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Assessment Report

Kenwest Property

2018 Diamond Drill Program

Dryden, Ontario

Kenora Mining Division, Northwestern Ontario

NTS 52F/07

Paige Giddy April 26, 2018

Summary

The Kenwest Property is located in northwestern Ontario, Canada, approximately 50 km south of the town of Dryden. It is within the Boyer Lake Area, N.T.S. Sheet 52F/07 NE., at an approximate UTM location of 521746E 5475459N (UTM Nad83 Zone15U). The Kenwest Property is composed of 32 patented mining claims and is accessible by an ATV trail which branches off highway 502 south from Dryden.

The Kenwest Property is located within a historic area known as the Goldrock Mining Camp. The Camp hosts three past producing gold mines which operated in the first quarter of the 20th century, as well as numerous gold showings, deposits, and prospects. One of the past producing mines, the Big Master Mine is located on the Kenwest Property. Gold exploration began around the Upper Manitou Lake area in the 1890's and has continued sporadically through to the present day. Gold prospecting was very active from 1895 to 1912 and again in the 1930's. The area experienced a period of exploration in the 1950's, 60's and 70's. Total production in the camp, from the three mines, amounts to approximately 376.4 kilograms of gold derived from 43,627 tonnes in the period 1900 to 1943.

Records of work prior to 1970 on the properties are incomplete. The Kenwest Property, previously owned by Gold Corp. Ltd., contains the historic Big Master Mine (Kenwest Mine), the Helena Mine, the Paymaster, the Selby Lake Deposit, and the Gold Rock occurrence. The Big Master was mined from 1902 to 1903, in 1905, and again from 1942 to 1943. It produced a total of 2,565 ounces of gold, from 14,470 tons containing 0.18 oz/t Au.

The Property is situated in the northwestern corner of the Wabigoon granite-greenstone sub-Province. The area is within the middle of the Eagle-Manitou Lakes greenstone belt and is located mostly on the northwestern side of the southeast dipping Manitou Straits Fault. The property lies mostly within the stratigraphically lower calc-alkaline, predominantly pyroclastic volcanics of the Upper Manitou Lake Group. Part of the Kenwest property contains a sequence of mafic to intermediate volcanic flows and pyroclastics of the Benson Bay Sub-group of the Pincher Lake Group Rocks. The claims are positioned on the southeast side of the Manitou anticline, adjacent to the Manitou Straits Fault. Diabase dikes of Mesoproterozoic age intrude the entire supracrustal sequence of rocks

In 2018 Manitou Gold completed a 2,078 meter diamond drill program on the Kenwest Property. Focus was given to the Big Master #1 and Big Master #2 shear zones as well as the last mineralized body mined by Kenwest Mines in 1946 which is located along the Big Master #1 approximately 180m from surface.

The diamond drill program completed at Kenwest in 2018 was successful in confirming anomalous to high grade gold mineralization in previously explored areas as well as identifying new targets for future exploration. Additional work is recommended to further evaluate the area. Exploration work should consist of additional diamond drilling.

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1.0 Introduction

In May of 2009, Manitou Gold obtained the Kenwest Property from Goldcorp Inc. and performed an initial exploration program consisting of prospecting and geological mapping in the summer of 2009. Following this prospecting program on the Kenwest Property ("the Property") in summer of 2010 an exploration program consisting of diamond drilling was performed in the Dryden Area of Northwestern Ontario (Figure 1.1) by Manitou Gold Inc. ("Manitou Gold"). Additional diamond drilling, mechanical trenching and channel sampling was performed throughout 2011 and 2012. The work was primarily designed as an evaluation and follow up of gold mineralization identified during the 2010 diamond drill program on the Big Master #1 and #2 zones. The Kenwest Property is composed of 34 patented mining claims, and it separates two blocks of the Canamerica Property, known as the Canamerica main block and the Canamerica 502 Block The 2018 diamond drill program consisted of 16 drillholes (KW-18-01 to KE-18-16) completed between January 22, 2018 and March 1, 2018, totaling 2,078 meters. All samples collected from the drill core were analyzed for fire assay for Au in g/t by Activation Laboratories in Dryden, Ontario.

This report documents the results of an exploration program consisting of diamond drilling conducted between January and February 2018. Work on the property was carried out by Paige Giddy (project geologist) of Orix Geoscience Inc. under the supervision of Richard Murphy, P.Geo, Chief Executive Officer (CEO) of Manitou Gold Inc. Paige Giddy is responsible for the preparation of this report.

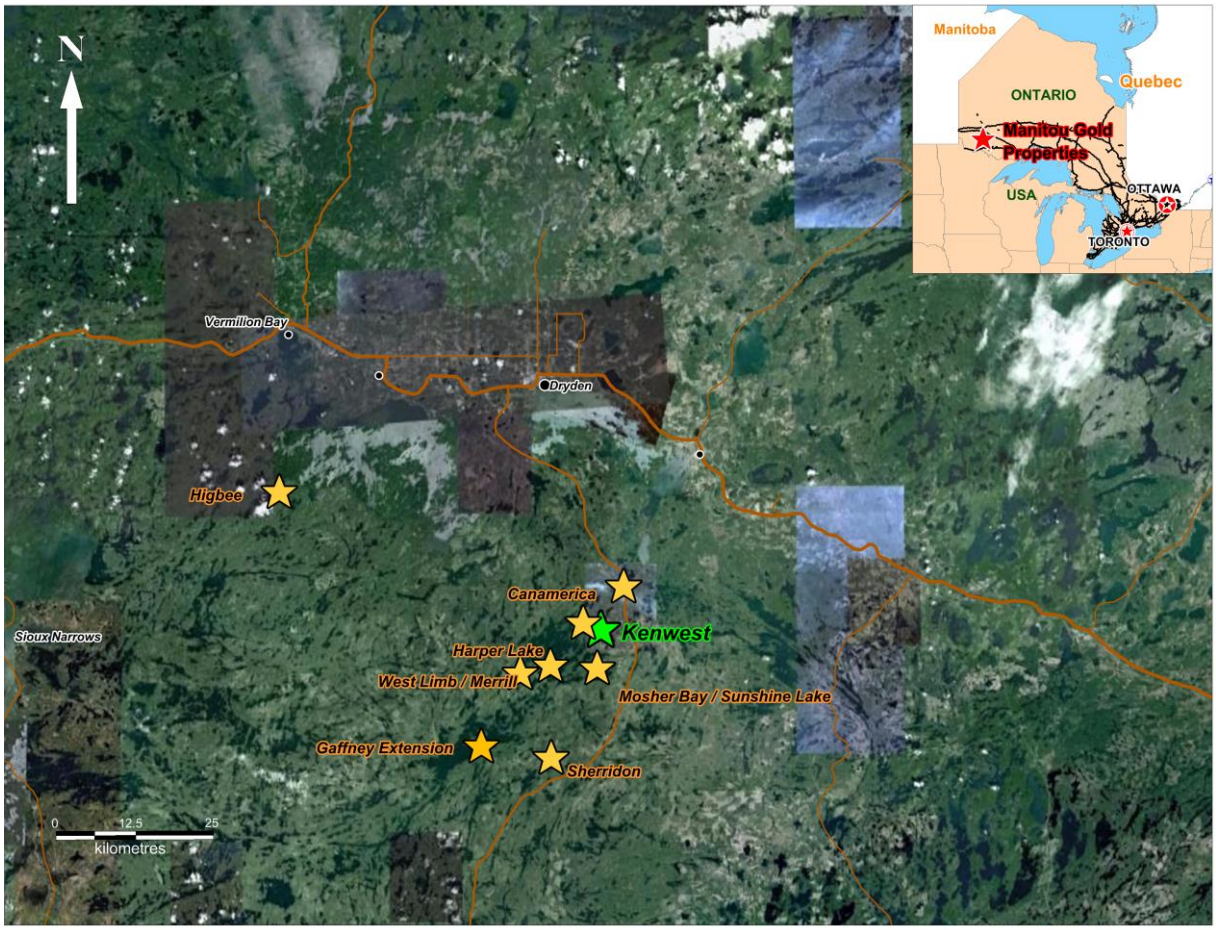

Figure 1.1: Location of Manitou Gold Inc. Kenwest Property

2.0 Property Description, Location and Access

The Kenwest Property of Manitou Gold Inc. consists of 34 patented mining claims, which include 10 mining licenses of occupation (MLO), currently held 100% by Manitou Gold. They are all located within Boyer Lake Area (Plan G-2572) of Northwestern Ontario. Table 2.1 outlines the patents, their general information, and their size.

The Property is situated in the Boyer Lake Area (Plan G-2572) of the Kenora Mining Division; NTS. 52F/07 NE., at an approximate Longitude of 92°41'59''W and Latitude of 49°25'53''N, and UTM 521764 E and 5475459N (NAD 83 Zone 15). The claims on the property are contiguous with Manitou Gold's Canamerica Main Block Property (Figure 2.1). The diamond drilling extended over eight of the patents comprising the property.

The Kenwest Property is located in the Kenora mining division and is approximately 50 km south of the city of Dryden (Figure 1.1). The Property is accessed from Dryden by travelling 6 km west on highway 594, then turning south onto highway 502. Travel highway 502 for approximately 50 km, at which point an ATV trail branches off the highway, to the west. The trail heads southwest, along the west side of Mud Lake. Approximately 5.1km along the trail, the main branch continues west to the

historic town of Gold, while the south branch accesses the Kenwest Property (Figure 2.1). Other access to the southern or western part of the property would be by boat, float plane, or helicopter.

Table 2.1: Kenwest Patents

Claim	Parcel No (all followed by SEC DKF)	Pin No	Township/Area	Type	MLO No.
HP366	5604	42185-0634	Boyer Lake	Patent	
HP367	5605	42185-0635	Boyer Lake	Patent	
HP368	5605	42185-0635	Boyer Lake	Patent	
HP369	5605	42185-0635	Boyer Lake	Patent	
HP373	5605	42185-0636	Boyer Lake	Patent	
HP405	10398	42185-0678	Boyer Lake	Patent	
K4631	19183	42185-0648	Boyer Lake	MLO, Patent	12190
K4632	19184	42185-0649	Boyer Lake	MLO, Patent	12190
K4633	19185	42185-0650	Boyer Lake	Patent	
K4713	19414	42185-0664	Boyer Lake	MLO, Patent	12216
K4714	19186	42185-0651	Boyer Lake	MLO, Patent	12184
K4715	19187	42185-0652	Boyer Lake	Patent	
K4716	19188	42185-0653	Boyer Lake	Patent	
K4717	19189	42185-0654	Boyer Lake	Patent	
K4718	19190	42185-0655	Boyer Lake	MLO, Patent	12187
K4881	19191	42185-0656	Boyer Lake	MLO, Patent	12185
K4882	19192	42185-0657	Boyer Lake	MLO, Patent	12185
K4883	19193	42185-0658	Boyer Lake	MLO, Patent	12185
K5116	19194	42185-0659	Boyer Lake	Patent	
K5117	19758	42185-0666	Boyer Lake	MLO, Patent	12314
K5118	19759	42185-0667	Boyer Lake	Patent	
K5119	19760	42185-0668	Boyer Lake	Patent	
K5120	19761	42185-0669	Boyer Lake	MLO, Patent	12314
K5121	19762	42185-0670	Boyer Lake	MLO, Patent	12314
K5122	19763	42185-0671	Boyer Lake	MLO, Patent	12314
K5123	19415	42185-0665	Boyer Lake	MLO, Patent	12215
K5124	19764	42185-0672	Boyer Lake	Patent	
K5125	19195	42185-0660	Boyer Lake	MLO, Patent	12189
K5126			Boyer Lake	MLO	12314
K5127	19196	42185-0661	Boyer Lake	MLO, Patent	12188
K5128	19765	42185-0673	Boyer Lake	MLO, Patent	12314
K5129	19197	42185-0662	Boyer Lake	MLO, Patent	12186
K5130	19197	42185-0663	Boyer Lake	MLO, Patent	12186
K5131	21183	42185-0681	Boyer Lake	Patent	
S25 (K918&K919)	9856	42185-0677	Boyer Lake	Patent	

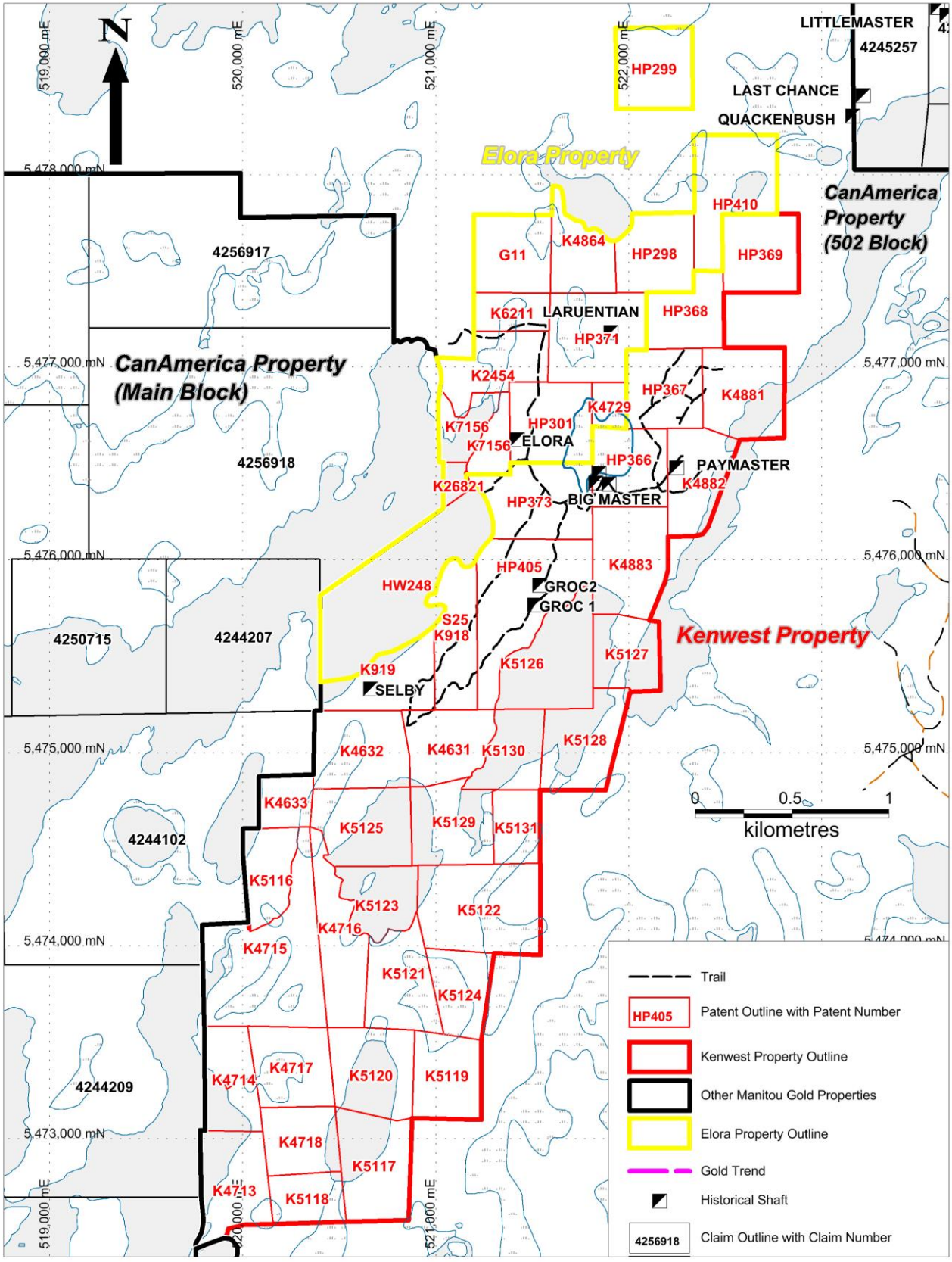

Figure 2.1: Claim Map, Kenwest Property

3.0 Climate, Local Resources, Infrastructure and Physiography

The climate of the Dryden – Manitou Lake area is typically continental in nature, with cold winters (-1°C to -30°C) and warm summers (10°C to 25° C.). Annual precipitation averages 685 mm, about half in the form of snow. Seasonal variations affect exploration to some extent, for example geological mapping is best done in the summer when outcrop is exposed whereas drilling and geophysical surveys are best done in the winter when water ways are frozen allowing for easier access.

The towns of Dryden and Fort Frances are relatively close; these all have the necessary equipment and trained personnel to support exploration and mining activities. The property has very good access to infrastructure, as it is located approximately 50 km south of the Trans-Canada Highway.

The property has a gently rolling to locally rugged topography with maximum relief on the order of 100 m. Much of the region has been logged so present forests are typically second growth; mixtures of jack pine, spruce, birch and poplar are common.

4.0 Exploration History

Earliest exploration in the Upper Manitou Lake area is known from the 1890's and has continued sporadically through to the present day. Gold prospecting was very active from 1895 to 1912 and again in the 1930's as represented by the many pits, trenches and small shafts throughout the area. The town of Gold Rock, at the north end of Trafalgar Bay in the northeast corner of Upper Manitou Lake, developed in response to this early exploration period and most of the patented claims in this area date back to this time. The three producing gold mines in this area (the Laurentian, the Jubilee and the Big Master mines) (Figure 4.1) produced a total of 12,078 ounces gold and 480 ounces silver between 1900 and 1948 (Blackburn, 1981). The Laurentian and the Jubilee (Elora) Mines are located on the Elora Property, while the Big Master Mine is located on the Kenwest Property. Other developed gold occurrences present on the Kenwest Property include the Paymaster Prospect, the Selby Lake Deposit, the Helena Occurrence, and the Gold Rock Prospect. The Selby Lake Deposit, on the Kenwest patented claim S25, had underground development during the late 1930's, but no production. Several other properties in the area were explored by shallow shafts.

There have been several periods of exploration activity in the general area of the claims. The history of gold occurrences within the property boundary date back at least to the first geological survey in the area (McInnes, 1902). Historical fieldwork was performed between 1896 and 1898. Government work in the form of geological mapping was carried out by the Ontario Department of Mines in 1933 (Thomson, 1933) and by the Ontario Geological Survey by C. Blackburn in 1979 (Blackburn, 1979, 1981). Airborne magnetic and electromagnetic surveys were completed over the area in 1980 and 2001 (OGS 1980, 2001). The following is a summary of exploration work carried out over various prospects on the current Kenwest Property.

The Kenwest Property, previously owned by Gold Corp. Ltd. (Figure 4.1 and 4.2) contains the historic Big Master Mine (Kenwest Mine), which was mined from 1902 to 1903, in 1905, and again from 1942 to 1943. It produced a total of 2,565 ounces of gold, from 14,470 tons containing 0.18 oz/t Au. A total

of 3 shafts were developed, the largest going down to 638 feet, with 4,850 feet of lateral development. At the time, 36,831 feet of underground drilling was completed. Five quartz veins (Figure 4.2) were located on the property, the most productive being the west or No. 3 vein (renamed the #1 zone by Manitou Gold) and the east or No. 4 Vein (renamed the #2 zone by Manitou Gold) (Blackburn, 1981). The No. 3 vein was mainly quartz, while the No. 4 and No. 5 veins consisted of felsite dikes containing quartz stringer and pyrite mineralization (Thomson, 1943). The Helena Shaft (mentioned above) was located over the No. 2 and 3 Veins. The property was re-evaluated in 1967 by Kenwest Mines (at the time owned by Dickenson Mines), who outlined historic probable reserves of 30,000 T of 0.36 oz/t Au from drilling (Blackburn, 1981). The remaining gold left in the mine was evaluated at19,000 T of 0.3 oz/t Au in 1967 (Blackburn, 1982). None of the reserves mentioned above are NI 43-101 compliant.

The Paymaster (Figure 4.3) was initially developed by Northern Development Co. in 1903. Work included sinking a shaft to 99 m on two northeast trending quartz veins which were 9 m apart on surface (Blackburn, 1981). Work by this company ceased in 1909. In 1935 this prospect was held by Big Master Consolidated Gold Mines Limited, and included the claims around the Big Master Mine. No further work was done by this or succeeding companies.

Two shafts were sunk on the Selby Lake Deposit (Figure 4.3) in 1904 by the Gold Rock Mining and Milling Co. (Thomson, 1942). The prospect was then acquired by Selby Lake Mines Ltd. in 1936 and another shaft was sunk to a depth of 46 m with two levels at 38.1 m and 76 m. Kenwest Gold Mines Ltd. bought the property in 1939, no further work was reported.

The Gold Rock occurrence (GROC) (Figure 4.3) was developed by Gold Rock Mining and Milling Co. in 1904, they sunk two shafts on this occurrence (Blackburn, 1981). This property was subsequently acquired by Kenwest Gold Mines Ltd. in 1939, but no further work was done on the prospect following the acquisition.

Work performed later than 1975 on any of these occurrences noted above are not reported, as they are covered by patents.

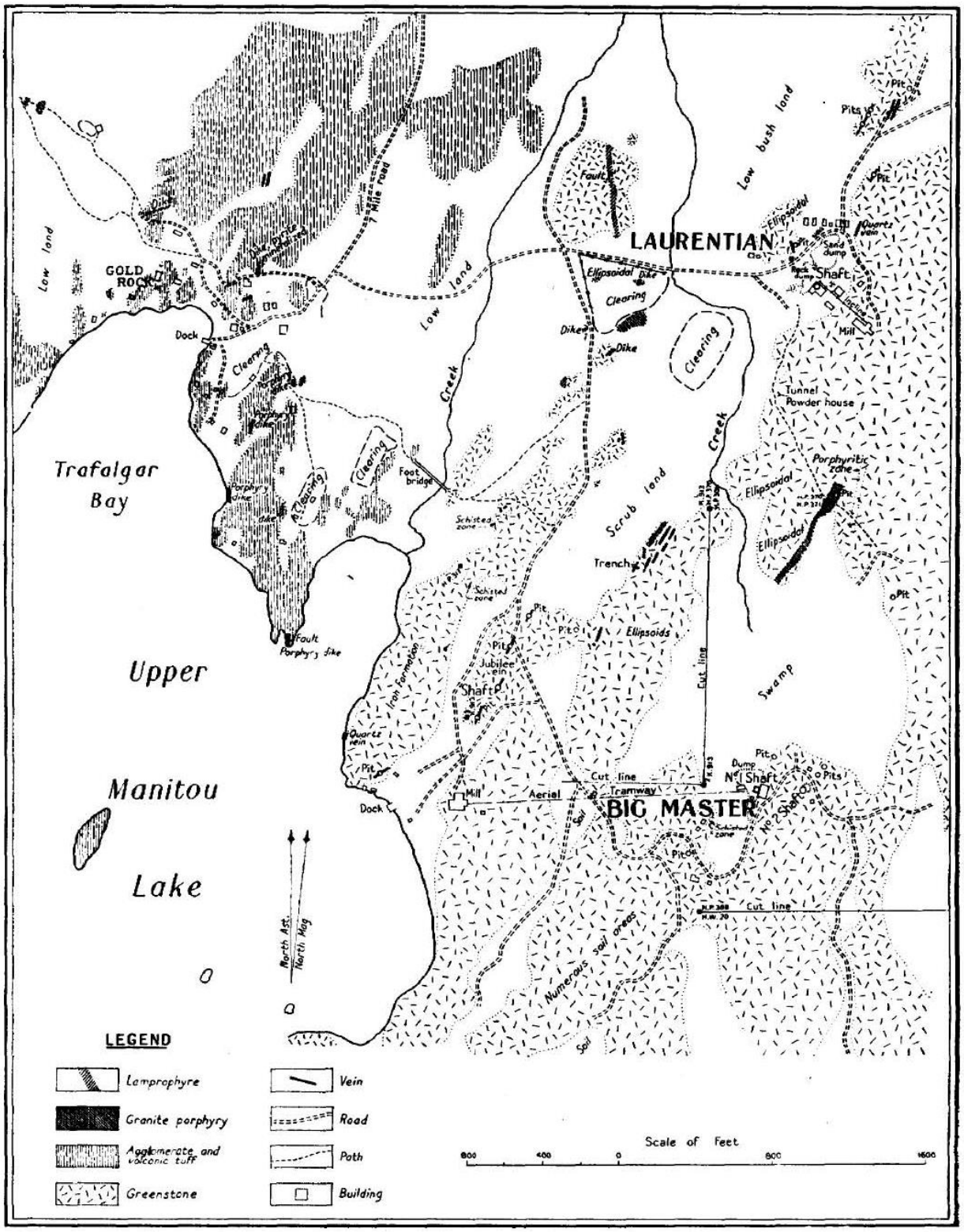

Figure 4.1: Historical Map of the Past Producing Gold Mines in the Goldrock Area, Big Master, Laurentian and Jubilee (Elora) (Thomson, 1934)

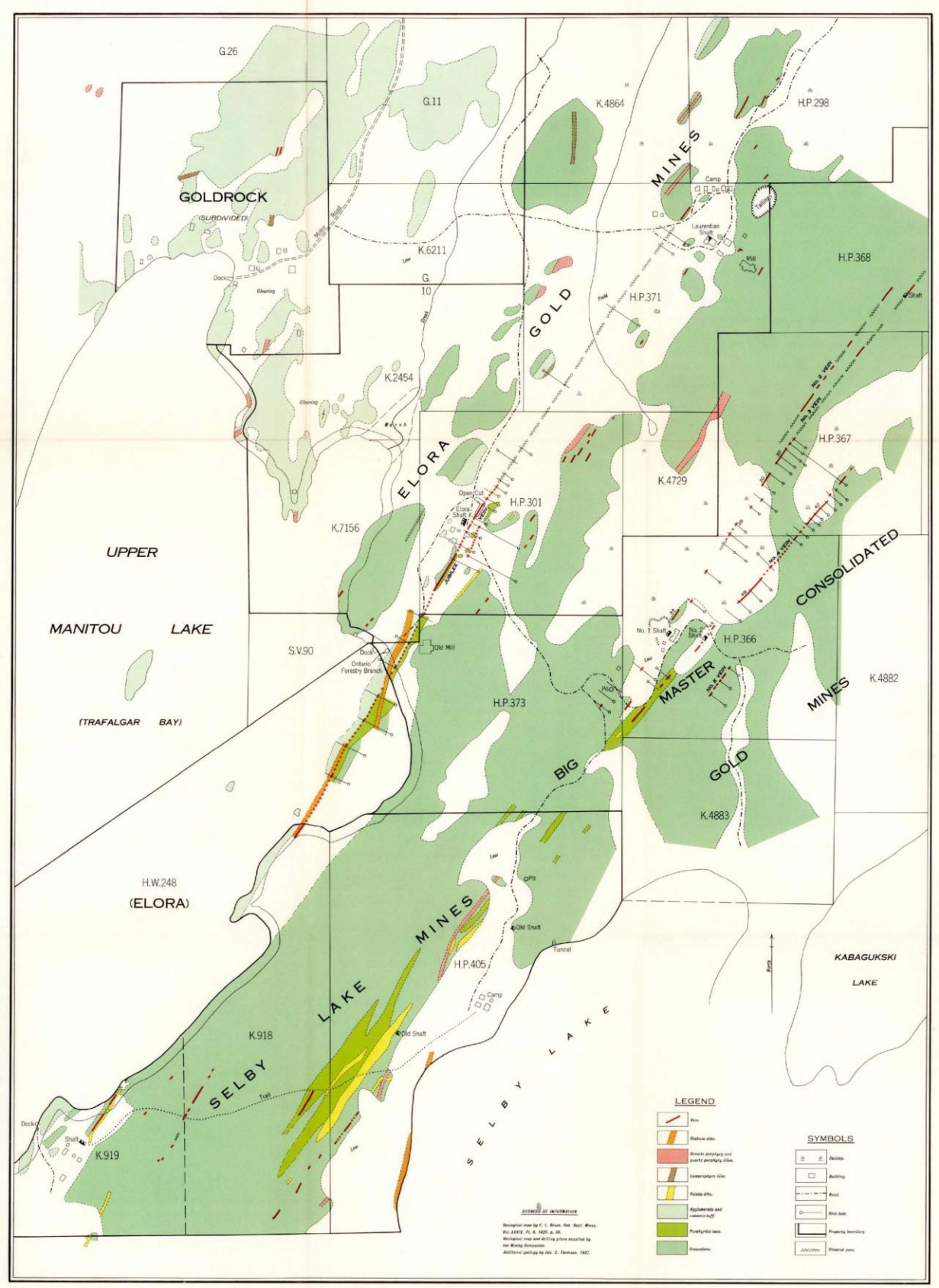

Figure 4.2: Historical Mining Properties near Goldrock (Thomson, 1942)

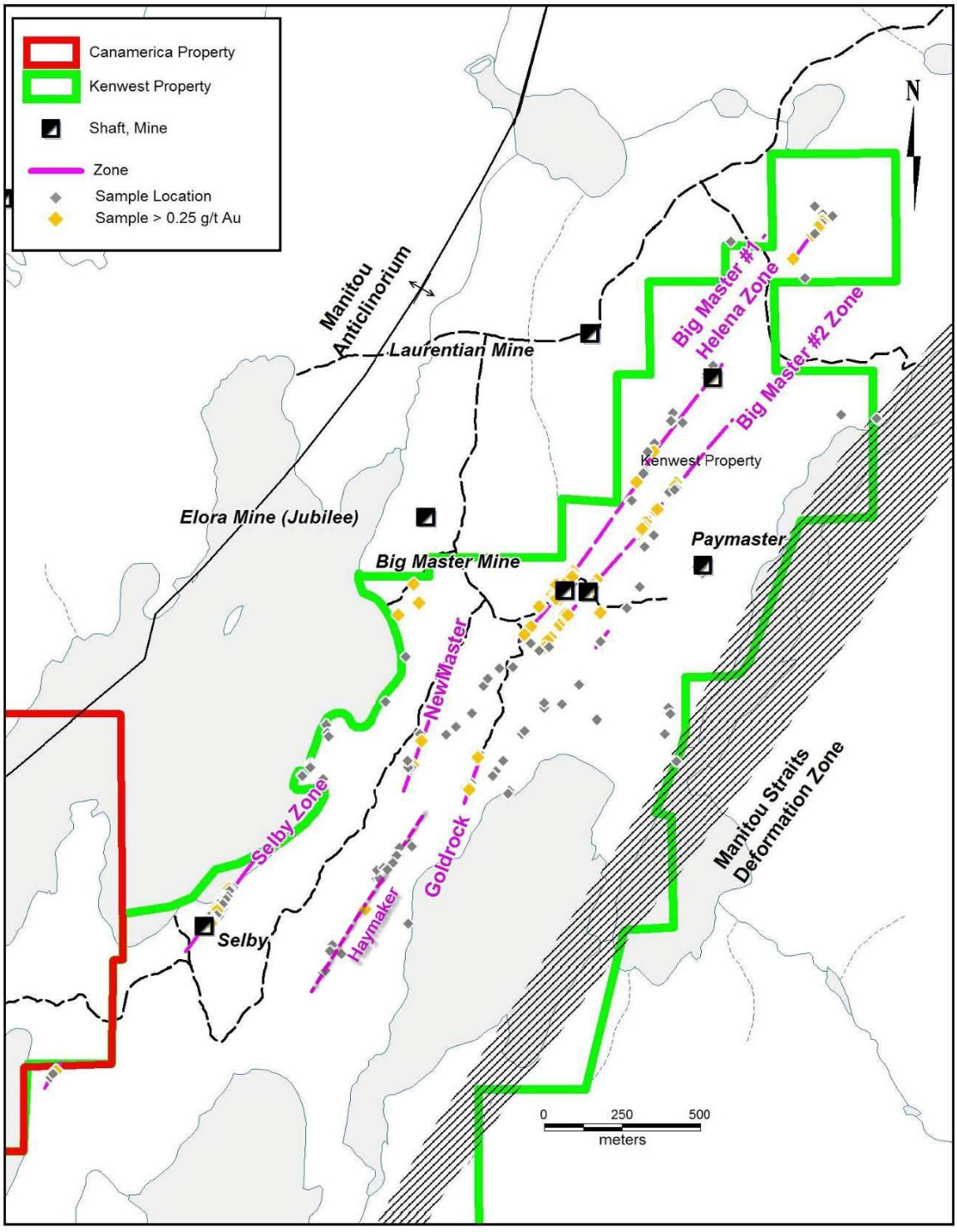

Figure 4.3: Location of gold occurrences and Manitou Gold's 2009 grab sample locations on the Kenwest Property

5.0 Geological Setting

5.1 Regional Geology

The Manitou Lakes area was regionally mapped by Thomson in 1932 (Thomson, 1934) and in more detail by the OGS in 1973 (Blackburn, 1979). The following regional description is summarized from this more recent report, "The Geology of the Upper Manitou Lakes Area" (Blackburn, 1979) and the Open file report 5723 "Geology, Gold Mineralization and Property Visits in the Area Investigated by the Dryden - Ignace Economic Geologist, 1984-1987" (Parker, 1989).

The Kenwest Property and surrounding area is located in the northwestern corner of the Wabigoon sub-province of the Superior Province in the Canadian Shield. The sub-province contains several Archean greenstone belts, of which the Eagle-Manitou Lakes greenstone belt (metavolcanic-metasedimentary belt) is pertinent to this report. This greenstone belt trends northeast, is Archean in age, and is bounded by younger Archean granitoid intrusives; to the northwest by the Atikwa granitoid batholith and on the southeast by the Irene-Eltrut Lakes batholith, and the Meggisi granitoid pluton. The greenstone belt consists mainly of a thick sequence of mafic to felsic flows and pyroclastic rocks with minor volcaniclastic rocks and a sequence of sedimentary rocks with lesser mafic to felsic stocks and sills. The northeast-trending, steeply southeast-dipping Manitou Straits Fault ("MSF") has been mapped through the centre of the western portion of the belt for approximately 50 km., and bisects the greenstone belt. It is located just to the east of Upper Manitou Lake, and passes through the eastern portions of the Kenwest Property. This fault is also considered to be the eastern extension of the Pipestone-Cameron Fault, located on the southwestern side of the Atikwa batholith (Figure 5.1). Immediately to the west of the Manitou Straits Fault is the sub-parallel Manitou Anticline, which has been traced for approximately 30 km through the Manitou Lakes are.

The rocks northwest of the Manitou Straits Fault, which encompass the property, are a mixed sequence of coarse pyroclastic rocks and mafic flows with minor felsic flows which pass upward into a thick sequence of mafic flows and pyroclastic rocks, and intermediate pyroclastic rocks. These metavolcanics have been folded tightly about the north-easterly-trending Manitou Anticline whose limbs and axial plane dip steeply to the southeast (Blackburn, 1982).

The Manitou Straits Fault (Figure 5.1) is marked by a barren zone of fissile schist which is between 100m and 400m wide. On either side of the fault, country rock has been strongly sheared over distances of up to 400 metres from the fault, though this effect is more strongly developed northwest of the fault (Blackburn, 1979). This deformation zone northwest of the Manitou Straits Fault is 25 km long and 2 to 5 km in width and hosts the majority of the known gold occurrences (Cullen and Clark, 2007). As well, in this area felsite units or felsic dikes are more prominent, often associated with the gold mineralization. It should be noted that the felsic dikes, termed "felsites" are considered to be felsic volcanics by Blackburn (1982), although recent workers have indicated that they are felsic dikes (Cullen and Clark, 2007; Redden, 1996).

Other major schist zones have been noted in the area, and are related to folding and faulting paralleling the trend of the synclinorium. These zones of weakness have been the focus of late stage (Kenoran) felsic diking, further transcurrent faulting, and have acted as conduits for hydrothermal fluids which

have produced intense hydrothermal alteration. Gold deposits in the Manitou Lakes area are closely related to these major structures (Fox, 1987).

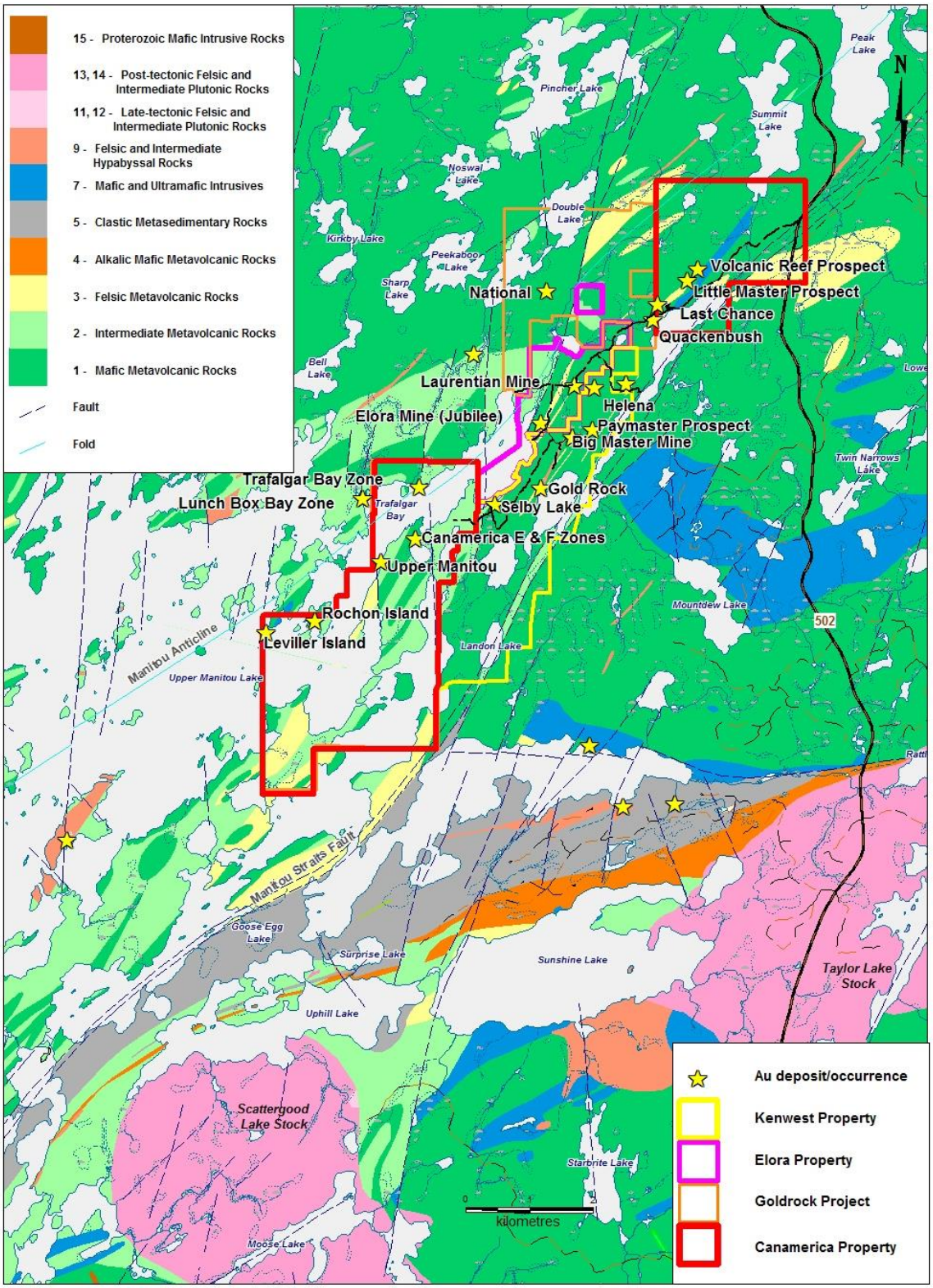

Figure 5.1: Regional Geology of the Kenwest Property

5.2 Property Geology

The Kenwest property is underlain by a sequence of mafic to intermediate volcanic flows and pyroclastics of the Benson Bay Sub-group of the Pincher Lake Group. Volcanic units are intruded by felsic dykes. The former mines and all significant gold prospects and producer's northwest of the Manitou Strait Fault are confined to two stratigraphic zones: a sequence of felsic metavolcanics (Upper Manitou Lake group and lower part of the Pincher Lake group) hosting the deposits at Gold Rock and Upper Manitou Lake and subjacent mafic metavolcanics (Blanchard Lake group) hosting deposits between Manitou Island and Rector Lake (Blackburn, 1982).

The Kenwest Property is underlain by a sequence of northeast striking, steeply southeast dipping mafic metavolcanics intercalated with intermediate pyroclastic rocks and felsitic units (Blackburn, 1981). The mafic metavolcanic rocks have been divided by Blackburn (1981) into five different types: massive flow rocks; pillowed flow rocks, brecciated and pillowed flow rocks; feldspar-phyric flow rocks; and carbonated mafic rocks. They appear in an alternating sequence of three basic facies: massive; pillowed and brecciated; and porphyritic (Blackburn, 1981). Intermediate pyroclastic rocks underlying the Kenwest property range from tuff-breccia to tuff. Most of these pyroclastic rocks are coarse-grained, with felsic clasts averaging approximately 15 cm long, contained within a chloritic, tuffaceous matrix (Blackburn, 1981). Intermediate lapilli-tuffs appear to correlate with those present on the CanAmerica Property (Blackburn, 1981). Felsic units, referred to as felsites and mapped as rhyolites by Blackburn (1981), are considered to be felsite dykes by Thomson (1933). Their contacts are sharp with no evidence of chilled margins, although due to the aphanitic nature of these units, the interpretation that they are intrusive remains controversial. Manitou Gold considers them to be intrusive.

Rock units encountered on the Property include mafic to intermediate lapilli tuffs and fine tuffs, massive or pillowed mafic volcanic flows, chloritic schists, chlorite sericite schists, fine-grained felsic dikes, and feldspar porphyry dikes. The dikes are variably altered; contain quartz veins, veinlets, and quartz stockwork veins. The dikes are thought to provide a rheological contrast conducive to the formation of open spaces within the shear zones (Parker, 1989). Some of the dikes have associated shearing in which the rock has been sericitized and/or chloritized and carbonatized. Trends of the dikes range from 15° to 45° degrees, and they dip from 70° to 80° degrees to the southeast. Foliations range from moderate to strong, trend 50° to 60° degrees, and dip steeply to vertically southeast. Two main trends for shearing are from 30° to 35° degrees and from 50° to 60° degrees. Gold mineralization is predominately associated with sheared and altered mafic volcanic rocks, but also with silicified felsic dikes, with quartz veins within the dikes, with the dike contacts, and with the foliated rocks along the contacts with the dikes.

6.0 Mineralization and Model

The Manitou Lakes area has been the scene of mining exploration for almost a hundred years. In this time numerous gold prospects have been discovered. Gold occurrences in the area are hosted in quartz veins, shears, and sulphide zones. Mineralization associated with the gold occurrences include pyrite, chalcopyrite, pyrrhotite, sphalerite, and galena/telluride. Alteration products include iron carbonate, chlorite, calcite, sericite, silica, and anthophyllite (Delisle 1990).

Gold deposits in the area are typical of Archean lode-gold deposits, and work by the OGS has indicated that almost all of the gold deposits in the Manitou Lakes area are controlled by shear and fracture zones which appear to be regionally related to movement along the Manitou Straits Fault. Gold-bearing quartz veins are commonly controlled by northeast- and east-trending shear zones which may be secondary shear bands subparallel to the shear boundaries of the Manitou Straits Fault. Most of the shearing and fracturing was developed after the emplacement of the Atikwa Batholith. However, there are other occurrences of gold mineralization that appear to be stratigraphically controlled, and possibly genetically related to volcanism (Parker, 1989).

Gold-bearing quartz veins are the most common type of mineralization in the area. The veins have wispy to well-layered "crack-seal" textures, with sericite, chlorite, ferroan carbonate, 1-5% sulphides, and occasionally tourmaline along the selvedges. Gold is concentrated in the "crack-seal" fractures and in selvedges along the quartz vein margins. Calcite filled fractures within quartz veins also carry gold. Narrow gold-bearing semi-massive sulphide filled fractures within fissile zones also contain significant gold values. Pervasive ferroan carbonate alteration, disseminated sulphides, and very small barren quartz veinlets characterize the fissile zones. Sulphides are predominantly pyrite and pyrrhotite with variable amounts of chalcopyrite.

Davis and Smith (1991) indicate that the gold occurring in faults, shears, and tension veins developed in response to a late Archean northwest-directed contraction and emplacement of contemporaneous plutons, such as the Atikwa Batholith. Their work indicated that gold mineralization was closely linked in time to the emplacement of late intrusions and was likely a short-lived event that occurred at about 2709 Ma.

The Kenwest Property is located southeast of the Atikwa Batholith, northwest of the Miggisi Pluton and is proximal to the Manitou Anticline and the Manitou Straits Fault. There is excellent potential for gold mineralization in quartz veins related to shearing and fracturing caused by the emplacement of a late pluton.

7.0 2018 Drill Program

From the period of January 22 to March 1, 2018 Manitou Gold Inc. contracted Asinike Drilling, based in Timmins, Ontario to complete a diamond drilling program totaling 2,078 meters over 16 drillholes on the Kenwest Project (Table 7.1). Drill core was logged by Paige Giddy and the project was supervised by Richard Murphy, P. Geo. All samples collected from the drill core were submitted to Activation Laboratories for analysis. Drilling was completed on patents HP366, HP367 and K4729.

The exploration program was designed to follow up on historical gold intersections along Big Master #2 as well as the up-plunge potential of the last mineralized body mined by Kenwest in 1946. The drilling was focused along the Big Master #1 and Big Master #2 structural zones. The first 4 drillholes were designed to test the Big Master #2 and confirm a new structural model for the mineralized zones with the remaining 12 drillholes testing Big Master #1 in areas that were historically undrilled and had similar target characteristics to the newly identified structurally associated gold mineralization.

The azimuth and inclination of all drillholes were measured using a Reflex single-shot downhole survey instrument. Measurements were made 15 m below casing, at 50 m intervals and at the end of hole. The Reflex survey data is summarized in the header section on each of the drillhole logs (Drill Logs are included in Appendix I). Drill casing was left in the ground, and the drilling company capped the casing and labelled the cap with associated drillhole ID.
The location of drillholes KW-18-01 to KW-18-13 was recorded by Trimble Total Station and KW-18-14 to KW-18-16 was recorded using a handheld GPS reading. Based on this control, accuracy of hole positioning is estimated to be less than 5 meters. All coordinates are in Universal Transverse Mercator (UTM) projection using the North American Datum (NAD) 83 in Zone 15.

Table 7.1: Manitou Gold 2018 diamond drillhole information on the Kenwest Property

Drillhole	*Azimuth*	*Dip*	*Length (m)*	*Easting*	*Northing*	*Elevation*	*Claim/ Patent*
KW-18-01	120	-46	113	522065.0	5476640.0	403.7	HP366
KW-18-02	90	-56	17	522065.0	5476640.0	403.7	HP366
KW-18-02A	90	-56	104	522065.0	5476640.0	403.7	HP366
KW-18-03	90	-46	92	522085.0	5476655.0	403.1	HP366
KW-18-04	90	-45	71	522102.5	5476675.0	400.9	HP366
KW-18-05	135	-46	74	522020.0	5476740.0	395.7	HP367
KW-18-06	135	-48	152	521985.8	5476774.2	400.2	K4729/HP367
KW-18-07	135	-51	221	521964.2	5476795.8	399.1	K4729/HP367
KW-18-08	135	-50	218	521987.3	5476829.2	401.6	K4729/HP367
KW-18-09	135	-53	110	522020.0	5476790.0	402.1	K4729
KW-18-10	135	-57	71	522045.0	5476760.0	402.4	K4729
KW-18-11	135	-49	78	522185.0	5476995.0	427.4	HP367
KW-18-12	135	-50	101	522186.3	5477033.7	432.3	HP367
KW-18-13	135	-51	137	522187.3	5477072.8	438.0	HP367
KW-18-14	135	-52	98	522057.0	5476839.0	401.0	HP367
KW-18-15	135	-46	14	522071.0	5476824.0	397.0	HP367

KW-18-15A	135	-46	56	522071.0	5476824.0	397.0	HP367
KW-18-16	297	-55	389	522186.0	5476519.0	411.0	HP366

NQ sized drillcore recovered from drilling is placed in clean wooden core boxes and labeled and sealed for transfer to the core logging facility. Upon delivery of core boxes to the core facility, the drill core was logged by the geologist. The description procedure involves collecting information about colour, lithology, alteration, structure and mineralization. Sampling intervals were marked by the geologist depending on lithology, mineralization, veining, and alteration. Sections of the core identified for analysis were tagged with weather resistant sample tags with a unique number. Samples were split with a hydraulic core splitter with one half of the sample going into a clean plastic bag with the corresponding sample number tag and the other half of the sample was returned to the core tray with a sample number tag as a permanent core record. Sample bags were tied securely and placed in bags for transport to the analytical laboratory. In conducting the exploration work set out above, Manitou Gold Inc. maintained all samples within its possession until transport to the laboratory.

576 samples were delivered to Activation Laboratories in Dryden, Ontario for assay. Samples were dried and crushed up to 80 % passing 2 mm, riffle split (259 g) and pulverized to 95 % passing 105 µm included cleaner sand. Gold was analyzed by fire assay with an AAS finish, using 30 g samples. Activation Laboratories has an internal QA/QC procedure of regularly re-analyzing selected samples, as well as inserting internal standards and blanks.

Manitou Gold Inc. conducted an external analytical quality control measure to monitor the reliability of the assaying and results delivered by Activation Laboratories. External control samples (blank and certified reference material sample) were inserted at a rate varying between five and eight percent within each batch of samples submitted for preparation and assaying.

Diamond drill logs of all drillholes can be found be found in Appendix I and cross-sections of all 16 drillholes are in Appendix II. A drillhole location plan is presented in (Figure 7.1). Assay certificates can be found in Appendix III.

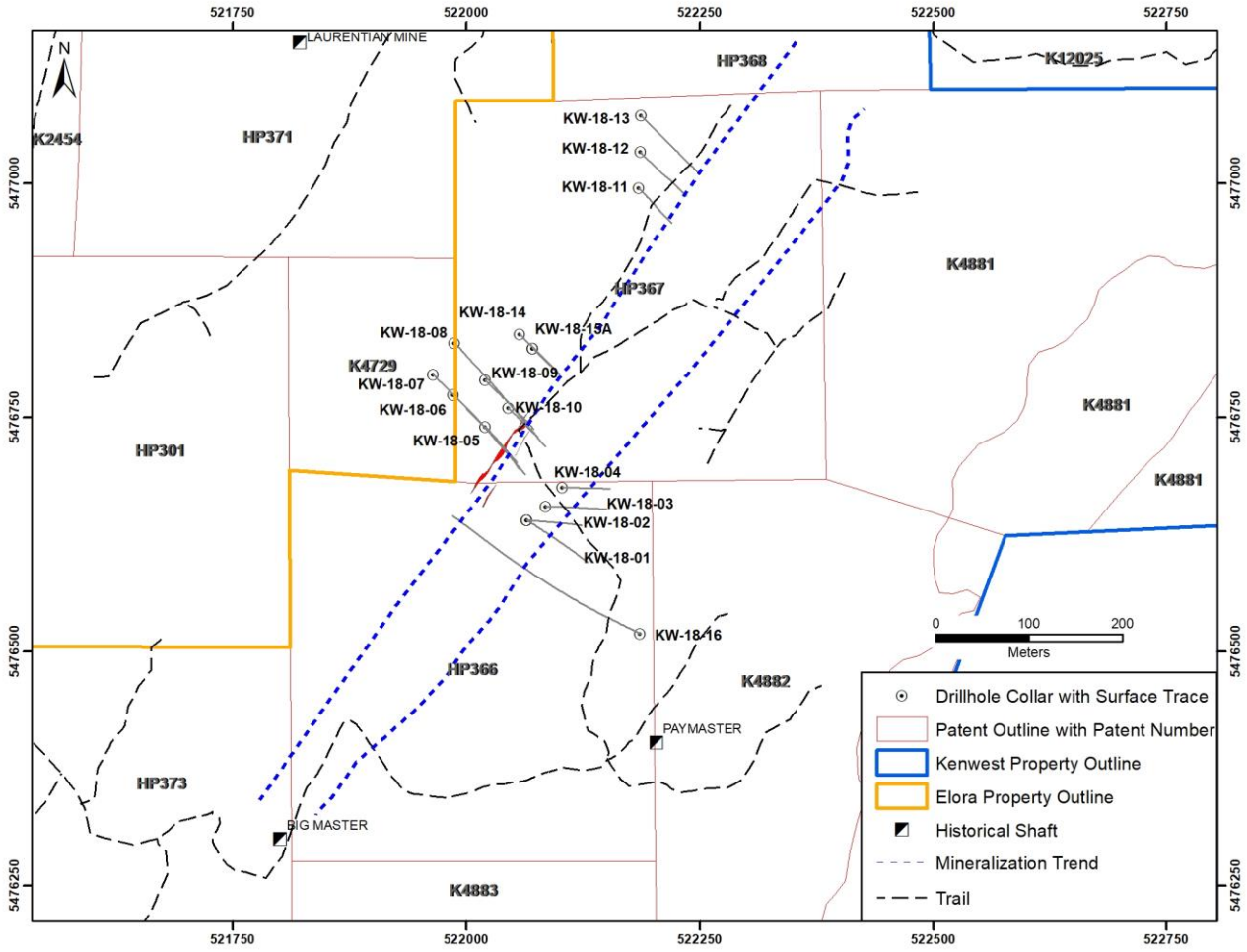

Figure 7.1: 2018 Diamond Drilling on the Kenwest Property with Mineralization Trend, 1: 5,000.

8.0 Results

The drill program successfully confirmed the continuity of shear structures related to high grade gold mineralization as well as confirmed gold mineralization in an area interpreted to be related to the 1946 mineralization zone. KW-18-03 intersected considerable gold along Big Master #2 of up to 7.7 g/t over 2.1 m and 4.7 g/t over 2.8 m. The most notable gold intersections occurred along Big Master #1 correlated with the up-plunge of the last mined area at Kenwest west and are as follows, KW-18-06 26.6 g/t over 0.5 m and KW-18-09 25.2 g/t over 1.9 m. A list of highlights from all drillholes can be found below (Table 8.1).

Gold-bearing mineralization was encountered in quartz veins of varying size contained within a variably sheared and silicified mafic volcanic unit, or chlorite schist with associated pervasive carbonate and/or sericite alteration. The sheared and altered schist encompassing the main quartz vein contained variable amounts of quartz-carbonate veinlets with pyrite mineralization. Visible gold

related to quartz veining within the Big Master structures was identified in drillholes KW-18-03, KW-18-06, KW-18-09 and KW-18-10

Further work is needed to test the continuity and extent of these gold bearing zones.

Table 8.1: Summary of Significant Drill Intersections on the Kenwest Property, 2018.

Drillhole	*From (m)*	*To (m)*	*Length (m)*	*Au (gpt)*
KW-18-01	42.1	43.7	1.6	9.2
KW-18-02	68.9	70.3	1.4	4.0
KW-18-03	43.0	45.1	2.1	7.7
KW-18-03	50.3	53.1	2.8	4.7
KW-18-04	42.5	44.4	1.9	2.0
KW-18-05	No significant mineralization intersected			
KW-18-06	106.0	106.5	0.5	26.6
KW-18-07	163.7	164.5	0.9	1.0
KW-18-07	188.3	188.7	0.4	6.1
KW-18-08	196.0	197.7	1.7	3.8
KW-18-09	29.0	29.7	0.7	3.0
KW-18-09	79.5	81.4	1.9	25.2
KW-18-10	25.2	26.9	1.7	14.1
KW-18-11	No significant mineralization intersected			
KW-18-12	71.4	71.9	0.6	3.7
KW-18-12	87.4	88.3	0.9	5.0
KW-18-13	127.2	128.1	0.9	3.7
KW-18-14	No significant mineralization intersected			
KW-18-15	No significant mineralization intersected			
KW-18-16	No significant mineralization intersected			

**true thickness is estimated at approximately 70% of reported core lengths.*

9.0 Recommendations and Conclusions

The 2018 diamond drill program on the Kenwest Property was successful in confirming the continuity of shearing and quartz veining containing gold mineralization on the Big Master #1 and #2 gold zones, as well as confirming the up-plunge of the mineralization trend related to the last ore body minded in 1946. Encouraging assay results were returned from several drillholes.

Further interpretation work is recommended along both shear structures to better understand structural controls on mineralization. Drill core orientation could help identify potential secondary structures acting as controls for high grade mineralization.

Focus is recommended on the newly identified area along Big Master #1 related to the historic 1946 mineralization zone. Further drilling to test the down dip extent of this mineralization is also recommended.

10.0 References

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Statement of Qualifications

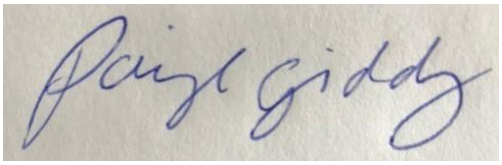
I, Paige L. Giddy, BSc., of Orix Geoscience Inc. do herby certify that:

1) I am a project geologist employed by Orix Geoscience Inc., with a business address at 401 Bay St. Suite 2702, Toronto ON, M5H 2Y4.

2) I graduated with a BSc. (Geology and Psychology) degree in 2009 from Acadia University.

3) I was onsite at the Kenwest property during the 2018 drill program and conducted drill management and core logging.

Dated this 26th day of April 2018.



Paige L. Giddy, BSc.

APPENDIX I

Diamond Drill Logs

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*	*Grid/Property*	*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15		Diamond Drillhole	113.00	1/24/2018

District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*	*Date Completed*
Kenora	5476640	522065			Trimble	1/26/2018

Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*	*Date Logged*
Kenwest	403.69	120.00		-46.00	Asinike Drilling	1/27/2018

Area	*Claim No.*	*NTS Sheet*	*Supervised By*	*Logged By*	*Verified*
Boyer Lake Area			P. Giddy	P. Giddy	☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #2		Big Master Site		☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*
Test the up plunge of 7g/t in hole 10, second IP trend SE of shear 2.		

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
14.00			123.2		-45.6		☑	Reflex EZ Shot	56253	
50.00			123.8		-45.5		☑	Reflex EZ Shot	56301	
113.00			129		-46.3		☑	Reflex EZ Shot	55870	

Lithology From	To		Sample #	From	To	Len.	Au ppm
0.00	2.41	**CAS Casing**					
2.41	30.75	**MV Mafic Volcanic**					

Blue- green, medium- to coarse-grained Mafic Volcanic Flow. Unit contains 1-3mm, black, sub-rounded to sub-angular, phenocrysts. The concentration of pheocrysts decreases downhole. Increasing amygdule's around 9m typically infilled with chlorite-carbonate +/- po. Unit is pillowed at ~13.22m with well developed pillow margins. Infilling carbonate and sulphide mineralization is common around pillow margins. Massive, homogenous texture at 17.35m. Mineralization consists of disseminated to stringer po-py. Minor quartz-carbonate veinlets throughout unit ~1%. 9.45-9.57m Brecciated quartz-carbonate vein with trace mineralization. Shear zone 23.31-23.95m weak to moderate foliation.

Sample #	From	To	Len.	Au ppm
470001	9.33	9.78	0.45	0.009
470002	14.00	14.50	0.50	0.0025
470003	23.31	23.95	0.64	0.0025
470004	23.95	24.80	0.85	0.0025
470005	24.80	25.30	0.50	0.0025

Alteration:

2.41 - 30.75 weak-moderate Silica Pervasive, weak carbonate Flooding chlorite.Unit is hard. Weak , fracture controlled carbonate throughout with minor patches of carbonate infilling pilllow margins.

Structure:

9.45 - 9.46 Vein Undifferentiated sharp 45° to c/a upper vein contact

9.57 - 9.58 Vein Undifferentiated sharp 45° to c/a Lower vein contact

23.31 - 23.95 Shear 25° to c/a Issue with ori line

Veins:

9.45 - 9.57 quartz-carbonate , 40%, 45°, Brecciated quartz-carbonate vein with trace po.

24.93 - 25.11 quartz-carbonate , 80%, 30°, Quartz-carbonate with minor chlorite.

Lithology From	To		Sample #	From	To	Len.	Au ppm
30.75 -	40.28	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Blue-green, medium-grained, Sheared Mafic Volcanic. Increasing strain define by a moderately developed foliation which on average is 50 TCA. White, spotted mineral (leucoxene?) is sub-elongated parallel to the foliation. ~1-2% quartz-carbonate veinlets typically trending parallel to the foliation. Minor pyrite mineralization at the top of this unit with with fracture contolled pyrite increasing at the lower margin. Alteration consists of pervasive silicification and fracture controlled carbonate.	470006	30.75	32.00	1.25	0.033
			470007	32.00	33.50	1.50	0.013
			470008	33.50	35.00	1.50	0.007
			470009	35.00	36.50	1.50	0.014
			470011	36.50	38.00	1.50	0.028
			470012	38.00	39.57	1.57	0.042
			470013	39.57	40.28	0.71	0.028
		Alteration:					
30.75 -	40.28	moderate Silica Pervasive, weak carbonate Fracture controlled.					
		Structure:					
31.61 -	31.62	Foliation 40° to c/a ori line is opposite as to what drillers informed me. Issue lining up downhole.					
40.28 -	42.08	**SERSCH Sericite Schist** Brownish-grey, fine- to medium-grained, Sericite Schist. Unit is highly strained/ sheared which is defined by a well-developed foliation (50TCA), boudinaged quartz-carbonate veinlets and local flattened pyrite. Alteration consists of strong pervasive sericite-carbonate and silicification. ~10% quartz-carbonate veinlets trend parallel to the foliation. Up to 5% pyrite mineralizaton. Lower contact is sharp with B-2 Quartz Vein.	470014	40.28	41.00	0.72	0.415
			470015	41.00	42.08	1.08	0.493
		Alteration:					
40.28 -	42.08	strong sericite Pervasive, strong carbonate Pervasive, strong Silica Pervasive.Upper alteation halo around B2 Quartz Vein.					
		Structure:					
40.28 -	40.29	Foliation 50° to c/a / 0° beta					
40.84 -	40.85	Foliation 55° to c/a / 0° beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
42.08 -	42.58	**QV Quartz Vein** White, coarse-grained, Extensional Quartz Vein (B2). ~10% altered wallrock fragments (sericite-carbonate +/- tourmaline). 1% pyrite mineralization is mostly concentrated at the contacts and around and in wallrock fragments. Both the upper and lower contacts are sharp at 50 TCA. Vein is dipping 84 with a strike of 210.	470016	42.08	42.58	0.50	1.71
		Alteration:					
42.08 -	42.58	patchy sericite, patchy carbonate.~10% wallrock fragments within Quartz Vein.					
		Structure:					
42.08 -	42.09	Upper contact sharp 50° to c/a / 0° beta B2 Upper Quartz Vein Contact Dip: 84 Strike: 210					
		Veins:					
42.08 -	42.58	quartz-carbonate extensional, 90%, 50°, B2 Quartz Vein					
42.58 -	44.93	**SERSCH Sericite Schist** Brownish-grey, fine- to medium-grained, Sericite Schist. Unit is highly strained/ sheared which is defined by a well-developed foliation (50TCA). Alteration consists of strong pervasive sericite-carbonate and silicification. ~5% quartz-carbonate veinlets trending parallel to the foliation. 42.58-42.82 heavely mineralization at lower contact with vein up to 10% pyrite. 1% pyrite mineralizaton in the reminder of this unit.	470017	42.58	42.89	0.31	18.6
			470018	42.89	43.67	0.78	10.3
			470019	43.67	44.54	0.87	0.191
			470021	44.54	44.93	0.39	0.905
		Alteration:					
42.58 -	44.93	strong sericite Pervasive, strong carbonate Pervasive, strong Silica Pervasive.Lower alteration halo around B2 Quartz Vein.					
		Structure:					
42.58 -	42.59	Lower contact sharp 50° to c/a / 0° beta B2 Lower Quartz Vein Contact Dip: 84 Strike: 210					
43.84 -	43.85	Foliation 55° to c/a / 0° beta					
		Veins:					

Lithology From	To		Sample #	From	To	Len.	Au ppm
44.78	- 44.93	quartz extensional, 60%, 50°, Quartz Vein parallel to foliation and ~1% pyrite.					
44.93	- 45.69	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Grey-green, fine- to medium-grained, Sheared Mafic Volcanic. Strain/ shearing is decreasing with a weak to moderate foliation (50TCA). ~1% quartz-carbonate veinlets trending parallel to the foliation. Trace pyrite.	470022	44.93	45.69	0.76	0.034
Alteration:							
44.93	- 94.86	weak carbonate Fracture controlled, weak Silica Pervasive.					
Structure:							
45.30	- 45.31	Foliation 50° to c/a / 0° beta					
45.69	- 60.09	**MV Mafic Volcanic** Pale green-blue, medium-grained, massive, Mafic Volcanic. Patchy, white, sub-rounded, 1mm, phenocrysts occur throughout. 53.63- 54.18: Amygdaloidal with infilling carbonate and pyrite (0.5%). 1% irregular fracture filled carbonate +/- quartz veinlets.	470023	45.69	47.00	1.31	0.013
			470024	47.00	48.50	1.50	0.008
60.09	- 74.16	**MV Mafic Volcanic** Pale green-blue, fine- to medium-grained, pillowed, Mafic Volcanic. This unit is significantly different texturally in comparison to the above unit. Pillows are cm- to m-scale and have well defined selvages. Chlorite, carbonate +/- quartz and k-spar (?) infilling between pillow margins. Patchy clusters of well-formed amygdule's occur throughout. Blebby and disseminated Po+py +/-cpy mineralization begins at 61.66m ranging between 0.5-5%. 65.89-67.20 Weakly sheared? Unit is not foliated.	470025	60.64	61.66	1.02	0.01
			470026	61.66	62.37	0.71	0.008
			470027	62.37	63.40	1.03	0.006
			470028	63.40	64.77	1.37	0.01
			470029	64.77	65.89	1.12	0.008
			470030	65.89	66.20	0.31	0.011
			470031	66.20	67.25	1.05	0.006
Structure:							
65.94	- 65.95	Shear 50° to c/a / 20° beta					

Lithology									
From	*To*				*Sample #*	*From*	*To*	*Len.*	*Au ppm*
74.16 - 87.92		**MVSH Mafic Volcanic - Weakly to Moderately Sheared**							
		Pale green-blue, fine- to medium-grained, pillowed, sheared, Mafic Volcanic. Deformation in this unit varies from weakly to strongly strained/ foliated. 74.16-76.3m Strongly foliated. 76.3-84.96m Moderately foliated. Pillows are cm- to m-scale with well-developed selvages. Alteration consists of pervasive silicification, minor chlorite-carbonate. ~1% quartz-carbonate veins typically trending parallel to the foliation with the rare cross-cutting veinlet. Some veinlets are mineralized. Mineralization consists of blebby py +/- cpy.			470032	74.16	75.50	1.34	0.012
					470033	75.50	76.50	1.00	0.013
					470034	76.50	77.62	1.12	0.018
					470035	81.60	83.00	1.40	0.018
					470036	83.00	84.50	1.50	0.0025
		Structure:							
		75.24 - 75.25	Foliation 55° to c/a / 0° beta						
		75.85 - 75.86	Foliation 55° to c/a / 0° beta						
		81.60 - 81.61	Foliation 50° to c/a / 25° beta						
		83.57 - 83.58	Foliation 50° to c/a						
87.92 - 94.86		**MV Mafic Volcanic**							
		Pale green-blue, medium-grained, massive, Mafic Volcanic. Very minor, white, 1mm, sub-rounded, phenocrysts. Alteration consists of a weak pervasive silicification and minor fracture-controlled carbonate +/- quartz. Trace py.							
94.86 - 108.83		**MVSH Mafic Volcanic - Weakly to Moderately Sheared**							
		Pale green-blue, fine-grained, sheared, pillowed, Mafic Volcanic. Deformation is moderate with a well-developed foliation. Pillows are cm- to m-scale with well-developed pillow selvages. Pillow selvages are typically infilled with carbonate. Alteration consists of fracture control carbonate with very minor yellow sericitic shear bands. ~1% carbonate +/- quartz veinlets. Mineralization consists of small clusters of py+po typically infilling pillow margins or carbonate veinlets.			470037	94.86	96.00	1.14	0.0025
					470038	100.18	101.40	1.22	0.005
					470039	101.40	102.50	1.10	0.008
					470041	102.50	104.00	1.50	0.092
					470042	104.00	105.50	1.50	0.031
					470043	105.50	107.00	1.50	0.316
					470044	107.00	107.60	0.60	0.011
					470045	107.60	108.83	1.23	0.012

Lithology							
From	To		Sample #	From	To	Len.	Au ppm
Alteration:							
94.86	- 108.83	moderate carbonate Fracture controlled, weak sericite Fracture controlled.Carbonate infilling pillow selvages and fractures.					
Structure:							
100.13	- 100.14	Foliation 50° to c/a No beta angle reading. Cannot not determine ori lines to the end of hole. Fracture does not match up after last reading.					
106.00	- 106.10	Foliation 50° to c/a See above comment					
108.83	- 113.00	**MV Mafic Volcanic** Pale green-blue, fine- to medium-grained, pillowed, Mafic Volcanic. 1-3mm, sub-rounded, white, phenocrysts. Pillows are m-scale with moderately developed selvages. Strain and mineralization drops in comparison to the last unit. Py+po occurs as small clusters typically forming within pillow margins. Alteration consists of minor fracture controlled carbonate.					
Alteration:							
108.83	- 113.00	weak carbonate Fracture controlled.					

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	Co-ordinate System		Grid/Property		Hole Type	Length	Date Started
Ontario	UTM NAD83 Zone 15				Diamond Drillhole	17.00	1/27/2018
District	**UTM North**	**UTM East**	**Local Grid E**	**Local Grid N**	**Collar Survey Method**		**Date Completed**
Kenora	5476639.99	522065			Trimble		1/27/2018
Project	**UTM Elevation**	**Azimuth Astro. (°)**	**Azimuth Grid (°)**	**Dip (°)**	**Drill Contractor**		**Date Logged**
Kenwest	403.69	90.00		-56.00	Asinike Drilling		2/18/2018
Area	**Claim No.**	**NTS Sheet**	**Supervised By**		**Logged By**		**Verified**
Boyer Lake Area			P. Giddy		P. Giddy		☐

Zone/Prospect	Assessment Rpt. No.	Core Storage	Plug Depth	Makes Water	Capped	Environmental Inspection
BM #2				☐	☐	☐

Core Size (1)	NQ		Casing Pulled	Casing (1)		NW Steel	Plugged	Pulsed	Geophysics Contractor	Date Pulsed
(2)			☐	(2)			☐	☐		

Purpose	Results	Comments
Tests IP western plunge potential and north trending structure.		Ended early due to deviation at collar.

Distance	Grid Azimuth (°) Original	Grid Azimuth (°) Final	Astro. Azimuth (°) Original	Astro. Azimuth (°) Final	Dip (°) Original	Dip (°) Final	Use Test	Survey Method	Mag. Field (nT)	Comments
15.00			94.1		-54.9		☑	Reflex EZ Shot	56654	

Lithology								
From		*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
0.00	-	17.00	**MV Mafic Volcanic** Grey-blue, fine- to medium-grained, porphyritic, Mafic Volcanic Flow. 1-3mm, white, subrounded and 1-3mm, black, sub-roudned to sub-angular, phenocrysts. Minor fracture-controlled carbonate. Trace Pyrite. Hole was re-started due to AZ not aligned.						

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*	*Grid/Property*	*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15		Diamond Drillhole	104.00	1/27/2018

District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*	*Date Completed*
Kenora	5476640	522065			Trimble	1/28/2018

Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*	*Date Logged*
Kenwest	403.69	90.00		-56.00		1/30/2018

Area	*Claim No.*	*NTS Sheet*	*Supervised By*	*Logged By*	*Verified*
Boyer Lake Area			P. Giddy	P. Giddy	☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #2		Big Master Site		☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*
Tests IP western plunge potential and north trending structure		

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
14.00			94		-55.1		☑	Reflex EZ Shot	56267	
65.00			95.8		-55.9		☑	Reflex EZ Shot	56058	
100.00			97		-56.2		☑	Reflex EZ Shot	56352	

Lithology									
From		*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
0.00	-	2.00	**CAS Casing**						
2.00	-	43.90	**MV Mafic Volcanic**						
			Green-grey, medium- to coarse-grained, Mafic Volcanic Flow. Textually this unit does vary with composition seemingly homogenous. Local white and black phenocryst or amygdules (?) occuring until 19.57m. Black phenocrysts are sub-rounded to sub-angular and mostly concentrated at the top of this unit. White phenocrysts are sub-rounded. Alteration consists of a pervasive silicification and minor fracture-controlled carbonate. Disseminated pyrite is in concentrations of up to 0.5%. Very minor quartz veinlets ~1% and 1-2mm with a few notable quartz veins >5cm.		470046	42.32	43.60	1.28	0.0025
					470047	43.60	44.00	0.40	0.0025
			Alteration:						
	2.00	-	57.33	strong Silica Pervasive, weak carbonate Fracture controlled.					
43.90	-	57.33	**MVSH Mafic Volcanic - Weakly to Moderately Sheared**						
			Green-grey, medium-grained, strained, Mafic Volcanic Flow. Moderate strain with a foliation 40-45 TCA. alteration consists of a pervasive silicification and minor fracture-controlled carbonate. Very minor quartz veinlets ~1% and 1-2mm with a few notable quartz veins >5cm. Trace PY.		470048	44.00	45.50	1.50	0.0025
					470049	45.50	46.58	1.08	0.0025
					470051	46.58	47.00	0.42	0.98
					470052	47.00	48.50	1.50	0.0025
					470053	53.50	55.00	1.50	0.007
					470054	55.00	56.00	1.00	0.0025
					470055	56.00	57.33	1.33	0.01
			Structure:						
	43.90	-	43.91	Vein parallel fol 50° to c/a / 180° beta					
	48.00	-	48.01	Foliation 45° to c/a / 20° beta					
	49.57	-	49.58	Foliation 40° to c/a / 20° beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
Veins:							
43.90	- 44	quartz-carbonate , 60%, 50°					
46.83	- 47	quartz-carbonate , 40%, 50°					
57.33	- 57.81	**QV Quartz Vein**					
		White to grey, coarse-grained, Quartz Vein. ~70% quartz with ~30% altered wallrock fragments. Blebs of dark green chlorite and fine bands of tourmaline septa are present. ~0.5% pyrite mineralization typically occurring with alteration fragments or bands. The upper contact is sharp, and the lower contact is strongly brecciated with angular wallrock fragments. If the ori lines were correctly captured (which I am skeptical about) this vein could be trending sub-perpendicular to the main vein.	470056	57.33	57.81	0.48	0.045
Alteration:							
57.33	- 57.81	weak chlorite Spots, weak Tourmaline Fracture controlled.					
Structure:							
57.33	- 57.34	Upper contact 30° to c/a / 90° beta Must take measure with a grain of salt due to poor ori lines and mis matching fractures. Upper vein contact					
Veins:							
57.33	- 57.81	quartz extensional, 70%					
57.81	- 69.46	**MVSH Mafic Volcanic - Weakly to Moderately Sheared**					
		Dark green, fine- to medium-grained, highly strained, Mafic Volcanic Flow. Strain is strong with a well-developed foliation at 30-35 TCA. Alteration consists of patches of banded sericite-carbonate and patchy silicification. 5% quartz veinlets trend parallel to the foliation. Pyrite mineralization is typically concentrated in patches of alteration and increasing at the upper contact with the B2 quartz vein.	470057	57.81	59.00	1.19	0.011
			470058	59.00	60.50	1.50	0.007
			470059	60.50	62.00	1.50	0.356
			470061	62.00	63.50	1.50	0.0025
			470062	63.50	65.00	1.50	0.006
			470063	65.00	66.50	1.50	1.83
			470064	66.50	68.00	1.50	0.223
			470065	68.00	68.87	0.87	0.13
			470066	68.87	69.46	0.59	2.18
Alteration:							
57.81	- 70.30	patchy sericite Bands, patchy carbonate Bands.					

Lithology From	To		Sample #	From	To	Len.	Au ppm
Structure:							
57.81 -	57.82	Lower contact 45° to c/a / 100° beta lower vein contact					
61.09 -	61.10	Foliation 30° to c/a / 90° beta Possibility of incorrect ori line					
62.30 -	62.31	Foliation 35° to c/a / 100° beta Possibility of incorrect ori line					
65.27 -	65.28	Foliation 30° to c/a / 360° beta					
67.93 -	67.94	Foliation 30° to c/a / 10° beta					
69.46 -	70.30	**QV Quartz Vein**					
		White-grey to tan, coarse-grained, highly strained Quartz Vein (B2). This quartz vein contains ~40% wallrock fragments which are mostly concentrated at the lower contact. Wallrock fragments display strong sericite-carbonate alteration. Very minor, black, irregular, tourmaline septa are present. Mineralization consists of ~1% pyrite in the upper portion of the vein whereas the lower portion containing mostly altered wallrock fragments produces concentrations of up to 5% pyrite. Both upper and lower contacts are sharp and trend parallel to the foliation.	470067	69.46	70.30	0.84	5.28
Structure:							
69.46 -	69.47	Upper contact 35° to c/a / 340° beta Upper B2 vein contact					
Veins:							
69.46 -	70.3	quartz extensional, 60%					
70.30 -	92.55	**MV Mafic Volcanic**					
		Medium green-grey, fine- to medium-grained, massive, Mafic Volcanic Flow. Alteration consists of minor high angle carbonate veinlets, irregular fracture filled carbonate and a pervasive silicification. Trace blebby pyrrhotite and trace disseminated pyrite. Lower contact does not mark compositional change but, textural change (large phenocrysts).	470068	70.30	71.00	0.70	0.08
			470069	71.00	72.50	1.50	0.007
			470071	78.00	79.50	1.50	0.005
Alteration:							
70.30 -	92.55	weak carbonate Fracture controlled, moderate Silica Pervasive.					
Structure:							
70.30 -	70.31	Lower contact 40° to c/a / 10° beta Lower B2 vein contact					

Lithology									
From	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*		
92.55 - 95.87	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Medium green-grey, fine-grained, porphyritic, Mafic Volcanic Flow. Large, white, 1-6mm, sub-rounded, phenocrysts. Dark grey, 1-2mm, elongated, phenocrysts. Trace disseminated pyrite. The lower contact marks a textural changed to pillowed flow. *Alteration:* 92.55 - 95.87 moderate Silica Pervasive.								
95.87 - 104.00	**MV Mafic Volcanic** Medium green-grey, fine-grained, pillowed, Mafic Volcanic Flow. This unit is weakly to moderately strained. Pillows are m-scale, with well-developed selvages typically infilled by carbonate and disseminated to blebby sulphide mineralization. Alteration consists of irregular fracture filled carbonate and carbonate veinlets. ~1-3% carbonate +/- quartz veinlets trend parallel to the foliation with a set of high angle TCA, mm-scale, carbonate veinlets cross-cutting the main fabric. Locally ~0.5% blebby pyrite. End of Hole. *Alteration:* 95.87 - 104.00 weak carbonate Fracture controlled, moderate Silica Pervasive. *Structure:* 98.24 - 98.25 Foliation 40° to c/a / 15° beta 102.80 - 102.81 Foliation 60° to c/a / 180° beta 102.83 - 102.84 Foliation 35° to c/a / 45° beta		470072	99.00	100.50	1.50	0.043		

ManitouGold Inc.

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*	*Grid/Property*	*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15		Diamond Drillhole	92.00	1/28/2018

District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*	*Date Completed*
Kenora	5476655	522085			Trimble	2/1/2018

Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*	*Date Logged*
Kenwest	403.08	90.00		-46.00	Asinike Drilling	2/3/2018

Area	*Claim No.*	*NTS Sheet*	*Supervised By*	*Logged By*	*Verified*
Boyer Lake Area			P. Giddy	P. Giddy	☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #2				☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*
Tests IP chargeability just west of IP line 0 and tests for north trending structure.		

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
14.00			91.3		-45		☑	Reflex EZ Shot		
65.00			94.1		-45.3		☑	Reflex EZ Shot		
92.00			91.4		-45.4		☑	Reflex EZ Shot		

Lithology									
From		*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
0.00	-	2.83	**CAS Casing**						
2.83	-	9.34	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Green-grey, fine- to medium-grained groundmass, porphyritic, Mafic Volcanic Flow. Sub-angular to sub-rounded, black, 1-3mm, phenocrysts. Alteration consists of very minor, 1-mm, carbonate +/- quartz veinlets and a moderate, pervasive, silicification. Trace pyrite. The lower 'contact' marks a textural change to pillowed flow.						
			Alteration:						
			2.83 - 25.30 weak carbonate Fracture controlled, moderate Silica Pervasive.						
9.34	-	25.30	**MV Mafic Volcanic** Green-grey, fine-grained, pillowed, Mafic Volcanic Flow. Pillows are m-scale with well-developed selvages. Selvages are infilled with carbonate +/- quartz/albite/sulphides. 1-2% quartz-carbonate veinlets occurring parallel to the main fabric and a set of mm-scale veinlets cross-cutting the main orientation. Mineralization consists of 1% blebby pyrrhotite with pyrite in the form of wispy stringers and infilling pillow selvages and veinlets. The lower contact marks the last observable pillow margin grading into a massive flow.		470073	11.00	12.50	1.50	0.0025
			Structure:						
			11.32 - 11.33 Vein Undifferentiated 45° to c/a / 210° beta Upper contact of quartz-carbonate vein.						
			11.43 - 11.44 Vein Undifferentiated 50° to c/a / 220° beta Lower contact of quartz-carbonate vein.						
			12.29 - 12.30 Vein Undifferentiated 30° to c/a / 290° beta Upper contact of quartz-carbonate veinlet.						
			15.76 - 15.77 Vein Undifferentiated 35° to c/a / 35° beta						
			19.89 - 19.90 Vein Undifferentiated 75° to c/a / 335° beta						

Lithology From	To		Sample #	From	To	Len.	Au ppm
Veins:							
11.32	11.43	quartz-carbonate extensional, 50%, 45°					
12.29	12.41	quartz-carbonate , 20%, 30°					
25.30	32.22	**MV Mafic Volcanic**					
		Green-grey, medium-grained, massive, Mafic Volcanic Flow. 'Speckled' texture due to felsic mineral (leucoxene?). Weak to moderate strain 25.3-26.61 and 23.29-32.22m. ~1-2% carbonate +/- quartz veinlets parallel to the foliation.	470074	28.00	29.30	1.30	0.034
			470075	29.30	30.75	1.45	0.007
			470076	30.75	32.22	1.47	0.013
Alteration:							
25.30	32.22	weak carbonate Fracture controlled.					
Structure:							
25.90	25.91	Foliation 45° to c/a / 30° beta					
30.95	30.96	Foliation 45° to c/a / 45° beta					
32.22	36.04	**MV Mafic Volcanic**					
		Green-grey to pale green, fine- to medium-grained, porphyritic, Mafic Volcanic Flow. Black, 1-10mm, sub-rounded, phenocrysts are within a fine- to medium-grained groundmass. Possible flow top breccia leading into a sheared pillow flow which also includes small black phenocrysts. Alteration consists of pervasive silicification. ~1% quartz-carbonate veinlets. Mineralization consists of blebby and stringer pyrrhotite and pyrite.	470077	32.22	33.00	0.78	0.0025
			470078	33.00	33.58	0.58	0.0025
			470079	33.58	35.00	1.42	0.0025
			470080	35.00	36.04	1.04	0.189
Alteration:							
32.22	37.85	strong Silica Pervasive, weak carbonate Fracture controlled.					
Structure:							
33.20	33.21	Vein Undifferentiated 55° to c/a / 240° beta					
35.52	35.53	Foliation 55° to c/a / 0° beta					
Veins:							
33.18	33.28	quartz-carbonate , 20%, 55°, Mineralization along upper and lower contacts of this					

Lithology From	To		Sample #	From	To	Len.	Au ppm
		veinlet.					
36.04	37.85	**MV Mafic Volcanic** Pale green to cream, fine-grained, pillowed, sheared, Mafic Volcanic Flow. This unit has been strongly deformed evident by a weak fabric (difficult to measure structure), local brecciation and a 'chaotic' appearance throughout the rock. Pillows are m-scale. Alteration consists of pervasive silicification. ~5% quartz fragments with ~1-5% pyrrhotite and pyrite are present. Sharp lower contact.	470081	36.04	37.00	0.96	0.008
			470082	37.00	37.85	0.85	0.01
37.85	42.43	**MV Mafic Volcanic** Dark green, fine to medium-grained, massive, Mafic Volcanic Flow. ~1% carbonate-quartz and 0.5% disseminated pyrite infilling fractures with carbonate/quartz. Sharp lower alteration contact.	470083	37.85	39.00	1.15	0.0025
			470084	39.00	40.50	1.50	0.0025
			470085	40.50	41.45	0.95	0.0025
			470086	41.45	42.37	0.92	0.024
			470087	42.37	43.00	0.63	0.047
		Alteration:					
37.85	42.43	weak carbonate Fracture controlled, weak Silica Pervasive.					
		Structure:					
42.37	42.38	Foliation 40° to c/a / 0° beta					
42.43	43.24	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Dark grey to black, fine-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained but, due to the strong overprinting alteration the foliation is difficult to observe. Alteration consists of a pervasive silicification with sericite and chlorite. ~2-4% quartz-carbonate, mm-scale, veinlets. Pyrite mineralization is also difficult to observe due to the dark coloration of the rock and appears to significantly increase at ~43m to ~5%. The lower contact indicates an alteration change but, is likely the same composition as this unit.	470088	43.00	43.50	0.50	23.4
		Alteration:					

Lithology From	To		Sample #	From	To	Len.	Au ppm
42.43	43.24	strong Silica Pervasive, strong sericite Pervasive, weak carbonate Fracture controlled.					
43.24	43.50	**SERSCH Sericite Schist** Tannish-yellow, fine-grained, Sericite Schist. This unit is strongly strained however, due to the pervasive alteration it is difficult to observe the foliation. Alteration consists of pervasive silicification, sericite, carbonate. ~2-4% pyrite. Contact is sharp with the B2 Quartz Vein.					
Alteration:							
43.24	43.96	strong Silica Pervasive, strong sericite Pervasive, strong carbonate Pervasive, weak chlorite Fracture controlled.					
43.50	43.96	**QV Quartz Vein** White, coarse-grained, B2, Quartz Vein. Vein contains ~1% altered wallrock fragments. Alteration consists of chlorite and sericite. Mineralization consists of ~1% blebby pyrite within the vein and disseminated pyrite concentrated along the lower contact. The lower contact is sharp with a second phase of quartz (?) or silica flooding.	470089	43.50	43.96	0.46	0.443
Structure:							
43.50	43.51	Upper contact 40° to c/a / 10° beta B2 Quartz Vein upper contact					
Veins:							
43.50	43.96	quartz extensional, 90%, 30°					
43.96	45.10	**SERSCH Sericite Schist** Tan to pale grey, fine-grained, Sericite Schist. This unit is strongly strained however, due to the pervasive alteration it is difficult to observe the foliation. Alteration consists of pervasive silicification, sericite, carbonate, chlorite (?). ~30% of quartz occurs as fragments or veinlets oriented parallel to the main fabric. Mineralization at the upper contact with the B2 vein is very dense ~ 5-10% cubic to disseminated pyrite and ~1-2% in the remainder of this unit. The lower contact denotes a change in alteration.	470091 470092	43.96 44.42	44.42 45.10	0.46 0.68	5.83 2.25

Lithology From	To		Sample #	From	To	Len.	Au ppm
Alteration:							
43.96 -	45.10	strong sericite Pervasive, strong carbonate Pervasive, moderate Silica Pervasive.					
Structure:							
43.96 -	43.97	Lower contact 40° to c/a / 0° beta B2 Quartz Vein lower contact					
44.76 -	44.77	Foliation 40° to c/a / 330° beta					
45.10 -	50.29	**MVSH Mafic Volcanic - Weakly to Moderately Sheared**					
		Dark green, fine-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained with a foliation at ~35 TCA. Alteration consists of patchy sericite/carbonate ~5% quartz veinlets are oriented parallel to the main fabric at 35 TCA. ~0.5% disseminated pyrite. The lower contact marks a change in alteration.	470093	45.10	46.00	0.90	0.052
			470094	46.00	47.50	1.50	0.038
			470095	47.50	49.00	1.50	0.09
			470096	49.00	50.29	1.29	1.12
Alteration:							
45.10 -	50.29	weak sericite Bands, weak carbonate Bands.					
Structure:							
46.11 -	46.12	Foliation 35° to c/a / 5° beta					
48.92 -	48.93	Foliation 35° to c/a / 15° beta					
50.16 -	50.17	Foliation 35° to c/a / 35° beta					
50.29 -	52.00	**SERSCH Sericite Schist**					
		Light grey to yellow, fine-grained, Sericite Schist. This unit is strongly strained/ sheared with a well-developed foliation ~40 TCA. Alteration consists of pervasive silicification, sericite, carbonate +/- tourmaline. This unit has a brecciated and fragmental texture highlighted by altered mafic volcanic fragments and quartz. ~30% quartz fragments and veinlets. ~5% cubic to disseminated pyrite. The lower contact marks a change in texture and alteration.	470097	50.29	51.33	1.04	2.95
			470098	51.33	52.00	0.67	1.74
Alteration:							
50.29 -	52.00	strong sericite Pervasive, strong carbonate Pervasive, strong Silica Pervasive, weak					

Lithology From	To		Sample #	From	To	Len.	Au ppm
		Tourmaline Fracture controlled.					
		Structure:					
51.63	51.64	Foliation 40° to c/a / 10° beta					
52.00	52.87	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Dark green to pale grey, fine-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained with a well-developed foliation at ~40 TCA. Alteration consists of banded sericite, carbonate +/- chlorite. ~0.5% pyrite. The lower contact is with a quartz vein containing VG.	470099 470100	52.00 52.77	52.77 53.10	0.77 0.33	0.059 27
		Alteration:					
52.00	52.87	patchy sericite Bands, weak chlorite Bands.					
52.87	53.02	**QV Quartz Vein** White to pale grey, coarse-grained, sheared, B2 Quartz Vein. Extensional quartz vein has developed a 'crack and seal' texture with well-developed alteration lineation's which trend parallel to the main fabric. Alteration consists of chlorite and sericite. Mineralization consists of 10 speaks of VG concentrated along the upper contact and ~1% pyrite mostly concentrated along the vein contacts. Both the upper and lower contacts are sharp at 35 and 40 TCA.					
		Alteration:					
52.87	53.02	weak chlorite Spots, weak sericite Spots.					
		Structure:					
52.87	52.88	Upper contact 35° to c/a / 20° beta B2 Quartz Vein (VG) upper contact					
		Veins:					
52.87	53.02	quartz extensional, 80%, 35°, Contains ~10 specks of VG along upper vein contact.					

Lithology From	To		Sample #	From	To	Len.	Au ppm
53.02 -	60.62	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Dark green-grey, fine-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained/ sheared with a well-developed foliation ~35-40 TCA. Alteration consists of fracture-controlled carbonate, sericite and chlorite. ~5% carbonate-quartz veinlets mostly concentrated at the upper contact. ~1% blebby pyrite mostly concentrated in carbonate veinlets until ~56m. The lower contact marks the first observable pillow margin.	470102	53.10	54.00	0.90	0.141
			470103	54.00	55.00	1.00	0.007
			470104	55.00	56.10	1.10	0.008
			470105	56.10	57.50	1.40	0.006
			470106	57.50	59.00	1.50	0.009
			470107	59.00	60.00	1.00	0.0025
			470108	60.00	60.62	0.62	0.026
		Alteration:					
53.02 -	56.00	moderate carbonate Fracture controlled.					
56.00 -	60.62	weak carbonate Fracture controlled.					
		Structure:					
53.02 -	53.04	Lower contact 40° to c/a / 20° beta B2 Quartz Vein (VG) lower contact					
54.73 -	54.74	Foliation 30° to c/a / 15° beta					
58.76 -	58.77	Foliation 40° to c/a / 20° beta					
60.36 -	60.37	Foliation 40° to c/a / 340° beta					
60.62 -	92.00	**MV Mafic Volcanic** Green-grey, fine-grained, pillowed, sheared, Mafic Volcanic Flow. This unit is moderately to strongly strained (~40TCA) with local sections of ~1m massive porphyritic sections. Pillows are m-scale with well-developed selvages. Carbonate, quartz and chlorite infill pillow margins. Alteration consists mostly of fracture-controlled carbonate and minor chlorite. Trace pyrite.	470109	60.62	62.00	1.38	0.036
			470111	62.00	63.50	1.50	0.01
			470112	70.00	71.50	1.50	0.0025
			470113	87.00	88.50	1.50	0.015
		Alteration:					
60.62 -	67.60	moderate carbonate Fracture controlled.					
67.60 -	92.00	moderate carbonate Fracture controlled, weak chlorite Fracture controlled.Carbonate-quartz-chlorite mostly infilling pillow margins.					
		Structure:					

Lithology				Sample #	From	To	Len.	Au ppm
From	To							
80.76	- 80.77	Foliation	35° to c/a / 20° beta					
85.62	- 85.63	Foliation	40° to c/a / 0° beta					

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	Co-ordinate System		Grid/Property		Hole Type	Length	Date Started
Ontario	UTM NAD83 Zone 15				Diamond Drillhole	71.00	2/2/2018
District	**UTM North**	**UTM East**	**Local Grid E**	**Local Grid N**	**Collar Survey Method**		**Date Completed**
Kenora	5476675.01	522102.5			Trimble		2/3/2018
Project	**UTM Elevation**	**Azimuth Astro. (°)**	**Azimuth Grid (°)**	**Dip (°)**	**Drill Contractor**		**Date Logged**
Kenwest	400.94	90.00		-45.00	Asinike Drilling		2/5/2018
Area	**Claim No.**	**NTS Sheet**	**Supervised By**		**Logged By**		**Verified**
Boyer Lake Area			P. Giddy		P. Giddy		☐

Zone/Prospect	Assessment Rpt. No.	Core Storage	Plug Depth	Makes Water	Capped	Environmental Inspection
				☐	☐	☐

Core Size (1)	NQ		Casing Pulled	Casing (1)		NW Steel	Plugged	Pulsed	Geophysics Contractor	Date Pulsed
(2)			☐	(2)			☐	☐		

Purpose	Results	Comments
up plunge of 11-26, coincident IP and tests for north trending structure		

Distance	Grid Azimuth (°)		Astro. Azimuth (°)		Dip (°)		Use Test	Survey Method	Mag. Field (nT)	Comments
	Original	Final	Original	Final	Original	Final				
17.00			90.5		-43.3		☑	Reflex EZ Shot		
71.00			92.4		-44.1		☑	Reflex EZ Shot		

Lithology From	To		Sample #	From	To	Len.	Au ppm
0.00 -	2.25	**CAS Casing**					
2.25 -	5.53	**MV Mafic Volcanic** Medium greenish-blue, fine-grained, weakly sheared, Mafic Volcanic Flow. This unit is possibly pillowed with a weak foliation at ~35 TCA. Ori lines are not present for the first 17m. Very minor carbonate veinlets are parallel to the weak foliation. A few veinlets have been oxidized. The contact marks a significant change in grain size and loss of foliation.					
Alteration:							
2.25 -	26.47	weak carbonate Fracture controlled.					
5.53 -	26.47	**MV Mafic Volcanic** Medium greenish-blue, coarse-grained, Mafic Volcanic Flow. Alteration consists of a few minor carbonate+/- epidote veinlets. At 21.77 a few quartz veins are present with trace pyrite and chlorite alteration. Strain begins to increase around 21.77m with a speckled texture (possibly leuxocene?).	470114	21.77	22.23	0.46	0.171
Structure:							
21.77 -	21.78	Vein Undifferentiated 30° to c/a No ori line upper contact of minor vein.					
25.24 -	25.25	Foliation 45° to c/a / 70° beta					
Veins:							
11.20 -	11.26	carbonate , 100%, 90°					
21.77 -	22.23	quartz-carbonate , 60%, 30°, A couple of veins with in a massive mafic volcanic. Very little chlorite alteration. Trace pyrite.					

Lithology From	To		Sample #	From	To	Len.	Au ppm
26.47	33.72	**MV Mafic Volcanic** Greenish-blue to pale green, fine-grained, pillowed, Mafic Volcanic Flow. The pillows are difficult to observe in this unit due to the 'chaotic' texture (possibly deformed?). Difficult to distinguish a structural orientation. Alteration consists of pervasive silicification and patchy carbonate or albite. Mineralization consists of ~2% blebby and stringer pyrrhotite and pyrite.	470115	26.47	28.00	1.53	0.0025
			470116	28.00	29.50	1.50	0.0025
			470117	29.50	31.00	1.50	0.0025
			470118	31.00	32.50	1.50	0.0025
			470119	32.50	33.72	1.22	0.0025
		Alteration:					
26.47	33.72	patchy carbonate Fracture controlled, patchy albite Fracture controlled, moderate-strong Silica Pervasive.					
33.72	37.73	**MV Mafic Volcanic** Medium green, fine- to medium-grained, massive, Mafic Volcanic Flow. There is a faint foliation with strain increasing near the contact. Alteration consists of minor fracture-controlled carbonate. ~1% mm-scale quartz stringers. Trace pyrite. In contact with a highly strained unit.	470120	33.72	35.00	1.28	0.0025
			470121	35.00	36.50	1.50	0.008
			470122	36.50	37.73	1.23	0.006
		Alteration:					
33.72	37.73	weak carbonate Fracture controlled.					
37.73	41.92	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Green-grey, fine-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained with a foliation at ~40 TCA. Alteration consists of fracture-controlled carbonate and chlorite. 39.36-39.63m quartz-carbonate with ~1-2% pyrite. Local concentrations with pyrite up to 2% in the forms of stringers or disseminations. The lower contact marks increasing alteration.	470123	37.73	39.00	1.27	1.13
			470124	39.00	39.63	0.63	0.007
			470125	39.63	40.50	0.87	0.0025
			470126	40.50	41.92	1.42	0.431
		Alteration:					
37.73	41.92	weak carbonate Fracture controlled.					

Lithology From	To		Sample #	From	To	Len.	Au ppm
Structure:							
40.80 -	40.81	Foliation 40° to c/a / 20° beta					
41.92 -	42.47	**CLSRSCH Chlorite-Sericite Schist** Dark grey, fine-grained, sheared, Chlorite Sericite Schist. This unit is strongly strained with a foliation at 40 TCA. Alteration consists of pervasive sericite and chlorite. This unit marks the upper alteration halo of the B2 structure. ~1-2% quartz veinlets and ~0.5% fracture-controlled pyrite. The lower contact is with B2 quartz vein.	470127	41.92	42.47	0.55	0.881
Alteration:							
41.92 -	47.24	strong sericite Bands, strong carbonate Bands, moderate chlorite Bands.					
Structure:							
42.31 -	42.32	Foliation 35° to c/a / 25° beta					
42.47 -	43.56	**QV Quartz Vein** White to pale grey, coarse-grained, B2, Quartz Vein. ~30% altered wallrock fragments which are parallel to the main fabric. The wallrock fragments are straw yellow to pale grey, pervasively altered by sericite and carbonate and are mostly concentrated at the lower contact. Mineralization consists of blebby to disseminated pyrite mostly concentrated along contacts with wallrock or vein selvage.	470128	42.47	43.56	1.09	1.2
Structure:							
42.47 -	42.48	Upper contact 30° to c/a / 30° beta Upper B2 quartz vein contact.					
43.56 -	44.00	**CLSRSCH Chlorite-Sericite Schist** Dark grey, fine-grained, sheared, Chlorite Sericite Schist. This unit is strongly strained with a foliation at 40 TCA. Alteration consists of pervasive sericite and chlorite. This unit is within the B2 structure. ~1-2% quartz veinlets some of which are boudinaged and ~1% fracture-controlled pyrite. The lower contact is with B2 quartz vein.	470129	43.56	44.00	0.44	4.13

Lithology From	To		Sample #	From	To	Len.	Au ppm
Structure:							
43.56 -	43.57	Lower contact 40° to c/a / 20° beta Lower B2 quartz vein contact.					
44.00 -	44.38	**QV Quartz Vein** White to pale grey, coarse-grained, B2, Quartz Vein. ~30% altered wallrock which are parallel to the main fabric and vein contact. Alteration consists of banded sericite and carbonate. Mineralization consists of 1% pyrite.	470131	44.00	44.38	0.38	1.98
Structure:							
44.00 -	44.01	Upper contact 40° to c/a / 20° beta Upper B2 quartz vein contact.					
44.38 -	46.63	**CLSRSCH Chlorite-Sericite Schist** Dark grey, fine-grained, sheared, Chlorite Sericite Schist. This unit is strongly strained with a foliation at 35 to 45 TCA. Alteration consists of pervasive, banded, sericite, chlorite and carbonate. This unit is within the B2 structure. ~10% quartz veins/ veinlets some of which are boudinaged and ~0.5% fracture-controlled pyrite. The lower contact is with B2 quartz vein.	470132	44.38	45.92	1.54	0.02
			470133	45.92	46.63	0.71	0.071
46.63 -	47.24	**QV Quartz Vein** Grey to white, coarse-grained, B2, Quartz Vein. ~20% altered wallrock fragments oriented parallel to the main fabric and vein orientation. Alteration consists of banded sericite, carbonate and tourmaline. ~1% disseminated pyrite mostly concentrated in altered fragments/ bands or along vein contacts.	470134	46.63	47.24	0.61	0.459
Structure:							
46.63 -	46.64	Upper contact 30° to c/a / 30° beta Upper B2 quartz vein contact.					
47.04 -	47.05	Foliation 35° to c/a / 30° beta					

Lithology									
From	*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
47.24 -	48.67	**MVSH Mafic Volcanic - Weakly to Moderately Sheared**						
		Dark green-grey, fine-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained/ sheared with a well-developed foliation ~40 TCA. Alteration consists of fracture-controlled carbonate +/- sericite and chlorite. ~5% carbonate-quartz veinlets mostly concentrated at the upper contact. Trace pyrite.		470135	47.24	48.00	0.76	0.084
				470136	48.00	48.67	0.67	0.0025
		Alteration:						
		47.24 -	48.67	moderate carbonate Fracture controlled, weak sericite Fracture controlled, weak chlorite Fracture controlled.				
		Structure:						
		47.24 -	47.25	Lower contact 45° to c/a / 20° beta Lower B2 quartz vein contact.				
		47.70 -	47.71	Foliation 30° to c/a / 0° beta				
48.67 -	71.00	**MV Mafic Volcanic**						
		Green-grey, fine-grained, pillowed, Mafic Volcanic Flow. Locally strained. Pillows are m-scale with well-developed selvages. Carbonate, quartz +/- epidote or albite infill pillow margins. Alteration consists mostly of fracture-controlled carbonate. Local patches of pale green varioles or amygdule's. 0.5% blebby pyrrhotite and trace pyrite.		470137	48.67	50.00	1.33	0.0025
				470138	68.00	69.00	1.00	0.0025
		Alteration:						
		48.67 -	71.00	weak carbonate Fracture controlled, weak albite Fracture controlled, weak Epidote Fracture controlled.				
		Structure:						
		59.26 -	59.27	Foliation 60° to c/a / 30° beta				
		62.00 -	62.01	Foliation 40° to c/a / 30° beta				

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	Co-ordinate System		Grid/Property		Hole Type	Length	Date Started
Ontario	UTM NAD83 Zone 15				Diamond Drillhole	74.00	2/5/2018
District	**UTM North**	**UTM East**	**Local Grid E**	**Local Grid N**	**Collar Survey Method**		**Date Completed**
Kenora	5476739.99	522020			Trimble		2/6/2018
Project	**UTM Elevation**	**Azimuth Astro. (°)**	**Azimuth Grid (°)**	**Dip (°)**	**Drill Contractor**		**Date Logged**
Kenwest	395.70	135.00		-46.00	Asinike Drilling		2/7/2018
Area	**Claim No.**	**NTS Sheet**	**Supervised By**		**Logged By**		**Verified**
Boyer Lake Area			P. Giddy		P. Giddy		☐

Zone/Prospect	Assessment Rpt. No.	Core Storage	Plug Depth	Makes Water	Capped	Environmental Inspection
BM #1				☐	☐	☐

Core Size (1)	NQ		Casing Pulled	Casing (1)		NW Steel	Plugged	Pulsed	Geophysics Contractor	Date Pulsed
(2)			☐	(2)			☐	☐		

Purpose	Results	Comments
holes 10-15 comprise 2 sections intersecting the #1 shear at approximately 50 m vertical increments. This area is up dip of KW-11-25,26 and 27 as well as the end of the 6th level stope, all of which had good grades. These holes test an otherwise empty part of the #1 shear long section that had the most encouraging results on the #1 shear		

Distance	Grid Azimuth (°) Original	Grid Azimuth (°) Final	Astro. Azimuth (°) Original	Astro. Azimuth (°) Final	Dip (°) Original	Dip (°) Final	Use Test	Survey Method	Mag. Field (nT)	Comments
14.00			137.5		-46.2		☑	Reflex EZ Shot		
50.00			139.4		-46		☑	Reflex EZ Shot		

Lithology									
From	*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
0.00 - 2.76	**CAS Casing**							
2.76 - 13.53	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts**							
	Blue-green, medium-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are white, 1-4mm and sub-rounded to sub-angular. There is very minor fracture-controlled carbonate alteration and one minor quartz-carbonate vein. Trace cubic pyrite. The lower contact marks the loss of phenocrysts and an increasing white 'speckled' texture.			470139	10.40	10.78	0.38	0.0025
	Alteration:							
	2.76 - 13.53	weak carbonate Fracture controlled.						
	Veins:							
	10.40 - 10.78	quartz-carbonate , 40%, 30°, Upper contact is irregular.						
13.53 - 24.12	**MV Mafic Volcanic**							
	Greyish-green, medium-grained, massive, Mafic Volcanic Flow or Sericite Schist. There is a possibility that this unit is a gabbro due to the presence of pyroxene metamorphosed to hornblende which are observed in patches closer to the lower contact (this is just an observation it is very difficult to tell). Strain is increasing within this unit with a moderately developed foliation at 45-50 TCA. A pervasive white, 'speckled' texture (possible leucoxene?) is present. Alteration consists of fracture-controlled carbonate and chlorite and is also a moderate silicification. ~1% quartz vein oriented parallel to the foliation. Trace pyrite.			470141	16.33	16.83	0.50	0.0025
				470142	23.00	24.12	1.12	0.005
	Alteration:							
	13.53 - 24.12	weak carbonate Fracture controlled, weak chlorite Fracture controlled, moderate Silica Pervasive.						
	Structure:							
	15.75 - 15.76	Foliation 45° to c/a / 330° beta						
	17.45 - 17.46	Foliation 50° to c/a / 335° beta						
	18.90 - 18.91	Foliation 45° to c/a / 340° beta						

Lithology				Sample #	From	To	Len.	Au ppm
From	To							
23.32	23.33	Foliation 45° to c/a / 330° beta						
Veins:								
16.51	16.62	quartz , 80%, 45°						
24.12	31.62	**MVSH Mafic Volcanic - Weakly to Moderately Sheared**						
		Pale grey, fine-grained, very strongly sheared, Mafic Volcanic Flow. Possible B1 shear zone? This unit is strongly strained with a very well-developed foliation at 40 TCA. This high strain zone displays different structures such as, foliation, boudinaged veinlets, possible small scale folding or drag folding and sericitic shear banding. Due to the deformation quartz veinlets are broken up in to 'fragments' or boudinaged veinlets. Alteration consists of a 'silicificed zone' 25.63-2671m as well as straw yellow sericite banding, carbonate +/- tourmaline. ~30 to 40% quartz-carbonate material which is typically aligned parallel to the foliation. 29-29-72m Pale pink possible sheared felsic dikes (parallel to the main fabric)? Up to 0.5% disseminated pyrite. Lower contact marks decreasing strain and alteration.		470143	24.12	25.63	1.51	0.008
				470144	25.63	26.74	1.11	0.012
				470145	26.74	28.00	1.26	0.018
				470146	28.00	29.00	1.00	0.039
				470147	29.00	29.72	0.72	1.03
				470148	29.72	30.72	1.00	0.041
				470149	30.72	31.62	0.90	0.007
Alteration:								
24.12	25.63	moderate carbonate Fracture controlled.						
25.63	26.74	strong Silica Pervasive.Translucent, yellow, silica flooding? Very hard.						
26.74	31.62	strong sericite Bands, strong carbonate Fracture controlled, weak Tourmaline Fracture controlled.						
Structure:								
24.51	24.52	Foliation 45° to c/a / 340° beta						
26.46	26.47	Foliation 40° to c/a / 340° beta						
28.81	28.82	Foliation 40° to c/a / 335° beta Intense deformation.						
29.84	29.85	Foliation 50° to c/a / 340° beta						
31.38	31.39	Foliation 40° to c/a / 0° beta						

Lithology From	To		Sample #	From	To	Len.	Au ppm
31.62 -	45.83	**MV Mafic Volcanic** Dark green, fine-grained, massive, Mafic Volcanic Flow. This unit has a 'cracked' texture (more of a brittle deformation?) with infilling carbonate alteration. This could be due to the proximity of shearing/ deformation on other side of this unit. There is a faint fabric near the lower contact. ~1% irregular quartz veinlets. ~0.5% cubic to disseminated pyrite. Locally amygdaloidal with infilling carbonate at the lower contact.	470150	31.62	33.00	1.38	0.006
			470151	41.08	42.56	1.48	0.01
			470152	42.56	43.00	0.44	0.01
			470153	43.00	44.50	1.50	0.005
			470154	44.50	45.83	1.33	0.01
		Alteration:					
31.62 -	45.83	weak carbonate Fracture controlled.					
45.83 -	50.60	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Green-grey, fine-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained with a well-developed foliation at 45 TCA. Alteration consists of straw yellow sericitic shear bands, chlorite and carbonate. ~20% sheared quartz veinlets and ~0.5% disseminated with the rare stringer pyrite mineralization. The lower contact marks decreasing strain and alteration.	470155	45.83	47.00	1.17	0.063
			470156	47.00	47.71	0.71	0.046
			470157	47.71	48.40	0.69	0.017
			470158	48.40	49.10	0.70	0.006
			470159	49.10	50.60	1.50	0.005
		Alteration:					
45.83 -	50.60	moderate sericite Bands, strong carbonate Fracture controlled, moderate chlorite Fracture controlled.					
		Structure:					
45.88 -	45.89	Foliation 45° to c/a / 10° beta Shear zone					
47.41 -	47.42	Foliation 45° to c/a / 340° beta Shear zone					
49.12 -	49.13	Foliation 40° to c/a / 10° beta					

Lithology								
From	***To***		***Sample #***	***From***	***To***	***Len.***	***Au ppm***
50.60 - 74.00	**MV Mafic Volcanic**						
	Dark green, fine-grained, massive, Mafic Volcanic Flow. This unit has a 'cracked' texture (more of a brittle deformation?) with infilling carbonate-sericite alteration. This could be due to the proximity of shearing/ deformation. 'Chaotic, stringer texture. Trace disseminated pyrite. A few 1mm, white, pheocrysts. Quartz vein 70.59-70.80m.		470161	50.60	52.00	1.40	0.005
			470162	60.69	61.20	0.51	0.058
			470163	69.30	70.49	1.19	0.009
			470164	70.49	70.87	0.38	0.181
			470165	70.87	72.00	1.13	0.006

Alteration:

50.60 - 74.00 weak sericite Fracture controlled, weak carbonate Fracture controlled, moderate chlorite Fracture controlled.Chaotic stringer texture with infilling sericite and carbonate.

Structure:

70.59 - 70.60 Vein Undifferentiated 45° to c/a / 0° beta Upper vein contact

70.80 - 70.81 Vein Undifferentiated 50° to c/a / 0° beta Lower vein contact

Veins:

60.94 - 61.09 quartz , 80%, 45°

70.59 - 70.8 quartz , 90%, 45°, Pyrite concentrated at vein contacts.

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*		*Grid/Property*		*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15					152.00	2/6/2018
District	***UTM North***	***UTM East***	***Local Grid E***	***Local Grid N***	***Collar Survey Method***		***Date Completed***
Kenora	5476774.24	521985.76			Trimble		2/7/2018
Project	***UTM Elevation***	***Azimuth Astro. (°)***	***Azimuth Grid (°)***	***Dip (°)***	***Drill Contractor***		***Date Logged***
Kenwest	400.16	135.00		-48.00	Asinike Drilling		2/9/2018
Area	***Claim No.***	***NTS Sheet***	***Supervised By***		***Logged By***		***Verified***
Boyer Lake Area			P. Giddy		P. Giddy		☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #1				☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*
holes 10-15 comprise 2 sections intersecting the #1 shear at approximately 50 m vertical increments. This area is up dip of KW-11-25,26 and 27 as well as the end of the 6th level stope, all of which had good grades. These holes test an otherwise empty part of the #1 shear long section that had the most encouraging results on the #1 shear		Drillhole lifted 10 degrees from collar survey.

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
14.00			133.4		-46.7		☑	Reflex EZ Shot		
50.00			137.5		-46.8		☑	Reflex EZ Shot		
140.30			140.3		-43.9		☑	Reflex EZ Shot		
152.00			152		-36.8		☑	Reflex EZ Shot		

Lithology									
From	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*
0.00	- 1.30	**CAS Casing**					
1.30	- 18.91	**MV Mafic Volcanic** Greenish blue, fine- to medium-grained, massive, Mafic Volcanic Flow. Alteration consists of minor carbonate +/- epidote. ~1% quartz-carbonate veinlets. Trace pyrite. *Alteration:* 1.30 - 18.91 weak carbonate Fracture controlled, weak Epidote Fracture controlled.					
18.91	- 20.15	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Pale green, fine-grained groundmass, porphyritic, Mafic Volcanic. Plagioclase (?) laths are white and 1-4mm. Minor carbonate alteration with quartz-carbonate vein at the lower contact. *Alteration:* 18.91 - 25.27 weak carbonate Fracture controlled. *Veins:* 20.05 - 20.52 quartz-carbonate , 80%, 40°, Quartz-carbonate at contact with porphyry and massive flow.	470166	20.00	20.52	0.52	0.0025
20.15	- 25.27	**MV Mafic Volcanic** Green, fine- to medium-grained, massive, Mafic Volcanic Flow. Alteration consists of minor carbonate +/- epidote. ~1% quartz-carbonate veinlets. Trace pyrite. *Veins:*	470167	23.79	25.27	1.48	0.0025

Lithology From	To		Sample #	From	To	Len.	Au ppm
22.70	23.08	carbonate , 30%, 30°					
25.27	28.89	**MVSH Mafic Volcanic - Weakly to Moderately Sheared**					
		Green-grey, fine-grained, sheared, Mafic Volcanic Flow. This unit contains ~10% boudinaged quartz-carbonate veinlets with minor sericite-carbonate alteration bands. Strain is strong defined by a well-developed foliation at 50 TCA. ~0.5% fracture-controlled pyrite.	470168	25.27	26.52	1.25	0.331
			470169	26.52	27.75	1.23	0.448
			470171	27.75	28.89	1.14	0.041
		Alteration:					
25.27	28.89	weak sericite Fracture controlled, weak carbonate Fracture controlled.					
		Structure:					
25.50	25.51	Foliation 50° to c/a / 330° beta					
28.05	28.06	Foliation 50° to c/a / 320° beta					
28.89	40.08	**MV Mafic Volcanic**					
		Green, medium-grained, massive (possibly pillowed), Mafic Volcanic Flow. Alteration consists of minor carbonate, epidote and chlorite. Very weak fabric and trace pyrite.	470172	28.89	30.13	1.24	0.114
			470173	38.90	40.08	1.18	0.0025
		Alteration:					
28.89	40.08	weak carbonate Fracture controlled, weak Epidote Fracture controlled.					

Lithology From	To		Sample #	From	To	Len.	Au ppm
40.08	57.92	**MVSH Mafic Volcanic - Weakly to Moderately Sheared**					
		Pale grey to green, fine-grained, sheared/ strained, Mafic Volcanic Flow. This unit is strongly strained defined by a well-developed foliation at 45-50 TCA. Alteration consists of sericite-carbonate banding and chlorite. ~0.5% pyrite. Small quartz vein with ~10% wallrock fragments 48.25-48.52m. Silicified quartz zone 51.76-51.22m. This unit could be pillowed due to the presence of sheared patches of carbonate-sericite (possible deformed pillow selvages?).	470174	40.08	41.50	1.42	0.0025
			470175	41.50	43.00	1.50	0.0025
			470176	43.00	44.50	1.50	0.0025
			470177	44.50	46.00	1.50	0.008
			470178	46.00	47.50	1.50	0.0025
			470179	47.50	48.10	0.60	0.0025
			470180	48.10	48.52	0.42	0.785
			470181	48.52	50.00	1.48	0.175
			470182	50.00	50.76	0.76	0.0025
			470183	50.76	51.22	0.46	0.035
			470184	51.22	52.50	1.28	0.0025
			470185	52.50	54.00	1.50	0.166
			470186	54.00	55.55	1.55	0.0025
			470187	55.55	57.00	1.45	0.095
			470188	57.00	57.92	0.92	0.074

Alteration:

From	To	Description
40.08	57.92	moderate sericite Bands, moderate carbonate Bands, weak chlorite Fracture controlled.

Structure:

From	To	Description
40.86	40.87	Foliation 50° to c/a No ori line to measure beta
44.96	44.97	Foliation 45° to c/a / 320° beta
48.25	48.26	Vein Undifferentiated 50° to c/a No ori line. Upper contact of vein.
48.52	48.53	Vein Undifferentiated 20° to c/a No ori line. Lower contact of vein.
52.86	52.87	Foliation 50° to c/a / 330° beta
54.32	54.33	Foliation 45° to c/a / 330° beta
55.62	55.63	Foliation 45° to c/a / 340° beta
57.10	57.12	Foliation 45° to c/a / 330° beta
57.91	57.92	Foliation 45° to c/a / 330° beta

Veins:

Lithology				Au
From To		Sample # From To	Len.	ppm

48.25 - 48.52 quartz-carbonate , 50%, Quartz-carbonate vein. Upper contact at 50 TCA and lower contact at 20 TCA.

51.76 - 51.22 quartz , 40%, 50°, Quartz, silica flooding? Pink-white with wallrock material.

57.92 - 65.24 **MV Mafic Volcanic**

Dark green, medium-grained, massive, Mafic Volcanic Flow. Alteration consist of very minor fracture-controlled carbonate. Trace pyrite. The lower contact with a porphyritic mafic volcanic is sheared 65-65.24m.

Alteration:

57.92 - 93.40 weak carbonate Fracture controlled.

Structure:

65.15 - 65.16 Foliation 60° to c/a / 0° beta Sheared contact

65.24 - 75.48 **MVPH Mafic Volcanic - Large Feldspar Phenocrysts**

Medium green-grey, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are 1-5mm, white, and sub-rounded. Alteration consists of minor fracture-controlled carbonate +/-quartz. There are a few Mafic Dikes cross-cutting this unit. Trace pyrite.

75.48 - 76.72 **MD Mafic Dike**

Dark grey, fine-grained, massive, Mafic Dike. This unit is weakly strained with a weakly developed foliation. A few minor quartz-carbonate veinlets. Both the upper and lower contacts are sharps at 50 TCA.

Structure:

75.48 - 75.49 Upper contact 50° to c/a / 0° beta Upper dike contact

76.42 - 76.43 Lower contact 50° to c/a / 20° beta Lower dike contact

Lithology From	To		Sample #	From	To	Len.	Au ppm
76.72 -	78.12	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Medium green-grey, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are 1-5mm, white, and sub-rounded. Alteration consists of minor fracture-controlled carbonate +/-quartz. There are a few Mafic Dikes cross-cutting this unit.					
78.12 -	78.78	**MD Mafic Dike** Dark grey, fine-grained, massive, Mafic Dike. This unit is weakly strained with a weakly developed foliation. A few minor quartz-carbonate veinlets. The upper contact is at 40 TCA and the lower contact is at 50 TCA.					
		Structure:					
78.12 -	78.13	Upper contact 40° to c/a / 320° beta Upper dike contact					
78.78 -	93.40	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Medium green-grey, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are 1-5mm, white, and sub-rounded. Alteration consists of minor fracture-controlled carbonate +/-quartz. The lower contact marks the loss of phenocrysts and increasing strain. White, speckled texture picks up at ~89m (possible leucoxene). Trace pyrite.	470189	92.00	93.40	1.40	0.0025
		Structure:					
78.78 -	78.79	Lower contact 50° to c/a / 300° beta Lower dike contact					

Lithology From	To		Sample #	From	To	Len.	Au ppm
93.40 -	100.85	**MV Mafic Volcanic** Medium grey-green, fine-grained, pillowed (?), Mafic Volcanic Flow. There is a very weak fabric present. Possibly pillowed? With m-scale pillows are very thin pillow margins. Alteration consists of fracture-controlled carbonate. ~1-2% irregular quartz veinlets. ~0.5 with local sections of 1% disseminated and fracture-controlled pyrite. Contact marks increasing strain.	470191	93.40	94.70	1.30	0.0025
			470192	94.70	96.00	1.30	0.0025
			470193	96.00	97.50	1.50	0.0025
			470194	97.50	99.00	1.50	0.015
			470195	99.00	100.00	1.00	0.006
			470196	100.00	100.85	0.85	0.0025
		Alteration:					
93.40 -	100.85	moderate carbonate Fracture controlled.					
		Structure:					
93.40 -	93.41	Foliation 40° to c/a / 310° beta					
100.85 -	104.91	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Grey, fine- to medium-grained, sheared, Mafic Volcanic Flow. Increasing strain approaching the main B1 shear. This unit is strongly strained with a well-developed foliation at 45 to 50 TCA. Alteration consists of minor sericite-carbonate banding and pervasive silifiication. ~5% quartz veinlets parallel to the foliation. Trace pyrite.	470197	100.85	102.00	1.15	0.0025
			470198	102.00	103.50	1.50	0.0025
			470199	103.50	104.91	1.41	0.0025
		Alteration:					
100.85 -	104.91	weak carbonate Fracture controlled, weak chlorite Fracture controlled, weak sericite Fracture controlled, patchy Silica Fracture controlled.					
		Structure:					
101.52 -	101.53	Foliation 40° to c/a / 310° beta					
103.59 -	103.60	Foliation 45° to c/a / 15° beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
104.91 -	106.02	**CLSRSCH Chlorite-Sericite Schist** Pale grey to dark grey bands, fine-grained, sheared, Chlorite-Sericite Schist. Alteration consists of banded sericite-carbonate~20% quartz veinlets and due to the strong deformation, they are broken and boudinaged parallel to the foliation. In contact with the B1 quartz vein. Trace pyrite.	470201	104.91	106.02	1.11	0.033
		Alteration: 104.91 - 106.02 strong chlorite Bands, strong sericite Bands, moderate carbonate Bands.					
		Structure: 105.17 - 105.18 Foliation 50° to c/a / 340° beta					
106.02 -	106.50	**QV Quartz Vein** White, coarse-grained, B1, Quartz Vein. Contains ~10% altered wallrock fragments and bands consists of sericite-carbonate. Mineralization consists of 0.5% blebs of pyrite mostly concentrated around altered bands and contacts as well as 6 specks of VG at 106.21m. The upper contact is sharp at 50 TCA and the lower contact is at 70 TCA both parallel and sub-parallel to the main fabric.	470202	106.02	106.50	0.48	26.6
		Alteration: 106.02 - 106.50 weak sericite Fracture controlled, weak carbonate Fracture controlled.					
		Structure: 106.02 - 106.03 Upper contact 50° to c/a / 0° beta B1 Quartz Vein Upper contact 106.49 - 106.50 Lower contact 70° to c/a / 0° beta B1 Quartz Vein Lower contact					
		Veins: 106.02 - 106.5 quartz extensional, 95%, UC: 50 LC:70 B1 Quartz Vein with 0.5% pyrite and 6 specks of VG.					
106.50 -	107.81	**SERSCH Sericite Schist** Pink to pale grey, fine-grained, sheared, Sericite Schist. This unit is the lower alteration halo to the B1 Quartz Vein and consists of pervasive, banded, sericite-carbonate-silica alteration. The foliation is 50 TCA. Mineralization consists of 0.5% disseminated pyrite.	470203	106.50	107.81	1.31	0.47

Lithology From	To		Sample #	From	To	Len.	Au ppm
Alteration:							
106.50 -	107.81	strong sericite Bands, strong carbonate Bands, weak chlorite Fracture controlled, moderate Silica Pervasive.					
Structure:							
107.00 -	107.01	Foliation 55° to c/a / 330° beta					
107.81 -	115.71	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Green-grey, fine- to medium-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained with a well-developed foliation at 50-55 TCA. Alteration consists of patches of banded sericite-carbonate and chlorite. ~10% quartz veins and veinlets all trending parallel to the main fabric. Veins are strained forming well-developed boudinages. 111.11-112.53 possibly Ultramafic unit with 'cracked' texture, possible brittle deformation (hard- strongly silicified). Trace pyrite.	470204	107.81	109.00	1.19	0.066
			470205	109.00	110.00	1.00	0.011
			470206	110.00	111.11	1.11	0.0025
			470207	111.11	112.53	1.42	0.0025
			470208	112.53	113.92	1.39	0.0025
			470209	113.92	115.22	1.30	0.011
			470210	115.22	115.71	0.49	0.442
Alteration:							
107.81 -	115.71	weak sericite Bands, moderate carbonate Bands, weak chlorite Fracture controlled.					
111.11 -	112.53	strong Silica Pervasive.					
Structure:							
107.91 -	107.92	Foliation 50° to c/a / 330° beta					
109.57 -	109.58	Foliation 55° to c/a / 0° beta					
111.00 -	111.01	Foliation 55° to c/a / 0° beta					
111.56 -	111.57	Vein Undifferentiated 40° to c/a / 340° beta LC					
115.40 -	115.41	Vein parallel fol 50° to c/a / 10° beta UC					
115.54 -	115.55	Vein parallel fol 40° to c/a / 0° beta LC					
Veins:							
115.40 -	115.54	quartz extensional, 80%, 50°					

Lithology								
From	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*
115.71 - 128.43	**MV Mafic Volcanic**						
	Green to grey, medium-grained, massive, Ultramafic (??). This unit displays a 'cracked' texture due to possible brittle deformation. The cracked texture is highlighted by infilling serpentine (?). Unit is very hard due to strong silicification? Fracture surfaces are slick and soft. There are about ~20% > 5cm quartz veins which are trend parallel or sub-parallel to the main fabric. There is a very faint fabric present however, due to the chaotic nature of the texture it is difficult to provide accurate measurements. Trace blebs of pyrite mostly observed around quartz veins and veinlets.		470211	115.71	116.47	0.76	0.035
			470212	116.47	117.22	0.75	0.069
			470213	117.22	118.60	1.38	0.044
			470214	118.60	120.00	1.40	0.006
			470215	120.00	121.16	1.16	0.055
			470216	121.16	121.62	0.46	0.264
			470217	121.62	122.25	0.63	0.055
			470218	122.25	123.00	0.75	0.016
			470219	123.00	123.57	0.57	0.247
			470221	123.57	125.00	1.43	0.047
			470222	125.00	125.94	0.94	0.217
			470223	125.94	126.31	0.37	0.025
			470224	126.31	127.00	0.69	0.007
			470225	127.00	128.43	1.43	0.009

Alteration:

115.71 - 128.43 strong Silica Pervasive, moderate Serpentinization Fracture controlled.

Structure:

116.27 - 116.28 Vein parallel fol 55° to c/a / 0° beta UC

116.38 - 116.39 Vein parallel fol 50° to c/a / 30° beta LC

116.63 - 116.64 Foliation 60° to c/a / 0° beta

121.35 - 121.36 Vein Undifferentiated 40° to c/a / 340° beta UC

122.04 - 122.05 Vein Undifferentiated 55° to c/a / 330° beta UC

122.23 - 122.24 Vein Undifferentiated 50° to c/a / 330° beta LC

123.45 - 123.46 Vein Undifferentiated 60° to c/a / 0° beta UC

123.54 - 123.55 Vein Undifferentiated 60° to c/a / 0° beta

125.94 - 125.95 Vein Undifferentiated 55° to c/a / 10° beta UC

126.17 - 126.18 Vein Undifferentiated 60° to c/a / 10° beta LC

128.31 - 128.32 Foliation 60° to c/a / 340° beta

Lithology								
From	To			Sample #	From	To	Len.	Au ppm
Veins:								
116.27	116.38	quartz , 80%, 50°, Pink-pale grey vein.						
117.10	117.22	quartz extensional, 60%, Sericite-chlorite alteration.						
121.35	121.56	quartz , 90%, 40°, Pale grey-purple, ~1% pyrite.						
122.04	122.23	quartz , 80%, 50°, Pale grey-purple, ~0.5% pyrite.						
125.94	126.17	quartz , 95%, 55°, White to pale greyish-purple, trace pyrite.						
128.43	152.00	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Green, fine- to medium-grained, massive, Mafic Volcanic Flow. This unit could be pillowed due to the occurrence of what looks like a few deformed pillow margins. There is a faint fabric with a weak to moderate foliation at 50 TCA. Alteration consists of fracture-controlled carbonate and chlorite. 0.1%		470226	128.43	129.93	1.50	0.009
				470227	139.21	140.00	0.79	0.342
Alteration:								
128.43	152.00	weak carbonate Fracture controlled, weak chlorite Fracture controlled.						
Structure:								
129.37	129.38	Foliation 50° to c/a / 330° beta						
134.17	134.18	Foliation 55° to c/a / 0° beta						
139.70	139.71	Shear 50° to c/a / 330° beta						

ManitouGold Inc.

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*		*Grid/Property*		*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15				Diamond Drillhole	221.00	2/8/2018
District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*		*Date Completed*
Kenora	5476795.76	521964.24			Trimble		2/10/2018
Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*		*Date Logged*
Kenwest	399.12	135.00		-51.00	Asinike Drilling		2/15/2018
Area	*Claim No.*	*NTS Sheet*	*Supervised By*		*Logged By*		*Verified*
Boyer Lake Area			P. Giddy		P. Giddy		☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #1				☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*
holes 10-15 comprise 2 sections intersecting the #1 shear at approximately 50 m vertical increments. This area is up dip of KW-11-25,26 and 27 as well as the end of the 6th level stope, all of which had good grades. These holes test an otherwise empty part of the #1 shear long section that had the most encouraging results on the #1 shear		

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
14.00			134.2		-49.8		☑	Reflex EZ Shot	56911	
50.00			135.8		-49.2		☑	Reflex EZ Shot	56209	
101.00			136.4		-48.8		☑	Reflex EZ Shot	56279	
152.00			138.6		-48.6		☑	Reflex EZ Shot	56577	
200.00			140.2		-48.2		☑	Reflex EZ Shot	56206	

Lithology									
From		*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
0.00	-	3.30	**CAS Casing**						
3.30	-	7.00	**MV Mafic Volcanic** Green-grey, fine-grained, pillowed, Mafic Volcanic Flow. M-scale pillows with well-developed selvages. Carbonate infills pillow margins. Locally amygdaloidal also infilled with carbonate. Trace pyrite.						
			Alteration:						
	3.30	-	77.60	weak carbonate Fracture controlled.					
7.00	-	13.57	**GAB Gabbro** Green-grey, medium-grained, massive, Mafic Volcanic Flow (or Gabbro?). Very minor fracture-controlled carbonate. Trace pyrite.						
13.57	-	24.49	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Green-grey, fine-grained, strained, Mafic Volcanic Flow. This unit has is weakly to moderately strained with a foliation at ~50 TCA. A few minor cm-scale quartz veins occur at ~17m and trend parallel to the main fabric. Local section of 1% pyrite. Shear zone 24.49-26m containing the 1% pyrite.		470228	16.42	17.00	0.58	0.018
			Structure:						
	13.81	-	13.82	Foliation 30° to c/a / 330° beta					
	17.00	-	17.01	Foliation 50° to c/a / 350° beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
24.49	77.66	**MV Mafic Volcanic** Green-grey, medium-grained, massive, Mafic Volcanic Flow. Alteration consists of very minor fracture-controlled carbonate. Sheared carbonate vein (?) 39.22-39.42 with irregular contacts. Trace pyrite.	470229	24.49	26.00	1.51	0.0025
			470231	39.00	39.45	0.45	0.0025
		Alteration:					
77.60	114.67	moderate carbonate Fracture controlled, patchy chlorite Fracture controlled, weak sericite Bands.					
		Structure:					
26.68	26.69	Shear 40° to c/a / 340° beta					
26.86	26.87	Shear 40° to c/a / 340° beta					
		Veins:					
39.22	39.42	carbonate shear vein, 80%, Possible sheared carbonate vein? Irregular contacts					
77.66	102.08	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Dark grey to green, fine- to medium-grained, sheared, Mafic Volcanic Flow. This unit has varying texture including porphyritic (79.29-80.84m) and amygdaloidal (81.54-82.33m). The grain size also varies from fine- to medium-grained which could be the result of large flows with slower cooling centers and therefore increasing grain size. Stain is moderate with a foliation at ~30-35 TCA. Alteration consists of fracture-controlled carbonate and minor pale grey, banded sericite-carbonate. ~5% quartz-carbonate veins/ veinlets trend parallel to the foliation. Trace to 0.5% pyrite which is disseminated as well as fracture-controlled.	470232	77.66	79.00	1.34	0.0025
			470233	87.00	88.40	1.40	0.0025
			470234	88.40	89.70	1.30	0.006
			470235	100.80	102.08	1.28	0.0025
		Structure:					
77.76	77.77	Foliation 35° to c/a / 320° beta					
78.94	78.95	Foliation 30° to c/a / 330° beta					
83.18	83.19	Foliation 35° to c/a / 0° beta					
88.72	88.73	Foliation 50° to c/a / 340° beta					
93.23	93.24	Foliation 45° to c/a / 30° beta					
100.60	100.61	Foliation 50° to c/a / 340° beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
102.08 -	103.03	**QP Quartz Porphyry** Pale grey to very pale pink, fine- to medium-grained, Quartz porphyry. Quartz eyes are 1-2mm, rounded and display well-developed strain shadows which trend parallel to the main fabric. This unit is strongly strained with a well-developed foliation at 45 TCA. ~5% irregular quartz veinlets. Both the upper and lower contacts are sharp at 45 TCA. Trace pyrite.	470236	102.08	103.03	0.95	0.009
		Structure:					
		102.08 - 102.09 Upper contact 45° to c/a / 310° beta Quartz Porphyry UC					
103.03 -	114.67	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Pale green-grey, fine-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained with a well-developed foliation at ~50 TCA. Alteration consists of patchy silicification and fracture-controlled chlorite, sericite and carbonate. ~1-2% quartz-carbonate veinlets trending parallel to the foliation. Trace pyrite mostly concentrated in veinlets.	470237	103.03	104.00	0.97	0.227
			470238	104.00	105.50	1.50	0.015
			470239	105.50	107.00	1.50	0.0025
			470240	107.00	108.50	1.50	0.0025
			470241	108.50	110.00	1.50	0.0025
			470242	110.00	111.50	1.50	0.0025
			470243	111.50	113.00	1.50	0.0025
		Structure:					
		103.03 - 103.04 Lower contact 45° to c/a / 320° beta Quartz Porphyry LC					
		106.66 - 106.67 Foliation 50° to c/a / 0° beta					
		109.45 - 109.46 Foliation 50° to c/a / 0° beta					
		111.05 - 111.06 Foliation 45° to c/a / 0° beta					
		114.40 - 114.41 Foliation 45° to c/a / 350° beta					
114.67 -	129.83	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Medium green-grey, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are 1-5mm, white, and sub-rounded. ~5% irregular carbonate-quartz veins. Trace pyrite.	470244	125.22	126.06	0.84	0.0025

Lithology From	To		Sample #	From	To	Len.	Au ppm
Alteration:							
114.67	129.83	weak carbonate Fracture controlled.					
Veins:							
119.59	119.88	carbonate , 40%, Carbonate vein +/- quartz					
125.22	126.06	carbonate , 50%, Irregular carbonate vein in porphyritic unit.					
126.68	127	carbonate , 40%, Irregular carbonate vein in porphyritic unit.					
129.83	131.50	**INTD Intermediate Dike - Dike** Tan to grey, fine- to medium-grained, massive, Intermediate Dyke. Alteration consists of fracture-controlled carbonate and a few mm-scale quartz veinlets. Strongly silicified. Trace pyrite. Both the upper and lower contacts are sharp at 40 TCA.	470245	129.83	131.00	1.17	0.006
			470246	131.00	131.50	0.50	0.045
Structure:							
129.83	129.84	Upper contact 40° to c/a / 330° beta Intermediate Dike UC					
131.50	146.34	**MV Mafic Volcanic** Green-grey, medium- to coarse-grained, massive, Mafic Volcanic Flow. Sparse, white, sub-rounded, phenocrysts. Dark grey, sub-angular, phenocrysts increase at ~142m. Locally 'speckled' possible leucoxene alteration. Alteration consists of minor fracture-controlled carbonate and epidote. Blebs of semi-cubic pyrite. Shear zone (?) 138.3-141.86m otherise faint fabric.	470247	138.30	139.70	1.40	0.0025
			470248	139.70	140.83	1.13	0.0025
			470249	140.83	142.00	1.17	0.0025
			470251	145.90	146.34	0.44	0.0025
Alteration:							
131.50	136.34	weak carbonate Fracture controlled, weak Epidote Fracture controlled.					
Structure:							
131.50	131.51	Lower contact 40° to c/a / 345° beta Intermediate Dike LC					
134.32	134.33	Foliation 40° to c/a / 320° beta					
141.40	141.41	Shear 45° to c/a Due to deformation it is difficult to measure beta.					

Lithology From	To		Sample #	From	To	Len.	Au ppm
Veins:							
146.19 - 146.34		quartz-carbonate , 50%, Carbonate-quartz at upper contact with mafic dike.					
146.34 - 151.10		**MD Mafic Dike - Dike** Dark grey, fine-grained, Mafic Dike. This unit has a 'crackle' texture highlighted by infilling carbonate-sericite +/- chlorite. Silicification is pervasive and strong. Trace pyrite and ~0.5% cubic magnetite. Both the upper and lower contacts are sharp at 50 TCA.	470252	146.34	147.56	1.22	0.0025
Alteration:							
146.34 - 151.10		weak carbonate Fracture controlled, weak sericite Fracture controlled, weak chlorite Fracture controlled, strong Silica Pervasive.					
Structure:							
146.34 - 146.35		Upper contact 50° to c/a / 0° beta Poor Ori line. Mafic Dike UC					
151.10 - 156.58		**MV Mafic Volcanic** Green, medium-grained, massive, Mafic Volcanic Flow. This unit has a faint fabric at 40 TCA. White to pinkish 'speckled' texture (possible leucoxene alteration?). Trace pyrite.					
Alteration:							
151.10 - 156.58		weak carbonate Fracture controlled.					
Structure:							
151.10 - 151.12		Lower contact 50° to c/a / 40° beta Mafic Dike LC					
155.30 - 155.31		Foliation 40° to c/a / 335° beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
156.58 - 163.39		**MVSH Mafic Volcanic - Weakly to Moderately Sheared**					
		Medium grey to dark grey, fine- to medium-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained with a well-developed varying foliation 35 to 50 TCA. Very pale pink to tan mineral gives this unit a 'speckled' texture (possible leucoxene). Alteration consists of patchy chlorite, carbonate and wispy sericite. Possible, apple green, fuchsite alteration 160.44-160.65 with fragmental quartz veinlets (alteration is faint). ~10% quartz veins and veinlets trending parallel to the foliation. The veinlets have been strongly strained and are boudinaged and fragmental. ~0.5 disseminated pyrite along foliation planes. In contact with B1 Quartz Vein.	470253	156.58	158.00	1.42	0.0025
			470254	158.00	159.50	1.50	0.005
			470255	159.50	160.31	0.81	0.0025
			470256	160.31	160.74	0.43	0.021
			470257	160.74	162.00	1.26	0.005
			470258	162.00	162.72	0.72	0.005
			470259	162.72	163.69	0.97	0.013
		Alteration:					
156.58 - 163.39		patchy chlorite Fracture controlled, weak carbonate Fracture controlled, weak sericite Fracture controlled.					
		Structure:					
158.58 - 158.59		Foliation 45° to c/a / 345° beta					
159.95 - 159.96		Foliation 35° to c/a / 335° beta					
161.32 - 161.33		Foliation 40° to c/a / 325° beta					
162.66 - 162.67		Foliation 55° to c/a / 0° beta					
163.30 - 163.31		Foliation 50° to c/a / 0° beta					
		Veins:					
160.44 - 160.65		quartz-carbonate , 20%, Fuchsite alteration and blebs of pyrite with quartz fragments.					
163.39 - 164.29		**QV Quartz Vein**					
		White, coarse-grained, B1, Quartz Vein. This vein contains ~5% fracture filled alteration consisting of sericite, chlorite (albite?). Pyrite is also found within these fractures ~0.5%. The upper contact is sharp at 45 TCA whereas the lower contact is at 30 TCA. The lower contact contains ~30cm of pale pink alteration halo.	470261	163.69	164.54	0.85	0.966
		Alteration:					
163.39 - 164.29		weak sericite Fracture controlled, weak chlorite Fracture controlled.					
		Structure:					
163.69 - 163.70		Upper contact 45° to c/a / 0° beta B1 Quartz Vein UC					

Lithology From	To		Sample #	From	To	Len.	Au ppm
Veins:							
163.69	164.29	quartz shear vein, 95%, B1 quartz vein with minor alteration bands and ~0.5% pyrite. UC 45 LC 30					
164.29	165.78	**SERSCH Sericite Schist**					
		Pale grey to dark grey, fine-grained, sheared, Sericite Schist. This unit is highly deformed/ strained with a well-developed varying foliation due to folding (164.29-165.23m). The foliation ranges from 30 to 65 TCA. Alteration consists of strong, banded, sericite, carbonate, chlorite. ~ 30% quartz material trending parallel to the foliation. ~1% pyrite in disseminations and strings forming along foliation planes.	470262	164.54	165.78	1.24	0.798
Alteration:							
164.29	165.78	strong sericite Bands, moderate carbonate Bands, moderate chlorite Bands, weak Tourmaline Fracture controlled.					
Structure:							
164.29	164.30	Lower contact 30° to c/a / 0° beta B1 Quartz Vein LC					
164.54	164.55	Foliation 30° to c/a / 0° beta					
164.58	164.59	Foliation 40° to c/a / 0° beta					
164.70	164.71	Foliation 50° to c/a / 0° beta					
165.00	165.01	Foliation 65° to c/a / 0° beta					
165.23	165.24	Foliation 35° to c/a / 330° beta					
165.42	165.43	Foliation 50° to c/a / 0° beta					
165.78	170.50	**MVSH Mafic Volcanic - Weakly to Moderately Sheared**					
		Greyish-green to patchy pinkish grey, fine- to medium-grained, sheared, Mafic Volcanic Flow (or Chlorite Sericite Schist). This unit is strongly strained with a well-developed foliation at 45-55 TCA. Pale pink to tan mineral gives the unit a 'speckled' texture (possible leucoxene). Alteration consists of chlorite, silicification and banded to stringer or wispy sericite, carbonate +/- tourmaline. ~10% quartz veinlets trending parallel to the folation. ~0.5% cubic to blebbys of pyrite.	470263	165.78	167.00	1.22	0.032
			470264	167.00	168.45	1.45	0.0025
			470265	168.45	169.53	1.08	0.0025
			470266	169.53	170.00	0.47	0.154
			470267	170.00	170.50	0.50	0.025
Alteration:							

Lithology From	To		Sample #	From	To	Len.	Au ppm
165.78	170.50	moderate chlorite Fracture controlled, strong Silica Pervasive, moderate sericite Bands, moderate carbonate Fracture controlled, weak Tourmaline Fracture controlled.					
Structure:							
166.08	166.09	Foliation 45° to c/a / 335° beta					
167.26	167.27	Foliation 45° to c/a / 330° beta					
168.43	168.44	Foliation 50° to c/a / 340° beta					
169.82	169.83	Foliation 55° to c/a / 0° beta					
170.50	179.74	**MV Mafic Volcanic**					
		Green, fine- to medium-grained, massive, Ultramafic (??). This unit displays a 'cracked' texture due to possible brittle deformation. The cracked texture is highlighted by infilling serpentine (?). Unit is very hard due to strong silicification? Some fracture surfaces are slick and soapy. There is a very faint fabric present however, due to the chaotic nature of the texture it is difficult to provide accurate measurements. ~1% mm-scale quartz veinlets and a few notable quartz veins which trend parallel to the main fabric within this unit.	470268	170.50	172.00	1.50	0.018
			470269	178.61	179.74	1.13	0.043
Alteration:							
170.50	188.27	moderate Serpentinization Fracture controlled.					
179.74	180.07	**QV Quartz Vein**					
		Medium to light pink, coarse-grained, Quartz Vein. Displays multiple generations of veining with cross-cutting relationships. The dark pink coloured vein is parallel to the main fabric whereas the pale pink to white veins are cross-cutting the main vein. ~2% disseminated pyrite mostly concentrated in the first-generation vein. The contacts of the vein are sharp at 50 and 40 TCA.	470270	179.74	180.07	0.33	0.581
Structure:							
179.74	179.75	Upper contact 50° to c/a / 350° beta Quartz Vein UC					
179.85	179.86	Vein cross cutting foliation 40° to c/a / 210° beta Cross-cutting QV within main QV					

Lithology From	To		Sample #	From	To	Len.	Au ppm
Veins:							
179.74 - 180.07		quartz , 95%, Pink multi generational quartz vein with ~2% pyrite					
180.07 - 183.94		**MV Mafic Volcanic**					
		Green to grey, medium-grained, massive, Ultramafic (??). This unit displays a 'cracked' texture due to possible brittle deformation. The cracked texture is highlighted by infilling serpentine (?). Unit is very hard due to strong silicification? Some fracture surfaces are slick and soapy. There is a very faint fabric present however, due to the chaotic nature of the texture it is difficult to provide accurate measurements. ~1% mm-scale quartz veinlets and a few notable quartz veins which trend parallel to the main fabric within this unit.	470271	180.07	181.56	1.49	0.008
			470272	181.56	183.00	1.44	0.0025
			470273	183.00	183.94	0.94	0.028
Structure:							
180.07 - 180.08		Lower contact 40° to c/a / 330° beta Quartz Vein LC					
183.94 - 184.47		**QV Quartz Vein**					
		Medium pink to white, coarse-grained, Quartz Vein. Displays multiple generations of veining with cross-cutting relationships. ~2% pyrite is concentrated along vein contacts and disseminated in the main vein. Minor wisp chlorite and sericite. Contacts are sericitized.	470274	183.94	184.51	0.57	1.13
Structure:							
183.94 - 183.95		Upper contact 50° to c/a / 0° beta Quartz Vein UC					
Veins:							
183.94 - 184.47		quartz , 100%, Pink multi generational quartz vein with ~2% pyrite					

Lithology From	To		Sample #	From	To	Len.	Au ppm
184.47	188.66	**MV Mafic Volcanic** Green to grey, medium-grained, massive, Ultramafic (??). This unit displays a 'cracked' texture due to possible brittle deformation. The cracked texture is highlighted by infilling serpentine (?). Unit is very hard due to strong silicification? Some fracture surfaces are slick and soapy. There is a very faint fabric present however, due to the chaotic nature of the texture it is difficult to provide accurate measurements. ~1% mm-scale quartz veinlets and a few notable quartz veins which trend parallel to the main fabric within this unit.	470275	184.51	185.67	1.16	0.042
			470276	185.67	187.00	1.33	0.066
			470277	187.00	188.27	1.27	0.082
			470278	188.27	188.66	0.39	6.11
		Alteration:					
		188.27 - 188.66 moderate sericite Fracture controlled.					
		Structure:					
		184.47 - 184.48 Lower contact 40° to c/a / 0° beta Quartz Vein LC					
		186.23 - 186.24 Foliation 40° to c/a / 340° beta					
		187.71 - 187.72 Foliation 30° to c/a / 340° beta					
		Veins:					
		188.27 - 188.66 quartz , 40%, White QV with sericite bands and ~1% pyrite.					
188.66	192.62	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Dark green-grey, fine-grained, sheared, Mafic Volcanic Flow. This unit has a strong strained at 30-40 TCA. Alteration consists of minor fracture-controlled carbonate and bands of sericite around quartz veining. A few low angle quartz veins with sericite and pyrite occur 191.23-192.62m.	470279	188.66	190.00	1.34	0.062
			470281	190.00	191.23	1.23	0.041
			470282	191.23	191.62	0.39	3.13
		Alteration:					
		188.66 - 191.23 weak carbonate Fracture controlled.					
		191.23 - 192.62 moderate sericite Bands, weak carbonate Fracture controlled.					
		Structure:					
		188.66 - 188.67 Vein parallel fol 40° to c/a / 0° beta Quartz Vein LC (UC is irregular)					
		190.63 - 190.64 Foliation 30° to c/a / 0° beta					
		192.40 - 192.41 Foliation 20° to c/a / 0° beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
Veins:							
191.23	191.81	quartz-carbonate , 20%, Irregular quartz vein with a very low angle contact. Patches of sericite alteration and ~2% pyrite.					
192.18	192.62	quartz-carbonate , 10%, banded sericite and minor quartz with ~2% pyrite.					
192.62	199.20	**MV Mafic Volcanic** Dark green, fine- to medium-grained, massive, Mafic Volcanic Flow. Alteration consists of minor fracture-controlled carbonate. Trace pyrite.	470283	192.62	194.00	1.38	0.0025
Alteration:							
192.62	199.20	weak carbonate Fracture controlled.					
199.20	208.90	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Dark green, fine-grained, sheared, Mafic Volcanic Flow. Strain is strong with a well-developed foliation at 40 TCA. Ori lines flipped not sure of beta angle. Alteration consists of banded carbonate and minor sericite. Locally amygdaloidal. Trace pyrite.	470284	204.35	205.33	0.98	0.061
			470285	205.33	206.10	0.77	0.268
			470286	206.10	207.45	1.35	0.009
Alteration:							
199.20	208.90	moderate carbonate Fracture controlled, weak sericite Fracture controlled.					
208.90	221.00	**MV Mafic Volcanic** Green-blue, medium-grained, massive, porphyritic, Intermediate to Mafic Volcanic Flow. Possibly intermediate in composition? 1-3mm, sub-angular, black, phenocrysts. Alteration consists of patchy carbonate. ~0.5% blebby pyrrhotite.					
Alteration:							
208.90	221.00	moderate carbonate Fracture controlled.					

ManitouGold Inc.

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*	*Grid/Property*	*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15		Diamond Drillhole	218.00	2/8/2018

District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*	*Date Completed*
Kenora	5476829.216	521987.318			Trimble	2/10/2018

Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*	*Date Logged*
Kenwest	401.64	135.00		-50.00	Asinike Drilling	2/16/2018

Area	*Claim No.*	*NTS Sheet*	*Supervised By*	*Logged By*	*Verified*
Boyer Lake Area			P. Giddy	P. Giddy	☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #1				☐	☐	☐

Core Size (1)			*Casing Pulled*	*Casing (1)*			*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
14.00			136.5		-49		☑	Reflex EZ Shot	56409	
65.00			138		-48.4		☑	Reflex EZ Shot	56558	
107.00			138.7		-47.6		☑	Reflex EZ Shot	56544	
176.00			140.1		-46.6		☑	Reflex EZ Shot	56360	
218.00			141.8		-45.7		☑	Reflex EZ Shot	56330	

Lithology From	To		Sample #	From	To	Len.	Au ppm
0.00 -	3.00	**CAS Casing**					
3.00 -	4.88	**MV Mafic Volcanic** Green-grey, fine-grained, pillowed, Mafic Volcanic Flow. M-scale pillows with well-developed selvages. Carbonate infills pillow margins. Locally amygdaloidal also infilled with carbonate. Trace pyrite.					
Alteration:							
3.00 -	98.68	weak carbonate Fracture controlled.					
4.88 -	14.67	**GAB Gabbro** Green-grey, medium-grained, massive, Mafic Volcanic Flow (or Gabbro?). Very minor fracture-controlled carbonate. Trace pyrite.					
14.67 -	18.78	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Green-grey, fine-grained, strained, Mafic Volcanic Flow. This unit has is weakly to moderately strained with a foliation at ~50 TCA. Alteration consists of minor fracture-controlled carbonate. Trace pyrrhotite and pyrite.	470287	16.60	17.96	1.36	0.099
Structure:							
16.50 -	16.51	Foliation 50° to c/a / 0° beta					
17.64 -	17.65	Foliation 50° to c/a / 330° beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
18.78	26.14	**MV Mafic Volcanic** Green-grey, medium-grained, massive, Mafic Volcanic Flow. Alteration consists of very minor fracture-controlled carbonate. Trace pyrite.					
26.14	37.80	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Green-grey, fine-grained, strained, Mafic Volcanic Flow. Upper contact possible flow top breccia or sheared gradational contact. Locally amygdaloidal. This unit has is weakly to moderately strained with a foliation at ~30 to 40 TCA. Alteration consists of minor fracture-controlled carbonate. Trace pyrite.	470288	36.47	37.80	1.33	0.0025
		Structure: 28.00 - 28.01 Foliation 40° to c/a / 330° beta 32.36 - 32.37 Foliation 40° to c/a / 335° beta 34.20 - 34.21 Foliation 30° to c/a / 330° beta 37.74 - 37.75 Foliation 50° to c/a / 0° beta					
37.80	91.55	**MV Mafic Volcanic** Green-grey, medium-grained, massive, Mafic Volcanic Flow (or Gabbro?). Very minor fracture-controlled carbonate. Shear Zone 58.54-58.90m. Trace pyrite.	470289	58.54	58.90	0.36	0.0025
		Structure: 58.73 - 58.74 Shear 40° to c/a / 0° beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
91.55 -	98.27	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Green-grey, fine-grained, strained, Mafic Volcanic Flow. This unit is moderately to strong strained at ~40 TCA. Alteration consists of minor fracture-controlled carbonate. A few cm-scale quartz veins are concentrated at the upper contact with the quartz porphyry with ~1 pyrite and thin bands of chlorite or tourmaline. ~0.5% fracture-controlled pyrite in this unit.	470291	96.56	97.93	1.37	0.0025
			470292	97.93	98.27	0.34	0.096
		Structure: 95.15 - 98.16 Vein Undifferentiated 50° to c/a / 0° beta A Few quartz veins at contact with QP					
		Veins: 98.00 - 98.27 quartz-carbonate , 60%, 50°, A few cm-scale quartz veins at contact with QP. ~1% py and banded chlroite or tourmaline.					
98.27 -	98.68	**QP Quartz Porphyry** Pale grey to very pale pink, fine- to medium-grained, Quartz porphyry. Quartz eyes are 1-2mm and rounded. This unit is strongly strained with a well-developed foliation at 50 TCA. There are a few irregular quartz veinlets flooding the porphyry. Both the upper and lower contacts are sharp at 50 TCA. Trace pyrite.	470293	98.27	98.68	0.41	0.019
		Structure: 98.27 - 98.28 Upper contact 40° to c/a / 25° beta Quartz Porphyry UC					
98.68 -	116.68	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Green-grey, fine-grained, strained, Mafic Volcanic Flow. This unit is moderately to strong strained at ~45 TCA. Alteration consists of minor fracture-controlled carbonate. Locally amygdaloidal with infilling pyrite and carbonate. ~5% banded quartz-carbonate veinlets trending parallel to the folation. ~0.5 pyrite.	470294	98.68	100.10	1.42	0.007
			470295	103.54	104.00	0.46	0.012
			470296	104.00	105.00	1.00	0.373
			470297	108.48	109.83	1.35	0.0025
			470298	112.61	113.00	0.39	0.0025
		Alteration: 98.68 - 116.68 moderate carbonate Fracture controlled, weak sericite Fracture controlled.					

Lithology			Au					
From	To		Sample #	From	To	Len.	ppm	
Structure:								
98.68 - 98.69		Lower contact 40° to c/a / 0° beta Quartz Prophyry LC						
99.97 - 99.98		Foliation 40° to c/a / 15° beta						
101.41 - 101.42		Foliation 45° to c/a / 0° beta						
102.92 - 102.93		Foliation 45° to c/a / 0° beta						
105.74 - 105.75		Foliation 45° to c/a / 0° beta						
112.61 - 112.62		Vein parallel fol 40° to c/a / 290° beta Quartz-carbonatae vein UC						
112.72 - 112.73		Vein parallel fol 40° to c/a / 290° beta Quartz-carbonate vein LC						
Veins:								
112.61 - 112.72		carbonate , 70%, 40°						
116.68 - 126.06		**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Medium green-grey, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are 1-5mm, white, and sub-rounded. ~5% irregular carbonate-quartz veins. Trace pyrite.						
Alteration:								
116.68 - 126.06		weak carbonate Fracture controlled.						
126.06 - 127.60		**INTD Intermediate Dike** Tan to grey, fine- to medium-grained, massive, Intermediate Dyke. Alteration consists of fracture-controlled carbonate and a few mm-scale quartz veinlets. Strongly silicified. ~0.5% fracture-controlled pyrite. Upper contact is at 30 TCA and lower contact at 50 TCA.	470299	126.66	127.00	0.34	0.007	
			470300	127.00	127.60	0.60	0.009	
Alteration:								
126.06 - 127.60		strong Silica Pervasive, weak carbonate Fracture controlled.						
Structure:								
126.06 - 126.07		Upper contact 30° to c/a Upper Dike contact. Ori line is off confidence is low.						

Lithology From	To		Sample #	From	To	Len.	Au ppm
127.60 - 153.30		**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Medium green-grey, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are 1-5mm, white, and sub-rounded. At 143m phenocrysts become sub-angular to sub-rounded, 1-6mm and black. Alteration consists of minor fracture-controlled carbonate. The lower contact is sericitized with minor carbonate-quartz veining. Trace pyrite.	470301	152.00	152.97	0.97	0.0025
			470302	152.97	153.46	0.49	0.008
		Alteration:					
127.60	152.70	weak carbonate Fracture controlled.					
152.70	158.37	moderate carbonate Fracture controlled, moderate sericite Bands.					
		Structure:					
127.60	127.61	Lower contact 50° to c/a / 0° beta Lower Dike contact. Ori line seems ok					
		Veins:					
131.23	131.66	carbonate , 50%, Irregular carbonate infill.					
153.30 - 158.37		**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Dark grey to medium grey, fine-grained, strained, Mafic Volcanic Flow. 1-2mm, white, amygdules or phenocrysts. Moderately with a foliation at ~40 TCA. ~1-2% quartz-carbonate veinlets trending parallel to the foliation. Trace pyrite.	470303	153.46	155.00	1.54	0.0025
			470304	155.00	156.00	1.00	0.0025
			470305	156.00	157.00	1.00	0.0025
			470306	157.00	158.37	1.37	0.0025
		Veins:					
153.30	153.46	quartz-carbonate , 50%, Quartz-carbonate veining at contact with porphyritic unit. Sericitized and trace pyrite.					

Lithology								
From	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*
158.37 - 169.60	**CLSRSCH Chlorite-Sericite Schist**						
	Pale grey to tannish pink, fine-grained, highly sheared, Schist (B1 Deformation Zone). The unit is highly strained with a very well-developed foliation highlighted by compositional banding. Alteration consists of banded chlorite, sericite, carbonate, albite (?). Deformation zone has a 'brecciated' appearance due to possible micro faulting and folding. It is very difficult to identify quartz due to the over printing nature of the alteration (possibly up to 5%). 0.5% pyrite.		470307	158.37	159.00	0.63	0.0025
			470308	159.00	160.00	1.00	0.0025
			470309	160.00	161.00	1.00	0.0025
			470311	161.00	162.14	1.14	0.009
			470312	162.14	163.46	1.32	2.31
			470313	163.46	164.96	1.50	0.183
			470314	164.96	165.67	0.71	0.028
			470315	165.67	166.00	0.33	0.021
			470316	166.00	167.00	1.00	0.042
			470317	167.00	168.19	1.19	0.032
			470318	168.19	169.62	1.43	0.023

Alteration:

158.37 - 169.60 strong chlorite Bands, strong sericite Bands, strong carbonate Bands, strong albite Bands.B1 Deformation Zone

Structure:

159.21 - 159.22 Foliation 50° to c/a / 340° beta

160.77 - 160.78 Foliation 50° to c/a / 0° beta

163.60 - 163.61 Foliation 50° to c/a / 0° beta

164.20 - 164.21 Foliation 50° to c/a / 0° beta

164.89 - 164.90 Foliation 45° to c/a / 345° beta

166.52 - 166.53 Vein Undifferentiated 45° to c/a / 15° beta Quartz veinlet within deformation zone.

168.00 - 168.01 Foliation 50° to c/a / 330° beta

Lithology From	To		Sample #	From	To	Len.	Au ppm
169.60 -	199.18	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Dark grey, fine- to medium-grained, strained, Mafic Volcanic Flow. Strain is moderate to strong with a foliation at ~45-50 TCA. Alteration consists of fracture-controlled carbonate. 183-184m banded alteration increases for 1m. At 184m 'chaotic' sericite or serpentine alteration increases as noted in pervious drillholes as possible Ultra Mafic Unit (not as defined in this hole). ~20% Irregular quartz veining begins at 191.82m with ~1% cubic to disseminated pyrite.	470319	169.62	171.00	1.38	0.0025
			470321	182.87	183.80	0.93	0.941
			470322	189.38	189.90	0.52	0.046
			470323	189.90	191.00	1.10	0.009
			470324	191.00	191.83	0.83	0.027
			470325	191.83	192.93	1.10	1.9
			470326	192.93	194.00	1.07	0.047
			470327	194.00	195.00	1.00	0.085
			470328	195.00	196.00	1.00	0.15
			470329	196.00	196.40	0.40	0.719
			470330	196.40	197.25	0.85	0.156
			470331	197.25	197.65	0.40	14.8
			470332	197.65	198.60	0.95	0.206
			470333	198.60	199.18	0.58	0.639

Alteration:

169.60	-	183.00	moderate carbonate Fracture controlled.
183.00	-	184.00	moderate carbonate Bands, moderate chlorite Bands, moderate sericite Bands.
184.00	-	191.83	weak carbonate Fracture controlled.
191.83	-	199.18	moderate sericite Bands, weak carbonate Fracture controlled.Patchy sericitic altered wallrock fragments in quartz vein stockworks.

Structure:

176.68	-	176.69	Foliation 50° to c/a / 345° beta
178.25	-	178.26	Foliation 50° to c/a / 345° beta
182.74	-	182.75	Foliation 45° to c/a / 0° beta
184.00	-	184.01	Foliation 50° to c/a / 335° beta
185.45	-	185.46	Foliation 60° to c/a Chaotic (possible Ultra Mafic) difficult to measure folation.
189.57	-	189.58	Vein Undifferentiated 60° to c/a / 340° beta Quartz Veinlet contact
191.83	-	191.84	Vein Undifferentiated 45° to c/a / 330° beta Quartz Vein contact (irregular veining or stockwork.
193.00	-	193.01	Vein Undifferentiated 40° to c/a / 330° beta Quartz vein contact

Lithology								
From	To		Sample #	From	To	Len.	Au ppm
196.14 - 196.15 Vein Undifferentiated 35° to c/a / 335° beta Quartz Vein UC							
197.25 - 197.26 Vein Undifferentiated 50° to c/a / 330° beta Quartz Vein UC							
197.65 - 197.66 Vein Undifferentiated 45° to c/a / 0° beta Quartz Vein LC							
199.03 - 199.04 Vein Undifferentiated 50° to c/a / 330° beta Quartz Vein UC							
Veins:							
191.83 - 192.93 quartz stockwork, 30%, 50°, Quartz stockwork and veinlets with up to 1-2% cubic pyrite and patchy sericite.							
196.14 - 196.37 quartz shear vein, 60%, 35°, Quartz vein with ~0.5% pyrite and minor sericitic shear bands.							
197.25 - 197.26 quartz , 60%, 50°, Quartz vein with ~1% pyrite and ~40% sericitic wallrock fragments.							
199.03 - 199.18 quartz , 70%, 50°, Quartz vein with ~0.5 pyrite and chlorite altered wallrock fragments.							
199.18 - 212.63	**MV Mafic Volcanic**						
	Dark grey-green, fine-grained, massive, Mafic Volcanic Flow. This unit is weakly strained. Alteration consists of fracture-controlled carbonate. Pervasive silica flooding 211.08-212.63 (contact with porphyritic unit).Trace pyrite.		470334	199.18	200.00	0.82	0.024
			470335	211.17	212.63	1.46	0.019
Alteration:							
199.18 - 211.08 weak carbonate Fracture controlled.							
211.08 - 212.63 strong Silica Flooding.Possible dike? Very difficult to see contacts.							
Structure:							
199.18 - 199.19 Vein Undifferentiated 50° to c/a / 330° beta Quartz Vein LC							
212.63 - 218.00	**MV Mafic Volcanic**						
	Greenish-blue, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. 1-4mm, blackish-brown, sub-angular, phenocrysts. Alteration consists of carbonate +/- epidote. Trace pyrite.						
Alteration:							
212.63 - 218.00 weak carbonate Fracture controlled, weak Epidote Fracture controlled.							

Lithology							
From	To	Sample #	From	To	Len.	Au ppm	

ManitouGold Inc.

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*		*Grid/Property*		*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15				Diamond Drillhole	110.00	2/11/2018
District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*		*Date Completed*
Kenora	5476789.997	522020			Trimble		2/13/2018
Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*		*Date Logged*
Kenwest	402.10	135.00		-53.00	Asinike Drilling		2/18/2018
Area	*Claim No.*	*NTS Sheet*	*Supervised By*		*Logged By*		*Verified*
Boyer Lake Area			P. Giddy		P. Giddy		☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #1		Big Master Site		☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
14.00			134.4		-49.6		☑	Reflex EZ Shot	56904	
68.00			135.4		-46.8		☑	Reflex EZ Shot	56220	
106.00			137.4		-45.8		☑	Reflex EZ Shot	56209	

Lithology								
From	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*
0.00 - 2.42	**CAS Casing**						
2.42 - 24.06	**MV Mafic Volcanic** Blue-green, fine-grained, massive, Mafic Volcanic Flow. Very faint fabric at the top of the hole ~50 TCA. Alteration consists of weak fracture-controlled carbonate and epidote. Trace pyrite.						
	Alteration:						
	2.42 - 27.18	weak carbonate Fracture controlled, weak Epidote Fracture controlled.					
24.06 - 27.18	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Green, fine-grained, strained, Mafic Volcanic Flow. Strain is moderate to strong increasing at the quartz vein contact. Foliation is defined at ~60 TCA. 1% mm-scale quartz-carbonate veinlets trending parallel to the foliation. Trace pyrite.		470336	24.78	26.00	1.22	0.014
			470337	26.00	27.18	1.18	0.28
	Structure:						
	25.85 - 25.86	Foliation 50° to c/a / 330° beta					
27.18 - 27.54	**QV Quartz Vein** White, coarse-grained, massive, Quartz Vein. ~2% chlorite and sericite stringers which appear to trend parallel to the main foliation. ~1% blebby to disseminated pyrite concentrated at the contacts and within alteration stringers. Both the upper and lower contacts are sharp at 60 and 70 TCA.		470338	27.18	27.54	0.36	0.294
	Alteration:						
	27.18 - 27.54	weak chlorite Fracture controlled, weak sericite Fracture controlled.					
	Structure:						

Lithology From	To		Sample #	From	To	Len.	Au ppm
27.18	27.19	Upper contact 60° to c/a / 325° beta Quartz Vein UC					
Veins:							
27.18	27.54	quartz extensional, 90%, Quartz vein with 1% pyrite and 1% alteration stringers.					
27.54	29.68	**FD Felsic Dike**					
		Tan, fine- to medium-grained, sheared, Felsic Dike (??). Possible quartz porphyry. Appears to be sub-rounded, quartz eyes throughout. This unit is strongly silicified with ~30% quartz stockworks. ~1% disseminated pyrite. The upper contact is sharp whereas the lower contact seems to be brecciated or gradational with the wallrock.	470339	27.54	28.38	0.84	0.18
			470341	28.38	29.00	0.62	0.062
			470342	29.00	29.68	0.68	2.99
Alteration:							
27.54	29.68	strong Silica Flooding.					
Structure:							
27.54	27.55	Lower contact 70° to c/a / 330° beta Quartz Vein LC					
Veins:							
27.54	29.68	quartz stockwork, 30%, Mineralized quartz stockwork within Felsic Dike.					
29.68	32.81	**MVSH Mafic Volcanic - Weakly to Moderately Sheared**					
		Dark green, fine-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained with a well-developed foliation at ~40 TCA. Alteration consists of minor fracture-controlled carbonate and chlorite. Trace pyrite.	470343	29.68	30.50	0.82	0.015
			470344	30.50	32.00	1.50	0.0025
			470345	32.00	32.81	0.81	0.0025
Alteration:							
29.68	32.81	weak carbonate Fracture controlled, weak chlorite Fracture controlled.					

Lithology										
From	*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
32.81	- 33.91	**CLSRSCH Chlorite-Sericite Schist**						
		Dark grey-green to pale grey-white, fine-grained, Chlorite-Sericite Schist. Strongly deformed with a well-developed foliation at 50 TCA which is highlighted by compositional banding. Strongly, banded, chlorite, sericite and carbonate. ~20% quartz veining which has been strongly strained and trends parallel to the main fabric. Concentrations of pyrite up to 5%.		470346	32.81	33.91	1.10	0.591
		Alteration:						
		32.81 - 33.91	strong chlorite Bands, strong sericite Bands, strong carbonate Bands.					
33.91	- 66.15	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts**						
		Medium green-grey, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are 1-5mm, white, and sub-rounded. At ~63m phenocrysts become sub-angular to sub-rounded, 1-6mm and black. Alteration consists of minor fracture-controlled carbonate. ~5% irregular carbonate +/- quartz veins. Trace pyrite.		470347	33.91	35.00	1.09	0.009
				470348	35.00	36.50	1.50	0.048
				470349	36.50	38.00	1.50	0.0025
				470351	38.00	39.50	1.50	0.009
				470352	39.50	41.00	1.50	0.01
				470353	41.00	42.50	1.50	0.025
		Alteration:						
		33.91 - 47.09	patchy sericite Bands, weak carbonate Fracture controlled.					
		47.09 - 66.15	weak carbonate Fracture controlled.					
		Structure:						
		35.00 - 35.01	Foliation 40° to c/a / 295° beta					
		37.66 - 37.67	Foliation 45° to c/a / 340° beta					
		46.00 - 46.01	Foliation 50° to c/a / 330° beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
66.15	72.69	**MV Mafic Volcanic** Green-grey, medium- to coarse-grained, massive, Mafic Volcanic Flow. Sparse, white, sub-rounded, phenocrysts. Locally 'speckled' possible leucoxene alteration. Increasing strain around 70m. Alteration consists of fracture-controlled carbonate. ~5% quartz veins trending parallel to the main fabric and mostly concentrated near the lower contact.	470354	71.44	72.69	1.25	0.0025
		Alteration:					
66.15	72.69	weak sericite Fracture controlled, weak carbonate Fracture controlled.					
72.69	79.55	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Medium grey, fine-grained, sheared, Mafic Volcanic Flow. Strain is strong with a well-developed folation at ~50 TCA. Locally fractured perpendicular to the foliation. Alteration consists of sericitic shear bands, pervasive silicification and chlorite. ~1% carbonate +/- quartz veinlets trending parallel to the main fabric. ~0.5% pyrite.	470355	72.69	74.16	1.47	0.009
			470356	74.16	75.50	1.34	0.016
			470357	75.50	77.00	1.50	0.0025
			470358	77.00	78.50	1.50	0.007
			470359	78.50	79.50	1.00	0.0025
			470360	79.50	80.82	1.32	2.07
		Alteration:					
76.69	79.55	moderate Silica Pervasive, moderate sericite Fracture controlled, weak chlorite Fracture controlled.					
		Structure:					
74.00	74.01	Foliation 50° to c/a no ori line					
78.33	78.34	Foliation 50° to c/a / 340° beta					
79.55	80.82	**CLSRSCH Chlorite-Sericite Schist** Greyish-brown, fine-grained, strongly sheared, Chlorite-Sericite Schist (B1 deformation zone). This unit is strongly strained with a well-developed foliation ranging from 30 to 45 TCA. Alteration is strong and consists of banded chlorite, sericite and carbonate. ~1-2% deformed quartz veinlets. ~0.5% pyrite. In contact with B1 quartz vein containing VG.					

Lithology								
From	To		Sample #	From	To	Len.	Au ppm
Alteration:								
79.55	- 80.82	strong chlorite Bands, strong sericite Bands, strong carbonate Bands.					
Structure:								
79.56	- 79.57	Foliation 45° to c/a / 300° beta					
80.36	- 80.37	Foliation 40° to c/a / 330° beta B1 Deformation Zone					
80.61	- 80.62	Foliation 30° to c/a / 310° beta B1 Deformation Zone					
80.82	- 81.41	**QV Quartz Vein** White, coarse-grained, massive, Quartz Vein (B1). ~1% sericitic alteration stringers where mineralization is mostly concentrated. 2-3 specks of VG @84m along a fracture infilled with alteration and mineralization. ~1% pyrite. The upper contact is sharp at 30 TCA whereas the lower contact is sharp at 40 TCA.	470361	80.82	81.41	0.59	77
Alteration:								
80.82	- 81.41	weak sericite Fracture controlled.					
Structure:								
80.82	- 80.83	Upper contact 30° to c/a / 290° beta B1 Quartz Vein UC					
Veins:								
80.82	- 81.41	quartz extensional, 90%, B1 Quartz Vein with VG along fracture at ~91m.					
81.41	- 83.07	**CLSRSCH Chlorite-Sericite Schist** Greyish-brown, fine-grained, strongly sheared, Chlorite-Sericite Schist (B1 deformation zone). This unit is strongly strained with a well-developed foliation 45-50 TCA. It has a chaotic texture due to strong deformation. Alteration is strong and consists of banded chlorite, sericite and carbonate. ~1-2% deformed quartz veinlets. ~0.5% pyrite.	470362 470363	81.41 82.52	82.52 83.07	1.11 0.55	0.778 0.039
Alteration:								
81.41	- 83.07	strong chlorite Bands, strong sericite Bands, strong carbonate Bands.					
Structure:								
81.41	- 81.42	Lower contact 40° to c/a / 320° beta B1 Quartz Vein LC					

Lithology From	To		Sample #	From	To	Len.	Au ppm
81.59	81.60	Foliation 45° to c/a / 325° beta B1 Deformation Zone					
81.85	81.86	Foliation 50° to c/a / 330° beta B1 Deformation Zone					
82.59	82.60	Foliation 45° to c/a / 325° beta B1 Deformation Zone					
83.07	84.75	**MV Mafic Volcanic** Medium greyish-green, fine- to medium-grained, Mafic Volcanic Flow (?). This unit does not have the same appearance as the above and below schistose units. The deformation appears to be more brittle which is highlighted by chaotic sericite to serpentine. Moderately silicified. ~1% irregular quartz veining and trace pyrite.	470364 470365	83.07 83.88	83.88 84.75	0.81 0.87	0.028 0.006
Alteration:							
83.07	84.75	moderate sericite Fracture controlled, moderate Silica Pervasive.					
84.75	85.68	**CLSRSCH Chlorite-Sericite Schist** Greyish-brown, fine-grained, strongly sheared, Chlorite-Sericite Schist. This unit is strongly strained with a well-developed foliation at 45 TCA. Banded texture due to compostional banding. Alteration is strong and consists of banded chlorite, sericite and carbonate. ~1-2% deformed quartz veinlets. ~0.5% pyrite.	470366	84.75	85.68	0.93	0.116
Alteration:							
84.75	85.68	strong chlorite Bands, strong sericite Bands, strong carbonate Bands.					
Structure:							
85.43	85.44	Foliation 45° to c/a / 340° beta					

Lithology								
From	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*
85.68 -	91.88	**MV Mafic Volcanic** Medium greyish-green, fine- to medium-grained, Mafic Volcanic Flow (?). This unit does not have the same appearance as the above and below schistose units. The deformation appears to be more brittle which is highlighted by chaotic sericite to serpentine. Moderately silicified. ~1% irregular quartz veining and trace pyrite.	470367	85.68	87.00	1.32	0.05
			470368	87.00	88.50	1.50	0.019
			470369	88.50	90.00	1.50	0.023
			470371	90.00	91.10	1.10	0.209
			470372	91.10	91.88	0.78	0.081
		Alteration: 85.68 - 91.88 moderate sericite Fracture controlled, moderate Silica Pervasive.					
91.88 -	110.00	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Dark green, fine-grained, strained, Mafic Volcanic Flow. This unit is moderately to strongly strained with a well-developed foliation at 50 TCA. Alteration consists of fracture-controlled carbonate. ~5% carbonate +/- quartz veins. Locally pitted texture. ~0.5% pyrite as large cubes and fracture-controlled typically infilling with carbonate.	470373	91.88	93.30	1.42	0.0025
			470374	105.58	107.00	1.42	0.046
			470375	107.00	108.50	1.50	0.034
			470376	108.50	110.00	1.50	0.047
		Alteration: 91.88 - 110.00 moderate carbonate Fracture controlled.					
		Structure: 104.00 - 104.01 Foliation 40° to c/a / 340° beta 107.00 - 107.01 Foliation 50° to c/a / 10° beta					
110.00 -							

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*	*Grid/Property*	*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15		Diamond Drillhole	71.00	2/14/2018

District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*	*Date Completed*
Kenora	5476759.99	522044.998			Trimble	2/14/2018

Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*	*Date Logged*
Kenwest	402.43	135.00		-57.00	Asinike Drilling	2/21/2018

Area	*Claim No.*	*NTS Sheet*	*Supervised By*	*Logged By*	*Verified*
Boyer Lake Area			P. Giddy	P. Giddy	☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #1		Big Master Site		☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
17.00			135		-57.1		☑	Reflex EZ Shot	56496	
71.00			136.5		-55.8		☑	Reflex EZ Shot	56225	

Lithology									
From		*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
0.00	-	3.37	**CAS Casing**						
3.37	-	9.10	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Greyish-green, medium-grained, porphyritic, Mafic Volcanic Flow. 1-4mm, subrounded, white, phenocrysts. Alteration is very minor and consists of fracture-controlled carbonate. Trace pyrite.						
			Alteration:						
	3.37	-	9.10	weak carbonate Fracture controlled.					
9.10	-	18.08	**MV Mafic Volcanic** Greyish-green, medium-grained, massive, Mafic Volcanic Flow. Stain is increasing in this unit likely due to the proximity of the B1 deformation zone. Faint, black, 1-3mm, sub-rounded, phenocrysts which are oriented parallel to the main fabric and visible throughout this unit. Faint pink to tan 'speckled' texture (possible leucoxene alteration). Minor carbonate and sericite alteration. ~1% quartz veinlets trending parallel to the main fabric. Trace pyrite.		470377	14.00	15.50	1.50	0.005
					470378	15.50	17.00	1.50	0.005
					470379	17.00	18.08	1.08	0.005
			Alteration:						
	9.10	-	18.08	weak carbonate Fracture controlled, weak sericite Fracture controlled.					
18.08	-	19.72	**SPS Silicified Potassic Schist** Pink, fine-grained, Silicified Potassic Schist (?). This unit is strongly deformed (B1 deformation zone?) and altered. Rock has a 'brecciated' texture which is oriented parallel to the main fabric and is possibly caused by brittle deformation with in filling alteration. Alteration consists of very strong, pervasive, silicification and potassic alteration (?) +/- chlorite or tourmaline. ~1% disseminated pyrite.		470381	18.08	19.10	1.02	0.015
					470382	19.10	19.78	0.68	0.034

Lithology From	To		Sample #	From	To	Len.	Au ppm
Alteration:							
18.08 -	19.72	strong Silica Pervasive, weak chlorite Fracture controlled.Strong potassic alteration (pink)					
Structure:							
18.08 -	18.09	Upper contact 40° to c/a Deformation contact (?)					
19.72 -	25.16	**CLSRSCH Chlorite-Sericite Schist**					
		Pale grey to tannish pink, fine-grained, highly sheared, Schist (B1 Deformation Zone). The unit is highly strained with a very well-developed foliation highlighted by compositional banding at ~40 TCA. Alteration consists of banded chlorite, sericite and carbonate. It is very difficult to identify quartz due to the over printing nature of the alteration (possibly up to 5%). 0.5% pyrite. Ori-lines are not reliable within this unit. Beta measurements not possible.	470383	19.78	21.00	1.22	0.0025
			470384	21.00	22.50	1.50	0.0025
			470385	22.50	23.00	0.50	0.0025
			470386	23.00	24.00	1.00	0.005
			470387	24.00	25.16	1.16	0.051
Alteration:							
19.72 -	25.16	strong chlorite Bands, strong sericite Bands, strong carbonate Bands.					
Structure:							
23.00 -	23.01	Foliation 30° to c/a No ori lines for beta					
25.16 -	26.88	**QV Quartz Vein**					
		White, coarse-grained, Quartz Vein (B1). This vein contains multiple specks of VG found at 25.82m, 26.18, 26.26 and 26.46m, totaling ~ 10 specks. VG is mostly found within fracture infilled with alteration and pyrite mineralization. ~5% sericite- chlorite alteration fill fractures with up to 1% pyrite. The upper contact is sharp at 25 TCA and the lower contact is a bit difficult to measure but appears to be at 20 TCA.	470388	25.16	26.00	0.84	8.48
			470389	26.00	26.88	0.88	19.5
Alteration:							
25.16 -	26.88	weak sericite Fracture controlled, weak chlorite Fracture controlled.					
Structure:							
25.16 -	25.17	Upper contact 25° to c/a Quartz Vein UC No ori lines for beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
Veins:							
25.16	26.88	quartz shear vein, 95%, 20°, B1 Quartz Vein with ~10 specks of VG and ~1% pyrite.					
26.88	32.14	**CLSRSCH Chlorite-Sericite Schist**					
		Pale grey to tannish pink, fine-grained, highly sheared, Schist (B1 Deformation Zone). The unit is highly strained with a very well-developed foliation highlighted by compositional banding at ~35-40 TCA. Small scale folding at ~31m (very difficult to measure accurately). Alteration consists of banded chlorite, sericite and carbonate. It is very difficult to identify quartz due to the over printing nature of the alteration (possibly up to 5%). 0.5% pyrite.	470390	26.88	28.00	1.12	0.149
			470391	28.00	29.50	1.50	0.04
			470392	29.50	31.00	1.50	0.009
			470393	31.00	32.14	1.14	1.16
Alteration:							
26.88	32.14	strong chlorite Bands, strong sericite Bands, strong carbonate Bands.					
Structure:							
26.88	26.89	Lower contact 20° to c/a / 345° beta Quartz Vein LC					
27.32	27.33	Foliation 35° to c/a / 0° beta					
28.30	28.31	Foliation 35° to c/a / 0° beta					
28.88	28.89	Foliation 30° to c/a / 10° beta					
29.95	29.96	Foliation 40° to c/a / 30° beta					
30.53	30.54	Foliation 30° to c/a / 20° beta					
32.10	32.11	Foliation 35° to c/a / 335° beta					
32.14	38.50	**SPS Silicified Potassic Schist**					
		Pink, fine-grained, Silicified Potassic Schist (?). Strongly strained with a well-developed foliation at 35-40 TCA. Alteration consists of chlorite, sericite and k-feldspar (?) forming bands and sericitic stringers. Moderately silicified. ~0.5% disseminated pyrite with increasing pyrite 2-4% 37.70-38.23m.	470394	32.14	33.00	0.86	0.08
			470395	33.00	34.50	1.50	0.012
			470396	34.50	36.00	1.50	0.105
			470397	36.00	37.00	1.00	0.048
			470398	37.00	37.70	0.70	0.141
			470399	37.70	38.50	0.80	1.03
Alteration:							

Lithology From	To		Sample #	From	To	Len.	Au ppm
32.14	38.50	strong chlorite Fracture controlled, strong sericite Fracture controlled.Very strong pervasive potassic (pink) alteration.					
Structure:							
33.89	33.90	Foliation 40° to c/a / 10° beta					
35.23	35.24	Foliation 35° to c/a / 0° beta					
36.71	36.72	Foliation 40° to c/a / 0° beta					
38.50	43.00	**CLSRSCH Chlorite-Sericite Schist**					
		Medium greyish-green, fine- to medium-grained, Chlorite Sericite Schist or Sheared Mafic Volcanic Flow (?). This unit does not have the same appearance as the above potassic unit. The deformation appears to be more brittle which is highlighted by chaotic sericite to serpentine. Moderately silicified. ~1% irregular quartz veining and 0.5% pyrite.	470401	38.50	39.70	1.20	0.022
			470402	39.70	41.00	1.30	0.037
			470403	41.00	41.46	0.46	0.023
			470404	41.46	43.00	1.54	0.008
Alteration:							
38.50	43.00	moderate sericite Fracture controlled, moderate chlorite Fracture controlled.					
Structure:							
39.40	39.41	Foliation 40° to c/a / 0° beta					
Veins:							
41.00	41.17	quartz-carbonate , 60%, 40°					
43.00	63.60	**MVSH Mafic Volcanic - Weakly to Moderately Sheared**					
		Dark grey-green, fine-grained, strained, Mafic Volcanic Flow. This unit is moderately strained with a foliation at ~30 to 40 TCA. Alteration consists of fracture-controlled carbonate. Sericitic shear bands increase at ~62m with a few quartz veinlets. Pyrite mineralization varies from infilling carbonate filled fractures to cubic blebs. Cubic blebs mostly occur around 53m.	470405	43.00	44.50	1.50	0.028
			470406	44.50	46.00	1.50	0.0025
			470407	46.00	47.50	1.50	0.0025
			470408	47.50	49.00	1.50	0.008
			470409	49.00	50.50	1.50	0.0025
			470411	60.32	61.65	1.33	0.037
			470412	61.65	62.27	0.62	0.243
			470413	62.27	63.60	1.33	0.014

Lithology From	To		Sample #	From	To	Len.	Au ppm
Alteration:							
43.00 -	62.00	moderate carbonate Fracture controlled.					
62.00 -	64.73	moderate sericite Fracture controlled, patchy chlorite Fracture controlled, patchy carbonate Fracture controlled, moderate Silica Flooding.					
Structure:							
45.07 -	45.08	Vein parallel fol 45° to c/a / 0° beta					
49.66 -	49.67	Vein parallel fol 40° to c/a / 30° beta					
61.13 -	61.14	Foliation 40° to c/a / 0° beta					
62.88 -	62.89	Foliation 30° to c/a / 310° beta					
63.60 -	64.73	**MV Mafic Volcanic** Medium to dark grey, fine- to medium-grained, brecciated (?), Mafic Volcanic Flow. This unit appears to have a brecciated texture however, due to alteration it is difficult to be certain. Alteration consists of sericitic shear banding, patchy chlorite and carbonate or albite (?). Moderately silicified. Trace pyrite.	470414	63.60	64.73	1.13	0.021
64.73 -	71.00	**MV Mafic Volcanic** Dark grey, fine-grained, Mafic Volcanic Flow. This unit is weakly to moderately strained with at foliation at ~40 TCA. Alteration consists of minor fracture-controlled carbonate. Trace pyrite.	470415	64.73	65.93	1.20	0.045
			470416	65.93	67.34	1.41	0.005
Alteration:							
64.73 -	71.00	weak carbonate Fracture controlled.					
Structure:							
65.53 -	65.54	Foliation 40° to c/a / 0° beta					

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Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*		*Grid/Property*		*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15				Diamond Drillhole	78.00	2/15/2018
District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*		*Date Completed*
Kenora	5476995	522185			Trimble		2/16/2018
Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*		*Date Logged*
Kenwest	427.38	135.00		-49.00	Asinike Drilling		2/22/2018
Area	*Claim No.*	*NTS Sheet*	*Supervised By*		*Logged By*		*Verified*
Boyer Lake Area			P. Giddy		P. Giddy		☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #1		Big Master Site		☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
17.00			137.5		-49.6		☑	Reflex EZ Shot	56597	
77.00			136.9		-48.2		☑	Reflex EZ Shot	55928	

Lithology									
From		*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
0.00	-	2.50	**CAS Casing**						
2.50	-	14.75	**MV Mafic Volcanic** Green-grey, fine-grained, pillowed, Mafic Volcanic Flow. M-scale pillows with well-developed selvages. Carbonate infills pillow margins. Locally amygdaloidal also infilled with carbonate. Trace pyrite.						
			Alteration:						
	2.50	-	14.75	weak carbonate Fracture controlled.					
14.75	-	17.55	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Pale green-grey, fine-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained with a well-developed foliation at ~55 TCA. Alteration consists of patchy fracture-controlled chlorite, sericite and carbonate. ~1-2% quartz-carbonate veinlets trending parallel to the foliation. Quartz vein at the contact with Quartz Porphyry with chlorite alteration bands and pyrite. Trace pyrite in unit.		470417	16.00	17.20	1.20	0.012
					470418	17.20	17.55	0.35	0.073
			Alteration:						
	14.75	-	17.55	moderate carbonate Fracture controlled, moderate sericite Fracture controlled, moderate chlorite Fracture controlled.					
			Structure:						
	16.07	-	16.08	Foliation 55° to c/a / 0° beta					
	17.36	-	17.37	Vein parallel fol 55° to c/a / 30° beta Upper quartz vein contact with quartz porphyry.					
			Veins:						
	17.36	-	17.55	quartz , 90%, 55°, Quartz vein at contact with quartz porphyry. Chlorite alteration bands and disseminated pyrite.					

Lithology									
From	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*		
17.55 -	18.30	**QP Quartz Porphyry** Tan, fine- to medium-grained, Quartz porphyry. Quartz eyes are 1-2mm, rounded and display which trend parallel to the main fabric. This unit is strongly strained with a well-developed foliation at 40 TCA. There are a few irregular quartz veinlets flooding the porphyry. Both the upper and lower contacts are sharp at 55 and 50 TCA. Trace pyrite.	470419	17.55	18.30	0.75	0.107		
		Alteration:							
		17.55 - 18.30 weak carbonate Fracture controlled.							
		Structure:							
		17.55 - 17.56 Upper contact 55° to c/a / 30° beta Quartz Porphyry UC							
18.30 -	26.72	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Pale green-grey, fine-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained with a well-developed foliation at ~55 TCA. Strain begins to weaken at ~23m. Alteration consists of patchy fracture-controlled chlorite, sericite and carbonate. ~1-2% quartz-carbonate veinlets trending parallel to the foliation. Minor quartz vein at 21.34m. Trace pyrite.	470420	18.30	19.80	1.50	0.008		
			470421	19.80	20.97	1.17	0.007		
			470422	20.97	21.49	0.52	0.197		
			470423	21.49	22.99	1.50	0.19		
		Alteration:							
		18.30 - 26.72 moderate carbonate Bands, moderate chlorite Bands, weak sericite Fracture controlled.							
		Structure:							
		18.30 - 18.31 Lower contact 50° to c/a / 40° beta Quartz Porphyry LC							
		19.36 - 19.37 Foliation 45° to c/a / 20° beta							
		20.72 - 20.73 Foliation 45° to c/a / 10° beta							
		21.34 - 21.35 Vein parallel fol 45° to c/a / 30° beta Upper quartz vein contactlow							
		21.49 - 21.50 Vein parallel fol 75° to c/a / 30° beta lower quartz vein contact							
		Veins:							
		21.34 - 21.49 quartz-carbonate , 80%, Quartz vein with minor disseminated pyrite.							

Lithology From	To		Sample #	From	To	Len.	Au ppm
26.72 -	39.81	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Medium green-grey, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are 1-5mm, white, and sub-rounded. Alteration consists of minor fracture-controlled carbonate. Locally strained at ~50 TCA. Intermediate dike within this unit. Large blebs of cubic pyrite in the upper portion of this unit with trace disseminated pyrite in the lower portion. In contact with the B1 deformation zone. *Alteration:* 26.72 - 39.81 weak-moderate carbonate Fracture controlled, weak albite Fracture controlled. *Structure:* 33.90 - 33.91 Foliation 50° to c/a / 310° beta					
39.81 -	40.67	**INTD Intermediate Dike** Tan to grey, fine- to medium-grained, sheared, Intermediate Dike (or alteration very difficult to tell). Strained dike with foliation at ~50 TCA. Alteration consists of fracture-controlled sericite and a few mm-scale quartz veinlets. Strongly silicified. Trace pyrite. The upper contact is at 60 TCA and the lower contact is broken. *Alteration:* 39.81 - 40.67 strong Silica Pervasive, weak sericite Fracture controlled. *Structure:* 39.81 - 39.82 Upper contact 60° to c/a / 330° beta Intermediate dike (?) upper contact					
40.67 -	45.45	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Medium green-grey, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts (although becoming fainter) are 1-5mm, white, and sub-rounded. Alteration consists of minor fracture-controlled carbonate +/- albite or epidote. Strain is increasing at the lower contact likely due to the proximity of the B1 structure. Trace pyrite. *Alteration:* 40.67 - 45.45 weak carbonate Fracture controlled, weak albite Fracture controlled.	470424	44.00	45.45	1.45	0.013

Lithology								
From	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*
45.45 - 48.19	**MVSH Mafic Volcanic - Weakly to Moderately Sheared**						
	Dark grey, fine-grained, sheared, Mafic Volcanic Flow. This could be a dike however, due to the dark colouration of the rock it is very difficult to tell. Foliation is at ~45 TCA. Alteration consists of white, speckled, leucoxene (?), stringers of sericite and patchy chlorite. Moderately silicified. Trace pyrite.		470425	45.45	46.85	1.40	0.0025
			470426	46.85	48.19	1.34	0.014
	Alteration:						
	45.45 - 48.19	moderate Silica Pervasive, moderate chlorite Pervasive, weak sericite Fracture controlled.					
	Structure:						
	45.45 - 45.46	Foliation 30° to c/a No ori lines. Possible contact ? Difficult to tell due to dark alteration.					
48.19 - 49.12	**SERSCH Sericite Schist**						
	Tan to grey with light pink patches, fine-grained, strongly sheared, Sericite Schist. Sericitic shear bands are well-developed at ~50 TCA. Alteration consists of sericite and chlorite (possible potassic alteration) and pervasive silicification. Trace pyrite. In contact with a minor quartz vein.		470427	48.19	49.12	0.93	0.037
	Alteration:						
	48.19 - 49.12	moderate sericite Fracture controlled, moderate chlorite Fracture controlled, strong Silica Pervasive.					
	Structure:						
	48.62 - 48.63	Foliation 50° to c/a / 0° beta					
49.12 - 49.50	**QV Quartz Vein**						
	Pink to while, coarse-grained, Quartz Vein in the B1 deformation zone. Contains ~20% dark grey wallrock fragments. Appears to be a later generation of mm-scale quartz veinlets cross-cutting the main vein (very difficult to get a measurement as there are no reliable ori lines). Cross-cutting veinlets appear to be extensional. ~0.5% pyrite. Upper and lower contacts are at 35 and 45 TCA.		470428	49.12	49.50	0.38	0.015

Lithology From	To		*Sample #*	*From*	*To*	*Len.*	*Au ppm*

Alteration:

49.12 - 49.50 weak chlorite Spots.

Veins:

49.12 - 49.5 quartz , 80%, Pink to white quartz vein wthin B1 zone. Cross-cutting quartz veinlets within main vein.

49.50 - 60.12 **CLSRSCH Chlorite-Sericite Schist**

Cream to medium grey, fine-grained, strongly sheared, Sericite Chlorite Schist (B1 deformation zone). Strain is very strong with a well-defined foliation at ~40 TCA. Small scale folding at ~57.34m. Locally brecciated 56.28-56.70m with sub-rounded to angular fragments. Poor ori-lines until ~56m. Banded alteration consisting of chlorite, sericite and carbonate. ~0.5% disseminated pyrite.

Sample #	From	To	Len.	Au ppm
470429	49.50	51.00	1.50	0.0025
470431	51.00	52.50	1.50	0.009
470432	52.50	54.00	1.50	0.01
470433	54.00	55.00	1.00	0.055
470434	55.00	55.51	0.51	0.75
470435	55.51	56.28	0.77	0.091
470436	56.28	56.70	0.42	0.233
470437	56.70	58.00	1.30	0.151
470438	58.00	59.00	1.00	0.145
470439	59.00	60.12	1.12	0.158

Alteration:

49.50 - 60.12 strong sericite Bands, strong chlorite Bands, strong carbonate Bands.

Structure:

49.50 - 49.51 Lower contact 45° to c/a No ori lines lower QV contact

54.70 - 54.71 Foliation 40° to c/a / 345° beta

55.51 - 55.52 Foliation 45° to c/a / 340° beta

57.00 - 57.01 Foliation 40° to c/a / 345° beta

57.34 - 57.35 Fold Hinge 70° to c/a Folation @ 55 TCA

58.14 - 58.15 Foliation 40° to c/a / 335° beta

58.70 - 58.71 Foliation 50° to c/a / 330° beta

60.00 - 60.01 Foliation 40° to c/a / 340° beta

Lithology								
From	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*
		Veins:					
		57.05 - 57.2 quartz , 50%, 45°, Small quartz vein in B1 deformation zone.					
60.12	77.06	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Medium to dark grey, fine-grained, strained, Mafic Volcanic Flow. This unit is moderately strained/ deformed with a foliation at ~40 TCA. Foliation becomes difficult to measure due to the 'chaotic' fracture-controlled carbonate. Alteration consists of fracture-controlled carbonate and sericite. Trace pyrite. In contact with a possible dike?	470441	60.12	61.50	1.38	0.028
		Alteration:					
		60.12 - 77.06 moderate carbonate Fracture controlled, weak sericite Fracture controlled.					
		Structure:					
		61.00 - 61.01 Foliation 40° to c/a / 340° beta					
77.06	78.00	**INTD Intermediate Dike** Tan to grey, fine- to medium-grained, sheared, Intermediate Dike (or alteration very difficult to tell). Strained dike with foliation at ~50 TCA. Alteration consists of fracture-controlled sericite and a few mm-scale quartz veinlets. Strongly silicified. Trace pyrite. The upper contact is at 60 TCA. No lower contact end of hole.					
		Alteration:					
		77.06 - 78.00 moderate sericite Fracture controlled, strong Silica Pervasive.					
		Structure:					
		77.06 - 77.07 Upper contact 50° to c/a / 180° beta Upper Dike (?) contact. Is ori line flipped?					

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Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*		*Grid/Property*		*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15				Diamond Drillhole	101.00	2/16/2018
District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*		*Date Completed*
Kenora	5477033.663	522186.3117			Trimble		2/17/2018
Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*		*Date Logged*
Kenwest	432.34	135.00		-50.00	Asinike Drilling		2/23/2018
Area	*Claim No.*	*NTS Sheet*	*Supervised By*		*Logged By*		*Verified*
Boyer Lake Area			P. Giddy		P. Giddy		☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #1		Big Master Site		☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
17.00			135.3		-48.2		☑	Reflex EZ Shot	56911	
50.00			130.9		-47.7		☑	Reflex EZ Shot	57076	
101.00			135.5		-45.7		☑	Reflex EZ Shot	56568	

Lithology									
From		*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
0.00	-	3.50	**CAS Casing**						
3.50	-	6.24	**MV Mafic Volcanic**						
			Grey-green, fine-grained, strained, Mafic Volcanic Flow. This unit has a well-developed foliation at 35 to 40 TCA (no ori lines at the top of the hole). Alteration consists of fracture-controlled carbonate +/- sericite bands. Trace pyrite.		470442	3.77	5.00	1.23	0.0025
			Alteration:						
			3.50 - 6.25	weak carbonate Bands, weak sericite Bands.					
			Structure:						
			6.00 - 6.01	Foliation 40° to c/a no ori lines					
6.24	-	51.40	**MV Mafic Volcanic**						
			Greenish-blue, fine-grained, pillowed, Mafic Volcanic Flow. Pillows are m-scale with moderately developed pillow selvages. Pillow margins are typically infilled by chlorite or epidote. Locally amygdaloidal. Alteration consists of fracture-controlled carbonate and epidote. Strain increases at 44m where pillow margins become deformed. Slight increase in sericite in this area of increasing strain. Local sections of up to 0.5% pyrite stringers or blebs typically concentrated in carbonate veinlets. Cm-scale carbonate vein 20.96-21.37m.		470443	20.88	21.47	0.59	0.0025
					470444	45.57	47.00	1.43	0.077
					470445	47.00	48.50	1.50	0.0025
			Alteration:						
			6.24 - 70.22	weak carbonate Fracture controlled, weak Epidote Fracture controlled.					
			Structure:						
			20.96 - 20.97	Vein Undifferentiated 30° to c/a Upper carbonate vein contact (no ori lines)					
			21.37 - 21.38	Vein Undifferentiated 50° to c/a Lower carbonate vein contact (no ori lines)					
			48.50 - 48.51	Foliation 50° to c/a no ori lines- increasing strain					

Lithology									
From	*To*				*Sample #*	*From*	*To*	*Len.*	*Au ppm*
Veins:									
20.96	- 21.37	carbonate , 80%, Carbonate vein. UC 30 LC 50							
51.40	- 70.22	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts**							
		Medium green-grey, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are 1-5mm, white, and sub-rounded. Phenocryst abundance varies throughout this unit. Alteration consists of minor fracture-controlled carbonate. Trace pyrite.			470446	69.10	70.22	1.12	0.0025
70.22	- 73.06	**INTD Intermediate Dike**							
		Tan to grey, fine-grained, sheared, Intermediate Dike? (or alteration very difficult to tell). Strained dike with foliation at ~50 TCA. Blocky rock. 71.44-71.61m Quartz Porphyry? With ~1% pyrite. Alteration consists of fracture-controlled sericite and a few mm-scale quartz veinlets. Strongly silicified. Trace pyrite. The upper contact is at 60 TCA. No lower contact end of hole.			470447	70.22	71.37	1.15	0.215
					470448	71.37	71.94	0.57	3.72
					470449	71.94	73.06	1.12	0.374
71.44	- 71.61	**QP Quartz Porphyry**							
		Possible quartz porphyry or felsic dyke with up to 1% disseiminated pyrite. Tan in colour.							
Alteration:									
70.22	- 73.06	strong Silica Pervasive, moderate sericite Fracture controlled.							
Structure:									
71.44	- 71.45	Upper contact 50° to c/a	Quartz porphyry (?) Upper contact						
71.61	- 71.62	Lower contact 45° to c/a	Quartz Porphyry (?) Lower contact						

Lithology From	To		Sample #	From	To	Len.	Au ppm
73.06	87.43	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Dark greyish green, fine-grained, strained, Mafic Volcanic Flow. Strain is strong with a well-developed foliation at 45 TCA. Alteration consists of fracture-controlled carbonate with banded carbonate, chlorite and sericite alteration increasing at the lower contact approaching the B1 deformation zone. ~1% quartz-carbonate veinlets trending parallel to the main fabric. Trace pyrite.	470450	73.06	74.00	0.94	0.02
			470451	80.00	81.50	1.50	0.01
			470452	81.50	83.00	1.50	0.0025
			470453	83.00	84.50	1.50	0.03
			470454	84.50	86.00	1.50	0.0025
			470455	86.00	87.43	1.43	0.022
		Alteration:					
73.06	87.43	moderate carbonate Fracture controlled, weak sericite Fracture controlled, moderate chlorite Fracture controlled.					
		Structure:					
80.42	80.43	Foliation 45° to c/a / 340° beta					
82.28	82.29	Foliation 45° to c/a / 340° beta					
86.64	86.65	Foliation 50° to c/a / 340° beta					
87.43	88.28	**CLSRSCH Chlorite-Sericite Schist** Green-grey to cream, fine-grained, sheared, Chlorite Sericite Schist (B1 Deformation Zone). Zone contains two minor quartz veins 87.43-87.67 and 88.72-87.84m which contain minor chlorite-sericite alteration bands and trace pyrite. Alteration consists of banded chlorite, sericite and carbonate. Foliation varies from 50-70 TCA. ~0.5% pyrite.	470456	87.43	87.84	0.41	9.15
			470457	87.84	88.28	0.44	1.19
		Alteration:					
87.43	88.28	strong chlorite Bands, strong sericite Bands, strong carbonate Bands.					
		Structure:					
87.43	87.44	Vein Undifferentiated 50° to c/a / 345° beta QV UC					
87.67	87.68	Vein Undifferentiated 40° to c/a / 345° beta QV LC					
88.20	88.21	Foliation 50° to c/a No ori lines					
		Veins:					

Lithology								
From	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*
87.43	- 87.67	quartz , 90%, Quartz Vein in B1 deformation zone with minor alteration bands and pyrite.					
87.67	- 87.84	quartz , 90%, 40°, Quartz Vein in B1 deformation zone with minor alteration bands and pyrite.					
88.28	- 101.00	**MV Mafic Volcanic** Green, fine-grained, weakly strained, Mafic Volcanic Flow. Strain is weak at ~40 TCA. Alteration consists of patchy epidote and fracture-controlled carbonate. ~0.1% cubic pyrite.	470458	88.28	89.80	1.52	0.012

Alteration:

88.28 - 101.00 weak Epidote Fracture controlled, weak carbonate Fracture controlled.

Structure:

88.72 - 88.73 Vein Undifferentiated 40° to c/a QV UC no ori lines

88.84 - 88.85 Vein Undifferentiated 40° to c/a QV LC no ori lines

88.86 - 88.87 Foliation 70° to c/a No ori lines

100.75 - 100.76 Vein parallel fol 40° to c/a / 80° beta Carbonate fracture fill- ori lines might be off

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*	*Grid/Property*	*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD27 Zone 15		Diamond Drillhole	137.00	2/17/2018

District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*	*Date Completed*
Kenora	5477072.769	522187.2513			Trimble	2/18/2018

Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*	*Date Logged*
Kenwest	438.01	135.00		-51.00	Asinike Drilling	2/23/2018

Area	*Claim No.*	*NTS Sheet*	*Supervised By*	*Logged By*	*Verified*
Boyer Lake Area			P. Giddy	P. Giddy	☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #1		Big Master Site		☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
14.00			134.5		-49.7		☑	Reflex EZ Shot	56775	
53.00			137		-48.8		☑	Reflex EZ Shot	56340	
134.00			140.2		-44.7		☑	Reflex EZ Shot	56020	

Lithology									
From		*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
0.00	-	3.30	**CAS Casing**						
3.30	-	20.56	**GAB Gabbro** Green, coarse-grained, massive, Gabbro (or Massive Mafic Volcanic Flow). Alteration consists of very minor patchy epidote and fracture-controlled carbonate. ~1% carbonate veinlets. Trace pyrite.						
			Alteration:						
	3.30	-	20.56	weak carbonate Fracture controlled, weak Epidote Fracture controlled.					
20.56	-	23.70	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Grey, fine-grained, strained, Mafic Volcanic Flow. Strain is strong with a well-developed foliation at ~30-40 TCA (no ori lines to measure alpha). Minor quartz vein at contact with dike (?) 23.49-23.70m. Alteration consists of chlorite and minor yellow banded sericite. Trace pyrite with ~0.5% pyrite in quartz vein.		470459 470461	21.93 23.28	23.28 23.70	1.35 0.42	0.0025 0.304
			Alteration:						
	20.56	-	23.70	moderate chlorite Fracture controlled, weak sericite Fracture controlled, weak carbonate Fracture controlled.					
			Structure:						
	20.56	-	20.57	Foliation 30° to c/a					
	23.48	-	23.49	Vein Undifferentiated 40° to c/a QV UC					
			Veins:						
	23.48	-	23.7	quartz-carbonate , 60%, 40°, Quartz Vein at the upper contact of a possible intermediate dike. ~0.5% pyrite					

Lithology									
From	*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
23.70 - 24.58	**INTD Intermediate Dike**							
	Medium grey, fine-grained, massive, Intermediate Dike (?). Appears to have sharp contact with a quartz vein at the upper contact. Silicified and trace pyrite. Both upper and lower contacts are at 40 TCA (no ori lines for alpha measurement).			470462	23.70	24.58	0.88	0.088
Alteration:								
23.70 - 24.58	moderate Silica Pervasive.							
Structure:								
23.70 - 23.71	Vein Undifferentiated 40° to c/a QV LC							
24.58 - 64.30	**MV Mafic Volcanic**							
	Medium green, fine to medium-grained, massive, Mafic Volcanic Flow. This unit is locally strained mostly around 30 to 36m with a weak to moderate foliation at 40 to 45 TCA. Alteration consists of fracture-controlled carbonate, epidote and chlorite. Trace pyrite.			470463	24.58	25.91	1.33	0.153
				470464	30.66	32.00	1.34	0.0025
Alteration:								
24.58 - 80.95	weak carbonate Fracture controlled, weak Epidote Fracture controlled, weak chlorite Fracture controlled.							
Structure:								
24.58 - 24.59	Lower contact 40° to c/a Possible Dike LC							
31.00 - 31.01	Foliation 45° to c/a / 0° beta							
64.30 - 80.95	**MV Mafic Volcanic**							
	Greenish-blue, fine-grained, pillowed, Mafic Volcanic Flow. Pillows are m-scale with moderately developed selvages. Pillow margins are thin and typically infilled with chlorite or carbonate. Alteration consists of patchy epidote, fracture-controlled chlorite and carbonate. Up to 5% wispy, irregular, carbonate veins. Locally amygdaloidal. Trace pyrrhotite and pyrite.			470465	68.00	68.61	0.61	0.0025

Lithology			Sample #	From	To	Len.	Au ppm
From	To						
		Veins:					
		68.07 - 68.28 carbonate , 50%, Irregular, wispy carbonate					
		69.41 - 69.76 carbonate , 40%, Irregular, wispy carbonate					
80.95	89.30	**MVSH Mafic Volcanic - Weakly to Moderately Sheared**					
		Medium grey-green, fine-grained, strained, Mafic Volcanic Flow. Unit is possibly still pillowed however, due to the strain it is difficult to observe pillow selvages. Well-developed foliation at 45 TCA. Alteration consists of fracture controlled-carbonate and chlorite. ~1% quartz veinlets trending parallel to the foliation. ~0.5% fracture-controlled pyrite. Quartz vein at the contact with Quartz Porphyry.	470466	80.95	82.43	1.48	0.011
			470467	82.43	83.78	1.35	0.033
			470468	87.90	89.30	1.40	0.0025
		Alteration:					
		80.95 - 89.30 weak carbonate Fracture controlled, weak chlorite Fracture controlled.					
		Structure:					
		82.77 - 82.78 Foliation 45° to c/a / 90° beta Beta might be incorrect					
		83.68 - 83.69 Foliation 45° to c/a no ori lines					
		85.36 - 85.37 Foliation 45° to c/a no ori lines					
		88.10 - 88.11 Foliation 50° to c/a no ori lines					
		89.14 - 89.15 Foliation 55° to c/a / 0° beta					
89.30	89.90	**QP Quartz Porphyry**					
		Tan, fine- to medium-grained, Quartz porphyry. Quartz eyes are 1-2mm, rounded and which trend parallel to the main fabric. This unit is strongly strained with a well-developed foliation at 40 TCA. Quartz vein present at the upper contact. Both the upper and lower contacts are sharp at 55 TCA.	470469	89.30	89.90	0.60	0.113
		Structure:					
		89.30 - 89.31 Vein parallel fol 55° to c/a / 340° beta					
		89.36 - 89.37 Upper contact 55° to c/a / 340° beta Quartz porphyry UC					
		Veins:					
		89.30 - 89.36 quartz-carbonate , 90%, 55°					

Lithology								
From	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*
89.90 - 91.65	**INTD Intermediate Dike**						
	Tan to grey, fine-grained, sheared, Intermediate Dike? (or alteration very difficult to tell). Strained with foliation at ~55. Alteration consists of fracture-controlled sericite and a few mm-scale quartz veinlets. Strongly silicified. ~5% quartz-carbonate veins. Trace pyrite. Hard to identify contacts.		470471	89.90	91.00	1.10	0.198
			470472	91.00	91.65	0.65	0.015
	Alteration:						
	89.90 - 91.65	moderate Silica Pervasive, weak sericite Fracture controlled, moderate chlorite Fracture controlled.					
	Structure:						
	89.90 - 89.91	Lower contact 55° to c/a / 340° beta Quartz porphyry LC					
	90.26 - 90.27	Foliation 50° to c/a / 0° beta					
	Veins:						
	91.00 - 91.65	carbonate , 50%, Irregular, wispy carbonate					
91.65 - 106.67	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts**						
	Medium green-grey, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are 1-5mm, white, and sub-rounded. 99-101m phenocrysts are 1-6mm, blank and sub-angular. Phenocryst abundance varies throughout this unit. Alteration consists of minor fracture-controlled carbonate and chlorite. ~5-10% wispy, irregular carbonate +/- quartz veins. Trace pyrite.		470473	101.67	102.75	1.08	0.0025
			470474	105.50	106.67	1.17	0.0025
	Alteration:						
	91.65 - 106.67	weak carbonate Fracture controlled, weak chlorite Fracture controlled.					
	Structure:						
	91.91 - 91.92	Foliation 55° to c/a / 0° beta					
	Veins:						
	101.67 - 102	carbonate , 60%, Irregular, wispy carbonate					
	102.46 - 102.75	carbonate , 60%, Irregular, wispy carbonate					

Lithology From	To		Sample #	From	To	Len.	Au ppm
106.67 -	108.67	**INTD Intermediate Dike** Grey, fine-grained, sheared, Intermediate Dike? Strained with foliation at ~45-55 TCA. Alteration consists of fracture-controlled sericite and a few mm-scale quartz veinlets. Strongly silicified. Upper contact is at 50 TCA and lower contact is at 40 TCA.	470475	106.67	108.00	1.33	0.0025
			470476	108.00	108.67	0.67	0.01
		Alteration: 106.67 - 108.67 moderate Silica Pervasive, weak sericite Fracture controlled.					
		Structure: 106.67 - 106.68 Upper contact 50° to c/a / 45° beta ori line off beta might be incorrect. UC of dike					
108.67 -	109.35	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Medium green-grey, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are 1-5mm, white, and sub-rounded. Alteration consists of minor fracture-controlled carbonate. Trace pyrite.					
		Alteration: 108.67 - 109.35 weak carbonate Fracture controlled.					
		Structure: 108.67 - 108.68 Lower contact 40° to c/a / 45° beta					
109.35 -	122.00	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Grey-green, medium-grained, strained, Mafic Volcanic Flow. Strength of strain increase downhole as approaching the B1 deformation zone. There is a well-developed foliation at ~50 TCA. Alteration consists of fracture-controlled bands of carbonate and chlorite. Trace pyrite.					
		Alteration: 109.35 - 122.00 moderate chlorite Fracture controlled, moderate carbonate Fracture controlled.					
		Structure: 118.80 - 118.81 Foliation 50° to c/a / 310° beta					

Lithology			Sample #	From	To	Len.	Au ppm
From	To						
121.53	121.54	Foliation 45° to c/a / 335° beta					
122.00	127.20	**CLSCH Chlorite Schist** Grey, fine-grained, sheared, Chlorite Schist. Strain is intense with a well-developed foliation at ~45 to 50 TCA. Alteration consists of banded chlorite and carbonate +/- sericite. Trace pyrite.	470477	122.00	123.50	1.50	0.023
			470478	123.50	125.00	1.50	0.007
			470479	125.00	126.50	1.50	0.005
			470480	126.50	127.20	0.70	0.024
		Alteration:					
122.00	127.20	strong chlorite Bands, strong carbonate Bands.					
		Structure:					
124.56	124.57	Foliation 50° to c/a / 315° beta					
126.00	126.01	Foliation 40° to c/a no ori lines					
127.20	128.29	**CLSRSCH Chlorite-Sericite Schist** Grey to light grey, fine-grained, sheared, Sericite Chlorite Schist. This unit is strongly strained/ sheared with a well-developed foliation at ~40 TCA. 2 small quartz veins at 127.43-127.67m and 128-128.12. Alteration consist of banded sericite, chlorite and carbonate. ~1% disseminated pyrite.	470481	127.20	127.67	0.47	4.2
			470482	127.67	128.12	0.45	3.16
			470483	128.12	129.62	1.50	1.04
		Alteration:					
127.20	128.29	strong sericite Bands, strong chlorite Bands, strong carbonate Bands.					
		Structure:					
127.67	127.68	Vein parallel fol 40° to c/a / 320° beta Quartz Vein LC B1					
128.12	128.13	Foliation 50° to c/a / 0° beta					
		Veins:					
127.43	127.67	quartz , 90%, 40°, B1 Quartz vein in deformation zone parallel to the main fabric.					
128.00	128.12	quartz , 90%, 40°, B1 Quartz vein in deformation zone parallel to the main fabric.					

Lithology From	To		Sample #	From	To	Len.	Au ppm
128.29	129.62	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Green-grey, fine-grained, sheared, Mafic Volcanic Flow. This unit is strongly strained with a well-developed foliation at ~30 TCA. Micro faulting and or small-scale folding is apparent. Alteration consists of fracture-controlled carbonate and chlorite. Trace pyrite. *Alteration:* 128.29 - 129.62 moderate carbonate Fracture controlled, weak chlorite Fracture controlled. *Structure:* 128.96 - 128.97 Foliation 30° to c/a / 350° beta					
129.62	137.00	**MV Mafic Volcanic** Medium grey-green, fine-grained, massive, Mafic Volcanic Flow. Carbonate alteration causes a 'cracked' texture. Trace pyrite. *Alteration:* 129.62 - 137.00 weak carbonate Fracture controlled.	470484	129.62	131.00	1.38	0.005

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*	*Grid/Property*	*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15		Diamond Drillhole	98.00	2/19/2018

District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*	*Date Completed*
Kenora	5476839	522057			Hand-held GPS	2/20/2018

Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*	*Date Logged*
Kenwest	401.00	135.00		-52.00	Asinike Drilling	2/24/2018

Area	*Claim No.*	*NTS Sheet*	*Supervised By*	*Logged By*	*Verified*
Boyer Lake Area			P. Giddy	P. Giddy	☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #1		Big Master Site		☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
17.00			139.1		-50.2		☑	Reflex EZ Shot	56169	
59.00			137.5		-49.6		☑	Reflex EZ Shot	56220	
98.00			139.3		-49.1		☑	Reflex EZ Shot	56217	

Lithology									
From		*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
0.00	-	4.00	**CAS Casing**						
4.00	-	9.34	**MV Mafic Volcanic** Green, medium-grained, massive, Mafic Volcanic Flow. Blocky at the top of the hole. Relatively unaltered very minor fracture-controlled carbonate. Trace pyrite.						
			Alteration:						
	4.00	-	9.34	weak carbonate Fracture controlled.					
9.34	-	10.34	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Dark grey, fine-grained, sheared, Mafic Volcanic Flow. Foliation is well-developed at ~40 TCA (no ori lines to measure beta). Alteration consists of fracture-controlled carbonate parallel to the foliation. Trace pyrite.		470485	9.34	10.34	1.00	0.239
			Alteration:						
	9.34	-	10.34	moderate carbonate Fracture controlled.					
			Structure:						
	10.00	-	10.01	Foliation 40° to c/a no ori lines for beta measurement					
10.34	-	21.11	**MV Mafic Volcanic** Green, medium-grained, massive, Mafic Volcanic Flow. Blocky at the top of the hole. Relatively unaltered very minor fracture-controlled carbonate. Trace pyrite.						
			Alteration:						
	10.34	-	24.75	weak carbonate Fracture controlled.					

Lithology From	To		Sample #	From	To	Len.	Au ppm
21.11 -	25.07	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Grey, fine- to medium-grained, strained, Mafic Volcanic Flow. Strain is moderate to strong with a well-developed foliation at ~35 TCA. Alteration consists of minor fracture-controlled carbonate parallel to the foliation. Trace pyrite.	470486	23.32	24.75	1.43	0.023
			470487	24.75	25.07	0.32	0.208
		Alteration: 24.75 - 25.07 moderate sericite Fracture controlled, moderate chlorite Fracture controlled.					
		Structure: 22.90 - 22.91 Foliation 35° to c/a / 340° beta 24.75 - 24.76 Upper contact 40° to c/a / 0° beta QV UC					
		Veins: 24.75 - 25.07 quartz , 70%, 50°, Quartz vein at felsic dike contact. ~2% blebs of pyrite. Sericite-chlorite or tourmaline alteration banding and patches.					
24.75 -	25.07	**QV Quartz Vein** White to blank banding, coarse-grained, sheared, Quartz Vein. Quartz vein is at the upper contact of a felsic dike. Alteration consists of chlorite (or tourmaline?) sericite shear banding. ~2% blebs of pyrite. Upper contact is sharp at 40 TCA and the lower contact at 50 TCA.	470487	24.75	25.07	0.32	0.208
		Alteration: 24.75 - 25.07 moderate sericite Fracture controlled, moderate chlorite Fracture controlled.					
		Structure: 24.75 - 24.76 Upper contact 40° to c/a / 0° beta QV UC					
		Veins: 24.75 - 25.07 quartz , 70%, 50°, Quartz vein at felsic dike contact. ~2% blebs of pyrite. Sericite-chlorite or tourmaline alteration banding and patches.					

Lithology From	To		Sample #	From	To	Len.	Au ppm
25.07 -	26.96	**FD Felsic Dike** Beige, medium-grained, strained, Felsic Dike. I have typically logged this unit as a 'quartz porphyry' however, it is difficult to identity quartz eyes in this unit. 1mm, sub-angular, white and black fragments throughout. Strain is moderate. Minor carbonate-quartz veinlets. Trace disseminated pyrite throughout with a slight increase concentrated at the contacts. The upper contact is sharp at 50 TCA and the lower is sharp at 45 TCA.	470488	25.07	26.00	0.93	0.014
			470489	26.00	26.96	0.96	0.011
		Structure:					
25.07 -	25.08	Lower contact 50° to c/a / 0° beta QV LC					
26.54 -	26.55	Foliation 40° to c/a / 310° beta					
26.96 -	47.00	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Medium grey, fine- to medium-grained, strained, Mafic Volcanic Flow. Strain is strong with a well-developed foliation at ~45 to 50 TCA. Alteration consists of fracture-controlled carbonate and sericite bands increasing at 38m. ~1% quartz-carbonate veinlets trending parallel to the main fabric with a few cross-cutting. Trace pyrite.	470491	26.96	28.17	1.21	0.014
			470492	38.00	39.50	1.50	0.013
			470493	39.50	40.17	0.67	0.05
			470494	40.17	41.00	0.83	0.0025
			470495	41.00	42.50	1.50	0.008
			470496	42.50	44.00	1.50	0.0025
			470497	44.00	45.50	1.50	0.005
			470498	45.50	47.00	1.50	0.014
		Alteration:					
26.96 -	38.00	weak carbonate Fracture controlled.					
38.00 -	47.00	moderate sericite Fracture controlled, weak carbonate Fracture controlled, moderate chlorite Fracture controlled.					
		Structure:					
26.96 -	26.97	Lower contact 45° to c/a / 320° beta Felsic Dike LC					
29.90 -	29.91	Foliation 35° to c/a					
34.58 -	34.59	Foliation 40° to c/a Ori lines flipped??					
39.68 -	39.69	Foliation 50° to c/a / 0° beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
46.46	46.47	Foliation 50° to c/a / 0° beta					
Veins:							
39.97	40.17	quartz-carbonate , 50%, Irregular contacts within moderate alteration zone.					
47.00	59.55	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Medium green-grey, medium- to coarse-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are 1-5mm, white, and sub-rounded. 1-3mm, black, sub-rounded, phenocrysts at the upper contact. Alteration consists of minor fracture-controlled carbonate and localized speckled leucoxene (?). ~1% carbonate veinlets. Increasing strain at the lower contact where phencrysts become patchy. Trace pyrite.					
Alteration:							
47.00	74.34	weak carbonate Fracture controlled.					
59.55	74.34	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Dark greyish-green, fine-grained, strained, Mafic Volcanic Flow. Strain is increasing significantly approaching the B1 deformation zone. Well-developed foliation at ~50 TCA. Alteration consists of fracture-controlled carbonate and zones of speckled leucoxene (?). White, sub-rounded amygdules or phenocrysts at the lower contact infilled by carbonate and/or chlorite. ~1% carbonate veinlets trending parallel to main fabric. Trace pyrite.	470499	73.05	74.34	1.29	0.005
Structure:							
74.08	74.09	Foliation 50° to c/a / 340° beta					
74.34	78.99	**CLSRSCH Chlorite-Sericite Schist** Grey to cream, fine-grained, sheared, Chlorite Sericite Schist (B1 Deformation Zone). Strongly deformed with a well-developed foliation at ~50 TCA. Faint small-scale folding. Alteration consists of banded chlorite, sericite and carbonate. 1-2% busted quartz-carbonate veinlets. ~0.5% pyrite.	469501	74.34	75.85	1.51	0.017
			469502	75.85	77.35	1.50	0.007
			469503	77.35	78.95	1.60	0.139
			469504	78.95	79.51	0.56	0.133

Lithology From	To		Sample #	From	To	Len.	Au ppm
Alteration:							
74.34 -	78.99	strong chlorite Bands, strong sericite Bands, strong carbonate Bands.					
Structure:							
74.74 -	74.75	Foliation 50° to c/a / 340° beta					
75.76 -	75.77	Foliation 55° to c/a / 0° beta					
77.16 -	77.17	Foliation 50° to c/a / 0° beta					
78.82 -	78.83	Foliation 40° to c/a / 0° beta					
78.99 -	79.51	**SPS Silicified Potassic Schist** Pink, fine-grained, Silicified Potassic Schist (?). This unit is strongly deformed (B1 deformation zone) and altered. Alteration consists of very strong, pervasive potassic alteration (?) +/- chlorite or tourmaline. ~1% disseminated pyrite.					
Alteration:							
78.99 -	79.51	weak chlorite Fracture controlled, strong Silica Pervasive.Very strong potassic alteration					
79.51 -	91.95	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Grey, fine- to medium-grained, deformed, Mafic Volcanic Flow. The unit displays deformation however, it is difficult to observe foliation due to the brittle nature of the deformation. The rock has a 'cracked' texture which is highlighted by infilling sericite and carbonate alteration. At the upper contact there are a few bands of strong potassic alteration. ~1% irregular quartz-carbonate veinlets which are mostly trending in the same direction which is likely the same as the main fabric. ~0.5% pyrite.	469505	79.51	80.00	0.49	0.009
			469506	80.00	81.50	1.50	0.007
			469507	81.50	83.00	1.50	0.0025
			469508	83.00	84.50	1.50	0.02
			469509	84.50	86.00	1.50	0.039
			469510	86.00	87.50	1.50	0.041
			469511	87.50	89.00	1.50	0.013
			469512	89.00	90.50	1.50	0.0025
			469513	90.50	91.95	1.45	0.0025
Alteration:							

Lithology From	To		Sample #	From	To	Len.	Au ppm
79.51 - 92.72		moderate carbonate Fracture controlled, moderate carbonate Fracture controlled.					
Structure:							
80.17 - 80.18		Foliation 40° to c/a / 20° beta					
91.95 - 92.72		**SPS Silicified Potassic Schist**					
		Pink, fine-grained, Silicified Potassic Schist (?). This unit is strongly deformed (End of B1 deformation zone?) and altered. Alteration consists of very strong, pervasive potassic alteration (?) +/- chlorite or tourmaline. ~1% disseminated pyrite.	469514	91.95	92.72	0.77	0.007
Alteration:							
91.95 - 92.72		strong Silica Pervasive, weak chlorite Fracture controlled.Very strong pervasive potassic alteration as well					
Structure:							
91.95 - 91.96		Foliation 50° to c/a Difficult to measure beta due to the nature of the alteration					
92.72 - 98.00		**MVSH Mafic Volcanic - Weakly to Moderately Sheared**					
		Green-grey, fine-grained, strained, Mafic Volcanic Flow. Well-developed foliation at ~40 to 45 TCA. Alteration consists of fracture-controlled carbonate and chlorite. ~1% quartz-carbonate veinlets trending parallel to the main fabric. Trace pyrite.	469515	92.72	94.19	1.47	0.006
Alteration:							
92.72 - 98.00		weak carbonate Fracture controlled, weak chlorite Fracture controlled.					
Structure:							
94.19 - 94.20		Foliation 45° to c/a / 0° beta					

ManitouGold Inc.

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*		*Grid/Property*		*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15				Diamond Drillhole	14.00	2/20/2018
District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*		*Date Completed*
Kenora	5476824	522071			Hand-held GPS		2/20/2018
Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*		*Date Logged*
Kenwest	397.00	135.00		-46.00	Asinike Drilling		2/25/2018
Area	*Claim No.*	*NTS Sheet*	*Supervised By*		*Logged By*		*Verified*
Boyer Lake Area			P. Giddy		P. Giddy		☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #1		Big Master Site		☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*
Testing the up plunge of potential high grade mineralization along the B1 structure.		Hole ended early due to azimuth being incorrect

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
0.00			135		-46		☑			Planned

Lithology									
From		*To*			*Sample #*	*From*	*To*	*Len.*	*Au ppm*
0.00	-	3.43	**CAS Casing**						
3.43	-	3.78	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Grey-green, fine-grained, strained, Mafic Volcanic Flow. Sheared at ~45 TCA. Carbonate bands. In contact with quartz vein at the top of hole.						
3.78	-	4.92	**QV Quartz Vein** White, coarse-grained, Quartz Vein. Sheared vein with ~20% wallrock fragments. Wallrock bands are sheared at ~50 TCA (no ori lines for orientation). Alteration of wallrock bands consists of chlorite and sericite. ~1% disseminated pyrite mostly concentrated in and around wallrock fragments. The upper contact is sharp at 45 TCA and the lower contact is 50 TCA. Top of vein is beginning to show signs of oxidation.		469539	3.78	4.92	1.14	0.697
			Alteration:						
			3.78 - 4.92 moderate chlorite Fracture controlled, moderate sericite Fracture controlled.						
			Structure:						
			3.78 - 3.79 Upper contact 45° to c/a QV UC						
			Veins:						
			3.78 - 4.92 quartz-carbonate shear vein, 80%, Quartz vein at the top of hole with altered wallrock fragments and ~1% pyrite.						
4.92	-	14.00	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Medium greyish-green, fine-grained, strained, Mafic Volcanic Flow. This unit is strongly strained with a well-developed foliation at ~50 TCA. Alteration consists of sericitic shear banding and minor fracture-controlled chlorite and carbonate. Silicified. Trace pyrite. Hole ended early due to azimuth being incorrect.		469540	4.92	6.10	1.18	0.033

Lithology								
From	To			Sample #	From	To	Len.	Au ppm
Alteration:								
4.92	- 14.00	moderate Silica Pervasive, moderate sericite Fracture controlled.						
Structure:								
4.92	- 4.93	Lower contact 50° to c/a QC LC						

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Drillhole Log

Units **Meters**

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Province/State	*Co-ordinate System*		*Grid/Property*		*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15				Diamond Drillhole	56.00	2/20/2018
District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*		*Date Completed*
Kenora	5476824	522071			Hand-held GPS		2/20/2018
Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*		*Date Logged*
Kenwest	397.00	135.00		-46.00	Asinike Drilling		2/25/2018
Area	*Claim No.*	*NTS Sheet*	*Supervised By*		*Logged By*		*Verified*
Boyer Lake Area			P. Giddy		P. Giddy		☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #1		Big Master Site		☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*
Testing the up plunge of potential high grade mineralization along the B1 structure.		

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
14.00			138.4		-44.5		☑	Reflex EZ Shot	56988	
56.00			140.1		-43.3		☑	Reflex EZ Shot	56137	

Lithology From	To		Sample #	From	To	Len.	Au ppm
0.00	3.28	**CAS Casing**					
3.28	4.34	**QV Quartz Vein** White, coarse-grained, Quartz Vein. Sheared vein with ~20% wallrock fragments. Wallrock bands are sheared at ~50 TCA (no ori lines for orientation). Alteration of wallrock bands consists of chlorite and sericite. ~1% disseminated pyrite mostly concentrated in and around wallrock fragments. The upper contact is broken (mechanically) and the lower contact is sharp at 60 TCA.	469516	3.28	4.34	1.06	0.416
		Alteration: 3.28 - 4.34 moderate chlorite Fracture controlled, moderate carbonate Fracture controlled, moderate sericite Fracture controlled.					
		Veins: 3.28 - 4.34 quartz shear vein, 70%, 60°, Quartz vein with ~20% wallrock fragments and ~1% disseminated pyrite.					
4.34	14.07	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Medium greyish-green, fine-grained, strained, Mafic Volcanic Flow. This unit is strongly strained with a well-developed foliation at ~50 TCA. Alteration consists of sericitic shear banding and minor fracture-controlled chlorite and carbonate. Silicified. Trace pyrite. Lower contact marks increasing porphyritic texture.	469517	4.34	5.00	0.66	0.318
			469518	5.00	6.50	1.50	0.0025
			469519	6.50	8.00	1.50	0.0025
			469521	8.00	9.50	1.50	0.0025
			469522	9.50	11.00	1.50	0.0025
			469523	11.00	12.50	1.50	0.0025
			469524	12.50	14.00	1.50	0.0025
			469525	14.00	15.37	1.37	0.0025
		Alteration: 4.34 - 14.07 moderate Silica Pervasive, moderate sericite Fracture controlled, weak chlorite Fracture controlled.					

Lithology From	To		Sample #	From	To	Len.	Au ppm
Structure:							
4.34 -	4.35	Lower contact 60° to c/a LC Quartz Vein. No Ori lines at top of hole.					
8.00 -	8.01	Foliation 50° to c/a No ori lines					
12.50 -	12.51	Foliation 40° to c/a no ori lines					
14.07 -	27.68	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Green, medium-grained, porphyritic, massive, Mafic Volcanic Flow. This unit is weakly to moderately strained at the upper contact. Texture varies through this unit and is likely the same unit until reaching the B1 deformation zone. Local patches of white, 1-4mm, white, phenocrysts and 1-4mm sub-rounded to sub-angular, black phenocrysts. Local 'speckled' texture (possible leucoxene). Alteration consists of minor fracture-controlled carbonate. Trace pyrite.					
Alteration:							
14.07 -	35.57	weak carbonate Fracture controlled.					
Structure:							
16.74 -	16.75	Foliation 50° to c/a / 340° beta					
19.52 -	19.53	Foliation 45° to c/a / 330° beta					
27.68 -	35.57	**MV Mafic Volcanic** Green, medium-grained, porphyritic, massive, Mafic Volcanic Flow. This unit is virtually the same as the above unit with a lessened presence of feldspar phenocrysts. Local patches of 1-4mm sub-rounded to sub-angular, black phenocrysts. Local 'speckled' texture (possible leucoxene). Alteration consists of minor fracture-controlled carbonate. Trace pyrite. Increasing strain at ~33m. In contact with B1 deformation zone.	469526	34.22	35.57	1.35	0.0025
Structure:							
33.56 -	33.57	Foliation 55° to c/a / 330° beta					
34.72 -	34.73	Foliation 50° to c/a / 320° beta					

Lithology *From*	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*
35.57 -	39.85	**CLSRSCH Chlorite-Sericite Schist** Cream to grey, fine-grained, sheared, Chlorite Sericite Schist (B1 Deformation Zone). Strain is very strong represented by strong compositional banding/ foliation, boudinaged veinlets and micro-faulting or folding. Alteration is strong and consists of banded sericite-carbonate and chlorite. ~1-2% deformed quartz veinlets trending parallel to the foliation. ~0.5% pyrite.	469527	35.57	37.00	1.43	0.005
			469528	37.00	38.50	1.50	0.029
			469529	38.50	39.85	1.35	0.08
		Alteration:					
35.57 -	39.85	strong chlorite Bands, strong sericite Bands, strong carbonate Bands.					
		Structure:					
35.79 -	35.80	Foliation 55° to c/a / 320° beta					
37.32 -	37.33	Foliation 45° to c/a no ori lines					
38.70 -	38.71	Foliation 50° to c/a no ori lines					
39.85 -	48.80	**SPS Silicified Potassic Schist** Pink, fine-grained, Silicified Potassic Schist (?). This unit is strongly deformed (B1 deformation zone) and altered. Alteration consists of very strong, pervasive potassic alteration (?) and banded chlorite and sericite. 1-2% irregular wispy quartz veinlets to quartz veinlets trending parallel to the main fabric. Silicified. ~0.5-1% disseminated pyrite.	469531	39.85	41.00	1.15	0.025
			469532	41.00	42.50	1.50	0.066
			469533	42.50	44.00	1.50	0.0025
			469534	44.00	45.50	1.50	0.009
			469535	45.50	47.00	1.50	0.011
			469536	47.00	48.00	1.00	0.014
			469537	48.00	48.80	0.80	0.014
		Alteration:					
39.85 -	48.80	moderate Silica Pervasive, moderate chlorite Fracture controlled, moderate sericite Fracture controlled.Very strong pervasive potassic alteration.					
		Structure:					
40.48 -	40.49	Foliation 60° to c/a / 325° beta					
43.37 -	43.38	Foliation 60° to c/a / 330° beta					
45.00 -	45.01	Foliation 50° to c/a no ori lines					

Lithology								
From	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*
48.80 -	56.00	**MV Mafic Volcanic** Dark green-grey, fine-grained, massive, Mafic Volcanic Flow. This unit is moderately strained at the upper contact with the B1 deformation zone which decrease downhole. Alteration consists of minor carbonate. Trace cubic pyrite.	469538	48.80	50.27	1.47	0.0025
		Alteration:					
48.80 -	56.00	weak carbonate Fracture controlled.					
		Structure:					
48.80 -	48.81	Foliation 50° to c/a / 320° beta					

ManitouGold Inc.

Drillhole Log

Units **Meters**

Manitou Gold Inc.

Province/State	*Co-ordinate System*		*Grid/Property*		*Hole Type*	*Length*	*Date Started*
Ontario	UTM NAD83 Zone 15				Diamond Drillhole	389.00	2/21/2018
District	*UTM North*	*UTM East*	*Local Grid E*	*Local Grid N*	*Collar Survey Method*		*Date Completed*
Kenora	5476519	522186			Hand-held GPS		2/25/2018
Project	*UTM Elevation*	*Azimuth Astro. (°)*	*Azimuth Grid (°)*	*Dip (°)*	*Drill Contractor*		*Date Logged*
Kenwest	411.00	297.00		-55.00	Asinike Drilling		3/1/2018
Area	*Claim No.*	*NTS Sheet*	*Supervised By*		*Logged By*		*Verified*
Boyer Lake Area			P. Giddy		P. Giddy		☐

Zone/Prospect	*Assessment Rpt. No.*	*Core Storage*	*Plug Depth*	*Makes Water*	*Capped*	*Environmental Inspection*
BM #1		Big Master Site		☐	☐	☐

Core Size (1)	NQ		*Casing Pulled*	*Casing (1)*		NW Steel	*Plugged*	*Pulsed*	*Geophysics Contractor*	*Date Pulsed*
(2)			☐	*(2)*			☐	☐		

Purpose	*Results*	*Comments*
Testing potential down plunge of high grade minerlization on the B1. Also intersecting B2.		

Distance	*Grid Azimuth (°)*		*Astro. Azimuth (°)*		*Dip (°)*		*Use Test*	*Survey Method*	*Mag. Field (nT)*	*Comments*
	Original	*Final*	*Original*	*Final*	*Original*	*Final*				
11.00			296.1		-53.3		☑	Reflex EZ Shot	57025	
50.00			297		-52.2		☑	Reflex EZ Shot	56276	
65.00			297.5		-52.2		☑	Reflex EZ Shot	56571	
92.00			297.2		-51.9		☑	Reflex EZ Shot	56687	
95.00			297.7		-51.9		☑	Reflex EZ Shot	56482	
149.00			301.3		-52.3		☑	Reflex EZ Shot	55848	
203.00			302.3		-52.8		☑	Reflex EZ Shot	56467	
251.00			304.3		-52.8		☑	Reflex EZ Shot	56376	
305.00			306.5		-52.9		☑	Reflex EZ Shot	56678	
389.00			307.4		-50.9		☑	Reflex EZ Shot	56262	

Lithology From	To		Sample #	From	To	Len.	Au ppm
0.00	3.36	**CAS Casing**					
3.36	3.93	**MV Mafic Volcanic** Green, fine-grained, Mafic Volcanic Flow. Top of hole little rock to observe. Very weak carbonate veinlets.					
		Alteration:					
3.36	70.82	weak carbonate Fracture controlled, weak chlorite Fracture controlled.					
3.93	8.62	**INTD Intermediate Dike** Dark grey, fine-grained, strained, Intermediate Dike. Foliation is at ~40 TCA (no ori lines). Alteration consists of strong pervasive silicification and minor hairline carbonate stringers. Trace pyrite. Sharp upper and lower contacts at 40 TCA.					
		Structure:					
3.93	3.94	Upper contact 40° to c/a No ori lines					
8.62	31.29	**MV Mafic Volcanic** Green, fine-grained, massive to locally strained, Mafic Volcanic flow (possibly more of an intermediate rock?). Minor alteration consists of fracture-controlled carbonate and chlorite. Locally amygdaloidal and possibly varioloitic? Trace pyrite.					
		Structure:					
8.62	8.63	Lower contact 40° to c/a No ori lines					

Lithology From	To		Sample #	From	To	Len.	Au ppm
31.29	35.07	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Green, fine-grained, sheared, porphyritic, Mafic Volcanic Flow. Black, sub-rounded 1-6mm phenocrysts until ~32.87m at this point phenocrysts are white, sub-rounded and 1-4mm. This unit is strained at ~10 to 30 TCA. Alteration consists of hairline fractures filled with carbonate. Trace pyrite.	469541	31.29	32.43	1.14	0.618
		Structure:					
32.00	32.01	Foliation 10° to c/a / 50° beta					
35.07	36.64	**MV Mafic Volcanic** Green, fine-grained, massive, Mafic Volcanic Flow. Very minor hairline fractures infilled by carbonate and chlorite. Locally amygdaloidal. Possible fault or gouge from shearing 34.32-34.42m.					
36.64	40.24	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Green, fine-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are white, 1-3mm and sub-rounded. Alteration consists of minor carbonate and chlorite. ~1% quartz-carbonate veinlets with minor potassic alteration? Trace pyrite.					
40.24	42.95	**MV Mafic Volcanic** Green, fine-grained, massive, Mafic Volcanic Flow. Very minor hairline fractures infilled by carbonate and chlorite. Locally amygdaloidal. Minor strain at 40 TCA. Small mafic dike 40.24-40.53m.					
40.24	40.53	**MD Mafic Dike** Upper and lower contacts sharp at 50 TCA.					

Lithology				*Au*				
From	*To*		*Sample #*	*From*	*To*	*Len.*	*ppm*
42.95 - 44.26	**INTD Intermediate Dike** Dark grey, medium- to coarse-grained, massive, Intermediate Dike. 1-2mm phenocrysts at the upper contact. Minor hairline fractures filled with carbonate. Sharp upper contact at 50 TCA and sharp lower contact at 30 TCA. Trace pyrite.							
	Structure: 42.95 - 42.96 Upper contact 50° to c/a / 220° beta UC of intermediate dike							
44.26 - 54.80	**MV Mafic Volcanic** Green, fine-grained, massive, Mafic Volcanic Flow. Very minor hairline fractures infilled by carbonate and chlorite. Locally amygdaloidal or variolitic. Trace pyrite. Foliated/ strained contacts with the porphyritic unit.							
	Structure: 44.26 - 44.27 Lower contact 30° to c/a / 260° beta LC of intermediate dike							
54.80 - 57.68	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Green, fine-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are white, 1-3mm and sub-rounded. Alteration consists of minor carbonate and chlorite. ~1% quartz-carbonate veinlets. Trace pyrite.							
57.68 - 70.82	**MV Mafic Volcanic** Green-grey, fine-grained, massive, Mafic Volcanic Flow. Very minor fracture-controlled carbonate. 64.05-65m increasing strained and silica ~50 TCA. Trace pyrite typically concentrated in infilling carbonate.							

Lithology From	To		Sample #	From	To	Len.	Au ppm
70.82 -	87.77	**MV Mafic Volcanic** Medium-greyish brown, fine- to medium-grained, massive, Mafic Volcanic Flow (?). This unit differs from the surrounding units by silica contact (?) and colour. It is a much dark grey colour (possible intermediate dike??). Alteration consists of hairline fractures unfilled by carbonate and pervasive silicification. ~1% quartz veinlets. Trace pyrite.	469542	86.42	87.77	1.35	0.05
		Alteration: 70.82 - 87.77 moderate Silica Pervasive, weak carbonate Fracture controlled.					
87.77 -	97.44	**MV Mafic Volcanic** Green, fine-grained, pillowed, Mafic Volcanic Flow. Pillows are m-scale with well-developed selvages. Pillow margins are infilled by carbonate, chlorite and sulphides. Mineralization consists of trace pyrrhotite and pyrite.	469543	87.77	89.00	1.23	0.0025
		Alteration: 87.77 - 235.93 weak carbonate Fracture controlled.					
97.44 -	119.30	**MV Mafic Volcanic** Darker green, fine-grained, massive, Mafic Volcanic Flow. Weakly strained at ~40-50 TCA. Locally amygdaloidal. Very minor fracture-controlled carbonate alteration. Increasing silica at ~108 (dark colouration of rock). Trace pyrite.					
119.30 -	124.36	**GAB Gabbro** Pale green, medium-grained, massive, Gabbro (?). Very minor fracture-controlled carbonate and chlorite. Trace pyrite.					

Lithology From	To		Sample #	From	To	Len.	Au ppm
124.36 -	126.21	**FD Felsic Dike** Pale green, medium-grained, massive, Gabbro (?). Could be a diorite but, appears to be feldspathic. Very minor fracture-controlled carbonate and chlorite. Trace pyrite.					
126.21 -	214.50	**MV Mafic Volcanic** Pale green, fine- to medium-grained, pillowed, Mafic Volcanic Flow. Pillows are m-scale with well-developed pillow selvages. Pillow margins are infilled by chlorite, carbonate and sulphides. Locally amygdaloidal infilled by carbonate. ~0.5% pyrrhotite and pyrite stringers in pillow margins.Increasing pyrrhotite and pyrite at 177-182m (~1% stringers) and 203-212m (1-2% stringers). Locally strained. 130.7-134.77 moderately strained with a foliation at ~50 TCA. 156-157.5 moderately strained with a foliation at ~50 TCA.	469544	130.80	131.30	0.50	0.0025
			469545	153.50	155.00	1.50	0.588
			469546	155.00	156.50	1.50	0.116
			469547	156.50	158.00	1.50	0.097
			469548	178.00	179.50	1.50	0.006
			469549	179.50	181.00	1.50	0.005
			469551	204.00	205.50	1.50	0.0025
		Structure: 155.00 - 155.01 Foliation 50° to c/a / 0° beta					
214.50 -	235.93	**MV Mafic Volcanic** Pale green, medium-grained, massive, Mafic Volcanic Flow. Locally porphyritic 1-3mm, white, phenocrysts (mostly concentrated at the upper contact). Very minor fracture-controlled carbonate. Mineralization consists of pyrrhotite-pyrite stringers. Weak increase in strain at quartz vein contact.	469552	233.00	234.50	1.50	0.0025
			469553	234.50	235.93	1.43	0.05

Lithology From	To		Sample #	From	To	Len.	Au ppm
235.93 -	237.26	**QV Quartz Vein** White to greyish yellow, coarse-grained, Quartz Vein with wallrock fragments (B2?). ~60% strongly altered wallrock fragments with quartz flooding the matrix. Fragments have been altered to sericite+carbonate +/- chlorite and trend parallel to the main fabric. ~10% clusters or disseminated pyrite. Both the upper and lower contacts are sharp at 50 TCA.	469554	235.93	237.26	1.33	1.35
		Alteration: 235.93 - 237.26 moderate sericite Bands, moderate carbonate Bands, moderate chlorite Bands.					
		Structure: 235.93 - 235.94 Upper contact 50° to c/a / 0° beta Quartz Vein UC					
		Veins: 235.93 - 237.26 quartz-carbonate , 40%, 50°, ~60% altered wallrock fragments with up to 10% clusters of pyrite.					
237.26 -	256.22	**MV Mafic Volcanic** Green, fine-grained, pillowed, Mafic Volcanic Flow. Pillows are m-scale with well-developed pillow selvages. Pillow margins are infilled by carbonate, chlorite and or albite. Strain is moderate at contact with quartz vein and trends 50 TCA. Locally porphyritic. ~1% quartz-carbonate stringers. Trace pyrrhotite and pyrite.	469555	237.26	238.67	1.41	0.29
			469556	238.67	240.07	1.40	0.038
			469557	240.07	241.57	1.50	0.008
		Alteration: 237.26 - 266.00 weak carbonate Fracture controlled.					
		Structure: 239.00 - 239.01 Foliation 50° to c/a / 0° beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
256.22 -	287.36	**MV Mafic Volcanic** Pale green, medium-grained, massive, Mafic Volcanic Flow. Locally porphyritic 1-3mm, white, phenocrysts (mostly concentrated at the upper contact). Very minor fracture-controlled carbonate. Trace pyrite. Around 266m change in colouration to darker greyish green (increasing silicification and locally amygdaloidal). This unit is in contact with a fault breccia or healed fault and is faulted from 286.2m to the contact. Moderately broken rock.					
		Alteration:					
		266.00 - 286.20 weak carbonate Fracture controlled, moderate Silica Pervasive.					
		286.20 - 323.11 weak carbonate Fracture controlled.					
		Structure:					
		256.22 - 256.23 Lower contact 50° to c/a / 10° beta Quartz Vein LC					
		286.20 - 287.16 Fault Can't get orientation. Rock is broken.					
		287.16 - 289.16 Fault Fault breccia or healed fault. Well defined zone. No orientation. No ori lines near fault. Recorded angle TCA. 50 TCA UC and 45 TCA LC.					
287.36 -	289.16	**FZ Fault Zone** Greenish-grey, fine- to very coarse-grained, brecciated, faulted, Mafic Volcanic. This unit is strongly deformed as a fault breccia and/or healed fault. Fragments are 1-8mm and angular to sub-angular cemented by a gouge matrix. No true orientation of fragments. No orientation lines close to the fault. Upper and lower contacts are approximations. Upper contact at ~50 TCA and lower at ~45 TCA. Not mineralized.	469558	288.44	288.89	0.45	0.007
289.16 -	311.15	**GAB Gabbro** Greenish-grey, medium-grained, massive, Gabbro or Mafic Volcanic Flow. Locally 'speckled' texture would could be the result of leucoxene alteration. Alteration is minor and consists of irregular hairline carbonate filled fractures. Lower contact is gradation and weakly to moderately strained at 50 TCA no ori-lines near strain to measure beta. Trace pyrite.	469559	293.31	293.74	0.43	0.0025
			469561	310.08	311.15	1.07	0.02

Lithology			Sample #	From	To	Len.	Au ppm
From	To						
		Structure:					
311.00	311.01	Foliation 50° to c/a No ori lines closeby to take beta measurement					
		Veins:					
293.39	293.56	quartz-carbonate , 50%, Brecciated quartz-carbonate-albite vein. Not mineralized.					
311.15	323.11	**MV Mafic Volcanic** Medium green, fine- to medium-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts are black, 1-3mm and sub-rounded to sub-angular. Moderate strain at contact with 'Gabbro' at 50 TCA. Alteration consist of minor hairline carbonate filled fractures. ~1% quartz-carbonate veinlets (if that). Trace pyrrhotite and pyrite.	469562	311.15	312.44	1.29	0.013
			469563	316.54	317.08	0.54	0.0025
			469564	317.08	318.58	1.50	0.339
		Structure:					
312.00	312.01	Foliation 50° to c/a No ori lines closeby to take beta measurement					
		Veins:					
316.89	317.08	quartz-carbonate , 80%, 50°, Barren quartz vein with po at contacts.					
323.11	325.72	**INTD Intermediate Dike** Tan to grey, fine- to medium-grained, sheared, Intermediate Dike (or alteration very difficult to tell). Strained dike with foliation at ~45 to 50 TCA. Alteration consists of fracture-controlled sericite and a few hairline quartz veinlets trending parallel to foliation and cross-cutting foliation. Strongly silicified. Trace pyrite. Both the upper and lower contacts are sharp at 45 TCA.					
		Alteration:					
323.11	325.72	strong Silica Pervasive, weak sericite Fracture controlled.					
		Structure:					
323.11	323.12	Upper contact 45° to c/a / 0° beta Dike UC					
325.60	325.61	Vein Undifferentiated 50° to c/a / 180° beta Set of hairline quartz-carbonate veinlets cross-cutting foliation.					

Lithology From	To		Sample #	From	To	Len.	Au ppm
325.72 -	364.83	**MVPH Mafic Volcanic - Large Feldspar Phenocrysts** Medium greenish grey, medium-grained, porphyritic, Mafic Volcanic Flow. Phenocrysts range from white, 1-4mm, sub-rounded to black, 1-4mm, sub-angular to sub-rounded. Typically observe black phenocrysts closer to contacts (the dike and shear zone) whereas the white phenocrysts are concentrated in the center of the unit. Alteration consists of fracture-controlled carbonate. ~1-2% quartz-carbonate veinlets. Strain increase close to the contact with B1 deformation zone. Trace pyrite.	469565	363.30	364.83	1.53	0.0025
		Alteration: 325.72 - 364.83 weak carbonate Fracture controlled, weak albite Fracture controlled.					
		Structure: 325.72 - 325.76 Lower contact 45° to c/a / 0° beta Dike LC					
364.83 -	368.93	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Greyish-brown, fine-grained, strained, Mafic Volcanic Flow. Unit is moderately to strongly strained at 50 TCA. Approaching the B1 deformation zone. Alteration is increasing consisting of sericite, carbonate and chlorite. Still remnants of black phenocrysts which have been elongated parallel to the foliation. Trace pyrite.	469566	364.83	366.25	1.42	0.0025
			469567	366.25	367.67	1.42	0.0025
			469568	367.67	368.93	1.26	0.0025
		Alteration: 364.83 - 368.93 moderate carbonate Fracture controlled, moderate chlorite Fracture controlled, moderate sericite Fracture controlled.					
		Structure: 367.77 - 367.78 Foliation 50° to c/a / 0° beta					

Lithology From	To		Sample #	From	To	Len.	Au ppm
368.93 -	374.76	**SERSCH Sericite Schist** Tannish-yellow, fine-grained, sheared, Sericite Schist (B1 Deformation Zone). Strain is strong at 40 to 50 TCA. Alteration consists of sericitic shear bands and patchy sericite. ~5% quartz fragments (deformed) and up to ~1% disseminated pyrite.	469569	368.93	370.00	1.07	0.017
			469570	370.00	371.00	1.00	0.036
			469571	371.00	372.50	1.50	0.107
			469572	372.50	373.54	1.04	0.139
			469573	373.54	374.26	0.72	0.006
			469574	374.26	375.76	1.50	0.0025
		Alteration:					
368.93 -	374.76	strong sericite Fracture controlled, moderate chlorite Fracture controlled, moderate carbonate Fracture controlled.					
		Structure:					
369.11 -	369.12	Foliation 45° to c/a / 15° beta					
370.00 -	370.01	Foliation 40° to c/a / 10° beta					
370.69 -	370.70	Foliation 40° to c/a / 5° beta					
374.76 -	377.06	**MVSH Mafic Volcanic - Weakly to Moderately Sheared** Greyish-brown, fine-grained, strained, Mafic Volcanic Flow. Unit is moderately to strongly strained at ~40-45 TCA. Moving away from B1 deformation alteration is decreasing as well as strain intensity. Alteration consists of patchy sericite, carbonate and chlorite. Trace pyrite. Amygdaloidal?	469575	375.76	377.06	1.30	0.0025
		Alteration:					
374.76 -	377.06	weak sericite Fracture controlled, moderate chlorite Fracture controlled, moderate carbonate Fracture controlled.					
		Structure:					
375.16 -	375.17	Foliation 40° to c/a / 345° beta					
376.69 -	376.70	Foliation 45° to c/a / 0° beta					

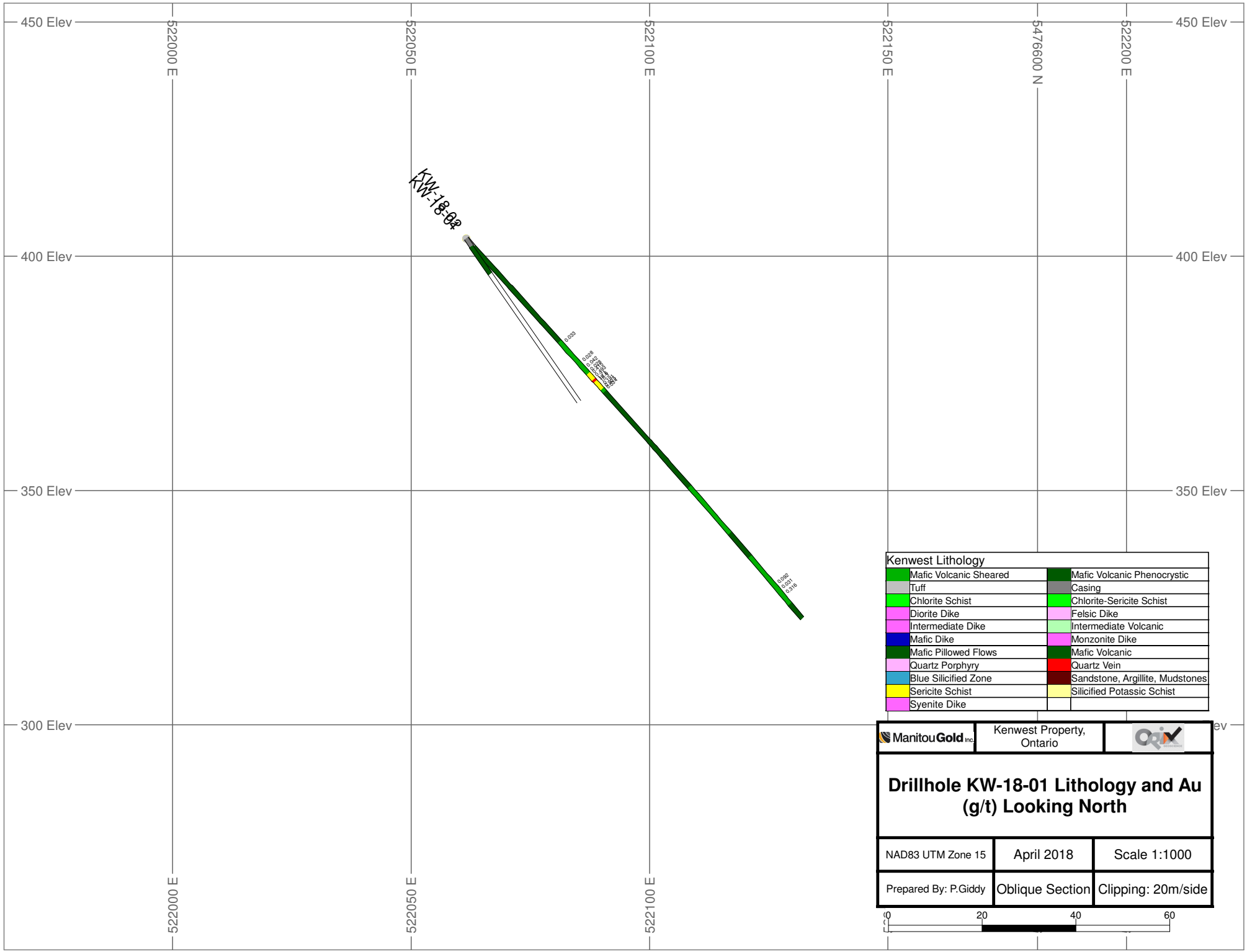
Lithology								
From	*To*		*Sample #*	*From*	*To*	*Len.*	*Au ppm*
377.06 -	389.00	**MV Mafic Volcanic** Medium green-grey, fine- to medium-grained, massive, Mafic Volcanic Flow. Alteration consists of minor hairline fractured infilled by carbonate. Trace pyrite.	469576	377.06	378.50	1.44	0.0025

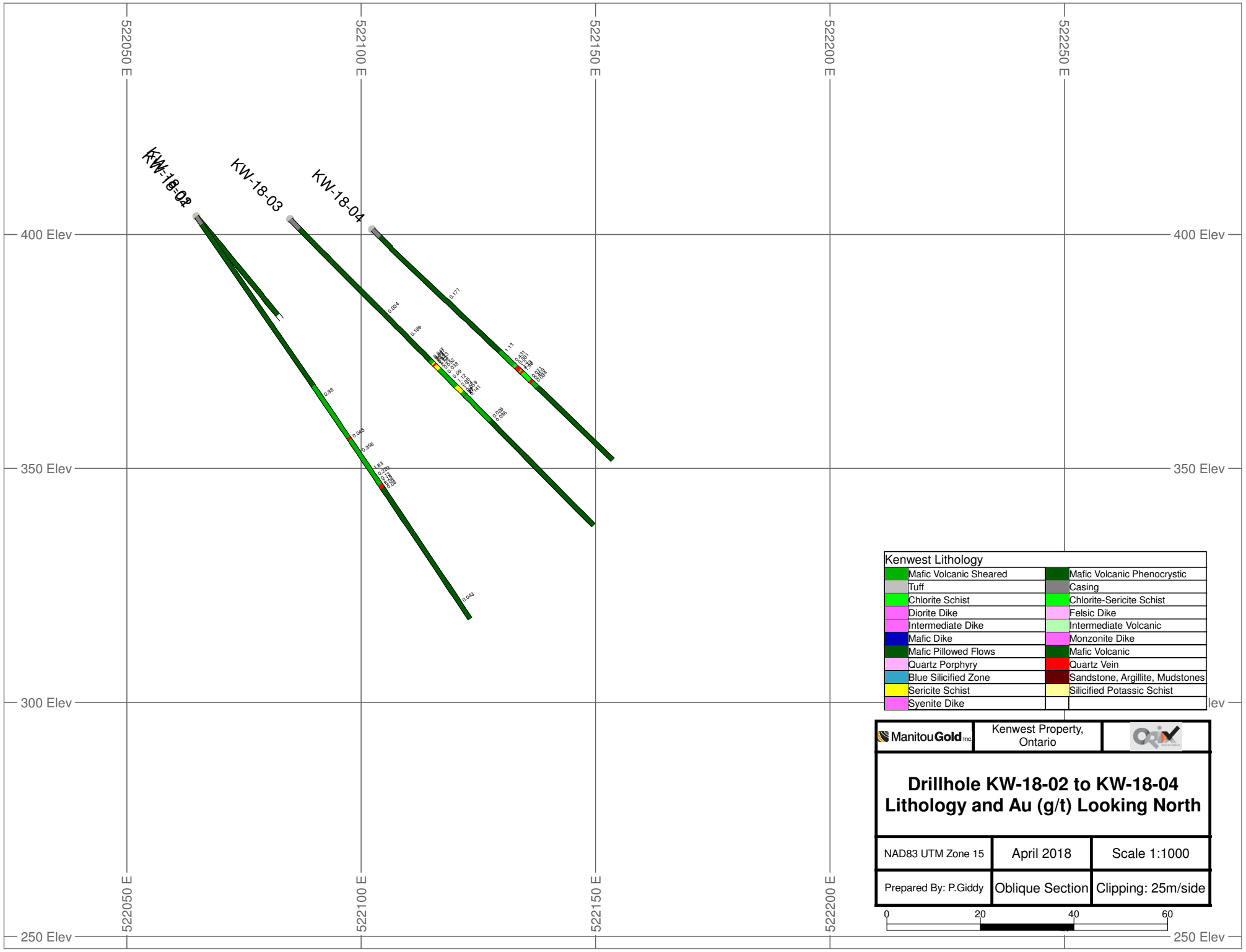
Alteration:

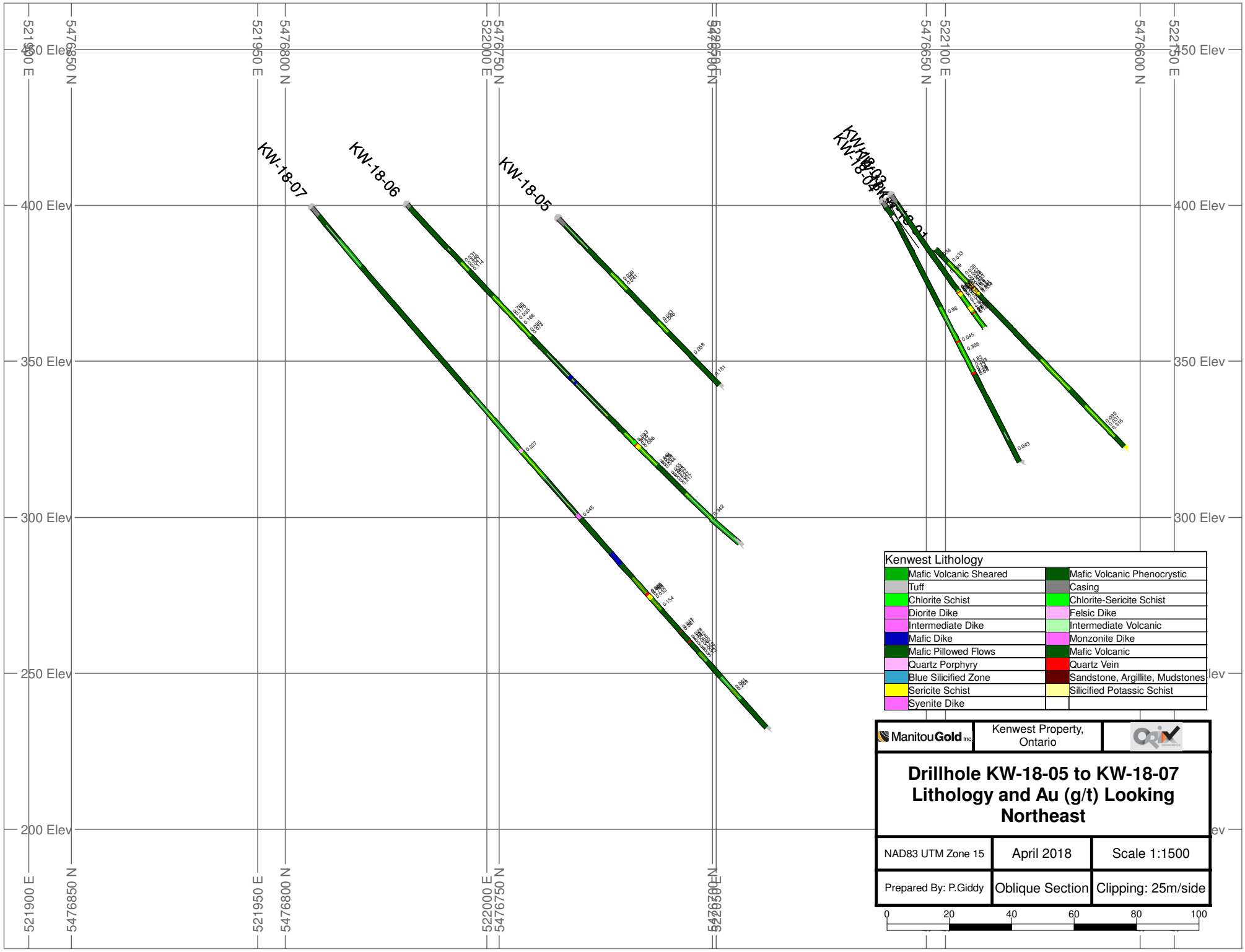
377.06 - 389.00 weak carbonate Fracture controlled.

APPENDIX II

Drillhole Sections


450 Elev
400 Elev
350 Elev
300 Elev
522000 E
522050 E
522100 E
522150 E
5476600 N
522200 E
KW-18-01
KW-18-02
0.033
0.028
0.092
0.031
0.216
Kenwest Lithology
Mafic Volcanic Sheared
Mafic Volcanic Phenocrystic
Tuff
Casing
Chlorite Schist
Chlorite-Sericite Schist
Diorite Dike
Felsic Dike
Intermediate Dike
Intermediate Volcanic
Mafic Dike
Monzonite Dike
Mafic Pillowed Flows
Mafic Volcanic
Quartz Porphyry
Quartz Vein
Blue Silicified Zone
Sandstone, Argillite, Mudstones
Sericite Schist
Silicified Potassic Schist
Syenite Dike
ManitouGold Inc.
Kenwest Property, Ontario
Drillhole KW-18-01 Lithology and Au (g/t) Looking North
NAD83 UTM Zone 15
April 2018
Scale 1:1000
Prepared By: P.Giddy
Oblique Section
Clipping: 20m/side
0
20
40
60


522050 E
522100 E
522150 E
522200 E
522250 E
400 Elev
350 Elev
300 Elev
250 Elev
KW-18-02
KW-18-03
KW-18-04
Kenwest Lithology
Mafic Volcanic Sheared
Mafic Volcanic Phenocrystic
Tuff
Casing
Chlorite Schist
Chlorite-Sericite Schist
Diorite Dike
Felsic Dike
Intermediate Dike
Intermediate Volcanic
Mafic Dike
Monzonite Dike
Mafic Pillowed Flows
Mafic Volcanic
Quartz Porphyry
Quartz Vein
Blue Silicified Zone
Sandstone, Argillite, Mudstones
Sericite Schist
Silicified Potassic Schist
Syenite Dike
ManitouGold Inc.
Kenwest Property, Ontario
Drillhole KW-18-02 to KW-18-04
Lithology and Au (g/t) Looking North
NAD83 UTM Zone 15
April 2018
Scale 1:1000
Prepared By: P.Giddy
Oblique Section
Clipping: 25m/side
0
20
40
60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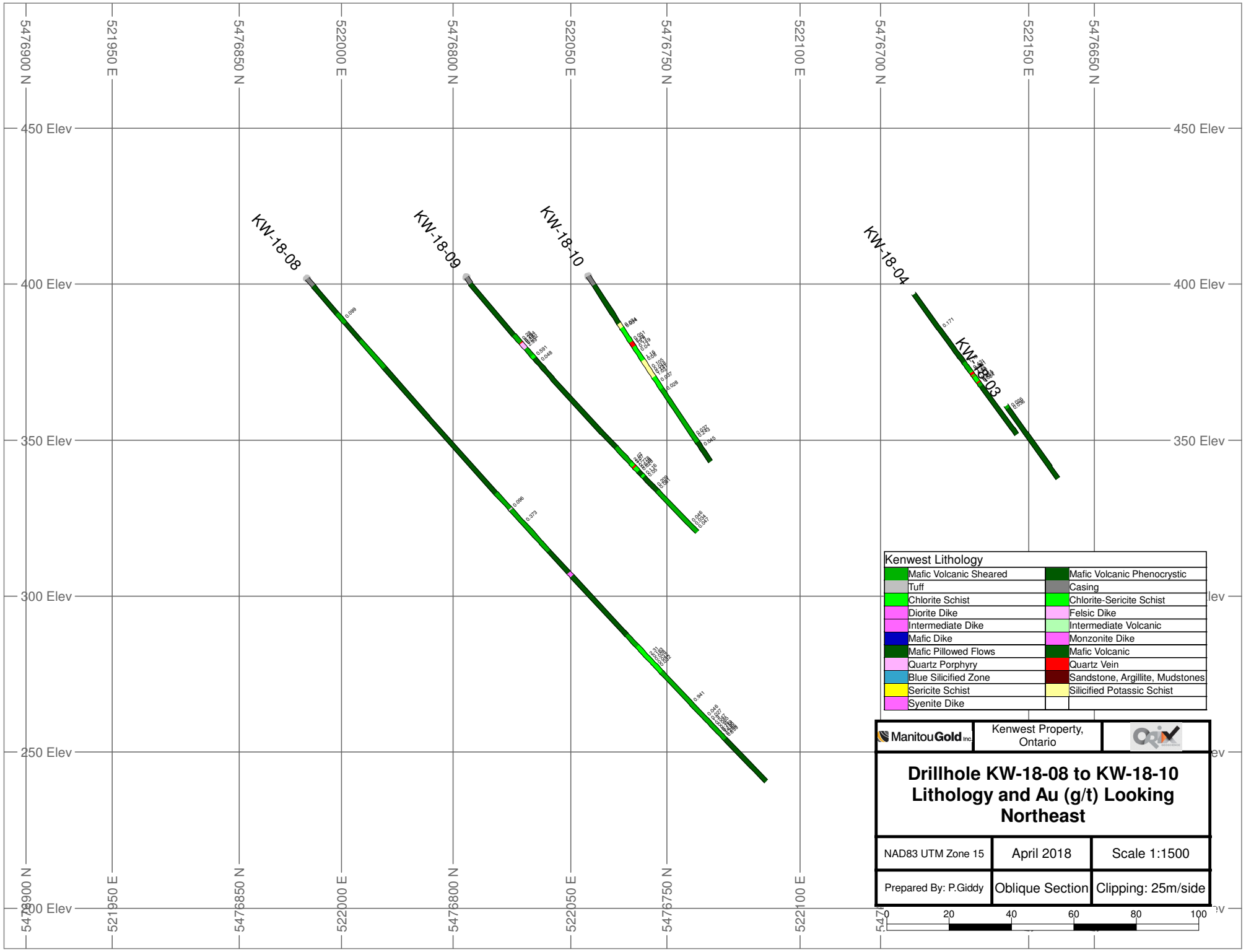
5476850 N
521950 E
5476800 N
522000 E
5476750 N
522050 E
5476700 N
522100 E
5476650 N
522150 E
5476600 N
450 Elev
400 Elev
350 Elev
300 Elev
250 Elev
200 Elev
KW-18-07
KW-18-06
KW-18-05
KW-18-04
KW-18-03
KW-18-01
Kenwest Lithology
Mafic Volcanic Sheared
Mafic Volcanic Phenocrystic
Tuff
Casing
Chlorite Schist
Chlorite-Sericite Schist
Diorite Dike
Felsic Dike
Intermediate Dike
Intermediate Volcanic
Mafic Dike
Monzonite Dike
Mafic Pillowed Flows
Mafic Volcanic
Quartz Porphyry
Quartz Vein
Blue Silicified Zone
Sandstone, Argillite, Mudstones
Sericite Schist
Silicified Potassic Schist
Syenite Dike
ManitouGold Inc.
Kenwest Property, Ontario
Drillhole KW-18-05 to KW-18-07
Lithology and Au (g/t) Looking Northeast
NAD83 UTM Zone 15
April 2018
Scale 1:1500
Prepared By: P.Giddy
Oblique Section
Clipping: 25m/side
0
20
40
60
80
100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521950 E
5476850 N
522000 E
5476800 N
522050 E
5476750 N
522100 E
5476700 N
522150 E
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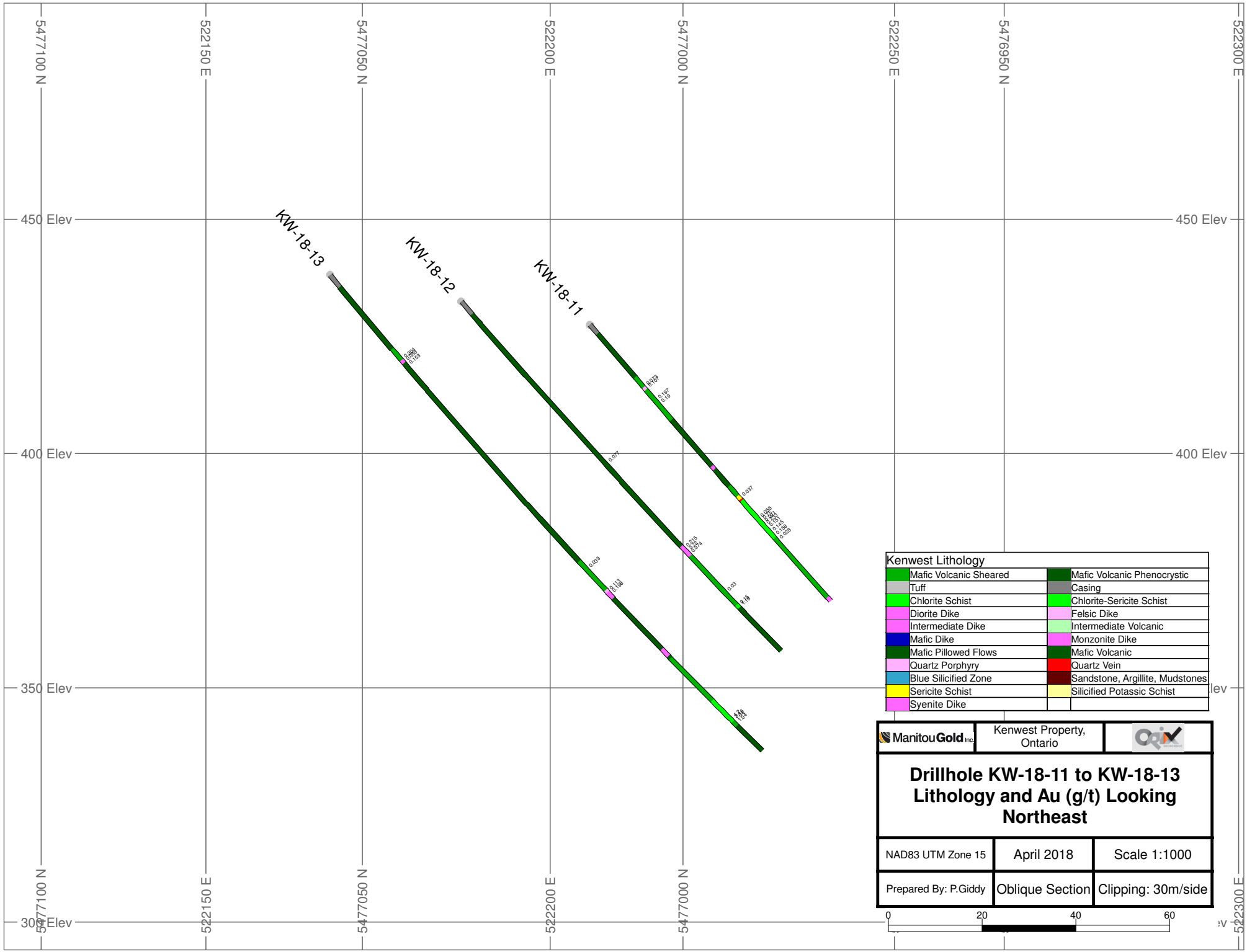
450 Elev
400 Elev
350 Elev
300 Elev
250 Elev
200 Elev
KW-18-08
KW-18-09
KW-18-10
KW-18-04
KW-18-03
Kenwest Lithology
Mafic Volcanic Sheared
Mafic Volcanic Phenocrystic
Tuff
Casing
Chlorite Schist
Chlorite-Sericite Schist
Diorite Dike
Felsic Dike
Intermediate Dike
Intermediate Volcanic
Mafic Dike
Monzonite Dike
Mafic Pillowed Flows
Mafic Volcanic
Quartz Porphyry
Quartz Vein
Blue Silicified Zone
Sandstone, Argillite, Mudstones
Sericite Schist
Silicified Potassic Schist
Syenite Dike
ManitouGold Inc.
Kenwest Property, Ontario
Drillhole KW-18-08 to KW-18-10 Lithology and Au (g/t) Looking Northeast
NAD83 UTM Zone 15
April 2018
Scale 1:1500
Prepared By: P.Giddy
Oblique Section
Clipping: 25m/side
0
20
40
60
80
100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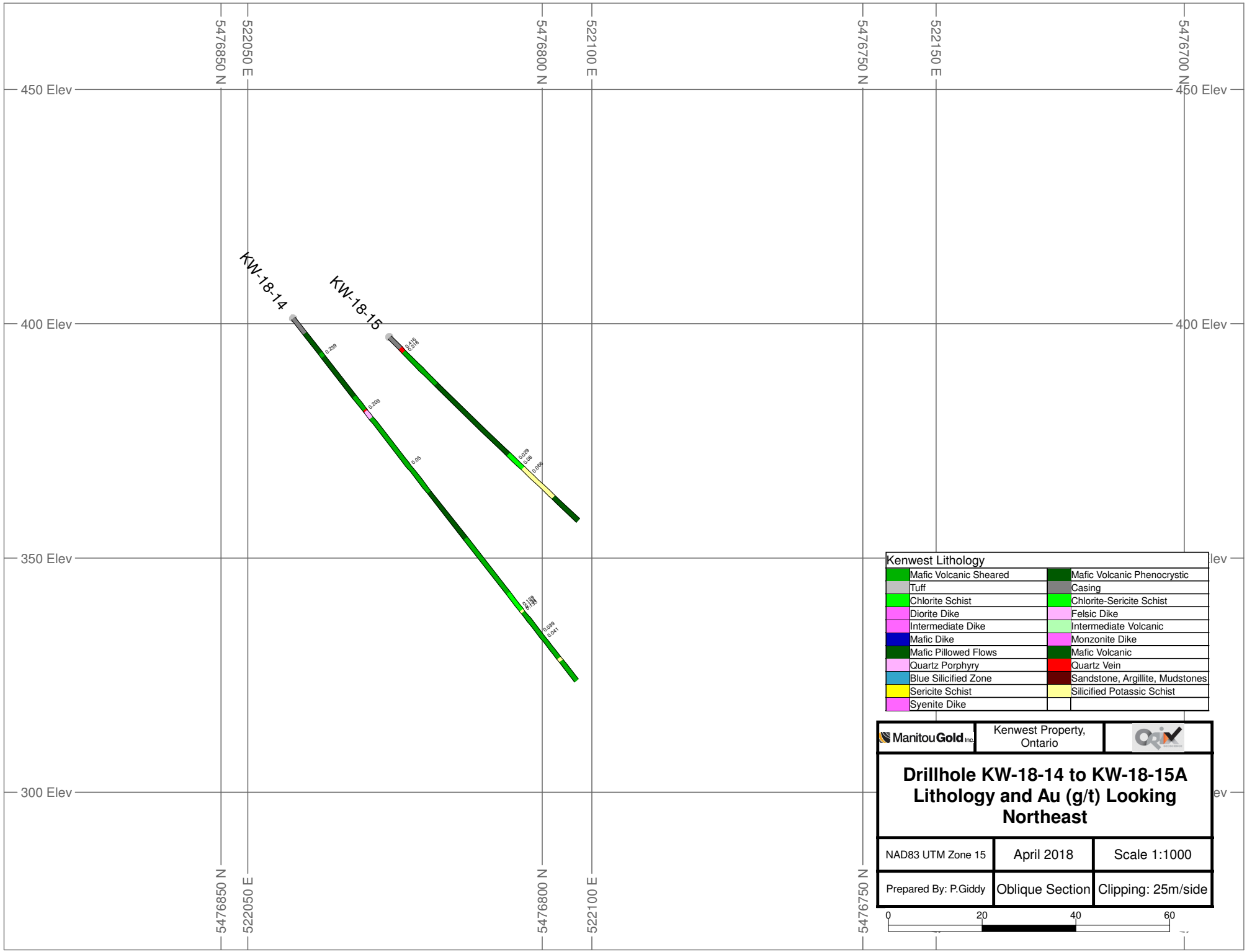
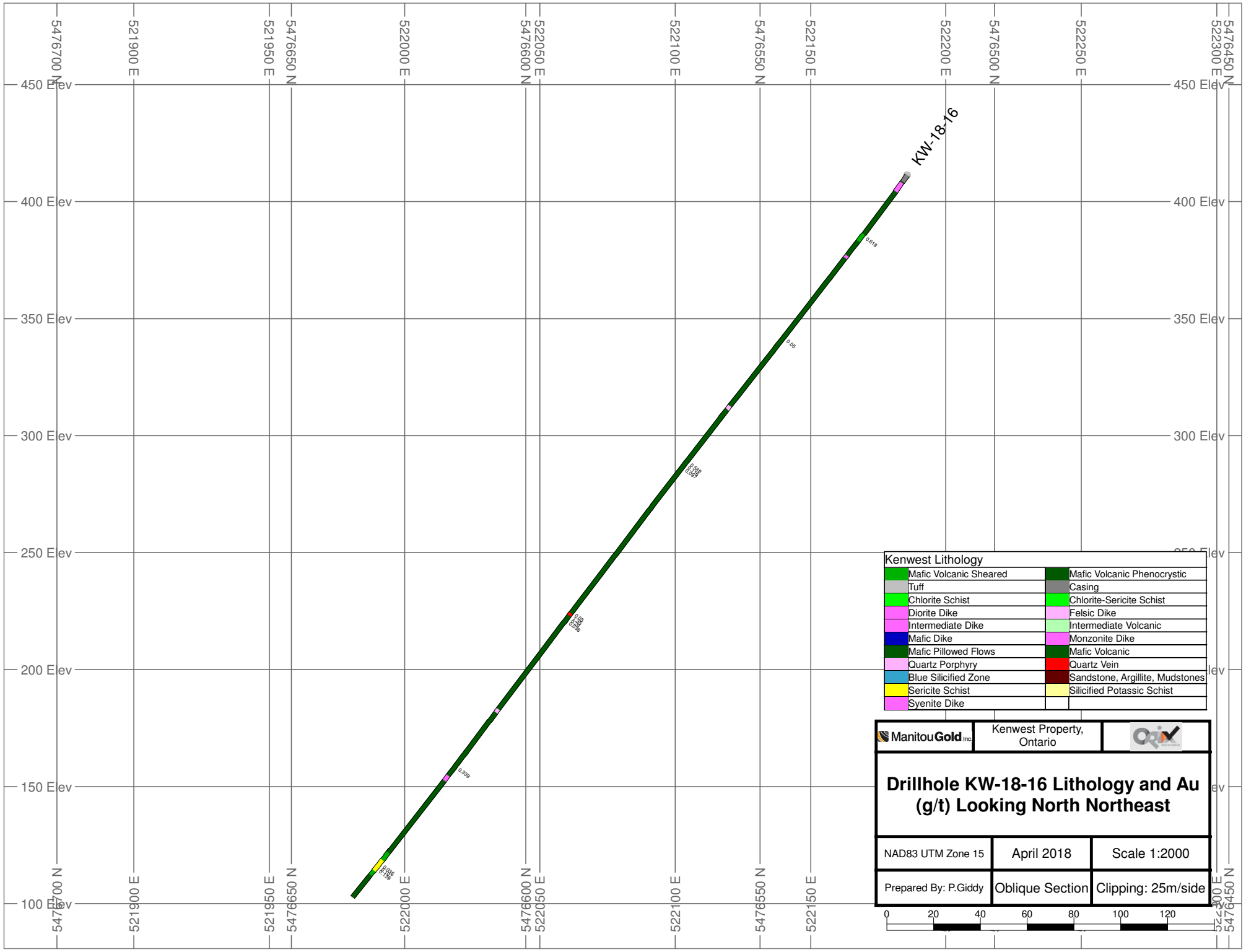
522150 E
5477050 N
522200 E
5477000 N
522250 E
5476950 N
522300 E
450 Elev
400 Elev
350 Elev
300 Elev
KW-18-13
KW-18-12
KW-18-11
Kenwest Lithology
Mafic Volcanic Sheared
Mafic Volcanic Phenocrystic
Tuff
Casing
Chlorite Schist
Chlorite-Sericite Schist
Diorite Dike
Felsic Dike
Intermediate Dike
Intermediate Volcanic
Mafic Dike
Monzonite Dike
Mafic Pillowed Flows
Mafic Volcanic
Quartz Porphyry
Quartz Vein
Blue Silicified Zone
Sandstone, Argillite, Mudstones
Sericite Schist
Silicified Potassic Schist
Syenite Dike
ManitouGold Inc.
Kenwest Property, Ontario
Drillhole KW-18-11 to KW-18-13
Lithology and Au (g/t) Looking Northeast
NAD83 UTM Zone 15
April 2018
Scale 1:1000
Prepared By: P.Giddy
Oblique Section
Clipping: 30m/side
0
20
40
60



Kenwest Lithology			
	Mafic Volcanic Sheared		Mafic Volcanic Phenocrystic
	Tuff		Casing
	Chlorite Schist		Chlorite-Sericite Schist
	Diorite Dike		Felsic Dike
	Intermediate Dike		Intermediate Volcanic
	Mafic Dike		Monzonite Dike
	Mafic Pillowed Flows		Mafic Volcanic
	Quartz Porphyry		Quartz Vein
	Blue Silicified Zone		Sandstone, Argillite, Mudstones
	Sericite Schist		Silicified Potassic Schist
	Syenite Dike		

ManitouGold Inc.	Kenwest Property, Ontario	
Drillhole KW-18-14 to KW-18-15A Lithology and Au (g/t) Looking Northeast		
NAD83 UTM Zone 15	April 2018	Scale 1:1000
Prepared By: P.Giddy	Oblique Section	Clipping: 25m/side

0 20 40 60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521950 E
5476650 N
522000 E
522050 E
5476600 N
522100 E
5476550 N
522150 E
522200 E
5476500 N
522250 E
522300 E
5476450 N
450 Elev
400 Elev
350 Elev
300 Elev
250 Elev
200 Elev
150 Elev
100 Elev
0.618
0.05
0.339
Kenwest Lithology
Mafic Volcanic Sheared
Mafic Volcanic Phenocrystic
Tuff
Casing
Chlorite Schist
Chlorite-Sericite Schist
Diorite Dike
Felsic Dike
Intermediate Dike
Intermediate Volcanic
Mafic Dike
Monzonite Dike
Mafic Pillowed Flows
Mafic Volcanic
Quartz Porphyry
Quartz Vein
Blue Silicified Zone
Sandstone, Argillite, Mudstones
Sericite Schist
Silicified Potassic Schist
Syenite Dike
ManitouGold Inc.
Kenwest Property, Ontario
Drillhole KW-18-16 Lithology and Au (g/t) Looking North Northeast
NAD83 UTM Zone 15
April 2018
Scale 1:2000
Prepared By: P.Giddy
Oblique Section
Clipping: 25m/side
0
20
40
60
80
100
120

APPENDIX III

Certificate of Analysis

Quality Analysis ... *Innovative Technologies*

Date Submitted: 29-Jan-18
Invoice No.: A18-00928
Invoice Date: 02-Feb-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

45 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

REPORT **A18-00928**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
264 Government Road, Dryden, Ontario, Canada, P8N 2R3
TELEPHONE +807 223-6168 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Au
Package Code	1A2-50-Manitou Dryden-10g/m t	1A3-50-Dryden
Detection limit	0.005	0.02
Unit Symbol	g/mt	g/tonne
Analysis Method	FA-AA	FA-GRA
470001	0.009	
470002	< 0.005	
470003	< 0.005	
470004	< 0.005	
470005	< 0.005	
470006	0.033	
470007	0.013	
470008	0.007	
470009	0.014	
470010	0.005	
470011	0.028	
470012	0.042	
470013	0.028	
470014	0.415	
470015	0.493	
470016	1.71	
470017	> 10.0	18.6
470018	> 10.0	10.3
470019	0.191	
470020	2.53	
470021	0.905	
470022	0.034	
470023	0.013	
470024	0.008	
470025	0.010	
470026	0.008	
470027	0.006	
470028	0.010	
470029	0.008	
470030	0.011	
470031	0.006	
470032	0.012	
470033	0.013	
470034	0.018	
470035	0.018	
470036	< 0.005	
470037	< 0.005	
470038	0.005	

Analyte Symbol	Au	Au
Package Code	1A2-50-Manitou Dryden-10g/m t	1A3-50-Dryden
Detection limit	0.005	0.02
Unit Symbol	g/mt	g/tonne
Analysis Method	FA-AA	FA-GRA
470039	0.008	
470040	< 0.005	
470041	0.092	
470042	0.031	
470043	0.316	
470044	0.011	
470045	0.012	

Analyte Symbol	Au	Au
Package Code	1A2-50-Manitou Dryden-10g/m t	1A3-50-Dryden
Detection limit	0.005	0.02
Unit Symbol	g/mt	g/tonne
Analysis Method	FA-AA	FA-GRA
OREAS 214 Meas		3.03
OREAS 214 Cert		3.03
OREAS 216 (Fire Assay) Meas		6.76
OREAS 216 (Fire Assay) Cert		6.66
OREAS 223 (Fire Assay) Meas	1.73	
OREAS 223 (Fire Assay) Cert	1.78	
OREAS 223 (Fire Assay) Meas	1.75	
OREAS 223 (Fire Assay) Cert	1.78	
OREAS 220 (Fire Assay) Meas	0.871	
OREAS 220 (Fire Assay) Cert	0.828	
OREAS 220 (Fire Assay) Meas	0.829	
OREAS 220 (Fire Assay) Cert	0.828	
470015 Orig	0.490	
470015 Dup	0.495	
470022 Orig	0.033	
470022 Dup	0.035	
470033 Orig	0.011	
470033 Dup	0.014	
470045 Orig	0.012	
470045 Split	0.019	
Method Blank	< 0.005	
Method Blank	< 0.005	
Method Blank		< 0.02

Quality Analysis ... *Innovative Technologies*

Date Submitted: 02-Feb-18
Invoice No.: A18-01211
Invoice Date: 08-Feb-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

27 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

REPORT **A18-01211**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
264 Government Road, Dryden, Ontario, Canada, P8N 2R3
TELEPHONE +807 223-6168 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
470046	< 0.005
470047	< 0.005
470048	< 0.005
470049	< 0.005
470050	0.883
470051	0.980
470052	< 0.005
470053	0.007
470054	< 0.005
470055	0.010
470056	0.045
470057	0.011
470058	0.007
470059	0.356
470060	< 0.005
470061	< 0.005
470062	0.006
470063	1.83
470064	0.223
470065	0.130
470066	2.18
470067	5.28
470068	0.080
470069	0.007
470070	0.792
470071	0.005
470072	0.043

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
OREAS 220 (Fire Assay) Meas	0.867
OREAS 220 (Fire Assay) Cert	0.828
OREAS 209 (Fire Assay) Meas	1.58
OREAS 209 (Fire Assay) Cert	1.58
470046 Orig	< 0.005
470046 Dup	< 0.005
470066 Orig	2.14
470066 Dup	2.21
470072 Orig	0.043
470072 Split	0.064
Method Blank	< 0.005

Quality Analysis ... *Innovative Technologies*

Date Submitted: 06-Feb-18
Invoice No.: A18-01378
Invoice Date: 16-Feb-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

41 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

Code 1A3-50-Dryden Au - Fire Assay Gravimetric

Code 1A4 (100mesh)-Dryden Au-Fire Assay-Metallic Screen-500g

REPORT **A18-01378**

Notes:

50 g of sample

A representative 500 gram split is seived at 100 mesh (149 micron) with assays performed on the entire +100 mesh and 2 splits of the -100 mesh fraction. A final assay is calculated based on the weight of each fraction.

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
264 Government Road, Dryden, Ontario, Canada, P8N 2R3
TELEPHONE +807 223-6168 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Au + 100 mesh	Au - 100 mesh (A)	Au - 100 mesh (B)	Total Au	+ 100 mesh	- 100 mesh	Total Weight	Au
Package Code	1A2-50-Manitou Dryden-10g/m t	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A3-50-Dryden
Detection limit	0.005	0.03	0.03	0.03	0.03				0.02
Unit Symbol	g/mt	g/mt	g/mt	g/mt	g/mt	g	g	g	g/tonne
Analysis Method	FA-AA	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-GRA
470073	< 0.005								
470074	0.034								
470075	0.007								
470076	0.013								
470077	< 0.005								
470078	< 0.005								
470079	< 0.005								
470080	0.189								
470081	0.008								
470082	0.010								
470083	< 0.005								
470084	< 0.005								
470085	< 0.005								
470086	0.024								
470087	0.047								
470088	> 10.0								23.4
470089	0.443								
470090	0.006								
470091	5.83								
470092	2.25								
470093	0.052								
470094	0.038								
470095	0.090								
470096	1.12								
470097	2.95								
470098	1.74								
470099	0.059								
470100		94.2	24.1	24.3	27.0	22.90	558.70	581.60	
470101	0.006								
470102	0.141								
470103	0.007								
470104	0.008								
470105	0.006								
470106	0.009								
470107	< 0.005								
470108	0.026								

Analyte Symbol	Au	Au + 100 mesh	Au - 100 mesh (A)	Au - 100 mesh (B)	Total Au	+ 100 mesh	- 100 mesh	Total Weight	Au
Package Code	1A2-50-Manitou Dryden-10g/m t	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A3-50-Dryden
Detection limit	0.005	0.03	0.03	0.03	0.03				0.02
Unit Symbol	g/mt	g/mt	g/mt	g/mt	g/mt	g	g	g	g/tonne
Analysis Method	FA-AA	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-GRA
470109	0.036								
470110	0.655								
470111	0.010								
470112	< 0.005								
470113	0.015								

Analyte Symbol	Au	Total Au	Total Weight	Au
Package Code	1A2-50-Manitou Dryden-10g/m t	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A3-50-Dryden
Detection limit	0.005	0.03		0.02
Unit Symbol	g/mt	g/mt	g	g/tonne
Analysis Method	FA-AA	FA-MeT	FA-MeT	FA-GRA
OREAS 214 Meas		2.90		2.99
OREAS 214 Cert		3.03		3.03
OREAS 216 (Fire Assay) Meas		6.35		6.65
OREAS 216 (Fire Assay) Cert		6.66		6.66
OREAS 220 (Fire Assay) Meas	0.839			
OREAS 220 (Fire Assay) Cert	0.828			
OREAS 220 (Fire Assay) Cert	0.863			
OREAS 220 (Fire Assay) Meas	0.828			
OREAS 209 (Fire Assay) Meas	1.53			
OREAS 209 (Fire Assay) Cert	1.58			
OREAS 209 (Fire Assay) Meas	1.54			
OREAS 209 (Fire Assay) Cert	1.58			
470087 Orig	0.051			
470087 Dup	0.044			
470094 Orig	0.042			
470094 Dup	0.034			
470106 Orig	0.007			
470106 Dup	0.010			
470113 Orig	0.015			
470113 Split	< 0.005			
Method Blank	< 0.005			
Method Blank	< 0.005			
Method Blank	< 0.005			
Method Blank		< 0.03	0.00000	
Method Blank				< 0.02

Quality Analysis ... *Innovative Technologies*

Date Submitted: 06-Feb-18
Invoice No.: A18-01379
Invoice Date: 14-Feb-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

25 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

REPORT **A18-01379**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
264 Government Road, Dryden, Ontario, Canada, P8N 2R3
TELEPHONE +807 223-6168 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
470114	0.171
470115	< 0.005
470116	< 0.005
470117	< 0.005
470118	< 0.005
470119	< 0.005
470120	< 0.005
470121	0.008
470122	0.006
470123	1.13
470124	0.007
470125	< 0.005
470126	0.431
470127	0.881
470128	1.20
470129	4.13
470130	< 0.005
470131	1.98
470132	0.020
470133	0.071
470134	0.459
470135	0.084
470136	< 0.005
470137	< 0.005
470138	< 0.005

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
OREAS 220 (Fire Assay) Meas	0.869
OREAS 220 (Fire Assay) Cert	0.828
OREAS 209 (Fire Assay) Meas	1.53
OREAS 209 (Fire Assay) Cert	1.58
470114 Orig	0.169
470114 Dup	0.172
470134 Orig	0.470
470134 Dup	0.448
470138 Orig	< 0.005
470138 Split	0.006
Method Blank	< 0.005

Quality Analysis ... *Innovative Technologies*

Date Submitted: 12-Feb-18
Invoice No.: A18-01584
Invoice Date: 17-Feb-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

27 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

REPORT **A18-01584**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

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E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
470139	< 0.005
470140	0.915
470141	< 0.005
470142	0.005
470143	0.008
470144	0.012
470145	0.018
470146	0.039
470147	1.03
470148	0.041
470149	0.007
470150	0.006
470151	0.010
470152	0.010
470153	0.005
470154	0.010
470155	0.063
470156	0.046
470157	0.017
470158	0.006
470159	0.005
470160	< 0.005
470161	0.005
470162	0.058
470163	0.009
470164	0.181
470165	0.006

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
OREAS 220 (Fire Assay) Meas	0.855
OREAS 220 (Fire Assay) Cert	0.828
OREAS 209 (Fire Assay) Meas	1.54
OREAS 209 (Fire Assay) Cert	1.58
470153 Orig	0.005
470153 Dup	0.005
470161 Orig	0.006
470161 Dup	0.005
470165 Orig	0.006
470165 Split	0.005
Method Blank	< 0.005

Quality Analysis ... *Innovative Technologies*

Date Submitted: 12-Feb-18
Invoice No.: A18-01608
Invoice Date: 23-Feb-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

62 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

Code 1A4 (100mesh)-Dryden Au-Fire Assay-Metallic Screen-500g

REPORT **A18-01608**

Notes:

A representative 500 gram split is seived at 100 mesh (149 micron) with assays performed on the entire +100 mesh and 2 splits of the -100 mesh fraction. A final assay is calculated based on the weight of each fraction.

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

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264 Government Road, Dryden, Ontario, Canada, P8N 2R3
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E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Au + 100 mesh	Au - 100 mesh (A)	Au - 100 mesh (B)	Total Au	+ 100 mesh	- 100 mesh	Total Weight
Package Code	1A2-50-Manitou Dryden-10g/m t	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden
Detection limit	0.005	0.03	0.03	0.03	0.03			
Unit Symbol	g/mt	g/mt	g/mt	g/mt	g/mt	g	g	g
Analysis Method	FA-AA	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT
470166	< 0.005							
470167	< 0.005							
470168	0.331							
470169	0.448							
470170	0.928							
470171	0.041							
470172	0.114							
470173	< 0.005							
470174	< 0.005							
470175	< 0.005							
470176	< 0.005							
470177	0.008							
470178	< 0.005							
470179	< 0.005							
470180	0.785							
470181	0.175							
470182	< 0.005							
470183	0.035							
470184	< 0.005							
470185	0.166							
470186	< 0.005							
470187	0.095							
470188	0.074							
470189	< 0.005							
470190	< 0.005							
470191	< 0.005							
470192	< 0.005							
470193	< 0.005							
470194	0.015							
470195	0.006							
470196	< 0.005							
470197	< 0.005							
470198	< 0.005							
470199	< 0.005							
470200	2.42							
470201	0.033							
470202		17.0	27.4	26.3	26.6	28.50	862.20	890.70

Analyte Symbol	Au	Au + 100 mesh	Au - 100 mesh (A)	Au - 100 mesh (B)	Total Au	+ 100 mesh	- 100 mesh	Total Weight
Package Code	1A2-50-Manitou Dryden-10g/m t	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden
Detection limit	0.005	0.03	0.03	0.03	0.03			
Unit Symbol	g/mt	g/mt	g/mt	g/mt	g/mt	g	g	g
Analysis Method	FA-AA	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT
470203	0.470							
470204	0.066							
470205	0.011							
470206	< 0.005							
470207	< 0.005							
470208	< 0.005							
470209	0.011							
470210	0.442							
470211	0.035							
470212	0.069							
470213	0.044							
470214	0.006							
470215	0.055							
470216	0.264							
470217	0.055							
470218	0.016							
470219	0.247							
470220	< 0.005							
470221	0.047							
470222	0.217							
470223	0.025							
470224	0.007							
470225	0.009							
470226	0.009							
470227	0.342							

Analyte Symbol	Au	Total Au	Total Weight
Package Code	1A2-50-Manitou Dryden-10g/m t	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden
Detection limit	0.005	0.03	
Unit Symbol	g/mt	g/mt	g
Analysis Method	FA-AA	FA-MeT	FA-MeT
OREAS 214 Meas		2.90	
OREAS 214 Cert		3.03	
OREAS 216 (Fire Assay) Meas		6.67	
OREAS 216 (Fire Assay) Cert		6.66	
OREAS 220 (Fire Assay) Meas	0.878		
OREAS 220 (Fire Assay) Cert	0.828		
OREAS 220 (Fire Assay) Meas	0.874		
OREAS 220 (Fire Assay) Cert	0.828		
OREAS 209 (Fire Assay) Meas	1.53		
OREAS 209 (Fire Assay) Cert	1.58		
OREAS 209 (Fire Assay) Meas	1.51		
OREAS 209 (Fire Assay) Cert	1.58		
470166 Orig	< 0.005		
470166 Dup	< 0.005		
470186 Orig	< 0.005		
470186 Dup	< 0.005		
470197 Orig	< 0.005		
470197 Dup	< 0.005		
470215 Orig	0.055		
470215 Split	0.057		
470223 Orig	0.029		
470223 Dup	0.021		
Method Blank		< 0.03	0.00000
Method Blank	< 0.005		
Method Blank	< 0.005		
Method Blank	< 0.005		

Quality Analysis ... *Innovative Technologies*

Date Submitted: 20-Feb-18
Invoice No.: A18-01904
Invoice Date: 05-Mar-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

59 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

REPORT **A18-01904**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
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E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
470228	0.018
470229	< 0.005
470230	0.866
470231	< 0.005
470232	< 0.005
470233	< 0.005
470234	0.006
470235	< 0.005
470236	0.009
470237	0.227
470238	0.015
470239	< 0.005
470240	< 0.005
470241	< 0.005
470242	< 0.005
470243	< 0.005
470244	< 0.005
470245	0.006
470246	0.045
470247	< 0.005
470248	< 0.005
470249	< 0.005
470250	< 0.005
470251	< 0.005
470252	< 0.005
470253	< 0.005
470254	0.005
470255	< 0.005
470256	0.021
470257	0.005
470258	0.005
470259	0.013
470260	7.52
470261	0.966
470262	0.798
470263	0.032
470264	< 0.005
470265	< 0.005
470266	0.154

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
470267	0.025
470268	0.018
470269	0.043
470270	0.581
470271	0.008
470272	< 0.005
470273	0.028
470274	1.13
470275	0.042
470276	0.066
470277	0.082
470278	6.11
470279	0.062
470280	< 0.005
470281	0.041
470282	3.13
470283	0.005
470284	0.061
470285	0.268
470286	0.009

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
OREAS 220 (Fire Assay) Meas	0.864
OREAS 220 (Fire Assay) Cert	0.828
OREAS 220 (Fire Assay) Meas	0.845
OREAS 220 (Fire Assay) Cert	0.828
OREAS 209 (Fire Assay) Meas	1.53
OREAS 209 (Fire Assay) Cert	1.58
OREAS 209 (Fire Assay) Meas	1.56
OREAS 209 (Fire Assay) Cert	1.58
470242 Orig	< 0.005
470242 Dup	< 0.005
470249 Orig	< 0.005
470249 Dup	< 0.005
470277 Orig	0.082
470277 Split	0.087
470277 Orig	0.089
470277 Dup	0.074
Method Blank	< 0.005
Method Blank	< 0.005
Method Blank	< 0.005

Quality Analysis ... *Innovative Technologies*

Date Submitted: 20-Feb-18
Invoice No.: A18-01905
Invoice Date: 05-Mar-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

49 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

REPORT **A18-01905**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

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E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Au
Package Code	1A2-50-Manitou Dryden-10g/m t	1A3-50-Dryden
Detection limit	0.005	0.02
Unit Symbol	g/mt	g/tonne
Analysis Method	FA-AA	FA-GRA
470287	0.099	
470288	< 0.005	
470289	< 0.005	
470290	0.829	
470291	< 0.005	
470292	0.096	
470293	0.019	
470294	0.007	
470295	0.012	
470296	0.373	
470297	< 0.005	
470298	< 0.005	
470299	0.007	
470300	0.009	
470301	< 0.005	
470302	0.008	
470303	< 0.005	
470304	< 0.005	
470305	< 0.005	
470306	< 0.005	
470307	< 0.005	
470308	< 0.005	
470309	< 0.005	
470310	< 0.005	
470311	0.009	
470312	2.31	
470313	0.183	
470314	0.028	
470315	0.021	
470316	0.042	
470317	0.032	
470318	0.023	
470319	< 0.005	
470320	2.36	
470321	0.941	
470322	0.046	
470323	0.009	
470324	0.027	

Analyte Symbol	Au	Au
Package Code	1A2-50-Manitou Dryden-10g/m t	1A3-50-Dryden
Detection limit	0.005	0.02
Unit Symbol	g/mt	g/tonne
Analysis Method	FA-AA	FA-GRA
470325	1.90	
470326	0.047	
470327	0.085	
470328	0.150	
470329	0.719	
470330	0.156	
470331	> 10.0	14.8
470332	0.206	
470333	0.639	
470334	0.024	
470335	0.019	

Analyte Symbol	Au	Au
Package Code	1A2-50-Manitou Dryden-10g/m t	1A3-50-Dryden
Detection limit	0.005	0.02
Unit Symbol	g/mt	g/tonne
Analysis Method	FA-AA	FA-GRA
OREAS 214 Meas		3.12
OREAS 214 Cert		3.03
OREAS 216 (Fire Assay) Meas		6.78
OREAS 216 (Fire Assay) Cert		6.66
OREAS 220 (Fire Assay) Meas	0.868	
OREAS 220 (Fire Assay) Cert	0.828	
OREAS 220 (Fire Assay) Meas	0.875	
OREAS 220 (Fire Assay) Cert	0.828	
OREAS 209 (Fire Assay) Meas	1.58	
OREAS 209 (Fire Assay) Cert	1.58	
OREAS 209 (Fire Assay) Meas	1.57	
OREAS 209 (Fire Assay) Cert	1.58	
470301 Orig	< 0.005	
470301 Dup	< 0.005	
470308 Orig	< 0.005	
470308 Dup	< 0.005	
470319 Orig	< 0.005	
470319 Dup	< 0.005	
470335 Orig	0.019	
470335 Split	0.006	
Method Blank	< 0.005	
Method Blank	< 0.005	
Method Blank	< 0.005	
Method Blank		< 0.02

Quality Analysis ... *Innovative Technologies*

Date Submitted: 21-Feb-18
Invoice No.: A18-02009
Invoice Date: 09-Mar-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

41 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

Code 1A4 (100mesh)-Dryden Au-Fire Assay-Metallic Screen-500g

REPORT **A18-02009**

Notes:

A representative 500 gram split is seived at 100 mesh (149 micron) with assays performed on the entire +100 mesh and 2 splits of the -100 mesh fraction. A final assay is calculated based on the weight of each fraction.

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

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E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Au + 100 mesh	Au - 100 mesh (A)	Au - 100 mesh (B)	Total Au	+ 100 mesh	- 100 mesh	Total Weight
Package Code	1A2-50-Manitou Dryden-10g/m t	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden
Detection limit	0.005	0.03	0.03	0.03	0.03			
Unit Symbol	g/mt	g/mt	g/mt	g/mt	g/mt	g	g	g
Analysis Method	FA-AA	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT
470336	0.014							
470337	0.280							
470338	0.294							
470339	0.180							
470340	< 0.005							
470341	0.062							
470342	2.99							
470343	0.015							
470344	< 0.005							
470345	< 0.005							
470346	0.591							
470347	0.009							
470348	0.048							
470349	< 0.005							
470350	0.903							
470351	0.009							
470352	0.010							
470353	0.025							
470354	< 0.005							
470355	0.009							
470356	0.016							
470357	< 0.005							
470358	0.007							
470359	< 0.005							
470360	2.07							
470361		57.6	78.6	77.1	77.0	29.50	751.60	781.10
470362	0.778							
470363	0.039							
470364	0.028							
470365	0.006							
470366	0.116							
470367	0.050							
470368	0.019							
470369	0.023							
470370	< 0.005							
470371	0.209							
470372	0.081							

Analyte Symbol	Au	Au + 100 mesh	Au - 100 mesh (A)	Au - 100 mesh (B)	Total Au	+ 100 mesh	- 100 mesh	Total Weight
Package Code	1A2-50-Manitou Dryden-10g/m t	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden
Detection limit	0.005	0.03	0.03	0.03	0.03			
Unit Symbol	g/mt	g/mt	g/mt	g/mt	g/mt	g	g	g
Analysis Method	FA-AA	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT
470373	< 0.005							
470374	0.046							
470375	0.034							
470376	0.047							

Analyte Symbol	Au	Total Au	Total Weight
Package Code	1A2-50-Manitou Dryden-10g/m t	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden
Detection limit	0.005	0.03	
Unit Symbol	g/mt	g/mt	g
Analysis Method	FA-AA	FA-MeT	FA-MeT
OREAS 214 Meas	2.92	3.05	
OREAS 214 Cert	3.03	3.03	
OREAS 216 (Fire Assay) Meas		6.57	
OREAS 216 (Fire Assay) Cert		6.66	
OREAS 220 (Fire Assay) Meas	0.850		
OREAS 220 (Fire Assay) Cert	0.828		
470349 Orig	< 0.005		
470349 Dup	< 0.005		
470357 Orig	< 0.005		
470357 Dup	0.005		
470369 Orig	0.024		
470369 Dup	0.022		
470376 Orig	0.047		
470376 Split	0.060		
Method Blank		< 0.03	0.00000
Method Blank	< 0.005		
Method Blank	< 0.005		

Quality Analysis ... *Innovative Technologies*

Date Submitted: 23-Feb-18
Invoice No.: A18-02116
Invoice Date: 09-Mar-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

40 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

Code 1A4 (100mesh)-Dryden Au-Fire Assay-Metallic Screen-500g

REPORT **A18-02116**

Notes:

A representative 500 gram split is seived at 100 mesh (149 micron) with assays performed on the entire +100 mesh and 2 splits of the -100 mesh fraction. A final assay is calculated based on the weight of each fraction.

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
264 Government Road, Dryden, Ontario, Canada, P8N 2R3
TELEPHONE +807 223-6168 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Au + 100 mesh	Au - 100 mesh (A)	Au - 100 mesh (B)	Total Au	+ 100 mesh	- 100 mesh	Total Weight
Package Code	1A2-50-Manitou Dryden-10g/m t	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden
Detection limit	0.005	0.03	0.03	0.03	0.03			
Unit Symbol	g/mt	g/mt	g/mt	g/mt	g/mt	g	g	g
Analysis Method	FA-AA	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT
470377	0.005							
470378	0.005							
470379	0.005							
470380	7.12							
470381	0.015							
470382	0.034							
470383	< 0.005							
470384	< 0.005							
470385	< 0.005							
470386	0.005							
470387	0.051							
470388		5.48	9.36	7.98	8.48	29.30	447.90	477.20
470389		22.2	18.0	20.9	19.5	29.90	521.80	551.70
470390	0.149							
470391	0.040							
470392	0.009							
470393	1.16							
470394	0.080							
470395	0.012							
470396	0.105							
470397	0.048							
470398	0.141							
470399	1.03							
470400	< 0.005							
470401	0.022							
470402	0.037							
470403	0.023							
470404	0.008							
470405	0.028							
470406	< 0.005							
470407	< 0.005							
470408	0.008							
470409	< 0.005							
470410	0.736							
470411	0.037							
470412	0.243							
470413	0.014							

Analyte Symbol	Au	Au + 100 mesh	Au - 100 mesh (A)	Au - 100 mesh (B)	Total Au	+ 100 mesh	- 100 mesh	Total Weight
Package Code	1A2-50-Manitou Dryden-10g/m t	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden
Detection limit	0.005	0.03	0.03	0.03	0.03			
Unit Symbol	g/mt	g/mt	g/mt	g/mt	g/mt	g	g	g
Analysis Method	FA-AA	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT	FA-MeT
470414	0.021							
470415	0.045							
470416	0.005							

Analyte Symbol	Au	Total Au	Total Weight
Package Code	1A2-50-Manitou Dryden-10g/m t	1A4 (100mesh)-Dryden	1A4 (100mesh)-Dryden
Detection limit	0.005	0.03	
Unit Symbol	g/mt	g/mt	g
Analysis Method	FA-AA	FA-MeT	FA-MeT
OREAS 214 Meas	2.93	3.00	
OREAS 214 Cert	3.03	3.03	
OREAS 216 (Fire Assay) Meas		6.34	
OREAS 216 (Fire Assay) Cert		6.66	
OREAS 220 (Fire Assay) Meas	0.852		
OREAS 220 (Fire Assay) Cert	0.828		
470387 Orig	0.053		
470387 Dup	0.049		
470398 Orig	0.164		
470398 Dup	0.117		
470407 Orig	0.035		
470407 Dup	< 0.005		
470416 Orig	0.005		
470416 Split	0.006		
Method Blank		< 0.03	0.00000
Method Blank	< 0.005		
Method Blank	< 0.005		

Quality Analysis ... *Innovative Technologies*

Date Submitted: 28-Feb-18
Invoice No.: A18-02410
Invoice Date: 22-Mar-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

25 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

REPORT **A18-02410**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
264 Government Road, Dryden, Ontario, Canada, P8N 2R3
TELEPHONE +807 223-6168 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
470417	0.012
470418	0.073
470419	0.107
470420	0.008
470421	0.007
470422	0.197
470423	0.190
470424	0.013
470425	< 0.005
470426	0.014
470427	0.037
470428	0.015
470429	< 0.005
470430	< 0.005
470431	0.009
470432	0.010
470433	0.055
470434	0.750
470435	0.091
470436	0.233
470437	0.151
470438	0.145
470439	0.158
470440	2.36
470441	0.028

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
OREAS 214 Meas	3.05
OREAS 214 Cert	3.03
OREAS 220 (Fire Assay) Meas	0.865
OREAS 220 (Fire Assay) Cert	0.828
470431 Orig	0.012
470431 Dup	0.005
470438 Orig	0.144
470438 Dup	0.146
470441 Orig	0.028
470441 Split	0.040
Method Blank	< 0.005

Quality Analysis ... *Innovative Technologies*

Date Submitted: 28-Feb-18
Invoice No.: A18-02411
Invoice Date: 21-Mar-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

17 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

REPORT **A18-02411**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

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E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
470442	< 0.005
470443	< 0.005
470444	0.077
470445	< 0.005
470446	< 0.005
470447	0.215
470448	3.72
470449	0.374
470450	0.020
470451	0.010
470452	< 0.005
470453	0.030
470454	< 0.005
470455	0.022
470456	9.15
470457	1.19
470458	0.012

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
OREAS 214 Meas	2.97
OREAS 214 Cert	3.03
OREAS 220 (Fire Assay) Meas	0.838
OREAS 220 (Fire Assay) Cert	0.828
470458 Orig	0.012
470458 Split	0.007
Method Blank	< 0.005

Quality Analysis ... *Innovative Technologies*

Date Submitted: 28-Feb-18
Invoice No.: A18-02412
Invoice Date: 21-Mar-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

26 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

REPORT **A18-02412**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

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TELEPHONE +807 223-6168 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
470459	< 0.005
470460	< 0.005
470461	0.304
470462	0.088
470463	0.153
470464	< 0.005
470465	< 0.005
470466	0.011
470467	0.033
470468	< 0.005
470469	0.113
470470	0.872
470471	0.198
470472	0.015
470473	< 0.005
470474	< 0.005
470475	< 0.005
470476	0.010
470477	0.023
470478	0.007
470479	0.005
470480	0.024
470481	4.20
470482	3.16
470483	1.04
470484	0.005

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
OREAS 214 Meas	3.05
OREAS 214 Cert	3.03
OREAS 220 (Fire Assay) Meas	0.860
OREAS 220 (Fire Assay) Cert	0.828
470469 Orig	0.121
470469 Dup	0.105
470478 Orig	0.006
470478 Dup	0.007
470484 Orig	0.005
470484 Split	0.005
Method Blank	< 0.005

Quality Analysis ... *Innovative Technologies*

Date Submitted: 28-Feb-18
Invoice No.: A18-02413
Invoice Date: 22-Mar-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

31 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

REPORT **A18-02413**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

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TELEPHONE +807 223-6168 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
470485	0.239
470486	0.023
470487	0.208
470488	0.014
470489	0.011
470490	< 0.005
470491	0.014
470492	0.013
470493	0.050
470494	< 0.005
470495	0.008
470496	< 0.005
470497	0.005
470498	0.014
470499	0.005
470500	7.34
469501	0.017
469502	0.007
469503	0.139
469504	0.133
469505	0.009
469506	0.007
469507	< 0.005
469508	0.020
469509	0.039
469510	0.041
469511	0.013
469512	< 0.005
469513	< 0.005
469514	0.007
469515	0.006

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
OREAS 214 Meas	3.00
OREAS 214 Cert	3.03
470495 Orig	0.008
470495 Dup	0.008
469504 Orig	0.139
469504 Dup	0.127
469513 Orig	< 0.005
469513 Dup	< 0.005
469515 Orig	0.006
469515 Split	0.006
Method Blank	< 0.005
Method Blank	< 0.005

Quality Analysis ... *Innovative Technologies*

Date Submitted: 02-Mar-18
Invoice No.: A18-02515
Invoice Date: 22-Mar-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

2 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

REPORT **A18-02515**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

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E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
469539	0.697
469540	0.033

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
OREAS 214 Meas	2.98
OREAS 214 Cert	3.03
OREAS 220 (Fire Assay) Meas	0.847
OREAS 220 (Fire Assay) Cert	0.828
Method Blank	< 0.005

Quality Analysis ... *Innovative Technologies*

Date Submitted: 02-Mar-18
Invoice No.: A18-02517
Invoice Date: 22-Mar-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

23 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

REPORT **A18-02517**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

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E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
469516	0.416
469517	0.318
469518	< 0.005
469519	< 0.005
469520	< 0.005
469521	< 0.005
469522	< 0.005
469523	< 0.005
469524	< 0.005
469525	< 0.005
469526	< 0.005
469527	0.005
469528	0.029
469529	0.080
469530	2.43
469531	0.025
469532	0.066
469533	< 0.005
469534	0.009
469535	0.011
469536	0.014
469537	0.014
469538	< 0.005

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
OREAS 214 Meas	2.93
OREAS 214 Cert	3.03
OREAS 220 (Fire Assay) Meas	0.850
OREAS 220 (Fire Assay) Cert	0.828
469531 Orig	0.023
469531 Dup	0.027
469537 Orig	0.017
469537 Dup	0.010
469538 Orig	< 0.005
469538 Split	< 0.005

Quality Analysis ... *Innovative Technologies*

Date Submitted: 02-Mar-18
Invoice No.: A18-02520
Invoice Date: 21-Mar-18
Your Reference: KENWEST

Manitou Gold Inc.
82 Richmond Street East
Toronto Ontario M5C 1P1
Canada

ATTN: President Pat Dubreuil

CERTIFICATE OF ANALYSIS

36 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Manitou Dryden-10g/m t Au - Fire Assay AA

REPORT **A18-02520**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

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E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
469541	0.618
469542	0.050
469543	< 0.005
469544	< 0.005
469545	0.588
469546	0.116
469547	0.097
469548	0.006
469549	0.005
469550	< 0.005
469551	< 0.005
469552	< 0.005
469553	0.050
469554	1.35
469555	0.290
469556	0.038
469557	0.008
469558	0.007
469559	< 0.005
469560	0.973
469561	0.020
469562	0.013
469563	< 0.005
469564	0.339
469565	< 0.005
469566	< 0.005
469567	< 0.005
469568	< 0.005
469569	0.017
469570	0.036
469571	0.107
469572	0.139
469573	0.006
469574	< 0.005
469575	< 0.005
469576	< 0.005

Analyte Symbol	Au
Package Code	1A2-50-Manitou Dryden-10g/m t
Detection limit	0.005
Unit Symbol	g/mt
Analysis Method	FA-AA
OREAS 214 Meas	2.96
OREAS 214 Cert	3.03
OREAS 220 (Fire Assay) Meas	0.836
OREAS 220 (Fire Assay) Cert	0.828
469547 Orig	0.105
469547 Dup	0.090
469559 Orig	< 0.005
469559 Dup	< 0.005
469566 Orig	< 0.005
469566 Dup	< 0.005
469576 Orig	< 0.005
469576 Split	< 0.005
Method Blank	< 0.005
Method Blank	< 0.005

APPENDIX IV

Specific Documentation Required for JEAP

Final Report for 2018 JEAP Program

Kenwest Exploration Project

Authored by: Mine Management Partners Ltd.

Mine Management Partners Ltd.
Sudbury, Ontario
705-665-0262
www.minemanagementpartners.com

Final Report for 2018 JEAP Program

Kenwest Exploration Project

Project Location:

Latitude 49° 25' 53" N and Longitude 92° 41' 59" W

Province of Ontario, Canada

Prepared for:

ManitouGold Inc.

Head Office:

82 Richmond Street East, 1st Floor

Toronto, ON, M5C 1P1, Canada

Prepared by:

Jeff Huffman, MBA, PMP
jhuffman@mmpartnersltd.com

Revision **0**

Effective Date: May 4, 2018

A. Exploration Activities Description

i. Diamond Drilling

Asinike Diamond Drilling ("Asinike") was secured to provide diamond drilling services in the amount of 1785 meters for Manitou Gold Inc. ("Manitou") on the Kenwest Property ("Kenwest"). Orix Geoscience ("Orix") was retained to provide geological oversight of the drilling program, core logging, assay logistics/oversight and overall summary of data and interpretation of such data for real-time adjustments to the drilling targets as required. A core technician was hired locally who supplied labour for core cutting, general shop activities, movement of core to core logging facility and subsequent return of core to core yard once logged.

Activity	Start Date	Completion Date
Mobilization	January 22, 2018	January 24, 2018
Drilling – 2,078 meters NQ (16 holes)	January 24, 2018	February 26, 2018
Demobilization	February 26, 2018	March 2, 2018
Logging, assays, core shack activities	January 22, 2018	March 30, 2018

Surveying for the drill program was provided by Rugged Geomatics, out of Kenora, Ontario and clearing of the exploration sites was performed by Dryden Oil & Lube Ltd. from Dryden, Ontario.

All of this work was performed on Manitou Patent #HP367, thus no Exploration Plan or Permit was required from the Ministry of Northern Development and Mines.

ii. Metallurgical Testing

As part of the ongoing exploration potential on our Kenwest property, some initial metallurgical testing was budgeted for. Using samples gathered from a 2017 fall exploration program, now assayed and reported on, Manitou was able to utilize these for initial bench scale testing. This information will solidify for Manitou that the gold associated with mineralized rock has the potential to be recovered in economic proportions and further exploration has merit.

SGS Canada Inc. – Lakefield ("SGS") was retained for this testing. Crushed samples from the 2017 fall trench sampling was utilized for this testing thus no sample gathering, or preparation

costs were incurred under this application. 120 kg of crushed material was shipped from SGS – Garson, to SGS – Lakefield for this bench scale test.

Activity	Start Date	Completion Date
Bench scale met testing - SGS	March 1, 2018	March 20, 2018
Final Report in Hand		March 27, 2018

iii. Map Preparation/Report Writing

- An interim report was prepared and filed as per the Contribution Agreement on February 15, 2018, prepared by Mine Management Partners Ltd.
- Geological preparation, diamond drill hole planning and subsequent drill layouts were performed by Tim Manula & Associates.
- This final report was prepared for Manitou by Mine Management Partners Ltd.

B. Results and Recommendations

Can be found in Assessment Report to which this report is appended.

C. Final Expenditures

Final expenditures are summarized in the table below.

Cost Center Description	Activity Code Description	Vendor/Details	TOTAL
Diamond Drilling	Drilling/Logging/Splitting	Asinike Drilling	$ 237,152
Diamond Drilling	Drilling/Logging/Splitting	*Geology - Orix - logging	$ 27,804
Diamond Drilling	Drilling/Logging/Splitting	Core Shack labour - R.D.	$ 5,420
Diamond Drilling	Drilling/Logging/Splitting	Core Shack expenses (material, kms)	$ 1,721
Diamond Drilling	Drilling/Logging/Splitting	Core Shack rental	$ 1,307
Diamond Drilling	Drilling/Logging/Splitting	Geology Accommodations	$ 3,975
Diamond Drilling	Drilling/Logging/Splitting	Dyden Oil & Lube - trail and site clearing	$ 8,250
Diamond Drilling	Program Planning and Supervision	Mine Management Partners Ltd. (MMP)	$ 16,861
Diamond Drilling	Program Planning and Supervision	Geology - Orix - field QA/QC	$ 17,285
Diamond Drilling	Program Planning and Supervision	Rugged Geomatics - diamond drill survey	$ 6,675
Diamond Drilling	Assaying/Sampling	Assays - Actlabs Dryden - 50g AA	$ 10,697
Diamond Drilling	Assaying/Sampling	Assays - consumables	$ 65
Metallurgical Testing	testing	SGS Labs	$ 16,600
Map Preparation/Report Writing	technical and procurement prep	Tim Manula hole layouts/map prep	$ 7,200
Map Preparation/Report Writing	technical and procurement prep	MMP - report writing for JEAP	$ 2,750
			$ 363,764

The approved JEAP budget as outlined in the Contribution Agreement dated December 22, 2017 was $365,000. This exploration program was executed for $363,764, which is 99.7% of the original budget.

SUMMARY

Row Labels	Sum of total	JEAP Budget	% to Budget (w cont)
Diamond Drilling	**$ 337,214**	**$ 325,000**	**104%**
Metallurgical Testing	**$ 16,600**	**$ 30,000**	**55%**
Map Preparation/Report Writing	**$ 9,950**	**$ 10,000**	**100%**
Grand Total	**$ 363,764**	**$ 365,000**	**99.7%**

Expenses can be viewed in detail in the following appendices:

- Appendix A - JEAP Program Expenditures Template
- Appendix B - Schedule 'C' Final Submission for Grant 2017 Form
- Appendix C - All invoices for the work completed in this program
- Appendix D – Proof of Payment
- Appendix E – Asinike Drilling First Nation Appendix from Bid Submission

D. Aboriginal Inclusion

Asinike Diamond Drilling is 100% First Nations owned. Appendix A of Asinike's bid submission to the RFP dated December 22, 2018 is attached as Appendix E to this document.

The following Asinike Diamond Drilling Employees are First Nation:

- Mark Mallette, Driller, Site Foreman
- Sam Dube, Site Foreman
- Bob Eaverson, First Helper

There is no request at this time for approval of Aboriginal Capacity Eligible Expenses, as the approved JEAP Contribution Agreement stated for the Kenwest Exploration Project is maximized already with the sum of money expensed towards exploration activities.

E. Employment

Task	Company	# Total Employees	# Aboriginal Employees
Diamond Drilling	Asinike Drilling	5	3
Geology	Orix Geoscience	1	0
Project Management	Mine Management Partners	1	0
Surveying	Rugged Geomatics	2	0
Site Clearing	Dryden oil & Lube	1	0
Core Shack Labour	Individual	1	0

F. Project Location

Location details are provided in the Assessment Report to which this is appended.

G. Forecasted Exploration

Manitou does intend to continue exploration on the Kenwest Project. With very successful drill results in this program, and new understanding of the mineralization is appearing with continued compilation of data. Further compilation work as well as another diamond drill program are forecasted.

Appendix A

JEAP Program Expenditures Template

JEAP Program Expenditures

JEAP File #: 17015

Company: Manitou Gold Inc. **Project:** 2018 - Q1 - Kenwest Exploration Project

These columns are for JEAP reviewers

Expenditure Item	Units	Unit cost	Total Item Cost (incl. HST/GST)	HST/GST	Net Item Cost NO HST/GST	Invoice/ Receipt / Cheque Requisition ID	Date of Invoice/ Receipt / Cheque Requisition	Proof of Payment	Disallowed Expenditures	Total Qualifying Program Expendtitures	Comments
Company Labour *(List personnel, dates & brief description of their activity. Insert rows as required)*											
					$ -					0.00	
					$ -					0.00	
					$ -					0.00	
					$ -					0.00	
Company Labour Subtotal			**$ -**	**$ -**	**$ -**				**0.00**	**0**	
Contractor Services *(Contract personnel and Equipment **EXCLUDING DRILLING**, dates & brief description of their activity. Insert rows as required)*											
Orix Geoscience - field geology, core logging	300	$ 92.68	$ 31,419	$ 4,084	$ 27,804	2018017, 2018074, 2018044	15Mar18 (last)			27,804.00	
Roy Dzikowski - Core Shack Technician	271	$ 20.00	$ 6,125	$ 796	$ 5,420	as per appendix	as per appendix			5,420.00	
Core Shack rental - Susan Stenberg, Dryden, ON	1.307	$ 1,000.00	$ 1,477	$ 170	$ 1,307	612731	as per appendix			1,307.00	
Dryden Oil & Lube - Paul Marion, Dryden, ON (excavator to clear trail and drill sites)	55	$ 150.00	$ 9,323	$ 1,073	$ 8,250	583158	27-Jan-18			8,250.00	
Mine Management Partners Ltd (acting as management oversight, project management)	150	$ 110.00	$ 18,645	$ 2,145	$ 16,500	2018-MTU-003, 004, 005	2-Apr-18 (last)			16,500.00	
Orix Geoscience - Field QA/QC drillining, supervison of drilling	186.5	$ 92.68	$ 19,533	$ 2,247	$ 17,286	2018017, 2018074, 2018044	15Mar18 (last)			17,285.65	
Surveying - Rugged Geomatics	1	$ 6,675.00	$ 7,543	$ 868	$ 6,675	as per appendix	09-Feb-18			6,675.00	
Tim Manula - geological interp, diamond drill targets and layouts	40	180	$ 8,136	$ 936	$ 7,200	M002-2018-001	15-Jan-18			7,200.00	
Mine Management Partners Ltd. - JEAP report writing, budget oversight, accounts payable	25	110	$ 3,108	$ 358	$ 2,750	2018-MTU-003, 004, 005	2-Apr-18 (last)			2,750.00	
					$ -					0.00	
Contractor Services Subtotal			**$ 105,307**	**$ 12,676**	**$ 93,192**				**0.00**	**93,192**	
Drilling *(Include associated supplies. Insert rows as required)*											
Asinike Diamond Drilling	2078	$ 114.13	$ 267,982	$ 30,830	$ 237,152	110 & 111	26-Feb-18 (last)			237,152.20	
					$ -					0.00	
					$ -					0.00	
					$ -					**0.00**	
Drilling Subtotal			**$ 267,982**	**$ 30,830**	**$ 237,152**				**0.00**	**237152.20**	

Analytical *(List lab and CoA number. Insert rows as required)*											
Actlabs, Dryden, ON - assays (unit cost averaged over 17 samples)	17	$ 629.25	$ 12,088	$ 1,391	$ 10,697	17 invoices as per appendix	5Feb - 22Mar18			10,697.25	
SGS Laboratories - initial bench scale met test	1	$ 16,600.00	$ 18,758	$ 2,439	$ 16,600	2064598	13-Feb-18			16,600.00	
					$ -					0.00	
					$ -					0.00	
Analytical Subtotal			**$ 30,846**	**$ 3,829**	**$ 27,297**				**0.00**	**27,297**	
Transportation - Ground *(Identify whether personal, company or rental vehicle, brief trip description, and dates. Insert rows as required)*											
Roy Dzikowski - personal vehicle expenses	2231	$ 0.54	$ 1,361	$ 177	$ 1,205	as per appendix	as per appendix			1,204.74	
Mine Management Partners Ltd. - travel	82	$ 0.56	$ 52	$ 7	$ 46	2018-MTU-002 Exp	05-Feb-18			45.92	
					$ -					0.00	
					$ -					0.00	
					$ -					0.00	
Transportation - Ground Subtotal			**$ 1,413**	**$ 184**	**$ 1,251**				**0.00**	**1,251**	
Transportation - Air *(Identify company, and brief trip description and dates. Insert rows as required)*											
					$ -					0.00	
					$ -					0.00	
					$ -					0.00	
					$ -					0.00	
Transportation - Air Subtotal			**$ -**	**$ -**	**$ -**				**0.00**	**0**	

Camp Costs - Food and Accommodation *(Show hotel/motel name, location and accommodation dates. Food can be groceries and/or restaurant meals. Insert rows as required)*											
Geologist accomodations - Susan Stenberg, Dryden, ON	39	$ 101.92	$ 4,492	$ 517	$ 3,975	as per appendix	as per appendix			3,975.00	
					$ -					0.00	
					$ -					0.00	
					$ -					0.00	
					$ -					**0.00**	
Camp Costs - Food and Accommodation Subtotal			**$ 4,492**	**$ 517**	**$ 3,975**				**0.00**	**3,975**	
Office Supplies & Field Consumables *(include activity [photocopying, courier, etc.], store and date[s]. Insert rows as required.)*											
Roy Dzikowski - field supplies	1	$ 516.74	$ 584	$ 67	$ 517	as per appendix	as per appendix			516.74	
Actlabs - Core Box Tags	1	$ 65.00	$ 73	$ 8	$ 65	A18-01191	02-Feb-18			65.00	
Exploration Field Supplies - Mine Management Partners Ltd.	1	$ 315.49	$ 354	$ 39	$ 315	2018-MTU-002 Exp	05-Feb-18			315.49	
					$ -					0.00	
					$ -					0.00	
Office Supplies & Field Consumables Subtotal			**$ 1,012**	**$ 114**	**$ 897**				**0.00**	**897**	
Program Total			**$ 411,051**	**$ 48,150**	**363,764**				**0.00**	**363,764**	

Appendix B

Schedule ‘C’ Final Submission for Grant 2017 Form

JEAP File #: 17015

Schedule C
Junior Exploration Assistance Program (JEAP) 2017
Final Submission for Grant 2017

INSTRUCTIONS:

PLEASE READ THE GUIDEBOOK BEFORE COMPLETING THIS FORM.

Please type or print and submit completed form and supporting documentation to
Junior Exploration Assistance Program (JEAP)
Ontario Prospectors Association
941 Cobalt Crescent
Thunder Bay, ON P7B 5Z4
jeap@ontarioprospectors.com

Corporation's Identification and Location

Name **Manitou Gold Inc. - 2018 - Q1 - Kenwest Exploration Project**

Address 82 Richmond Street East, 1st Floor

City Toronto Province ON Postal Code M5C 1P1

Person to Contact Richard Murphy Position CEO

Telephone _____ Email _____

Project Name 2018 Q1 Kenwest Exploration Project

Project Location Dryden, ON

Mining Division Kenora **Area/Township** Boyer Lake Area

Latitude/Longitude 92 41" 59"W 49 25'53"N **UTM** 521746E 5475459N

Results of Project

Please describe significant results or outcome of the Project

With a total of 17 holes being drilled, 4 of those holes intersected visible gold.

3 of those holes were in previously un-tested ground, above old mine workings on BM#1.

This has led Manitou to the newly discovered "1946 Zone".

Final Submission Must Include Digital Reports, Maps and Data (including Analysis Certificates). Please include Digital Financial Materials and Proof of Payment (POP) separately. See guidebook for specifications.

Project Expenditure Detail (Use provided EXCEL spreadsheet for Summary)

NOTE: COSTS WITHOUT HST

Line-cutting

Chaining, Picketing, Grid Layout _____km @$_____/km $_____

Geophysical Surveys,

Ground Magnetic _____km @$_____/km $_____

Electromagnetic _____km @$_____/km $_____

Other (e.g. Airborne, IP) _____km @$_____/km $_____

Map and Report Preparation and Associated Costs $_____

Assays and Analysis Type exploration grade met testing

Analysis #1 samples @$16,600 /sample $16,600

Map and Report Preparation and Associated Costs $_____

Drilling Type Diamond Drilling

Mobilization/Demobilization $14,925

Drilling 2078 metres@$114.13 /metre $237,152

Core Logging, Sampling, Drill supervision

60 days @$1033.00 $74,440

Assays/Analyses 17 samples@$629 $10,697

Map and Report Preparation and Associated Costs $9,950

Total Expenditures $363,764

GRANT CALCULATION
Eligible Project Costs Exclude HST

Expenditures to the hire of Aboriginal persons or Aboriginal businesses (Maximum of $6000.00 eligible) $n/a (A)

Grant (Aboriginal) [A x 100%] $n/a (B)

Total Expenditures (excl. HST) $363,764 (C)

Eligible Expenditures (C-B) $(C-B) 363,764 (D)

GRANT CALCULATION

([D x 33.3 % (up to 33.33%)] + B) $121,255 (E)

TOTAL GRANT E: $100,000

Maximum Grant - $100,000 per project

Supplemental Information

Number or persons employed: employees	11
Number of Aboriginal persons employed	3
Number of persons employed: contractors	11
Number of person days labour: employees	34
Number of person days labour: Aboriginal persons	111
Number of person days labour: contractors	~350
Were Aboriginal business's utilized for the project?	☑ Yes ☐ No
Total wages paid to employees	$ 5,420
Total contractors payments	$ 9,950
Total technical suppliers payments (assays, drillers etc.)	343,522
Total suppliers payments (fuel, food, accommodations, etc.)	$ 4,872
Number of diamond drill targets tested	3
Number of diamond drill holes completed	$ 17
Total metres of diamond drilling	2,078
Is a follow-up diamond drill project proposed by yourself?	☑ Yes ☐ No
If yes, proposed budget?	$ $300,000
Is a follow-up exploration project (other than diamond drilling) recommended in the immediate future?	☑ Yes ☐ No
If yes, proposed budget?	$ $100,000

The Ontario Prospectors Association may verify all statements related to and made herein this application.

I certify that:

1. the corporation has complied with all the requirements of the JEAP program;

2. the costs for which reimbursement is requested in this form have been incurred and actually paid by the corporation;

3. costs being claimed in this form are Eligible Project Costs only;

4. the corporation is operating its business in compliance with all applicable Ontario laws and federal laws;

5. the corporation has paid all employees and contractors for work associated with this JEAP application;

6. the representations and warranties set forth in the JEAP agreement are true and correct in all material respects on the date set out below;

7. no Event of Default (as defined in the JEAP agreement) has occurred as of the date set out below; and

8. the corporation is in compliance with all of its obligations under the JEAP agreement (which, for greater certainty, includes the General Conditions in Schedule “D”).

Signature of Applicant

Date

May 3, 2018

Name (print)

Richard Murphy

Position or Title

CEO, Manitou Gold

Withheld for client confidentiality.

Appendix C

All invoices for work completed in this program

Withheld for client confidentiality.

Appendix D

Proof of Payment

Appendix E

Asinike Drilling First Nation Ownership

SCHEDULE A

FIRST NATIONS PARTICIPATION

Asinike Diamond Drilling is a 100% First Nation community owned Drilling Company – local to Northwestern Ontario.

Grand Chief Treaty #3 Francis Kavanagh

Chief of NAOTKAMEGWANNING First Nations Howard Kabestra

Band Manager Laura Kakeeway

naoecdev@gmail.com

Mines & Minerals Development Alex Tom

naotmineral@gmail.com

Economic Development Rex Pompee

Rex.paypompee@icloud.com

Accounting Department Loranda Kavanaugh

Loranda.tom@gmail.com

Drilling Operations Manager Mark Mallette

Asinike Drilling Office:

1800 Pawitik St, Pawitik ON P0X 1L0

Phone: 807-226-5411 Fax: 807-2265389

Email: asinike1@gmail.com

END OF ASSESSMENT REPORT DOCUMENT

(inclusive of JEAP Appendix IV - Specific Documentation Required by JEAP)