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# INTERNAL MONTHLY REPORT January 2022

# **Project Namarana Exploration**

PR 706/15 - 42 km<sup>2</sup> (Exploration License) AE 289/13: 6 Km<sup>2</sup> (Mining License)

Report Reference Number: SGC-PNE-MR-JAN-22





Report Date From: 19 January 2022

Report Date To: 31 January 2022

Date Submitted: 12 February 2022

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# Contents

1.	Introduction	4
2.	Executive Summary	6
	Previous Work	
4.	About the area	10
5.	Accessibility	13
6.	Geology of the area.	14
7.	Operations carried out for the Month	15
7.1	Soil sampling	15
	Auger drilling	
	Drill pads preparation	



#### 1. Introduction

#### a. Company Background and Project Highlights

MANDINGOLD has been engaged in conducting underground and surface gold mining and related activities, including exploration, processing and smelting. The Company conducts surface mining at Namarana, Mali, West Africa approximately 42 km2. The company has been incorporated for the sole purpose of identifying and acquiring potential areas with known gold deposits in the country of Mali.

#### b. Health, Safety and Environment

During the month of September 2021, no incidents were reported. incidents were reported. During the fieldwork, all team members have been given the required Personal Protective Equipment (PPE). All workers and geologists are provided with enough water to stay hydrated. One medical aid kit is taken to the field daily. The list of PPE used on site include:

- i. Hard Hat
- ii. Eye Protection
- iii. Dust/Face Masks
- iv. Ear/Noise Protection
- v. Safety Gloves,
- vi. Safety Boots

Safety talks occur on a regular basis before the start of work and Prasanna Kumar has been appointed as the on-site Environmental Health and Safety (EHS) officer.

#### c. Period of tasks involved

Work for this period include;

- Auger drilling = 8 Days
- Drill pad preparation = 8 Days
- Soil sampling = 7 Days

All geologists were involved at some stage and the man-hours have also been recorded. From the days in January 2022 a total of 8 days were used for Namarana





Exploration Project work. Two shifts were made for Auger drilling and two teams were working for soil sampling simultaneously.

#### d. Activities Performed

- ✓ Auger drilling
- ✓ Drill pad preparation for auger drilling,
- ✓ Soil sampling
- ✓ Desktop work





#### 2. Executive Summary

This report consists the details of work and activities done in the month of January 2022, for the Exploration project which belongs to MandinGold as PR 706/15. Along with this the auger drilling program details have also been mentioned in the report which is being carried out in 6 sq.km Mining lease in Namarana. The purpose of these exploration was to determine the gold potential of the MandinGold Concession.

Satellite imagery analysis has been done in preliminary stage to understand the geomorphological features of the concession area that includes structural formation, river pattern, paleochannel, and vegetation and somehow helps to identify illicit mining activities etc.

An exploration of field work program was initiated in the Alluvial plain floodplains, paleochannel, terrace gravels, old and new local mining pits along the Balanko river in concession that is situated at Koulikoro region, Kangaba District in Mali, West Africa.

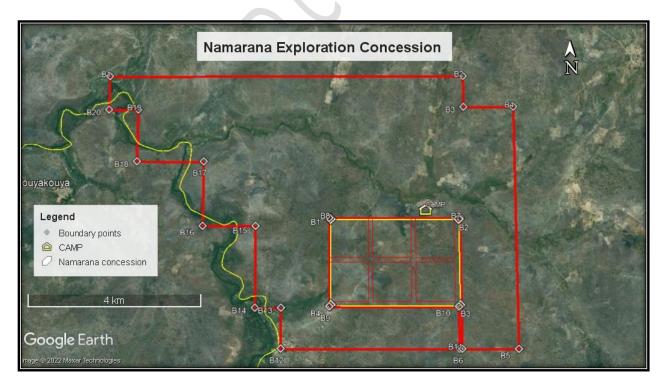


Figure 1: Namarana exploration and mining concession on google earth





Company Name	Mandingold Mining SARL
License Details	AE 289/13 : 6 Km <sup>2</sup> (Mining License)  PR 706/15 : 42 Km <sup>2</sup> (Exploration License)
Location	Namarana, South Mali
Preliminary Work Started From	22 <sup>nd</sup> February 2021
Full-Length Exploration Time Frame	24 <sup>th</sup> January 2022 to 23 <sup>rd</sup> July 2022 6 Months Program





#### 3. Previous Work

#### Field Work and Geological Investigations done

Field visits and geological investigation were conducted at Namarana in the month of April and May 2021 to investigate points of interest. During the exercise area of illicit mining pit underground rat hole mining have been identified. The northern underground workings depths are approximately 12 m and connect to one another. In profile the underground workings go through duricrust and predominantly red laterite into approximately 5 meters of predominantly yellow laterite.

6 underground pits have been identified within the central area of the mining concession. Initially thought of as water pits, however these pits form a grid-like pattern and have a high possibility of it being previous exploration diggings. These pits will be good for profile sampling during the dry season.

Recognizance visit in order to study the illicit mined-out areas and to study what type of deposit locals were mining. The tailings consist of rounded rocks of mostly quartzite, hornfels, dolerites, smoky quartz and sandstone.

After study of old pits profile, the lithology of the mined- out areas that consist of a shallow dark brown organic materials, a thick lateritic zone mottled with clay materials with transitional pallid zone. The pallid bottom zone is mainly Kaolinite.

A transect was done along the stream channel and with the founding of old mining pits, which are all along the river channel and also believe to be a wide paleochannel. The pits are situated along suitable geomorphological features like meanders and ox- bow lakes.







Figure 2 : Illicit Chinese Pit



Figure 3 : Local artisanal Mining pit





#### 4. About the area

The Namarana exploration concession is situated in District Kangaba, Koulikoro Region, MALI(West Africa). The area is very close to the guinea border which falls on the western side of the exploration lease boundary. Bomako is the capital and big major city nearby to the area which is approximately 110 kms far from the area. Area is densely vegetated in most of the portions while some of the region in the area is covered with termite fields. Open field covered with laterite capping also makes some portion in the Namarana concession.

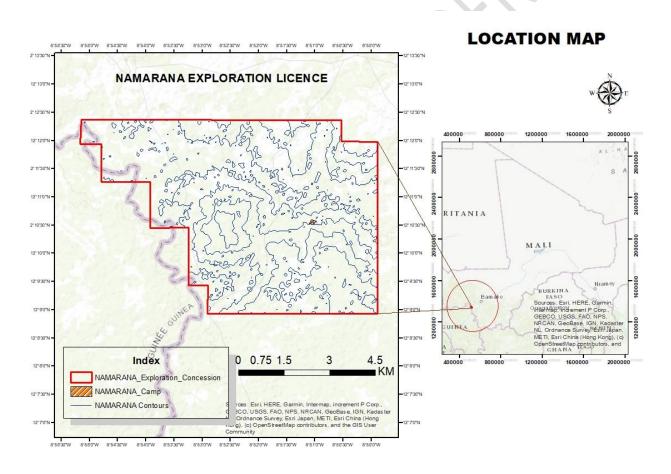


Figure 4: Location Map of Namarana Exploration Licence





The study area is located south of Solofara close to Dangateneh Village, Koulikoro region Southern Mali. The area is relatively flat with an elevation that ranges from 316m to 350m with dwarf grasses and savanna grassland. There are two major rivers in the concession area, Balanko River which is our focus of study and the Kokoro River that boarders Mali and Guinea. The Balanko river is flowing SE to NW direction.

From the north, there is a tributary that joins the Balanko River where the Chinese are presently in active operations. At 517514/1346435 E: 319m is a confluence with old illicit workings.

On the South Eastern part of the river, there are evidences that show re-direction of the river channel for mining purpose. From observations, the river is inactive during the dry season but active during the raining season in which the river channel is filled or buried by younger sediment. The map below shows the drainage pattern of the Balanko River and its tributaries.

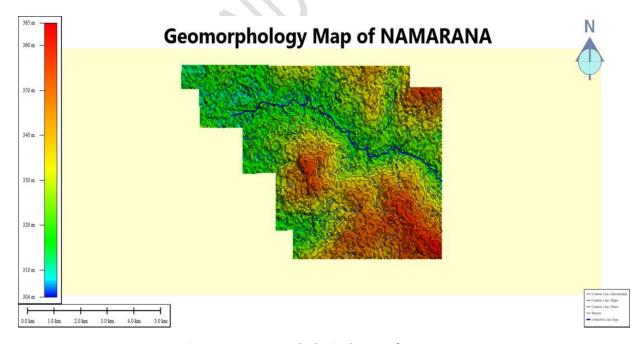


Figure 5: Geomorphological map of Namarana





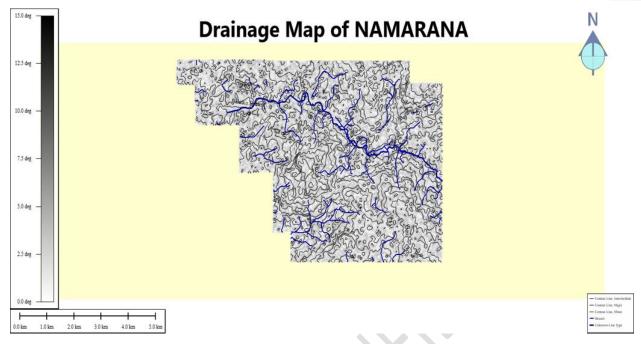


Figure 6: Drainage Map of Namarana





# 5. Accessibility

The Project is well connected with the capital city Bamako and the distance from the city to mine is around 110 Km. The mine is located near Namarana Village that is connected to the National Highway of the country going towards Guinea.

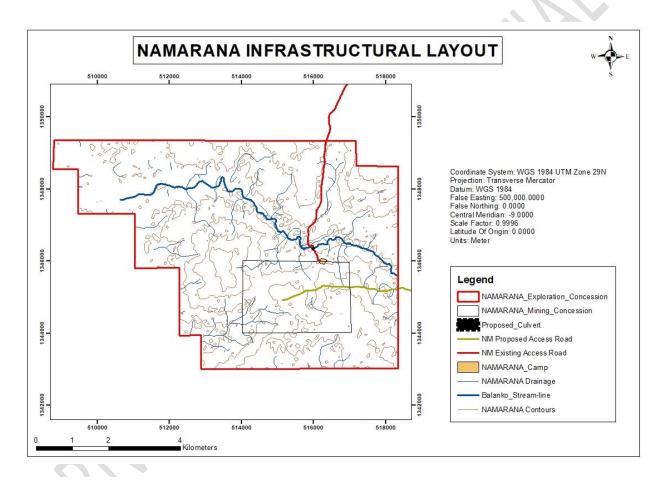


Figure 7: Infrastructure Map for Namarana





#### 6. Geology of the area.

The Namarana gold deposit is located in southern Mali near the edge of the middle Proterozoic Birimian Shield of west Africa. Except for a few low hills the area is flat and covered by a thick (40-100 m) laterite profile produced by the alternating wet and dry seasons of the hot tropical climate.

Most gold and base metal deposits in the Proterozoic Birmian Shield of west Africa occur in volcano sedimentary greenstone belts. These belts generally consist of fine-grained sedimentary rocks and tholeilitic to calc-alkaline volcanic rocks Granitic and gneissic rocks surround the greenstone belts. The metamorphic grade of the belts is usually lower greenschist but may attain amphibolite grade adjacent to major intrusive bodies

The oxide deposit was expressed on the surface as a series of 3- to 15-m-deep ancient mine workings, which extended 800 m along the strike of the deposit, and sparse outcrops of silicified rock. Oxide ore occurs as two deposits: a surficial deposit consisting of ancient tailings and dump material which are 0.1 to 5 m thick and extend up to 200 m away from the ancient workings; and an in situ "lode" or saprolite deposit which lies immediately below the ancient workings and extends downward into sulfide mineralization.





#### 7. Operations carried out for the Month

- ✓ Soil Sampling
- ✓ Auger drilling
- ✓ Auger drill pad Preparation

#### 7.1 Soil sampling

# a. Methodology adopted

The grid of 100m \* 100m was followed to take the soil samples. The point was navigated with the help of GPS (Garmin Etrex 20x). once the point is located on the field top soil was removed with the help of various digging tools. Soil was collected after removing the surface to the depth of 20cms approximately. Samples bags was duly labeled for each location. Samples were then brought back to the camp site and deposited in the temporary storage area.

The basic tools used during the sampling

- a) Pickaxe, Bar, Shovel, 1mm Sieve (for collection)
- b) Plastic Bags and Empty Rice Bags (for storage)
- c) GPS device (for locating the sampling point)
- d) Blank papers and plastics (For making sample tags)

# b. Manpower involved

Two teams had been made for the collection of soil sample. Team includes a geologist and 4 numbers of labor.

# c. Transportation

Two motorbikes and one kata kata were used for the means of transportation. Pick up car were used to drop the team of labor in the morning to the location fixed by Geologist. Two bikes were all the time available with both of the teams in the field





during soil sampling. Kata kata or pick up car were used to bring back the sample to the camp as per the requirement.

# d. Work done for the Month

A total of 285 surface soil samples have been collected from North eastern side of the concession area by following grid of 100m × 100m. Total sampling area can be visually divided into NE, NW, SE and SW sides. For the month January most of the NE region of the area was covered. It was found that the area is made up mostly of hard duricrust and weathered laterite Mottle zone

Date	Total Number of samples collected	Cumulative Total		
	per day			
24-01-2022	36 Soil samples	36		
25-01-2022	41 Soil samples	77		
26-01-2022	43 Soil samples	120		
27-01-2022	42 Soil samples	162		
28-01-2022	10 Soil samples	172		
29-01-2022	58 Soil samples	230		
31-01-2022	55 Soil samples	285		
Total No of	sample collected in the month	285		



Figure 9: Illicit pit found during soil sampling



Figure 8: Sample bag







Figure 12: illicit local mining shaft found during soil sampling



Figure 11: sample bags collected for a day

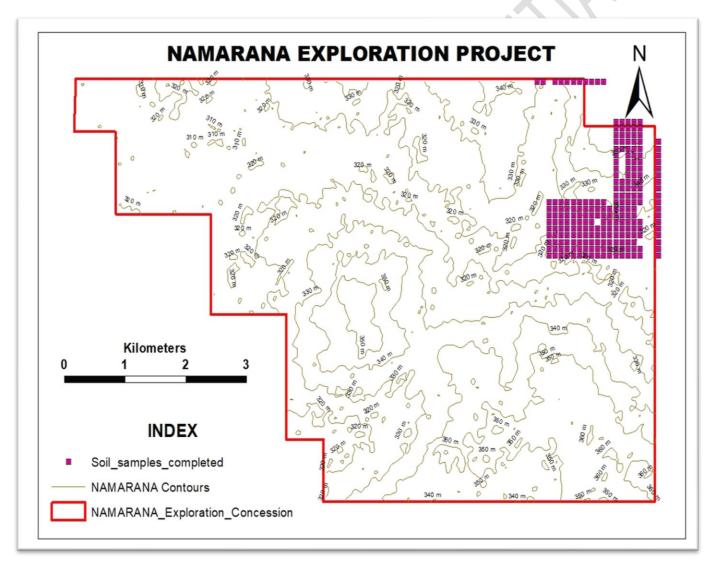


Figure 10: Soil samples done in january





#### 7.2 Auger drilling

# a. Methodology Adopted

The auger drill machine manufactured by PRD is being used for the exploration project for Namarana. It is a truck mounted machine which said capacity is 60m of depth depending on the rock formation.

For auger drilling program the grid of 100m \* 100m is being followed in 6 Sq.km of mining concession of Namarana project. Drill pads are kept prepared already before commencing the drilling. The truck mounted auger drilling Machine moves to the location of drilling point. Geologist ensures the drilling point and assist the driller to set the drilling bit on the desired point. All safety measures are duly checked by geologist and driller before the commencement of the drilling. All the rods are neatly cleaned prior to the operation and checked. The desired drilling depth is 60 m for each hole but it could be stopped if certain unfavorable conditions encountered. Samples are collected for every one meter of the depth.

Logging for every borehole is done on the site itself by the Geologist in charge. The proper format for log sheet is maintained and updated as per the requirement.

The basic tools used during the Auger drilling

- a) Drilling Rods
- b) Hammer
- c) nails
- d) log sheets
- e) sample bags
- f) GPS device (for locating the drilling point)
- g) Blank papers and plastics (For making sample tags)
- h) Permanent Markers





# b. Manpower involved

Two shifts are made for the auger drilling program for the project. As per the shift requirement one team is allotted for each shift comprising of a geologist, a drilling operator, EHS officer and casual labor. Total 16 hours of work is being performed per day including both the shifts.

Two security persons were deployed for guarding the auger drill machine as machine is kept on the site itself for reducing the transportation time.

# c. Transportation

One pick-up car is being used to drop to and fro for the drilling team. One kata kata is being used to the carry the various equipment and tools at the drilling site. It is also being used to bring the drilling sample bags back to the camp as per requirement. one bike is allocated all time to each team for any emergency in case.

# d. Total work done for the month

Total 21 numbers of auger drill hole have been completed for the month of January out of which on hole was relocated from its original position named as NM/A-70(R). Relocation was made due to the inaccessibility to the original location. All the sample bags were collected and kept in temporary storage area in the camp. All the sample bags were duly labeled and checked by the on-site geologist.

Date	Proposed	Completed	ID	Remaining	Total meterage completed/day (mts)	Total meterage (mts)
19-01-2022		1	NM/A-94	162	48	48
24-01-2022		3	NM/A-93, NM/A-89, NM/A-85	159	89	137
25-01-2022	163	3	NM/A-86, NM/A-87, NM/A-88	156	88	225
26-01-2022		4	NM/A-92, NM/A-91, NM/A-90, NM/A-63	152	108	333
27-01-2022		3	NM/A-62, NM/A-64, NM/A-69	149	106	439

# Project Namarana Exploration\_Monthly report\_January 2022



28-01-2022		1	NM/A-68	148	42	481
29-01-2022		3	NM/A-67, NM/A-70R, NM/A-71	145	118	599
31-01-2022		3	NM/A-72, NM/A-59, NM/A-58	142	130	729
Total number of boreholes completed			21	Total meterage drilled		729

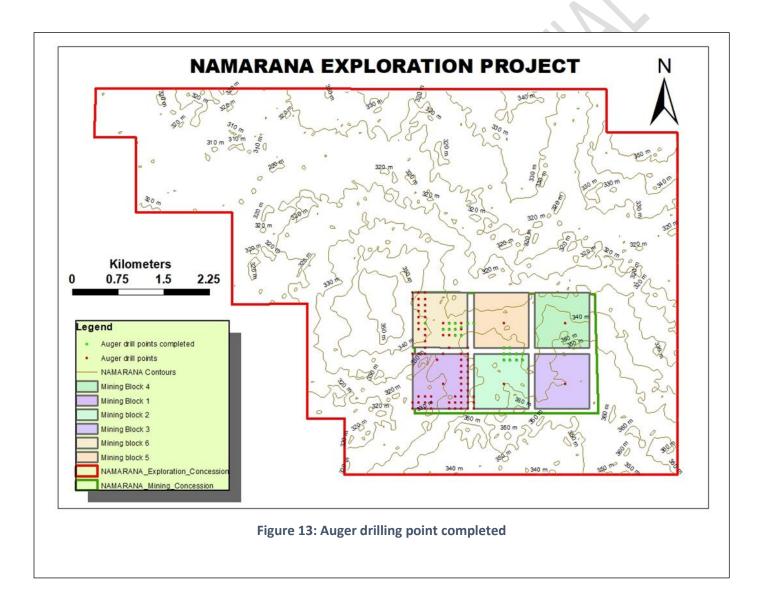








Figure 17 : Auger drilling operation



Figure 16 : Sample coming out from Auger



Figure 15: Night shift in Auger drilling



Figure 14: Auger drilling machine







#### 7.3. Drill pads preparation

# a. Methodology

Proposed location of the borehole in accordance with exploration plan for Namarana mining concession are fixed already. These locations were navigated with the help of GPS by geologist. After locating the point all bushes and unnecessary measures are cleaned from the drilling point. Approximately 10 meters radius of area from the point is being cleared.

The basic tools used during the Drill pad preparation

- a) GPS device (for locating the drilling point)
- b) Blank papers and plastics (For making sample tags)
- c) Permanent Markers
- d) Pickaxe, Bar, Shovel

# b. Manpower involved

One team comprising of a geologist and four casual labor are being used for the drill pad preparation. This operation is being done on the accordance with the requirement of the drilling pads requirement hence, one team from soil sampling is usually allotted this work as per the suitability.

# c. Transportation

One pick up car is used to drop (to and fro) the team on the fixed site for the day.

# d. Work done for the month

Sufficient numbers of Drilling pads were prepared on the basis of requirement for the month of January







Figure 19: Prepared drill pad Auger drilling

SUPREME Gold Corporation		Sample preparation summary					
Month	Program	Total work done	Total samples collected	Total samples prepard for lab analysis	Total samples dispatched to the lab	Remaining samples	Reason
	Auger drilling	21 holes	729	0	0	729	due to unavailibilty of sample storage area and lab
Jan-22	Soil sampling	285 sample points	285	0	0	285	due to unavailibilty of sample storage area and lab