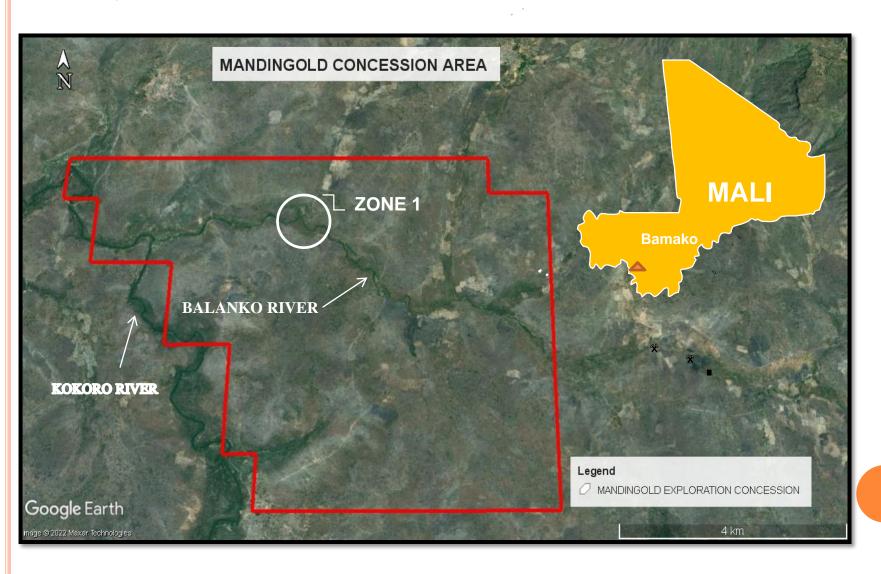


#### Introduction

- MANDINGOLD has been engaged in conducting alluvial gold mining, underground and surface gold mining
- The company has been incorporated for the sole purpose of identifying and acquiring potential areas with known gold deposits in Namarana Koulikoro region, Mali.
- The project is confined in the southern part of the country close to the Guinea Border.
- The Balanko River has known as a major source of transporting and depositing sedimentary gold.
- To finding the alluvial gold deposits different techniques were applied to have resource estimation for the amount of gold deposited in the zone.
- Upon having our demarcated boundaries of all zones, auger drilling for zone-1 started on the 3rd December to 30<sup>th</sup> for ground truthing.

## CONCESSION ARE AND BALANKO RIVER



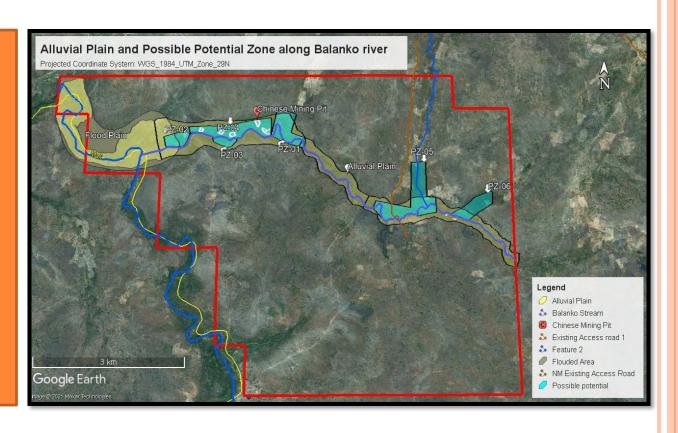
### SURFACE GEOLOGICAL MAPPING ALONG THE BALANKO RIVER DEMARCATION OF ZONE FOR DETAIL **EXPLORATION** SURFACE SAMPLING \* SHALLOW PIT \* BIG PIT AUGER DRILLING BULK SAMPLE WASHING QA/QC MAP PREPARATION DATA INTERPRETATION **BLOCK DEMARCATION** RESERVE ESTIMATION 3D MODELING MINING PLAN

**EXPLORATION** 

### ZONE DEMARCATION FOR THE DETAIL EXPLORATION

## ZONE DEMARCATION IS BASED ON

- MAPPING
- GEOMORPHOLOGICAL STUDY
- CATCHMENT AREAS
- PROMINENT MEANDERING AREAS
- OLD ILLICIT
- DRAINAGE PATTERN
- CONFLUENCE ZONES



#### FIRST PHASE EXPLORATION ACTIVITIES

4 ZONE HAS
BEEN
TARGETED IN
PHASE 1
EXPLORATION

### **Project Status**

ZONE ID	PIT SAMPLING	DRILLING	MVROSCOPIC ANALYSIS
1	$\sqrt{}$	$\checkmark$	$\sqrt{}$
2	$\sqrt{}$	$\checkmark$	$\sqrt{}$
3	$\sqrt{}$	$\checkmark$	$\sqrt{}$
4	On Going	On Going	Not yet Start

### **Drilling Status**

ZONE ID	NO.OF DRILLHOLE PRAPOSED	NO.OF DRILLHOLE COMPLETED	TOTAL METERS DRILLED	STATUS
1	51	50	896 meters	Completed
2	17	17	306 meters	Completed
3	44	42	762 meters	Completed
4	89	22	396 meters	On Going
Total	201	131	2360 meters	



#### **ACTIVITY PERFORMED IN ZONE 1 EXPLORATION**

SURFACE GEOLOGICAL MAPPING

STUDY AREA DEMARCATION

PITS SAMPLING

**AUGER DRILLING** 

**BULK SAMPLE WASHING** 

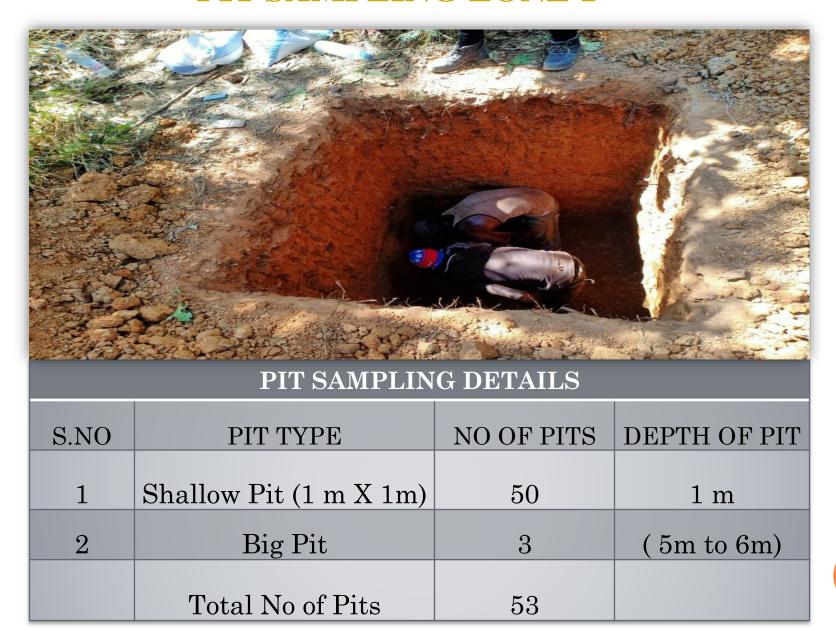
**QAQC AND GEO- CHEMISTRY** 

**BLOCK DEMARCATION** 

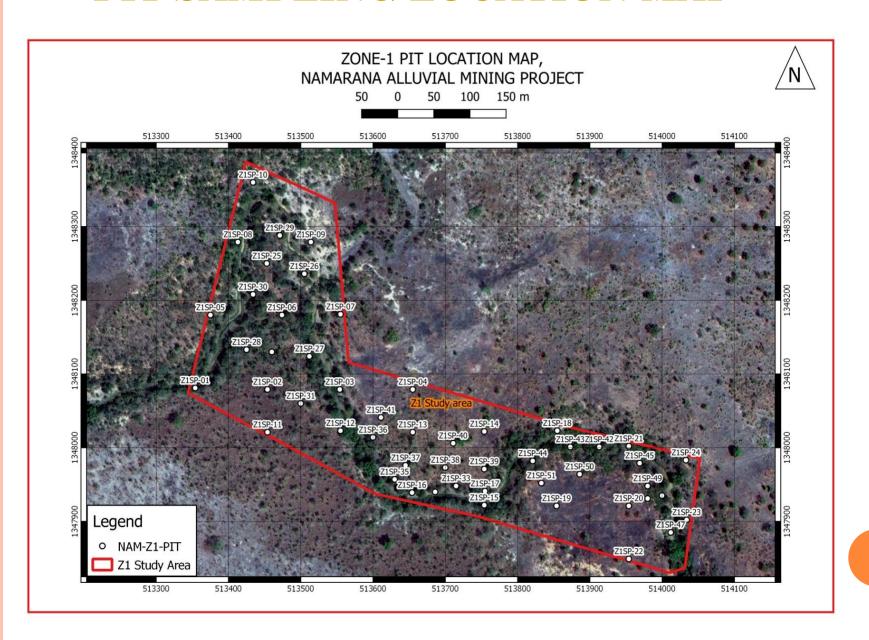
**GRADE ESTIMATION** 

**RESERVE ESTIMATION** 

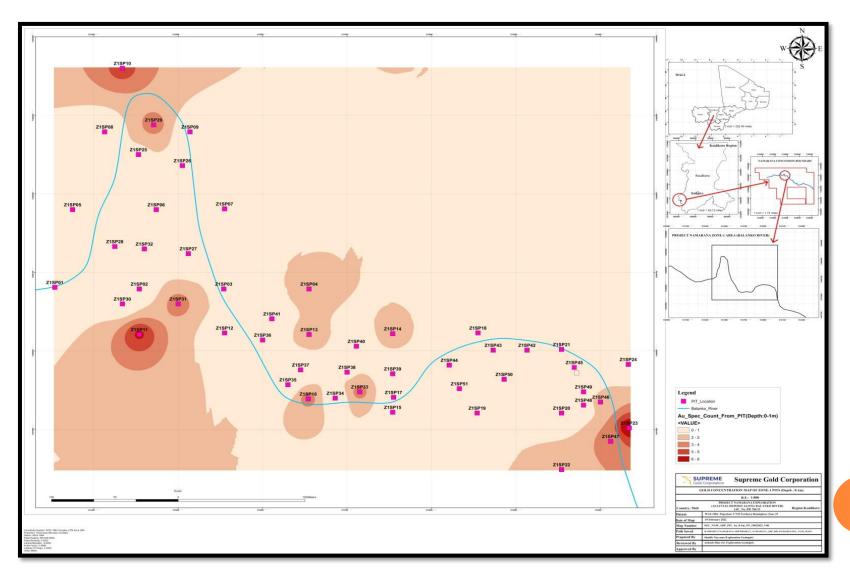
### **PIT SAMPLING ZONE 1**



### PIT SAMPLING LOCATION MAP



## GOLD CONCENTRATION MAP OF ZONE 1



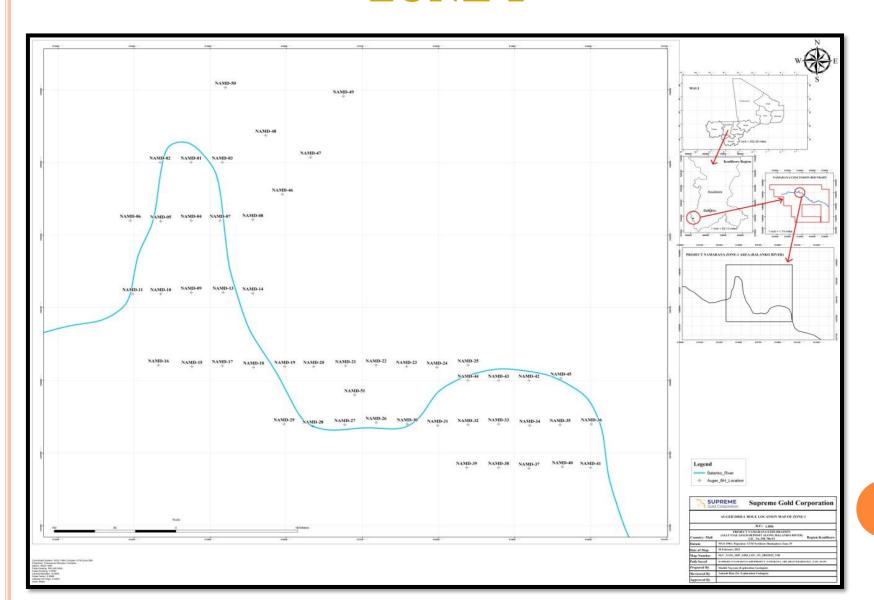


### **AUGER DRILLING ZONE 1**



ZONE 1	PROPOSED	NO. OF DRILL	TOTAL
	DRILLING	HOLES	DRILLED
	POINTS	COMPLETED	METERAGE
1	51	50	896 meters

### AUGER DRILL HOLE LOCATION ZONE 1



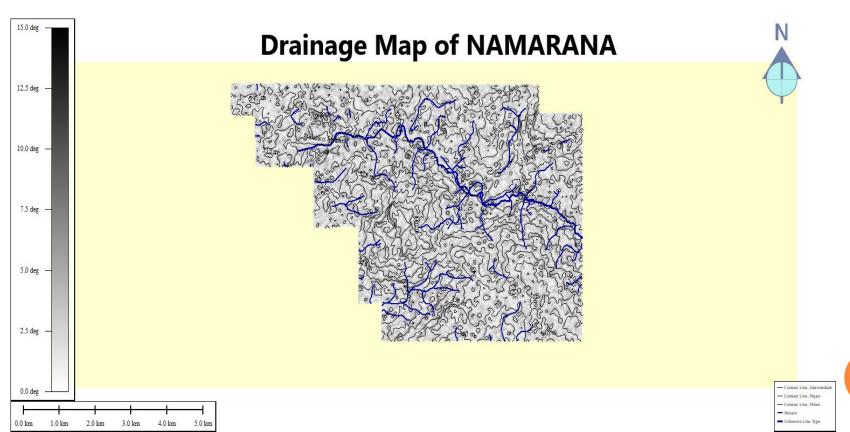
### AUGER DRILLING MASTER DATA SHEET

NAMARANA ALLUVIAL MINING AUGER DRILLING MASTER DATA SHEET - 2022									
						GRAVEL DEPTH			
S.NO	ZONE ID	HOLE ID	EASTING	NORTHING	START	END	ЕОН	FROM	то
1	ZONE 1	NAMD-01	513475	1348300	24.12.21	24.12.21	18	8	12
2	ZONE 1	NAMD-02	513434	1348300	24.12.21	24.12.21	18	8	12
3	ZONE 1	NAMD-03	513516	1348300	28.12.21	28.12.21	18	6	12
4	ZONE 1	NAMD-04	513475	1348220	23.12.21	23.12.21	18	8	12
5	ZONE 1	NAMD-05	513435	1348219	23.12.21	23.12.21	18	6	12
6	ZONE 1	NAMD-06	513395	1348220	28.12.21	28.12.21	18	8	12
7	ZONE 1	NAMD-07	513513	1348220	23.12.21	23.12.21	18	6	12
8	ZONE 1	NAMD-08	513556	1348221	03.12.21	03.12.21	18	10	14
9	ZONE 1	NAMD-09	513475	1348121	27.12.21	27.12.21	18	10	14
10	ZONE 1	NAMD-10	513435	1348119	22.12.21	22.12.21	18	10	14
11	ZONE 1	NAMD-11	513398	1348119	24.12.21	24.12.21	18	8	12
13	ZONE 1	NAMD-13	513517	1348121	22.12.21	22.12.21	18	10	14
14	ZONE 1	NAMD-14	513556	1348120	04.12.21	04.12.21	18	10	13
15	ZONE 1	NAMD-15	513476	1348019	22.12.21	22.12.21	18	10	14
16	ZONE 1	NAMD-16	513432	1348021	27.12.21	27.12.21	18	10	14
17	ZONE 1	NAMD-17	513516	1348020	21.12.21	21.12.21	18	12	14
18	ZONE 1	NAMD-18	513557	1348018	21.12.21	21.12.21	18	10	14
19	ZONE 1	NAMD-19	513598	1348019	04.12.21	04.12.21	14	11	13
20	ZONE 1	NAMD-20	513636	1348019	06.12.21	06.12.21	16	12	14
21	ZONE 1	NAMD-21	513678	1348020	06.12.21	06.12.21	18	15	18
22	ZONE 1	NAMD-22	513718	1348021	11.12.21	11.12.21	18	10	14
23	ZONE 1	NAMD-23	513758	1348019	10.12.21	10.12.21	18	8	13
24	ZONE 1	NAMD-24	513798	1348018	10.12.21	10.12.21	18	10	14
25	ZONE 1	NAMD-25	513839	1348021	11.12.21	11.12.21	18	8	13
26	ZONE 1	NAMD-26	513718	1347942	07.12.21	07.12.21	18	8	12
27	ZONE 1	NAMD-27	513677	1347939	07.12.21	07.12.21	18	6	14
28	ZONE 1	NAMD-28	513635	1347937	09.12.21	09.12.21	18	6	11
29	ZONE 1	NAMD-29	513597	1347940	13.12.21	13.12.21	18	6	12
30	ZONE 1	NAMD-30	513759	1347940	09.12.21	09.12.21	20	6	12
31	ZONE 1	NAMD-31	513799	1347938	13.12.21	13.12.21	18	6	14
32	ZONE 1	NAMD-32	513839	1347939	15.12.21	15.12.21	18	8	14
33	ZONE 1	NAMD-33	513879	1347940	14.12.21	14.12.21	18	10	16
34	ZONE 1	NAMD-33 NAMD-34	513920	1347938	15.12.21	15.12.21	18	8	14
35	ZONE 1	NAMD-34 NAMD-35	513960	1347939	18.12.21	18.12.21	18	10	16
36	ZONE 1 ZONE 1	NAMD-35 NAMD-36	514001	1347940	18.12.21	18.12.21	18	8	14
36	ZONE 1 ZONE 1	NAMD-36 NAMD-37	513919	1347879	16.12.21	16.12.21	18	8	14
			513879	1347880	16.12.21	16.12.21	18	8	14
38	ZONE 1	NAMD-38	513837	1347880	15.12.21	15.12.21	18	8	14
39 40	ZONE 1	NAMD-39	513963	1347881	17.12.21	17.12.21	18	8	16
	ZONE 1	NAMD-40	514000	1347880	17.12.21	17.12.21	18	8	14
41	ZONE 1	NAMD-41	513919	1348000	21.12.21	21.12.21	18	8	14
42	ZONE 1	NAMD-42	513919	1348000	20.12.21	20.12.21	18	8	14
43	ZONE 1	NAMD-43	513879	1348000	18.12.21	18.12.21	18	8	14
44	ZONE 1	NAMD-44	513839	1348000	20.12.21	20.12.21	18	8	14
45	ZONE 1	NAMD-45					18		
46	ZONE 1	NAMD-46	513595	1348256	30.12.21	30.12.21		8	12
47	ZONE 1	NAMD-47	513632	1348307	29.12.21	29.12.21	18	8	12
48	ZONE 1	NAMD-48	513573	1348337	29.12.21	29.12.21	18	10	14
49	ZONE 1	NAMD-49	513675	1348391	30.12.21	30.12.21	18	8	12
50	ZONE 1	NAMD-50	513520	1348403	29.12.21	29.12.21	18	8	12
51	ZONE 1	NAMD-51	513690	1347980	30.12.21	30.12.21	18	10	14

### **OBSERVATION**

#### PALEO AND CURRENT RIVER CHANNELS

ON GROUND INVESTIGATIONS, WE NOTICED A PALEO RIVER CHANNEL THAT HAS BEEN BURIED BY SEDIMENTS.



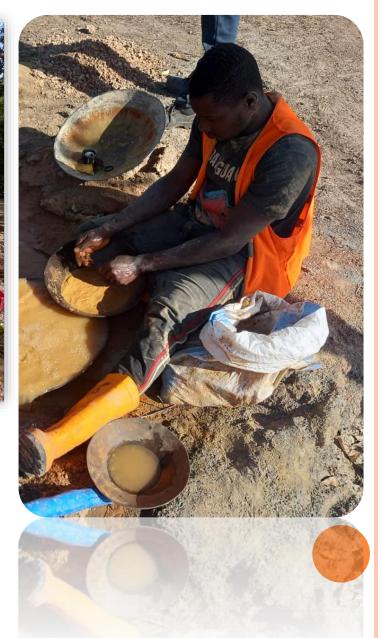
### SAMPLE WASHING PROCESS FLOW



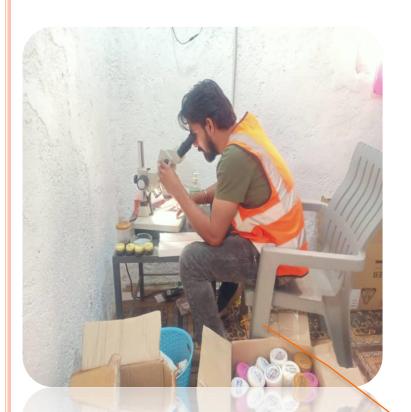


SAMPLE WASING IN GK

CONCENTRATE PANNING



### **MICROSCOPIC ANALYSIS**





Magnification Stereo microscope use to visualize invisible gold specs and to study the shape and size of gold grains.

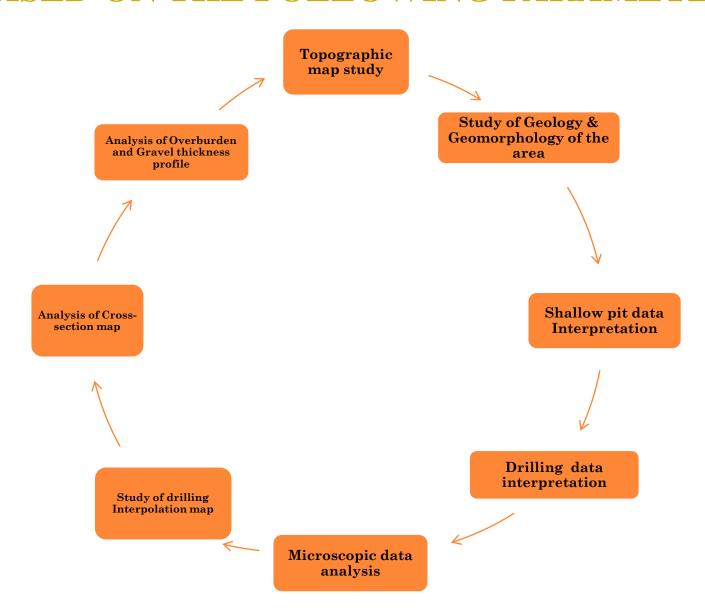
Knowing the shape and size of the gold grain will help us to understand the source of gold and calculation of gold reserve



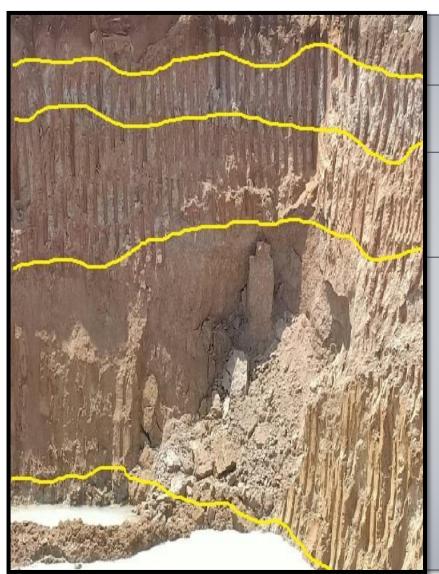
## NUMBER OF GOLD SPEC PRESENT IN PER DRILLHOLE SAMPLE

	Auger_BH_ID	Au(0-2m)	Au(2-4m)	Au(4-6m)	Au(6-8m)	Au(8-10m)	Au(10-12m)	Au(12-14m)	Au(14-16m)	Au(16-18m)
-	NAMD-01	2.00	1.00	8.00	90.00	84.00	13.00	14.00	14.00	13.00
	NAMD-02	0.00	3.00	7.00	14.00	4.00	5.00	5.00	8.00	0.00
BLOCK-A	NAMD-03	2.00	1.00	20.00	27.00	14.00	7.00	0.00	1.00	0.00
	NAMD-05	4.00	2.00	2.00	48.00	142.00	160.00	13.00	2.00	1.00
	NAMD-06	5.00	8.00	3.00	221.00	155.00	64.00	31.00	36.00	26.00
	NAMD-20	2.00	1.00	1.00	9.00	4.00	30.00	90.00	21.00	0.00
	NAMD-21	2.00	0.00	0.00	1.00	64.00	8.00	31.00	17.00	6.00
DI OCIZ D	NAMD-22	1.00	0.00	2.00	1.00	2.00	300.00	100.00	30.00	15.00
BLOCK-B	NAMD-23	0.00	0.00	2.00	5.00	15.00	30.00	51.00	33.00	21.00
	NAMD-27	1.00	0.00	0.00	62.00	34.00	44.00	11.00	6.00	5.00
	NAMD-28	2.00	0.00	0.00	0.00	85.00	12.00	28.00	6.00	8.00
	NAMD-31	0.00	1.00	1.00	2.00	52.00	29.00	6.00	3.00	2.00
	NAMD-38	3.00	3.00	3.00	4.00	4.00	61.00	47.00	2.00	0.00
	NAMD-39	0.00	1.00	1.00	19.00	61.00	69.00	14.00	12.00	4.00
	NAMD-34	6.00	0.00	1.00	3.00	29.00	105.00	25.00	27.00	35.00
	NAMD-35	3.00	5.00	0.00	11.00	33.00	21.00	25.00	15.00	10.00
BLOCK-C	NAMD-36	1.00	1.00	3.00	3.00	41.00	120.00	25.00	12.00	10.00
	NAMD-40	0.00	3.00	1.00	7.00	34.00	300.00	60.00	25.00	19.00
	NAMD-41	10.00	0.00	9.00	7.00	25.00	11.00	8.00	2.00	2.00
	NAMD-42	0.00	1.00	7.00	30.00	27.00	21.00	24.00	1.00	7.00
	NAMD-43	0.00	0.00	3.00	20.00	71.00	53.00	34.00	9.00	6.00
	NAMD-44	1.00	2.00	2.00	51.00	32.00	138.00	52.00	35.00	18.00
	NAMD-10	22.00	2.00	3.00	6.00	1.00	33.00	1.00	185.00	12.00
DI OCK D	NAMD-16	0.00	30.00	22.00	43.00	1.00	1.00	3.00	3.00	2.00
BLOCK-D	NAMD-13	0.00	1.00	1.00	2.00	52.00	29.00	6.00	3.00	2.00
	NAMD-14	1.00	10.00	1.00	55.00	75.00	45.00	10.00	2.00	0.00

### DATA ANALYSIS AND INTERPRETATION BASED ON THE FOLLOWING PARAMETERS



### **OVERBURDEN DETAILS**



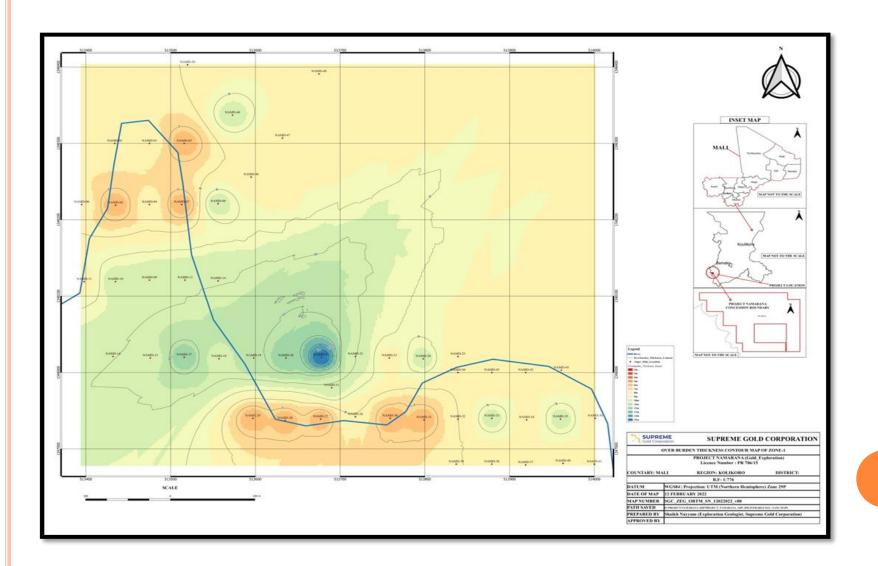
Dark brown unconsolidated soil rich in organic materials and traces of river sediments.

Soft weathered lateritic portion mottled with kaolin-like materials.

Reddish brown lateritic layer

Slightly wet, sticky and highly weathered lateritic materials.

# OVERBURDEN THICKNESS CONTOUR MAP OF ZONE-1



### **GRAVEL DETAILS**

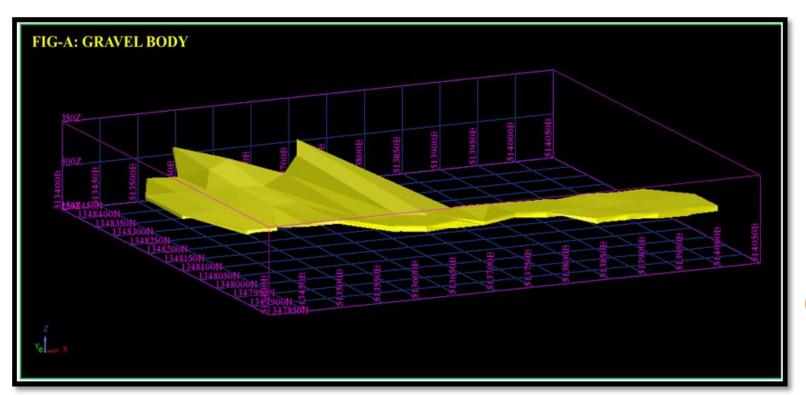
GOLD BEARING GRAVEL IS A CONSTITUENT FRAGMENT OF ROCKS AND SEDIMENTS THAT CONTAIN SEDIMENTARY GOLD. THE GRAVEL IN THE ZONE IS MOSTLY FOUND IN THE PALEO-CHANNEL OF THE RIVER BALANKO

FROM OUR DRILLING DATA, HIGH GRAVEL CONTENT IS MOSTLY FOUND ALONG THE POOL AREAS AND OLD BENCHES OF THE ANCIENT CHANNEL.

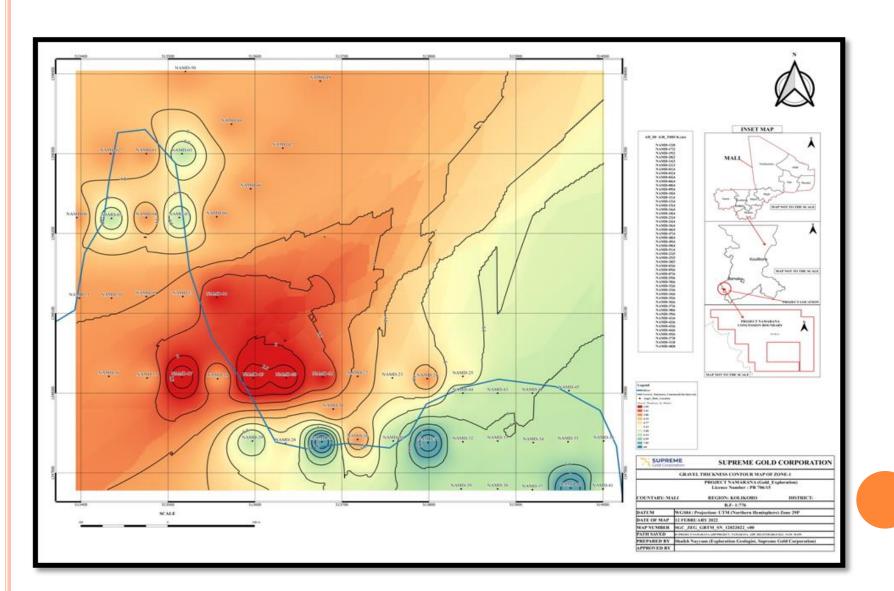
AN AVERAGE THICKNESS OF GOLD BEARING GRAVEL IN THE ZONE IS 6M-8M.

THE MOST COMMON ROCK FRAGMENTS SEEN IN THE GRAVEL ARE CHIPS OF QUARTZ, DOLERITES, SAND STONES AND HORNFELS

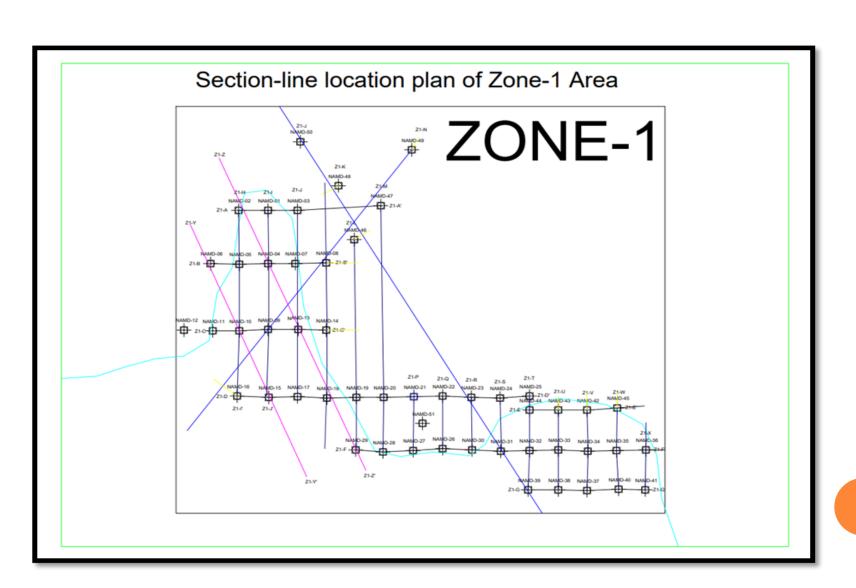
THESE ROCKS ARE MOSTLY CONTAIN GRAVEL, PEBBLE, COBBLES RENEGES FROM 1 MM TO 150 MM IN SIZE AND SUB ROUNDED TO WELL ROUNDED IN NATURE.



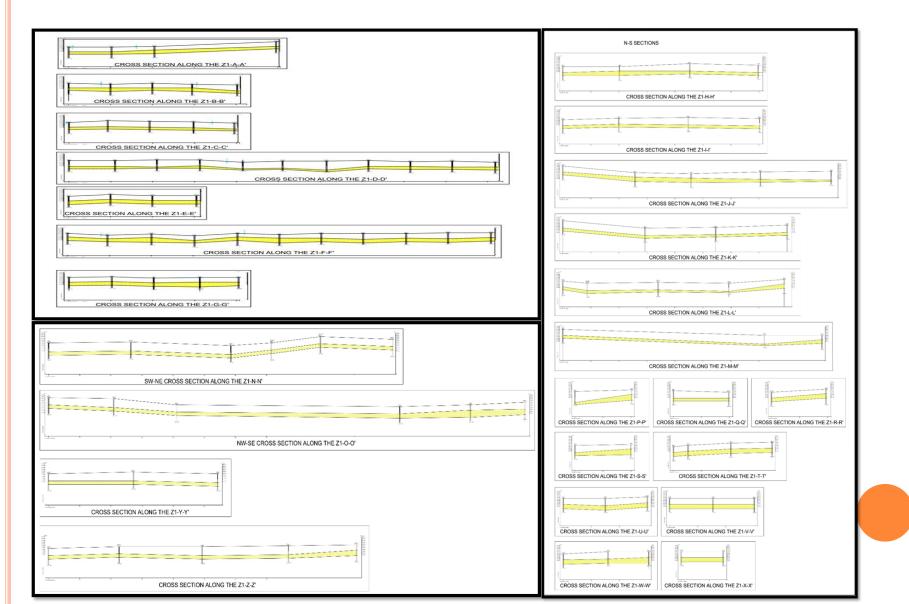
### **GRAVEL THIKNESS MAP ZONE 1**



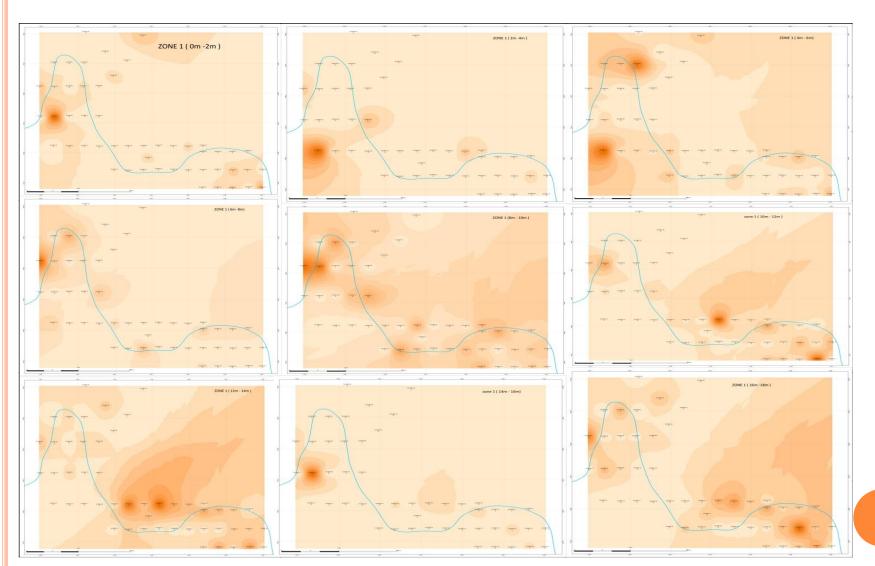
### **CROSS SECTION LINE ZONE 1**



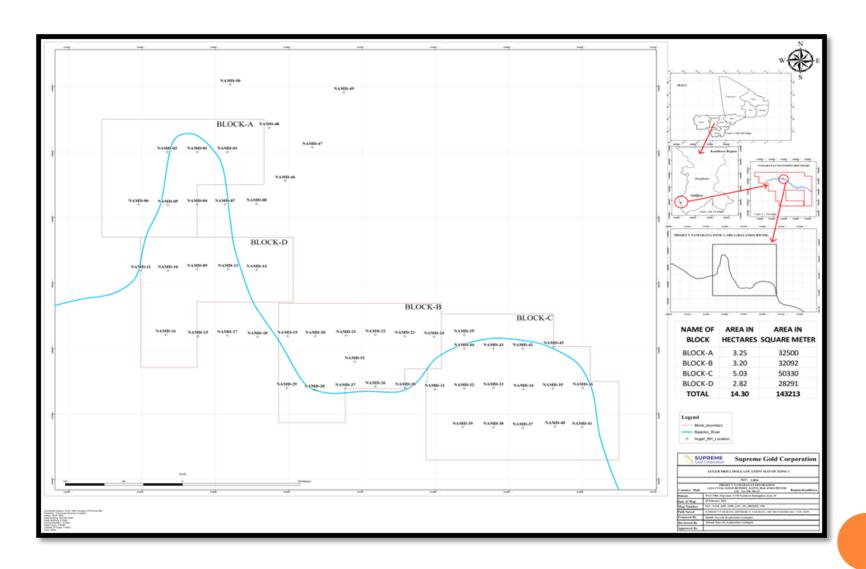
### **CROSS-SECTION MAP**



### LAYER INTERPOLATION MAPS AND DATA INTERPRETATION



### PROPOSED MINE BLOCK DEMARCATION



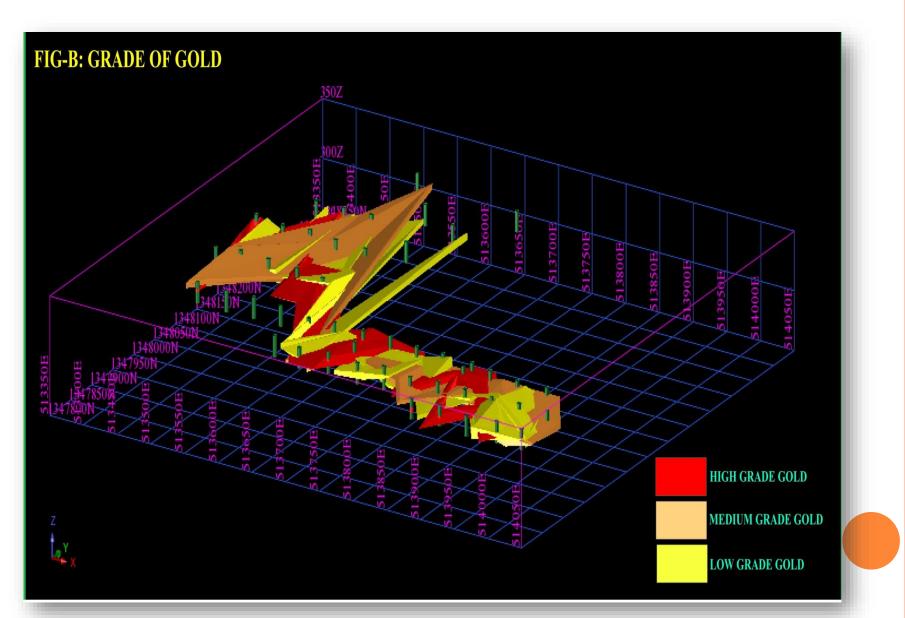
### RESERVE ESTIMATION OF ZONE 1

☐ Estimate of tonnage a	nd grade of the mineralized	gravel ore body,
based on drilling assay d	ıta.	

- **☐** We estimate the tonnage and grade that is expected to be delivered to the treatment plant.
- ☐ Upon the reserve estimation, we divide the zone into four main mineralized blocks. Each block is having it reserve estimation to be mined.
- ☐ Mineral reserve estimation is based on the below classification.

MINERAL RESERVE CLASSIFICATION	Cut-off Grade Au g/t	Grade Classification Range in g/t
High Grade	0.2	0.2 <
Medium Grade	0.08	0.08 to 0.2
Low Grade	0.03	0.03 to 0.08
Overburden	0.03	≤ 0.03

### **GOLD MINERALIZATION MAP**



### RESEVE ESTIMATION DETAILS ZONE 1 (BLOCK, A, B, C, D) WITH 75% EFFICIENCY

#### PROJECT NAMARANA EXPLORATION PROGRAM

BLOCK WISE AND GRADE WISE RESERVE ESTIMATION OF ZONE 1 (ADP)

BLOCK	GRADE	Area (sq. m)	Volume (m3) Area x Depth	Tonnage (Volume x Sp.gr.(2))	Gold Reserve (g/t) Tonnage x Grade	TOTAL GOLD IN GRAMS	TOTAL GOLD IN OUNCES (Oz)	
	High Grade		195000	390000	124800			
BLOCK-A	Medium Grade	32500	0	0	0	150800	4848.87	
	Low Grade		260000	520000	26000			
	High Grade		128368	256736	71886.08			
BLOCK-B	K-B Medium Grade 32	32092	128368	256736	30808.32	115531.2	3714.83	
	Low Grade		128368	256736	12836.8			
	High Grade	gh Grade	100660	201320	76501.6			
BLOCK-C	Medium Grade	50330	201320	402640	60396	173135.2	5567.05	
	Low Grade		301980	603960	36237.6			
	High Grade		56582	113164	24896.08			
BLOCK-D	-D Medium Grade	28291	169746	339492	44133.96	78083.16	2510.71	
	Low Grade		113164	226328	9053.12			
TOTAL		143213	480610	961220	517549.56	517549.56	16641.46	

#### **CONCLUSION**

ALTHOUGH SEVERAL ARTISANAL MINING OPERATIONS HAVE BEEN ACTIVE IN THE PERMIT AREA BY CHINESE AND LOCALS, EITHER OF THOSE ARTISANS HAVE GIVEN A CLEAR PICTURE ON THE MINERALIZATION OF THE AREA.

SEVERAL EXPLORATION STUDIES AND ACTIVITIES WERE CARRIED OUT TO KNOW THE MINERAL RESERVE OF SEDIMENTARY GOLD DEPOSIT ALONG THE BALANKO RIVER.

SURFACE PITTING, DEEP PITTING, AUGER DRILLING, SAMPLING AND MICROSCOPIC STUDIES ARE FEW OF THE EXPLORATION TECHNIQUES DONE TO HAVE A RESERVE ESTIMATION FOR THE ZONE.

IN COLLATING FIELD DATA, CROSS SECTION AND INTERPOLATION MAPS WERE DONE TO KNOW THE MINERALIZATION TREND OF THE AREA. THROUGH THESE DATA, MINING BLOCKS WERE CREATED BASED ON MINERALIZATION.

#### PPROJECT RISKS

Only preliminary exploration activities have been carried out to ascertain the mineral content along the paleo channel. The reserve estimation done is from the data collected from the field and there are possibilities of having high or low cut of grade.

disadvantages like environmental conditions, illicit mining, livelihood activities by locals like farming and livestock rearing.

#### RECOMMENDATIONS

Detail exploration studies needed to know more about the paleo-channel.

Further explore the project in an effort to increase tonnage and confidence of the currently defined resources.

Alluvial findings along the paleo channel have several Engage locals on the importance of mining by authorized companies recommended by the government and also explain the flaws of illegal operations by the Chinese.

Perform advance mineral processing activities and additional metallurgical testing and characterization.





### MINING FOR BETTER LIVES