

URANIUM DEVELOPMENT IN NIGERIA

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INTRODUCTION

- Uranium exploration in Nigeria began about 35 years ago.
- Several government agencies and individuals were involved.
- They include:
 - _The Geological Survey Dept-now Nigerian Geological Survey Agency(NGSA).
 - _The defunct Nigerian Mining Corporation(NMC).
 - _The Defunct Nigerian Uranium Mining Company (NUMCO).
 - _Others.

SUMMARY OF EXPLORATION ACTIVITIES

GEOLOGICAL SURVEY DEPARTMENT(GSD)

- In 1974, GSD discovered the uraniferous pyrochlore in Ririwai hills in Kano State(Northern Nigeria) and Kigo hills in Plateau State, Central Nigeria.
- Pyrochlore is scattered throughout the albite-arsenite granite.
- Pyrochlore crystal not more than a pin head.
- Area of Ririwai deposit is about 0.8Km²
- The Grade is 0.012% uranium oxides.
- The challenge is the separation of the pyrochlore from the granite host rock.
- Between 1973 and 1974 the Geological Survey Department contracted out Airborne geophysical exploration in the following areas:-
 - i. The Lower Benue and the adjoining areas (Central Nigeria)
 - ii. Ugep-Cross River State(Southern Nigeria).
 - iii. Niger-Benue confluence(Central Nigeria)
 - iv. Sokoto and Dange areas of Sokoto State-Northern Nigeria.
- Ground follow-up of these areas was done at reconnaissance levels.
- Results were inconclusive.

THE DEFUNCT NIGERIAN MINING CORPORATION

- Exploration campaigns in Kogi State(North Central Nigeria)
- Collaborated with defunct NUMCO in the exploration of some areas in North Eastern Nigeria in 1980.

NIGERIAN URANIUM MINING COMPANY(NUMCO)

- Established in 1979 by the Federal government of Nigeria in collaboration with BRGM and later Total Miniere.
- BRGM was the Technical partner.
- The mandate was to explore and exploit all available uranium ore deposits in the country.
- The company carried out exploration programmes at both the reconnaissance and semi detailed levels.
- Areas of activities covered about 112,346 Km² in the North Eastern Nigeria bordering the Cameroun.
- Areas of interest include Gubrunde, Mika and Ghumchi all underlain by the rocks of the basement complex; and Mayo Lope area which is underlain by the Cretaceous continental sedimentary rocks.

FINDINGS

- At the end of the various exploration campaigns;
- Uranium reserve at Mika was put at about 52T eU.
- Grade was 0.63% eU
- At a vertical depth of 130m.
- Uranium reserve at Ghumchi was estimated at 100T eU
- Grade was 0.9 % eU.
- At a vertical depth of 200m
- Cut-off was 0.03% eU.
- In 1987, the French Technical partner left the company as a result of dwindling funding.
- NUMCO finally wound down its activities and folded-up in 2001 on the orders of the Federal government of Nigeria.

NUCLEAR POWER OPTION

- In recent times in the country, demand for electricity has far outstripped the supply.
- The Federal Government of Nigeria decided on the nuclear power option to boost electricity generation capacity.
- In 2008, a six-man inter-ministerial committee was constituted by the Federal Government of Nigeria.
- Membership included among others.
 - The Director General (Nigerian Geological Survey Agency)-the Chairman.
 - The Director General-(Nigeria Nuclear Regulatory Agency).
 - The Director General (Nigerian Atomic Energy commission)
 - My humble self as the secretary.
- Their Terms of Reference include:
 - To produce a roadmap for the development of uranium in order to improve the nations power output.
 - to review existing reports on uranium occurrences in Nigeria and ascertain its economic viability.
 - to examine institutional framework needed to ensure orderly development of uranium in Nigeria.
- The committee has since submitted its report.

CONCLUSION

- It is envisaged that since energy is one of the 7-point- agenda of the present administration in the country, Nigeria will start witnessing a flurry of uranium related activities very soon.

THANK YOU FOR
LISTENING.