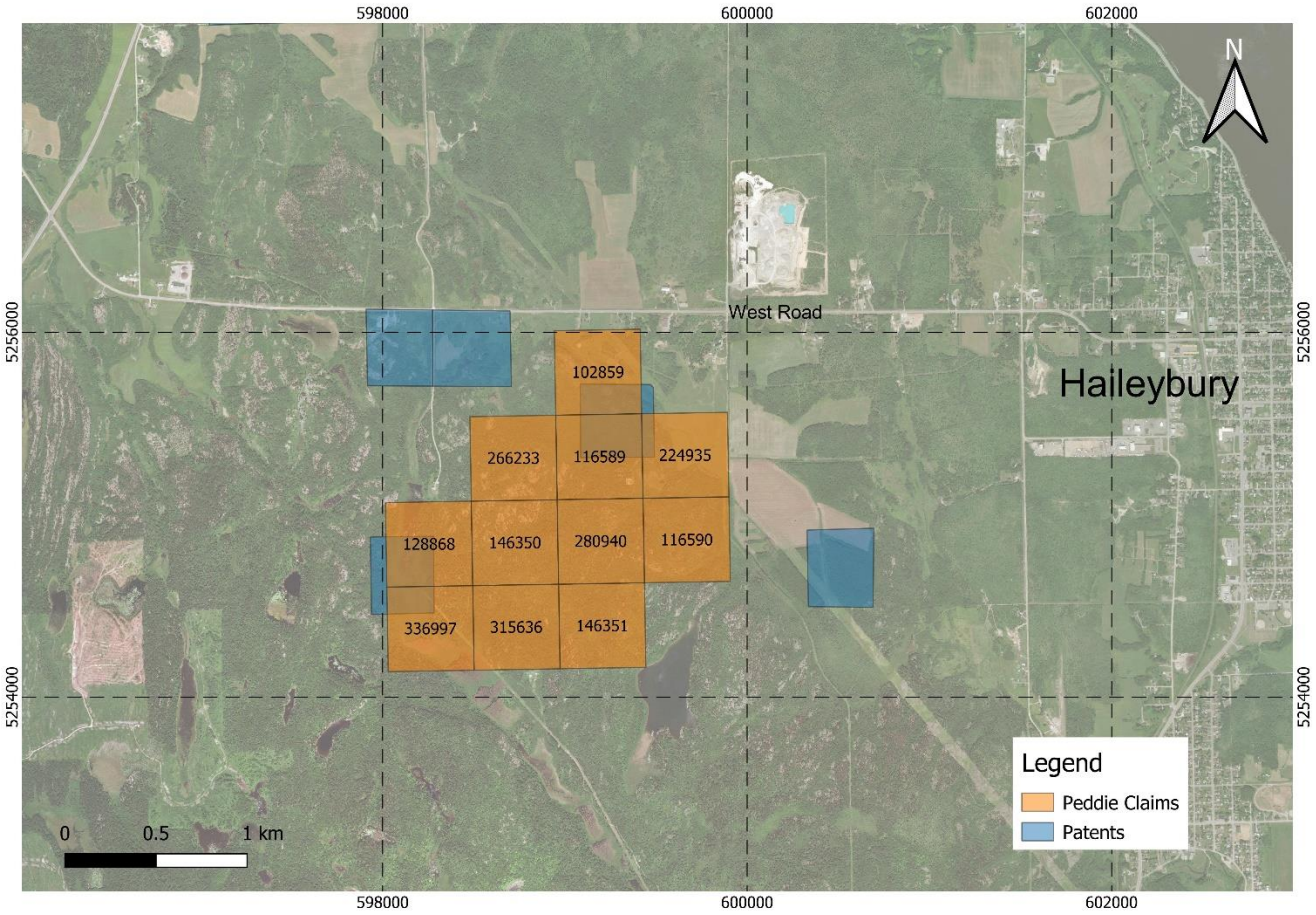
The work is helping to refine the geology of the property, including the orientation of Huronian Supergroup rock units in the area. pXRF geochemical results on unmineralized outcrops help to understand the background values of Huronian Supergroup and Nipissing Diabase in the Cobalt mining camp. Anomalous pXRF results of silver and base metals suggest that the western part of the property is more prospective than the eastern part.

2. Location, Access and Ownership

The Peddie Property consists of eleven (11) cell mining claims and is located within Bucke Township, approximately 4 km west of the town of Haileybury within the Timiskaming Shores Municipality (Figure 1). The property lies within the Larder Lake Mining Division, within Provincial Grid 31M05J. The claims are held entirely (100%) by Cobalt Industries of Canada Inc. (a subsidiary of First Cobalt Corporation). The cell block encloses 2 patented claims held by other parties. Surface rights are also held within parts of the cell block and the remainder is Crown land.

Access to the property is via old highway 558 (West Rd) from Haileybury and via Ramsey and Clover Valley Roads; both are maintained year-round by the municipality. Existing ATV trails lead to the surface exposures at the Peddie Kimberlite prospect as located within the Ontario Mineral Deposit Inventory (MDI) Database.

Figure 1. Location of the Peddie Property in Bucke Township, Larder Lake Mining Division.



3. Property History and Previous Work

The exploration history of the Peddie Property area is summarized below (Table 1) based on online Government of Ontario assessment files and historical Ontario Resident Geologist notes on file at the District Geologist's office in Kirkland Lake.

The Peddie Kimberlite pipe was discovered by Consolidated Pine Channel Gold Corp. in 1995 by drill targeting an airborne magnetic anomaly.

In 1999, the Geological Survey of Canada conducted a series of studies on the mineralogy and geochemistry of the kimberlite as well as the surrounding glacial sediments (McClenaghan et al., 1999). As part of these studies several trenches were excavated exposing the kimberlite. The mineralogical work on the kimberlite showed the potential to be low based on the chemistry of the typical indicator minerals for diamond prospectivity. The dispersal train of indicator minerals in the till is well constrained to < 1km from the bedrock source (McClenaghan et al, 2002).

Table 1. Summary of previous assessment work filed.

Year	Assessment File Reference	Operator	Description
1995	31M05NE0124	Consolidated Pine Channel Gold Corp	Ground Magnetometer Surveys, Drilling
2005	20000000620	Paul Gareth Walton & Leonard Wellington Peddie	Mechanical Stripping & Surveying
2006	20000001405	Paul Gareth Walton & Leonard Wellington Peddie	Overburden Stripping and Bedrock mapping
2019	20000018052	Cobalt Industries of Canada Inc	Petrographic Work and rock sampling

In 2019, Cobalt Industries of Canada Inc. took a single 20kg sample and sent it to Royal Ontario Museum for Raman Spectrometer analysis. The Raman analysis aimed to identify minerals in the Kimberlite sample with specific attention to the phenocryst and xenocryst components of the rock. Several phases of ultramafic minerals were identified but no diamonds were seen.

4. Geological Setting

4.1 Regional Geology

The claim block is located within the geological domain known as the Cobalt Embayment, a circular Proterozoic-age sedimentary basin. The basin is underlain by Archean volcanic, sedimentary, mafic intrusive, and granitoid units related to the southern extent of the Abitibi Subprovince. The Archean units are unconformably overlain by relatively flat-lying to openly-folded early Proterozoic Huronian Supergroup sedimentary rocks. In the Cobalt Embayment (Table 2), the Huronian Supergroup consists

solely of the Cobalt Group (lacking the underlying Elliot Lake, Hough Lake and Quirke Lake groups), and it comprises the Gowganda Formation and overlying Lorrain Formation. The Gowganda Formation consists (from bottom to top) of the glaciogenic Coleman Member (conglomeratic diamictite, rhythmite, and sandstone), and the overlying Firstbrook Member (basinal mudstone, argillite, siltstone, and sandstone). The Lorrain Formation is unsubdivided sandstone, arenite and greywacke (Legun, 1986). The sedimentary rocks are intruded by diabase and gabbroic intrusions of the 2219-2209 Ma Nipissing sills and dykes (Corfu and Andrews, 1986; Noble and Lightfoot, 1992). Economic mineralization of the Cobalt area includes extensive historic mining of silver-bearing polymetallic (Ag-Ni-Co-Cu-Bi) carbonate and quartz veins, which occur in faults and fractures within all rock types, but notably proximal to Nipissing sills and the Archean/Proterozoic unconformity. Kimberlites, potentially diamondiferous, are also known locally.

Table 2: Cobalt Embayment Stratigraphy

Cobalt Embayment Stratigraphy					
Phanerozoic		Recent Pleistocene		Fluvial and lacustrine deposits Glacial Sand, gravel, and varved clay	
			Unconformity		
	154-140	Jura-Cretaceous	Kimberlites, lamprophyres		
			Unconformity		
		Silurian	Thornloe Formation Wabi Formation	Dolomite, limestone Limestone, shale	
			Disconformity		
		Ordovician	Dawson Point Formation Farr Formation Bucke Formation Guigues Formation	Shale Limestone Shale Sandstone	
			Unconformity		
Proterozoic	1235-1238 Ma	Sudbury Dykes	Olivine and quartz diabase		
			Intrusive Contact		
	2220-2210Ma		Nipissing Diabase	gabbro, quartz gabbro, hornblende gabbro, quartz diabase, hypersthene diabase, varied-texture diabase, granophyric diabase	Co-Ag-As-Ni-Bi Mineralization
			Intrusive Contact		
		Huronian Supergroup	Cobalt Group Lorrain Formation Gowganda Formation Firstbrook Member Coleman Member	 Quartz arenite, arkose Laminated siltstone (grading upward from green to red), minor sandstone at upper part Polymictic conglomerate, diamictite, sandstone, laminated siltstone.	
			Unconformity		
Archean	~2454 Ma	Matachewan	Diabase, minor lamprophyre		
			Intrusive Contact		
		Algoman	Granite, granodiorite, syenite		
			Intrusive Contact		
	2667 ± 27	Haileyburian	Dykes and sills of mafic and ultramafic rocks; lamprophyre		
			Intrusive Contact		
		Timiskaming	Lithic and feldspathic arenites and wackes; conglomerate		
			Unconformity		
	2766 (?) - 2682(?) Ma	Volcanic Rocks	Minor interflow sediments (mainly black shale, chert); iron formation Felsic to intermediate volcanics (flows and pyroclastics), volcaniclastics Mafic to intermediate mafic flows and tuffs, volcaniclastics		Cu-Zn-Pb Mineralization

Compiled by: M.Hewton, 2017.

4.2 Property Geology

The Peddie Property is mainly composed of Nipissing Diabase and Huronian Supergroup sedimentary rocks. Nipissing Diabase covers southeast part of the property with overlying Huronian Supergroup to the Northwest. The contact between diabase and the Huronian is inferred.

A Kimberlite pipe was discovered by Consolidated Pine Channel Gold Corp in 1995. The following is a general description of the Peddie kimberlite pipe directly from McClenaghan et al., 1999:

"The Peddie kimberlite is classified as a hypabyssal-facied phlogopite macrocrystic monticellite

kimberlite. A high precision U-Pb perovskite radiometric age determination of 153.6 Ma (Heaman and Kjarsgaard, 1998) indicates the kimberlite is of Late Jurassic age. This age is consistent with kimberlite intruding a Paleoproterozoic age Nipissing quartz diabase sill, and containing rare Paleozoic carbonate xenoliths. The kimberlite contains quite unusual 'eggs' (10 to 20 cm in size) consisting of >90% olivine which seems not to be mantle dunite xenoliths and an unusually high volume of large, fresh olivine grains that give it a distinct mineralogical signature."

Outcrops in the vicinity of the Peddie kimberlite exposures consist of Nipissing Diabase that form the rugged hills between shallow swamps.

5. Work Program

5.1 Purpose and Work

The purpose of the 2021 reconnaissance mapping was to conduct prospecting, document the major rock types, measure Huronian bedding in the region and carry out geochemical analysis using portable XRF (pXRF) on some of the outcrops to evaluate the potential for silver-cobalt mineralization.

The work was conducted by Kuya Silver Corp. personnel Shuda Zhou, Benjamin Mark and Ryan Burrows. Shuda Zhou and Benjamin Mark visited the site on October 7th and 8th, 2021, for ground truthing, mapping and pXRF analysis and Benjamin Mark and Ryan Burrows visited the site on October 10th, 2021 for mapping and pXRF analysis. Fifteen (15) outcrops were mapped and fifty-three (53) pXRF analyses were collected on various outcrops. All outcrops were located by handheld GPS, mapped, photographed, described and scanned with the pXRF (see outcrop description and XRF results in Appendix D).

Table 3: Tenure List for Peddie Property

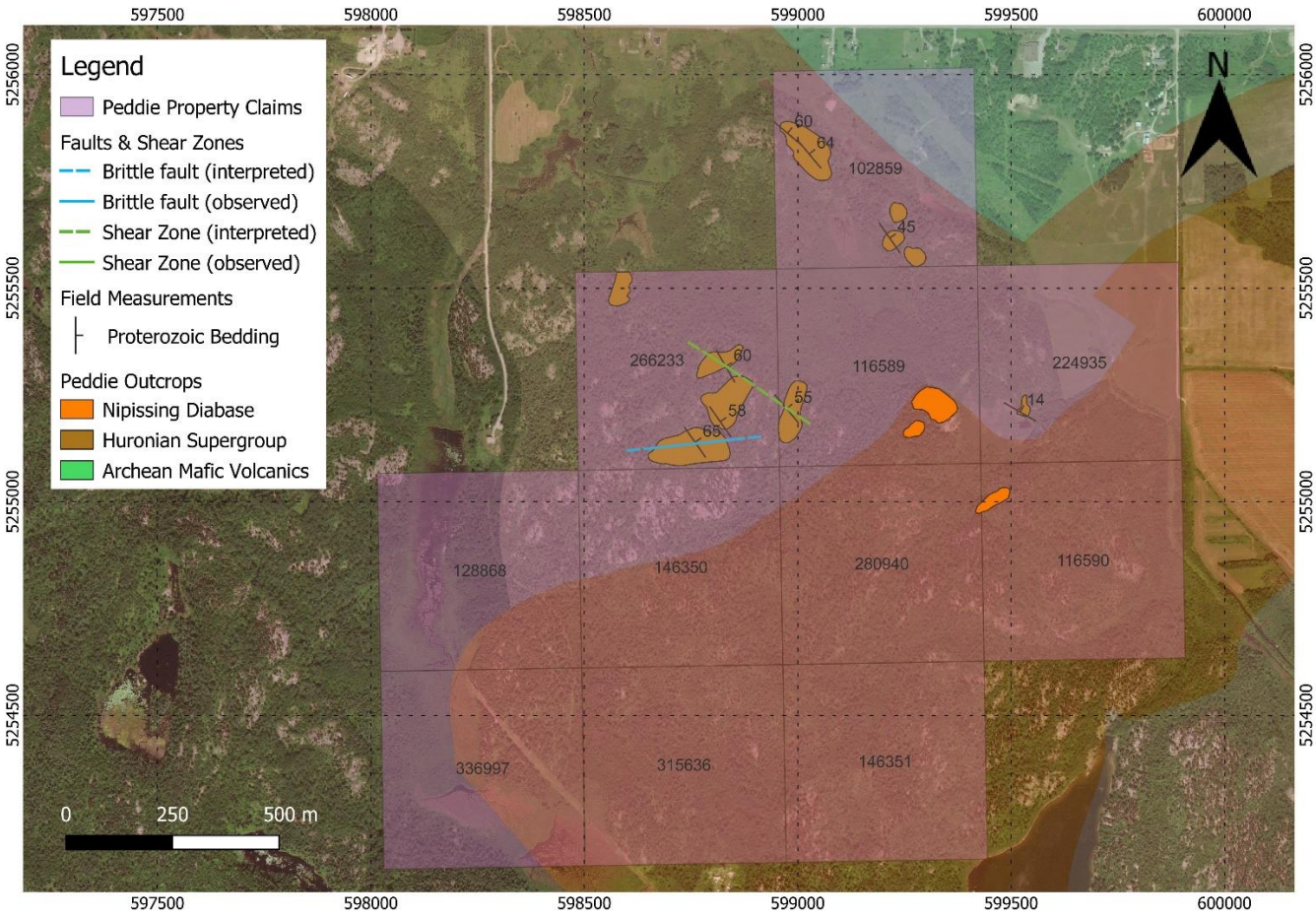
Tenure ID	Township/Area	Tenure Type	Anniversary Date
102859	Bucke	Single Cell Mining Claim	2021-12-20
116589	Bucke	Single Cell Mining Claim	2021-12-20
116590	Bucke	Boundary Cell Mining Claim	2021-12-20
128868	Bucke	Single Cell Mining Claim	2021-12-20
146350	Bucke	Single Cell Mining Claim	2021-12-20
146351	Bucke	Single Cell Mining Claim	2021-12-20
224935	Bucke	Single Cell Mining Claim	2021-12-20
266233	Bucke	Single Cell Mining Claim	2021-12-20
280940	Bucke	Single Cell Mining Claim	2021-12-20
315636	Bucke	Single Cell Mining Claim	2021-12-20
336997	Bucke	Boundary Cell Mining Claim	2021-12-20

On October 7th, 2021, Shuda Zhou and Benjamin Mark mapped the eastern part of the property. A total of 5 outcrops were mapped and 14 pXRF analyses were done. Apart from an outcrop with mainly Proterozoic Huronian Supergroup sedimentary rocks with a small window of underlying Archean mafic volcanic rocks, all other outcrops visited were dominated by Nipissing Diabase. The previously reported Kimberlite pipe was located (GPS coordinates NAD 83 UTM17 599343E 5255194N), but no surface exposure was identified. Kimberlite samples with 1-3 cm olivine were seen in the crushed rock piles next to a water pond. No mineralization or veining was observed in the first day.

On October 8th, 2021, a total of 6 outcrops were mapped and 23 XRF analyses were collected. All outcrops visited are dominated with massive sandstone with some interbedded matrix supported and clast supported conglomerate. The sandstone and conglomerate are interpreted as Lorrain sandstone and Gowganda conglomerate respectively. An attempt was made to locate Bucke Lot shaft, with location data taken from the Ontario Abandoned Mines Information System (AMIS) Database, but only a moderate-sized historic trench was identified with minimal anomalous pXRF data. A 50 cm wide shear zone was also located, however, pXRF analyses around the shear zone only returned a minor base metal anomaly.

On October 10th, 2021, Benjamin Mark and Ryan Burrows mapped the western part of the property. A total of 4 outcrops were mapped and 14 pXRF analyses were returned. The western part of the property is dominated with Huronian Supergroup sedimentary rocks with interbedded sandstone and conglomerate, interpreted as Lorrain sandstone and Gowganda conglomerate. An east-west trending fault was found with gossanous sulphide oxidation (PED-15). XRF analyses of the gossan returned anomalous Co, As, Cu and Zn values.

Figure 2: Geological map of Peddie Property (NAD 83 UTM Zone 17)



5.2 XRF analysis and equipment

The portable XRF (pXRF) analyses were conducted using a Thermo Scientific Niton XL3t-950 handheld portable XRF using the voltage of 50 kV. Scans were done on fresh bedrock outcrops, with each analysis scanned for sixty (60) seconds. Calibration and quality control was monitored by scanning Quality Assurance/Quality Control standard RCRApp every 20 analyses.

pXRF analyses were conducted on each outcrop documented (Figure 3) with results tabulated in Appendix C. Highlights of the XRF analyses are: (1) one spot with rusty surface (PED-10) returns 69 ppm and 57 ppm silver. (2) On outcrop PED-15, XRF analyses returns anomalous Co, As, Cu and Zn value (see outcrop description and XRF results in Appendix D).

Figure 3: Field image of personnel conducting pXRF analysis

6. Interpretations and Conclusions

The bedrock geology of the Peddie Property is mainly composed of Nipissing Diabase to the east and Huronian Supergroup sedimentary rocks to the west (Figure 2). Bedding of the Huronian Supergroup (generally striking 320 degrees and dipping 65 degrees to the northeast) on the west side of the property are consistently considerably steeper than the other Huronian Supergroup sedimentary rocks in the region (generally dipping 10 degrees northeast), potentially suggesting property-scale folding.

At outcrop PED-15, an east-west trending fault with potential sulphide oxidation (gossan) was located. This east-west trending fault is likely a subsidiary fault to the nearby Cross Lake fault, which cuts across the southwest part of the Peddie Property.

The handheld XRF results at most outcrops are within the range of unmineralized Nipissing Diabase and Huronian Supergroup based on previously-scanned XRF analyses database (Appendix E). However, two XRF analyses in the western part of the property on a rusty surface (PED-10) returned higher silver value (69 ppm and 57 ppm) and a few XRF analyses on outcrop PED-15 returned anomalous Co, As, Cu and Zn values near a fault. It is suggested that the western part of the property is more prospective in terms of silver and cobalt mineralization near surface.

The Peddie kimberlite pipe was identified on the property as previously reported. No work was done to assess the diamond-bearing potential of this rock unit.

7. Recommendations

Additional mapping and pXRF analyses are recommended on the Peddie Property for silver-cobalt mineralization. The local geology is prospective for silver-cobalt bearing veins, as the Nipissing Diabase and the Archean/Proterozoic unconformity, both important for silver-cobalt mineralization, are present on the property. The property is also proximal to the Cross Lake Fault, which is arguably a control on mineralized veining along strike. In detail, several outcrop pXRF analyses returned anomalous Ag, Co, As, Cu and Zn values in proximity to faulting.

In addition to surficial mapping and pXRF analyses, a soil sampling grid may be useful in identifying further silver-cobalt mineralization.

8. Personnel

Shuda Zhou	Project Geologist
	Kuya Silver Corp.
Benjamin Mark	Junior Geologist-In-Training
	Kuya Silver Corp.
Ryan Burrows	Geo-technician
	Kuya Silver Corp.

9. References

Knight, C.W. 1924. Thirty-First Annual Report of the Ontario Department of Mines, being Vol. XXXI, Part II, 1992. Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas. ARV31-02.

Ayer, J.A. and Chartrand, J.E. 2011. Geological compilation of the Abitibi greenstone belt; Ontario Geological Survey, Miscellaneous Release-Data 282.

Kjarsgaard, B.A. 2003. Northern Ontario Field Trip Guidebook. Guidebook prepared for the VIIIth International Kimberlite Conference. 46 p.

McClenaghan, M.B., Kjarsgaard, BA. Kjarsgaard, I.M., and Paulen, R.C. 1999. Mineralogy and geochemistry of the Peddie Kimerlite and associate glacial sediments, Lake Temiskaming, Ontario, Geological Survey of Canada Open File 3775.

McClenaghan, M.B., Kjarsgaard, BA. Kjarsgaard, I.M., and Paulen, R.C. 2002. Indicator mineral content and geochemistry of the till around the Peddie Kimberlite, Lake Temiskaming, Ontario. Geological Survey of Canada Open File 4262.

Certificate of Qualified Person

I, Shuda Zhou, M.Sc. P. Geo., residing in Toronto, Ontario, Canada, do hereby certify that:

1) I have personally prepared the Technical Report and approve of its contents.

2) I am a Project Geologist for Kuya Silver Corp. based in Toronto, Ontario at Suite 203, 150 King Street West M5J 1J9.

3) I graduated with an Honours B.Sc. (Geology) from China University of Geoscience in 2012. I obtained my M.Sc (Earth Sciences) at the University of Windsor, Windsor, Ontario in 2015.

4) I am a registered Professional Geoscientist with the Association of Professional Geoscientists of Ontario (APGO #3367).

5) I have worked as a geologist for 6 years since my graduation from university, on a wide variety of gold, base metal, lithium and silver exploration properties, including project management.

6) As of the effective date of the Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all the scientific and technical information that is required to be disclosed to ensure the Technical Report is not misleading.

Toronto, Ontario, Canada

(Signed and Sealed) “Shuda Zhou”

October 13, 2021

Shuda Zhou, M.Sc., P. Geo.

Project Geologist

Kuya Silver Corp.

APPENDIX A - Statement of Costs

Work performed in this report was conducted by Shuda Zhou, M.Sc., P.Geo., Benjamin Mark and Ryan Burrows. Attached is the statement of costs:

Table 4: Statement of costs

Work (days)	Date	Work Type	Salary	Truck rental	Accommodation	Total Amount (C$)
1	October 7th, 2021	Mapping, XRF	900	61	138	1099
1	October 8th, 2021	Mapping, XRF	900	61	138	1099
1	October 9th, 2021	Report preparation and writing	900	61	138	1099
1	October 10th, 2021	Mapping, XRF and Report preparation	1150	61	138	1349
1	October 11th, 2021	Report preparation and writing	900	61	138	1099

Total costs = $5745

*These costs do not include HST.

APPENDIX B - Outcrop Location

Table 5: Outcrop Location (Coordinates in NAD83 UTM Zone 17N)

Mapper	Date	Station	Easting	Northing	Elevation	Primary Rock Unit	Comment
SZ/BM	Oct.7th, 2021	PED-01	599525	5255217	276	Coleman Conglomerate	A small window of Archean mafic volcanic
SZ/BM	Oct.7th, 2021	PED-02	599365	5255219	277	Nipissing Diabase	
SZ/BM	Oct.7th, 2021	PED-03	599343	5255194	279	Nipissing Diabase	Kimberlite pipe recorded at location, but outcrop exposure not located
SZ/BM	Oct.7th, 2021	PED-04	599457	5255057	283	Nipissing Diabase	
SZ/BM	Oct.7th, 2021	PED-05	599239	5255185	284	Nipissing Diabase	Historic test shaft and adit recorded at site, could not locate
SZ/BM	Oct.8th, 2021	PED-06	599222	5255622	281	Coleman Conglomerate	
SZ/BM	Oct.8th, 2021	PED-07	599251	5255579	279	Coleman Conglomerate	
SZ/BM	Oct.8th, 2021	PED-08	599033	5255819	278	Coleman Conglomerate	
SZ/BM	Oct.8th, 2021	PED-09	598981	5255869	279	Coleman Conglomerate	
SZ/BM	Oct.8th, 2021	PED-10	598980	5255223	285	Coleman Conglomerate	
SZ/BM	Oct.8th, 2021	PED-11	598838	5255321	285	Coleman Conglomerate	
BM/RB	Oct.10th, 2021	PED-12	598589	5255518	281	Coleman Conglomerate	
BM/RB	Oct.10th, 2021	PED-13	598825	5255192	291	Coleman Conglomerate	
BM/RB	Oct.10th, 2021	PED-14	598766	5255144	295	Coleman Conglomerate	East-west striking fault present with anomalous cobalt and base metal values and multiple historic test pits
BM/RB	Oct.10th, 2021	PED-15	598680	5255121	292	Coleman Conglomerate	East-west striking fault present with anomalous cobalt and base metal values and multiple historic test pits

SZ - Shuda Zhou, BM - Benjamin Mark, RB - Ryan Burrows

APPENDIX C - Geochemistry

Table 6: XRF results for mapped outcrops

Analysis ID	Rock type	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-01-1	HSG	ppm	0	75	15	1356	19	58	25	49	10100
PED-01-2	HSG	ppm	0	131	10	1081	25	61	33	62	13600
PED-01-3	MV	ppm	18	125	8	176	50	146	-2	96	66100
PED-01-4	MV	ppm	26	0	12	0	42	90	0	176	38700
PED-02-1	DB	ppm	0	494	16	1670	50	98	12	89	34280
PED-02-2	DB	ppm	18	336	17	737	51	148	12	113	48600
PED-02-3	DB	ppm	8	-212	31	351	55	105	48	216	27900
PED-03-1	DB	ppm	20	110	8	261	75	122	-2	57	81400
	RCRApp	ppm	390	47	485	561	57	78	574	71	34400
PED-03-2	DB	ppm	31	116	13	83	77	146	0	110	54300
PED-04-1	DB	ppm	10	439	20	1425	45	151	12	65	41500
PED-04-2	DB	ppm	0	342	14	1283	41	74	14	55	48900
PED-04-3	DB	ppm	0	401	21	2217	57	42	18	86	13800
PED-05-1	DB	ppm	0	491	29	532	154	66	19	168	24300
PED-05-2	DB	ppm	0	296	43	856	69	106	31	183	26500
PED-06-1	HSG	ppm	0	101	3	140	19	26	0	45	4274
PED-06-2	HSG	ppm	0	-385	12	470	29	81	5	35	5427
PED-06-3	HSG	ppm	0	-29	25	1338	30	5	37	27	4001
PED-06-4	HSG	ppm	0	73	25	1393	21	12	27	91	14200
PED-07-1	HSG	ppm	0	120	38	1191	29	30	35	44	10000
PED-07-2	HSG	ppm	0	30	51	954	20	77	41	68	12700
PED-07-3	HSG	ppm	0	139	65	382	18	52	40	67	11300
PED-07-4	HSG	ppm	0	43	11	901	25	7	8	18	1790
PED-07-5	HSG	ppm	0	0	77	0	54	130	42	96	3275
PED-08-1	HSG	ppm	0	143	21	872	31	50	78	27	17900
PED-08-2	HSG	ppm	0	385	70	2465	79	85	68	92	20700
PED-08-3	HSG	ppm	0	294	48	919	28	30	43	49	4708
PED-09-1	HSG	ppm	0	178	42	1849	21	117	91	70	24600
	RCRApp	ppm	381	140	482	443	60	55	548	84	33800
PED-09-2	HSG	ppm	0	-83	15	956	23	121	0	68	21700
PED-09-3	HSG	ppm	0	154	72	1310	36	63	152	80	15400
PED-10-1	HSG	ppm	0	12	19	1654	27	95	70	56	25700
PED-10-2	HSG	ppm	64	0	46	0	0	241	53	417	4774
PED-10-3	HSG	ppm	0	30	6	573	23	50	17	28	12800
PED-10-4	HSG	ppm	57	0	29	0	72	292	11	376	2527
PED-11-1	HSG	ppm	0	216	72	2181	100	72	33	80	1622
PED-11-2	HSG	ppm	0	36	33	1301	32	18	23	37	891
PED-11-3	HSG	ppm	0	18	14	565	18	23	12	19	1035

	RCRApp	ppm	385	326	477	326	59	104	499	68	31800
PED-12-1	HSG	ppm	0	-2	6	370	17	27	23	15	343
PED-12-2	HSG	ppm	0	18	4	625	20	-16	-2	20	3096
PED-12-3	HSG	ppm	0	65	44	1712	36	56	40	62	1196
PED-13-1	HSG	ppm	0	253	46	1599	37	47	91	54	23100
PED-13-2	HSG	ppm	0	211	29	882	34	19	72	46	12500
PED-13-3	HSG	ppm	0	220	59	373	48	-9	188	30	325
PED-14-1	HSG	ppm	0	180	16	1100	22	37	79	28	4500
PED-14-2	HSG	ppm	0	183	46	1431	27	69	88	48	21800
PED-14-3	HSG	ppm	27	316	54	815	19	46	82	66	25100
PED-15-1	HSG	ppm	0	404	45	203	44	35	94	100	542
PED-15-2	HSG	ppm	0	464	63	825	48	65	40	120	2431
PED-15-3	HSG	ppm	0	698	33	827	169	-3	53	304	6481
PED-15-4	HSG	ppm	0	1126	29	375	171	8	83	163	3608
PED-15-5	HSG	ppm	0	162	145	226	291	-24	137	132	11100

HSG - Huronian Supergroup sedimentary rocks; DB - Nipissing Diabase; MV - Archean mafic volcanic rocks and RCRApp - QC standard made by Thermo Scientific.

APPENDIX D - Description of Outcrops

PED-01

Station	Date	Easting	Northing	Elevation	Rock unit
PED-01	07-OCT-2021	599525	5255217	276	Huronian Supergroup/Archean Mafic Volcanics

Coordinates in NAD83 UTM Zone 17N

Station primarily consists of sedimentary rocks of the Coleman Member of the Huronian Supergroup (HSG), including sandy conglomerate. The sandy conglomerate is greenish gray in fresh surface, matrix supported, massively bedded, with relatively flat, west-northwest striking bedding, and contains clasts up to 4cm of felsic volcanic rock. A small window of Archean mafic volcanic rock is exposed which is dark green in fresh surface, pillowed with 1 mm plagioclase amgydules and which is weakly brecciated. The contact between these two units is buried and was not observed. Furthermore, within the HSG sedimentary rocks, a spaced, slaty cleavage striking 100 degrees and dipping 75 degrees was observed.

The rock was scanned by portable XRF four times at four distinctly different point locations. There were no anomalous silver, cobalt or base metal values detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-01-1	Conglomerate	ppm	0	75	15	1356	19	58	25	49	10,100
PED-01-2	Conglomerate	ppm	0	131	10	1081	25	61	33	62	13,600
PED-01-3	Mafic Volcanics	ppm	18	125	8	176	50	146	-2	96	66,100
PED-01-4	Mafic Volcanics	ppm	26	0	12	0	42	90	0	176	38,700

PED-02

Station	Date	Easting	Northing	Elevation	Rock unit
PED-02	07-OCT-2021	599365	5255219	277	Nipissing Diabase

Coordinates in NAD83 UTM Zone 17N

Station primarily consists of dark gray to black, equigranular, medium grained, Nipissing Diabase with no discernable structure. Composition primarily consists of plagioclase, amphibole, biotite, and quartz.

The rock was scanned by portable XRF three times at three distinctly different point locations. There were no anomalous silver, cobalt or base metal values detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-02-1	Diabase	ppm	0	494	16	1670	50	98	12	89	34,280
PED-02-2	Diabase	ppm	18	336	17	737	51	148	12	113	48,600
PED-02-3	Diabase	ppm	8	-212	31	351	55	105	48	216	27,900

PED-03

Station	Date	Easting	Northing	Elevation	Rock unit
PED-03	07-OCT-2021	599343	5255194	279	Nipissing Diabase

Coordinates in NAD83 UTM Zone 17N [EPSG: 26917]

Station primarily consists of dark gray to black, equigranular, medium grained, Nipissing Diabase with no discernable structure. Composition primarily consists of plagioclase, amphibole, biotite, and quartz.

The rock was scanned by portable XRF two times at two distinctly different point locations. There were no anomalous silver, cobalt or base metal values detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-03-1	Diabase	ppm	20	110	8	261	75	122	-2	57	81,400
PED-03-2	Diabase	ppm	31	116	13	83	77	146	0	110	54,300

PED-04

Station	Date	Easting	Northing	Elevation	Rock unit
PED-04	07-OCT-2021	599457	5255057	283	Nipissing Diabase

Coordinates in NAD83 UTM Zone 17N

Station primarily consists of dark gray to black, equigranular, medium grained, Nipissing Diabase with no discernable structure. Composition primarily consists of plagioclase, amphibole, biotite, and quartz.

The rock was scanned by portable XRF three times at three distinctly different point locations. There were no anomalous silver, cobalt or base metal values detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-04-1	Diabase	ppm	10	459	20	1425	45	151	12	65	41,500
PED-04-2	Diabase	ppm	0	342	14	1238	41	74	14	55	48,900
PED-04-3	Diabase	ppm	0	401	21	2217	57	42	18	86	13,800

PED-05

Station	Date	Easting	Northing	Elevation	Rock unit
PED-05	07-OCT-2021	599239	5255185	284	Nipissing Diabase

Coordinates in NAD83 UTM Zone 17N

Station primarily consists of dark gray to black, equigranular, medium grained, Nipissing Diabase with no discernable structure. Composition primarily consists of plagioclase, amphibole, biotite, and quartz. Historic trenches present. Historic test shaft and adit reported in Abandoned Mines Information System Database files but were unable to locate during field work.

The rock was scanned by portable XRF two times at two distinctly different point locations. There were no anomalous silver, cobalt or base metal values detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-05-1	Diabase	ppm	0	491	29	532	154	66	19	168	24,300
PED-05-2	Diabase	ppm	0	296	43	856	69	106	31	183	26,500

PED-06

Station	Date	Easting	Northing	Elevation	Rock unit
PED-06	08-OCT-2021	599222	5255622	281	Huronian Supergroup

Coordinates in NAD83 UTM Zone 17N

Station consists of sedimentary rocks of the Coleman member of the Huronian Supergroup. Included are sandstone and sandy conglomerate. Sandstone is greenish gray in fresh surface, thinly bedded (.25-.5 cm), moderately dipping, northwest striking bedding with possible cross bedding defined by alternating light and dark beds with an accompanying change in grain size. Sandy conglomerate is greenish gray in fresh surface, matrix supported, with felsic volcanic and chert clasts up to 5cm.

The rock was scanned by portable XRF four times at four distinctly different point locations. There were no anomalous silver, cobalt or base metal values detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-06-1	Sandstone	ppm	0	101	3	140	19	26	0	45	4,274
PED-06-2	Sandstone	ppm	0	-385	17	470	29	81	5	35	5,477
PED-06-3	Conglomerate	ppm	0	-29	25	1338	30	5	37	27	4,001
PED-06-4	Rust on Conglomerate	ppm	0	73	25	1393	21	12	27	91	14,200

PED-07

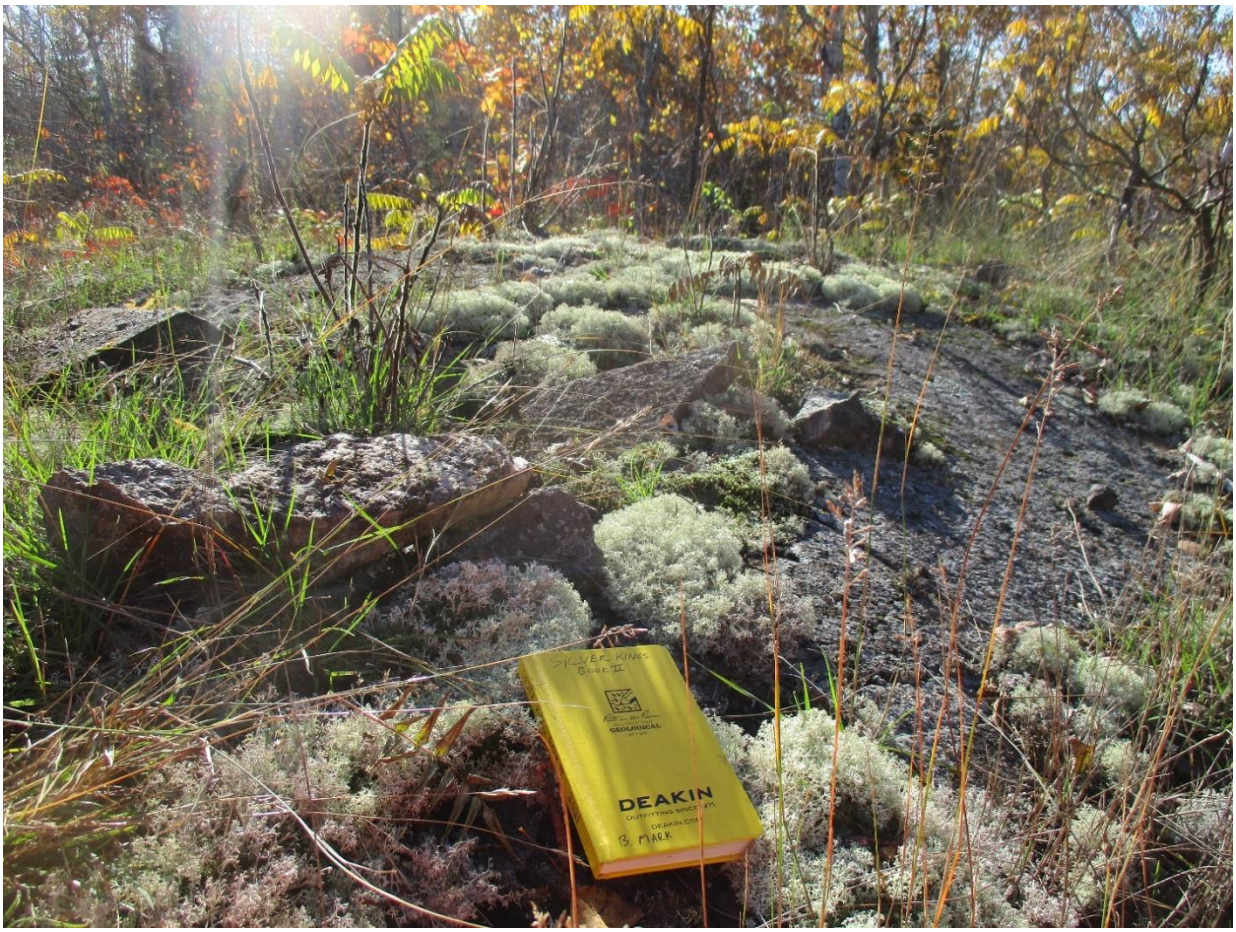
Station	Date	Easting	Northing	Elevation	Rock unit
PED-07	08-OCT-2021	599251	5255579	279	Huronian Supergroup

Coordinates in NAD83 UTM Zone 17N

Station consists of sedimentary rocks of the Coleman member of the Huronian Supergroup including sandy conglomerate. Sandy conglomerate is greenish gray in fresh surface, matrix supported, with felsic volcanic and chert clasts up to 5cm. A rusty, subhorizontal, shallowly northwest dipping quartz vein 5 cm wide was observed cutting the outcrop. A spaced, slaty cleavage which was interpreted to be an S_2 fabric was observed striking 90 degrees and dipping 76 degrees.

The rock was scanned by portable XRF five times at five distinctly different point locations. There were no anomalous silver, cobalt or base metal values detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-07-1	Conglomerate	ppm	0	120	38	1191	29	30	35	44	10,000
PED-07-2	Conglomerate	ppm	0	30	51	454	20	77	41	68	12,700
PED-07-3	Conglomerate	ppm	0	139	65	382	18	52	40	67	11,300
PED-07-4	Quartz vein	ppm	0	43	11	901	25	7	8	18	1,790
PED-07-5	Quartz vein	ppm	0	0	77	0	54	130	42	96	3,275



PED-08

Station	Date	Easting	Northing	Elevation	Rock unit
PED-08	08-OCT-2021	599033	5255819	278	Huronian Supergroup

Coordinates in NAD83 UTM Zone 17N

Station consists of sedimentary rocks of the Coleman member of the Huronian Supergroup. Included are sandstone and sandy conglomerate. Sandstone is greenish gray in fresh surface, thinly bedded (.25-.5 cm), with possible cross bedding and bedding defined by alternating light and dark beds with an accompanying change in grain size. Bedding strikes 320 degrees and dips 60 degrees. Sandy conglomerate is greenish gray in fresh surface, matrix supported, with granitoid clasts up to 3 cm.

The rock was scanned by portable XRF three times at three distinctly different point locations. There were no anomalous silver, cobalt or base metal values detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-08-1	Sandstone	ppm	0	143	21	872	31	50	78	27	17,900
PED-08-2	Sandstone	ppm	0	385	70	2465	79	85	68	92	20,700
PED-08-3	Conglomerate	ppm	0	294	48	919	28	30	43	49	4,708

PED-09

Station	Date	Easting	Northing	Elevation	Rock unit
PED-09	08-OCT-2021	598981	5255869	279	Huronian Supergroup

Coordinates in NAD83 UTM Zone 17N

Station consists of sedimentary rocks of the Coleman member of the Huronian Supergroup, including sandstone. Sandstone is greenish gray in fresh surface, thinly bedded (.25-.5 cm), with bedding defined

by alternating light and dark beds with an accompanying change in grain size. Bedding strikes 310 degrees and dips 60 degrees.

The rock was scanned by portable XRF four times at four distinctly different point locations. There were no anomalous silver, cobalt or base metal values detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-09-1	Sandstone	ppm	0	178	42	1849	21	117	91	70	24,600
PED-09-2	Sandstone	ppm	0	-83	15	956	23	121	0	68	21,700
PED-09-3	Sandstone	ppm	0	154	72	1310	36	63	152	80	15,400

PED-10

Station	Date	Easting	Northing	Elevation	Rock unit
PED-10	08-OCT-2021	598980	5255223	285	Huronian Supergroup

Coordinates in NAD83 UTM Zone 17N

Station consists of sedimentary rocks of the Coleman member of the Huronian Supergroup. Included are sandstone and sandy conglomerate. Sandstone is greenish gray in fresh surface, thinly bedded (.4-.7 cm), with possible cross bedding and bedding defined by alternating light and dark beds with an accompanying change in grain size. Bedding strikes 320 degrees and dips 55 degrees. Sandy conglomerate is greenish gray in fresh surface, matrix supported, with granitoid clasts up to 5 cm.

The rock was scanned by portable XRF four times at four distinctly different point locations. Some silver anomalies were detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-10-1	Sandstone	ppm	0	12	19	1654	27	95	70	56	25,700
PED-10-2	Sandstone/Rust	ppm	69	0	46	0	0	241	55	417	4,774
PED-10-3	K-spar Sandstone	ppm	0	30	6	573	23	50	17	28	12,800
PED-10-4	Sandstone/Rust	ppm	57	0	29	0	72	292	11	376	2,527

PED-11

Station	Date	Easting	Northing	Elevation	Rock unit
PED-11	08-OCT-2021	598838	5255321	285	Huronian Supergroup

Coordinates in NAD83 UTM Zone 17N

Station consists of sedimentary rocks of the Coleman member of the Huronian Supergroup. Included are sandstone and pebble conglomerate. Sandstone is greenish gray in fresh surface, thinly bedded (.1-.8 cm), with bedding defined by alternating light and dark beds with an accompanying change in grain size. Bedding strikes 320 degrees and dips 55 degrees. Pebble conglomerate is greenish gray in fresh surface, clast supported, with felsic volcanic, chert, and granitoid clasts up to 2 cm. Furthermore, a 50 cm wide shear zone was located on the outcrop. The shear zone strikes 110 degrees and dips 74 degrees and is defined by a zone of markedly increased foliation, with dextral SC fabrics. Several historic test pits were located along strike of shear zone 50 m east of the outcrop.

The rock was scanned by portable XRF three times at three distinctly different point locations. There were no anomalous silver, cobalt or base metal values detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-11-1	Sandstone/Shear zone	ppm	0	216	72	2181	100	72	33	80	1,622
PED-11-2	Sandstone	ppm	0	36	33	1301	32	18	25	37	891
PED-11-3	Sandstone	ppm	0	18	14	565	18	25	12	19	1,035

PED-12

Station	Date	Easting	Northing	Elevation	Rock unit
PED-12	10-OCT-2021	598589	5255518	281	Huronian Supergroup

Coordinates in NAD83 UTM Zone 17N

Station consists of sedimentary rocks of the Coleman member of the Huronian Supergroup. Included are sandstone and sandy conglomerate. Sandstone is greenish gray in fresh surface, massively bedded (no discernable bedding was located). Sandy conglomerate is greenish gray in fresh surface, matrix supported, with felsic volcanic, chert, and granitoid clasts up to 6 cm. Barren north striking extensional quartz veins up to 10 cm thick cut the outcrop.

The rock was scanned by portable XRF three times at three distinctly different point locations. There were no anomalous silver, cobalt or base metal values detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-12-1	Sandstone	ppm	0	-2	6	370	17	27	23	15	343
PED-12-2	Sandstone	ppm	0	18	4	625	20	-16	-2	20	3,096
PED-12-3	Sandstone	ppm	0	65	44	1712	36	56	40	62	1,196

PED-13

Station	Date	Easting	Northing	Elevation	Rock unit
PED-13	10-OCT-2021	598825	5255192	291	Huronian Supergroup

Coordinates in NAD83 UTM Zone 17N

Station consists of sedimentary rocks of the Coleman member of the Huronian Supergroup, including sandy conglomerate with sandstone interbeds. Sandy conglomerate is greenish gray in fresh surface,

matrix supported, with felsic volcanic, chert, and granitoid clasts up to 6 cm. Sandstone interbeds are greenish gray in fresh surface, thinly bedded (.1-.1 cm), with bedding defined by alternating light and dark beds with an accompanying change in grain size. Bedding strikes 325 degrees and dips 58 degrees.

The rock was scanned by portable XRF three times at three distinctly different point locations. There were no anomalous silver, cobalt or base metal values detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-13-1	Conglomerate	ppm	0	253	46	1599	37	47	91	54	23,100
PED-13-2	Conglomerate	ppm	0	211	29	882	34	19	72	46	12,500
PED-13-3	Conglomerate	ppm	0	220	59	373	48	-9	188	30	325

PED-14

Station	Date	Easting	Northing	Elevation	Rock unit
PED-14	10-OCT-2021	598766	5255144	295	Huronian Supergroup

Coordinates in NAD83 UTM Zone 17N

Station consists of sedimentary rocks of the Coleman member of the Huronian Supergroup, including sandy conglomerate with sandstone interbeds. Sandy conglomerate is greenish gray in fresh surface, matrix supported, with felsic volcanic, chert, and granitoid clasts up to 12 cm. Sandstone interbeds are greenish gray in fresh surface, thinly bedded (.1-.1 cm), with bedding defined by alternating light and dark beds with an accompanying change in grain size. Bedding strikes 325 degrees and dips 65 degrees Furthermore, a fault was located adjacent to the station, no fault plane was observed, and no kinematic indicators could be located, but the fault strikes approximately east/west. Multiple historic test pits were located along the fault.

The rock was scanned by portable XRF three times at three distinctly different point locations. There were no anomalous silver, cobalt or base metal values detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-14-1	Conglomerate	ppm	0	180	16	1100	22	37	79	28	4,500
PED-14-2	Conglomerate	ppm	0	183	46	1431	27	69	88	48	21,800
PED-14-3	Conglomerate	ppm	27	316	54	815	19	46	82	66	25,100

PED-15

Station	Date	Easting	Northing	Elevation	Rock unit
PED-15	10-OCT-2021	598680	5255121	292	Coleman member

Coordinates in NAD83 UTM Zone 17N

Station consists of sedimentary rocks of the Coleman member of the Huronian Supergroup, including sandy conglomerate. Sandy conglomerate is greenish gray in fresh surface, matrix supported, with felsic volcanic, chert, and granitoid clasts up to 10 cm. Station is located further east along the same fault from PED-14, along the most significant test pit located by the mapping team. Noteworthy rust and gossan was located adjacent to test pit.

The rock was scanned by portable XRF five times at five distinctly different point locations. Anomalous cobalt and base metal values were detected.

Scan ID	Lithology	Units	Ag	Co	As	S	Cu	Ni	Pb	Zn	Ca
PED-15-1	Conglomerate/Rust	ppm	0	404	45	203	44	35	94	100	542
PED-15-2	Conglomerate/Rust	ppm	0	464	63	825	48	65	40	120	2,431
PED-15-3	Conglomerate/Rust	ppm	0	698	33	827	169	-3	53	304	6,481
PED-15-4	Conglomerate/Rust	ppm	0	1126	29	375	171	8	83	163	3,608
PED-15-5	Conglomerate/Rust	ppm	0	162	145	226	291	-24	137	132	11,100

APPENDIX E – Background geochemical values for Huronian Supergroup sedimentary rocks and Nipissing Diabase

	Ag_Mean	Ag_Std	**Co_Mean**	Co_Std	**As_Mean**	As_Std	**Cu_Mean**	Cu_Std	**Ni_Mean**	Ni_Std	**Pb_Mean**	Pb_Std	**Zn_Mean**	Zn_Std
HSG	0.7	2.6	276.1	203.7	10.7	10.5	27.7	12.6	46.46667	16.7	2.7	8.8	49.9	33.1
DB	24.5	5.5	546.8	243.6	47.3	67.5	50.4	19.0	85.3	22.2	10.5	18.9	100.6	22.1

HSG – Huronian Supergroup sedimentary rocks; DB – Nipissing Diabase

The unmineralized Nipissing Diabase background values are established based on 16 pXRF analyses on unmineralized Nipissing Diabase in the Cobalt camp. The unmineralized Huronian Supergroup background values are based on 17 pXRF analyses on unmineralized Huronian Supergroup sedimentary rocks (mostly Coleman conglomerate and Lorrain sandstone).