

**FIELD PROGRAMME OF THE  
DIRECTORATE OF GEOLOGY AND MINING, ASSAM  
FIELD SEASON: 2022-2023**

**A. MINERAL INVESTIGATION:**

**Item/Project No. 1:** Exploration of Limestone up to G4 level in Voterlangsho area of West Karbi-Anglong District, Assam. Toposheet No.83C/10 & 83C/14.

QUANTUM OF WORK TO BE DONE:

Sl. No	Nature of work		Schedule timeline	Target
1	Camp Mobilisation		October 2022	
2	Geological mapping (Scale 1:12,500)		November 2022-January 2023	25 Sq.km.
3	Geologist days in the Field		November 2022- April 2023	
4	Pitting & Trenching		November 2022-March 2023	200 cubic meters (In total) at required intervals.
5	Surface Drilling		February-April 2023	10 nos. of boreholes of depth 50 m (each).
6	Sampling	Surface sample	November 2022-March 2023	Samples to be collected for Laboratory studies.
		Core Sample	February 2023-April 2023	
7	Laboratory Studies	Primary Samples, Check Samples, Petrological Samples etc.	December 2022-June 2023	450 nos.
8				68 nos.
9				20 nos.
10				
11	Camp Winding		June-July 2023	
12	Geologist days in headquarter		July-Oct 2023	
13	Geological Report writing		August-Oct 2023	

**Explanatory note:**

Based on previous preliminary investigation, prospective limestone deposits with encouraging CaO were recorded in the Voterlangsho area of West Karbi-Anglong district, Assam. The limestone deposits of the proposed area are part of the carbonate belt extending from the Kopili-Kharkar confluence in the SW to Panimur in the NE. Geologically, the limestone deposit of the area belongs to the Sylhet limestone member. A geological mapping (1:12,500) is proposed to be carried out for the delineation and determination of the parameters. Ten (10) boreholes are to be drilled (5 boreholes in a polygon pattern and 5 boreholes in prospective zones). A total of 200 cubic metres of pitting and trenching are to be done along with sampling for laboratory studies.

**Item/Project No. 2:** Exploration of Iron ore up to G4 level in Lengupara area of West Goalpara District, Assam. Toposheet No. 78 J/8, 78 J/12.

**QUANTUM OF WORK TO BE DONE:**

Sl. No	Nature of work		Schedule timeline	Target
1	Camp Mobilisation		October 2022	
2	Geological mapping (Scale 1:12,500)		November 2022-January 2023	56 Sq.km.
3	Geologist days in the Field		November 2022- April 2023	
4	Geophysical Survey		January-March 2023	100 magnetic stations
4	Pitting & Trenching		November 2022-March 2023	100 cubic meters (In total) at required intervals.
5	Surface Drilling		February-April 2023	5 nos. of boreholes of depth 70 m (each)
6	Sampling	Surface sample	November 2022-March 2023	Samples to be collected for Laboratory studies.
		Core Sample	February 2023-April 2023	
7	Laboratory Studies	Primary Samples, Check Samples, Petrological Samples etc.	December 2022-June 2023	275 Nos 50 Nos.
11	Camp Winding		June-July 2023	
12	Geologist days in headquarter		July-Oct 2023	
13	Geological Report writing		August-Oct 2023	

**Explanatory Note:**

Occurrence of Iron ore was reported back in 1972-72, from Lengupara and Kumri area in Goalpara district. The Banded Iron Formation (BIF) were present at the contact of metabasic rocks and granite gneiss with thin alternate bands of ferruginous minerals and quartz. The ferruginous minerals identified in the bands were magnetite, hematite and goethite. The chemical analytical results of the representative samples collected from the area indicated that the Iron content in the ore vary from 23.80% to 51.23% by weight. A geological mapping (1:12,500) is proposed to be carried out for the delineation and determination of the parameters. Five (5) boreholes are to be drilled up to a depth of 70 m in each borehole. A total of 100 cubic metres of pitting and trenching are to be done along with sampling for laboratory studies. A Geophysical survey will be carried out for proper delineating of the host rock.

**Item/Project No. 3:** Exploration of Sillimanite up to G4 level in Samelangshu area of Karbi-Anglong district, Assam. Toposheet No.83F/3, 83F/7.

**QUANTUM OF WORK TO BE DONE**

2	Geological mapping (Scale 1:12,500)		November 2022-January 2023	50 Sq.km.
3	Geologist days in the Field		Nov 2022- April 2023	
4	Pitting & Trenching		November 2022-March 2023	200 cubic meters (In total) at required intervals.
5	Surface Drilling		February 2022-April 2023	5 nos. of boreholes of depth 70 m (each).
6	Sampling	Surface sample	November 2022-March 2023  Feb-April 2023	Samples to be collected for Laboratory studies.
		Core Sample		
7	Laboratory Studies	Primary Samples, Check Samples, Petrological Samples etc.	Dec 2022- June 2023	399 Nos. 70 nos.
8	Camp Winding		June-July 2023	
9	Geologist days in headquarter		July-Oct 2023	
10	Geological Report writing		August-Oct 2023	

**Explanatory note:**

Occurrence of Sillimanite in the area was first reported by DGM, Assam in 1978-79. The main purpose of the investigation was to determine the areal extent of sillimanite rock & massive sillimanite deposits. Geologically, the area is exposed by the rocks of granite, feldspathic gneiss, feldspathic quartz biotite gneiss, garnetiferous hornblende biotite gneiss (with laths of sillimanite), quartz schist, feldspathic sillimanite and minor veins of quartz and amphibolite. Pockets of sillimanite bearing rocks occur within the granite body. A geological mapping (1:12,500) is proposed to be carried out for the delineation and

determination of the parameters. Drilling of Five (5) boreholes up to a depth of 70 m in each borehole is proposed. A total of 100 cubic metres of pitting and trenching are to be done along with sampling for laboratory studies.

A.

1. Sri Barnalee Nath, Joint Director will liaison with NMET, Govt. of India
2. During the review meeting of NMET Project, project head will attend the review meeting with liaison officer of DGM.

**Item/Project No. 4:** Exploration of Coal deposits up to G4 level in Larbo area of Dima Hasaodistrict, Assam. Toposheet No. 83G/2, 83C/14.

**QUANTUM OF WORK TO BE DONE**

Sl. No	Nature of work		Schedule timeline	Target
1	Camp Mobilisation		Oct.2022	
2	Geological mapping (Scale 1:12,500)		Nov 2022– January 2023	25 Sq.km.
3	Geologist days in the Field		Nov 2022- April 2023	
4	Pitting & Trenching		Nov 2022- March 2023	100 cubic meters (In total) at required intervals.
5	Surface Drilling		February 2022-April 2023	6 nos. of boreholes of depth 100 m (each).
6	Sampling	Surface sample	Nov 2022- March 2023 February- April 2023	Samples to be collected for Laboratory studies.
		Core Sample		
7	Laboratory Studies	Primary Samples, Check Samples, Petrological Samples etc.	Dec 2022- June 2023	300 100 nos.
8	Camp Winding		June-July 2023	
9	Geologist days in headquarter		July-Oct 2023	
10	Geological Report writing		August- Oct 2023	

**Explanatory note:**

Various reconnaissance surveys were already carried out in the adjoining areas (Khota-Arda etc.). The coal bearing rock of the area belong to the Kopili formation of Jaintia Group which forms the part of Southern fringe of Barail range. The coal seam is composite in nature though small dirt bands are present in alternation with carbon shale and clay bands. A geological mapping (1:12,500) is proposed to be carried out for the delineation and determination of the parameters. Six (6) boreholes with depth of approximately 100 m in each borehole is proposed to be drilled. A total of 100 cubic metres of

pitting and trenching are to be done along with sampling for laboratory studies.

**A. Item/Project No. 5:** Joint Exploration work with Atomic Mineral directorate in Jashora Alkaline Complex, West Karbi-Anglong for REE (Drilling)

Sl. No.	Nature of work	Target
1	Geological Survey	20 sq, km20 sq,km Execution as per AMD work paln
2	Mapping	1:25000 As per AMD
3	Sampling	As per requirement
4	Drilling	As per AMD

**Item/Project No. 6:**Investigation of Occurrence of Platinum Group of Elements (PGE) in Kalapahar range near koilamati and koilajan area, East-Central Karbi Hills of Assam, North East India.

Sl. No	Nature of work		Schedule timeline	Target
1	Camp Mobilisation		Oct.2022	
2	Geological mapping (Scale 1:25000)		Nov 2022– January 2023	20Sq.km.
3	Geologist days in the Field		Nov- 2022 April 2023	
4	Pitting & Trenching		Nov 2022- March 2023	100 cubic meters (In total) at required intervals.
6	Sampling	Surface sample	Nov 2022- March 2023	Samples to be collected for Laboratory studies.
7	Laboratory Studies	Primary Samples, Check Samples, Petrological Samples etc.	Dec 2022- June 2023	As per requirement
8	Camp Winding		June-July 2023	
9	Geologist days in headquarter		July-Oct 2023	
10	Geological Report writing		August-Oct 2023	

**Explanatory notes:** With reference to the paper published by Prof. Dilip Majumder and Abhijit Gogoi (Department of Applied Geology, Dibrugarh University) in the Journal of Geological Society of India, Vol. 94, September 2019, entitled with “First Report on Platinum Occurrence in Ultramafic-Mafic Complex, East-Central Karbi hills of Assam, North East India”, A field programme has been proposed for detail exploration of PGE in the said area.

**B. PREPARATION OF DISTRICT SURVEY REPORT**

**Item No. 7:** Preparation of district survey report of Kamrup district, Assam

**Explanatory note:**

District Survey Report is prepared to identify the mineral resources, mining activities and other relevant data within the district. Hence, District Survey Report of Kamrup district will be prepared to identify the location of depositions where mining can be allowed, to identify location of erosion and proximity to infrastructures, to identify the sites where mining should be prohibited, to calculate the annual rate of replenishment. It will also be beneficial to identify and demarcate the major mineral occurrences within the district. Action plan for segregation of resources:

1. Identification of River / Stream bed sections / other sources suitable for extraction of sand and aggregates.
2. Identification of River / Stream beds sections / other sources prohibited for extraction of sand and aggregates.

**QUANTUM OF WORK TO BE DONE**

Sl. No	Nature of work		Schedule timeline	Target
1	Camp Mobilisation		Oct. 2022	
2	Preliminary Geological mapping (Scale 1:25,00)		Nov. 2022- January 2023	50 Sq.km.
	Detailed Geological mapping (Scale 1:2,000)			20.40 sq.km
3	Geologist days in the Field		Nov. 2022- April 2023	
6	Sampling	Surface sample	Feb.-April 2023	Samples to be collected for Laboratory studies.
7	Laboratory Studies	Samples etc.	Dec. 2022- June 2023	As per requirement
8	Camp Winding		June-July 2023	
9	Geologist days in headquarter		July-Oct 2023	
10	Geological Report writing		August-Oct 2023	

**Note:**

1. In the FS 2021-23, Survey and mapping of Southern part of Kamrup district will be taken up for preliminary and detail mapping for preparation of DSR of the district for completion of the pilot project.
2. The preparation of DSR for other districts will be taken up in phase manner prioritizing on existing Minor Mineral Concession Areas available in those districts.
3. Identification of Other mineable minerals available in the district.
4. The District Survey Report will be carried out in other minerals available dist. as per the guidelines of MOEF & CC in phase manner.

**C. SPECIAL PROGRAMME**

1. DGPS mapping of limestone deposit in Block C of Umrangso area, Dima Hasaodistrict to ascertain the mineral availability of the area. Total area-0.35sq km.
2. DGPS mapping of limestone deposit in Kidimathipa area, Karbi-Anglong district.
3. DGPS mapping and mapping of coal deposit in in Sheelbtheta area, Karbi-Anglong district.

4. DGPS mapping and mapping of coal deposit in in Bimalapur area in Charaideo district.

As the reports were published before MMDR act 1957 Amended in 2015, therefore as per **Minerals (Evidence of Mineral Contents) Rules, 2015**, DGPS mapping is necessary for a explored area.

- *Some geological investigation works on request from various Government, Semi Government may be taken as and when required for both mineral and ground water.*

- *Exploration by Geological Survey of India (GSI), State unit: Assam during FS 2021-22 for Molybdenum and associated mineralization in the area between Helagog-Khaloibari, Dist : Kamrup Metro, Assam*
- *For REE mineralization in Panbari Geleki area, Dist: Karbi Anglong, Assam*
- *For placer gold in Subansiri basin, Dist: North Lakhimpur, Assam*
- *Limestone Saikilangsho Block, Dist: Dima Hasao, Assam*
- *Exploration by Mineral Exploration Corporation Limited (MECL) for Sillimanite at Chippilansho block, Dist: Karbi Anglong, Assam*

- *MoU signed with MECL*
- *Exploration by Atomic Mineral Directorate (AMD) For Rare Earth Elements (REE) around Kalain and Badarpur Lalapur area, Dist: Cachar, Assam. ,REE around Asukunji, Balikunji, Tharkunji areas in Morigaon and Karbi Anglong districts. ,(REE) in and around Jashora, Punja and Langlang areas, Dist: West Karbi Anglong, Assam.( Joint Drilling will be done by DGM, Assam)*

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