

Ministry of Mines
National Mineral Exploration Trust
Minutes of 7th meeting of Technical-cum-Cost Committee -II (TCC-II)
held on 24th and 25th March, 2025

The 7th meeting of Technical-cum-Cost Committee – II (TCC-II) of National Mineral Exploration Trust (NMET) was held through video conferencing under the Chairmanship of Shri Pradeep Singh, Deputy Director General (DDG), Geological Survey of India (GSI) and Chairman, TCC-II, NMET on 24th and 25th March 2025.

Members of TCC-II, NMET and representatives from Mineral Exploration and Consultancy Limited (MECL), DMG Jammu & Kashmir, DGM Ladakh, DGM Sikkim, Central Mine Planning & Design Institute Limited (CMPDI), CGM, Gujarat, DMG Rajasthan, FCI Aravali Gypsum & Minerals India Limited (FAGMIL), Madhya Pradesh State Mining Corporation Limited (MPSMCL), M/s Engeotech Consultant, M/s Maheshwari Mining Pvt. Ltd. (MMPL), M/s Tata Steel Limited, M/s GeoExpOre Pvt. Ltd., M/s Gemcokati Exploration Pvt. Ltd., M/s Geovale Services Private Limited, M/s GEMS Projects Private Limited, M/s Mining Tech Consultancy Services Limited, M/s PRB Infra Projects Private Limited, M/s Envirogreen Consultants (India) Private Limited, M/s Geo Marine Solutions Pvt. Ltd., M/s Ocean Drilling & Exploration Pvt. Ltd., M/s Novomine India Private Limited, M/s Vardan Environet LLP etc. have attended the meeting through video conferencing mode. The list of participants is at Annexure-1.

Shri Pradeep Singh, DDG, GSI and Chairman, TCC-II, NMET welcomed to all TCC-II members and participants representing various Notified Exploration Agencies (NEAs) and Notified Private Exploration Agencies (NPEAs).

Agenda 7.1 Technical Evaluation of New Project Proposals

Agenda 7.1.1 Preliminary Exploration (G3) for Graphite in Jhab Block, Dahod district, Gujarat

[Implementing Agency: Mineral Exploration and Consultancy Limited (MECL)]

- a) The proposed exploration block of 5.73 sq. km. area, falls in Survey of India Toposheet number 46F/14 in parts of Dahod district, Gujarat.
- b) MECL informed that the CGM, Gujarat has identified several blocks for exploration of Critical and Strategic Mineral based on previous work. They published the information of these blocks in Gujarat's Mineral Wealth. CGM, Gujarat vide email dated 14/11/2024 allotted few blocks to MECL. The proposed Jhab graphite block (G-3 stage) is one of them.
- c) MECL further informed that GSI has done G4 stage exploration work for the potential graphite deposit in the Devgadhi Bariya-Nagwadi Block, Dahod district, Gujarat during field season 2022-23. Large-scale mapping (LSM) was carried out over a 100 sq. km area at a 1:12,500 scale. The study area consists of Aravalli metasediments of the Champaner Group, including dolomite, micaceous quartzite, quartz-biotite schist, and graphite schist. A total of 94 samples were collected from different locations, including 50 BRS (Bedrock Samples), 50 channel samples, 10 PCS (Petrographic Core Samples) and 50 pitting/trenching samples. These samples were analysed for fixed carbon (FC), major oxides, and trace elements. Two potential graphite-rich zones identified in Ankli and Jhab-Nadatod. The later one falls within the proposed block of MECL. Fixed Carbon (FC) content in samples ranges from 6.18% to 20.18%, indicating economic viability. High concentrations of trace elements such as Cr, Cu, Nb, Ni, Zn, and V, which are associated with graphite deposits.



- d) The Dedhana area in Devgadhi Baria taluka, Panchmahal district, was prospected (1965-66) by DGM, Gujarat, through detailed geological mapping and trenching. The block, located in the eastern part of the proposed area. Ten boreholes (JRG-1 to JRG-10) were drilled to explore graphite schist bands at shallow depths (15-20 meters), covering a strike length of 700 meters, with the southern limb spanning 930 meters. Estimated reserves totalled 0.86 million tonnes, categorized as proved, probable, and inferred. The report recommends further exploration in the surrounding areas of the Jhab-Redhana graphite deposit.
- e) The TCC-II advised inclusion of XRD analysis for 5 samples. Total graphitic carbon (TGC) analysis to be carried out instead of FC. Total 2300 meterage of drilling was agreed in 36 boreholes, i.e., 29 boreholes in 400m x 400m spacing in 1st Phase and 7 boreholes in 2nd Phase of drilling. Drilling will commence after first review of the project by TCC-II.

Recommendation TCC-II

The committee recommends the proposal for approval of EC for "Preliminary Exploration (G-3) for Graphite in Jhab Block, District: Dahod, Gujarat" with an estimated cost of ₹474.61 Lakh (including GST) within the time schedule of 15 months and submission of the report as per Annexures 2A & 2B. Total 2300 meterage of drilling will be done in 36 boreholes, including 29 boreholes with 400m x 400m spacing in 1st Phase (1st level) and 7 boreholes in 2nd Phase (2nd level). Drilling will commence after first review of the project. The item will be reviewed after 5 months & 10 months.

Agenda 7.1.2 Reconnaissance Survey (G4) for REE and associated minerals in Tawa Kharajwat Area (129.00 sq. km), Chhotaudepur District, Gujarat

[Implementing Agency: Mineral Exploration and Consultancy Limited (MECL)]

- a) The proposed exploration block of 129.00 sq. km. area, falls in Survey of India Toposheet numbers 46J/04 & 46F/16 1 in parts of Chhotaudepur District, Gujarat.
- b) MECL informed that, CGM, Gujarat has identified several blocks for exploration of Strategic Mineral based on their previous works. They published the information of these blocks in Gujarat's Mineral Wealth. CGM, Gujarat (via official email dated 14/11/2024) sent MECL a NOC approval to take up exploration investigation in those blocks. The proposed Tawa-Kharajwat Carbonatite block (G-4 stage) is one of them.
- c) As per the comments received from GSI, the proposed block has an overlap with GSI's G4 exploration block, hence the TCC-II does not consider the proposal for evaluation.

Recommendation TCC-II

The committee does not recommend the proposal for approval of EC.

Agenda 7.1.3 Reconnaissance Survey (G4) for Limestone in and around Amanganj-Gunnor-Pawai areas, Panna District, Madhya Pradesh

[Implementing Agency: M/s Engeotech Consultant]

- a) The proposed exploration block of 93.13 sq. km. area, falls in Survey of India Toposheet numbers 63D/3 & 63D/7 in parts of Panna District, Madhya Pradesh.
- b) M/s Engeotech Consultant informed that the Limestone occurrences in Panna and Damoh districts of Madhya Pradesh were first reported by Meddicot (1859), followed by Rajarajan (1978) and Chakraborty & Nanda (1982-83). GSI has also identified limestone bands in Panna district. However, limited work and mining activity have been conducted in the area. The western extension of the Nagod Limestone belt extends

through Panna, from Gunnor, Amanganj, and Pawai tehsils to Patharia in Damoh district. The Amanganj-Gunnor-Pawai Limestone Block lies in the middle of this belt. Several contiguous mining leases and limestone blocks are located around this exploration block, including Kakra-Panna Limestone ML (1594.34 Ha), M/s JK Cement Limited, Koni-Simaria Limestone ML (3095.23 Ha), M/s JK Cement Limited, Kolkariya Limestone ML (499.64 Ha), M/s Springway Mining Pvt. Ltd., Kanaktala Limestone Block for G4 exploration, GSI, Damoh., Nimarmunda Limestone Block, G2 level exploration by DGM, M.P., Gunnor G4 Block, Panna., Beli-Maheba Limestone Mines, M/s Eco Cements, Panna etc. These mining leases are primarily for captive cement manufacturing. Despite the significant limestone outcrops in the Amanganj-Gunnor-Pawai G4 Exploration Block, this area remains largely unexplored.

- c) The TCC-II advised inclusion of XRD analysis for 5 samples. Total 250 meterage of drilling was agreed in 5 boreholes (50 m depth for each borehole). TCC-2 apprised that drilling may be carried out after review of surface analysis results.

Recommendation TCC

The committee recommends the proposal for approval of EC for "Reconnaissance Survey (G-4 Stage) for Limestone in and around Amanganj-Gunnor-Pawai Area, Panna District, Madhya Pradesh" with an estimated cost of ₹86.22 Lakh (including GST) within the time schedule of 10 months and submission of the report as per Annexures 3A & 3B. Total 250 meterage of drilling will be done in 5 boreholes. The item will be reviewed after 4 months.

Agenda 7.1.4 Reconnaissance Survey (G4) of REE mineralization in Jasai Radwa area, District Barmer, Rajasthan

[Implementing Agency: FCI Aravali Gypsum & Minerals India Limited (FAGMIL)]

- a) The proposed exploration block of 128.00 sq. km. area, falls in Survey of India Toposheet numbers 40O/02 & 40O/06 in parts of Barmer District, Rajasthan.
- b) FAGMIL informed that Aranha et al. (2021) compiled geological, structural, magnetic, and gravity data to identify REE (Rare Earth Element) prospective zones, highlighting the Danta-Langera-Mahabar area as highly prospective due to the presence of carbonatite veins and dykes. Similarly, Chandrasekaran et al. (1992) reported the geochemistry of carbonatite rocks in the Sarnu-Dandali area, which also showed potential for REE mineralization, with minor occurrences likely present in the Danta-Langera-Mahabar area. In the 2018-19 field season, GSI conducted geochemical mapping in Barmer district, Rajasthan, identifying alkaline rocks, including carbonatites, from the Sarnu-Dandali complex as having REE potential. MECL also found the Sarnu area promising for REE mineralization. The current block, located about 51 km west of Sarnu, shows similar dyke intrusions in granitic/rhyolitic flows, suggesting potential for REE mineralization.
- c) The TCC-II advised to establish the presence of carbonatite from surface geological mapping and sampling, in the proposed area.

Recommendation TCC

The committee recommends the proposal for approval of EC for "Reconnaissance survey (G4) for REE in Jasai-Para area, District: Barmer, Rajasthan" with an estimated cost of ₹59.60 Lakh (including GST) within the time schedule of 10 months and submission of the report as per Annexures 4A & 4B. The item will be reviewed after 5 months.

Agenda 7.2: Review of Ongoing Procurement Projects & Timeline Extension

Agenda 7.2.1 Financial Assistance from NMET funds to procure Machinery Laboratory Equipment/instruments etc. aimed at enhancing the exploration activities.

[Implementing Agency: DGM Jammu & Kashmir]

- a) The status of the procurement was presented by DGM Jammu & Kashmir. The agency informed that payments of ₹80,240/- and ₹43,02,000/- has been made for 20 units of Geological Hammer and one Atomic Absorption Spectrometer (AAS) respectively.
- b) DGM Jammu & Kashmir has proposed additional costs for procurement of Hand-held XRF, Brunton Compass, Hand-held GPS, GIS software & Total Station.
- c) The TCC-II advised that DGM Jammu & Kashmir should modify the procurement proposal on the basis of the price of recently procured similar items in GSI, MECL, IBM etc. & also, the price should be within the ceiling price. The committee opined that the project should be reviewed in the next meeting of TCC-II.

Recommendation TCC

The committee deferred the proposal for next TCC-II meeting.

Agenda 7.2.2 Financial Assistance from NMET funds to procure Machinery Laboratory Equipment/instruments etc. aimed at enhancing the exploration activities.

[Implementing Agency: DGM Ladakh]

- a) The status of the procurement was presented by DGM Ladakh. The agency informed that procurement of Truck mounted Hydrostatic Drill & its accessories will not be feasible and the amount would be surrendered to NMET.
- b) The TCC-II advised DGM Ladakh to submit justification for not utilising the funds for a long time.
- c) The committee opined that modifications are required for some of the proposed items for procurement, which are not listed in SoC, NMET.

Recommendation of TCC-II:

The committee deferred the proposal for next TCC-II meeting.

Agenda 7.2.3 Financial Assistance from NMET funds to procure Machinery Laboratory Equipment/instruments etc. aimed at enhancing the exploration activities.

[Implementing Agency: DGM Sikkim]

- a) The status of the procurement was presented by DGM Sikkim. The agency informed that procurement of Handheld XRF, Drilling Accessories, Research Polarising Microscope & GIS software has been done by utilising ₹76,90,000/- only.
- b) DGM Sikkim requested for timeline extension of 6 months for completion of remaining procurement process.
- c) Timeline extension for 6 months was agreed by the TCC-II.

Recommendation of TCC-II:

The committee recommends the proposal for approval of EC for Timeline extension of 6 months up to 30th September 2025.

7.3 Review of Ongoing Projects/ Completed Projects& Timeline Extension

Agenda 7.3.1 Reconnaissance Survey (G4) for Phosphorite in Randha area, Jaisalmer district, Rajasthan

[Implementing Agency: FCI Aravali Gypsum & Minerals India Limited (FAGMIL)]

- a) FAGMIL informed that the project was approved in the 36th EC Meeting held on 29th July, 2024. The sanction order was issued on 13th September, 2024 with timeline of 12 months (up to 12.09.2025) and approved cost was INR 1,37,44,269/-.
- b) The project was approved in 36th EC meeting held on 29th July 2024.
- c) FAGMIL presented the status of progress of the project. They informed that geological map on 1:12,500 scale & contour map with 5m interval has been prepared. Total 100 bed rock samples and 120 trench samples have also been collected. Drilling in 5 boreholes (60m each) will commence shortly.
- d) The TCC-II advised that all analytical results of pit/trench samples and bed rock samples should be shown in review meeting.

Recommendation of TCC-II:

The committee advised to present all analytical results of pit/trench samples and bed rock samples in next review of the project.

Agenda 7.3.2 Reconnaissance Survey (G4) of Graphite in Ranibandh, District Bankura, West Bengal

[Implementing Agency: M/s Maheshwari Mining Pvt. Ltd. (MMPL)]

- a) MMPL informed that the project was approved in the 62nd TCC Meeting held on 28th, 29th February and 01st March, 2024 The OM was issued on 12th March, 2024 with timeline of 10 months and approved cost was INR 1,43,35,493/-.
- b) MMPL presented the status of progress of the project. They informed that drilling was started on 10th February 2025 and as of now total 350m drilling has been done in this project.
- c) MMPL further informed that the original timeline for project completion was up to 11th January 2025, which was extended up to 10th April 2025. MMPL requested for further timeline extension up to 10th July 2025.
- d) The TCC-II agreed for 3 months timeline extension up to 10th July 2025 for project completion.

Recommendation of TCC-II:

The committee recommends the proposal for approval of EC for timeline extension of 3 months up to 10th July 2025 for GR submission.

Agenda 7.3.3 Reconnaissance Survey (G4) for Glauconite in Dhamni-Piparwasi-Simliya Area, Sheopur, Madhya Pradesh

[Implementing Agency: M/s Maheshwari Mining Pvt. Ltd. (MMPL)]

- a) MMPL informed that the project was approved in the 66th TCC Meeting held on 24th, 25th and 26th June, 2024 The OM was issued on 21st August, 2024 with timeline of 12 months (up to 20.08.2025) and approved cost was INR 1,06,22,030/-.
- b) MMPL presented the status of progress of the project. They informed that geological mapping on 1:12,500 scale has been completed. Pitting/trenching, geochemical survey, chemical analysis & petrographic studies are in progress. Based on values of K₂O (%), three (3) potential zones have been identified.
- c) The TCC-II advised drilling of two (2) boreholes in Zone-1, & based on the positive outcomes, further drilling work will be decided. TCC-II recommended separating K from feldspar or glauconitic mineral and identifying minerals that contain lithium.

Recommendation of TCC-II:

The committee agreed for drilling of two (2) boreholes in Zone-1. Based on the positive outcomes, further drilling work will be decided.

**Agenda 7.3.4 Preliminary Exploration (G3) for Iron, Manganese and Associated minerals in Tindni block (7.4 Sq. Km) Jabalpur district, Madhya Pradesh
[Implementing Agency: Mineral Exploration and Consultancy Limited (MECL)]**

- a) MECL informed that the project was approved in the 35th EC Meeting held on 16th May, 2024. The sanction order was issued on 10th June, 2024 with timeline of 15 months (up to 09.09.2025) and approved cost was INR 3,68,85,357/-.
- b) MECL presented the status of progress of the project. MECL informed that Geological mapping and associated work commenced on 15.07.2024. During filed traverses it was found that more than half of the area in the eastern part of the block falls in the ordnance testing ground where testing of ammunitions and others are being carried out on a daily basis. Khammeriya Ordnance Factory is located 5 km south of the block. Human movement in the area is restricted. The restricted area is known as Long Proof Range (LPR). Hence, no prospecting work can be taken up.
- c) Further, the Tindni block falls both in forest and non-forest land. Offline application to accord forest clearance was submitted to the concerned forest authority. Forest clearance has been issued recently excluding the LPR zone. Hence, prospecting will be carried out in the remaining allowed area which is 3.80 Sq.km in the western part.
- d) In view of the above, MECL sought reduction of total area of the block from 7.4 Sq.km to 3.80 Sq.km.
- e) The TCC-II agreed for reduction of approved area to 3.80 sq.km and instructed MECL to revised the quantum and cost sheet as per reduced area. The revised cost sheet may be brought for approval of TCC during the next review of the project.

Recommendation of TCC-II:

The committee recommended modification of the block area to 380 sq.km and asked MECL to submit revised cost sheet in the next review of the project.

**Agenda 7.3.5 Preliminary Exploration (G3) for Iron and Bauxite ore in Majhauri Block, Jabalpur District, Madhya Pradesh
[Implementing Agency: Mineral Exploration and Consultancy Limited (MECL)]**

- a) MECL informed that the project was approved in the 36th EC Meeting held on 29th July, 2024. The sanction order was issued on 29th August, 2024 with timeline of 10 months (up to 28.06.2025) and approved cost was INR 67,35,230/-.
- b) MECL presented the status of progress of the project. MECL further informed that project work has been completed & five (5) lateritic bodies were demarcated. Value of Al_2O_3 ranges from 22.06% to 31.08% in the block.
- c) The TCC-II agreed for submission of the geological report.

Recommendation of TCC-II:

The committee agrees for submission of geological report.

**Agenda 7.3.6 Reconnaissance Survey (G4) for Iron, Manganese and associated minerals in Tikariya Block, Katni District, Madhya Pradesh
[Implementing Agency: Mineral Exploration and Consultancy Limited (MECL)]**

- a) MECL informed that the project was approved in the 31st EC Meeting held on 12th September, 2023. The sanction order was issued on 05th October, 2023 with timeline of 10 months and approved cost was INR 2,21,83,799/-.
- b) The project was approved in 31st EC meeting held on 6th September 2023. It was reviewed in 67th TCC & 4th TCC-II meeting.
- c) MECL informed that 215m drilling has been completed in 12 boreholes & a G3 level exploration block is proposed in the geological report. MECL further informed that Peer Review has been done and all recommendation/ suggestion of the peer reviewer were attended/incorporated in the geological report.
- d) MECL informed that Analysis of TiO₂, Vanadium and Gallium was not in the NQT initially at the time of approval of the project. Hence, a quantum of 150 nos. of samples were approved by 4th TCC-II in December 2024. However, 169 samples were analysed, so MECL requested for approval of TCC-II for 19 additional samples for Vanadium and Gallium.
- e) In view of the above, the TCC-II agreed for analysis of additional 19 samples.

Recommendation of TCC-II:

The committee agrees for submission of geological report. The Committee also approves the analysis of additional 19 samples with approx. cost of ₹15,998/-.

**Agenda 7.3.7 Preliminary Exploration (G3) for Manganese and associated minerals in Kankura Block, West Singhbhum District, Jharkhand
[Implementing Agency: Tata Steel Limited]**

- a) TATA Steel informed that the project was approved in the 40th EC Meeting held on 21st February, 2025. The sanction order was issued on 10th March, 2025 with timeline of 15 months (up to 09.06.2026) and approved cost was INR 3,95,77,821/-.
- b) Tata Steel Limited informed that a meeting on 'Enhancing Critical Mineral Exploration through NPEA' was held on 30th January 2025 in hybrid mode, chaired by Additional Secretary, Ministry of Mines. During the meeting, NPEAs were asked to submit recommendations for inclusion of new SoC items which are technologically advance, superior and agile in the applicability part of those. Against this directive, Tata Steel Limited proposed for replacing Topographical Survey by Total Station with Drone based topographical survey (table1) & requested that, this item may further be included in the SoC list during revision (as scheduled in 2025).

Table:1

SoC No.	As Approved (as per SoC)	Proposed Consideration for
1.6.1a (Survey)	Charges of one qualified surveyor with Total Station for carrying out topographical survey in different RF and surface contouring at different intervals. unit: Man days	Drone based topographical survey with DGPS unit: Per Sq. Km. @ ₹150000 per sq.km

Cost of Topographical Survey using Drone is proposed as per table 2

Table:2

S. No.	Work/ Activity	Unit	Charges (INR) [Proposed based on calculations]	Remarks
1.6	Survey			
1.6.3a	Drone based topographical survey in flat terrain with no or limited forest cover	Per sq. km	150000	
1.6.3b	Drone based topographical survey in hilly/ undulatory terrain with no or limited forest cover	Per sq. Km	187500	1.25 times of 1.6.3a
1.6.3c	Drone based topographical survey in Hilly/ undulatory terrain with high forest cover	Per sq. Km	225000	1.50 times of 1.6.3a

- c) Further it was informed by Tata Steel Limited that a drone-based topographical survey offers significant advantages over a total station by enabling faster data collection across large areas, accessing difficult-to-reach terrains, providing a bird's-eye perspective, and generating highly detailed 3D models.
- d) Tata Steel Limited also proposed changes in the approved chemical analysis of with respect to Chemical Analysis of BRS, channel/ groove samples as well as core samples by XRF method (SoC ref. no. 4.1.15a) to complete analysis of dolomite/ limestone/ gypsum/ clay/ manganese ore/ bauxite/ iron ore to (SoC ref. no. 4.1.9).
- e) The committee deliberated on the proposal by Tata Steel Limited and agreed to approve the modification in Chemical analysis of BRS, channel/ groove samples as well as core samples by XRF method (SoC ref. no. 4.1.15a) to complete analysis of dolomite/ limestone/ gypsum/ clay/ manganese ore/ bauxite/ iron ore to (SoC ref. no. 4.1.9). However, considering that Topographical survey by Drone and DGPs is not included in the SoC, the committee decided to recommend the same to EC of NMET for approval as given at Annexure 5.

Recommendation of TCC-II:

The committee recommended the modification in Chemical analysis of BRS, channel/ groove samples as well as core samples by XRF method (SoC ref. no. 4.1.15a) to complete analysis of dolomite/ limestone/ gypsum/ clay/ manganese ore/ bauxite/ iron ore to (SoC ref. no. 4.1.9).

Further, the committee recommended the proposal for Topographical survey by Drone and DGPS @ 225000 per sq.km for approval of EC.

The committee recommended revised estimated cost of the project at ₹395.89 Lakh (including GST) as per Annexures 5.

Agenda 7.3.8 Reconnaissance Survey (G4) for Iron Ore in Mahakoshal Group around Chakdiya, Kushaniya, Jobra and Tusgaon area, Sonbhadra district, Uttar Pradesh

[Implementing Agency: M/s GeoExpOre Pvt. Ltd.]

- a) GeoExpOre Pvt. Ltd. informed that the project was approved in the 33rd EC Meeting held on 19th February, 2024. The sanction order was issued on 28th February, 2024 with timeline of 09 months (up to 27.11.2024) and approved cost was INR 95,41,116/-
- b) M/s GeoExpOre Pvt. Ltd. presented the status of progress of the project. Further, the agency requested to change the outsourced drilling to In-house drilling for the project.
- c) The TCC-II agreed for In-house drilling for this project.

Recommendation of TCC-II:

The committee approves the proposed In-house drilling in the project with an estimated revised cost of ₹ 200.55 Lakh (including GST) as per Annexures 6.

Agenda 7.3.9 Reconnaissance Survey for Coal in Khapia block, North Karanpura CF, Hazaribagh district, Jharkhand

[Implementing Agency: Central Mine Planning & Design Institute Limited (CMPDI)]

- a) CMPDI informed that the project was approved in the 28th EC Meeting held on 16th March, 2023. The sanction order was issued on 3rd April, 2023 with timeline of 12 months and approved cost was INR 1,61,48,115/-.
- b) CMPDI presented the status of progress of the project. Further, the agency informed that even after obtaining the Forest Clearance the drilling could not be commenced due to local agitation.
- c) The TCC-II agreed for the surrender of the block by CMPDI.

Recommendation of TCC-II:

The committee agrees for the surrender of the block by CMPDI.

Agenda 7.3.10 Reconnaissance Survey (G4) for PGE, Gold & REE in Maneri-Sitapala Block, Balaghat District, Madhya Pradesh

[Implementing Agency: M/s Gemcokati Exploration Pvt. Ltd.]

- a) GemcoKati Exploration Private Ltd. informed that the project was approved in the 31st EC Meeting held on 12th September, 2023. The sanction order was issued on 05th October, 2023 with timeline of 08 months and approved cost was INR 64,92,482/-.
- b) M/s Gemcokati Exploration Pvt. Ltd. presented the status of progress of the project. Further, the agency informed that after obtaining the Forest Clearance on 15th February 2025, pitting/trenching work have been done in the block.
- c) The TCC-II opined that the project should be reviewed after receipt of analytical results.

Recommendation of TCC-II:

The committee deferred the review of the project till receipt of analytical results.

Agenda 7.3.11 Reconnaissance Survey (G-4) for PGE, Vanadium & associated minerals in Bhursadongari - Murum Block (100 Sq Km), Balaghat District, Madhya Pradesh

[Implementing Agency: M/s Gemcokati Exploration Pvt. Ltd.]

- a) GemcoKati Exploration Private Ltd. informed that the project was approved in the 62nd TCC Meeting held on 28th, 29th February and 01st March, 2024 The OM was issued on 12th March, 2024 with timeline of 06 months and approved cost was INR 61,01,057/-
- b) The project was approved in 34th EC meeting of NMET held on 12th March 2024.

- c) M/s Gemcokati Exploration Pvt. Ltd. presented the status of progress of the project. Further, the agency informed that after obtaining the permission on 6th March 2025, pitting/trenching work have been done in the block.
- d) The TCC-II opined that the project should be reviewed after receipt of analytical results.

Recommendation of TCC-II:

The committee deferred the review of the project till receipt of analytical results.

Agenda 7.3.12 Preliminary Exploration (G-3) for Limestone in Bhatara Block (1.5 sq.km.), Satna district, Madhya Pradesh

[Implementing Agency: Madhya Pradesh State Mining Corporation Limited (MPSMCL)]

- a) MPSMC informed that the project was approved in the 32nd EC Meeting held on 06th December, 2023. The sanction order was issued on 12th December, 2023 with timeline of 08 months and approved cost was INR 62,70,842/-.
- b) MPSMCL informed that work has been completed in this project. The GR has been peer reviewed and all comments/suggestion of peer reviewer were attended/incorporated in the report. The agency requested timeline extension up to 31st March 2025 for submission of GR.
- c) The TCC-II agreed for timeline extension up to 31st March 2025 for submission of Geological Report.

Recommendation of TCC-II:

The committee approves the timeline extension for submission of Geological Report up to 31st March 2025.

Agenda 7.3.13 Reconnaissance Survey (G4) for Limestone in Banki-Salaiya block, Chhatarpur Districts, Madhya Pradesh

[Implementing Agency: Madhya Pradesh State Mining Corporation Limited (MPSMCL)]

- a) MPSMC informed that the project was approved in the 32nd EC Meeting held on 06th December, 2023. The sanction order was issued on 12th December, 2023 with timeline of 09 months and approved cost was INR 48,07,691/-.
- b) MPSMCL informed that work has been completed in this project. The GR has been peer reviewed and all comments/suggestion of peer reviewer were attended/incorporated in the report. The agency requested timeline extension up to 31st March 2025 for submission of GR.
- c) The TCC-II agreed for timeline extension up to 31st March 2025 for submission of Geological Report.

Recommendation of TCC-II:

The committee approves the timeline extension for submission of Geological Report up to 31st March 2025.

Agenda 7.3.14 Reconnaissance Survey (G4) for Limestone Dhanokhar-Nagod block, Panna & Satna Districts, Madhya Pradesh

[Implementing Agency: Madhya Pradesh State Mining Corporation Limited (MPSMCL)]

- a) MPSMC informed that the project was approved in the 33rd EC Meeting held on 19th February, 2024. The sanction order was issued on 28th February, 2024 with timeline of 09 months (up to 27.11.2024) and approved cost was INR 78,74,163/-.
- b) MPSMCL presented the status of progress of work in this project. The agency further requested timeline extension of 8 months for submission of GR.

- c) The TCC-II asked MPSMCL to submit the detailed justification to NMET for delay in completion of the project work. The committee agreed for timeline extension of 8 months for submission of GR.

Recommendation of TCC-II:

The committee recommends the proposal for approval of EC for timeline extension of 8 months up to 27th July, 2025 for submission of GR.

Agenda 7.3.15 Reconnaissance Survey (G4) for Limestone in Gunaupali block, Panna district, Madhya Pradesh

[Implementing Agency: Madhya Pradesh State Mining Corporation Limited (MPSMCL)]

- a) MPSMC informed that the project was approved in the 33rd EC Meeting held on 19th February, 2024. The sanction order was issued on 28th February, 2024 with timeline of 09 months (up to 27.11.2024) and approved cost was INR 52,98,986/-.
- b) MPSMCL presented the status of progress of work in this project. The agency further requested timeline extension of 8 months for submission of GR.
- c) The TCC-II asked MPSMCL to submit the detailed justification to NMET for delay in completion of the project work. The committee agreed for timeline extension of 8 months for submission of GR.

Recommendation of TCC-II:

The committee recommends the proposal for approval of EC for timeline extension of 8 months up to 27th July, 2025 for submission of GR.

Agenda 7.3.16 Preliminary Exploration (G3) for Basemetal in Pastalaimal Basemetal block, Betul, Madhya Pradesh

[Implementing Agency: Madhya Pradesh State Mining Corporation Limited (MPSMCL)]

- a) MPSMC informed that the project was approved in the 34th EC Meeting held on 16th March, 2024. The sanction order was issued on 12th March, 2024 with timeline of 12 months (up to 11.03.2025) and approved cost was INR 1,40,93,751/-.
- b) MPSMCL presented the status of progress of work in this project. The agency further requested timeline extension of 8 months for submission of GR.
- c) The TCC-II asked MPSMCL to submit the detailed justification to NMET for delay in completion of the project work. The committee agreed for timeline extension of 8 months for submission of GR.

Recommendation of TCC-II:

The committee recommends the proposal for approval of EC for timeline extension of 8 months up to 11th November 2025 for submission of GR.

Agenda 7.3.17 Preliminary Exploration (G3) for Graphite in Patra Graphite block, Jhabua, Madhya Pradesh

[Implementing Agency: Madhya Pradesh State Mining Corporation Limited (MPSMCL)]

- a) MPSMC informed that the project was approved in the 34th EC Meeting held on 16th March, 2024. The sanction order was issued on 12th March, 2024 with timeline of 12 months (up to 11.03.2025) and approved cost was INR 1,98,11,180/-.
- b) MPSMCL presented the status of progress of work in this project. The agency further requested timeline extension of 12 months for submission of GR as the forest clearance has not been received.

- c) The TCC-II asked MPSMCL to submit the detailed justification to NMET for delay in completion of the project work. The committee agreed for timeline extension of 12 months for submission of GR.

Recommendation of TCC-II:

The committee recommends the proposal for approval of EC for timeline extension of 12 months up to 11th March, 2026 for submission of GR.

**Agenda 7.3.18 Reconnaissance Survey (G4 Stage) for Graphite and Vanadium in Matena-Sirar Area, Almora District, Uttarakhand
[Implementing Agency: M/s Geovale Services Private Limited]**

- a) Geovale Services Pvt. Ltd. informed that the project was approved in the 65th TCC Meeting held on 28th, 29th and 31st May, 2024. The OM was issued on 21st Aug, 2024 with timeline of 12 months (up to 20.08.2025) and approved cost was INR 2,60,45,671/-
- b) M/s Geovale Services Private Limited presented the status of progress of work in this project. The agency informed that geological map on 1:12,500 scale has been upgraded with structural data. Pitting work has been done partially & twelve (12) borehole locations have been identified. The agency proposed changes in approved numbers of chemical analysis (XRF, ICPMS & XRD); SP & Shallow Electrical Resistivity (VES) in place of Self-Potential survey and additional 10 nos. of samples for Raman Spectrometry & 25 samples for total sulphur analysis.
- c) The TCC-II advised that initially two (2) boreholes should be drilled & based on positive results of these boreholes supported by positive geophysical results, further drilling will be decided in this project.

Recommendation of TCC-II:

The committee recommends the proposal for approval of EC for modifications in approved numbers of chemical analysis (XRF, ICPMS & XRD); SP & Shallow Electrical Resistivity (VES) survey in place of Self-Potential survey; additional 10 nos. of samples for Raman Spectrometry & 25 samples for total sulphur analysis with an estimated revised cost of ₹280.37 Lakh (including GST) as per Annexure 7.

**Agenda 7.3.19 Reconnaissance Survey (G4) for Mailar Base Metal - Gold Prospect Block in Mailar area, Lalitpur district, Uttar Pradesh
[Implementing Agency: M/s Geovale Services Private Limited]**

- a) Geovale Services Pvt. Ltd. informed that the project was approved in the 34th EC Meeting held on 13th March, 2024. The sanction order was issued on 10th September, 2024 with timeline of 12 months (up to 11.03.2025) and approved cost was INR 2,40,95,250/-.
- b) M/s Geovale Services Private Limited presented the status of progress of work in this project. The agency requested for additional 200m drilling meterage & respective increase in number of samples for chemical analysis. Further, 3 months' timeline extension for completion of the project was also requested by the agency.
- c) The TCC-II agreed for additional drilling of 200m in borehole no. 2 (Total 400 drilling meterage in borehole no. 2). The committee also agreed for timeline extension of 3 months for completion of the project.

Recommendation of TCC-II:

The committee recommends the proposal for approval of EC for additional 200m drilling meterage & respective increase in number of samples for chemical analysis with an estimated revised cost of ₹363.79 Lakh (including GST) as per Annexures 8. The committee approves timeline extension of 3 months up to 11th June, 2025 for completion of the project.

Agenda 7.3.20 Reconnaissance Survey (G4) for Base Metal in Thal-Didihat-Askot area, Pithoragarh District, Uttarakhand

[Implementing Agency: M/s Geovale Services Private Limited]

- a) Geovale Services Pvt. Ltd. informed that the project was approved in the 34th EC Meeting held on 13th March, 2024. The sanction order was issued on 10th September, 2024 with timeline of 12 months (up to 11.03.2025) and approved cost was INR 1,37,47,000/-.
- b) M/s Geovale Services Private Limited presented the status of progress of work in this project. The agency informed that geophysical survey work is in progress & drilling will commence from April, 2025 in this project. Further, 3 months timeline extension for completion of the project was also requested by the agency.
- c) The TCC-II agreed for timeline extension of 3 months for completion of the project.

Recommendation of TCC-II:

The committee approves timeline extension of 3 months up to 11th June, 2025 for completion of the project.

Additional Agenda

7.3.21 Preliminary Exploration (G-3) for Limestone in Chhasra Block, Kachchh District, Gujarat

[Implementing Agency: CGM Gujarat]

- a) CGM Gujarat informed that the project was approved in the 33rd EC Meeting held on 19th February, 2024. The sanction order was issued on 28th February, 2024 with timeline of 6 months (up to 27.08.2024) and approved cost was INR 1,74,04,577/-.
- b) CGM Gujarat presented the status of progress of work in this project & requested for timeline extension for completion of the project. The project was granted time line extension upto 28th February 2025 in 39th EC of NMET held on 24th January 2025.
- c) The TCC-II asked CGM Gujarat to submit the detailed justification to NMET for delay in completion of the project work. The committee agreed for timeline extension of 6 months for completion of the project.

Recommendation of TCC-II:

The committee recommends the proposal for approval of EC for timeline extension of 6 months up to 27th August 2025 for completion of the project.

7.3.22 Preliminary Exploration (G-3) for Limestone in Vayor Block, Kachchh District, Gujarat

[Implementing Agency: CGM Gujarat]

- a) CGM Gujarat informed that the project was approved in the 33rd EC Meeting held on 19th February, 2024. The sanction order was issued on 28th February, 2024 with timeline of 6 months (up to 27.08.2024) and approved cost was INR 94,28,274/-.

- b) CGM Gujarat presented the status of progress of work in this project & requested for timeline extension for completion of the project. The project was granted time line extension upto 28th February 2025 in 39th EC of NMET held on 24th January 2025.
- c) The TCC-II asked CGM Gujarat to submit the detailed justification to NMET for delay in completion of the project work. The committee agreed for timeline extension of 6 months for completion of the project.

Recommendation of TCC-II:

The committee recommends the proposal for approval of EC for timeline extension of 6 months up to 27th August 2025 for completion of the project.

7.3.23 Preliminary Exploration (G-3) for Limestone in Jadva Block, Kachchh District, Gujarat

[Implementing Agency: CGM Gujarat]

- a) CGM Gujarat informed that the project was approved in the 33rd EC Meeting held on 19th February, 2024. The sanction order was issued on 28th February, 2024 with timeline of 6 months (up to 27.08.2024) and approved cost was INR 60,97,512/-.
- b) CGM Gujarat presented the status of progress of work in this project & requested for timeline extension for completion of the project. The project was granted time line extension upto 28th February 2025 in 39th EC of NMET held on 24th January 2025.
- c) The TCC-II asked CGM Gujarat to submit the detailed justification to NMET for delay in completion of the project work. The committee agreed for timeline extension of 6 months for completion of the project.

Recommendation of TCC-II:

The committee recommends the proposal for approval of EC for timeline extension of 6 months up to 27th August 2025 for completion of the project.

7.3.24 Preliminary Exploration (G-3 Stage) for Bauxite in Maleta-Bankodi Block, Devbhumi Dwarka District, Gujarat

[Implementing Agency: CGM Gujarat]

- a) CGM Gujarat informed that the project was approved in the 31st EC Meeting held on 12th September, 2023. The sanction order was issued on 05th October, 2023 with timeline of 05 months and approved cost was INR 1,26,63,717/-.
- b) In the 6th TCC-II of NMET held on 27th & 28th February & 6th March 2025, 13 months' time extension upto 31st March 2025 was recommended by TCC-II for submission of GR.
- c) CGM Gujarat presented the status of progress of work in this project & informed that peer review of the draft report has been done and all comments/suggestion of peer reviewer were attended/ incorporated in the geological report.
- d) The TCC-II advised for submission of the geological report to NMET.

Recommendation of TCC-II:

The committee agrees for submission of the geological report to NMET within timeline of 31st March 2025.

7.3.25 Preliminary Exploration (G3) of Limestone in Jodhpur-Satarpar Block, Devbhumi Dwarka District, Gujarat

[Implementing Agency: CGM Gujarat]

- a) CGM Gujarat informed that the project was approved in the 31st EC Meeting held on 12th September, 2023. The sanction order was issued on 05th October, 2023 with timeline of 03 months and approved cost was INR 35.91 lakhs.
- b) In the 35th EC of NMET, time extension was granted upto 30th April 2025. In the 6th TCC-II of NMET held on 27th & 28th February & 6th March 2025, 11 months' time extension upto 31st March 2025 was recommended by TCC-II for submission of GR.
- c) CGM Gujarat presented the status of progress of work in this project & informed that peer review of the draft report has been done and all comments/suggestion of peer reviewer were attended/ incorporated in the geological report.
- d) The TCC-II advised for submission of the geological report to NMET.

Recommendation of TCC-II:

The committee agrees for submission of the geological report to NMET within timeline of 31st March 2025.

Agenda 7.5: Project Evaluation for In-Principle Approval

Agenda 7.5.1 Reconnaissance (G4) exploration of RM-REE in Tarai – Bagjant – Harlaghati area (56.08 Sq.Km.), Giridih District, Jharkhand

[Implementing Agency: GEMS Projects Pvt. Ltd.]

- a) The proposed exploration block of 56.08 sq. km. area, falls in Survey of India Toposheet number 72H/14 (OSM Sheet no. G45T14) in parts of Giridih District, Jharkhand.
- b) GEMS Projects Pvt. Ltd. informed that NGCM Stream Sediment data from Bhukosh Portal (GSI) was used by the Gems Project to generate a total REE geochemical anomaly map. The proposed Block, located in the Bihar Mica Belt, was identified in the anomalous zone with maximum REE values of 3252.66 ppm. GSI's bedrock samples from F.S. 2017-19 included 9 anomalous samples within the block. GSI has previously conducted G3 exploration and MECL has done G4 exploration in adjacent areas, identifying promising REE and RM zones in pegmatite. The proposed block's geological setup suggests good potential for REE and RM mineralization, warranting further G4-level exploration.
- c) As per the comments received from GSI, there is a complete overlapping of the proposed block with GSI's G4 exploration block of FS 2019-20. Also, there is a slight overlap of the proposed block with MECL's block, in which no further exploration work has been suggested by MECL.

Recommendation of TCC-II:

The committee does not agree for in-principle-approval of the proposal.

Agenda 7.5.2 Preliminary Investigation (G3) for Graphite and Associated minerals in Sadhwadih - Charwadih Block (2.94 Sq. Km Area) Latehar District, Jharkhand

[Implementing Agency: GEMS Projects Pvt. Ltd.]

- a) The proposed exploration block of 2.94 sq. km. area, falls in Survey of India Toposheet number 73A/5 in parts of Latehar District, Jharkhand.

- b) GEMS Projects Pvt. Ltd. informed that the proposed area lies at the south-eastern limit of the Chhotanagpur Granite Gneiss Complex, which hosts several graphite mineralization occurrences. During a field visit, Gems Projects confirmed a definite trend of graphite mineralization, supported by local graphite quarries and mining activities. The mineralization's strike extension is covered by thick soil, so geophysical surveys and trenching are required to delineate subsurface mineralization and enhance graphite resources. GSI's trenching at Charwadih revealed fixed carbon ranging from 2.34% to 37.28% and vanadium from 55ppm to 605ppm, indicating the area's promising potential.
- c) The TCC-II opined that GSI's comments are required for assessment of this proposal. The committee suggested that comments from GSI to be requested by NMET.

Recommendation of TCC-II:

The committee deferred the proposal till receipt of comments from GSI.

Agenda 7.5.3 Reconnaissance (G4) Exploration Of RM-REE in Nima – Jalgoda - Latbedwa Area, District - Giridih, Jharkhand
[Implementing Agency: GEMS Projects Pvt. Ltd.]

- a) The proposed exploration block of 50.62 sq. km. area, falls in Survey of India Toposheet number 72H/14 & 72L/2 in parts of Giridih District, Jharkhand.
- b) GEMS Projects Pvt. Ltd. informed that NGCM Stream Sediment data from Bhukosh Portal (GSI) was used by Gems Project to generate a total REE geochemical anomaly map for the proposed Block, located in the Bihar Mica Belt. The block was identified in Toposheet No. 72H/14, where the maximum total REE value is 2677.71 ppm. NGCM data for Toposheet No. 72L/2 is unavailable, but it shares similar lithology with 72H/14, including pegmatite, quartzites, mica schist, and granite gneiss. GSI's bedrock samples from F.S. 2017-19 include 4 anomalous samples within the block. GSI's G3 exploration in adjacent areas has identified promising REE and RM zones in pegmatite. Given the similar geological setup, the proposed block is considered promising for REE and RM mineralization.
- c) As per the comments received from GSI, there is an overlap of the proposed block with GSI's G4 exploration block of FS 2023-24 & FS 2025-26.
- d) The TCC-II opined that coordinate of GSI's exploration blocks should be made available for GEMS Projects Pvt. Ltd. by NMET and the proposed block boundary has to be modified accordingly by GEMS Projects.

Recommendation of TCC-II:

The committee deferred the proposal for next TCC-II meeting.

Agenda 7.5.4 Reconnaissance Survey (G4) for Gold, Base metal and associated minerals, Nawanagar Village area, Singrauli District, Madhya Pradesh
[Implementing Agency: M/s Mining Tech Consultancy Services Limited]

- a) The proposed exploration block of 15.00 sq. km. area, falls in Survey of India Toposheet number 63L/11 in parts of Singrauli District, Madhya Pradesh.
- b) M/s Mining Tech Consultancy Services Limited informed that Geological investigations, in and around this block, have been undertaken by GSI during several filed season programs (FSP). About 6 such FS reports FS 1985-88(P1), FS 1993-94(G4), FS 1997-98 (G3), FS 2001-2004 (G3) and FS 2018-2020(G4) have been referred to identify and outline the proposed area. During FS 1997-98 (G3) and FS 2001-2004 (G3), detailed drilling and trenching established gold mineralization at

Gurhar Pahar. The gold is shear-controlled and associated with quartz/quartz-carbonate-sulphide veins intruding phyllite and quartzite. The estimated probable and possible gold ore reserves total 7.29 million tonnes with an average grade of 1.03 g/t. The RMT report (FS 2018-2020) identifies the Mahakoshal Group as primarily metasedimentary with some basaltic and ultrabasic metavolcanic rocks. Mineralization is indicated by visible sulphides (pyrite, arsenopyrite, chalcopyrite, etc.) and indirect signs like limonitisation. Chemical results show promising gold values (0.3 to 1.75 ppm) in quartz veins and mafic/ultramafic rocks, with visible sulphide mineralization continuing in adjacent areas. Extensions of basic bodies near Thapna, Sherwa, and Khurmucha show disseminated sulphides, with notable Cu, Mn, and Pb values. Based on surface mineralization, petrological studies, and petro-geochemical inputs, volcanic and mafic zones in the Agori Formation are targeted for gold potential. Five blocks—Garda-Bhitri, Magardaha, Misirgawan, Dala-Semra, and Thapna—are identified as the most favourable for gold and sulphide mineralization.

- c) As per the comments received from GSI, there is an overlap of the proposed block with GSI's exploration block of FS 2018-19.
- d) The TCC-II opined that coordinate of GSI's exploration blocks should be made available for Mining Tech Consultancy Services Limited by NMET and the proposed block boundary has to be modified accordingly by Mining Tech.

Recommendation of TCC-II:

The committee deferred the proposal for next TCC-II meeting.

**Agenda 7.5.5 Reconnaissance Survey (G4) for Gold, Base metal and associated minerals, Pidariya Village area, Singrauli District, Madhya Pradesh
[Implementing Agency: M/s Mining Tech Consultancy Services Limited]**

- a) The proposed exploration block of 15.00 sq. km. area, falls in Survey of India Toposheet number 63L/07 and 63L/11 in parts of Singrauli District, Madhya Pradesh.
- b) M/s Mining Tech Consultancy Services Limited informed that Geological investigations, in and around this block, have been undertaken by GSI during several field season programs (FSP). About 6 such FS reports FS 1985-88(P1), FS 1993-94(G4), FS 1997-98 (G3), FS 2001-2004 (G3) and FS 2018-2020(G4) have been referred to identify and outline the proposed area. During FS 1997-98 (G3) and FS 2001-2004 (G3), detailed drilling and trenching established gold mineralization at Gurhar Pahar. The gold is shear-controlled and associated with quartz/quartz-carbonate-sulphide veins intruding phyllite and quartzite. The estimated probable and possible gold ore reserves total 7.29 million tonnes with an average grade of 1.03 g/t. The RMT report (FS 2018-2020) identifies the Mahakoshal Group as primarily metasedimentary with some basaltic and ultrabasic metavolcanic rocks. Mineralization is indicated by visible sulphides (pyrite, arsenopyrite, chalcopyrite, etc.) and indirect signs like limonitisation. Chemical results show promising gold values (0.3 to 1.75 ppm) in quartz veins and mafic/ultramafic rocks, with visible sulphide mineralization continuing in adjacent areas. Extensions of basic bodies near Thapna, Sherwa, and Khurmucha show disseminated sulphides, with notable Cu, Mn, and Pb values. Based on surface mineralization, petrological studies, and petro-geochemical inputs, volcanic and mafic zones in the Agori Formation are targeted for gold potential. Five blocks—Garda-Bhitri, Magardaha, Misirgawan, Dala-Semra, and Thapna—are identified as the most favorable for gold and sulphide mineralization.
- c) As per the comments received from GSI, there is slight overlap of the proposed block with GSI's exploration block of FS 2018-19.

- d) The TCC-II opined that coordinate of GSI's exploration blocks should be made available for Mining Tech Consultancy Services Limited by NMET and the proposed block boundary has to be modified accordingly by Mining Tech.

The TCC-II advised that a modified block has to be made by merging Nawanagar Village area & Pidariya Village area, and a single (merged) block, excluding overlap area with GSI's exploration blocks should be submitted in next TCC-II meeting.

Recommendation of TCC-II:

The committee deferred the proposal for next TCC-II meeting.

Agenda 7.5.6 Preliminary Exploration (G3) for Basemetal, Critical and Strategic Minerals, Bamrada block, Sikar District, Rajasthan

[Implementing Agency: M/s Mining Tech Consultancy Services Limited]

- The proposed exploration block of 180.00 sq. km. area, falls in Survey of India Toposheet number 45M/10 in parts of Sikar District, Rajasthan.
- M/s Mining Tech Consultancy Services Limited informed that mineralization has been noted in impure limestone/calc silicate of Ajabgarh Group and gossan zone was also reported from this area. Anomalous values of Ag (upto 4.27 ppm), Pb (upto 509 ppm) and Zn (upto 155 ppm) have been reported from this area.
- As per the comments received from GSI, the areas with >1000 ppm Cu values should be upgraded.
- As per the comments from AMD, no further work is suggested in the proposed block.

Recommendation of TCC-II:

The committee does not agree for in-principle-approval of the project.

Agenda 7.5.7 Preliminary Exploration (G3) for Zinc, Chiriyawasa block, Banswara District, Rajasthan

[Implementing Agency: M/s Mining Tech Consultancy Services Limited]

- The proposed exploration block of 3.6 sq. km. area, falls in Survey of India Toposheet number 46I/6in parts of Banswara District, Rajasthan.
- M/s Mining Tech Consultancy Services Limited informed that During FS 2020-21, GSI conducted thematic mapping over 350 sq km at a 1:25,000 scale, collecting 56 petrological samples, 50 BRS, 32 PCS, and 5 EPMA samples. Findings include disseminated grey sphalerite in the calc-silicates of the Lasaria Formation near Chiriyawasa, with zinc concentrations ranging from 5 to 4470 ppm. The calc-silicate body has a strike length of 2 km in the area.
- As per the comments received from GSI, there is an overlap of the proposed block with GSI's G4 block of FS 2025-26.

The TCC-II opined that, firstly G4 exploration by GSI should be completed in this area & based on the outcomes further work will be recommended.

Recommendation of TCC-II:

The committee does not agree for in-principle-approval of the project.

Agenda 7.5.8 Preliminary Exploration (G3) for Base metal, Baberi block, Kotputli-Bahrar District, Rajasthan

[Implementing Agency: M/s Mining Tech Consultancy Services Limited]

- a) The proposed exploration block of 3.0 sq. km. area, falls in Survey of India Toposheet number 54A/5 in parts of Kotputli-Bahrar District, Rajasthan.
- b) M/s Mining Tech Consultancy Services Limited informed that the area was investigated by the State Department of Mines & Geology (DMG), Rajasthan during 2007-09 and by the Geological Survey of India (GSI) during FS 1993-95. DMG conducted G-4 exploration, mapping 315 sq km regionally, 20 sq km for geological mapping, and 2 sq km for detailed mapping near Mirapur, Isra Ka Bas, Baberi, and Badhin in Alwar district. The rock formations, trending NE-SW, are favorable for base metals. Copper (bornite and malachite) was observed in schists near several villages, with poorly developed gossans in some areas. 99 spot samples were collected, with chemical analysis showing Pb (18-2090 ppm), Cu (4.5-309 ppm), Zn (3-112.5 ppm), and sulphur (0.56-1.36%) but no gold. GSI's FS 1993-95 findings reported sulphide mineralization (pyrite, arsenopyrite, pyrrhotite, chalcopyrite) in quartz-rich calc-silicate bands along sheared zones at Teejanwali hill, with mineralization spanning 0.6-0.9m wide and a strike length of 21m, containing up to 0.25% Cu.
- c) As per the comments received from DMG, Rajasthan the proposed area falls within the administrative area of Ajmer Development Authority.
- d) The TCC-II opined that, NOC approval from Ajmer Development Authority is required for implementation of this project. Also, NOC approval from DGM, Rajasthan is required.

Recommendation of TCC-II:

The committee agrees for in-principle-approval of the project subject to NOC approval from Ajmer Development Authority & DGM, Rajasthan.

**Agenda 7.5.9 Preliminary Exploration (G3) for Base Metal & Noble Metal, Nasirabad-Mohanpura block, Ajmer District, Rajasthan
[Implementing Agency: M/s Mining Tech Consultancy Services Limited]**

- a) The proposed exploration block of 8.32 sq. km. area, falls in Survey of India Toposheet number 45J/15 in parts of Ajmer District, Rajasthan.
- b) M/s Mining Tech Consultancy Services Limited informed that DMG, Rajasthan has been conducting exploration around this block since 1996. In 1996, regional geological mapping and sampling were carried out over 10 sq km, with detailed mapping in 0.5 sq km. From 2000-01, exploratory drilling (19 boreholes, 5798.10m) and sampling were conducted within 0.5 sq km. Base metal mineralization, including disseminated pyrite and chalcopyrite, was reported in Gyangarh-Asind acidic rocks and their contact with quartz-biotite-chlorite-amphibole gneiss. Mineralization was intersected in 8 of the 19 boreholes, with Cu up to 1.62%, Zn up to 150 ppm, Pb up to 275 ppm, Au up to 2 ppm, and Ag up to 45.10 ppm. An estimated 1.0 Mt resource was reported with a 1% Cu cut-off. Based on these findings, DMG has demarcated an 8.3185 sq km area near Nasirabad-Mohanpura for further study on base and noble metals.
- c) The TCC-II opined that, a G4 exploration block may be prepared (excluding overlaps) and resubmitted to NMET. Also, NOC approval from DGM, Rajasthan is required.

Recommendation of TCC-II:

The committee does not agree for in-principle-approval of the project.

**Agenda 7.5.10 Preliminary Exploration (G3) for Limestone in Ishwariya block (3.43sq kms), Ajotha-Ishwariya Gir, Gir Somnath District, Gujarat
[Implementing Agency: M/s PRB Infra Projects Private Limited]**

- a) The proposed exploration block of 3.43 sq. km. area, falls in Survey of India Toposheet number 41L/05, 41L/09 in parts of Gir Somnath District, Gujarat.
- b) M/s PRB Infra Projects Private Limited informed that the NOC has been given by CGM Gujarat. The area comprises of Miliolite Limestone in which limestone reported in many areas. Around Six limestone leases are present in the vicinity of the proposed block. The chemical analysis of the grab samples indicated the average CaO percent of 62.42% and average SiO₂ is 10.2%. Some Drilling work has been done and CGM recommended to continue further exploration work (CGM.FS1985-86 by Jain and FS2002-03 by Kapse S D.). GSI has carried out Preliminary Appraisal of Limestone in Coastal areas of Saurashtra area limestone for suitable for chemical grade in the FS 1997-98 and has reported occurrence of good quality of limestones in the Dwarka, Gaj and Miliolite formation. (Report by Dr. Manas Roy Chowdhury)
- c) As per the comments received from GSI, the proposed area is potential for further exploration work.

Recommendation of TCC-II:

The committee agrees for in-principle-approval of the project.

Agenda 7.5.11 Reconnaissance Survey (G4) for Vanadium-Titanium in Risewada-Lodhiwada area, Balaghat District, Madhya Pradesh

[Implementing Agency: M/s Gemcokati Exploration Pvt. Ltd.]

- a) The proposed exploration block of 59.30 sq. km. area, falls in Survey of India Toposheet number 64C/11 in parts of Balaghat District, Madhya Pradesh.
- b) M/s Gemcokati Exploration Pvt. Ltd. informed that Dr. S.N. Sarkar mapped the area belonging to toposheet 64C/11 (1949-50), and reported occurrences of laterite patches on Khairagarh basalts within the proposed block & areas of adjacent Maneri - Sitapala block, Bhursadongri- Murum Block. During Reconnaissance survey in the adjacent blocks few more laterite patches were identified that weren't reported before.
- c) The TCC-II informed that accreditation of M/s Gemcokati Exploration Pvt. Ltd. as NPEA has been expired.

Recommendation of TCC-II:

The committee agrees for in-principle-approval of the project. DPR to be submitted after re-accreditation of M/s Gemcokati Exploration Pvt. Ltd. as NPEA.

Agenda 7.5.12 Preliminary Exploration (G3) for Bauxite in Ran Block, Dev Bhumi Dwarka District, Gujarat

[Implementing Agency: M/s Gemcokati Exploration Pvt. Ltd.]

- a) The proposed exploration block of 7.87 sq. km. area, falls in Survey of India Toposheet number 41F/08 in parts of Dev Bhumi Dwarka District, Gujarat.
- b) M/s Gemcokati Exploration Pvt. Ltd. informed that CGM, Gujarat investigated the region with pitting and confirmed the presence of bauxite. Chemical analysis results yielded average 53.12% Al₂O₃ and SiO₂ to be 3.45% (CGM Report on Gujarat's Mineral Wealth, 2024). The presence of 3 bauxite mines in nearby regions indicates potential for bauxite. Sahasrabudhe (1958–1960, GSI Report) also mapped the Ran village area, dividing it into western and southern groups. In the western group pocket, chip sampling revealed an Al₂O₃ content of 61.97% and TiO₂ content of 3%. In the southern group pocket, a vertical section of two meter has been sampled, indicated Al₂O₃ content of 61.22% and TiO₂ content of 3.15%. Titanium being a critical mineral associated with Bauxite which has not been taken up previously by CGM. Current

exploration proposal may enhance the resource and reserve base of the alumina as well as titanium.

- c) The TCC-II informed that accreditation of M/s Gemcokati Exploration Pvt. Ltd. as NPEA has been expired.

Recommendation of TCC-II:

The committee agrees for in-principle-approval of the project. DPR to be submitted after re-accreditation of M/s Gemcokati Exploration Pvt. Ltd. as NPEA.

**Agenda 7.5.13 Preliminary Exploration (G3) for Bauxite & titanium, Pindara Block, Kalyanpur Taluka, Devbhumi Dwarka District, Gujarat
[Implementing Agency: M/s Gemcokati Exploration Pvt. Ltd.]**

- a) The proposed exploration block of 2.57 sq. km. area, falls in Survey of India Toposheet number 41F/08 in parts of Dev Bhumi Dwarka District, Gujarat.
- b) M/s Gemcokati Exploration Pvt. Ltd. informed that the proposed area was previously explored by CGM in 1966-67 through pitting, as well as by GSI during the field seasons of 1958-1960, 1969-70 and 1970-71. The block is surrounded by several bauxite leases in the region. Further exploration will enhance the resource and reserve base of the alumina as well as titanium (a strategic mineral, which are also reported from similar bauxite deposits of the nearby regions).
- c) The TCC-II informed that accreditation of M/s Gemcokati Exploration Pvt. Ltd. as NPEA has been expired.

Recommendation of TCC-II:

The committee agrees for in-principle-approval of the project. DPR to be submitted after re-accreditation of M/s Gemcokati Exploration Pvt. Ltd. as NPEA.

**Agenda 7.5.14 Reconnaissance Survey (G4) for Basemetal in Khajar area, Shivpuri District, Madhya Pradesh
[Implementing Agency: M/s Geovale Services Private Limited]**

- a) The proposed exploration block of 108 sq. km. area, falls in Survey of India Toposheet numbers 54K/4, 54K/8, 54L/1 & 54L/5 in parts of Shivpuri District, Madhya Pradesh.
- b) M/s Geovale Services Private Limited informed that the block features volcanic rocks and similar geology to the Mailar block (currently being explored by Geovale), where potassic alteration likely resulted from high sulphidation associated with porphyry Cu-Mo-Au deposits. Given the area's high potential for porphyry copper mineralization, it should be studied for fertility and mineral deposits using a Mineral System Analysis Framework. Jogs within Giant Quartz Veins (GQV) show high sulphide mineralization, and the presence of a pyrophyllite deposit suggests advanced high sulphidic alteration linked to the porphyry system. A similar setup in Geovale's Mailar Project has shown significant Cu anomalies.
- c) The TCC-II informed that accreditation of M/s Geovale Services Private Limited as NPEA has been expired.
- d) The TCC-II opined that after final review of Mailar block, based on the suggestions of TCC-II, the DPR for this present proposal may be prepared & submitted.

Recommendation of TCC-II:

The committee agrees for in-principle-approval of the project. DPR to be submitted after final review of Mailar block and re-accreditation of M/s Geovale Services Private Limited as NPEA.

Agenda 7.5.15 Reconnaissance Survey (G4) for Graphite and Vanadium in Bamanswal - Khola area, Almora District, Uttarakhand

[Implementing Agency: M/s Geovale Services Private Limited]

- a) The proposed exploration block of 95 sq. km. area, falls in Survey of India Toposheet numbers 53O/10 and 53O/14 in parts of Almora District, Uttarakhand.
- b) M/s Geovale Services Private Limited informed that the proposed block is adjacent to Geovale's current Graphite and Vanadium exploration block, i.e., Almora block in Matena-Sirar area, where Geovale is getting a high concentration of graphite and vanadium. Geovale's field team have visited this proposed area. Thick folded lithounits of carbonaceous phyllites/schists are observed within this proposed block. These horizons are found to be enriched in sulphide minerals. Anomalous values of tin and vanadium have also been noted from GSI's NGCM data.
- c) The TCC-II informed that accreditation of M/s Geovale Services Private Limited as NPEA has been expired.
- d) The TCC-II opined that after final review of Almora block in Matena-Sirar area, based on the suggestions of TCC-II, the DPR for this present proposal may be prepared & submitted.

Recommendation of TCC-II:

The committee agrees for in-principle-approval of the project. DPR to be submitted after final review of Almora block in Matena-Sirar area and re-accreditation of M/s Geovale Services Private Limited as NPEA.

Agenda 7.5.16 Reconnaissance Survey (G4) for Manganese & Rock Phosphate, Lal Madri area, Rajsamand District, Rajasthan

[Implementing Agency: M/s Envirogreen Consultants (India) Private Limited]

- a) The proposed exploration block of 3.0 sq. km. area, falls in Survey of India Toposheet numbers 45H/9, 45H/13 in parts of Rajsamand District, Rajasthan.
- b) M/s Envirogreen Consultants (India) Private Limited informed that the State Department conducted geological investigations in the area during FS 1975-77 for base metals, finding no significant mineralization in three boreholes and only weak anomalies in geophysical surveys. In FS UD-1 (1992-93), regional geological mapping for phosphate revealed P₂O₅ concentrations of 5-25%. AMD also surveyed the area in 1992-93, identifying uranium-bearing phosphorite bands in Karoli, Rajsamand district, with P₂O₅ ranging from 5.5% to 32.5%. DMG Rajasthan further explored the area for phosphate during FS 1997-1999, mapping 205 sq km regionally and 0.7 sq km in detail. 51 samples indicated P₂O₅ content from 1% to 30.6%, with high SiO₂ and CaO. The proposed block shares lithological similarities with other phosphate-rich areas like Jhamarkotra, Maton, and Badgaon, and is near a known dolomitic phosphate deposit. The Government of Rajasthan has now offered this block for development under the APA scheme of NMET.
- c) As per the comments received from GSI, there is complete overlap of the proposed block with GSI's G4 exploration block of FS 2013-14.

Recommendation of TCC-II:

The committee does not agree for in-principle-approval of the project.

Agenda 7.5.17 Reconnaissance Survey (G4) for Limestone, Mandla area, Pali District, Rajasthan

[Implementing Agency: M/s Envirogreen Consultants (India) Private Limited]

- a) The proposed exploration block of 36.00sq. km. area, falls in Survey of India Toposheet numbers 45F/12, 45G/9 in parts of Pali District, Rajasthan.
- b) M/s Envirogreen Consultants (India) Private Limited informed that the block area having existence of limestone as per previous work. Block area is surrounded by numerous cement plant & chemical industries which have requirement of raw material in a huge quantity. Exploration will locate and quantify the different grade of limestone based on the requirement for the different industries (viz. Cement, Steel, Chemical etc.).
- c) As per the comments received from DGM, Rajasthan there is an ongoing project of DGM, Rajasthan in the proposed area.

Recommendation of TCC-II:

The committee does not agree for in-principle-approval of the project.

Agenda 7.5.18 Preliminary exploration (G3) for Rare Earth Elements (REE) in Borana block, Bhilwara District, Rajasthan

[Implementing Agency: M/s Geo Marine Solutions Pvt. Ltd.]

- a) The proposed exploration block of 6.22sq. km. area, falls in Survey of India Toposheet numbers 45K/03 in parts of Bhilwara District, Rajasthan.
- b) M/s Geo Marine Solutions Pvt. Ltd. informed that GSI has done G4 level exploration in F.S. 2018-2019 for REE Mineralization in and around Borana Area, Rajsamand District, Rajasthan. The analytical results pertaining to 401 bed rock samples shows that the total REE values in Migmatite Gneisses vary from 29.60 to 3434.93 ppm, whereas it varies from 83.03 to 2336.27 ppm in Alkali syenite/Syenite. GSI recommended that the detailed mapping in higher level of investigation, may be taken up within Migmatite Gneiss and Syenite of Mangalwar Complex near Chatrawan Mata temple, Borana area and south of Kemuniya village over Migmatite Gneiss for identification and delineation of possible REE mineralized zone.
- c) As per the comments received from MECL, the proposed block fully overlaps with the MECL block.

Recommendation of TCC-II:

The committee does not agree for in-principle-approval of the project.

Agenda 7.5.19 Preliminary exploration (G3) for Potash-Glauconitic shale & sandstone in Mahauli-Gopalgarh-Alampura block, Karauli District, Rajasthan

[Implementing Agency: M/s Geo Marine Solutions Pvt. Ltd.]

- a) The proposed exploration block of 9.28sq. km. area, falls in Survey of India Toposheet numbers 54B/15 in parts of Karauli District, Rajasthan.
- b) M/s Geo Marine Solutions Pvt. Ltd. informed that the proposed block is the NE extension of Composite License Block namely Bapoti, in district Karauli explored by GSI, WR on UNFC G-4 level during field season 2015-16. In Bapoti Block preliminary exploration along with 300 m. drilling work spread over 09 BH were completed and 57.54 M.T. reconnaissance resources (334) with 5.30% average grade of K₂O were estimated. (The glauconite mineralization is mainly associated with olive green shale of Panna and Jhiri Formations and Taragarh sandstone and shale is also glauconitic with low concentration. There are very limited outcrops of shale in the area, as shale occurs in valley portion and mostly concealed under alluvium or along escarp side of hill, where it covered under the scree material. The block is being proposed in the NE

extension of strike direction in search of the Glauconitic mineralization by further exploration work.)

- c) The TCC-II opined that already a number of projects on potash exploration have been approved from NMET funding. The TCC decided to wait for the outcome of these projects before taking up more project on this mineral commodity.

Recommendation of TCC-II:

The committee does not agree for in-principle-approval of the project.

Agenda 7.5.20 Preliminary exploration (G3) for Rare Earth Elements (REE) in Nosar block, Barmer District, Rajasthan

[Implementing Agency: M/s Geo Marine Solutions Pvt. Ltd.]

- a) The proposed exploration block of 11.50sq. km. area, falls in Survey of India Toposheet numbers 40O/13 & 40O/14 in parts of Barmer District, Rajasthan.
- b) M/s Geo Marine Solutions Pvt. Ltd. informed that on the basis of earlier project work carried out by DMGR during the year 2020-2, a total 10 sq km and 2.0 sq km area mapped under regional Geological mapping and under detail geological mapping respectively n/v Nosar and Meghwalo ki Dhani, tehsil Baytu, district Barmer. Analysis results of above mapped area showing total value of LREE 32100 ppm (La, Ce, Pr and Nd). A vein of carbonatite rock was observed and mapped, Length of the Carbonatite vein has about 40m length and about 0.15 to 0.20m width. Litho trend of the carbonatite vein is almost 3180. Dimension of the exposed pit was about 200-250 m x 50-60 m. Proposed block area may be potential as per good value of LREE. So proposed block area is required detailed exploration by drilling, geochemical sampling and geophysical survey as per UNFC parameters/ classification.
- c) As per the comments received from MECL, there is an overlapping of the proposed block with MECL's proposed exploration block. GSI has not submitted its comments for this proposed block.
- d) The committee opined that project may be considered after receipt of clarification/NOC from DGM Rajasthan.

Recommendation of TCC-II:

The committee deferred the proposal for next TCC-II meeting.

Agenda 7.5.21 Preliminary exploration (G3) for Base metal & Associated Minerals in Suratsingh Ji Ka Khera block, Chittorgarh District, Rajasthan

[Implementing Agency: M/s Geo Marine Solutions Pvt. Ltd.]

- a) The proposed exploration block of 10.2sq. km. area, falls in Survey of India Toposheet numbers 45K/12 in parts of Chittorgarh District, Rajasthan.
- b) M/s Geo Marine Solutions Pvt. Ltd. informed that surface evidence of base metal mineralization have been observed in the form of malachite stains, lionization and ferruginous encrustation, specks of primary sulphides like chalcopryrite, pyrite, and bornite in the quartzite of the Lasaria Formation.
- c) As per the comments received from GSI, there is complete overlapping of the proposed block with GSI's exploration block.

Recommendation of TCC-II:

The committee does not agree for in-principle-approval of the project.

Agenda 7.5.22 Preliminary exploration (G3) for Potash in Ramsara-Amarkot Dalmir Khera Block, Fazilka District, Punjab

[Implementing Agency: M/s Ocean Drilling & Exploration Pvt. Ltd.]

- a) The proposed exploration block of 10.30 sq. km. area, falls in Survey of India Toposheet numbers 44J/04 in parts of Fazilka District, Punjab.
- b) M/s Ocean Drilling & Exploration Pvt. Ltd. informed that GSI has done exploration for Potash in FS (2019-20 & 2020-21) in this area. During FS: 2019 20, borehole PFSBH 01 and in FS: 2020 21, borehole PFSBH 02 & borehole PFSBH 03, were drilled. Total resource of potash (K+) on the basis of analytical data of three boreholes (PFSBH 01, PFSBH 02 and PFSBH 03) is 409.32 million tonnes at 2% K+ cut off with average grade of 3.74 K ++%, total resource of potash (K ++) is 300.15 million tonnes at 3% K cut off with average grade of 4.18 K ++% and total resource of potash (K ++) on the basis of two boreholes (PFSBH 01 and PFSBH 03) is 194.58 million tonnes at 4% K cut off with average grade of 4.69 K ++% was estimated.
- c) The TCC-II opined that already a number of projects on potash exploration have been approved from NMET funding. The TCC decided to wait for the outcome of these projects before taking up more project on this mineral commodity.

Recommendation of TCC-II:

The committee does not agree for in-principle-approval of the project.

Agenda 7.5.23 Preliminary exploration (G3) for Rare Earth Elements and associated mineralization in Ramdevji ki Beri Block, Barmer District, Rajasthan

[Implementing Agency: M/s Ocean Drilling & Exploration Pvt. Ltd.]

- a) The proposed exploration block of 1.54 sq. km. area, falls in Survey of India Toposheet numbers 45C/6 in parts of Barmer District, Rajasthan.
- b) M/s Ocean Drilling & Exploration Pvt. Ltd. informed that GSI has done G4 stage exploration FS (2021-22) in this area. The analytical results of BRS samples in proposed block show TREE+Y values ranging from 975 ppm to 10130 ppm in rhyolitic flow no. 10 to 15 and pyroclastic flow.

Recommendation of TCC-II:

The committee agrees for in-principle-approval of the project.

Agenda 7.5.24 Reconnaissance Survey (G4) for V-Cr - Ti bearing magnetite Mawkapiah - Mawkhiat area, West Khasi Hills district, Meghalaya.

[Implementing Agency: M/s Novomine India Private Limited]

- a) The proposed exploration block of 40.00 sq. km. area, falls in Survey of India Toposheet numbers 78O/02 & 78O/06 in parts of West Khasi Hills district, Meghalaya.
- b) M/s Novomine India Private Limited informed that in this study area anomalies detected during ground Geophysical Survey that exists in the eastern part of toposheet No- 78O/2 and also on the basis of AEM anomaly picked up by NGRI during aero-geophysical survey carried out in 1977 with flight elevation of 6700ft. This anomalous signature trends along ENE-WSW direction. The anomaly that exists around Myniar was investigated by G4 stage of exploration of GSI during FS 2015-16 (Deka et al). Here six magnetite bodies were delineated, all are being with encouraging values of Vanadium (0.58% to 0.76%), Chromium (0.50% to 1.36%), and Titanium (13.83% to

18.09%). In the same lithological assemblage high Ti, V bearing magnetite has also been reported from Rambrai, situated on south-eastern part of the proposed block.

Recommendation of TCC-II:

The committee agrees for in-principle-approval of the project subject to consent/ NOC approval from State Government.

Agenda 7.5.25 Preliminary Exploration (G3) for Limestone, Barsora block, SW Khasi Hills District, Meghalaya.

[Implementing Agency: M/s Novomine India Private Limited]

- a) The proposed exploration block of 40.00 sq. km. area, falls in Survey of India Toposheet numbers 78O/02 & 78O/06 in parts of West Khasi Hills district, Meghalaya.
- b) M/s Novomine India Private Limited informed that based on the previous reports of Geological Survey of India (GSI) & Directorate of Mineral Resources (DMR) around Barsora Area, South West Khasi Hills District, Meghalaya and the available Lithological map from NGDR portal (National Geoscience Data Repository) we decided to propose this block. Limestone deposit belonging to the Shella Formation of Tertiary age occupies the western part of Barsora Area, southern part of South West Khasi Hills District, Meghalaya {Toposheet No- 78O/4 (Restricted)}, bordering international India-Bangladesh border. In an East-West direction the limestone deposit can be traced for more than 15 Kms from Balat (in east) to Bagli (in west). The limestone is light grey, jointed and fractured. GSI carried out detailed surface investigation during (FS 1976-77 and 1977-78)) around Borsora village and concluded that the thickness of limestone increases from north to south with an average thickness of 20m. The estimated reserve close to 50 MT in an area of 1.80 sq km with CaO value of 48.53 % with low Mg, SiO₂ (together less than 5%) as per the FS of 1977-78. Directorate of Mineral Resources (DMR) carried out investigation in a part east of Borsora village during FS 1984-85 and a deposit of 37 MT of limestone with average CaO value of 50 %, MgO content of 0.75% and with very low SiO₂ content was established. DMR concluded that the deposit is with low dip towards south without appreciable overburden.

Recommendation of TCC-II:

The committee agrees for in-principle-approval of the project subject to consent/ NOC approval from State Government.

Agenda 7.5.26 Reconnaissance survey (G4) for copper and associated mineralization in Salwari - Narsinghpuri - Pachalgi area, Sikar District, Rajasthan.

[Implementing Agency: M/s Vardan Environet LLP]

- a) The proposed exploration block of 57.10 sq. km. area, falls in Survey of India Toposheet numbers 45M/10 in parts of Sikar District, Rajasthan.
- b) M/s Vardan Environet LLP informed that the proposed area forms part of the south Khetri belt, where Uranium mineralisation is already being mined in Rohil area by UCIL, this deposit has 1500 ppm average Cu associated. GSI has done LSM in part of the area and five samples recorded values of copper ranging from 0.36% to 3.45% besides molybdenum ranging up to 201.11 ppm and TREE 0.5% in one sample. Geophysical anomalies ranging from 1 km to 1.5 km in strike length in IP chargeability, supported by Magnetic recorded in Ground geophysics by GSI, in North East of Narsinghpuri area. GSI also recommended 2 boreholes based on geophysics in Salwari area. Heliborn survey by AMD indicated conductive zone in the same area. Several boreholes were drilled by AMD and studied by GSI (2015-16) recorded occurrence of

sulphide zone at multiple levels, containing pyrite, pyrrhotite, covellite and chalcopyrite. GSI has recorded copper values up to 440 ppm to 0.36% in 2 channels in adjacent area.

- c) M/s Vardan Environet LLP carried out fieldwork and collected four samples. Out of which, one sample shows CU value of 2930 ppm & Vanadium 2588 ppm with high TiO₂ 27.03%.
- d) The TCC-II opined that G4 stage exploration data / results are already established in the area so further G4 work cannot be recommended. However, TCC-II advised smaller area may be tested for potentiality by 2 boreholes & chemical analysis.

Recommendation of TCC-II:

The committee agrees for in-principle-approval of the project.



**List of participants attended 7th meeting of Technical-cum-cost Committee (TCC-II) of
NMET held on 24th and 25th March, 2025 through video conferencing mode**

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61	Shri P. Ravindran	GM (Exploration)	ravindran.mecl@gmail.com	9407607309	MECL, Nagpur
62	Shri Shrikant Sharma	Senior Manager (Geology)	shrikant.mecl@gmail.com	9131229758	MECL, Nagpur
63	Shri S. K. Satapathy	Senior Manager (Geology)	Sksatapathy4u@gmail.com	9993617090	MECL, Nagpur
64	Shri Indra Kumar Nagpure	Manager (Geology)	indrakumarnagpure@mecl.gov.in	9993444710	MECL, Nagpur
65	Shri Vikash Kumar	Manager (Geology)	vikgeo@gmail.com	9110065089	MECL, Nagpur

66	Shri Saptarshi Ghosh	Asst. Manager (Geology)	saptarshighosh07@gmail.com	9655425135	MECL, Nagpur
67	Representative				DMG Jammu & Kashmir
68	Representative				DGM Ladakh
69	Representative				DGM Sikkim
66	Representative				CGM Gujarat
67	Representative				DMG Rajasthan
68	Representative				MPSMCL
69	Representative				Tata Steel
70	Representative				Geovale Services Pvt. Ltd.
71	Representative				PRB Infra Projects Pvt. Ltd.
72	Representative				Envirogreen Consultants (India) Pvt. Ltd.
73	Representative				Geo Marine Solutions Pvt. Ltd.
74	Shri Sudeep Manish Toppo	Director	sudeep.toppo@gsi.gov.in	9065146048	GSI
75	Smt. Anju C. S	Superintending Geologist	nmet.mines@gov.in	8588836933	NMET
76	Shri. Rajesh Sharma	Sr. Geologist	nmet.mines@gov.in	8377851047	NMET
77	Smt. Palak Kapoor	Sr. Geologist	nmet.mines@gov.in	-	NMET
78	Shri. Akshay Verma	Geologist	nmet.mines@gov.in	9167919949	NMET

Estimated cost for Preliminary Exploration (G-3) for Graphite in Jhab Block, District: Dahod, Gujarat. [Block area- 5.73 sq. km; Nos. of Borehole- 36 (1st level BH: 29, 2nd level BH:7); Borehole depth range: 40-100m; Schedule timeline- 15 months, Review: 5 & 10 months]

Agency : MECL

S. No.	Item of Work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Remarks
			SoC-Item -SI No.	Rates as per SoC	Qty.	Amount (Rs)	
A	GEOLOGICAL WORK						
1	Geological Mapping (1:4000), Borehole logging, sampling & Report writing						
i	Charges for one Geologist- Field	day	1.2	11,000	180	19,80,000	
ii	Charges for one Geologist - HQ	day	1.2	9,000	60	5,40,000	
iii	2 labours/ party (As per rates of Central Labour Commissioner)	day	5.7	526	360	1,89,360	Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
iv	Core Sampling -1 Samplers Labour charge not included	day	1.5.2	5,100	140	7,14,000	
v	4 labours/ party (As per rates of Central Labour Commissioner)	day	5.7	526	560	2,94,560	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
2	Survey						
i	Topographical Survey (1:4000)	day	1.6.1a	8300	30	249000	Topographical Survey on 1:4000 (2 m contour interval)
ii	4 labours/ party (As per rates of Central Labour Commissioner)	day	5.7	526	120	63,120	
iii	Bore Hole Fixation and determination of co-ordinates & Reduced Level of the	Per Point of observation	1.6.2	19,200	44	8,44,800	36 BHs and 8 boundary coordinates

	boreholes by DGPS and boundary coordinates						
	Sub Total- A					48,74,840	
B	GEOPHYSICAL SURVEY						
i	Self Potential	Line Km	3.3a	29600	20	5,92,000	Tentative 5.73 sq km area for Geophysical Survey at 100 m traverse interval 10m station interval i.e. 58Line Km.
iii	Charges for one Geophysicist - HQ	day	3.18	9000	30	2,70,000	
	Sub Total- B					8,62,000	
C	TRENCHING/Pitting						
	Trenching	Cu. M.	2.1.1	3330	300	9,99,000	
	Pitting for Bulk Density 1 X 1 X 1m	Cu. M.	2.1.2	3380	5	16,900	
	Sub Total- C					10,15,900	
D	DRILLING(Phase II)						
i	Drilling upto 300m (Hard Rock) (2 rigs)	m	2.2.1.4a	11,500	2,300	2,64,50,000	(1st level BH: 29 (400m interval), 2nd level borehole: 7)
ii	Land / Crop Compensation	per BH	5.6	20,000	36	7,20,000	Amount will be reimburse as per actuals or max. Rs. 20000 per BH with certification from local authorities
iii	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	36	72,000	
iv	Transportation of Drill Rig & Truck associated per drill	Km	2.2.8	36	4,200	1,51,200	Certification in this regard is required to be provided
v	Monthly Accommodation Charges for drilling Camp (up to 2 Rigs)	month	2.2.9	50,000	6	3,00,000	
vi	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	2	5,00,000	2 rigs
vii	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	2	5,00,000	2 rigs
viii	Approach Road Making (Flat Terrain)	Km	2.2.10a	22,020	5	1,10,100	Road Making will be considered as per the requirement and Road Making Charges will be reimbursed later

ix	Core Preservation: One complete borehole plus mineralised cores of all the remaining Bhs	m	5.3	1,590	500	7,95,000	This amount will be reimbursed after successful delivery of the cores to concerned libraries/authorities
Sub Total- D						2,95,98,300	
E	LABORATORY STUDIES						
1	Chemical Analysis						
i	Primary & Check samples for Graphite						
	a. Primary Samples for Proximate Analysis of Graphite: Fixed Carbon (FC), Ash (A), Moisture (M) and Volatile Matter (VM)	Nos	4.1.16	3,000	500	15,00,000	Trench-100, BH-400
	b-Primary samples for analysis of Vanadium	Nos	4.1.15b	421	500	2,10,500	Trench-100, BH-400
	c-External(10%) Check for analysis of Vanadium	Nos	4.1.15b	421	50	21,050	
	d-External(10%) Check samples from NABL Lab for Proximate Analysis of Graphite: Fixed Carbon (FC), Ash (A), Moisture (M) and Volatile Matter (VM)	Nos	4.1.16	3,000	50	1,50,000	
	e-XRF analysis for oxides (SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , CaO, MgO, Na ₂ O, K ₂ O, P ₂ O ₅ , TiO ₂ , MnO)	Nos	4.1.15a	4,200	10	42,000	
	f- 34 element by ICPMS	Nos	4.1.14	7,731	10	77,310	As per EC, NMET suggestion.
2	Raman spectroscopy Study						
	a. Preparation of thin section for Raman spectroscopy	Nos	4.3.1	2,353	5	11,765	GSI Rate
	b. Raman spectroscopy charge	Per Hour		2,970	3	8,910	SOC rate not available; SOR of GSI has been considered. Reimbursement will be on actual basis.
3	Physical & Petrological Studies						
i	Preparation of thin section	Nos	4.3.1	2,353	10	23,530	
ii	Complete petrographic study report	Nos	4.3.4	4,232	10	42,320	

iii	Preparation of polished section	Nos	4.3.2	1,549	10	15,490	
iv	Complete mineragraphic study report	Nos	4.3.4	4,232	10	42,320	
v	Digital Photographs	Nos	4.3.7	280	5	1,400	
vi	XRD	Nos	4.5.1	4,000	5	20,000	
	Determination of insitu Bulk density	Nos	4.10	3,540	5	17,700	
	Sub Total- G					21,84,295	
F	Total A to G					3,85,35,335	
G	Geological Report Preparation		5.2	For the projects having cost exceeding Rs. 300 lakhs - A minimum of Rs. 9 lakhs or 3% of the value of work whichever is more		11,56,060	Reimbursement will be made after submission of the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
H	Peer review Charges		As per EC decision			30,000	
I	Preparation of Exploration Proposal (5 Hard copies with a soft copy)	5 Hard copies with a soft copy	5.1	2% of the Cost or Rs. 5 Lakhs whichever is lower		5,00,000	EA has to submit the Hard Copies and the soft copy of the final proposal along with Maps and Plan as suggested by the TCC-NMET in its meeting while clearing the proposal.
J	Total Estimated Cost without GST					4,02,21,395	
K	Provision for GST (18% of H)					72,39,851	GST will be reimburse as per actual and as per notified prescribed rate
L	Total Estimated Cost with GST					4,74,61,246	
Note:							
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.						
2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.						

3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.
5	Any item of work not mentioned above shall be added as per SoC.
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.




Time Schedule/ Action Plan for Preliminary Exploration (G-3) for Graphite in Jhab Block, District: Dahod, Gujarat.

Sl. No.	Particulars	Months	1	2	3	4	5	Review	6	7	8	9	10	Review	11	12	13	14	15
1	Camp Setting/ mobilization	Months																	
2	Geologist days	days																	
3	Geophysist days	days																	
4	Survey Days (2 party)	days																	
5	Trenching	days																	
6	Drilling (1 rig)	m																	
7	Sampling days	days																	
8	Camp winding	Months																	
9	Laboratory Studies	days																	
10	Geologist days, HQ	days																	
11	Report Writing with Peer Review	days																	

Estimated Cost for Reconnaissance Survey (G-4 Stage) for Limestone in and around Amanganj-Gunnor-Pawai Area, Panna District, Madhya Pradesh
Area 93.13 sq. km, No. of BH: 05, Borehole depth range- 50 m; Schedule timeline- 10 months Review:
After 4 Months
Agency : M/s Engeotech Consultant

S. No.	Item of Work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Remarks
			SoC-Item -SI No.	Rates as per SoC	Qty.	Total Amount (Rs)	
A	Geological Mapping (1:12500) & Other Geological Work						
1	Charges for Geologist man days for LSM and sampling	day	1.2.b	11,000	180	19,80,000	
2	Labours Charges; Base rate	day	5.7	526	360	1,89,360	2 labour per geologist
3	Charges for Geologist per day (HQ) for data interpretation and Map preparation	day	1.2.a	9,000	60	5,40,000	
	Sub Total- A					27,09,360	
B	Survey work						
1	Charges of Surveyor for survey layout work & Block boundary demarcation	per day	1.6.1a	8,300	-	-	
2	Labours Charges; Base rate	day	5.7	526	-	-	4 labour per surveyor
3	DGPS Survey for boundary pillar, BH fixation & RL determination	Per Point	1.6.2	19,200	15	2,88,000	10 boundary pillars and 5 boreholes

	Sub-Total B					2,88,000	
C	DRILLING- In-House						
1	Drilling up to 300m (Soft Rock)	m	2.2.1.1b	7,168	250	17,92,000	As per MoC Rates (05 BH x 50 mtr)
2	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	5	10,000	
3	Transportation of Drill Rig & Truck associated per drill (1 rigs)	Km	2.2.8	36	400	14,400	From HQ(Jabalpur) to Panna : Actual
4	Monthly Accommodation Charges for drilling Camp	month	2.2.9	50,000	3	1,50,000	
5	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	1	2,50,000	
6	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	1	2,50,000	
7	Road Making (Flat Terrain)	Km	2.2.10a	22,020	1	22,020	As per actual
8	Drill Core Preservation	per m	5.3	1,590	100	1,59,000	
9	Sample Processing	per day	1.5.2	5,100	23	1,17,300	
10	Labours Charges; Base rate	day	5.7	526	92	48,392	
11	Land/Crop Compensation	per BH	5.6	20,000	5	1,00,000	As per actuals
	Sub Total C					29,13,112	
D	LABORATORY STUDIES						
	Chemical Analysis						
1	XRF (+ 10% Check)	Nos	4.1.15a	4,200	187	7,85,400	120 core + 50surface samples+17 Check
	<u>Physical & Petrological Studies</u>						
2	Preparation of thin section	Nos	4.3.1	2,353	10	23,530	

3	Study of thin section	Nos	4.3.4	4,232	10	42,320	
4	Digital Photographs	Nos	4.3.7	280	10	2,800	
	XRD	Nos.	4.5.1	4,000	5	20,000	
5	Bulk Density	Nos	4.8.1	1,605	10	16,050	
	Sub Total D					8,90,100	
E	Total A to D					68,00,572	
F	Geological Report Preparation	5 Hard copies with a soft copy	5.2	Exploration cost exceeding 50 lakh but less than 150 lakh: A Minimum of ₹2.5 lakh or 5% of the work whichever is more		3,40,029	Reimbursement will be made after submission of the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
G	Peer review Charges		As per EC decision			30,000	
H	Preparation of Exploration Proposal (5 Hard copies with a soft copy)	5 Hard copies with a soft copy	5.1	2% of the Cost or Rs. 3.8 Lakhs whichever is less		1,36,011	EA will be reimbursed after submission of the Hard Copies and the soft copy of the final proposal along with Maps and Plan as suggested by the TCC-NMET in its meeting while clearing the proposal.
I	Total Estimated Cost without GST					73,06,612	
J	Provision for GST (18% of J)					13,15,190	GST will be reimburse as per actual and as per notified prescribed rate

K	Total Estimated Cost with GST				86,21,802	
				or Say Rs. In Lakhs	86.22	
Note:						
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.					
2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.					
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.					
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.					
5	Any item of work not mentioned above shall be added as per SoC.					
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.					




Time Schedule/ Action Plan for Reconnaissance Survey (G-4 Stage) for Limestone in and around Amanganj-Gunnor-Pawai in Panna District Madhya Pradesh (Proposed Area 93.13 km²)

S. No.	Description		1	2	3	4	REVIEW	5	6	7	8	9	10
1	Camp Setting	Months/Days											
2	Large Scale Mapping (1:12500) & BRS Sampling	Months/Days											
3	Surface Drilling (1 rigs)	600 m											
4	Core Logging & Sampling	days											
5	Laboratory Studies	Nos.											
6	Camp Winding	months											
7	Report Writing with Peer Review	months											




Annexure 4A

Estimated Cost for Reconnaissance Survey (G-4) for REE in Jasai-Para Area, District: Barmer, Rajasthan
Agency - FCI Aravali Gypsum & Minerals India Limited (FAGMIL)

Total Area - 128 Sq Km; Completion Time - 10 Months, Review: 5 months

S.N	Item of Work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal for		Remarks
			SoC-Item -SI	Rates as per SoC	Qty.	Total Amount (Rs)	
			No.				
A	GEOLOGICAL WORK						
1	Mapping ,Excavation, & sampling						
a	Charges for one Geologist per day at HQ for monitoring, data processing etc.	day	1.3	9,000	60	5,40,000	
b	Charges for two Geologist per day at field for mapping, channel sampling and logging.	day/geologist	1.3	11,000	120	13,20,000	Calculated on the basis of 2 Geologists Party Mapping- 5 months , trenching-45 days
c	Labour Charges(3 Nos) for two Geologist; (Base rate - Rs.526/- +PF Rs.63.12/-+ESI- Rs.17.10/- +Bonus- Rs.43.82/-+EL- Rs.29.46/-=Rs. 679.50/-)	day	5.7	526	240	1,26,240	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher Calculated on the basis of 2 partys
d	Charges for Sampler (1 party)		1.5.2	5,100	60	3,06,000	




		one sampler per day					
e	Labour Charges (3 Nos)for Sampling Work; (Base rate - Rs.526/-+PF Rs.63.12/-+ESI- Rs.17.10/-+Bonus- Rs.43.82/-+EL- Rs.29.46/-=Rs. 679.50/-)	day	5.7	526	180	94,680	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
	Total - A					23,86,920	
B	EXCAVATION						
1	Pitting	per Cu.m	2.1.2	3,800	200	7,60,000	
	Total - B					7,60,000	
C	Survey (1:10,000)						
a	Determination of boundary points and base station by DGPS	Per Point of observation	1.6.2	19,200	6	1,15,200	4 Boundary Point & 2 Base station
	Total - C					1,15,200	
D	LABORATORY STUDIES						
1	Chemical Analysis						
i)	Primary samples (Bedrock + Pit) By Internal XRF						
	a. Major Oxides	Nos	4.1.15a	4,200	110	4,62,000	Pit- 50, BRS-50. check-10
	b. ICPM- 34 elements	per sample/element	4.1.14	7,731	110	8,50,410	
	Check samples External ICP- AES/ ICPMS						
	a. LREE ,HREE and radicals	Nos	4.1.13	5,380	0	0	

	b. Elemental composition (34 elements)		4.1.14	7,731	0	0	
iv)	Petrographic Study						
i	Preparation of thin section	Nos	4.3.1	2,353	10	23,530	
ii	Study of Thin Section	Nos	4.3.4	4,232	10	42,320	
v)	Mineragraphic Study	Nos					
i	Polished section preparation (8*5cm)	Nos	4.3.3	1,185	10	11,850	
ii	XRD study	Nos	4.5.1	4,000	10	40,000	
	TOTAL -D					14,30,110	
E	Sub Total (A to D)					46,92,230	
F	Geological Report Preparation		5.2	For the projects upto Rs. 50 Lakhs : A Minimum of Rs. 1.5 lakhs or 5% of the work whichever is more	1	2,34,612	EA has to submit the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
G	Preparation of Exploration Proposal (5 Hard copies with a soft copy)	5 Hard copies with a soft copy	5.1	2% of the Cost or Rs. 3.8 Lakhs whichever is lower	1	93,845	EA has to submit the Hard Copies and the soft copy of the final proposal along with Maps and Plan as suggested by the TCC-NMET in its meeting while clearing the proposal.
H	Peer review Charges		As per EC			30,000	

			decision				
I	Total Estimated Cost without GST					50,50,686	
J	Provision for GST (18% of GST)	%				9,09,123	GST will be reimburse as per actual and as per notified prescribed rate
K	Total Estimated Cost with GST					59,59,810	
				or Say Rs. In Lakhs		59.60	
Note - If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC.							
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.						
2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.						
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.						
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.						
5	Any item of work not mentioned above shall be added as per SoC.						
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.						

Time Schedule/ Action Plan for Reconnaissance Survey (G-4) for REE in Jasai-Para Area, District: Barmer, Rajasthan

Time Schedule: Action Plan for Recommendation Survey (C-1) for AEE in District Pindri, District Barmer, Rajasthan													
		Months											
Sr. No	Activities	1	2	3	4	5	REVIEW	6	7	8	9	10	
1	Camp Mobilisation												
2	Geologist Days Field												
3	Trenching												
4	Laboratory Studies												
5	Sampling Party												
6	Camp Demobilisation												
7	Geologist Party in HQ												
8	Geologist Report Writing with Peer Review												




Annexure 5

Revised Cost for Preliminary Exploration (G3) for Manganese and associated minerals in Kankura Block, West Singhbhum District, Jharkhand
Name of the Exploration Agency - Natural Resources Division, Tata Steel Limited
Total Area - 5.60 Sq. Km; Completion Time - 15 Months; Reviews: 5 months, 9 months

Sl. No	Item of Work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Additional charge for most affected LWE districts	Total Amount (Rs)	Remarks
			SoC-Item-S. No.	Rates as per SoC	Qty.	Total Amount (Rs)	Factor of multiplication		
1	Geological Mapping, sampling and chemical analysis – In-house								
1.1	Geologist: (1:5000 scale) with sampling	Mandays	1.2	11000	180	1980000	1.25	2475000	Mapping and Drilling Supervision, core logging etc for 2 rigs operation
1.2	Geologist: Project Manager at HQ (for overall supervision, liaising etc)	Mandays	1.2	9000	60	540000		540000	30% of the field mandays
1.3	Labour charges (for sample collection, packaging, carrying)	Mandays	5.7	526	360	189360	1.25	236700	2 labour per Geologist; Amount will be reimbursed as per the notified rates by the Central Labour Commission or respective State Govt. whichever is higher.
1.4	Charges for one sampler per day (for sample preparation)	Mandays	1.5.2	5100	77	392700		392700	1. 10 samples to be prepared in a day 2. 6 days working per week 3. All samples from mapping and drilling

1.5	Labour charges (for sample preparation)	Mandays	5.7	526	308	162008		162008	1. 4 persons per day 2. Minimum 10 samples to be prepared in a day
1.6	Chemical analysis of BRS, channel/ groove samples	No. of Samples	4.1.9	2900	100	290000		290000	To be carried out using ICP-AES (Changed SoC item)
1.7	QAQC Samples (10%)	No. of Samples	4.1.9	2900	10	29000		29000	To be carried out using ICP-AES (Changed SoC item)
2	Mineragraphic study and related analysis - Outsourced								
2.1	Preparation of polished thin section of rock	No. of Samples	4.3.2	1549	10	15490		15490	
2.2	Complete mineragraphic report of rock samples	Per sample	4.3.4	4232	10	42320		42320	
2.3	XRD analysis for identification of minerals (Random)	Per sample	4.5.1	4000	10	40000		40000	
2.4	Trace element study by ICP-MS	Per sample	4.1.14	7731	10	77310		77310	
3	Geophysical Survey - Outsourced								
3.1	Magnetic Surveys	No. of Stations	3.2a	1800	421	757800	1.25	947250	Station interval = 100m; Section spacing = 100m
3.2	Self-potential	Line Km	3.3a	29600	30	888000	1.25	1110000	
3.3	Induced Polarization (Dipole-Dipole)	Line Km	3.4a	69950	20	1399000	1.25	1748750	
4	Topographical, borehole collar and boundary Survey – In-house								
4.1	Survey by Drone and DGPS (Hilly/ undulatory	Mandays	New	225000	5.6	1260000	1.25	1575000	Newly proposed by agency

	terrain with high forest cover)								
4.3	Fixation of BH by DGPS - internal	Per point	1.6.2	19200	14	268800	1.25	336000	Final collar survey.
4.4	Boundary Pillar fixation - internal	Per point	1.6.2	19200	12	230400	1.25	288000	
5	Diamond core drilling (NQ size) and related activities - Outsourced								
5.1	Drilling	Per m	2.2.1.3a	10100	1400	14140000	1.25	17675000	No. of boreholes = 14 Average depth of per hole = 100m
5.2	Drill core preservation		5.3	1590	450	715500		715500	
6	Bulk density and Chemical analysis of drill core samples - Internal								
6.1	Bulk density determination	No. of Samples	4.10	3540	12	42480		42480	As per approved SOP/guideline of GSI/IBM
6.1	Analysis for core samples	No. of Samples	4.1.9	2900	450	1305000		1305000	To be carried out using ICP-AES(Changed SoC item)
6.3	QAQC Samples (10%)	No. of Samples	4.1.9	2900	45	130500		130500	To be carried out using ICP-AES(Changed SoC item)
7	Project Cost without GST							30174008	
8	Total Outsourced Cost							22371620	
9	Tendering process cost for outsourced activities		2.3					447432	2% of the approved project cost or 5 lakh whichever is lower
10	Operational Charges against outsourced activities		6(iii)					1493581	

11	Peer review by external expert		As per EC decision			30000		30000	15 days
12	Preparation of exploration proposal		5.1			500000		500000	2% of the project cost or 5.0 lakh whichever is low.
13	Geological Report Preparation		5.2			905183		905220	Project value exceeding Rs. 150 lakh but less than 300 lakh: A minimum Rs. 7.5 lakh or 3% of the value of the work whichever is more.
14	Total Project cost (without GST)							33550242	
	Provision for GST	%				18		6039043	
15	Total Project Cost with GST							39589285	
	Or say Rs. In Lakhs:							395.893	
Note:									
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.								
2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.								
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.								
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.								
5	Any item of work not mentioned above shall be added as per SoC.								
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.								

Revised Cost for Reconnaissance Survey (G4) for Iron Ore in Mahakoshal Group around Chakdiya, Kushaniya, Jobra and Tusgaon area, Sonbhadra district, Uttar Pradesh.

Area 18.56sq. km, No. of BH: 08, Borehole depth range 700m; Schedule timeline: 15 months (Extension) Review: After 4 Months (done as per timeline)

Agency : GeoExpore Pvt. Ltd.

S. No.	Item of Work *	Unit *	Rates as per NMET SoC 2020-21		Approved Cost of the Proposal		Revised cost			Remarks
			SoC-Item No. *	Rates as per SoC * (a)	Qty (b)	Total Amount (Rs) (a*b)	Rates as per SoC * (a)	Qty. (b)	Total Amount (Rs) (a*b)	
A	GEOLOGICAL WORK					-				
i	Geologist party Days H Q	day	1.3	9,000	35	3,15,000	9,000	35	3,15,000	
ii	Geologist Party Days - Field	day	1.3	11,000	120	13,20,000	11,000	120	13,20,000	
iii	Labourers (2 Nos.)	day	5.7	504	240	1,20,960	504	240	1,20,960	
iv	Sampler Party Days (Bed Rock / Soil Stream) and Core Sampling (1 Party)	one sampler per day	1.5.2	5,100	56	2,85,600	5,100	56	2,85,600	
v	Labours for Sampling	day	5.7	504	224	1,12,896	504	224	1,12,896	
Sub Total of A						21,54,456	-		21,54,456	
B	Ground Geophysical Survey						-			
i	Magnetic Survey (25 30 Line Km) with 200 m spacing	No. of station	3.2 a	1,800	-	-	1,800	-	-	
ii	Expert charges for Geophysicist H Q	Per Day	3.18	9,000	-		9,000	-	-	
iii	Geophysicist - monitoring of Geophysical investigation (Field)	per day	3.19	11,000	-	-	11,000	-	-	
iv	Labourers (Rs.477 / day / labour) Geophysical survey (4 Nos.)	Days	5.7	477	-	-	477	-	-	

Sub Total- B						-	-		-	
C	Survey work						-			
i	Survey party Days (1 Party)	Days	1.6.1a	8,300	5	41,500	8,300	5	41,500	
ii	DGPS Survey - Demarcation of Boundary, fixation of Boreholes, determination of coordinates are reduced level (including) labourer		1.6.2	19,200	9	1,72,800	19,200	9	1,72,800	
iii	Labourer (Rs.477 / days / labour) for Survey party (4 Nos.)	Days	5.7	477	10	4,770	477	10	4,770	
Sub-Total C					24	2,19,070	-		2,19,070	
Sub-Total A + B + C						23,73,526	-	-	23,73,526	
D	Trenching/Pitting						-			
	Trenching (1 m x 2 m x 10 m) (5 Nos.)	Per Cu.m	2.1.1	3,330	-	0	3,330	0	0	
Sub-Total D										
E	DRILLING (out sourced)						DRILLING (In house)			
i	Surface Drilling (2 Rigs) (30 m Vertical Depth) 8 Exploratory BHs	mts	2.2.1.5 a	12,650	700	8855000	12,650	700	8855000	
ii	Drill core preservation charges - "one complete borehole plus mineralised cores of all the BHs of the block, all cost included	Per mts.	5.3	1,590	350	556500	1,590	350	556500	
iii	Approach road making for Rugged / Hilly terrain	Per Km.	2.2.10b	32,200	-	0	32,200	12	386400	
iv	Land compensation	Per Borehole	5.6	20,000	-	0	20,000	2	40000	2 Boreholes falling in the village within the forest area
v	construction of concrete pillar (12" X 12" X 30")	Per Borehole	2.2.7a	2,000	-	0	2,000	8	16000	
vi	Accommodation	Per Month	2.2.9	50,000			50,000	3	150000	
vii	Drilling camp setting cost	Per Project	2.2.9 b	2,50,000			2,50,000	1	250000	

viii	Drilling camp winding cost	Per Project	2.2.9 a	2,50,000			2,50,000	1	250000	
ix	Transportation of drill rigs and truck associated with it (To and Pro)	Km	2.2.8	36			36	5,000	180000	
Sub-Total E						9411500	-		10683900	
F	LABORATORY STUDIES						-			
	a) Chemical Analysis						-			
i	Primary samples (Bed rock / Soil / Stream / Core) for 5 Radical Fe, Al ₂ O ₃ , P ₂ O ₅ &SiO ₂ ,LOI (XRF Techniques)	Per Sample	4.1.15a	4,200	550	23,10,000	4,200	550	23,10,000	
ii	Check sample ((Bed rock / Soil / Stream) (10 %)	Per Sample	4.1.15a	4,200	56	2,35,200	4,200	56	2,35,200	
iii	For Ag, Au Ni, Co, Cr, Cu, Pb, Zn, V, Ti by AAS Method	Per Sample	4.1.14	7,731		-	7,731	10	77,310	
iv	Analysis of Precious metals by fire assay techniques	Per Sample	4.1.5 a	2,380	10	23,800	2,380	10	23,800	
	Primary + Check samples									
	a) Primary Samples (Drill core) for 5 Radical Fe, Al ₂ O ₃ , P ₂ O ₅ & SiO ₂ ,LOI	Per Sample	4.1.15a	4,200	-	-	4,200	-	-	
	b) Check Samples for 5 Radical Fe, Al ₂ O ₃ , P ₂ O ₅ & SiO ₂ , LOI (20 %)	Per Sample	4.1.15a	4,200	-	-	4,200	-	-	
	c) Composite Samples for 5 Radical Fe, Al ₂ O ₃ , P ₂ O ₅ & SiO ₂ , LOI	Per Sample	4.1.15a	4,200	-	-	4,200	-	-	
	d) Whole Rock Analysis	Per Sample	4.1.15a	4,200	-	-	4,200	-	-	
	b) Petrography Studies						-			
	a) XRD studies	Per Sample	4.5.1	4,000	-	-	4,000	-	-	
	b) ICP-MS Studies (34 Trace elements)	Per Sample	4.1.14	7,731	-	-	7,731	-	-	

	c) Preparation of Thin Sections	Per Sample	4.3.1	2,353	10	23,530	2,353	10	23,530	
	d) Complete Petrographic / Ore microscopic study / Mineralgraphic studies	Per Sample	4.3.4	4,232	10	42,320	4,232	10	42,320	
	e) Preparation of Polished Sections	Per Sample	4.3.2	1,549	10	15,490	1,549	10	15,490	
	f) Complete Ore microscopic study / Mineralgraphic studies	Per Sample	4.3.4	4,232	10	42,320	4,232	10	42,320	
Sub-Total F						26,92,660	-		27,69,970	
G	Geotechnical Studies						-			
	Sp. Gravity Determination	per sample	4.8.1	1,605	-	-	1,605	-	-	
	Bulk density	per sample	4.10	3,540	20	70,800	3,540	20	70,800	
Sub-Total G						70,800	-		70,800	
Total A + B + C + D + E + F + G						1,45,48,486	-	-	1,58,98,196	
H	Preparation of Exploration Proposal (5 +1 soft copy)	Per Project	5.1		1	2,90,970	-		3,17,964	
I	Peer review Charges	As per EC Committee				30,000	-		30,000	
J	Geological Report Preparation 5 + 5 Hard Copies + 2 Soft Copies (@ 5%)	Per Project	5.2		1	7,27,424	-		7,50,000	
L	Tender Processing Cost					1,77,100	-	-		
M	Operational Charge					7,89,125	-			
Total A to M						1,65,63,105	-		1,69,96,160	
L	Total Estimated Cost without GST					1,65,63,105	-		1,69,96,160	
M	Provision for GST (18% of J)					29,81,359	-		30,59,309	
N	Total Estimated Cost with GST					1,95,44,464	-		2,00,55,469	
				or Say Rs. In Lakhs		195.44	or Say Rs. In Lakhs		200.55	
Note:										
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.									

2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.
5	Any item of work not mentioned above shall be added as per SoC.
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.




Revised Cost for Reconnaissance Survey (G4 Stage) for Graphite and Vanadium in Matena-Sirar Area, Almora District, Uttarakhand

Name of the Exploration Agency - Geovale Services Pvt. Ltd.

Total Area - 60 sq. km; BHs 12 nos. (30m vertical depth) Core drilling: 800 m; Completion Time -12 Months;

Review 6 months (Review in April 2025)

S. No.	Item of Work *	Unit *	Rates as per NMET SoC 2020-21		Approved Cost of the Proposal		Revised cost				Remarks
			SoC-Item No. *	Rates as per SoC * (a)	Qty. (b)	Total Amount (Rs) (a*b)	Rates as per SoC * (a)		Qty. (b)	Total Amount	
1	Geological Work										
A	Geological Mapping & Sampling	60 sq km									
a	Geologists (HQ) days	Man-days	1.2	9,000.00	40	3,60,000.00	9,000.00	1	40	3,60,000.00	
b	Geologist field-days (including channel sampling)	Man-days	1.2	11,000.00	200	22,00,000.00	11,000.00	1	200.00	22,00,000.00	60 sq.km
c	Labor (Field days) (2 workers per geologist)	per labor day	5.7	522.00	400	2,08,800.00	522	1	400	2,08,800.00	Amount will be reimbursed as per the notified rates by the Central Labor Commission or respective State Govt. whichever is higher
	Sub-Total 1					27,68,800.00				27,68,800.00	
2	Pitting/Trenching										

a	Pitting/trenching (200 cubic meter for graphite and V)	per cubic meter	2.1.2	3,800.00	400	15,20,000.00	3,800.00	1.00	400.00	15,20,000.00	No of pits 50, Samples 50
	Sub-Total 2					15,20,000.00				15,20,000.00	
3	Laboratory Studies										
A	Geochemical Analysis for regional survey										450 samples BR, SSS and Pit
	Separation of heavy minerals from stream sediment samples of - 2mm size through gravity and magnetic separation	per sample	4.3.6b	13,820.00	25	3,45,500.00	13,820.00	1	25	3,45,500.00	
a	XRF (major oxides)	per sample	4.1.15a	4,200.00	300	12,60,000.00	4,200.00	1	0	-	
b	Check samples for XRF	per sample	4.1.15a	4,200.00	30	1,26,000.00	4,200.00	1	0	-	
	XRF 10 % samples for 2 additional elements)- Sn &W	per sample	4.1.15b	842.00	30	25,260.00	842	1	0	-	
	Check samples XRF 10 % samples for 2 additional elements)	per sample	4.1.15b	842.00	3	2,526.00	842.00	1	0	-	
c	ICPMS (34 elements)	per sample	4.1.14	7,731.00	0	-	7,731.00	1	0	-	
e	Proximate analysis of Graphite	per sample	4.1.16	3,000.00	50	1,50,000.00	3,000.00	1	0	-	
f	Total Sulphur	per sample	4.2.14	1,900.00	0	-	1,900.00	1	0	-	
g	Sampler man-days	one sampler per day	1.5.2	5,100.00	55	2,79,225.00	5,100.00	1	0	-	
h	Labor (Man days) (4 labours per sampler)	per labor day	5.7	522.00	219	1,14,318.00	522.00	3.35	0	-	Amount will be reimburse as per the notified

											rates by the Central Labor Commission or respective State Govt. whichever is higher
	Sub-Total 3					23,02,829.00				3,45,500.00	
4	Petrological studies										
a	Raman Spectrometry	per sample	Not in SOC	5,000.00	2	10,000.00	2,970.00	1	10	29,700.00	Not in SoC. As per GSI rate. Both surface and borehole samples
b	Thin section preparation (for size and morphometry of graphite flakes)	per sample	4.3.1	2,353.00	20	47,060.00	2,353.00	1	20	47,060.00	
c	Microscopic study	per sample	4.3.4	4,232.00	20	84,640.00	4,232.00	1	20	84,640.00	
d	XRD (graphite crystallinity)	per sample	4.5.1	4,000.00	5	20,000.00	4,000.00	1	10	40,000.00	
	Sub-Total 4					1,61,700.00				2,01,400.00	
5	Geophysical Survey										
a	Self-Potential	per line km	3.3a	29,600.00	30	8,88,000.00					
b	SP & Shallow Electrical Resistivity (VES)	per line km	3.3c				60,000.00	1	30	18,00,000.00	
c	Expert Charges for Geophysicist (HQ)	Man-days	3.18	9,000.00	20	1,80,000.00	9,000.00	1	20	1,80,000.00	
	Sub-Total 5					10,68,000.00				19,80,000.00	
Review											
6	Geological Work (After Review Drilling)										
B	Drilling- In House										

a	Core drilling 800 m	per meter	2.2.1.4 a	11,500.00	800	92,00,000.00	11,500.00	1	800	92,00,000.00	No of samples 250 samples
b	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000.00	12	24,000.00	2000	1	12	24,000.00	
c	Land / Crop Compensation	per BH	5.6	20000	12	2,40,000.00	20000	1	12	2,40,000.00	
d	Transportation of Drill Rig & Truck associated per drill (2 rigs)- Two way	km	2.2.8	36	600 0	2,16,000.00	36	1	6000	2,16,000.00	Transportation from Jamnagar, Gujarat to Almora, Uttarakhand @1500 km for 2 drill-rigs in 2 trucks, to and fro 2(1500*2)
e	Monthly Accommodation Charges for drilling Camp	month	2.2.9	50000	4	2,00,000.00	50000	1	4	2,00,000.00	
f	Drilling Camp Setting Cost	Nos	2.2.9a	250000	1	2,50,000.00	250000	1	1	2,50,000.00	
g	Drilling Camp Winding up Cost	Nos	2.2.9b	250000	1	2,50,000.00	250000	1	1	2,50,000.00	
h	Approach Road making for rugged/hilly terrain	km	2.2.10b	32200	12	3,86,400.00	32200	1	12	3,86,400.00	
i	Drill Core Preservation	m	5.3.0	1,590.00	300	4,77,000.00	1590	1	300	4,77,000.00	
	Sub-Total 5					1,12,43,400.00				1,12,43,400.00	
6	Laboratory Studies (After Review, BH samples)										
A	Geochemical Analysis (BH samples)										300 sample
a	XRF (Major oxides)	per sample	4.1.15a	4,200.00	250	10,50,000.00	4,200.00	1	250	10,50,000.00	50 BHs+200 Surface
b	External Check samples for XRF	per sample	4.1.15a	4,200.00	25	1,05,000.00	4,200.00	1	25	1,05,000.00	
c	XRF 10 % samples for 2 additional elements (Sn, W,)	per sample	4.1.15a	842.00	25	21,050.00	842	1	25	21,050.00	

d	Check samples XRF 10 % samples for 2 additional elements)	per sample	4.1.15a	842.00	3	2,526.00	842	1	3	2,526.00	
e	ICPMS (34 elements)	per sample	4.1.14	7,731.00			7,731.00	1	250	19,32,750.00	100 surface+ 150 Sub surface
	ICPMS (34 elements)- 10% check	per sample					7,731.00	1	25	1,93,275.00	
f	Proximate analysis of Graphite	per sample	4.1.16	3,000.00	50	1,50,000.00	3000	1	100	3,00,000.00	
g	Total Sulphur	per sample	4.2.14	1,900.00	0	-	1900		25	47,500.00	
h	Sampler man-days	per day	1.5.2	5,100.00	44	2,25,037.50	5100	1	91	4,64,100.00	
i	Labor (Man days) (4 labours per sampler)	per labor day	5.7	522.00	177	92,133.00	522	1	364	1,90,008.00	Amount will be reimbursed as per the notified rates by the Central Labor Commission or respective State Govt. whichever is higher
	Sub-Total 6					16,45,746.50				43,06,209.00	
7	Petrological studies (BH samples)										
a	Thin section preparation	per sample	4.3.1	2,353.00	25	58,825.00	2353	1	25	58825	
b	Microscopic study	per sample	4.3.4	4,232.00	25	1,05,800.00	4232	1	25	105800	
	Sub-Total 7					1,64,625.00				1,64,625.00	
	Total (Sub-Total 1-7)					2,08,75,100.50				2,25,29,934.00	

8	Preparation of Exploration Proposal (5 Hard copies with a soft copy)	Lumpsum	5.1	2% of approved project cost or 5.0 lakh whichever is lower	1	4,17,502.01	2% of approved project cost or 5.0 lakh whichever is lower	1	1	4,50,598.68	This amount will be reimbursed after submission of the Hard Copies and the soft copy of the final proposal along with Maps and Plan as suggested by the TCC NMET in its meeting while clearing the proposal.
9	Final report preparation	Lumpsum	5.2	Project cost is exceeding ₹150 lakh but less than 300 lakh: A Minimum of ₹7.5 lakh or 3% of the work whichever is more	1	7,50,000.00		1	1	7,50,000.00	Final report submission, peer review and project conclusion
10	Report Peer Review	Lumpsum	As per EC	30,000.00	1	30,000.00	30,000.00	1	1	30,000.00	
Project Cost without GST						2,20,72,602.51				2,37,60,532.68	
18% GST						39,73,068.45				42,76,895.88	GST will be reimbursed as

											per actual and as per the applicable notified rate
Total Project Cost							2,60,45,670.96				2,80,37,428.56
Note :											
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.										
2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.										
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.										
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.										
5	Any item of work not mentioned above shall be added as per SoC.										
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.										




Annexure 8													
Revised Cost for Reconnaissance Survey (G4) for Mailar Base Metal - Gold Prospect Block in Mailar area, Lalitpur district, Uttar Pradesh													
Name of the Exploration Agency - Geovale Services Pvt. Ltd.													
Total Area - 206 sq. km; Core drilling: 4BH 1000m (1 BH 400m, 3 BH 200m each); Completion Time -15 Months													
S.N	Item of work	Unit	Rates as per NMET SoC		Estimated Cost of the Proposal								Remarks
			SoC-Item - SI No.	Rates as per SOC	Quantum	Total Amount (Rs)	Rates as per SOC	Quantum	Total Amount (Rs)	Rates as per SOC	Quantum	Total Amount (Rs)	
1	Geological Work												
A	Geological Mapping (1:25000) & sampling	206 sq km											
a	Geologists (HQ) days (1 No)	one geologist per day	1.2	9,000.00	60	5,40,000.00	9,000.00	60	5,40,000.00	9,000.00	60	5,40,000.00	
b	Geologist field-days (2 No. geologists for 60 days)	one geologist per day	1.2	11,000.00	180	19,80,000.00	11,000.00	180	19,80,000.00	11,000.00	180	19,80,000.00	206 sq.km
c	Labor (Field days) (2 workers per geologist, i.e Total 4 No.)	per labor day	5.7	504.00	360	1,81,440.00	504.00	360	1,81,440.00	504.00	360	1,81,440.00	Amount will be reimburse as per the notified rates by the Central Labor Commission or respective State Govt. whichever is higher
B	Pitting	per meter	2.2.2	4,760.00	100	4,76,000.00							
a	Pitting	per cu.m	2.1.3	5,330.00	250	13,32,500.00	5,330.00	250	13,32,500.00	5,330.00	250	13,32,500.00	No of samples 60 samples
	Sub-Total 1					45,09,940.00			40,33,940.00			40,33,940.00	

2	Laboratory Studies												
A	Geochemical Analysis for regional and detail survey												140 BRS; 60 pitting samples
a	XRF (major oxides)	per sample	4.1.1 5a	4,200.00	30	1,26,000.00	4,200.00	100	4,20,000.00	4,200.00	100	4,20,000.00	10% of total sample
b	Check samples for XRF	per sample	4.1.1 5a	4,200.00	3	12,600.00	4,200.00	10	42,000.00	4,200.00	10	42,000.00	
c	ICPMS (34 elements)	per sample	4.1.1 4	7,731.00	200	15,46,200.00	7,731.00	200	15,46,200.00	7,731.00	200	15,46,200.00	10% of total sample
d	Analysis for gold by fire assay technique	per sample	4.1.5 a	2,380.00	50	1,19,000.00	2,380.00	50	1,19,000.00	2,380.00	50	1,19,000.00	10% of total sample
e	Check samples	per sample	4.1.5 a	2,380.00	5	11,900.00	2,380.00	5	11,900.00	2,380.00	5	11,900.00	
f	XRD	per sample	4.5.1	4,000.00	50	2,00,000.00	4,000.00	50	2,00,000.00	4,000.00	50	2,00,000.00	10% of total samples
g	Sampler man-days	one sampler per day	1.5.2	5,100.00	42	2,14,200.00	5,100.00	52	2,64,562.50	5,100.00	52	2,64,562.50	
h	Labor(4 workers per sampler)	per labor day	5.7	504.00	168	84,672.00	504.00	208	1,04,580.00	504.00	208	1,04,580.00	Amount will be reimburse as per the notified rates by the Central Labor Commission or respective State Govt. whichever is higher
	Sub-Total 2					23,14,572.00			27,08,242.50			27,08,242.50	
3	Petrological studies												
a	Thin section preparation	per sample	4.3.1	2,353.00	25	58,825.00	2,353.00	50	1,17,650.00	2,353.00	50	1,17,650.00	

b	Microscopic study	per sample	4.3.4	4,232.00	25	1,05,800.00	4,232.00	50	2,11,600.00	4,232.00	50	2,11,600.00	
	Sub-Total 3					1,64,625.00			3,29,250.00			3,29,250.00	
4	Geophysical Survey												
a	S.P. & Shallow electrical resistivity (10-20 line km)	per line km	3.3c	60,000.00	20	12,00,000.00	60,000.00	20	12,00,000.00	60,000.00	20	12,00,000.00	
b	Magnetic (20 sq km, 2000 points)	per station	3.2a	1,800.00	2000	36,00,000.00	1,800.00	2000	36,00,000.00	1,800.00	2000	36,00,000.00	
c	Expert Charges for Geophysicist (Field)	Geophysicist per day	3.18	9,000.00	40	3,60,000.00	9,000.00	40	3,60,000.00	9,000.00	40	3,60,000.00	
	Sub-Total 4					51,60,000.00			51,60,000.00			51,60,000.00	
5	Geological Work (Drilling In-house)												
a	Core drilling up to 400m depth (4 BH*200m)	per meter	2.2.1.4a	11,500.00	600	69,00,000.00	11,500.00	800	92,00,000.00	11,500.00	900	1,03,50,000.00	No of samples 200 samples
	Core drilling between 301 to 400 m	per meter	2.2.1.4b	12,420.00	200	24,84,000.00				12,420.00	100	12,42,000.00	
c	Land / Crop Compensation	per BH	5.6				20,000.00	4	80,000.00	20,000.00	4	80,000.00	In house drilling 1250 km from Kolkata to Lalitpur (2 rigs, 2 trucks to and fro)
d	Transportation of Drill Rig & Truck associated per drill (2 rigs)-Two way	km	2.2.8				36.00	5000	1,80,000.00	36.00	5000	1,80,000.00	
e	Monthly Accommodation Charges for drilling Camp	month	2.2.9				50,000.00	4	2,00,000.00	50,000.00	4	2,00,000.00	
f	Drilling Camp Setting Cost	Nos	2.2.9a				2,50,000.00	1	2,50,000.00	2,50,000.00	1	2,50,000.00	

g	Drilling Camp Winding up Cost	Nos	2.2.9 b				2,50,000.00	1	2,50,000.00	2,50,000.00	1	2,50,000.00	
h	Approach Road making for rugged/hilly terrain	km	2.2.1 0b				32,200.00	4	1,28,800.00	32,200.00	4	1,28,800.00	
i	Drill core preservation	per meter	5.3.0	1,590.00	500	7,95,000.00	1,590.00	500	7,95,000.00	1,590.00	600	9,54,000.00	
	Sub-Total 5					1,01,79,000.00			1,10,83,800.00			1,36,34,800.00	
6	Laboratory Studies												
7	Geochemical Analysis (BH samples)												(200BHS)
a	XRF (major oxides)	per sample	4.1.1 5a	4,200.00	30	1,26,000.00	4,200.00	100	4,20,000.00	4,200.00	100	4,20,000.00	10% of total sample
b	Check samples for XRF	per sample	4.1.1 5a	4,200.00	3	12,600.00	4,200.00	10	42,000.00	4,200.00	10	42,000.00	
c	ICPMS (34 elements)	per sample	4.1.1 4	7,731.00	200	15,46,200.00	7,731.00	200	15,46,200.00	7,731.00	250	19,32,750.00	
d	Analysis for gold by fire assay technique	per sample	4.1.5 a	2,380.00	50	1,19,000.00	2,380.00	50	1,19,000.00	2,380.00	50	1,19,000.00	10% of total sample
e	Check samples	per sample	4.1.5 a	2,380.00	5	11,900.00	2,380.00	5	11,900.00	2,380.00	5	11,900.00	
f	XRD	per sample	4.5.1	4,000.00	20	80,000.00	4,000.00	20	80,000.00	4,000.00	20	80,000.00	10% of total samples
g	EPMA	per hour	4.4.1				8,540.00	10	85,400.00	8,540.00	10	85,400.00	
h	Sampler man-days	per day	1.5.2	5,100.00	39	1,98,900.00	5,100.00	39	1,98,900.00	5,100.00	56	2,85,600.00	

i	Labor (4 workers per sampler)	per labor day	5.7	504.00	156	78,624.00	504.00	156	78,624.00	504.00	224	1,12,896.00	Amount will be reimburse as per the notified rates by the Central Labor Commission or respective State Govt. whichever is higher
	Sub-Total 6					21,73,224.00			25,82,024.00			30,89,546.00	
7	Petrological studies (After Review)												
a	Thin section preparation	per sample	4.3.1	2,353.00	50	1,17,650.00	2,353.00	50	1,17,650.00	2,353.00	70	1,64,710.00	
b	Microscopic study	per sample	4.3.4	4,232.00	50	2,11,600.00	4,232.00	50	2,11,600.00	4,232.00	70	2,96,240.00	
	Sub-Total 7					3,29,250.00			3,29,250.00			4,60,950.00	
	Total (Sub-Total 1-7)					2,48,30,611.00			2,62,26,506.50			2,94,16,728.50	
8	Preparation of Exploration Proposal (5 Hard copies with a soft copy)	Lumpsum	5.1	2% of the cost subject to a maximum of 5 lakhs	1	4,96,612.00	2% of the cost subject to a maximum of 5 lakhs	1	5,00,000.00			5,00,000.00	This amount will be reimbursed after submission of the Hard Copies and the soft copy of the final proposal along with Maps and Plan as suggested by the TCCNMET in its meeting

													while clearing the proposal.
9	Final report preparation	3% of project cost or 7.5 lakh whichever is higher	5.2	For the projects having cost exceeding 150 lakhs but less than 300 lakhs-A minimum of 7.5 lakhs or 3% of the value of work whichever is more	1	7,50,000.00	For the projects having cost exceeding 150 lakhs but less than 300 lakhs-A minimum of 7.5 lakhs or 3% of the value of work whichever is more	1	7,86,795.20			8,82,501.86	Final report submission, peer review and project conclusion
10	Operation cost		6			9,74,375.00			0				
11	Tendering cost		2.3			2,39,750.00			-				
12	Report Peer Review	Lump sum	As per EC	30,000.00	1	30,000.00	30,000.00	1	30,000.00	30,000.00	1	30,000.00	
Project Cost without GST						2,73,21,348.00	Project Cost without GST		2,75,43,301.70			3,08,29,230.36	

18% GST					49,17,842.64	18% GST	49,57,794.31			55,49,261.46	GST will be reimbursed as per actual and as per the applicable notified rate
Total Project Cost					3,22,39,190.64	Total Project Cost	3,25,01,096.00			3,63,78,491.82	
Note:											
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.										
2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.										
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.										
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.										
5	Any item of work not mentioned above shall be added as per SoC.										
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.										