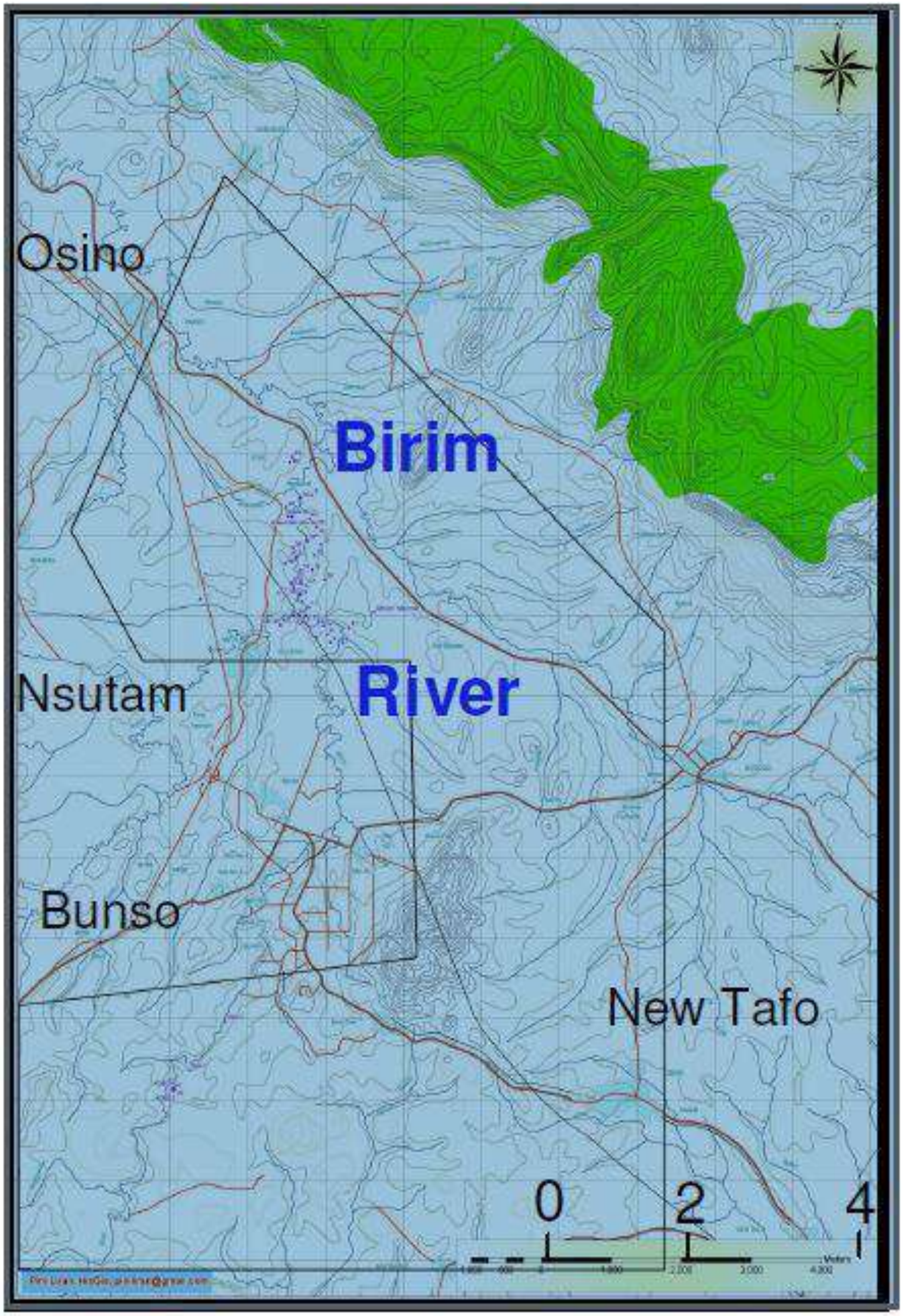


Fig 1. Approximate boundaries of Narawa Company Limited Concession

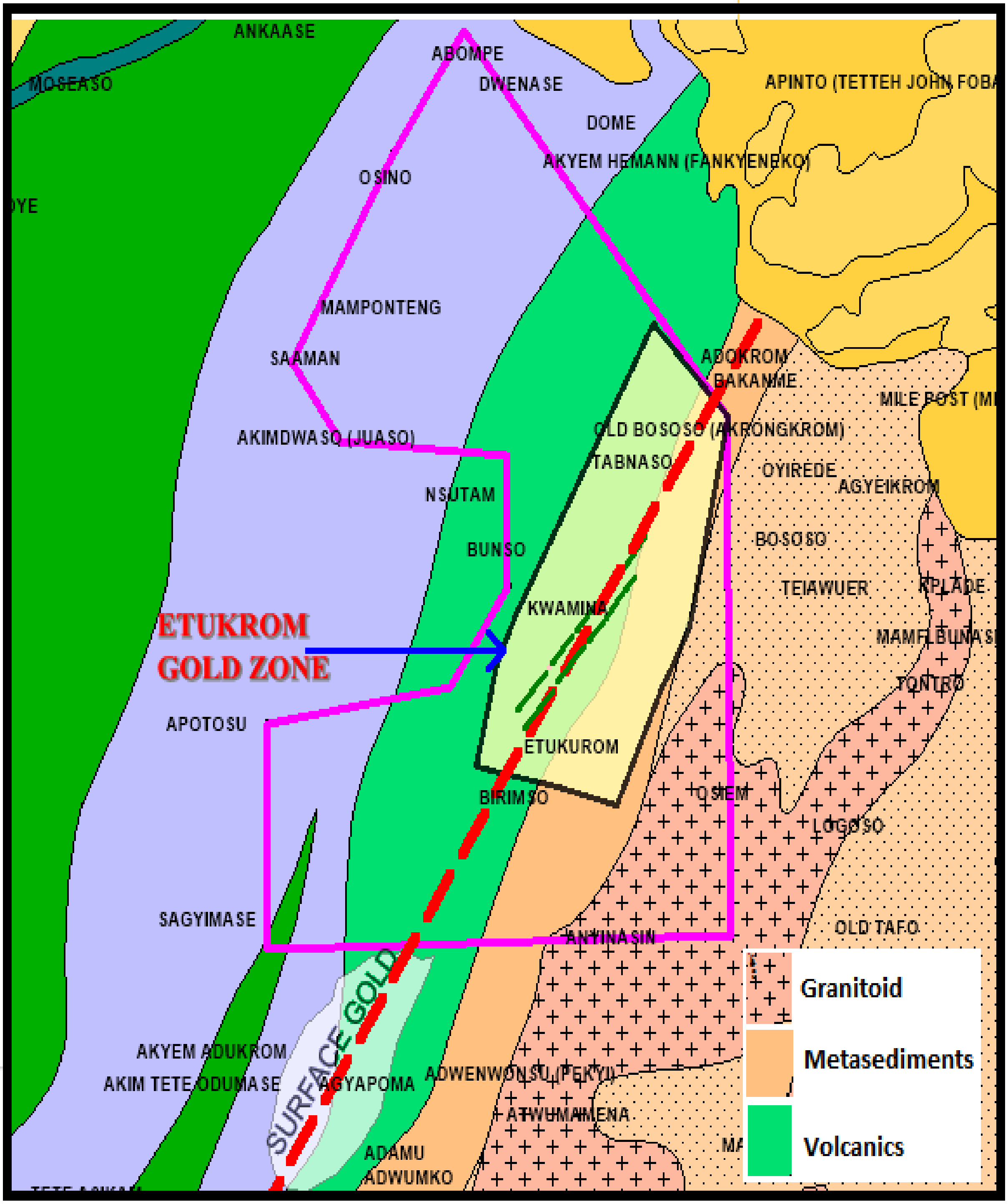


Fig 2. Geology of part of the Kibi belt, with the concession boundary

Figure 3

Figure 4

Figure 5

Figure 6

Figure 3. Shear fabric in a metavolcanic outcrop with brecciated quartz veins.

Figure 4 and 5. Mylonitic textures and folding in a metavolcanic outcrop with brecciated quartz veins and carbonate alteration.

Figure 6. Brecciated quartz vein in mylonitic zone of the gold bearing shear.

This outcrop (figures 3, 4, 5 and 6) is particularly interesting. It is isolated and is the contact of two rock types, a felsic intrusive rock (granitoid) in contact with the volcanoclastic rock. Such contacts are zones of weakness, associated with mineralizing fluid emplacement. Detailed petrographic studies of some samples taken are underway study at the Department of Earth Science rock lab, of the University of Ghana.

ii. Soil sampling of the Ettukrom Gold Zone

Initial soil sampling program was planned to target an area of approximately 4 Km sq to help delineate the gold-in-soil anomalies. A 200 m line-sampling spacing interval was planned over prospective geological features. Samples were taken at every 25 m interval for mapping purpose and every 50 m prepared for laboratory testing. Sample depth ranges between 30 cm to 40 cm and analyses for gold at SGS laboratory using fire assay at Tarkwa.

The program is still ongoing and over 400 pieces of samples are still at the camp waiting for laboratory analysis. The figures 9 and 10 shows the catchment area where the soil sampling was undertaken.

Figure 7. Field technician sorting soil samples at Camp

Figure 8. Soil samples collected at Ettukrom

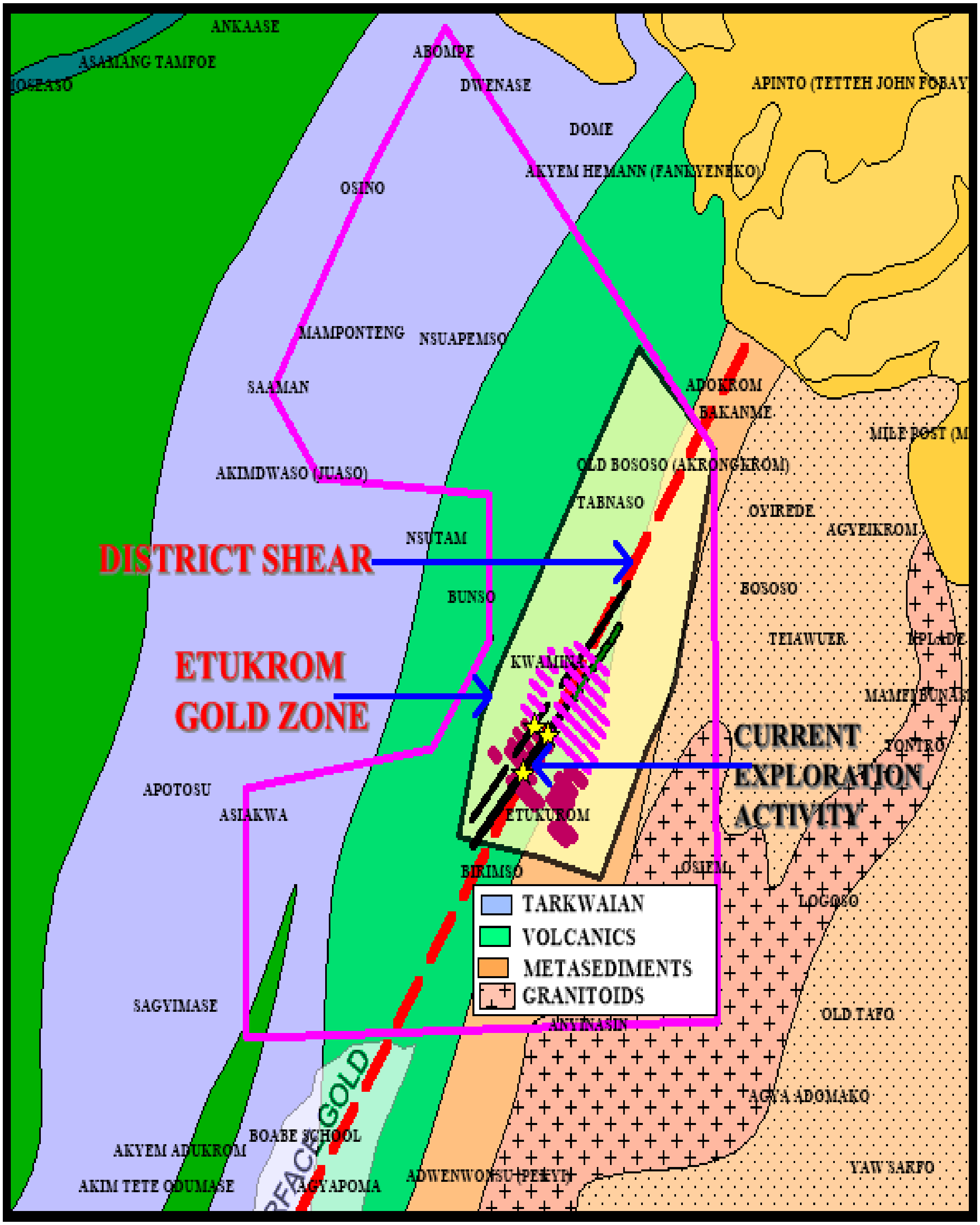


Figure 9. Sketch map showing the approximate position of the Shear (red area) and the sampling trend (black lines)

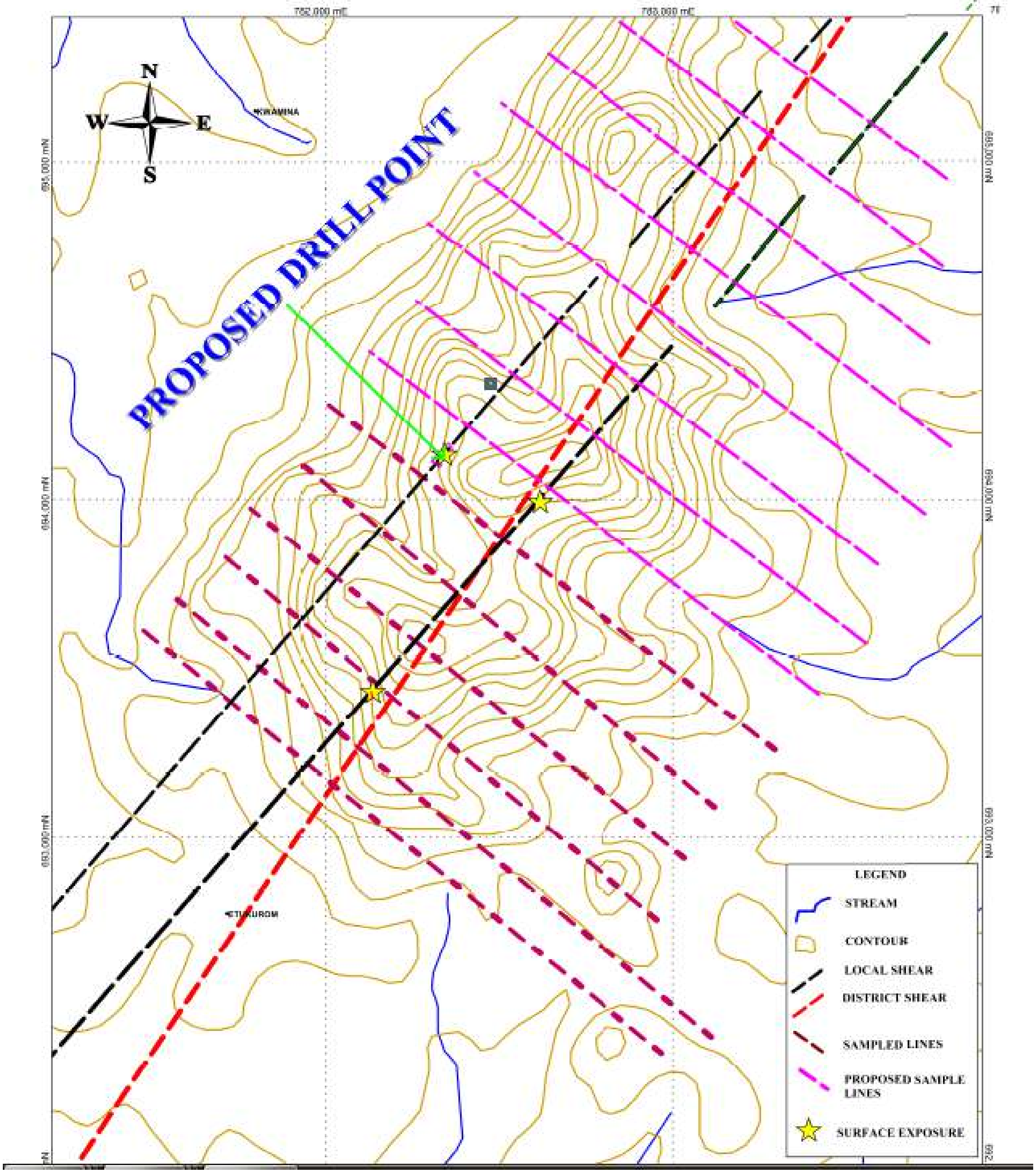


Figure 10. Sketch map showing the approximate position of the district Shear (red area) and the current exploration area (black lines)

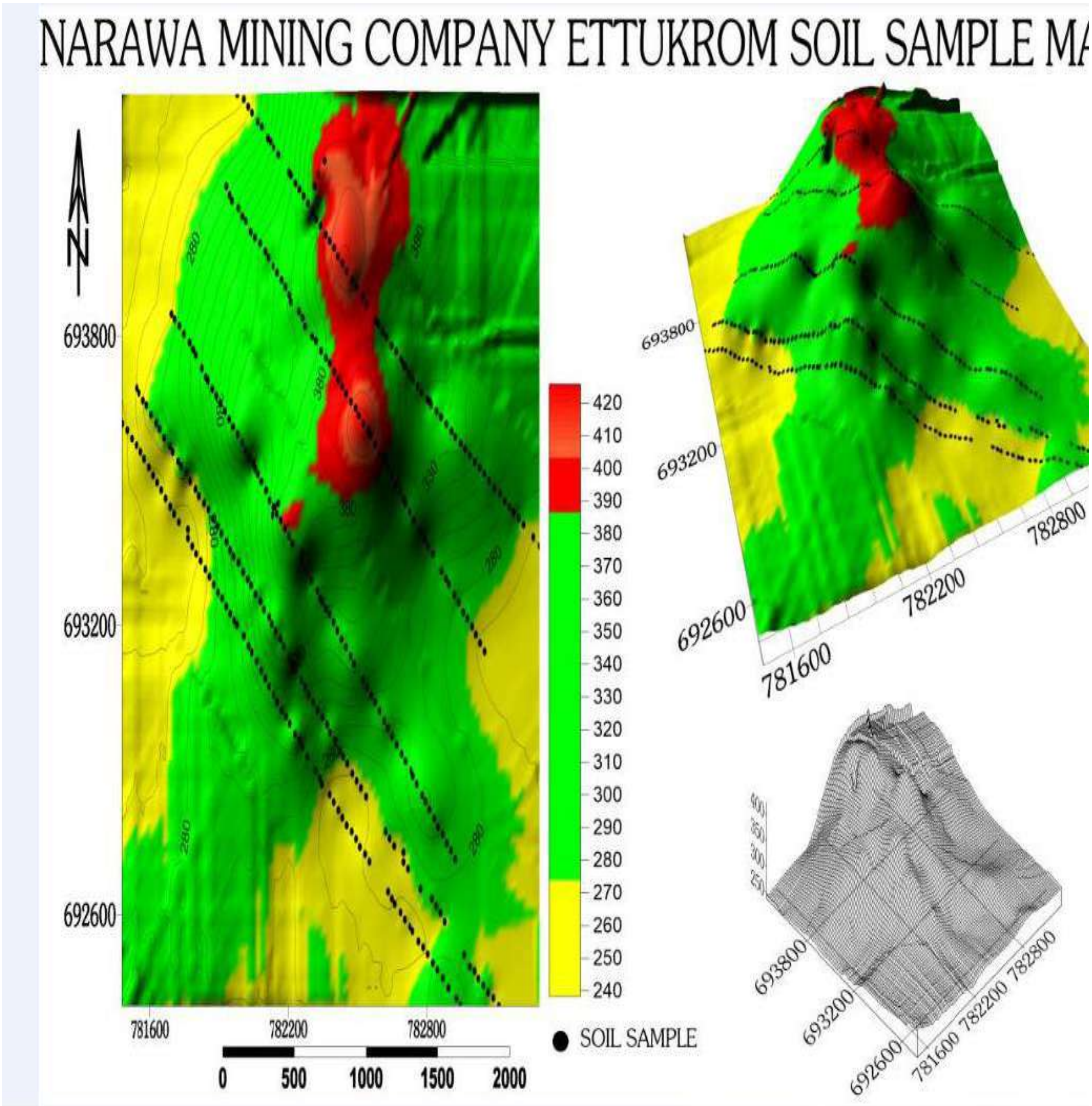


Figure 11. Elevation model of the sampling area.

iii. Initial structural analysis of exposed structures for regional interpretation.

Deciphering structural controls on the distribution of mineralization is a key component of mineral exploration principles. Some of these processes will need scale 3D modelling, structural and geological interpretation of geophysical data, and GIS integration of geological, geophysical and litho-geochemical data. Hydrothermal ore deposits are localized on faults / shears that were (repeatedly / continuously) active at the same time the hydrothermal system was active and metal pregnant. A typical example is the San Andreas Fault.

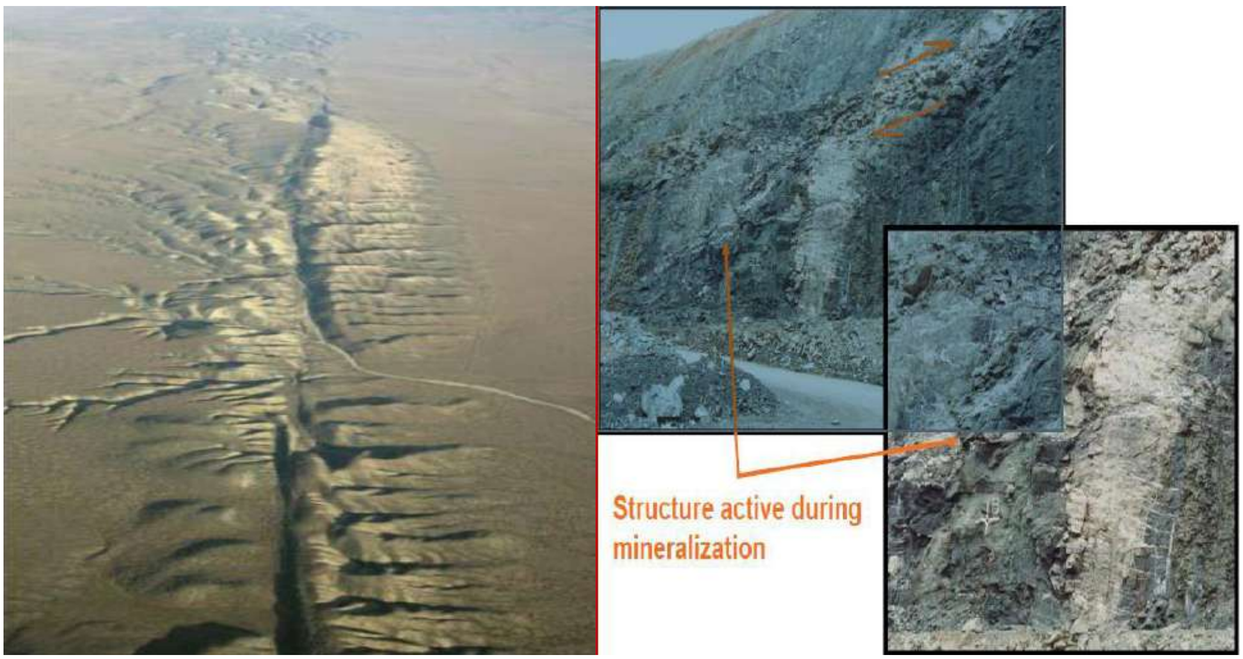


Figure 12. Surface exposure and zones of weakness in a face of San Andreas Fault

iv. Structural analysis and field observations of the gold-bearing fault/shear structure of the Narawa Mining Concession

The shear/fault structure in the NMC has makings similar to many world class deposit. Initial structural analysis of this gold-bearing structure reveals an intensely sheared fabric of secondary deformation on surface. A lot of flow textures associated with faulting zone / shear zones are predominant on various scale with metals/sulphides associated with gold impregnating the zones of weakness.

Figure 13

Figure 14

Figure 15

Figure 16

Figure 12. Initial cleaning up of the gold bearing structure by some members of the exploration team

Figure 13. Member of the exploration team showing the strike direction of the gold bearing structure to the North

Figure 14. A section of the exposed gold bearing shear /fault in the concession

Figure 15. A section of the mylonitic zone of the exposed gold bearing shear /fault in the concession

Figure 17

Figure 18

Figure 19

Figure 20

Figure 16. Section of the step-like zone (slickensides) of the exposed shear /fault.

Figure 17. Section of the mylonitic zone with brecciated quartz fragment along the direction of weakness of the exposed gold bearing shear.

Figure 18. Section of the exposed outcrop contact of two different rock types with along the direction of weakness of the exposed gold bearing shear /fault.

Figure 19. Section of the exposed contact of two different rock types possibly metavolcanic to the top and belt granitoid down

Figure 21

Figure 22

Figure 23

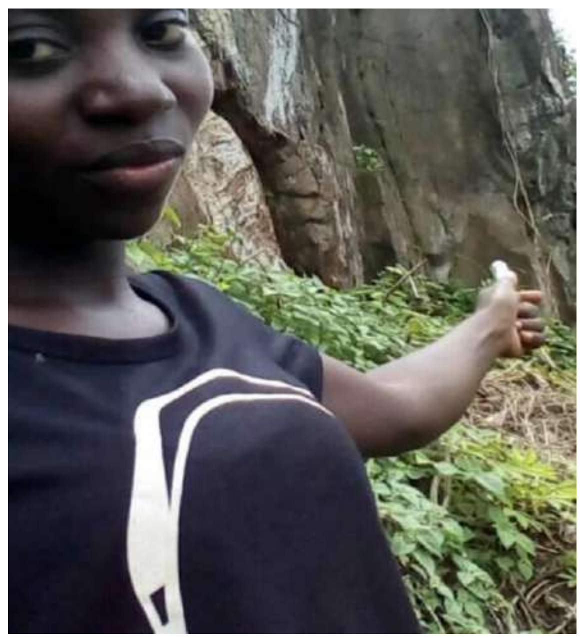


Figure 24

Figure 20. Section of the exposed sharp outcropping contact of two different rock types in the exposed shear

Figure 21Sheared brecciated quartz vein in mylonitic zone of the gold bearing shear.

Figure 21. Flow textures in the sheared rock

Figure 22. A member of the exploration team showing the strike direction of the gold bearing structure to the South.

Figure 25. Sample of the contacting belt granitoid Figure 26. Sample of the contacting metavolcanic rock

Extensive structural analysis of the shear reveals three different surface exposed branches of the faulted contact between the volcanoclastic sedimentary rocks and the supposed intruded belt granitoid. Each exposure is approximately 60 m in strike length and 20 – 30 m wide.

v. Initial field analysis of gold mineralization and sulphide association in the gold bearing shear/fault

The newly discovered gold bearing shear exhibit similar gold mineralization style as the Birimian rocks in Ghana. Gold mineralization associated with this reverse fault contact and shear structure is of mesothermal origin and can be tied to the splay of structure in the eastern flank of the Kibi gold belt, east of the Atewa range. Gold mineralization is similar to the Ashanti Shear-style of Anglogold Ashanti's Obuasi Mine and also more precisely exhibit same characteristics as Newmont Akyem deposit.

Mineralization has the following characteristics;

Mineralogy is simple with a strong positive correlation between gold and arsenopyrite. Accessory minerals include pyrite, chalcopyrite, pyrrhotite, and bornite. Mineralization is along zones of weakness in the rock fabric and along the salvages of the quartz veins.

- Gold mineralization is also following the contact of the volcaniclastic sedimentary rock and the outcropped body under investigation.
- Gold mineralization is also conformant to the hanging wall of the metasedimentary rock. Though steeply deeding.

- Strong silicification is common, accompanied by sericite and carbonate alteration.
- Tourmaline is also present and gold may appear as coarse visible nugget in the veins and along the salvages of the veins.

vi. Petrographic Analysis of rock chip samples

Certain petrographic features are known to be associated with mineralization. As such, petrographic and textural analysis of rocks is an integral component of exploration. Rock chip samples of exposed outcrops of interest were studied microscopically, and forwarded for microscopic analysis at the department of earth science rock laboratory, of the University of Ghana.

Figure 27

Figure 28

contained opaque, sulfide and carbonate mineralization. The sulfide minerals were found to be associated with the alteration haloes.

A1, a carbonate-bearing chlorite-schist, showed significant deformation with abundant coarse deformed sulfide minerals visible in hand samples. It appears to have undergone solid state deformation and ductile-deformation, with quartz and carbonate infiltrations and significant opaque and sulfide mineralization. The rock appeared to have been deformed poly-phase.

Microscopically, the rock is dominated by opaque minerals and chlorite. The opaque minerals appear to be ferromagnesian-derived, most likely amphibole. Shear textures are shown by strong preferred orientation of constituent minerals, with an S1 schistosity overprinted by S2 in a somewhat anastomosing texture. This assemblage is impregnated by significant quartz and carbonate minerals. Aggregated of deformed sulfide minerals are preferentially oriented and within alteration.

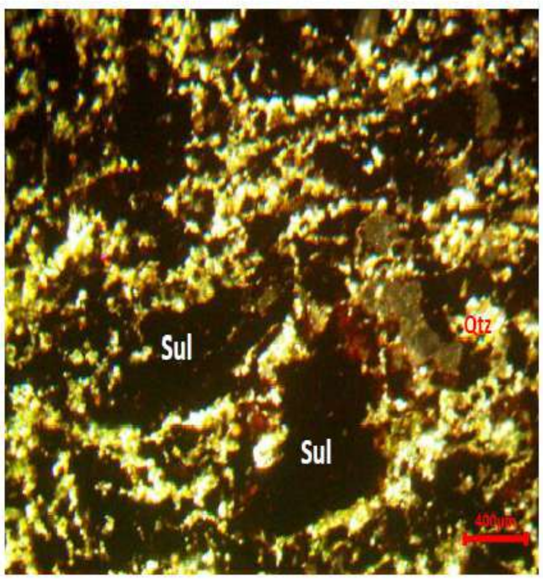


Figure 31. Micro texture with overprints (sulfide and opaque)

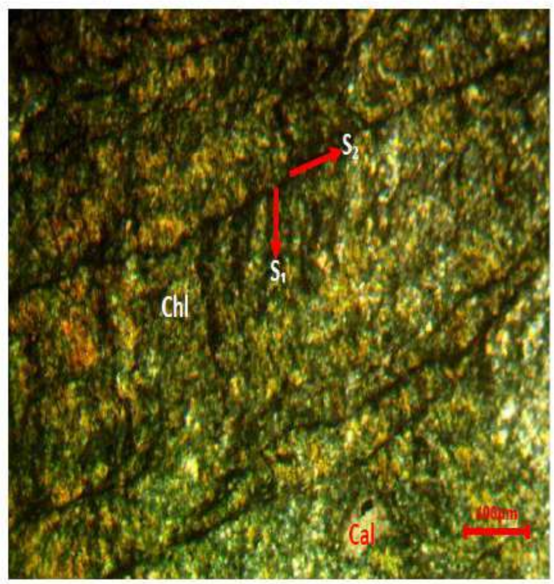


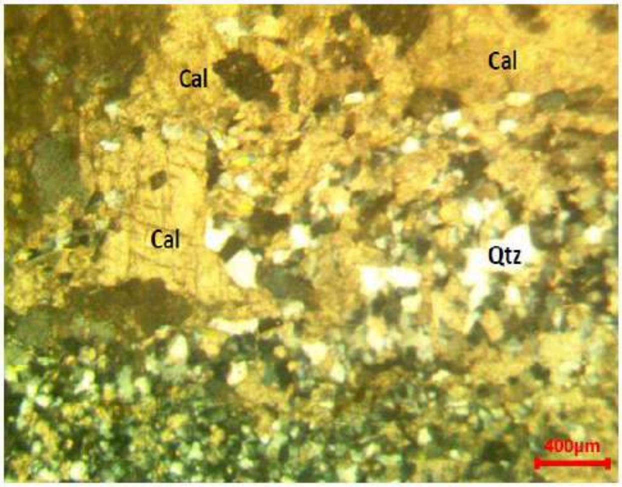
Figure 32. Micro texture with S1 and S2 fabric

Table 1. Modal composition for the carbonate-bearing chlorite-schist

mode	Volume %	characteristics
Chlorite	50	Fibrous, elongated and oriented, may be altered from amphibole. Shows two generations of s and S2 anastomising texture.
Opaque minerals	20	Very prominent, appear to be from the alteration of ferromagnesian minerals. Preferred oriented
Quartz	15	Secondary and vesicle fillings or impregnation
Sulfide minerals	10	Coarse deformed aggregates in alteration haloes
Carbonate minerals	5	Possibly calcite, fine aggregates in quartz impregnations
Sericite	<1	Very fine grains

A3, a quartz carbonate schist, was carbonate-mineralized, strongly foliated and significantly silicified and sulfide disseminated. The rock appears to be of a volcanic/subvolcanic origin of mafic protolith abundant in opaque minerals. The primary mafic minerals have been chloritized, and infiltrated by calcite and quartz. The rock has prominent shear fabric.

In thin section, the rock is significantly altered and now dominated by chlorite, carbonate and quartz along the shear fabric. The assemblage is cut at places by a network of veins filled with quartz and carbonate minerals. In alteration haloes, and also in some of the veins are cubic, sub-cubic deformed sulfide minerals. Chlorite is fibrous; quartz is recrystallized and occurs as veins or impregnations. Calcite is coarse and associated with quartz. Remnants of amphibole are found as pseudomorphs in alteration haloes.



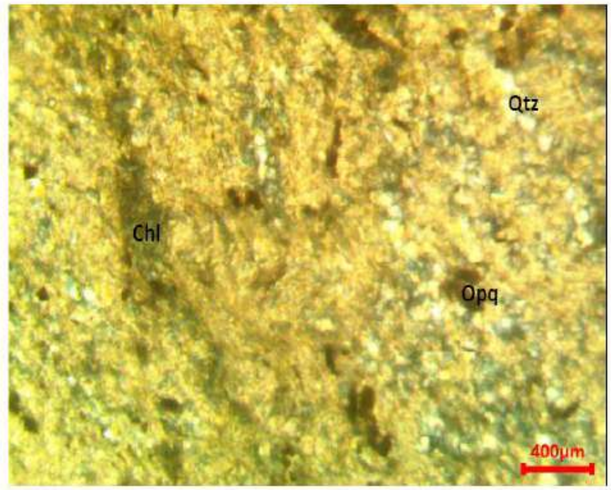


Figure 33. Carbonate alteration in rock

Figure 34. Preferred orientation in rock

Table 2. Modal composition for the quartz carbonate schist

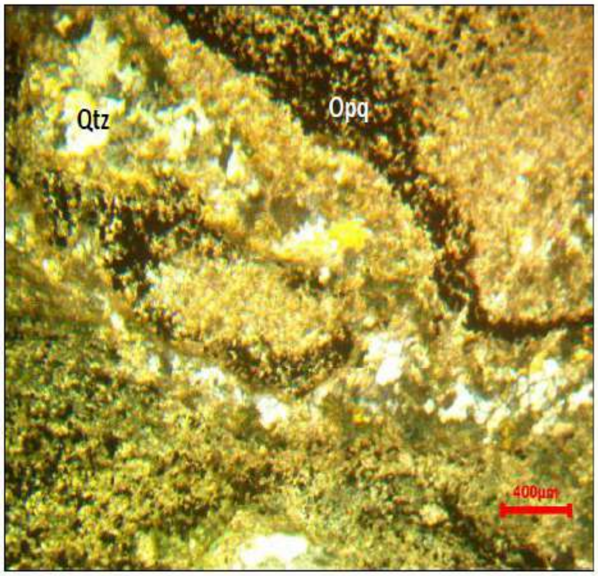
Mode	Volume %	characteristics
Chlorite	45	Fibrous, elongated and interleaved. Possibly altered from primary ferromagnesian minerals.
Calcite	30	Occur in relatively coarse aggregates and in veins with quartz or along shear foliation
Quartz	20	Relatively coarse recrystallized aggregates in veins or along foliation with the carbonate. Mostly undulose
Opaque	5	Occur as coarse patches around alteration haloes. May have been altered amphibole
Sulfide mineral	<<1	Isolated tiny disseminations.

A2, a mylonitized quartz chlorite schist, was strongly mylonitized and silicified, massive, cherty and poly-deformed. It appears to have suffered contact metamorphism and rich in opaque minerals.

In thin section, the rock is fine-grained and partly foliated. It is composed of elongated and fibrous chlorite-sericite microtexture that has been cut by coarse grained quartz and overgrown by opaque minerals. Quartz is strained and occurs as recrystallized aggregates and individual crystals along cracks or weak zones of the rock. The whole assemblage has a preferred orientation, defined by prominent elongated chlorite and opaques.

Table 3. Modal composition for the mylonitized quartz chlorite schist

Mode	Volume %	characteristics
Chlorite	40	Occur as elongated fibrous grains with prominent preffered orientation or as contorted crystals with sericite. Altered at places into opaques minerals.
Quartz	20	Fine, medium and coarse aggregates, undulose, recrystallized; appear to have been associated with cracks earlier formed minerals. Mostly undulose, the relatively coarse grains are drawn-out along foliation.
Opaque minerals	20	Relatively coarse recrystallized aggregates in veins or along foliation with the carbonate. Mostly undulose
Sericite	10	Very fine grains, may have been alteration from the chlorite, or introduced secondarily
Sulfide mineral	<1	Occur as tiny cubic to formed individual stocks and disseminated grains.



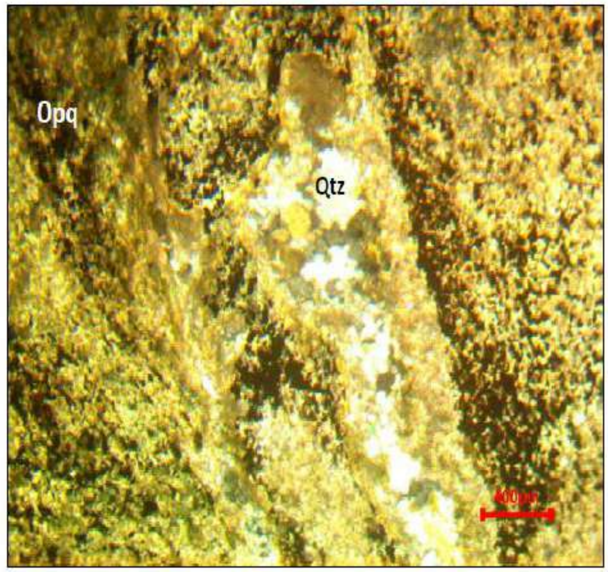


Figure 35. Chlorite-sericite shear fabric

Figure 36. Opaque mineralization and quartz veins

vii. Work to be done / further exploration works

There is a need for further exploration work on the Etukrom Gold prospect to allow for definition and delineation of prospective gold zones. Exploration activities are to be executed in two years. An outline is been provided below.

1. Access construction / Farmers Compensation and Drill pad preparation
2. Drilling of the first prospect (Newly Discovered Gold Bearing Shear)
3. Geological / Structural Mapping
4. Petrographic studies
5. Structural mapping
6. Line Cutting
7. Geochemical Sampling
8. Geophysical survey
9. Trenching

10. Reserve estimation: Initial reserve estimate would be attempted based on the results from the planned drill holes in the gold bearing shear.

Phase I and II (Six month duration of the first year on Ettukrom Gold Zone)

- The Drilling Program: The management of Narawa mining company Limited in consultation with Geogold Exploration Services Limited has decided to conduct a 500m diamond drill test programme of the newly discovered gold bearing shear / fault in the current study area. This drill target is believed to be an exposed channel or fluid pathway serving as a conduit for mineralization fluid. Each drill hole is program to test the depth extent of the gold bearing shear up to a 100 m and within a 200 m strike periphery. This program is designed to operate on a single shift basis and would last for two weeks. Additional two weeks would be used for detail core logging, sampling and dispatch. A period of one month is planned for this activity.
- Geological and structural Mapping; The Etukrom gold zone is within a highly tectonized setting with intense ridges. There are several outcrops with interesting surface structures for detail structural and geological mapping. The zone is isoclinally folded with pronounced localized faults and quartz floats outcropping on surface. Reconnaissance survey reveals different rock types within the 4 sq. km study area. This would be continuous and analogous to the entire exploration period
- Petrological Studies: Both the structural setting and the geochemistry of the rocks needs to be studied in order to understand the source of the fluid and the Temperature-Pressure conditions that have affected the zone. Rock samples would be occasionally sent for petrographic studies to help decipher the various tectonic events associated.
- Line cutting and geochemical sampling; the soil geochemistry needs to cover the approximately 4 km length of the structure. Only a (2 km * 12 Km) base line has been sample soil samples lines has been established and sample so far. The remaining (3 Km * 15 km) amount to approximately 650 soil samples are yet to be established.
- Geophysical Survey. The shear hosted gold deposits has shown a lot of sulphides on surface. This requires a further ground geophysical survey to help decipher the depth extent of gold mineralization. An IP resistivity survey would be recommended over the entire Etukrom zone for delineation purpose.