MWAGILIGILI MINERAL POTENTIAL ASSESSMENT FROM BUHUNGUKIRA BELT, MISUNGWI DISTRICT. MWANZA REGION TANZANIA

FOR:

SEDMEDTES MINING COMPANY LIMITED

OF MINERAL RIGHT

(PML00928MZA, 00923MZA, 00922MZA, 00926MZA, 00919MZA, 00925MZA, 00921MZA, 00927MZA, 00920MZA, 00924MZA, 00918MZA and 00917 MZA).

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Submission Date: 28 April 2026

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1.0 INTRODUCTION

Sediments Mining Company limited, the project owner, commissioned Machimbo Explorer consultant to evaluate the mineral potential of the licence area through a review of historical datasets and site verification. The assessment incorporated interpretation of available magnetic data, soil geochemical surveys, and existing geological maps, complemented by field visits to validate geological and structural observations.

The Sediments licence area is located in Mwagiligili Village, Misungwi District, within the Mwanza Region of northern Tanzania, forming part of the Lake Victoria Goldfield in the Sukuma land. Geologically, the area lies within the Buhungukira Belt. This belt is predominantly composed of volcano-sedimentary sequences typical of Archean greenstone terrains.

The Buhungukira Belt forms part of a broader metallogenic province known for both lithologically and structurally controlled gold mineralization within greenstone-hosted environments. The geological setting, characterized by favorable lithologies, deformation zones, and hydrothermal alteration, indicates a prospective environment for gold deposition.

The Sediments property comprises twelve (12) Primary Mining Licences (PMLs), collectively covering approximately 120 hectares. Based on the integration of historical data and field observations, the area demonstrates credible potential for gold mineralization and warrants further systematic exploration

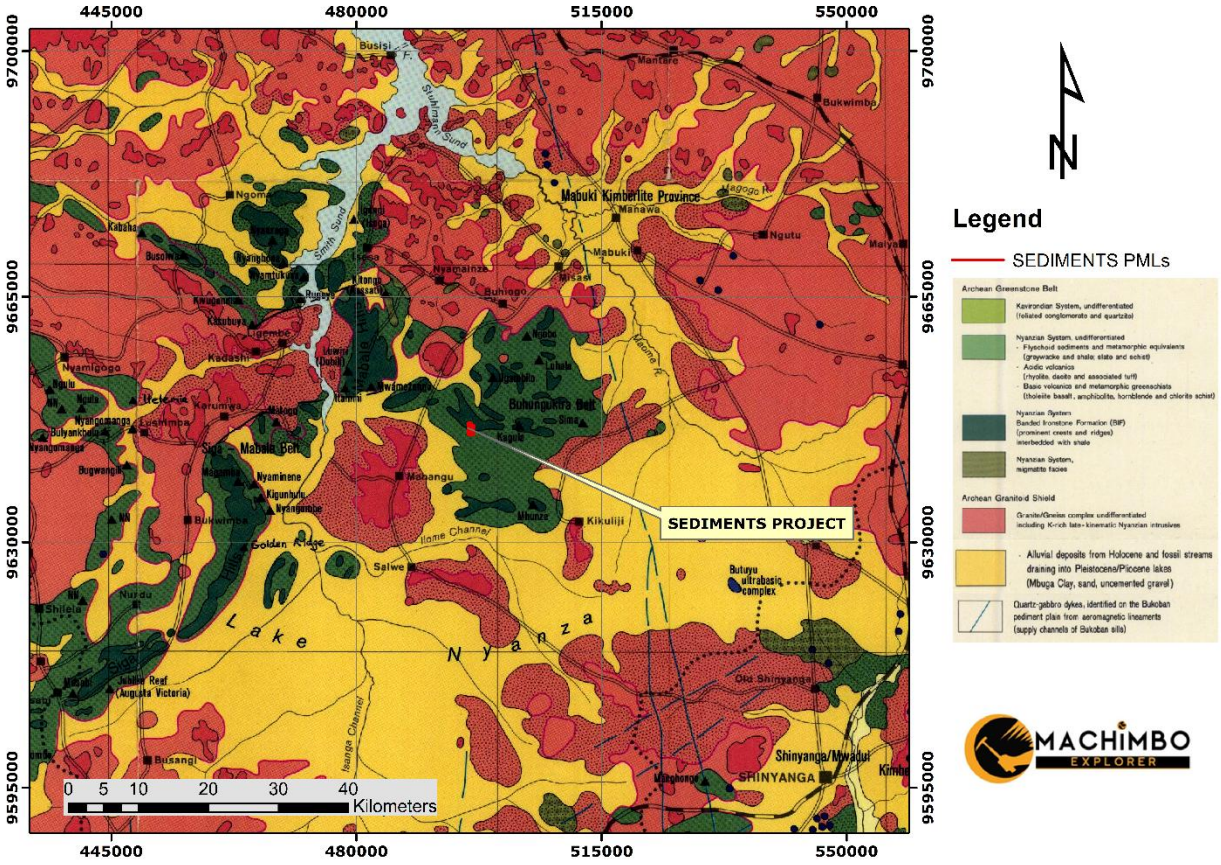

Figure 1: Lake Victoria gold field map, showing sediments project.

1.1 OBJECTIVE

The objective of this report is to review historical exploration data and assess the potentiality of the PMLs within the Sediment license area of Misungwi district.

1.2 SITE VISTING INVOLVEMENT

Machimbo Explorer, as the author of this report, conducted a site visit from 9th to 12th April 2026. During this period, no active mining or exploration activities observed within the licence area.
Fieldwork undertaken included lithological mapping and the collection of ten (10) geochemical samples for analysis. These

activities aimed at verifying geological conditions on the ground and supporting the evaluation of the project's mineral potential.

1.3 PROPERTY DISCRIPTION

Sediment company holding twelve Primary Mining Licenses (PML00928, 00923, 00922, 00926, 00919, 00925, 00921, 00927, 00920, 00924, 00918 and 00917 MZA). The license was granted on 2025. The licenses cover an area of 124hectares within Misungwi District in Mwanza Region.
The licenses will expire 2032 in accordance with the Mining Act of Tanzania.

Table 1:Showing boundaries of the sediment project.

No	Lat			Long			discription
	Deg	Min	Sec	Deg	Min	Sec	PML NO.
1	3	12	2.99	32	57	50.04	PML 00925 MZA
2	3	12	11.59	32	57	50.02	PML 00925 MZA
3	3	12	11.62	32	58	2.16	PML 00925 MZA
4	3	12	2.85	32	58	2.21	PML 00925 MZA
5	3	12	32.57	32	58	1.99	PML00917MZA
6	3	12	29.17	32	58	1.99	PML00917MZA
7	3	12	29.29	32	57	50.04	PML00917MZA
8	3	12	32.83	32	57	50.03	PML00917MZA
9	3	12	32.75	32	58	13.95	PML00918MZA
10	3	12	24.47	32	58	13.96	PML00918MZA
11	3	12	24.31	32	58	2.05	PML00918MZA
12	3	12	32.66	32	58	2	PML00918MZA
13	3	11	57.11	32	58	13.79	PML00919MZA
14	3	12	6.39	32	58	13.7	PML00919MZA
15	3	12	6.03	32	58	2.25	PML00919MZA
16	3	11	56.99	32	58	2.21	PML00919MZA
17	3	12	15.29	32	58	13.96	PML00920MZA
18	3	12	24.47	32	58	13.9	PML00920MZA
19	3	12	24.31	32	58	2.28	PML00920MZA
20	3	12	15.35	32	58	2.32	PML00920MZA
21	3	12	15.28	32	58	14	PML00921MZA
22	3	12	6.39	32	58	13.7	PML00921MZA
23	3	12	6.03	32	58	2.25	PML00921MZA
24	3	12	15.35	32	58	2.32	PML00921MZA
25	3	11	57.11	32	58	14.33	PML00922MZA
26	3	11	48.51	32	58	14.4	PML00922MZA
27	3	11	48.17	32	58	2.28	PML00922MZA
28	3	11	56.99	32	58	2.21	PML00922MZA
29	3	12	20.39	32	57	50.11	PML00924MZA
30	3	12	29.26	32	57	50.07	PML00924MZA
31	3	12	29.15	32	58	1.96	PML00924MZA
32	3	12	20.32	32	58	2.06	PML00924MZA
33	3	11	45.53	32	57	50.09	PML00923MZA
34	3	11	54.2	32	57	50.11	PML00923MZA
35	3	11	54.15	32	58	2.16	PML00923MZA
36	3	11	45.45	32	58	2.33	PML00923MZA
37	3	11	45.53	32	57	50.09	PML00928MZA
38	3	11	36.83	32	57	50.03	PML00928MZA
39	3	11	36.85	32	58	2.18	PML00928MZA
40	3	11	45.45	32	58	2.33	PML00928MZA
41	3	12	20.39	32	57	50.19	PML0927MZA
42	3	12	11.63	32	57	50.11	PML0927MZA
43	3	12	11.63	32	58	2.16	PML0927MZA
44	3	12	20.27	32	58	2.21	PML0927MZA
45	3	12	2.96	32	57	50.07	PML00926MZA
46	3	11	54.2	32	57	50.11	PML00926MZA
47	3	11	54.15	32	58	2.16	PML00926MZA
48	3	12	2.85	32	58	2.21	PML00926MZA

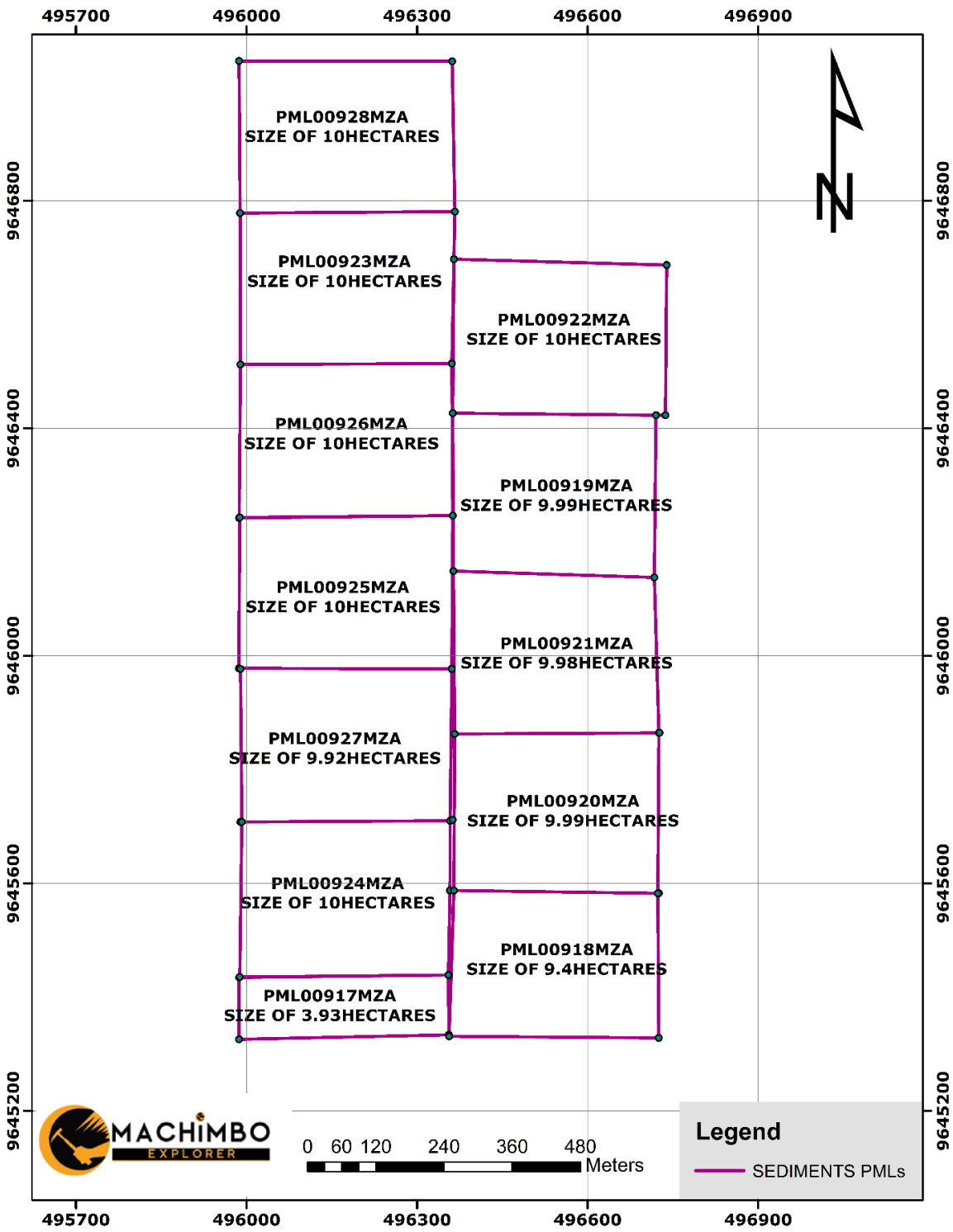

Figure 2: PMLs on map showing site location

1.4 PROPERTY LOCATION ACCESIBILITY.

The area is located in Misungwi district almost approximated 86km from Mwanza town. The area lies within the **Buhungukira Belt**, part of the broader Lake Victoria Goldfields, a well-known metallogenic province hosting numerous gold deposits. The license area is located in between the thick forest of Ilongafipa forest reserve and covered with hills like Itegamatu hill.

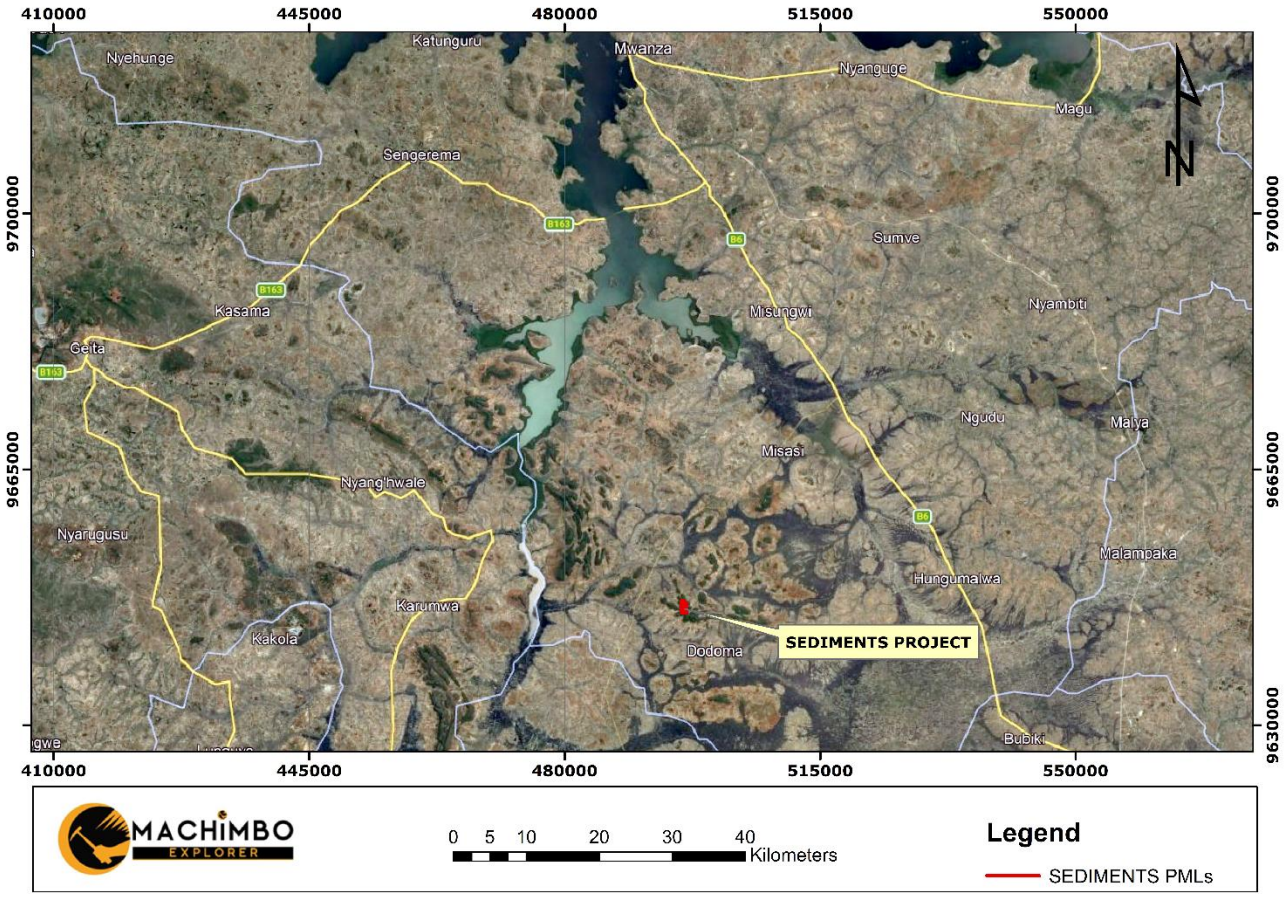

Figure 3:showing the earth map view of sediment area.

1.5 PHYSIOGRAPHY OF AN AREA.

The licence area situated within a highland terrain, with elevations ranging from approximately 1,200 m to a maximum of 1,400 m above sea level. The topography characterized by gently undulating to low hilly relief, with broadly developed hills exhibiting moderate slopes rather than steep gradients. Local geomorphology includes low ridges and shallow seasonal valleys, indicating moderate elevation variation across the area.

No cultivation or permanent settlements are present within the licence boundaries. The area is largely undeveloped, with vegetation dominated by bush and scrubland.

Vegetation cover is variable, comprising predominantly shrubs and scattered woodland, interspersed with zones of sparse vegetation and occasional exposed or bare soils. This heterogeneity in vegetation distribution likely controlled by variations in soil depth, drainage conditions, and underlying lithology.

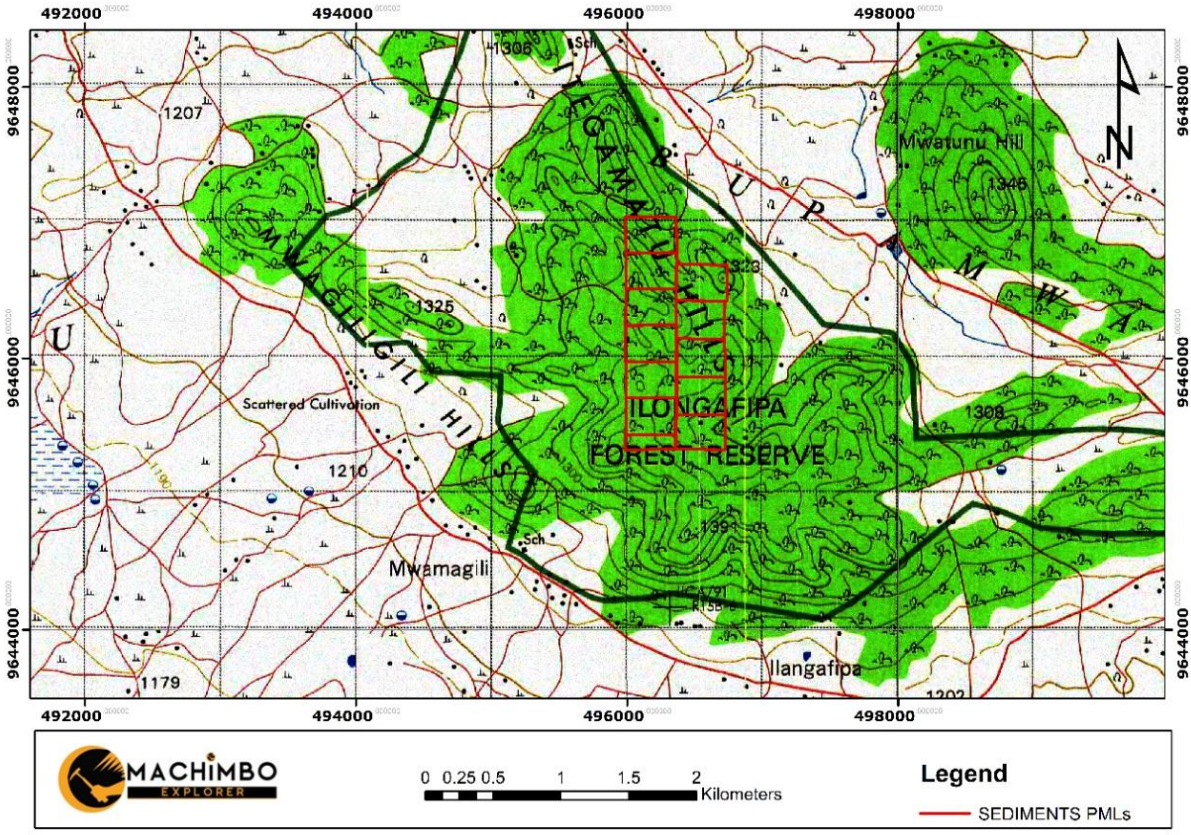

Figure 4: showing the topographical map of an area.

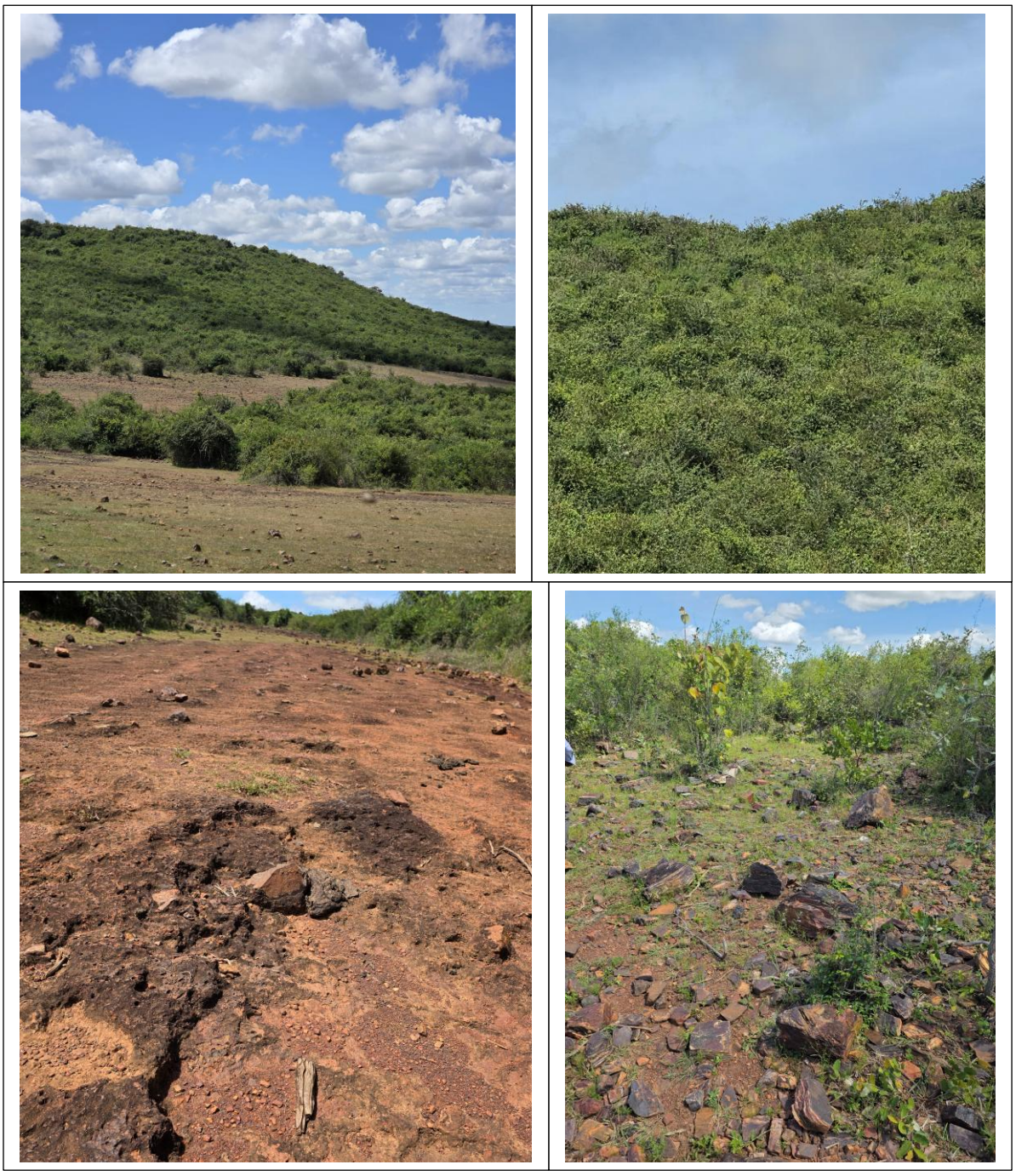

Figure 5:Images showing site view

2.0 GEOLOGICAL SETTING

2.1 REGIONAL GEOLOGY

The Buhungukira Greenstone Belt forms part of the Archaean Lake Victoria Goldfields (LVG) within the Tanzania Craton. The belt dominated by volcano-sedimentary sequences comprising:

Banded Iron Formation (BIF) and chemical sediments

Metavolcanic rocks, including basaltic to felsic flows and tuffs

Clastic sediments, such as greywacke, argillite, and minor conglomerates

These units have undergone greenschist- to lower amphibolite-facies metamorphism and locally intruded by felsic to mafic granitoids and dolerite dykes.

Structurally, the belt strongly deformed, with dominant NW–SE to N–S trending shear zones, folds, and faults. These structures are key controls on fluid flow and mineralization. Folding is typically tight to isoclinal, with variable plunge directions.

Gold mineralization in the Buhungukira area is generally orogenic in style, occurring as:

Shear zone-hosted quartz veins, and

Stratabound mineralization, particularly within BIF and favourable felsic units

Alteration associated with mineralization commonly includes silicification, carbonation, sericitization, and sulphidation (pyrite ± arsenopyrite).

Overall, the geology and structural framework of the Buhungukira Greenstone Belt are prospective for structurally controlled gold deposits, similar to other deposits within the Lake Victoria Goldfields.

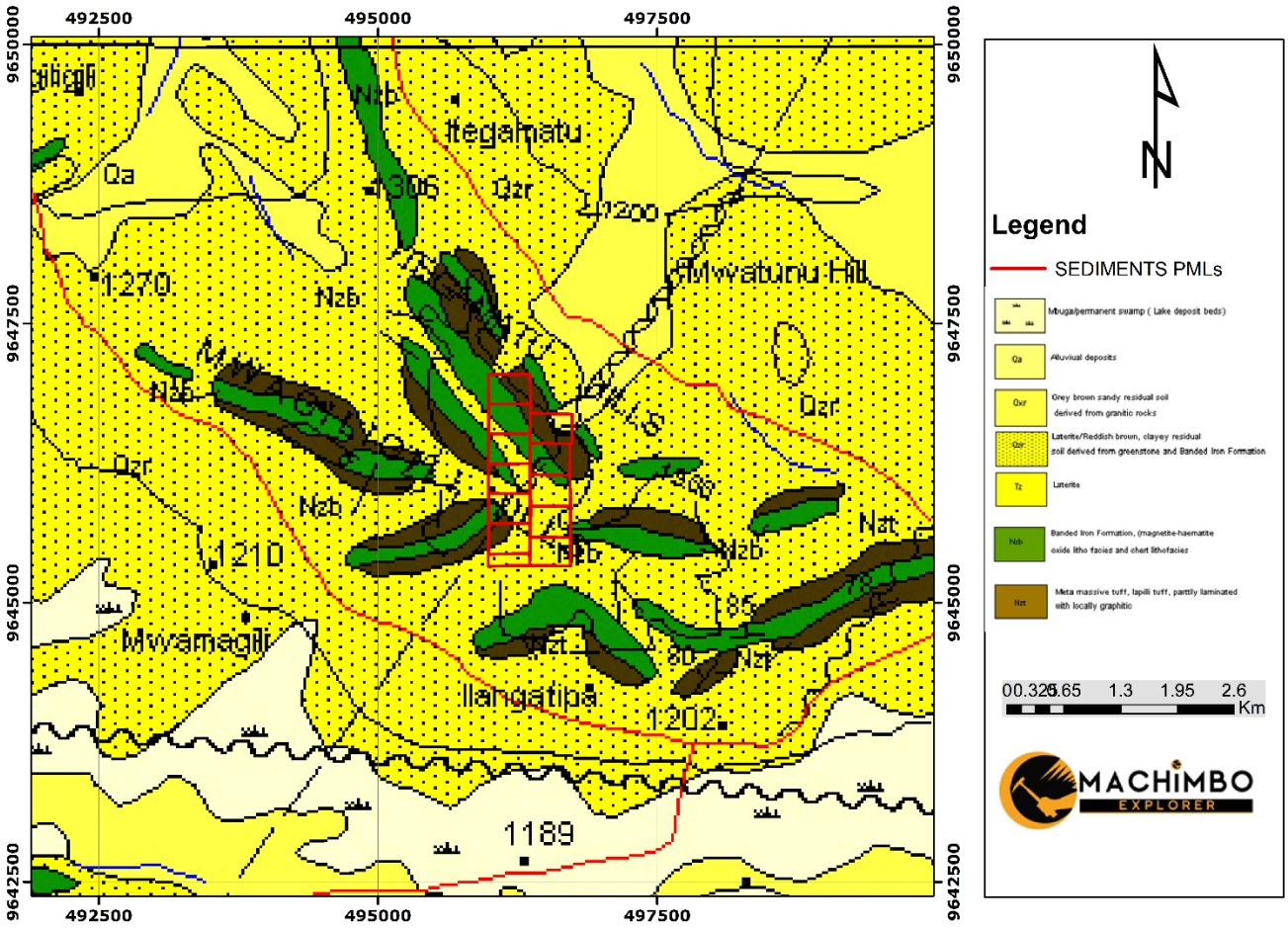

Figure 6: showing the regional geology map of an area

2.2 LOCAL GEOLOGY OF AN AREA.

Banded Iron Formation (BIF): Forms the basal unit, consisting of interlayered silica and iron-rich bands with strong ferruginization and oxidation (hematite–magnetite dominant).

Metavolcanic Tuffs: Overlying the BIF, these rocks are fine- to medium-grained volcaniclastics units, moderately metamorphosed, locally silicified, and affected by sericite–chlorite alteration.

Laterite: A widespread upper weathering profile composed of ferruginous duricrust and kaolinitic material, reflecting intense tropical weathering.

The sequence is locally intruded by younger dyke swarms (interpreted Karoo age) and is deeply weathered, with pervasive lateritization and oxidation.

The anticlinal geometry is consistent with the stratigraphic succession (BIF-tuff-laterite) and considered significant in controlling fluid pathways and potential mineralization.

A: LATERITE

B: FOLDING STRUCTURE

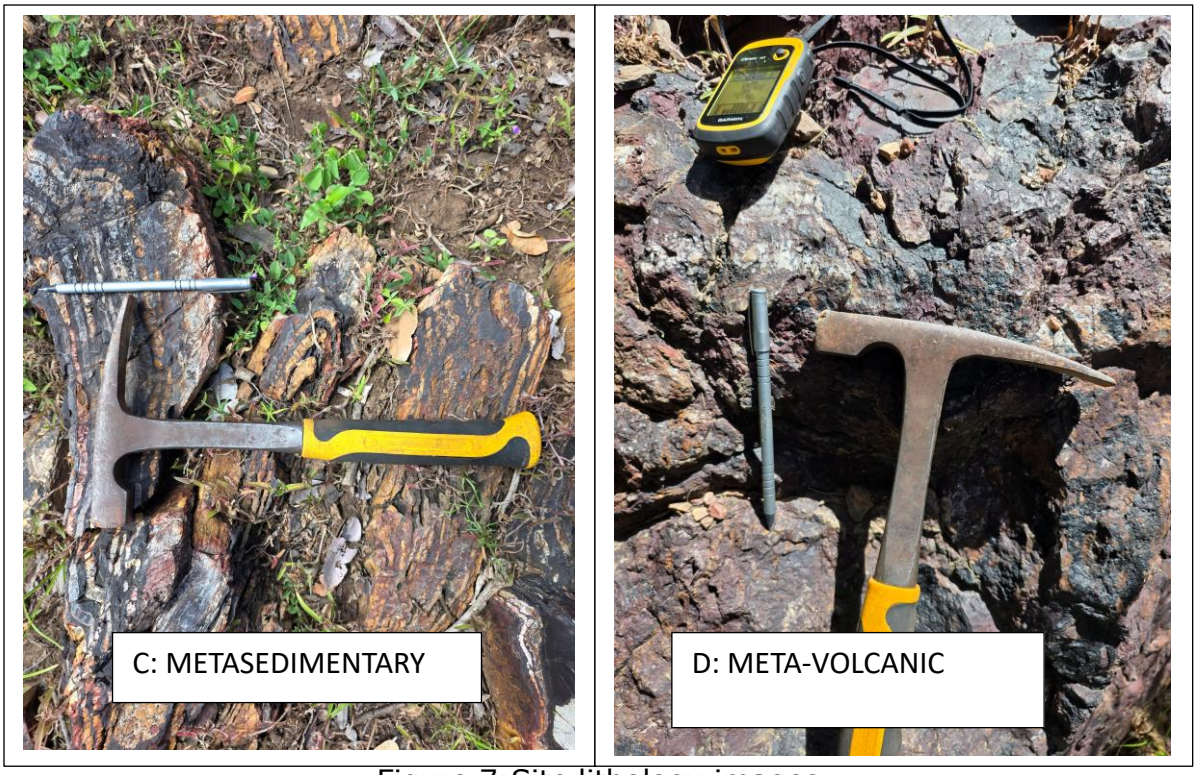

Figure 7:Site lithology images

2.1.1 MINERALISATION STYLES OF AN AREA

Gold mineralization at Mwagiligili is shear-zone hosted and stratabound, controlled by NE–SW trending shear zones and NW–SE lithological stratigraphy. Mineralization focused within a favourable felsic metavolcanic tuff unit, with deformation providing pathways for fluid flow.

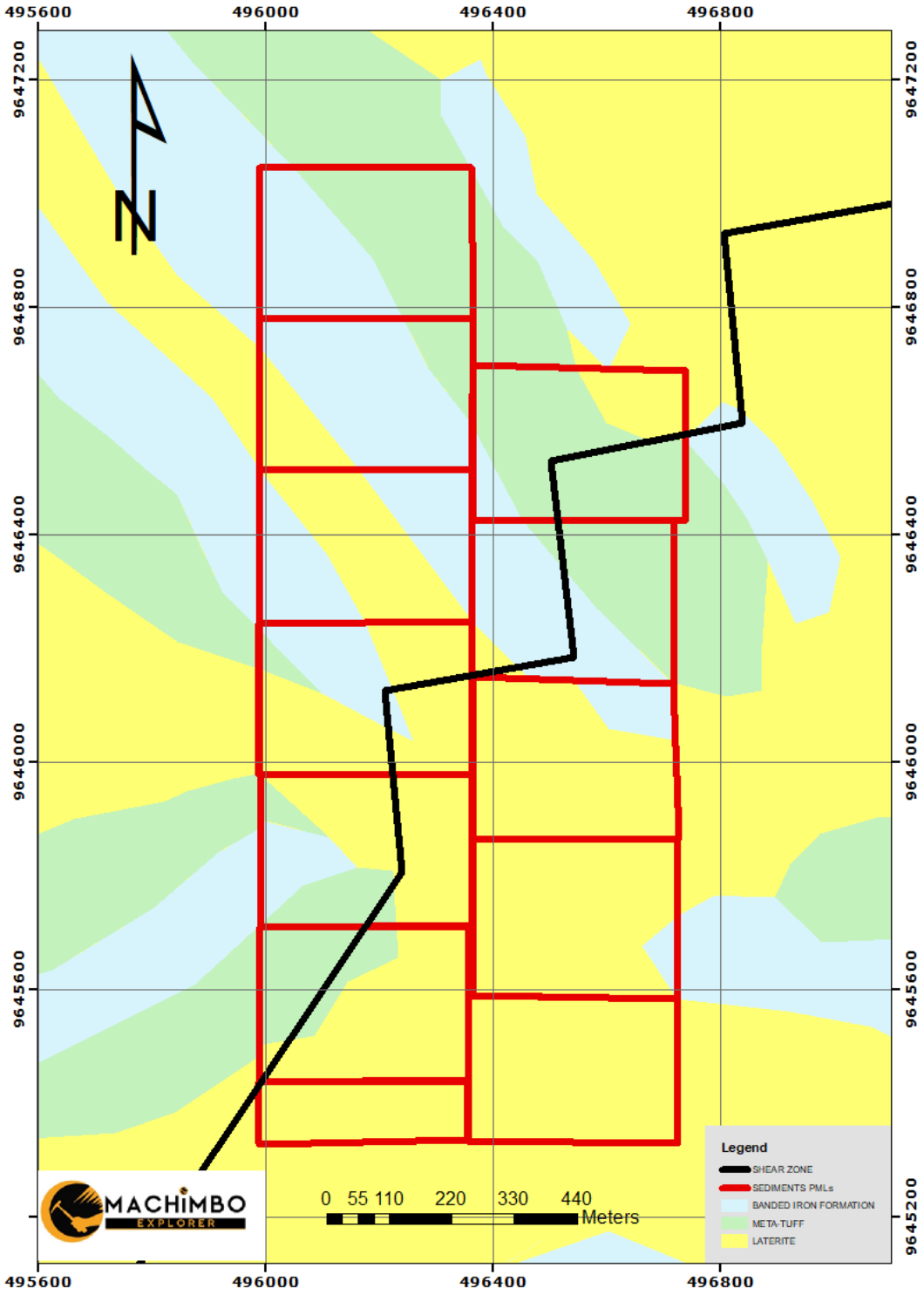

Figure 8: Geological of the property

3.0 HISTORICAL EXPLORATION

3.1 GEOCHEMICAL SURVEY

Exploration activities at sediment area included geological mapping and geochemical surveys. Soil composition are predominantly associated with lateritic horizons and reflect underlying mineralization

The soil within the Project indicates a residual, laterite-dominated regolith developed over Archaean volcanic and intrusive rocks of the Lake Victoria Goldfields. The soils are derived from in-situ weathering laterite preserving the geochemical signature of the underlying lithology. Gold anomalies, shown by clustered sample points, are spatially aligned along NE–SW and NW–SE structural trends, reflecting the influence of shear zones and quartz vein systems typical of orogenic gold deposits.

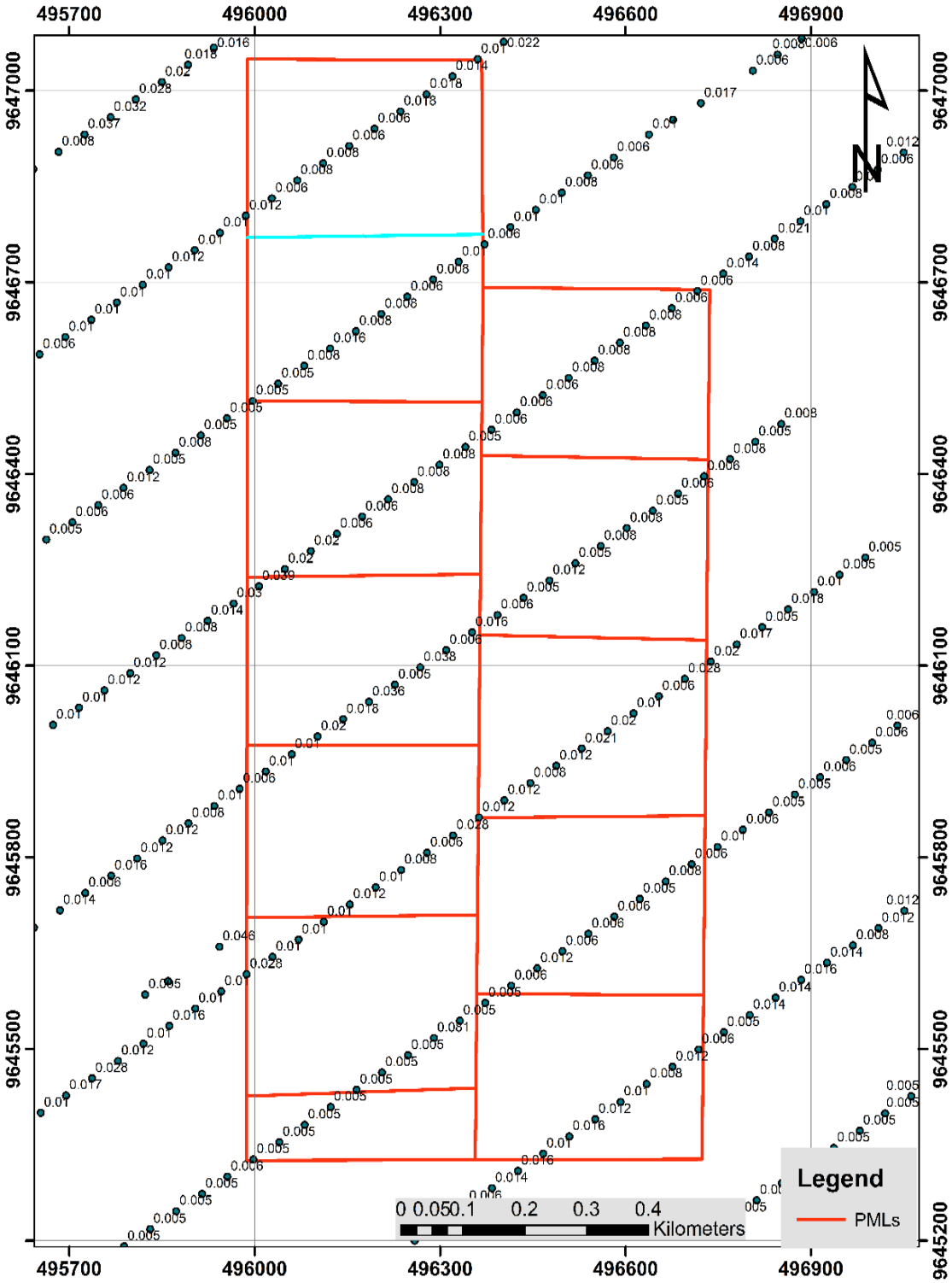

Figure 9:Geochemical soil mapping.

3.2 MAGNETIC SURVEY.

The Analytical Signal map for PMLs highlights the boundaries of magnetic bodies and provides a clearer definition of structural features dependent of magnetic field. Several high-amplitude linear anomalies indicate the presence of lithological contacts and structurally controlled zones within the different rocks. These features coincide with zones of fracturing and shearing, which are considered favorable and potential gold mineralization.

From the magnetic data, the image shows the high magnetic zone (red colored zone) crosscutting in E-W trending direction which is structurally controlled and persistent, it is associated with major weakness with edges of low magnetic intensity (green-yellow zone) which can provide the good environment of gold deposition and hydrothermal alteration.

The sediment area lies on the edge of the strong magnetic intensity and low, this have geological significance because, the contacts between the high and low magnetic zones marks the lithological boundaries, shear zones or the fault zones which acts as a trap for gold mineralization.

Therefore, because the licensed area located in the edge between low magnetic and **high** magnetic zone, its potential for gold mineralization.

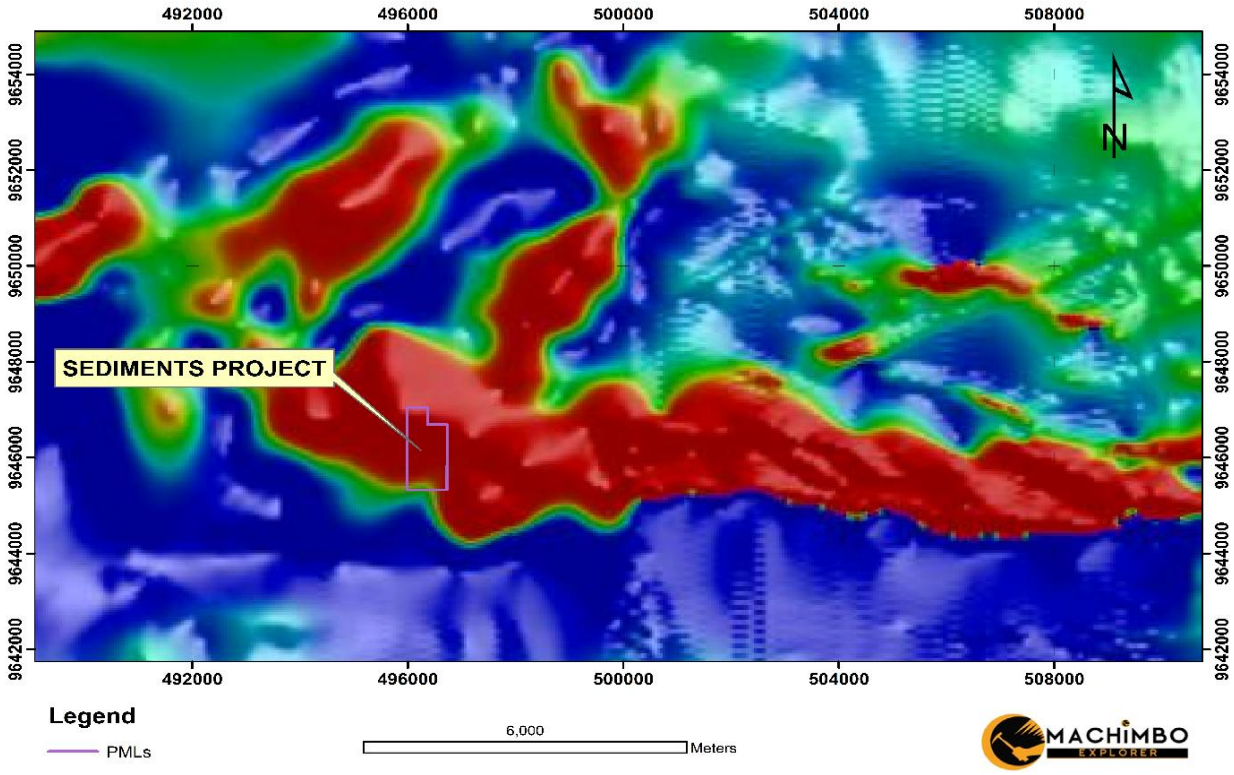

Figure 10: magnetic TMI map showing subsurface feature

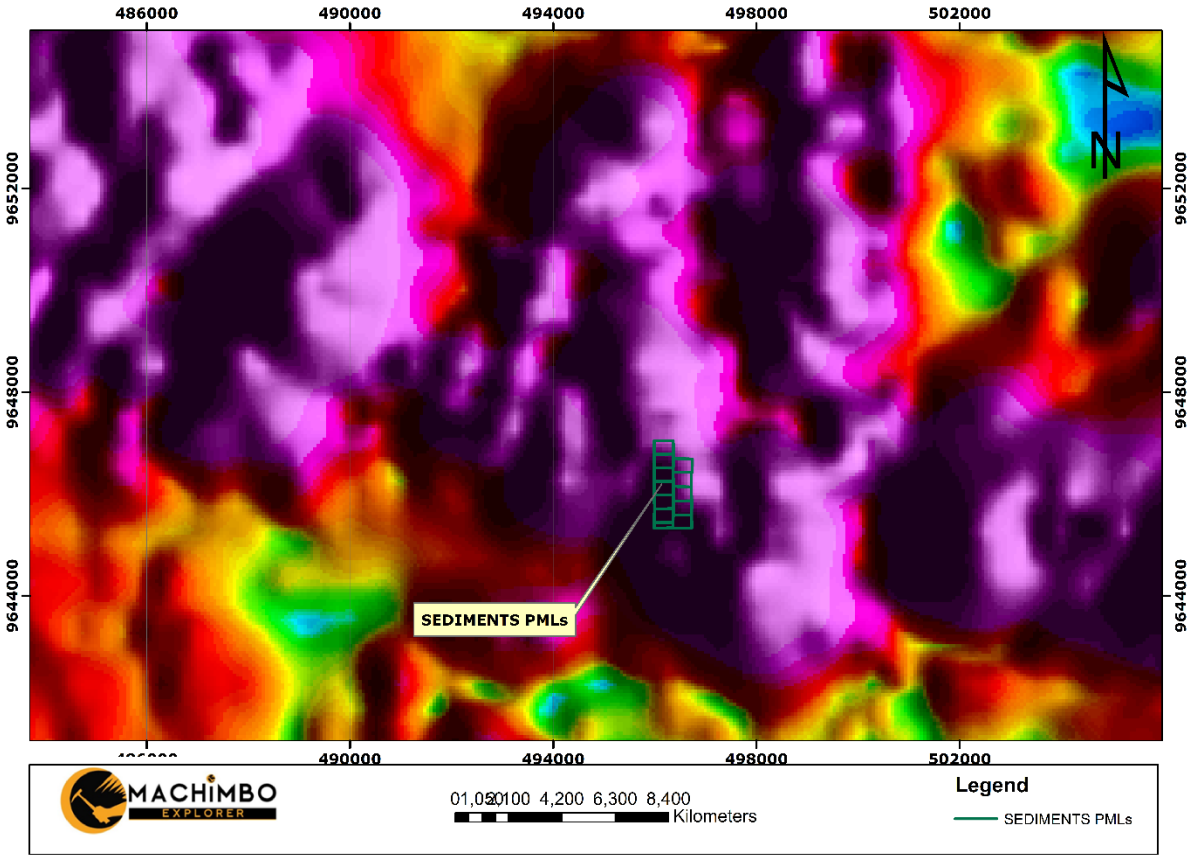

Figure 11:Analytical Magnetic Map.

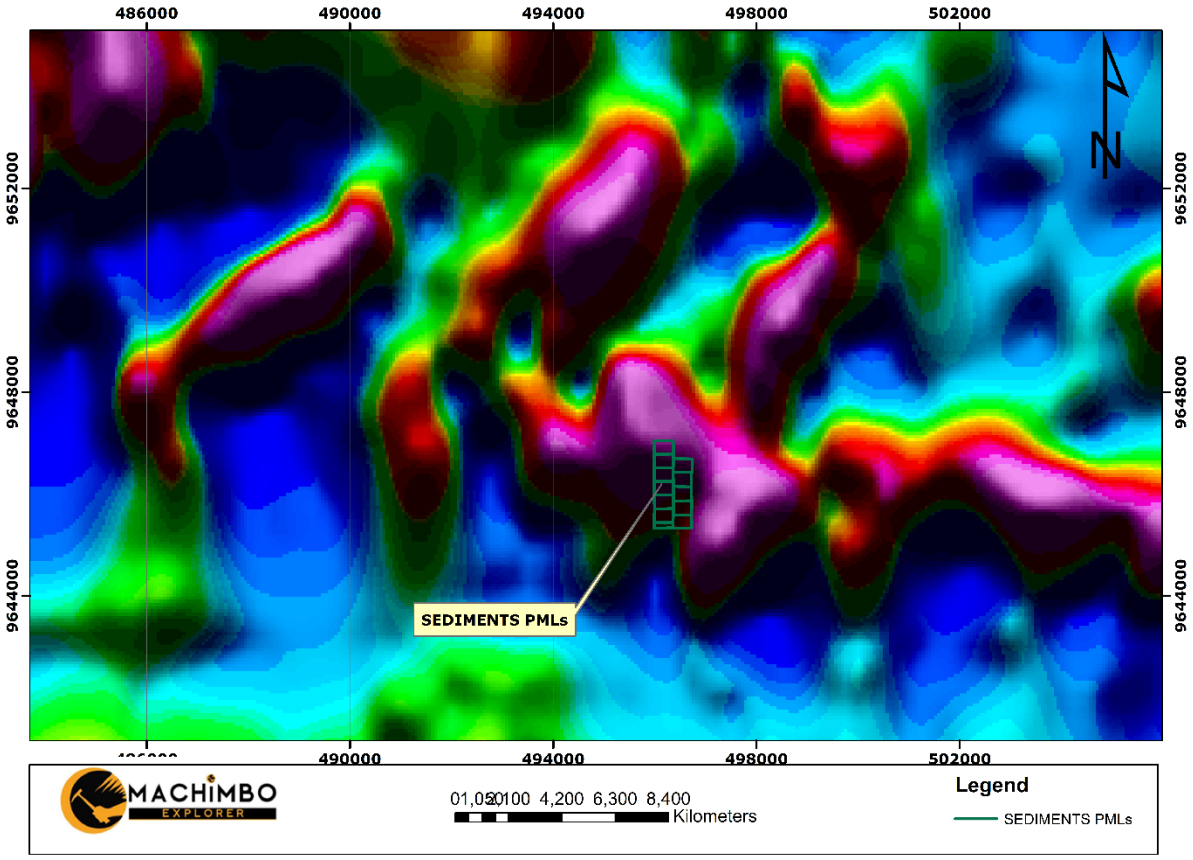

Figure 12:RTP Magnetic Map

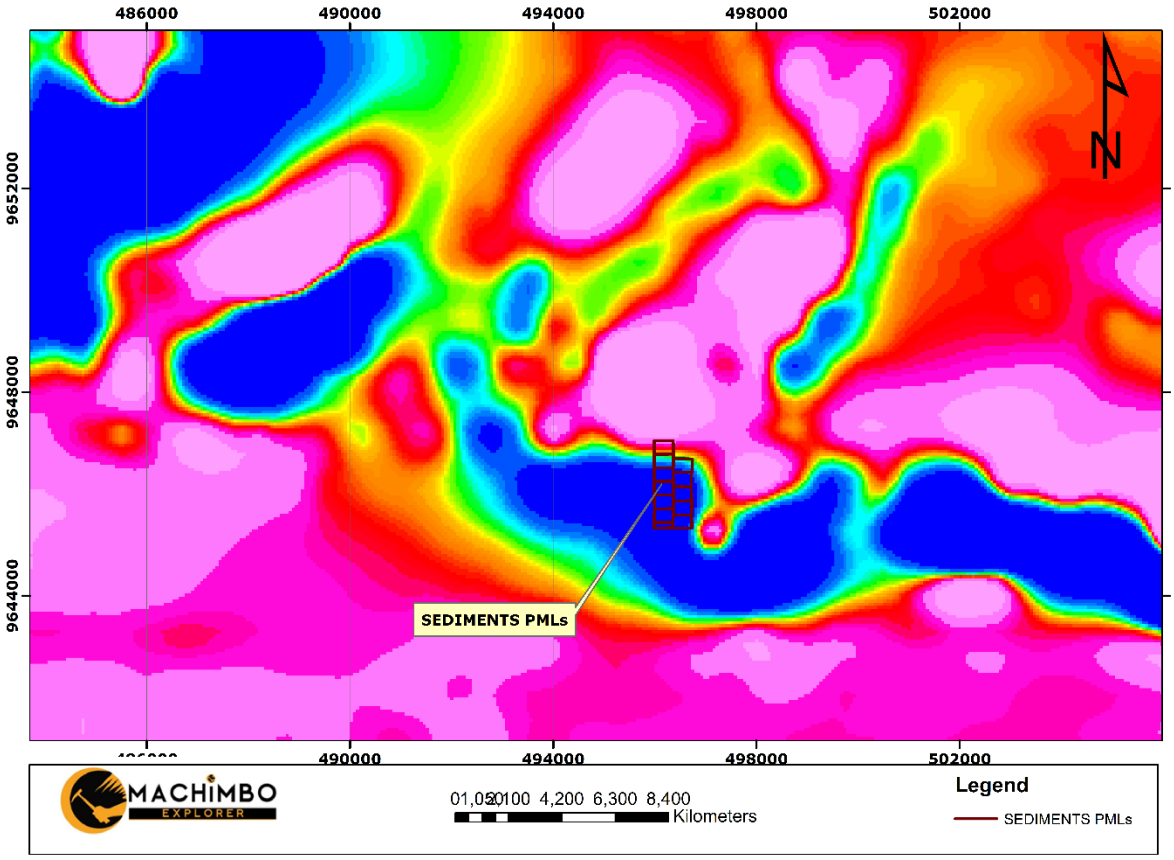

Figure 13:Magnetic Map

The central display is a colorful magnetic intensity grid. In this visualization, warm colors of magenta, red and orange indicate magnetic highs, signaling the presence of magnetite-rich rocks or subsurface volcanic structures while blue to cyan color indicate magnetic "lows" or rocks that alteration have taken place and demagnetization have occurred.

The area is located within the zone of alteration where is possible for gold deposit while in the area of contact as shown map there is also possibility of the mineralization of gold. The red to pink ball-structures arranges in a linear structure from north east to southern west.

4. CURRENT WORK

4.1.0 GEOCHEMICAL SAMPLING LITHOLOGICAL MAPPING

Geological mapping and geochemical sampling conducted across the licence area to evaluate the distribution of gold mineralization and its relationship with lithology and structural features. Particular emphasis placed on lithological mapping to delineate rock units, alteration zones, and structural controls relevant to mineralization.

A total of 10 samples (Nos. 1, 3, 5, 6, 7, 11, 13, 14, 17, and 18), each recorded with precise coordinates, were collected and submitted for geochemical analysis to determine gold concentrations. The integration of mapped geological features with geochemical data has enabled reliable spatial correlation, particularly in relation to lithological contacts, alteration patterns, and structurally controlled zones.

Assay results returned gold values ranging from approximately 0.06 ppm to a maximum of 0.41 ppm. Although these values are not indicative of high-grade mineralization, they confirm the presence of a gold-bearing hydrothermal system. The observed consistency of anomalous values across multiple locations suggests potential lateral continuity of mineralization, likely influenced by structural controls.

Given that the samples collected from near-surface exposures, values approaching 0.40 ppm considered encouraging and may represent the upper expression of a potentially more significant subsurface system.

Table 2: Showing geochemical results of the collected samples.

496018	9645821	SAMPLE N0 1	0.43
496410	9646404	SAMPLE NO 3	0.41
496311	9646409	SAMPLE NO 5	0.38
496292	9646404	SAMPLE NO 6	0.31
496262	9646350	SAMPLE NO 7	0.14
496398	9646016	SAMPLE NO 11	0.06
496087	9645794	SAMPLE NO 13	0.1
496004	9645814	SAMPLE NO 14	0.1
495973	9645345	SAMPLE NO 17	0.08
495943	9645384	SAMPLE NO 18	0.11

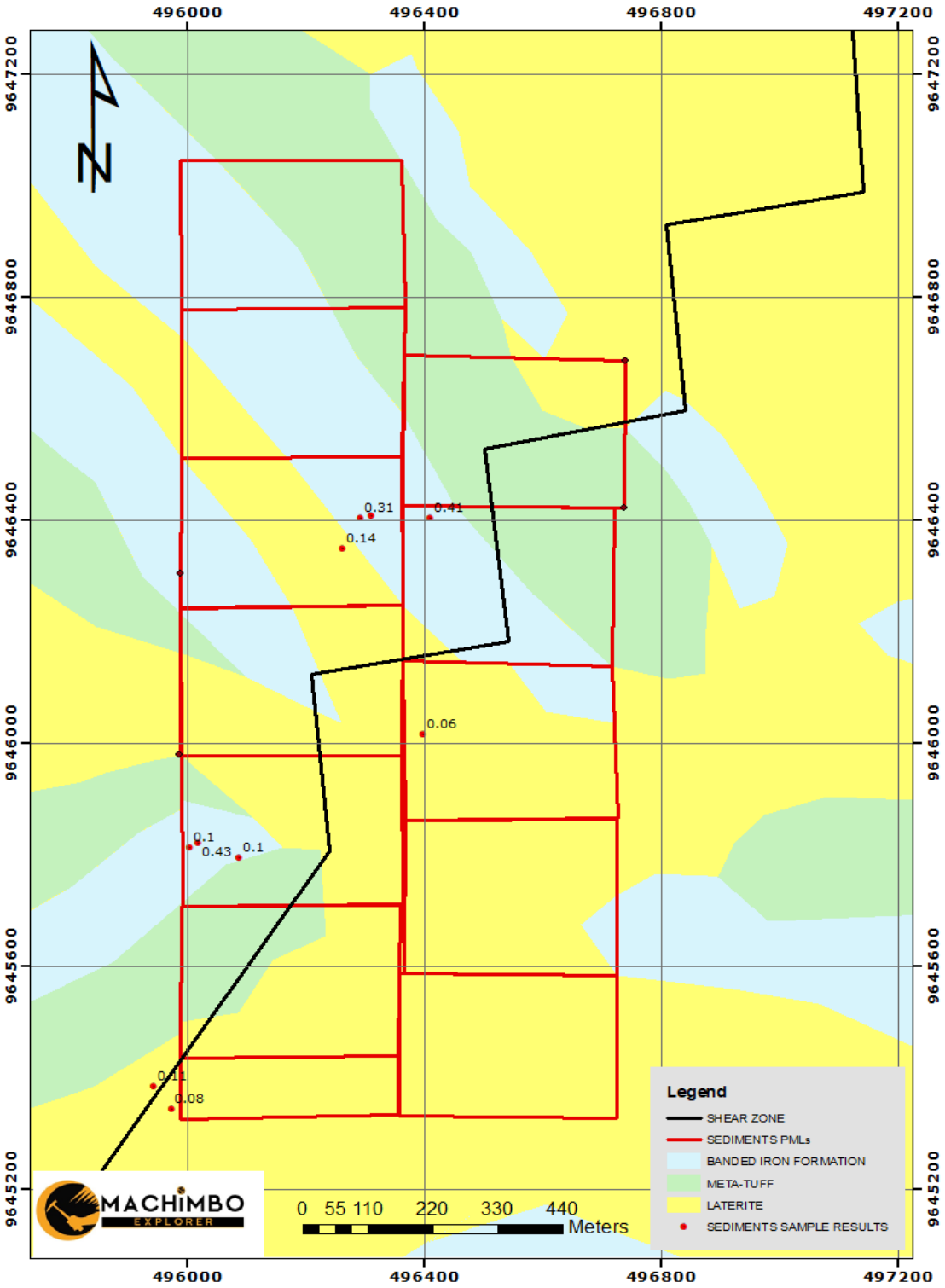

Figure 14:Showing sampling points

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CERTIFICATE OF ANALYSIS

Client Ref : MACHIMBO EXPLORER
Date Received: 13-Apr-26
Date Reported: 14-Apr-26
Sample Type: ROCK
No of Samples: 10 TIME IN: 5:08 TIME OUT: 1:00

SAMPLE ID	Method: Units:	ARD-50g ppm Au	ARD-50g ppm Au (R)	GIC-01 ppm Au	GIC-01 ppm Au (R)	BM-02 ppm Cu	ACT-01 ppm %	SOL-10 ppm Au
SAMPLE NO1		0.36	0.43			12.20		
SAMPLE NO3		0.41				12.82		
SAMPLE NO5		0.38				16.41		
SAMPLE NO6		0.35	0.31			37.13		
SAMPLE NO7		0.14				15.92		
SAMPLE NO11		0.06				46.44		
SAMPLE NO13		0.10	0.10			34.97		
SAMPLE NO14		0.10				15.78		
SAMPLE NO17		0.08				19.06		
SAMPLE NO18		0.11	0.11			22.05		

METHOD ABBREVIATIONS	
ARD-50g	Determination of Gold by Aqua Regia Method (Det. Limit 0.01g/T)
BM-02	Determination of Base Metals by Aqua Regia - AAS finish (Det. Limit 0.5g/T)
GIC-01	Determination of Gold in Carbon by Ashing / Aqua Regia - AAS Finish (Det. Limit 5g/T)
ACT-01	Determination of Carbon Activity by Leaching method (Det. Limit 5%)
SOL-10	Determination of Gold in Aqueous solution (Det. Limit 0.01g/T)
FA-30g	Determination of Gold by Fire Assay method (Det.Limit 0.01g/T)

DISCLAIMER: These result pertain only to the sample brought by the client to the SUKACHEM LAB for analysis and should not be compared from any other samples even from the same source.

Lab In charge:GEORGE ALEX MASANJA Approval: P.Eng (T) Sungwa MM

Sukachem Metallurgical test work
For Gold process optimization Lab
14 APR 2026
Mpovu Geita Tanzania

5.0 INTERPRETATION AND DISCUSSION OF RESULTS

Geochemical assay results indicate a minimum gold value of 0.06 ppm (Sample 11) and a maximum of 0.41 ppm (Sample 03), defining an overall concentration range of approximately 0.06 to 0.41 ppm.

These values correspond to low to moderate gold grades. In most exploration contexts, concentrations below 1 ppm generally considered sub-economic for primary mineralization; however, it is important to note that these are grab samples, which are inherently non-representative of subsurface continuity and may still reflect localized mineralization.

Samples 03 (0.41 ppm), 05 (0.38 ppm), 01 (0.36 ppm), and 06 (0.35 ppm) indicate weakly anomalous gold values, potentially associated with structurally controlled zones such as shear systems. Samples 13, 14, and 18 (approximately 0.10–0.11 ppm) suggest background to weakly anomalous gold presence. Lower values, including Sample 11 (0.06 ppm) and Sample 07 (0.14 ppm), interpreted as background levels, likely distal from primary mineralized structures or outside the main zones controlling gold deposition.

Overall, the distribution pattern suggests limited but structurally influenced gold mineralization, warranting further investigation through systematic sampling and subsurface validation.

6.0 CONCLUSION AND RECCOMENDATION.

6.1 CONCLUSION

Licensed area is located within the prospective Lake Victoria Goldfields and is underlain by Nyanzian metavolcanic rocks intruded by dioritic bodies. The structure trending NE–SW as major shear and E–W minor trending shear zones, which are key features, associated with gold mineralization. Soil geochemical results show medium concentration which provide limited surface expression of mineralization, likely due to regolith cover and restricted geochemical dispersion, it has confirmed the availability of gold indicating that mineralized structures like shear zones are likely extend into the license area. Overall, the whole licensed area is an underexplored but prospective area that requires further detailed exploration to properly define its gold potential.

6.2 RECOMMENDATION

The primary recommendation is to undertake trenching, followed by systematic channel sampling of the trenches, to achieve a clearer understanding of the mineralization.

Trenching will provide direct exposure of the subsurface geology, allowing verification of lithological contacts, alteration patterns, and structural controls. Subsequent channel sampling along the trench walls will generate more representative and continuous geochemical data, enabling better delineation of mineralized zones and improving confidence in target definition.

6.2.1 TRENCHING PLANNING.

Trenching planned to crosscut the lithological unit's perpendicular to their strike. This orientation maximizes geological exposure and provides a more representative assessment of mineralization across contacts, structures, and alteration zones. Such an approach improves the reliability of sampling results and enhances the interpretation of controls on gold mineralization.

Two trenches selected for the initial phase of work to establish a basis for subsequent exploration activities and guide further trenching and sampling programs.

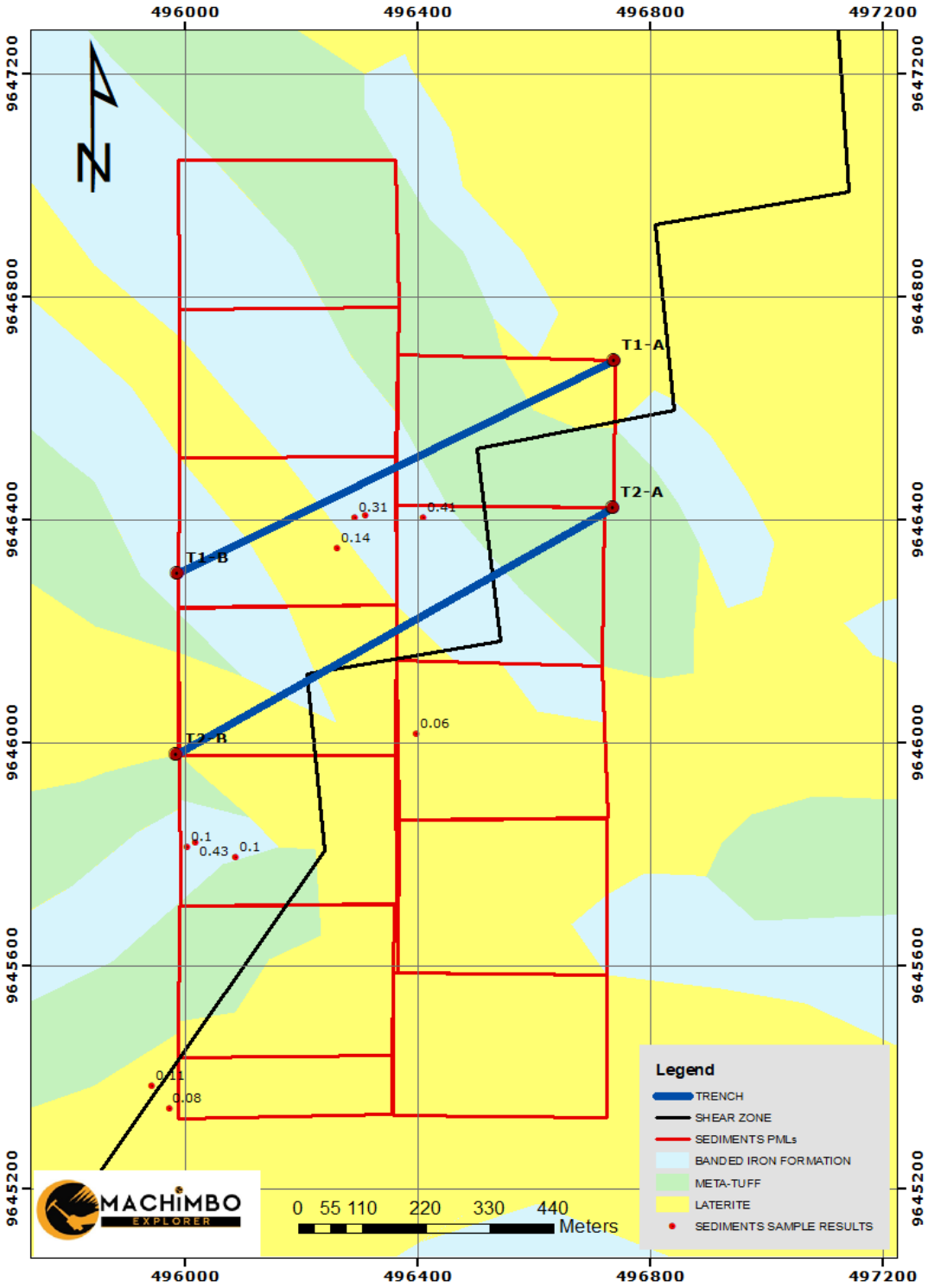

Figure 15: showing the trenching lines

Table 3: showing the trenching coordinates in Arc 1960

TRENCH NO.	X	Y
T1-A	496739.1	9646686.9
T1-B	495988.5	9646304.3
T2-A	496736.9	9646422.9
T2-B	495986.2	9645978.8

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