Ministry of Mines
National Mineral Exploration Trust

Minutes of the 52nd Technical-cum-Cost Committee (TCC) meeting held on 27th & 28th April, 2023 in hybrid mode Geological Survey of India, DGCO, A-II Pushpa Bhawan, New Delhi

The 52nd meeting of Technical-cum-Cost Committee [TCC] of National Mineral Exploration Trust [NMET] was held in hybrid mode under the chairmanship of Shri Janardan Prasad, Additional Director General, Geological Survey of India (ADG, GSI) and Chairman, TCC, NMET on 27th & 28th April, 2023 at Geological Survey of India, DGCO, A-II Pushpa Bhawan, New Delhi. Members of TCC-NMET and representatives of CMPDI, MECL, Gemcokati Exploration Pvt. Ltd., Geoexpore Pvt. Ltd. and United Exploration India Pvt. Ltd. attended the meeting in-person at DGCO, New Delhi whereas representatives from DGM Arunachal Pradesh, DGM Madhya Pradesh, DGM Chhattisgarh, GSI, JEMCL and Maheshwari Mining Pvt. Ltd. attended the meeting through their respective VC modes.

The list of participants is at **Annexure-1.**

Shri Suresh Chander, Director, GSI and Member Secretary, TCC-NMET, welcomed Shri Janardan Prasad, ADG, GSI & Chairman, TCC-NMET; Members of the TCC and participants representing various Notified Exploration Agencies [NEAs] and Notified Private Exploration Agencies [NPEAs]. He briefed about the project proposals submitted by EAs for consideration of 52nd TCC meeting. He conveyed that a total of 18 nos. of new projects have been submitted by EAs and 01 agenda is from GSI for discussion. He informed the committee that a total of 16 projects have also been submitted in the meeting for review.

Shri Janardan Prasad, ADG, GSI and Chairman, TCC welcomed the members and other participants from various NEAs/NPEAs. The Chairman asked all the Notified Exploration Agencies (NEAs)/Notified Private Exploration Agencies (NPEAs) to submit the project proposal in format of NMET and also requested to make proposals comprehensive.

Subsequently, the proceeding of meeting was initiated as per circulated agenda.

Agenda wise discussions are summarised as follows.

Agenda- 52.1: Technical evaluation of new project proposals:

Agenda- 52.1.1: Reconnaissance Survey (G-4 Stage) for Magnetite and associated minerals in Pipradih Area (7.00 Sq. km.), District: Giridih, State: Jharkhand. [Implementing Agency: CMPDI]

a) Geologically, the block area lies in the northcentral part of Chhotanagpur Gneissic Complex flanked further north by Bihar Mica Belt.
b) It has been conveyed that the lithounits exposed in and around the block area are the Unclassified Metamorphic rocks of Archaean to lower Proterozoic age as basement. The rock of Archaean to Proterozoic age are represented by granite gneiss, biotite gneiss and hornblende gneiss, which are intruded by pegmatite, quartz of upper Proterozoic age and dolerite dykes of Jurassic to Cretaceous age. Strike of foliation is generally WNW-ESE in the

east with northerly or southwesterly dips.

c) The proposal was sent to GSI for their considered comments. In response to this, GSI has submitted that the proposed area for exploration of magnetite and associated minerals in Pipradih (G4) area under NMET, overlaps 50% with the base metal exploration in Rakhawat-Paharpur (G4) of FS: 2022-23 and 50% area overlaps with the basemetal exploration in Kusmarja-Gobindpur (G4) of FS: 2023-24. No magnetite band has been reported from the area during GSI work (STM/G4 with scout drilling).

d) CMPDI conveyed that MECL carried out Reconnaissance survey (G-4 level) for Copper, Lead and Zinc in Kusmarja and adjoining areas district: Giridih, state: Jharkhand in 2017 and reported occurrences of Magnetite in the area. On the basis of Geological Report of MECL, a Reconnaitory Survey of the area was carried out by Geological team of CMPDIL. During the field work outcrops of BMQ associated with a Garnetiferous horizons (Talc Schist) observed at 3-4 places in the proposed area.

e) After the detailed deliberation, the committee opined that G4 Stage explorations have already been carried out in the proposed area and there is possibility of presence of deep-seated magnetite body. Therefore, committee suggested to carry out G3 stage exploration and modified the title of proposal as "Preliminary exploration (G-3 Stage) for Magnetite and associated minerals in Pipradih Area (7.00 Sq. km.), District: Giridih, State: Jharkhand".

f) The committee recommended drilling of 400 m ensuing the review of project after 4 months.

Recommendation of TCC:

The committee recommended the proposal for approval of EC for "Preliminary exploration (G-3 Stage) for Magnetite and associated minerals in Pipradih Area (7.00 Sq. km.), District: Giridih, State: Jharkhand" subject to submisson of consent letter of DMG, Jharkhand from CMPDI with an estimated cost of ₹ 147.25 Lakh (including GST) in time schedule of 08 months for carrying out the proposed work and submission of report as per annexure- 2A & 2B.

Agenda 52.1.2: Preliminary Exploration (G-3 Stage) for REE and Rare Metals under NMET in and around Kasidih Area (6.00 Sq. km.), Ranchi District, Jharkhand. [Implementing Agency: JEMCL]

a) Geologically, the proposed area of investigation falls within Chhotanagpur Gneissic Complex (CGC) and along the North Purulia Shear Zone (NPSZ) mainly consisting of pegmatite/quartz veins, granite-gneiss and calc-silicates.

b) JEMCL conveyed that GSI has made field investigation studies in this area at G-4 level during field seasons: 2012-13 and 2013-14 aiming to 'REE and Rare metal (RM) mineralization'. As per the report of GSI, total REE contents in pegmatite and granite-gneiss are 1009.02 ppm and 868.74 ppm respectively.

c) The proposal was sent to GSI for their considered comments. In response to this, GSI has submitted that GSI has not taken up or planned to take up any project in

the block in near future.

d) After the detailed deliberation, the committee opined that the value of REE i.e. 1009.02 ppm in pegmatite & 868.74 ppm in granite-gneiss is very low and not feasible. Above background information of the proposal does not warrants to take up G-3 exploration in around Kasidih Area.

Recommendation of TCC:

In view of above, the committee suggested not to take up the project in the proposed block.

Agenda- 52.1.3: Reconnaissance Survey (G4) of Lithium & Associated Minerals in Chakrasilla Block (40.19 Sq. km.), District: Kokrajhar, Assam. [Implementing Agency: MECL]

a) The Proposal was submitted in the 43rd TCC and was technically recommended by the committee, but in the 26th EC the proposal was deferred on the basis of limited information on feasibility of lepidolite mining and suggested MECL to consult GSI for detailed exploration work carried out for lithium in the proposed block.

b) The MECL has consulted Geological Survey of India, NER for detailed exploration work carried out in the proposed area and for feasibility of Lithium mining, as instructed by the Executive Committee NMET.

c) GSI provided a note that summarized the exploration work performed in and around the proposed block and stated that the continuity of Lepidolite veins could not be traced at depth by pitting and trenching up to three meters. Geochemical sampling carried out towards south of the lepidolite rock clusters does not indicate encouraging Li and any associated rare metal values. Test drilling did not intersect any lepidolite bearing zone and the work was suspended midway due to prevailing local disturbance in the area.

d) Based on deliberation and note received from GSI, the committee opined that Chakrasilla Block does not warrant G-4 stage exploration.

Recommendation of TCC:

Based on above facts, the committee suggested not to take up the project in the proposed block.

Agenda- 52.1.4: Preliminary Exploration (G-3) for Limestone in Piparlya-Nayakheda North Block (5.08 Sq. Km.) and South Block (5.52 Sq. Km), Vindhyan Basin District: Narasingpur, Madhya Pradesh. [Implementing Agency: MECL]

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Agenda- 52.1.5: Preliminary Exploration (G-3) for Limestone in Simariyakalan-Baheriya North Block (5.59 Sq. Km.) and South Block (5.41 Sq. Km.), Vindhyan Basin District: Narasingpur, Madhya Pradesh. [Implementing Agency: MECL]

a) Geologically, the proposed blocks situated at fringes of Vindhyan and Mahakoshal formations.

b) The Mahakoshal belt undergone three phases of deformation with an overall ENE-WSW disposition controlled by original linearity of the basin that is accumulated by the two main deformational episodes.

   i. First phase produced E-W to ENE-WSW trending upright to inclined non-cylindrical folds on steep south dipping axial planes.

   ii. Second phase produced vertical to reclined, E-W striking folds with crenulations cleavage on simply dipping axial plane.

   iii. Third warp and small scale folds on N-S striking axial plane are produced by the third phase deformation.

c) It has been conveyed that the Dolomitic Limestone is seen in the south of the proposed blocks. MECL carried out field visit and confirmed the occurrences of limestone exposures within the blocks. Limestone trending NNE-SSW dipping 25° to 45° due NNW and most of the area being covered by soil.

d) MECL further conveyed that, a total of 7 no of samples were collected and analysed at chemical lab of MECL and the analysis of samples indicate limestone to be of cement grade with dolomitic bands.

e) The proposal was sent to GSI for their considered comments. In response to this, GSI has submitted that the proposed Pipariya-Nayakheda North Block and South Block is partially overlapping with work carried out by GSI titled "Note On The Reported Occurrences Of Coal Limestone And Iron - Ore In Narsinghpur District (G4)" during 1965-66. There is no overlap with work carried out / proposed by GSI with Simariyakalan-Baheriya North Block (5.59 Sq. Km.) and South Block (5.41 Sq. Km.

f) In view of detailed deliberation, the committee suggested to combine the southern part of the proposed blocks as the dolomitic limestone is mapped at the southern part of the proposed blocks.

g) Accordingly, MECL has modified that project proposal and submitted the project proposal titled as "Preliminary Exploration (G-3) for Limestone in Pipariya-Nayakheda Block and Simariyakalan-Baheriya Block (10 Sq. Km.), District: Narasingpur, Madhya Pradesh".

h) Further, the committee recommended drilling of 600m in 8 bhs in 800 x 800 m grid pattern. To know the thickness of dolomitic limestone, committee suggested drilling 01 borehole in the same profile of the borehole that falls in the center of the proposed block.

i) The project will be reviewed after 4 months.

Recommendation of TCC:

The committee recommended the proposal for approval of EC for "Preliminary Exploration (G-3) for Limestone in Pipariya-Nayakheda Block and Simariyakalan-Baheriya Block (10 Sq. Km.), District: Narasingpur, Madhya Pradesh" subject to submisson of consent letter of DGM, Madhya Pradesh from MECL with an estimated cost of ₹ 116.50 Lakh (including GST) in time

schedule of 08 months for carrying out the proposed work and submission of report as per annexure- 3A & 3B.

Agenda- 52.1.6: Preliminary Exploration (G-3 Stage) for Gemstones in and around Neelam Khan Area (5.00 Sq. Km) Districts- Kishtwar, Jammu & Kashmir. [Implementing Agency: MECL]

a) Geologically, the rocks exposed in and around the area are of central crystalline of Paleoproterozoic age, of Gaimbal Group. The area mainly comprises sequence of meta-sedimentaries, meta-basics and metabasic rock referable to the Vaikrita Group.The litho-units in the area comprises migmatite, garnetiferous mica schist and gneiss, garnetiferous biotite gneiss, granitic-gneisses, calcsilicate, amphibolite, marble, actinolite-tremolite schist with concordant and discordant pegmatite veins.

b) It has been conveyed that the Pegmatites intruded in actinolite tremolite schist to amphibolites, are the host rock for sapphire. The general trend of main structural elements i.e. (S0//S1) varies from N55°E to N70°W and dips vary from 30° to 80° dipping due NNE/SSE. At places, the strike is E-W with dips varying from 35° to 85° degrees on either side.

c) MECL further conveyed that the sapphire mine i.e. Neelam Khan is located at an altitude of 4500 m (MSL) along the NW-SE trending ridge. Mining area with adits in and around corundum bearing pegmatite veins extends for a length of 500 m and width 300 m. There are six mines (Adits) at south portal and one at the north portal i.e. Back slope of the hill. The mines at south portal are named as M-1, 2, 3, 4, 5 & 6 along with M-7 at north portal. These adits were earlier interconnected following the pegmatite veins. Since the mine area is leased out to J&K Minerals Ltd, they exploited it by semi mechanised mining method. At present all mine Adits have been closed due to subsidence.

d) The proposal was sent to GSI for their considered comments. In response to this, GSI has submitted that the proposal was presented by the authorities of MECL during the meeting convened by the Honourable Lieutenant Governor of Jammu and Kashmir on 29th March 2023 regarding the exploration and exploitation of Gemstones in and around Neelam Khan area and progress of auctioning of blocks. The proposed block of MECL for exploration in and around Neelam Khan area of Kishtwar District, J&K lies within the investigated block of GSI during work of FS 2018-19 and 2021-22. However, since the MECL is proposing work on larger scales (1:2000 and 1:500) with exploration (G-3) activities. So the proposal is recommended. GSI has no proposal for FS 2023-24 in the area. The work component as per the MECL proposal is according to the recommendations given by Geological Survey of India, during FS 2021-22.

e) After detailed deliberation, the committee opined that exploratory mine openings-open pit or underground with bulk determination of grades & recovery is part of detailed exploration (G1) stage instead of proposed G-3 Stage exploration. The committee suggested to carry out the proposed exploration in phased manner (Phase-1 & Phase-2). Further, the committee expressed its limitations to arrive/verify

the cost component submitted by MECL such as restoration & development of adit/drive, transportation cost in Himalayan terrain (Manual/Mules) for camp setting, geological work, deployment cost of exploratory mining machineries, mucking and accessory set up etc., Water transportation cost for exploratory mining activity from nearest water source as no rate has been specified for aforementioned component of work in the schedule of charges (SoC) prescribed by NMET.

In the absence of background information/data regarding the extent & status of the existing Adits/Drives in the proposed exploration block, it was not feasible to arrive at the quantum of work proposed for rehabilitation & restoration of old existing Adits/drives by MECL.

f) The project will reviewed after 18 months.

Recommendation of TCC:

The committee recommended the phase -1 of the proposal for approval of EC for Preliminary Exploration (G-3) for Gemstones in and around Neelam Khan Area (5.00 Sq. Km) Districts- Kishtwar, Jammu & Kashmir" with an estimated cost of ₹ 426. 23 Lakh (including GST) in time schedule of 36 months for carrying out the proposed work and submission of report as per annexure- 4A & 4B.

It was opined by the committee that the phase-2 of the proposed exploration would be considered after review of the outcome/results of Phase-1 exploration.

Agenda-52.1.7: Preliminary Exploration (G-3 Stage) For Diamond in Angira-B Block (4.05 sq.km area), District- Chhatarpur, Madhya Pradesh.
[Implementing Agency: MECL]

a) The geology of the area is defined by lithologies of the Bundelkhand Craton and overlying Proterozoic sedimentary basins. The oldest rock types include granitoid gneiss with enclaves of dolerite, gabbro, amphibolite and quartz reefs - all of which have been grouped as the 2500 Ma Bundelkhand Craton.

b) It has been conveyed that the RP of ACC Rio Tinto Exploration (ARTE) comprised 2450 sq.km. area covering Chhatarpur, Sagar, Damoh and Tikamgarh districts, out of which 1450 sq.km. area was relinquished; therefore, an area of 1000 sq. km. was in possession of ARTE from July, 2004.

c) During the meeting, MECL conveyed that a total of 290 heavy mineral gravel samples were collected from selected trap sites by ARTE. The observation and probe results from these samples had shown restricted dispersion and isolated catchments shedding kimberlite indicator minerals (KIMs). A total of 1095 line km of ground magnetic surveys and 52-line km of horizontal loop (Max-Min) electromagnetic surveys were completed over eight grids within the RP area. Based on the gravel sample data and Geophysical work carried out an area of about 75 sq. km. was demarcated for detailed exploration. Total 8 no. of kimberlites have been found within the Damoh West RP through a combination of ground geophysics (both magnetics and EM), soil sampling, and prospecting.

d) The proposal was sent to GSI for their considered comments. In response to this, GSI has submitted that there is no overlap with work carried out / proposed by GSI.

e) In view of above, committee opined that the area is encouraging. The committee advised MECL to contact GSI & IBM for ensuring that no report of Prospecting License / report of G3 stage for proposed area are available.

Recommendation of TCC:

The committee suggested to submit proposal in next TCC meeting after ensuring that no report of prospecting license (PL) or report of G3 stage exploration is available.

Agenda- 52.1.8: Detailed Geo-Chemical and Geological Mapping of Limestone and Dolomite in and Around Menga Area of Upper Subansiri District of Arunachal Pradesh (Area of 26 Sq.kms-G4 Stage).
[Implementing Agency: DGM Arunachal Pradesh]

a) The proposed area comprises of limestone, dolomite, phyllite, quartzite, and Shales of Miri Quratzite and Buxa formation of rocks.

b) It has been conveyed that the Menga Dolomitic Limestone is cement grade with CaO ranging from 41.20% to 55% and MgO from 7.37% to 9.98%. SiO_2 is present ranging from 8.21% to 11.3%. The Menga Formation is overlain by black shales, phyllites and siltstones of Sipi Formation, which in turn are followed by Raje Quartzite, a sequence of pink quartzite, diamictite and conglomerate.

c) The committee suggested that title of the project may be modified as "Reconnaissance Survey (g-4 Stage) for Limestone and Dolomite in and Around Menga Area (26.00 sq.km.) of Upper Subansiri District of Arunachal Pradesh".

Recommendation of TCC:

The committee recommended the proposal for approval of EC for "Reconnaissance Survey (G-4 Stage) for Limestone and Dolomite in and Around Menga Area (26.00 sq.km.) of Upper Subansiri District of Arunachal Pradesh" with an estimated cost of ₹ 176.02 Lakh (including GST) in time schedule of 12 months for carrying out the proposed work and submission of report as per annexure- 5A & 5B.

Agenda- 52.1.9: Reconnaissance Survey (G-4 Stage) for Iron Ore in Alenga-Nendwadi Block (120 Sq Area), District: Gadchiroli, Maharashtra.
[Implementing Agency: DGM Maharashtra (M/s. Gemcokati Exploration Pvt. Ltd.)]

Agenda- 52.1.10: Reconnaissance Survey (G-4 stage) for Iron Ore in Marampalli-Jinjgaon Block (90 Sq Area), District: Gadchiroli, Maharashtra.

[Implementing Agency: DGM Maharashtra (M/s. Gemcokati Exploration Pvt. Ltd.)]

Agenda- 52.1.11: Reconnaissance Survey (G-4 Stage) for Iron Ore in Tadgaon-Wateli Block (80 Sq Area), District: Gadchiroli, Maharashtra.
[Implementing Agency: DGM Maharashtra (M/s. Gemcokati Exploration Pvt. Ltd.)]

a) All the three proposals were submitted in 51st TCC meeting held on 27th & 28th March, 2023. After detailed deliberation the committee suggested the following:
   i. The analytical results are not available from the area to strengthen the occurrences of Iron Ore and basemetal.
   ii. Committee opined that some samples may be collected and analysed from the area. The samples may be analysed for basemetal and Iron ore for all the three blocks and in case of encouraging results the proposals may be submitted for that particular commodities in the next TCC meeting.
b) Gemcokati Exploration Pvt. Ltd. has conducted field visit in all the proposed blocks.
c) It has been conveyed that during geological traverses in Alenga-Nendwadi Block, the host rocks viz. BIF and Phyllites were indentified at several places. 7 no. of Samples were collected and analyzed. 5 no. of samples were analysed at Tata Steel Ltd. Mines Division, Joda which gave values of Fe (%) ranging from 48.10 % to 68.14% & 2 no.Shiva Lab Bangaluru gave Cu (ppm) value:54 ppm & 74 ppm, and Fe value:19421 ppm & 24517 ppm.
d) Gemcokati Exploration Pvt. Ltd. It has also been conveyed that field trip was also conducted in Marampalli-Jinjgaon Block and 2 samples have been collected for iron ore and base metal. Analytical results of iron ore has been received from M/s.Tata Steel Laboratory Joda show values of Fe(%) ranging from 22% to 38%.
e) Samples collected for iron ore and base metal from Tadgaon-Wateli Block analyzed Fe ranging from 20% to 40 %.
f) Further, it has been also conveyed that the analytical results for base metal and other trace elements did not show any encouraging values.
g) Based on the analytical result committee opined that the Alenga-Nendwadi Block has encouraging values for Hematite. Similarly, Marampalli-Jinjgaon Block &Tadgaon-Wateli block has encouraging values for Magnetite. Therefore, the committee suggested for taking up reconnaissance survey for Iron Ore in all the three proposed blocks.
h) The committee also suggested reviewing each project after 4 months.

Recommendation of TCC:

The committee recommended the proposal for approval of EC for

a) ***"Reconnaissance Survey (G-4 Stage) for Iron Ore in Alenga-Nendwadi Block (120 Sq Area), District: Gadchiroli, Maharashtra" with an estimated cost of ₹***

37.75 Lakh (including GST) in time schedule of 06 months for carrying out the proposed work and submission of report as per annexure- 6A &6B.

b) *"Reconnaissance Survey (G-4 stage) for Iron Ore in Marampalli-Jinjgaon Block (90 Sq Area), District: Gadchiroli, Maharashtra" with an estimated cost of ₹ 33.26 Lakh (including GST) in time schedule of 06 months for carrying out the proposed work and submission of report as per annexure- 7A &7B.*

c) *"Reconnaissance Survey (G-4 Stage) for Iron Ore in Tadgaon-Wateli Block (80 Sq Area), District: Gadchiroli,Maharashtra" with an estimated cost of ₹ 32.65 Lakh (including GST) in time schedule of 06 months for carrying out the proposed work and submission of report as per annexure- 8A &8B.*

Agenda- 52.1.12: Reconnaissance Survey (G4 Stage) for Bauxite in Sirmaur -Kevati Block (150 sq. km.), District:-Rewa, Madhya Pradesh.
[Implementing Agency: DGM Madhya Pradesh (M/s. Maheshwari Mining Pvt. Ltd.)]

Agenda- 52.1.13: Reconnaissance Survey (G4 Stage) for Limestone in Sabalgarh-Jalalgarh Block (87.2 Sq. km.), District: Morena, Madhya Pradesh.[Implementing Agency: DGM Madhya Pradesh (M/s. Maheshwari Mining Pvt. Ltd.)]

Agenda- 52.1.14: Reconnaissance Survey (G4 Stage) for Limestone in Tentra-Shahpur Kalan Block (55.5 Sq.km.) District: Morena, Madhya Pradesh.[Implementing Agency: DGM Madhya Pradesh (M/s. Maheshwari Mining Pvt. Ltd.)]

a) The project proposal at para no 52.1.12 to 52.1.14 were discussed by the committee and following suggestions were given:
   i. The Geological Map of the proposed blocks either on 1:50,000 scale or 1:25,000 scale is to be submitted with the proposals.
   ii. The sample location is to be marked on the maps.

b) The committee also opined that the project has to be presented in-person in the next TCC meeting.

Recommendation of TCC:

The committee suggested to incorporate the geological map of 1:50000 or 1:25000 scale with the location of samples collected in all the three proposals and asked to attend next TCC meeting in-person.

Agenda- 52.1.15: Reconnaissance Survey (G4 Stage) for REE-RM in Dugru Block (129 sq. km.), District: Surguja, Chhattisgarh.
[Implementing Agency: DGM Chhattisgarh (M/s. Maheshwari Mining Pvt. Ltd.)]

10/05/23

a) Geologically, the proposed area of investigation falls within the western extension of Chhotanagpur Gneissic Complex (CGC). The rocks of these area subdivided into three groups:
    i. Group A: (a) Massive and current bedded quartzite with occasional metaconglomerate. (b) Quartz mica schist, Quartz-biotite-garnet-andalusite schist and (c) Marble and calc silicate rocks.
    ii. Group B: Grey Granite Gneiss and migmatites with enclaves of meta sedimentaries and metabasics.
    iii. Group C: Younger granitoids and alkali granites with veins of pegmatite, syenite and quartz.
b) It has been conveyed that the reported granitic body has elliptical outline and has a sharp contact with the granite gneiss surrounding it. This granite classified as leucogranite, composed mainly of subhedral grains of perthitic potash feldspar and little quartz. Swerving of gneissosity and/or schistosity around this granite body show a quaquaversal dip which favours its diapiric intrusive character.
c) Further, it has also conveyed that GSI has collected 21 composite stream sediment samples during its NGCM programme. The analytical results of samples, collected from Dugru Granite area, show the range of values for total REE 271ppm to 777ppm.
d) After the detailed deliberation, the committee opined that the value of REE 271 ppm to 777 ppm is very low and not feasible. Therefore the proposal may not be taken up for G4 Stage exploration.

Recommendation of TCC:

Based on the above background, the committee suggested that proposed block does not warrant G-4 exploration for REE-RM in Dugru Block.

Agenda- 52.1.16: Reconnaissance Survey (G4 Stage) for Graphite in Dindo-Belkurta-Basera Block (78.00 sq.km.), District: Surguja, Chhattisgarh.
[Implementing Agency: DGM Chhattisgarh (M/s. Maheshwari Mining Pvt. Ltd.)]

a) Maheshwari Mining Pvt. Ltd has proposed G4 stage exploration in Dindo-Belkurta-Basera Block over 78 sq. km.
b) DGM Chhattisgarh conveyed that few discrepancies were found in the proposal while scrutinizing, which was communicated to the MMPL. However the discrepancies are not rectified in presented proposal.
c) In view of above, the committee directed MMPL to revise the proposal and submit to DGM Chhattisgarh. The DGM Chhattisgarh may resubmit the revised proposal after ensuring that their comments are well incorporated.
d) The committee directed all State DGMs/DMGs to ensure that all the comments of States are incorporated/adhered to in the final proposal submitted to NMET.

Recommendation of TCC:

Based on above, the committee suggested MMPL to revise the proposal as per the comments given by DGM Chhattisgarh and advised DGM Chhatisgarh to submit final proposal in NMET for next TCC meeting.

Agenda- 52.1.17: Preliminary Investigation (G4) for Cr, Ba, Rb, Zr, Sr, Ce, Pb and associated REE Mineralization in Kenda, Barpali, Nagpura, Chureli, Manikpur Village Areas(75.00 sq.km.) Part of T. S. No 64J/02 of District: Bilaspur, Chhattisgarh. [Implementing Agency: DGM Chhattisgarh (M/s. Geoexpore Pvt. Ltd.)]

a) The major part of the area is occupied by Granite Gneiss of Chhotanagpur Gneissic complex of Archaean- and supracrustals of Bilaspur Raigarh Surguja (BRS) belt of Archaen to Paleoproterozoic age. The CGC comprises of muscovite bearing granite gneiss at the base, followed by Biotite gneiss, Grey biotite hornblende gneiss, and Porphyritic granite gneiss at the top. Basic dykes, quartz vein and pegmatite are intrusive within the Granite Gneisses.
b) It has been conveyed that the southwestern part of the area exposes older metamorphics rocks of Bilaspur-RaigarhSurguja (BRS) belt. The metamorphics of BRS belt comprises of quartzite at the base, followed by calc- granulite amphibolite and mica schist at the top.
c) It has also conveyed that GSI during the Field Season 2018-19 has carried out Geochemical Mapping under the National Geochemical Mapping programme on 1:50000 scale on Toposheet No. 64J/02 covering 728 Sq. Km area. A total of 218 nos. of samples were collected for chemical analyses.The recommendation of the report is follows:
    i. Concentration of significant Ba (1373 ppm), Rb (487 ppm), Zr (2385 ppm), Sr (465 ppm) and Ce (463ppm), is higher in the mapped area which requires further detailed investigation in the area.
    ii. High concentration of REE in study area over the contact zone between mica schist of BRS and granite gneiss of CGC needs further study for identifying its source and evaluate its economic potential.
    iii. The significant higher values of Cr, Sr, Ba and (Zr) in the study area may be studied in detail; as the basic and ultrabasic rocks, so this requires further detailed investigation around Barpali village, Nagpura, Nawapara and Kachalmar village in the area.
d) In view of above, the committee agreed to take up G4 stage exploration in the proposed block under the modified title as "Reconnaissance survey (G4 Stage) for REE mineralization in Kenda, Barpali, Nagpura, Chureli, Manikpur Village Areas (75.00 sq.km.) Part of T. S. No 64J/02 of District: Bilaspur, Chhattisgarh".
e) The project will be reviewed after 4 months.

Recommendation of TCC:

The committee recommended the proposal for approval of EC for "Reconnaissance survey (G4 Stage) for REE mineralization in Kenda, Barpali,

Nagpura, Chureli, Manikpur Village Areas (75.00 sq.km.) Part of T. S. No 64J/02 of District: Bilaspur, Chhattisgarh" with an estimated cost of ₹ 47.52 Lakh (including GST) in time schedule of 06 months for carrying out the proposed work and submission of report as per annexure- 9A &9B.

Agenda- 52.1.18: Reconnaissance Survey (G4 Stage) for Graphite in Nawadih Block (32.04 sq.km.), District: Balrampur,State: Chhattisgarh.
[Implementing Agency: DGM Chhattisgarh (M/s. Geoexpore Pvt. Ltd.)]

a) Geologically the proposed block falls on Graphite schist belt. Graphite-mica schist is mostly found associated with the meta sedimentaries. It is generally found in association with grey quartzite and or quartz-mica schist.
b) It has been conveyed that the presence of Graphite mineralization was also reported by GSI. Further, Graphite occurrences between Kennapara and Manikpur in Balrampur district were recorded by T.S. Radhakrishna in 1967-68. This area is situated 10km west of the proposed block.
c) UEIPL team carried out field visit to establish graphite deposition in the project block and the observation of the team are follows:
    i. Precambrian age metamorphic rocks such as Gneiss, Mica schist and Quartzite are mainly exposed. Intrusive Igneous rocks such as pegmatite vein, Quartz veins of east west trend are also recorded.
    ii. Graphite bearing mica schists noted as floats along the river beds within the prospect block.
    iii. In-situ Graphite schist deposits noted at Bhawanpur located 5km west of the proposed block.
d) The proposal was sent to GSI for their considered comments. In response to this, GSI has submitted that on plotting the block boundary co-ordinate points mentioned in the proposal and based on available data, no overlapping of proposed area observed with explored and ongoing GSI blocks.
e) In view of above, the committee agreed to take up G4 stage exploration by deploying geological mapping on 1:12500 scale, geochemical sampling, pitting and laboratory studies.
f) The project will be reviewed after 4 months.

Recommendation of TCC:

The committee recommended the proposal for approval of EC for "Reconnaissance Survey (G4 Stage) for Graphite in Nawadih Block (32.04 sq.km.), District: Balrampur,State: Chhattisgarh" with an estimated cost of ₹ 27.72 Lakh (including GST) in time schedule of 06 months for carrying out the proposed work and submission of report as per annexure- 10A &10B.

Agenda- 52.1.19: Proposal for Alternate Area for Heliborne TDEM Survey.
[Implementing Agency: GSI]

a) GSI had submitted the proposal to carry out Heliborne survey over an area of 3,354 sq km with a total of 24,595 Line Km and received the Administrative Approval and Financial Sanction from MoM on 05th January, 2023 and received the financial Sanction from NMET on 13th February, 2023.
b) It has been conveyed that AMD, Hyderabad have already carried out TDEM heliborne surveys over one of the GSI proposed area - Bijawar area (covering 731 sq. km.) in M.P. In order to avoid duplication, AMD, Hyderabad has agreed to share the data with GSI.
c) In view of above, GSI has selected an equivalent alternate area in place of the proposed survey area of Bijawar Block, M.P. The proposed areas area follows:

   i. Area 1: H3-3 (Kadri Schist Belt) to be increased from 351 Sq. km. to 682 Sq. km. New area added for 331 Sq. Km only.
   ii. Area 2: H3-2 (New area identified between Kolar and Ramgiri-Penakacherla schist belt) new area added for 400 Sq. km.

The total area of proposed alternate area is 731 Sq.km.

d) After the detailed deliberation, the committee agreed for reduction of 731 sq.km. area as the heliborne survey over the 731 sq.km. is already carried out by AMD.
e) The committee also opined that GSI has created an internal committee for finalization of 731 sq.km. area for heliborne survey and no member of other organizations has involved in that committee. Therefore, the committee suggested to submit a new proposal for the proposed area in next TCC meeting.

Recommendation of TCC:

The committee recommended reduction of 731 sq. km. area, along with the cost involved. From the approved area. GSI may submit separate proposal for identified additional area in the next TCC meeting. However some dissents have been received from some of the members.

Agenda- 52.2: Financial assistance for procurement of machinery/ equipment

Agenda- 52.2.1:Additional item for comprehensive list for the procurement of machinery/ laboratory equipment/instrument for financial assistance through NMET fund to State DGMs/DMGs.

a) NMET has formulated three scheme of financial assistance for procurement of machinery/laboratory equipment/instruments/software etc. for all State Government (DGMs/DMGs) enhancing exporation acitivites.
b) In this regard, NMET had approved 36 items for procurement related to mineral exploration acitivies. On the request of State Governments, TCC recommended

following 18 items in addition to earlier approved 36 items.

A	**Chemical Laboratory**
1	Water Analyser Kit (Ph, DO conductivity, Salinity)
2	UV Visible Spectrophotometer
3	Ph Meter
4	Conductivity Meter
5	Ion Selective Electrometer (for Fluoride)
6	Fume Hood
B	**Drilling Activities**
7	Truck Mounted Hydrostatic Rig 300m/600m/1000m
8	Casing 50%
9	Core Barrel NQ-5 & Core Barrel HQ-10
10	Tripod/Derrick with accessories
11	Tractor Mounted Rig
C	**Geophysical Activities**
12	IP Resistivity 5 K.W
13	Multi Electrode-IP resistivity (shallow depth - 3 KW)
14	Multi-Parameter Logger
15	Magnetometer
16	Gama Ray Spectrometer
17	Digital Resistivity Potential Meter (DRPM)

c) The Committee opined that due process of procurement as per extant Government of India Financial rules be followed by all the State Government in consent with the Competent authority of Department/ Administrative Ministry/ IFD, Ministry of Mines/State Financial Wing (Department).

Recommendation of TCC:

The committee recommended the additional 17 items for financial assistance for procurement of machinery/laboratory equipment/instruments/software etc. for all State Government (DGMs/DMGs)in addition to earlier approved 36 items.

Agenda- 52.3: Review of ongoing/ completed / timeline extension projects

Agenda- 52.3.1:Reconnaissance survey (G4) for Limestone in Voteranlagso area of west Karbi, District: Anglong, Assam.[Implementing Agency: DGM Assam]

a) The project titled as "Reconnaissance survey (G4) for Limestone in Voteranlagso area of west Karbi, District: Anglong, Assam" was approved in 23rd EC meeting held on 16th March, 2022 with a time period of 12 months.

b) It has been conveyed that the exploration work was initiated only in January, 2023 due

to delay in receiving the Statutory clearances and monsoon.

c) During the meeting, it has informed that DGM Assam has completed the geological mapping of 19.70 sq.km out of 25 sq. km., 200 Cubic Metre of Pitting/Trenching was assigned out of which 180 Cubic metre ((9 trenches of dimension 5mx2mx2m) has been accomplished.Further 95 number of samples were submitted for chemical analysis and the analytical results of 5 samples are received which give value of Fossiliferous Limestone, Ferruginous Limestone, Quartzitic Sandstone and Sandstone.

d) Further, DGM Assam also conveyed that work will be suspended due to monsoonand can be resumed from the month of October only. Therefore, for the completion of project, time extension upto March, 2024 is requried.

e) The committee noted the progress of the project and suggested not to collect samples from quartzitic sandstone and sandstone. Further committee also suggested to incorporate the patch of limestone lying outside the NE boundry of the proposed block, if possible.

f) In view of above committee agreed to recommend the time extension upto March, 2024.

Recommendation of TCC:

The committee noted the progress of project and suggested not to collect samples from quartzitic sandstone and sandstoneand also recommended the time extension upto March, 2024 for the project without any cost escalation.

Agenda- 52.3.2:Reconnaissance survey (G4) for Iron ore in Lengupara area, District: Goalpara, Assam. [Implementing Agency: DGM Assam]

a) The project titled as "Reconnaissance survey (G4) for Iron ore in Lengupara area, District: Goalpara, Assam" was approved in 23rd EC meeting held on 16th March, 2022 with a time period of 12 months.

b) DGM Assam conveyed that theexploration work has been started in Janauray 2023 due to delay in the Statutory clearances and monsoon.

c) During the meeting, it has informed that DGM Assam has completed the geological mapping of 45 sq.km out of 56 sq. km. Further, Geophysical magnetic survey done by 100 stations in 56 Sq.km area and the magnetic anomaly contours trending in NE-SW is observed between Lengupara and Borjhora Bazar which indicate surface and very shallow anomalous body. Similarly another magnetic anomaly is mapped in the north-western corner of the area near Nalonga village. Surface sampling and bed rock sampling are completed and point for pitting/trenching are marked.

d) DGM Assam conveyed that time extension upto March, 2024 is requried for completion of project as the work will be suspended due to monsoon and can be resumed from the month of October only.

e) The committee noted the progress of the project and recommend the time extension upto March, 2024.

Recommendation of TCC:

The committee noted the progress of project and recommended the time extension upto March, 2024 for the project without any cost escalation.

Agenda- 52.3.3: Reconnaissance survey (G4) for Sillimanite in Samelangsu area, District: Karbi-Anglong, Assam. [Implementing Agency: DGM Assam]

a) The project "Reconnaissance survey (G4) for Sillimanite in Samelangsu area, District: Karbi-Anglong, Assam" was approved in 23rd EC meeting held on 16th March, 2022 with a time period of 12 months.

b) It has been conveyed that the exploration work was initiated in January, 2023 due to delay in receiving the Statutory clearances and monsoon.

c) During the meeting, it has informed that geological mapping of 38 sq.km out of 50 sq. km., 72 Cubic Metre of Pitting/Trenching out of 200 Cubic metre, sampling of 110 no of BRS out of 370 no. of sample and 19 samples out of 25 nos of sample for petrogaraphic studies have been completed by DGM Assam. Further conveyed that the Al2O3 (%) ranges from 13% to 23%.

d) DGM Assam also conveyed that work will be suspended due to monsoon and can be resumed from the month of October only. Therefore, for the completion of project, time extension upto March, 2024 is requried.

e) The committee noted the progress of the project and agreed to recommend the time extension upto March, 2024.

Recommendation of TCC:

The committee noted the progress of project and recommended the time extension upto March, 2024 for the project without any cost escalation.

Agenda- 52.3.4: Preliminary exploration (G3) for coal in Brahmani North block (21.73 sq. km),Talcher Coalfield, District: Dhenkanal, Odisha.
[Implementing Agency: CMPDI]

a) The project "Preliminary exploration (G3) for coal in Brahmani North block (21.73 sq. km),Talcher Coalfield, District: Dhenkanal, Odisha" was recommended in 44th TCC meeting held on 25th and 26th August, 2022 and approved in 27th EC meeting held on 10th January, 2023.

b) CMPDI conveyed that the drilling & geophysical logging are to be taken through departmental resources as per sanction order. However due to Law & Order condition in the area it is proposed to outsource the drilling & geophysical logging component of the project. The other works will be carried out through in-house resources.

c) In view of above, the committee agreed to outsource the drilling & geophysical logging component of the project without any cost escalation.

Recommendation of TCC:

Keeping in view of above, the committee recommended to outsource the drilling & geophysical logging component of the project without any cost escalation.

Agenda- 52.3.5: Preliminary exploration for coal in West of Sheetaldhara block, Sohagpur Coalfield District: Anuppur, Madhya Pradesh.
[Implementing Agency: CMPDI]

a) The project "Preliminary exploration for coal in West of Sheetaldhara block, Sohagpur Coalfield District: Anuppur, Madhya Pradesh" was approved in 24th EC meeting held on 18th May, 2022.

b) CMPDI conveyed that the drilling is completed with meterage of 466.00 m out of 800.00 m as the talchir /basement occur at shallow depth. Further, The result of sample analysis is awaited. The schedule time of project completion is 03/06/2023 and as the analysis is awaited, the time extension of 2 months is required for completion of the project.

c) In view of above, the committee opined that the project has 2 month yet to complete. Therefore suggested to resubmit the project for time extension after two months, if necessary.

Recommendation of TCC:

Keeping in view of above, the committee suggested to resubmit the project for time extension after two months, if necessary.

Agenda- 52.3.6: Preliminary exploration for coal in North of Labji Pusla Block, Sonhat Coalfiled, District: Korea, Chhattisgarh.
[Implementing Agency: CMPDI]

a) The project "Preliminary exploration for coal in North of Labji Pusla Block, Sonhat Coalfiled, District: Korea, Chhattisgarh" was approved in 24th EC meeting held on 18th May, 2022.

b) CMPDI conveyed that the drilling and geophysical studieshave been completed and the result of sample analysis is awaited. The schedule time of project completion is 03/06/2023 and as the analysis is awaited, the time extension of 2 months is required for completion of the project.

c) The committee opined that the project has 2 month for completion of project. Therefore suggested to resubmit the project for time extension after two months, if necessary.

Recommendation of TCC:

Keeping in view of above, the committee suggested to resubmit the project for time extension after two months, if necessary.

Agenda- 52.3.7: Preliminary exploration (G3) for bauxite in Maduapat-1 block, District: Lohardaga, Jharkhand.
[Implementing Agency: CMPDI]

a) The TCC committee in its 50th meeting agreed for the analysis of 20 additional samples (trace elements) with cost of 1,54,620/- in Maduapat-1 block from NML.
b) CMPDI conveyed that rate of NML for sample is 11,600/- and for completion of project time extension of 3 months is required.
c) The committee suggested to analyse 10 samples from MECL and 10 sample from GSI, SR and agreed for time extension of 2 months.

Recommendation of TCC:

The committee recommended the time extension of two months and suggested to analysed 10 samples from MECL and 10 samples from GSI, SR.

Agenda- 52.3.8: Reconnaissance Survey for Tungsten, Tin and Basemetals in Datia-Bijapur Block (152.33 sq. km) in Datia & Shivpuri Districts, Madhya Pradesh.
[Implementing Agency: MECL]

Agenda- 52.3.9: Reconnaissance Survey for Tungsten, Tin and Rare Metals in Govindpur Block (82.45 sq. km) in Datia District, Madhya Pradesh.
[Implementing Agency: MECL]

Recommendation of TCC:

MECL requested to postpone the review of projects at para 52.3.8 & 52.3.9 as they are yet to received the result of chemical analysis.

Agenda- 52.3.10: Preliminary Exploration (G-3 stage) for Graphite and Manganese in Salepali Block (12.19 sq. km) in Balangir District, Odisha.
[Implementing Agency: MECL]

a) The proposed project "Preliminary Exploration (G-3 stage) for Graphite and Manganese in Salepali Block (12.19 sq. km) in Balangir District, Odisha" was recommended in the 42nd TCC and approved in the 26th EC of NMET.
b) MECL conveyed that tenching of 141.64 cu m (1m x 2m x150m) and drilling of 123m in 2 bhs have been completed. As per the analysis received from 42 sample, zone – I and

zone- IV are identified as promising zone.

c) In view of above, the committee opined to drill 3 more boreholes to know the the 3-dimensional disposition of the mineralisation.

Recommendation of TCC:

The committee noted the outcome of the project and suggested to drill 3 bhs to know the 3 dimensional disposition of the mineralisation

Agenda- 52.3.11: Reconnaissance Survey for Copper in Chalima Block (101.84 sq. km) in Giridih District, Jharkhand
[Implementing Agency: MECL]

a) The 34th TCC, NMET had recommended the G-4 proposal for "Reconnaissance survey for copper in Chalima Block (101.84 sq. km) in Giridih District, Jharkhand" and approved in 22nd EC meeting held in the month of Dec 2022.

b) MECL conveyed that the field work is started in the month of Feb 2022, Collection of sample and mapping was completed in the month of May 2022 and trenching was carried out in the month of February 2023, upon receiving the analytical results the proposal is submitted for review.

c) It has also conveyed that on the basis of the outcome of large scale mapping, geochemical sample analysis and trenching, three potential area have been identified. Accordingly, the exploratory drilling i.e scout drilling of 5 nos bhs are proposed ,3 in potential area 1 & 01 each in potential area 2 and 3 with associated chemical analytical work request for extension of timeline for submission of Geological report for 5 months. i.e uptil October 2023.

d) After the detailed deliberation, the comitee suggested to drill 5 bhsie. 3 bhs in area-1, 1 bhs in area-2 & 1 bh in area-3 at 30m vertical depth of intersection with the 310 m meterage and also agree for the time extension of 5 months i e upto October, 2023.

Recommendation of TCC:

The committee recommended for time extension of 5 months i.e. upto October, 2023 and also suggested to dill 5 bhs with 310m meterge in three potential areas.

Agenda- 52.3.12: Detailed Exploration (G-1 stage) for Lignite in Veeranam Sub Block-IV in Cuddalore District, Tamil Nadu
[Implementing Agency: MECL]

a) The project "Detailed Exploration (G-1 stage) for Lignite in Veeranam Sub Blocks (Veeranam-I ,II, III & IV) in Cuddalore District, Tamil Nadu" was approved in 4th EC meeting. Further, the Veeranam block –I, II and III are completed.

b) MECL conveyed that the exploration work commence on 22nd January , 2021. MECL has

completed 125 bhs and 01 bhs is temporary suspended due to local law & order problem.

c) Further, MECL conveyed that they are trying to resolve the issue and required 3 months time extension for completion of project and submission of geological report.

d) In view of above, the committee agreed to give 3 months time extension for completion of work and submission of geological report as no further time extension will be granted.

Recommendation of TCC:

The committee recommended for time extension of 3 months i.e. upto , July 2023 for completion of work and submission of geological report as no further time extension will be granted.

Agenda- 52.3.13: Preliminary Exploration (G-3 stage) for Copper ore in Dhanota Block, Southern Khetri Copper Belt, Jhunjhunu District, Rajasthan.
[Implementing Agency: MECL]

a) The project "Preliminary Exploration (G-3 stage) for Copper ore in Dhanota Block, Southern Khetri Copper Belt, Jhunjhunu District, Rajasthan" was recommended in 29th meeting of TCC held on 11th and 12th March 2021 and approved in 22nd meeting of EC held on 22nd December 2021.

b) MECL conveyed that during the 47th TCC meeting it was verbally communicated to drill 2 nos. of Conditional Bhs. With additional drilling of 205m. In this regard, MECL, further communicated that additional amount of 30,22,254/- is required and also requested for additional time line to complete the exploration work including submission of GR is six months i.e. 23.07.2023.

c) After the detailed deliberation, the committee considering that the block has potential value therefore agreed for the additional amount of 30,22,254/- and recommend the time extension for 6 months i.e. upto 23.07.2023.

Recommendation of TCC:

The committee noted the outcome of the project and recommend the additional cost of ₹ 30,22,254/-(annexed at annexure- 11) with the time extension of 6 months i.e. upto 23.07.2023.

Agenda- 52.3.14: Preliminary Exploration (G-3 stage) for Copper in Thakurdih-Charakmara Block in East Singhbhum District, Jharkhand.
[Implementing Agency: MECL]

a) The project "Preliminary Exploration (G-3 stage) for Copper in Thakurdih-Charakmara Block in East Singhbhum District, Jharkhand" was recommended in 36th TCC meeting and approved by 23th EC with an estimated cost of 388.59 lakh within time period of 12 months.

b) Further in 46th TCC meeting, the committee suggested to drill 3 nos of boreholes for second level with vertical depth of 120m and 3 bhs for first level on area 1 and 3 up to vertical depth of 60m.
c) MECL conveyed that drilling of 3 second level boreholes of Charakmara Area involving 540m and2 first Level boreholes of Area-1 involving 176m have been completed and permission is required to drill 1 Bh at proposed location Point PB-6 of Area-3.
d) Further it has been conveyed that additional cost for BH Fixation, Land/ Crop Compensation and Construction of concrete Pillar for 2 Additional Boreholes is required since only 10 no. of BH was approved in 36th TCC, 60 no. of additional primary samples required and also requested for additional time line required to complete the exploration work including submission of GR in six months i.e. October 2023.
e) After the detailed deliberation, the committee opined that for 2 bhs, the additional 50 nos. of sample is required and agreed for the time extension of 6 months i.e. upto October, 2023.

Recommendation of TCC:

The committee recommended for additional 2 bhs and 50 nos of sample with the estimated cost of ₹ 3.10 Lakh detail annexed at annexure -12 and time extension of 6 months i.e. upto October, 2023.

Agenda- 52.3.15: Preliminary Exploration (G-3 stage) for Limestone in Periyakurichi Block (1.88 sq. km) in Ariyalur District, Tamil Nadu.
[Implementing Agency: MECL]

a) MECL conveyed that the report has been submitted to the peer reviewer and they are yet to receive the comments. Therefore, time extension of 2 months is required for submission of geological report.
b) The committee agreed for time extension of 2 months i.e. upto 30/6/2023.

Recommendation of TCC:

The committee recommended for time extension of 2months i.e. upto June, 2023 without any cost escalation.

Agenda- 52.3.16: Preliminary Exploration (G3 stage) for Potash in Bharusari North Block (10 sq. km.), Northwestern Part of Rajasthan, District: Hanumangarh, Rajasthan
[Implementing Agency: MECL]

a) The project Preliminary Exploration (G3 stage) for Potash in Bharusari North Block (10 sq. km.), Northwestern Part of Rajasthan, District: Hanumangarh, Rajasthan, approved in 29th EC held on 31st March, 2023 with an estimated cost of ₹739.70 lakh and timeline less than 6 month.
b) MECL conveyed that to meet the timeline five no. of drilling rig is needed to accomplish

the drilling with astipulated time i.e. within 3 months.

c) MECL also proposed Neutron probe for borehole geophysical logging of 3500m. to identify hydrous and anhydrous phases of halite zones.
d) MECL further convey that the additional cost of ₹57,36,323 is required to meet the timeline.
e) In view of above the committee agreed to provide the additional cost of ₹57,36,323/- however committee also informed MECL that if work is not completed within the schedule time than the additional amount of ₹ 57,36,323/- will be deducted.

Recommendation of TCC:

The committee recommended the additional cost of ₹ 57,36,323 (annexed at annexure-13)with the instruction that the additional amout will be deducted if not completed in schedule time.

Agenda- 52.4.: The meeting ended with vote of thanks by Director, GSI and Member Secretary, TCC, NMET.

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List of TCC members attended 52nd Technical-cum-Cost Committee (TCC) meeting of NMET held on 27th and 28th April, 2023 in hybrid mode at DGCO, GSI New Delhi

(P. K. Maharana)
DGM (Finance), NALCO
Member, TCC, NMET

Attended via VC

(R.K. Gupta)
DGM (Finance), HCL
Member, TCC, NMET

Attended via VC

(Vinay Pal)
Cost Account Officer, GSI
Member, TCC, NMET

Attended via VC

29.4.23

(Dr. Anjani Kumar)
DGM (Exploration) & HOD-Planning (Retd.), MECL
Member, TCC, NMET

(Naeem Ahmad)
GM (Exploration) (Retd.)
CMPDI Ltd.
Member, TCC, NMET

28/04/2023

(Ranjan Kumar Sinha)
Controller General (Retd.)
Indian Bureau of Mines
Member, TCC, NMET

28/4/2023

(Hemraj Suryavanshi)
Addl. Director General (Retd.)
Geological Survey of India
Member, TCC, NMET

(S.K. Adhikari)
Chief Mining Geologist
Indian Bureau of Mines
Member, TCC, NMET

28/04/23

(M.K. Patel))
Dy. Director General (G)
Geological Survey of India
Member, TCC, NMET

Attended via VC

(K.L. Mundra)
Head, RMRE
Department of Atomic Energy
Member, TCC, NMET

(V.K. Sharma)
Director, NMET
Ministry of Mines
Member, TCC, NMET

28/04/23

(Suresh Chandra)
Director (G)
Geological Survey of India
Member, TCC, NMET

28/4/23

(Janardhan Prasad)
Addl. Director General & HoD, SR.
GSI and Chairman, TCC, NMET

30/5/23

ANNEXURE 1

List of participants attended 52nd Technical-cum-Cost Committee (TCC) meeting of NMET held on 27th & 28th April, 2023 in hybrid mode, DGCO, GSI, New Delhi.

S.No.	Name/Designation	Email ID	Contact No	Organization
1.	ShriJanardan Prasad ADG &HoD, GSI	janardan.prasad@gsi.gov.in	7763800788	Chairman, TCC
2.	Shri Ranjan Kumar Sinha Controller General (Retd.) IBM	sinhark57@rediffmail.com	9421777637	Member, TCC
3.	Shri HemrajSuryavanshi ADG (Retd.), GSI	hemrajgsi@gmaiLcom	7477042176	Member, TCC
4.	Shri Manoj Kumar Patel DDG and RMH-II, GSI	m.patel1@gsi.gov.in	9040011231	Member, TCC
5.	Shri S.K Adhikari Chief Mining Geologist,	skadhikari@ibm.gov.in	7588690545	Member, TCC
6.	Dr. Anjani Kumar DGM (Retd.), MECL	anjanikumar1 957.ak@gmaiLcom	9975350576	Member, TCC
7.	Shri. Naeem Ahmed GM (Retd.), CMPDI	ahmadnaeem17@yahoo.co.in	8588092153	Member, TCC
8.	Shri K.L. Mundra, Head RMRE, AMD	headrmre.amd@gov.in	9414785663	Member, TCC
9.	Shri R.K. Gupta, GM(Finance), HCL	ravi_g@hindustancopper.com	9433274328	Member, TCC
10.	Shri Vinay Pal, Cost Account Officer, GSI	Vinay.pal@gsi.gov.in	8527368161	Member, TCC
11.	Shri Suresh Chander Director, GSI	suresh.chander@gsi.gov.in	9493860963	Member Secretary,
12.	Dr. Deshraj Trivedi Senior Geologist	tcc-nmet@gov.in	9419244294	TCC-NMET
13.	Shri R. P. Singh, Manager (Geology)	gm.exploration.cmpdil@gmail.com	8987789047	CMPDI
14.	Shri Saurabh Singh, Sr. Manager	Saurabh.singh@coalindia.in	9329026041	CMPDI
15.	Shri P. Ravindran, DGM (Exploration)	gm-exploration@mecl.co.in	7907649392	MECL
16.	Shrikant Sharma, Sr. Manager	shrikantsharma@mecl.gov.in	9131229758	MECL
17.	Shri Naveen Kumar Pala, Manager (Geology)	naveenpala.mecl@gmail.com	7738368657	MECL
18.	ShriSwarupDhara, Manager (Geology)	swarupdhara@gmail.com	9630307282	MECL
19.	Shri Vijay Kumar Ojha	jemcl2021@gmail.com	9572848488	JEMCL
20.	Shri Tasser Talar, Director	dgmarunachal@gmail.com	8131924291	DGM Arunachal Pradesh
21.	Dr. R. K. Mrinalinee Devi, Mining Consultant	mrinalineerk@rediffmail.com	8486677967	DGM Arunachal Pradesh
22.	Shri K.P. Dinkar, Joint	geology.dgm@mp.gov.in	9424701075	DGM MP

	Director			
23.	Smt. BornaleeNath, Joint Director(Geology)	dgmassam@gmail.com	9435104508	DGM Assam
24.	Shri S.K. Kankane, Joint Director	dgm.cg@gov.in	9826753151	DGM Chhattisgarh
25.	P R Rao, Director Geophysics	ddggp.rsas@gsi.gov.in	9292252894	GSI
26.	Shri H Rajaram, Director(Geophysics)	ddggp.rsas@gsi.gov.in	-	GSI
27.	Shri SubrataSarkar	subrata.sarkar@gemcokati.com	7044208900	Gemcokati Exploration Pvt. Ltd.
28.	Shri Naveen Kumar, Geologist	geology@gemcokati.com	8059524608	Naveen Kumar, Geologist
29.	Dr. YerriswamyPateel, Director	ypateel@geoexpore.com	9980118930	GeoExpore Pvt. Ltd.
30.	Dr. Farreddudin, Advisor for Geology	fareedromani@gmail.com	9958200604	GeoExpore Pvt. Ltd.
31.	Shri Joydeep Banerjee, Director	jbanerjee@unitedexploration.co.in;	9880436056	United Exploration India Pvt. Ltd.
32.	Dr. Sukhen Majumder, Chief Consultant	-	8637503399	United Exploration India Pvt. Ltd.
33.	Dr. Sigme Durivedy, Sr. Consultant	-	7377944946	United Exploration India Pvt. Ltd.
34.	Ms. Anusrita Thakur, Deputy Manager-Geology	anu.thakur@maheshwaree.com	8637329784	Maheshwari Mining Pvt. Ltd.
35.	Shri Tufan Bhawmik-Geologist	-	-	Maheshwari Mining Pvt. Ltd.
36.	Shri Saswat Subedit-Geologist	-	-	Maheshwari Mining Pvt. Ltd.
37.	Shri Priyanka Gandhi- Jr. Geologist	-	-	Maheshwari Mining Pvt. Ltd.
38.	Smt. Anju C. S Senior Geologist	nmet.mines@gov.in	8588836933	NMET
39.	Smt. Ujjwala Sharma Senior Geologist	nmet.mines@gov.in	8957806004	NMET
40.	Shri Sunil Kumar Admin. Officer	nmet.mines@gov.in	9987808925	NMET

Annexure-2A

Project Cost Estimate for Preliminary Exploration (G3) for Magnetite and associated minerals in Pipradih area, Giridih District, Jharkhand							
Sl. No	Item Work	Item no in Soc	Unit	Rates as per SoC of NMET	Qty.	Amount (Rs)	Remarks
1 - Outsourse Component							
A	DRILLING						
i	Core Drilling	2.2.1.4 a	m	11500	400	4600000	
ii	Approach Road Making	2.2.10b	Per Km	22020	2	44040	Road Making will be considered as per the requirement and Road Making Charges will be reimbursed for max. 2 km.
iii	Borehole Pilliaring	2.2.7a	Per Bh	2000	8	16000	
iv	Land Crop Compensation	5.6	Per Bh	20000	8	160000	Amount will be reimburse as per actuals or max. Rs. 20000 per BH with certification from local authorities
TOTAL - A						4820040	

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B	**Laboratory Studies**						
I	***Chemical Analysis/ ICPS Studies***						
a	***BRS Samples***						
i	Primary Sample for XRF	4.1.15a	per sample	4200	250	1050000	
ii	Internal (5%) & External (10%) Check samples of 5 radicals	4.1.7a	per sample	2506	38	95228	
	Sub Total (a)					**1145228**	
b	***Physical & Petrological Studies***						
i	Preparation of thin section	4.3.1	per sample	2353	5	11765	
ii	Complete Petrographic studies	4.3.4	per sample	4232	5	21160	
iii	Preparation of polished section	4.3.2	per sample	1549	5	7745	
vii	Specific Gravity Determination	4.8.1	per sample	1605	5	8025	
	Sub Total (b)					**48695**	
	TOTAL - B					**1193923**	
							Reimbursement of outsource component will be made as per Para 3 of NMET-SoC
TOTAL-1 OUTSOURCED COMPONENT (A+B)						**6013963**	
2. In-House Component							
A	**GEOLOGICAL WORK**						
i	Geological Party days (1 party) Field	1.2 b	Day	11000	120	1320000	

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ii	Geological Party days (1 party)HQ	1.2 a	Day	9000	60	540000	
iii	2 labours/ party (Rs 494/day/labour),	5.7	Day	494	120	59280	Amount will be reimburse as per the notified rates by the Central Labour Commission or respective State Govt., whichever is higher
	Sub Total A					**1919280**	
B	**GEOPHYSICAL STUDIES**						
i	Magnetic Survey	3.2a		72000	30	2160000	Magnetic Survey considering 40 points in a line km . Rate is Rs. 1800 per staion , Thus, the Rate of 1 Lkm is Rs.72, 000/-
	Sub Total B					**2160000**	
C	**SAMPLING**						
i	Sampling - 1 sampler without Labour	1.5.2	Day	5100	32	163200	
ii	4 labours/ party (Rs 494/day/labour,	5.7	Day	494	128	63232	Amount will be reimburse as per the notified rates by the Central Labour Commission or respective State Govt., whichever is higher
	Sub Total C					**226432**	

D	**SURVEY WORK**						
i	Survey Party days (1 party) without Labour for contouring of mineralized zone	1.6.1a	Day	8300	30	249000	
ii	4 labours/ party (Rs 494/day/labour), As per rates of Central labour Commission	5.7	Day	494	120	59280	Amount will be reimburse as per the notified rates by the Central Labour Commission or respective State Govt., whichever is higher
iii	DGPS Survey of Boreholes	1.6.2	per point	19200	12	230400	
	Sub Total D					**538680**	
D	**Trenching**						
i	Trenching	2.1.1	Cu. m	3330	50	166500	
	Sub Total D					**166500**	
TOTAL- 2 IN-HOUSE COMPONENT (A to D)						**5010892**	
Total Cost of Outsourced and In-House Component (1 + 2)						**11024855**	
3. Miscellaneous Charges							

i	Preparation of Exploration Proposal	5.1		2% of approved Project cost subject to Maximu m of 5 Lakh which ever is lower	5 Nos. Hard Copies along with soft copy	220497	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.
ii	Peer review			10000	1	10000	
iii	Tendering Process cost for Outsourced component	2.3		2% of cost or 5 lakh which ever is lower	1	96401	will be reimbursed when copy of the signed agreement/tender for outsoure component will be submitted.
iv	Operational charges for outsourced component	Point 3 (i)of SoC and item 6.0 (i)				576047	will be reimbursed as per point 3 of NMET-SoC after recalculation when actual cost of outsourcing component will be be provided. The copy of contract agreement for outsourced component and

							work completion report are also required to reimburse the operational charge.
v	**Geological Report preparation**	5.2		For the projects exceeding Rs. 50 Lakhs but less than 150 Lakhs: A Minimum of Rs. 2.5 lakhs or 5% of the work whichever is more	5 Nos. Hard Copies along with soft copy	551243	EA has to submit the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
TOTAL - 3 Miscellaneous Charges						**1454188**	
4 - Total Cost of the project without GST (1 + 2 + 3)						**12479043**	
	Provision for GST (@18%)					2246228	GST will be reimburse as per actual and as per notified prescribed rate
5- Total Cost of the project with GST						**14725270**	
					or say Rs.	***147.25***	***Lakh***

Note - 1. If any part, mentioned in the in-house component is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC.

2. For in-house component of the project , a Certifiate from the NEA regarding non outsourcing of any component/project is required.

3. In no case, the sum of outsourced cost and operational charges should exceed the cost as per SoC rates of the total outsourced component(s).

Annexure-2B

Estimated Time Schedule for Preliminary Exploration Survey (G3 Stage) for Magnetite and associated Minerals in Pipradih Area (7.00 sq.km), Giridih District , Jharkhand

S. No	Activities	Months	1	2	3	4		5	6	7	8
1	Mobilising	Months	↔								
2	Geophysist Party days, Field (1 Party)			↔							
3	Geologist Party days, Field (1 Party)	Days		<---------->							
4	Survey Party days (1 Party)	Days				↔					
5	Sampling (1Party)	Days			<----->		Review				
6	Laboratory Studies	Nos.						<---------->			
7	Geologist Party days, HQ (1 Party)	Days									↔
8	Geophysist Party days, HQ (1 Party)										↔
9	Report Writing & Peer Review	Months									<----->

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Annexure-3A

Estimated Cost forG-3 Preliminary Exploration (G-3) for Limestone in Pipariya-Nayakheda Block and Simariyakalan-Baheriya Block (10 Sq. Km.), District: Narasingpur, Madhya Pradesh

S.N	Item of Work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Remarks
			SoC-Item -Sl No.	Rates as per SoC	Qty.	Total Amount (Rs)	
A	GEOLOGICAL WORK						
1	**Mapping (1:4000), Borhole logging & Sampling & Report writing**						
a	Charges for one Geologist per day at HQ	day	1.3 a	9,000	60	5,40,000	
b	Charges for one Geologist per day at field	day	1.3 b	11,000	120	13,20,000	
c	Labour for Geologist (2 Nos)	day	5.7	477	240	1,14,480	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
d	Charges for one Sampler per day (1 Party)	one sampler per day	1.5.2	5,100	34	1,73,400	

e	Labours for sampling work (4 Nos)	day	5.7	477	135	64,395	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
2	Survey (on 1:4000 Scale)						
a	Bore Hole Fixation and determination of co-ordinates & Reduced Level of the boreholes and block cardinal points by DGPS	Per Point of observation	1.6.2	19,200	12	2,30,400	Block cardinal point- 4 Borehole- 8, base station- 0
b	Charges of one Surveyor (1 Party)	one surveyor per day	1.6.1a	8,300	30	2,49,000	Contouring at 2m interval
c	Labours (4 Nos)	day	5.7	477	120	57,240	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
	Sub-Total A					**27,48,915**	
B	**DRILLING**						
1	Drilling -Soft rock	m	2.2.1.1b	6,775	600	40,65,000	Copy of MoC approved Rate is required to support Drilling Rate
2	Land / Crop Compansation (in case the BH falls in agreecultural Land)	per BH	5.6	20,000	8	1,60,000	Amount will be reimburse as per actuals or max. Rs. 20000 per BH with

							certification from local authorities
3	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	8	16,000	
4	Transportation of Drill Rig & Truck associated per drill	per Km	2.2.8	36	600	21,600	Certification in this regard is required to be provided
5	Monthly Accomodation Charges for drilling Camp (up to 1 Rigs)	month	2.2.9	50,000	3	1,50,000	As per actual basis or max. Rs. 50000/- per month, whichever is less
6	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	1	2,50,000	
7	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	1	2,50,000	
8	Road Making (Flat Terrain)	Km	2.2.10a	22,020	4	88,080	Road Making will be considered as per the requirement and Road Making Charges will be reimbursed for max. 4 km.
9	Drill Core Preservation	per m	5.3	1,590	70	1,11,300	This amount will be reimbursed after successful delivery of the cores to concerned libraries/authorities
	Sub Total B					**51,11,980**	
C	**LABORATORY STUDIES**						
1	**Chemical Analysis**						
i)	**Primary samples**						

	a. For 9 radicals i.e. CaO, MgO, Al2O3, SiO2, Fe2O3, SO3, P2O5, K2O and LOI by XRF	Nos	4.1.15a	4,200	270	11,34,000	BRS:20 & Core sample:250
ii)	**Check samples Internal (5%) and External(10%)**						
	a. For 9 radicals i.e. CaO, MgO, Al2O3, SiO2, Fe2O3, SO3, P2O5, K2O and LOI by XRF	Nos	4.1.15a	4,200	41	1,72,200	
iv)	**Petrological samples (Bh Core Samples)**						
i	Preparation of thin section	Nos	4.3.1	2,353	5	11,765	
ii	Study of Thin Section	Nos	4.3.4	4,232	5	21,160	
v)	**Bulk Density Determination**						
	Bulk Density	No.	4.1	3,540	5	17,700	
	Total - C					**13,56,825**	
D	**Sub Total (A + B + C)**					**92,17,720**	
E	Preparation of Exploration Proposal (5 Hard copies with a soft copy)	5 Hard copies with a soft copy	5.1	2% of approved Project cost subject to Maximum of 5 Lakh which ever is lower		1,84,354	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.
F	Peer review Charges		As per EC decision			10,000	

G	Geological Report Preparation		5.2	For the projects exceeding Rs. 50 Lakhs but less than 150 Lakhs: A Minimum of Rs. 2.5 lakhs or 5% of the work whichever is more		4,60,886	EA has to submit the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
H	**Sub Total (D + E + F+G)**					**98,72,960**	
I	**Total Estimated Cost without GST**					**98,72,960**	
J	**Provision for GST @ 18%**					**17,77,133**	GST will be reimburse as per actual and as per notified prescribed rate
K	**Total Estimated Cost with GST**					**1,16,50,093**	
				or Say Rs. in Lakhs		***116.50***	

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. In case of execusion of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.

Annexure-3B

Time schedule/action plan for Preliminary Exploration (G-3) for Limestone in Pipariya-Nayakheda Block and Simariyakalan-Baheriya Block (10 Sq. Km.), District: Narasingpur, Madhya Pradesh

Sl. No.	Activities	Unit	MONTHS								
			1	2	3	4		5	6	7	8
1	Camp Setting	Month									
2	Surface Drilling (1 rig)	m.									
3	Survey Party days (1 Party)	day									
4	Geologist Party days in field (1 Party)	day									
5	Sampling Party days, Core Sampling (1 party)	day					REVIEW				
6	Laboratory Studies	Nos.									
7	Camp Winding	Month									
8	Geologist Party days in HQ (1 Party)	day									
9	Geological Report Writing with Peer Review	Month									

Note: 1. Commencement of project may be reckoned from the day the exploration acreage is available along with all statutory clearances.

2. Time loss on account of monsoon/agricultural activity/forest clearance/local law & order problem may be additional to above time line.

Annexure-4A

Estimated Cost Sheet for Preliminary Exploration (G-3) for Gemstones in Neelam Khan Area, Kishtwar District, Jammu & Kashmir Total Area - 5.0 Sq. km; Completion Time - 36 Months								
Sl. No.	Item of Work	Unit	Rates as per NMET SoC 2020-21			Estimated Cost of the Proposal		Remarks
			SoC-Item-S. No.	Rates as per SoC	Rates for exploration in North East States and Hilly Terrain of Himalaya (3.35 times higher than the normal SoC rate for filed activities) as per Para 5 of NMET SoC	Qty.	Total Amount (Rs)	
Phase-I								
INHOUSE COMPONENTS								
1	Geological, Sampling & Survey Days							
	Large scale (LSM/DM) Geological mapping/ Detailed Mapping/ Trenching						-	
1.1	Geologist man days (Field)	days	1.2	11,000	36,850	450	1,65,82,500	
1.2	Labour Charges for Mapping work Rs. 477/ per day	per worker	5.7	477	1,598	3600	57,52,620	Amount will be reimburse as per the notified rates by the Central Labour Commission or respective State Govt. - whichever is

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								higher
1.3	Geologist man days (HQ) for hand picking and report writing	days	1.3	9,000	9,000	100	9,00,000	
1.4	Sampling Charges (Geochemical /Trenching/Pitting/Drilling)	day	1.5.2	5,100	17,085	60	10,25,100	
1.5	Labour Charges for Sampling Work Rs. 477/ per day	day	5.7	477	1,598	240	3,83,508	Amount will be reimburse as per the notified rates by the Central Labour Commission or respective State Govt. - whichever is higher
1.6	Surveyor Charges	days	1.6.1. a	8,300	27,805	90	25,02,450	Modification will be done after the review of the work
1.7	Labours Charges for Survey Work Base rate - Rs. 479/ per day	per worke r	5.7	477	1,598	360	5,75,262	Amount will be reimburse as per the notified rates by the Central Labour Commission or respective State Govt. - whichever is higher
	Sub-Total 1						**2,77,21,440**	
2	**Mineral Investigation**							
2.1	Trenching/Pitting*							
	a) Excavation of trenches/pits	per cu m	2.1.1	3,330	11,156	400	44,62,200	

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	Sub-Total 2						**44,62,200**	
3	**Laboratory Studies**							
3.1	**Petrological / Mineralographic studies**						-	
	a) Preparation of thin section (Surface & BH)	per sample	4.3.1	2,353	2,353	10	23,530	
	b) Study of thin section for petrography	per sample	4.3.4	4,232	4,232	10	42,320	
	c) Digital photomicrograph of thin section	per sample	4.3.7	280	280	10	2,800	
3.2	XRD studies	per sample	4.5.1	4,000	4,000	10	40,000	
3.3	**i) Bed Rock Samples/Channel Samples**							
	a. Separation of heavy minerals from rock samples of - 2mm size through gravity and magnetic separation	per sample	4.3.6b	13,820	13,820	100	13,82,000	
3.4	**ii) Stream Sample**							
	a. Separation of heavy minerals from stream sediment samples of - 2mm size through gravity and magnetic separation	per sample	4.3.6b	13,820	13,820	50	6,91,000	

3.5	ICPMS	per sample	4.1.14	7,731	7,731	10	77,310	
3.6	XRD studies	per sample	4.5.1	4,000	4,000	10	40,000	
3.7	Gemological Study	per sample	4.3.13	1,820	1,820	50	91,000	
	Sub-Total 3						**23,89,960**	
4	**Total (Sub Total - 1 to 3)**						**3,45,73,600**	
5	**Preparation of Exploration Proposal**	**Nos**	**5.1**	2% of project cost max. upto 5 lakhs		**1**	**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.
6	**Report Peer Review Charges**	**lump sum**	**As per EC decision**	**10000**		**1**	**10,000**	
7	**Geological Report Preparation**	Nos	5.2	For the projects exceeding Rs. 300 Lakhs :A Minimum of Rs. 9.0 lakhs or 3% of the work which ever more or maximum 20 lakhs		1	**10,37,208**	EA has to submit the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
9	**Total Estimated Cost without GST (4+5+6+7)**						**3,61,20,808**	

10	Provision for GST @ 18%						65,01,745.44	GST will be reimburse as per actual and as per notified prescribed rate
11	Total Estimated Cost with GST						4,26,22,553	
	or Say, Rs. in Lakhs						426.23	
Phase-II								
12	**Mining engineer (Supervisor level) man days (Field) (1nos.)**	days	1	11.000		150	16,50,000	**Phase-II: These are the rates/cost submitted by the MECL for the different items of work & services specified in columns (Sl. No.12 to 14). No rate has been specified for restoration & development of adit/drive & services mentioned in the above columns in the schedule of charges (SoC). As such the committee is constrained to arrive/verify the cost component submitted by MECL.**
13 .1	**Adit/crosscut/drive/decline restoration & development**	m		5,42,606		300	16,27,81,860	
13 .2	**Adit/crosscut/drive/decline development**	m		7,32,518		350	25,63,81,195	
14.1	Transportation Cost in Himalayan terrain (Manual/Mules) . for camp setting and geological work	lumpsum					**15,00,000**	
14.2	Transportation Cost in Himalayan terrain (Manual/Mules) . for exploratory mining machinaries, mucking and accessory set up etc.	lumpsum					**40,00,000**	

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14.3	Water transportation cost for exploratory mining activity from nearest water source	lumpsum					15,00,000	
Following Costs are not allowed as no outsourced component is mentioned in cost-sheet -								
	Tender processing cost	One time	2.3				5,00,000	
7	**Operational Charges**		6.0(iii)				15,00,000	
	1. 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 EA on its own, a Certificate regarding non outsourcing of any component/project is required.							
	2. The field execution cost like preparation of adit/crosscut/drive and transportation is highly variable as the block is very remote and actual cost is is highly variable.							
	3. DGMS certificate requires for Adit reclamation and progressive development							
	4. Block can be taken on promotional basis							
	5. Construction of road from Gulabgarh to Machail to Sumchum will be under taken by Public Work (R&B) Department, J&K.							

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Annexure-4B

Table - II: Tentative Time schedule / Action plan of Preliminary Exploration (G-3) for Gemstones in Neelam Khan Area, Kishtwar District, Jammu & Kashmir

S.No.	Activities	MONTHS																															
			Field Working window at Paddar area			Non_Working duration at Neelam Khan Area							Field Working window at Neelam Khan area				Non_Working duration at Neelam Khan area						Field Working window at Neelam Khan area				Non_Working duration at Neelam Khan area						
			Phase-I																	Phase-II														
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1	Camp setting																																				
2	Geological mapping & Sampling																																				
3	Sample preparation (BRS/Channel//Scree/Pitting samples)																																				
4	Analytical work																																				
5	Exploratory mining																																				
6	Sample preparation (Channel/BRS/Scree/Pitting samples)																																				
7	Analytical work																																				
8	Camp winding																																				
9	Geologist at HQ																																				
10	Geological report																																				
11	Peer Review																																				

REVIEW

* Commencement of project will be reckoned from the day the exploration acreage is available along with all statutory clearances

*Time loss on account of monsoon/forest clearance/ local law & order problems will be addition to above time line.

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Annexure-5A

Estimated Cost forReconnaissance Survey (G4 Stage) for Limestone and Dolomite in and Around Menga Area (26 sq.km.) of Upper Subansiri District of Arunachal Pradesh

S.N	Item of Work	Unit	Rates as per NMET SoC 2020-21			Estimated Cost of the Proposal		Remarks
			SoC-Item -Sl No.	Rates as per SoC	Rates for exploration in North East States and Hilly Terrain of Himalaya (3.35 times higher than the normal SoC rate for filed activities) as per Para 5 of NMET SoC	Qty.	Total Amount (Rs)	
1 - Outsourse Component								
A	DRILLING (outsourced)							
i	Drilling -Soft rock (as per MoC rate)	m	2.2.1.1b	6,775	22,696	250	56,74,063	Copy of MoC approved Rate is required
ii	Land / Crop Compansation (in case the BH falls in agreecultural Land)	per BH	5.6	20,000	67,000	5	3,35,000	Amount will be reimburse as per actuals or max. Rs. 20000 per BH with certification from local authorities

iii	Drill Core Preservation	per m	5.3	1,590	5,327	50	2,66,325	This amount will be reimbursed after successful delivery of the cores to concerned libraries/authorities
	Sub Total - 1						**62,75,388**	**Reimbursement of outsource component will be made as per** Para 3 of NMET-SoC
2. In-House Component								
A	**GEOLOGICAL WORK**							
Geological Mapping (1:12,5000)								
a	Charges for one Geologist per day at HQ	day	1.2 a	9,000	9,000	60	5,40,000	
b	Charges for one Geologist per day at field	day	1.2 b	11,000	36,850	120	44,22,000	
c	Labour for Geologist (2 Nos)	day	5.7	477	1,598	240	3,83,508	Amount will be reimburse as per the notified rates by the Central Labour Commission or respective State Govt., whichever is higher
d	Charges for one Sampler per day (1 Party)	one sampler per day	1.5.2	5,100	17,085	25	4,27,125	

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e	Labours for sampling work (4 Nos)	day	5.7	477	1,598	100	1,59,795	Amount will be reimburse as per the notified rates by the Central Labour Commission or respective State Govt., whichever is higher
	Sub-Total A						59,32,428	
B	**LABORATORY STUDIES**							
Chemical Analysis								
i)	**Primary samples (BRS+Core sample))**							
	a. For 9 radicals i.e. CaO, MgO, Al2O3, SiO2, Fe2O3, SO3, P2O5, K2O and LOI by XRF	Nos	4.1.15a	4,200	4,200	200	8,40,000	BRS-100, Core sample-100
ii)	**Check samples Internal (5%) and External(10%)**						-	
	a. For 9 radicals i.e. CaO, MgO, Al2O3, SiO2, Fe2O3, SO3, P2O5, K2O and LOI by XRF	Nos	4.1.15a	4,200	4,200	30	1,26,000	
iv)	**Petrological samples (Bh Core Samples)**						-	
i	Preparation of thin section	Nos	4.3.1	2,353	2,353	10	23,530	
ii	Study of Thin Section	Nos	4.3.4	4,232	4,232	10	42,320	
v)	**Bulk Density Determination**						-	
	Bulk Density	No.	4.1	3,540	3,540	5	17,700	

	Sub Total - B						10,49,550	
	Sub Total - 2 (A and B)						69,81,978	
3	Total (1 and 2)						1,32,57,366	
4	Miscellaneous Charges							
i	Preparation of Exploration Proposal	5 Hard copies with a soft copy	5.1	2% of approved Project cost subject to Maximum of 5 Lakh which ever is lower		5 Nos. Hard Copies along with soft copy	2,65,147	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.
ii	Peer review Charges		As per EC decision				10,000	
iii	Tendering Process cost for outsourced component		2.3	2% of the Cost or Rs. 5.0 Lakhs whichever is lower			1,25,508	will be reimbursed when copy of the signed agreement/tender for outsoure component will be submitted.

iv	Operational Charges for outsourced component		para 3.i	**in case of total outsourced cost upto 50Lakh; cost of outsourced will reimbursed as per actual +10% of total outsourced cost will be paid to EA.**			5,95,654	will be reimbursed as per point 3 of NMET-SoC after recalculation when actual cost of outsourcing component will be be provided. The copy of contract agreement for outsourced component and work completion report are also required to reimburse the operational charge
v	Geological Report Preparation		5.2	For the projects exceeding Rs. 50 Lakhs but less than 150 Lakhs: A Minimum of Rs. 2.5 lakhs or 5% of the work whichever is more		5 Nos. Hard Copies along with soft copy	6,62,868	EA has to submit the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
	Sub Total - 3						**16,59,177**	
5	**TOTAL (Sub Total 1 + 2 + 3)**						**1,49,16,543**	
6	**Total Estimated Cost without GST**						**1,49,16,543**	

	Provision for GST (18%)	**26,84,978**	GST will be reimburse as per actual and as per notified prescribed rate
7	**Total Estimated Cost with GST**	**1,76,01,521**	
	or Say Rs. in Lakhs	***176.02***	

Note -

1. 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.

2. In case of execusion of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.

3. In no case the sum of outsourced cost and operational charges should exceed the cost as per SoC rates of the total outsourced component(s).

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Annexure-5B

Time schedule/action plan for Detailed Geo-Chemical and Geological Mapping of Limestone and Dolomite in and Around Menga Area of Upper Subansiri District of Arunachal Pradesh

Sl. No.	Activities	Unit	MONTHS											
			1	2	3	4	5	6	7	8	9	10	11	12
1	Camp Setting	Month												
2	Surface Drilling (1 rig)	m.												
3	Survey Party days (1 Party)	day												
4	Geologist Party days in field (1 Party)	day												
5	Sampling Party days, Core Sampling (1 party)	day												
6	Laboratory Studies	Nos.												
7	Camp Winding	Month												
8	Geologist Party days in HQ (1 Party)	day												
9	Geological Report Writing with Peer Review	Month												

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Annexure-6A

Estimated Cost for Reconnaissance Survey (G-4) for Iron Ore in Alenga-Nendwadi Block, Gadchiroli District, Maharashtra Exploration Agency - Total Area - 120 Sq Km; Completion Time - 06 Months							
Sl no	Item of Work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Remarks
			SoC-Item-Sl No	Rates as per SoC	Qty.	Total Amount (Rs)	
1	**Large scale (LSM) Geological mapping**						
i	Geologist man days (HQ)	days	1.2 a	9,000	60	5,40,000	
ii	Geologist man days (Field)	days	1.2 b	11,000	120	13,20,000	
iii	Labour (field) for (Total 4 Nos i.e. 2 workers per one geologist)	per worker	5.7	477	480	2,28,960	Amount will be reimburse as per the notified rates by the Central Labour Commission or respective State Govt., whichever is higher
	Sub-Total - 1					**20,88,960**	
2	**Laboratory Studies**						
i	**Trench**	cu.m	2.1.1	3,330	50	**166500**	
3	**Chemical Analysis**						
3.1	**Surface sampling (Bed Rock Samples/Channel/trench)**						
a	Primary Samples – for 6 radicals For total Fe, total Mn, Al2O3, P2O5,CaO, SiO2 & Acid Insolubles	per sample	4.1.15 a	4,200	130	5,46,000	BRS/Channel sample:110 & Trench sample:20

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3.2	**Check Samples (Bed Rock/Soil/Stream Sediment Samples) - 5% Internal & 10% External**						
a	Check Samples- for 6 radicals For total Fe, total Mn, Al2O3, P2O5,CaO, SiO2 & Acid Insolubles	per sample	4.1.15a	4,200	20	84,000	
3.3	Primary Samples - For Au by Fire Assey	per sample	4.1.5a	2,380	5	11,900	
3.4	X-RD Studies for **identification of minerals on composite sample**	per sample	4.5.1	4,000	5	20,000	
3.5	**Petrological / Mineralographic studies**						
a	Preparation of thin section	per sample	4.3.1	2,353	5	11,765	
b	Study of thin section for petrography	per sample	4.3.4	4,232	5	21,160	
c	Preparation of polished section	per sample	4.3.2	1,549	5	7,745	
d	Study of polished section for mineragraphy	per sample	4.3.4	4,232	5	21,160	
	Sub-Total - 3					**7,23,730**	
4	**Total (Sub Total 1 to 3)**					**29,79,190**	
5	**Miscellanuous Charges**						
i	Preparation of Exploration Proposal	Nos	5.1	2% of approved Project cost subject to Maximum of 5 Lakh which ever is lower	5 Nos. Hard Copies along with soft copy	59,584	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.

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ii	Report Peer Review Charges	lumpsum	As per EC decision	10000	1	10,000	
iii	Geological Report Preparation	Nos	5.2 (i)	For the projects up to Rs. 50 Lakhs : A Minimum of Rs. 1.5 lakhs or 5% of the work whichever is more	5 Nos. Hard Copies along with soft copy	1,50,000	EA has to submit the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
	Total - 5					**2,19,584**	
6	**Total Estimated Cost without GST (Total 4 and 5)**					**31,98,774**	
7	**Provision for GST (18%)**					**5,75,779**	GST will be reimbursed as per actual and as per notified prescribed rate
8	**Total Estimated Cost with GST**					**37,74,553**	
	Say, Rs. in Lakhs					**37.75**	
	Note - ***1. 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.*** ***2. In case of execusion of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.***						

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Annexure-6B

Time schedule/action plan for Reconnaissance Survey (G-4) for Iron Ore in Alenga-Nendwadi Block, Gadchiroli District, Maharashtra

Sl.No.	Activities	1	2	3	4		5	6
1	Camp setting							
2	Geological mapping on 1:12,500 and BRS/Channel sampling							
4	Analytical work					Review		
5	Trenching							
6	Analytical work							
7	Report Preparation							
8	Peer Review							
9	Submission of report							

Annexure-7A

Estimated Cost for Reconnaissance Survey (G-4 stage) for Iron Ore in Marampalli-Jinjgaon Block (90 sq.km) , District: Gadchiroli, Maharashtra							
Sl no	Item of Work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Remarks
			SoC-Item-Sl No	Rates as per SoC	Qty.	Total Amount (Rs)	
1	**Large scale (LSM) Geological mapping**						
i	Geologist man days (HQ)	days	1.2 a	9,000	50	4,50,000	
ii	Geologist man days (Field)	days	1.2 b	11,000	115	12,65,000	
iii	Labour (field) for (Total 4 Nos i.e. 2 workers per one geologist)	per worker	5.7	477	230	1,09,710	Amount will be reimburse as per the notified rates by the Central Labour Commission rate or respective State Govt., whichever is higher
	Sub-Total - 1					**18,24,710**	
2	**Laboratory Studies**						
i	**Trench**	cu.m	2.1.1	3,330	50	**166500**	
3	**Chemical Analysis**						
3.1	**Surface sampling (Bed Rock Samples/Channel/trench)**						

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a	Primary Samples -For total Fe, tatal Mn, Al2O3, P2O5,CaO, SiO2 & Acid Insolubles	per sample	4.1.15a	4,200	110	4,62,000	BRS/Channel sample:90 & Trench sample:20
3.2	**Check Samples (Bed Rock/Soil/Stream Sediment Samples) - 5% Internal & 10% External**						
a	Check Samples- For total Fe, tatal Mn, Al2O3, P2O5,CaO, SiO2 & Acid Insolubles	per sample	4.1.15a	4,200	17	71,400	
3.3	X-RD Studies for **identification of minerals on composite sample**	per sample	4.5.1	4,000	5	20,000	
3.4	**Petrological / Mineralographic studies**						
a	Preparation of thin section	per sample	4.3.1	2,353	5	11,765	
b	Study of thin section for petrography	per sample	4.3.4	4,232	5	21,160	
c	Preparation of polished section	per sample	4.3.2	1,549	5	7,745	
d	Study of polished section for mineragraphy	per sample	4.3.4	4,232	5	21,160	
	Sub-Total - 3					**6,15,230**	
4	**Total (1 to 3)**					**26,06,440**	
5	**Miscellanuous Charges**						

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i	Preparation of Exploration Proposal	Nos	5.1	2% of approved Project cost subject to Maximum of 5 Lakh which ever is lower	5 Nos Hard Copies along with soft copy	52,129	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.
ii	Report Peer Review Charges	lumpsum	As per EC decision	10000	1	10,000	
iii	Geological Report Preparation	Nos	5.2 (i)	For the projects up to Rs. 50 Lakhs : A Minimum of Rs. 1.5 lakhs or 5% of the work whichever is more	5 Nos Hard Copies along with soft copy	**1,50,000**	EA has to submit the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
6	**Total - 5**					**2,12,129**	
7	**Total Estimated Cost without GST (4 + 5)**					**28,18,569**	
8	**Provision for GST (18%)**					**5,07,342**	GST will be reimbursed as per actual and as per notified perscribed rate
9	**Total Estimated Cost with GST**					**33,25,911**	
	Say, Rs. in Lakhs					**33.26**	

Note -
1. 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.
2. In case of execusion of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.

Annexure-7B

Time schedule/action plan for Reconnaissance Survey (G-4 stage) for Iron Ore in Marampalli-Jinjgaon Block , District: Gadchiroli, Maharashtra

Sl.No.	Activities	1	2	3	4		5	6
1	Camp setting							
2	Geological mapping on 1:12,500 and BRS/Channel sampling							
4	Analytical work					Review		
5	Trenching							
6	Analytical work							
7	Report Preparation							
8	Peer Review							
9	Submission of report							

Annexure-8A

Estimated Cost for Reconnaissance Survey (G-4 Stage) for Iron Ore in Tadgaon-Wateli Block, District: Gadchiroli, Maharashtra							
Sl no	Item of Work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Remarks
			SoC-Item-Sl No	Rates as per SoC	Qty.	Total Amount (Rs)	
1	**Large scale (LSM) Geological mapping**						
i	Geologist man days (HQ)	days	1.2 a	9,000	50	4,50,000	
ii	Geologist man days (Field)	days	1.2 b	11,000	115	12,65,000	
iii	Labour (field) for (Total 4 Nos i.e. 2 workers per one geologist)	per worker	5.7	477	230	1,09,710	Amount will be reimburse as per the notified rates by the Central Labour Commission or respective State Govt., whichever is higher
	Sub-Total - 1					**18,24,710**	
2	**Laboratory Studies**						
i	Trench	cu.m	2.1.1	3,330	50	**166500**	
3	**Chemical Analysis**						
3.1	**Surface sampling (Bed Rock Samples/Channel/trench)**						
a	Primary Samples -For total Fe, tatal Mn, Al2O3, P2O5,CaO, SiO2 & Acid Insolubles	per sample	4.1.15 a	4,200	100	4,20,000	BRS/Channel sample:80 & Trench sample:20
3.2	**Check Samples (Bed Rock/Soil/Stream Sediment Samples) - 5% Internal & 10%**						

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	External						
a	Check Samples- For total Fe, tatal Mn, Al2O3, P2O5,CaO, SiO2 & Acid Insolubles	per sample	4.1.15 a	4,200	15	63,000	
3.3	**X-RD Studies for identification of minerals on composite sample**	per sample	4.5.1	4,000	5	20,000	
3.4	**Petrological / Mineralographic studies**						
a	Preparation of thin section	per sample	4.3.1	2,353	5	11,765	
b	Study of thin section for petrography	per sample	4.3.4	4,232	5	21,160	
c	Preparation of polished section	per sample	4.3.2	1,549	5	7,745	
d	Study of polished section for mineragraphy	per sample	4.3.4	4,232	5	21,160	
	Sub-Total - 3					**5,64,830**	
4	**Total (Sub Total 1 to 3)**					**25,56,040**	
5	**Miscellanuous Charges**						
i	Preparation of Exploration Proposal	Nos	5.1	2% of approved Project cost subject to Maximum of 5 Lakh which ever is lower	5 Nos. Hard Copies along with soft copy	51,121	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.
ii	Report Peer Review Charges	lumpsum	As per EC decision	10000	1	10,000	

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iii	Geological Report Preparation	Nos	5.2 (i)	For the projects up to Rs. 50 Lakhs : A Minimum of Rs. 1.5 lakhs or 5% of the work whichever is more	5 Nos. Hard Copies along with soft copy	1,50,000	EA has to submit the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
	Total - 5					**2,11,121**	
6	**Total Estimated Cost without GST (4 + 5)**					**27,67,161**	
7	**Provision for GST (18%)**					**4,98,089**	GST will be reimbursed as per actual and as per notified prescribed rate
8	**Total Estimated Cost with GST**					**32,65,250**	
	Say, Rs. in Lakhs					**32.65**	
	Note - ***1. 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.*** ***2. In case of execusion of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.***						

Time schedule/action plan for Reconnaissance Survey (G-4 Stage) for Iron Ore in Tadgaon-Wateli Block, District: Gadchiroli, Maharashtra

Sl.No.	Activities	1	2	3	4		5	6
1	Camp setting							
2	Geological mapping on 1:12,500 and BRS/Channel sampling							
4	Analytical work					Review		
5	Trenching							
6	Analytical work							
7	Report Preparation							
8	Peer Review							
9	Submission of report							

Annexure-9A

Estimated Cost for Reconnaissance Survey (G4) for REE mineralization in Kenda, Barpali, Nagpura,Chureli,Manikpur village areas (75.00 sq.km) ,Bilaspur District , Chhattisgarh							
Sl.No	Item of work	Unit	NMET SoC-Item - Sl No.	NMET Rates (2020)	Qty	Amount INR	Remarks
A	GEOLOGICAL WORK						
i	Geologist Party days H Q	Days	1.2 a	9000	50	450000	
ii	Geologist Party days (2) -Field	Days	1.2 b	11000	115	1265000	
iii	Labourers (Rs 477/day/labour)	Days	5.7	477	230	109710	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
iv	Sampler Party days (1party)	Days	1.5.2	5100	18	91800	
v	Labour for Sampling	Days	5.7	477	72	34344	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
	Sub Total A					**1950854**	
B	**TRENCHING**						
i	Trenching	Per Cu.M	2.1.1	3330	100	333000	
	SubTotal B					**333000**	
C	**LABORATORY STUDIES**						

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i	**Chemical analyses**	Nos					
a	Analyses of Geochemical -BRS, Trench/Pit Samples	Per sample	4.1.1	8157	145	1182765	BRS:120, Trench sample:25
b	**Internal Check Sample(10%) +External check sample (5%)**						
	(a) Check Samples-REE (15%)	Per sample	4.1.1	8157	22	179454	
ii	**Petrography studies**						
a	Preparation of thin sections	Per sample	4.3.1	2353	10	23530	
b	Petrographic studies	Per sample	4.3.4	4232	10	42320	
iii	**Whole Rock Analysis**	Per samples	4.1.15a	4200	10	42000	
	SubTotal C					**1470069**	
D	**Total (A+B+C)**					**3753923**	
E	**PREPARATION OF EXPLORATION PROPOSAL**	Per Project	5.1	2% of approved Project cost subject to Maximum of 5 Lakh which ever is lower	5 Nos. Hard Copies along with soft copy	**75078**	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.
F	**PEER REVIEW**	As per EC committee				**10000**	
G	**GEOLOGICAL REPORT PREPARATION**	Per Porject		For the projects up to Rs. 50 Lakhs : A Minimum of Rs. 1.5 lakhs or 5% of the work whichever is more	5 Nos. Hard Copies along with soft copy	**187696**	EA has to submit the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
I	**Total Estimated Cost without GST (D+E+F+G)**					**4026698**	

J	**Provision for GST @ 18%**	**724806**	GST will be reimbursed as per actual and as per notified perscribed rate
K	**Total Estimated Cost with GST**	**4751503**	
	or Say Rs. in Lakhs	**47.52**	

Note -
1. 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.
2. In case of execusion of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.

Annexure-9B

Time schedule/action plan for Reconnaissance Survey (G4) for REE mineralization in Kenda, Barpali, Nagpura, Chureli, Manikpur village areas (75.00 sq.km) , Bilaspur District , Chhattisgarh

Sl.No.	Activities	1	2	3	4		5	6
1	Camp setting							
2	Geological mapping on 1:12,500 and BRS/Channel sampling							
4	Analytical work					Review		
5	Trenching							
6	Analytical work							
7	Report Preparation							
8	Peer Review							
9	Submission of report							

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Annexure-10A

Estimated Cost for Reconnaissance Survey (G4 Stage) for Graphite in Nawadih Block (32.04 sq.km.), District: Balrampur,State: Chhattisgarh

Sl No.	Item of Work	Rates as per NMET			Estimated Cost of the Proposal		Remarks
		SoC-Item Sl. No.	Unit	Rates as per SoC	Qty.	Total Amount (Rs)	
1	**Geological Mapping (Scale 1:12,500)**						
a	Charges of Geologist in field			11000.00	80	880000	
b	Labour Charges (nos. 2)			494.00	160	79040	Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. , whichever is higher
c	Geologist at HQ	1.2a	Mandays	9000.00	40	360000	
2	**Trenching**						
a	Trenching	2.1.3	cu.m	3330.00	75	249750	
3	**Sample Preparation**						
a	sampler charges for Sample processing work	1.5.2	Mandays	5100.00	13	63750	
b	Labour Charges		Mandays	494.00	52	25688	Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. , whichever is higher

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4	**Chemical Analysis**						
a	a) Bed Rock samples-Proximate analysis	4.1.16	Nos	3000.00	100	300000	
b	d) check samples	4.1.1	Nos	3000.00	15	45000	
c	c) ICPMS	4.1.14	Nos	7,731	10	77310	
5	**Physical Analysis**						
i	Petrographic Studies						
	a) Preparation & Study of thin section	4.3.1	Nos	2,353.00	10	23530	
	b) Study of thin section for petrography	4.3.4	Nos	4,232.00	10	42320	
6	**Total (1 to 5)**					**2146388**	
7	Preparation of Exploration Proposal	5.1		2% of approved Project cost subject to Maximum of 5 Lakh which ever is lower		42928	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.
8	Peer Review		Mandays	10000		10000	
9	**Geological Report Preparation**	5.2		For the projects up to Rs. 50 Lakhs : A Minimum of Rs. 1.5 lakhs or 5% of the work whichever is more		150000	EA has to submit the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
11	**Total Estimated Exploration Cost without GST (6 to 9)**					**2349316**	

12	Provision for GST @ 18%	₹ 4,22,877	
13	**Total Estimated Exploration Cost with GST**	₹ 27,72,193	
	or Say Rs. in Lakh	**₹ 27.72**	

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. In case of execusion of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.

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Annexure-10B

Time schedule/action plan for Reconnaissance Survey (G4 Stage) for Graphite in Nawadih Block (32.04 sq.km.), District: Balrampur,State: Chhattisgarh

Sl.No.	Activities	1	2	3	4		5	6
1	Camp setting							
2	Geological mapping on 1:12,500 and BRS/Channel sampling							
4	Analytical work					Review		
5	Trenching							
6	Analytical work							
7	Report Preparation							
8	Peer Review							
9	Submission of report							

Annexure-11

Cost Estimate for Additional meterage in Dhanota Block for copper Southern Khetri Copper Belt, Jhunjhunu District, Rajasthan State Total Area - 0.70sq km ; Nos. of Borehole - 07 ; Borehole depth range - 225m to 420m ; Completion Time - 12 Months						
S.N	Item of Work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal	
			SoC-Item - Sl No.	Rates as per SoC	Qty.	Total Amount (Rs)
B	**Borehole Geophysical Logging**					
1	Base log	Per m	3.11a	151	201	30,351
2	Induced Polarosation (I.P)	Per m	3.11p	93	201	18,693
3	Resistivity	Per m	3.11c	39	201	7,839
4	SP	Per m	3.11b	39	201	7,839
	Sub-Total B					**64,722**
C	**DRILLING**					
1	Drilling (Medium Hard Rock)	m	2.2.1.4a	11,500	72	828,000
	Drilling between depth of 301-600m	m	2.2.1.4b	12,420	129	1,602,180
2	Borehole deviation Survey by Multishot Camera	m	2.2.6	330	201	66,330

	Sub Total C					2,496,510
H	Total Estimated Cost without GST					2,561,232
I	Provision for GST (18% of L)	%				461,022
J	Total Estimated Cost with GST					3,022,254
or Say In Lakhs						*30.22*

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Annexure-12

Cost Estimate for Preliminary Exploration (G3) Proposal for Estimation of Copper and associated minerals in Thakurdih Charakmara Block, Singhbhum Copper Belt, East Singhbhum District, Jharkhand State

Total Area - 10 sq km ; Nos. of Borehole - 12 ; Borehole depth range: 120-180m ; Completion Time -18 Months

S. N	Item of Work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Remarks
			SoC-Item - Sl No.	Rates as per SoC	Qty.	Total Amount (Rs)	
2	**Survey (on 1:5000 Scale)**						
a	Bore Hole Fixation and determination of co-ordinates & Reduced Level of the boreholes by DGPS	Per Point of observation	1.6.2	19,200	2	38,400	
d	Charges for Sampler	one sampler per day	1.5.2	5,100	8	40,800	8 Days for primary, check, composite sample preparation
e	Labours Charges for sampling; Base rate - Rs. 431	day	5.7	431	32	13,792	Amount will be reimburse as per the notified rates for unskilled labor by the Central Labour Commissioner or respective State Govt. whichever is higher
	Sub-Total A					**92,992**	
C	**DRILLING**						
3	Land / Crop Compansation (in case the BH falls in agricultural Land)	per BH	5.6	20,000	2	40,000	Amount will be reimburse as per actuals or max. Rs. 20000 per BH with certification from local authorities
4	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	2	4,000	
	Sub Total C					**44,000**	
D	**LABORATORY STUDIES**						

1	**Chemical Analysis**						
i)	a.Primary samples for Cu, Ni, Mo, Co, W	Nos	4.1.7a	2,506	50	1,25,300	
	Sub-Total -D					**1,25,300**	
L	**Total Estimated Cost without GST**					**2,62,292**	
M	**Provision for GST (18% of L)**	%				**47,213**	GST will be reimburse as per actual and as per notified prescribed rate
N	**Total Estimated Cost with GST**					**3,09,505**	
				or Say Rs. , In Lakhs:		***3.10***	

Annexure-13

COST ESTIMATE FOR PRILIMINARY EXPLORATION (G-3) FOR POTASH IN BHARUSARI NORTH BLOCK,BHARUSARI-SUB BASIN, NORTH WESTERN PART OF RAJASTHAN, DISTRICT- HANUMANGARH, RAJASTHAN.

Total Area - 10.00 sq km; Nos. of Borehole - 5 ; Borehole depth range - Avg 700 m ; Completion Time - 6 Months

S.N	Item of Work	Unit	Rates as per NMET SoC 2020-21		Recommended Estimated Cost		Proposed Estimated Cost				Remarks
			SoC-Item - Sl No.	Rates as per SoC	Qty.	Total Amount (Rs)	Rates as per SoC	Qty.	Total Amount (Rs)	Grand Total (Rs.)	
A	GEOLOGICAL WORK										
1	Borehole logging & sampling & report writing										
a	Charges for one Geologist per day at HQ	day	1.3	9,000	60	5,40,000					
b	Charges for Geologist party per day at field	day	1.3	11,000	150	16,50,000	11,000	150	16,50,000		
c	1 party Labour (2 Nos each party)	day	5.7	477	300	1,43,100	477	300	1,43,100		Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher

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d	Charges for one Sampler per day (2 Party)	one sampler per day	1.5.2	5,100	125	6,37,500	5,100	125	6,37,500		
e	Labours (4 Nos)	day	5.7	477	500	2,38,500	477	500	2,38,500		Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
2	**Survey (on 1:10000 Scale)**										
a	Bore Hole Fixation and determination of co-ordinates & Reduced Level of the boreholes and Boundary points by DGPS	Per Point of observation	1.6.2	19,200	6	1,15,200		-	-		BH-5 nos. & Base Station 1 Nos
	Sub-Total A					**33,24,300**			**26,69,100**	**59,93,400**	
B	**DRILLING**										
1	Drilling up to 300m (Hard Rock)	m	2.2.1.4 a	11,500	1,500	1,72,50,000		-			Soc-Page No-2, Clause No. II: Note on Potash Drilling
2	Drilling 301 to 600 m (Hard Rock)	m	2.2.1.4 b	12,420	1,500	1,86,30,000		-			
	Drilling 600 to 900 m (Hard Rock)	m	2.2.1.4 c	13,225	500	66,12,500		-			
3	Borehole deviation Survey by Multishot Camera	m	2.2.6	330	-	-					

4	Land / Crop Compensation (in case the BH falls in agricultural Land)	per BH	5.6	20,000	5	1,00,000		-			Amount will be reimbursed as per actuals or max. Rs. 20000 per BH with certification from local authorities
5	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	5	10,000		-			
6	Borehole plugging by cement	m	2.2.7b	150	5	750		-			
7	Transportation of Drill Rig & Truck associated per drill (5 rigs)	Km	2.2.8	36	5,400	1,94,400	36	8,100	2,91,600		
8	Monthly Accommodation Charges for drilling Camp (For 5 Rigs 50000+((50000 X 50%) X 3) = Rs. 125000/-	month	2.2.9	50,000	6.0	3,00,000	-	-	-		Initially 6 monthas approved for 2 rigs. Requested to accommodat e all months against 5 rigs
9	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	2	5,00,000	2,50,000	3	7,50,000		
10	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	2	5,00,000	2,50,000	3	7,50,000		
11	Road Making (Flat Terrain)	Km	2.2.10a	22,020	5	1,10,100		-	-		Road Making will be considered as per the requirement

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											and Road Making Charges will be reimbursed accordingly.
12	Drill Core Preservation	per m	5.3	1,590	1,250	19,87,500		-	-		
	Sub Total B					4,61,95,250		-	17,91,600	4,79,86,850	
								-	-		
C	**BOREHOLE GEOPHYSICAL LOGGING**							-	-		
1	Dual Density	m	3.11d	102	3,500	3,57,000		-	-		
2	Neutron	m	3.11f	74	-	-	74	3,500	2,59,000		
3	Spectral Gamma	m	3.11o	164	3,500	5,74,000		-	-		
4	Resitivity	m	3.11c	39	3,500	1,36,500		-	-		
5	Caliper	m	3.11g	19	-	-		-	-		
6	Expert charges for Geophysicist in HQ	day	3.18	9,000	10	90,000		-	-		
7	Expert charges for Geophysicist in Field	day	3.18	11,000	20	2,20,000		-	-		
	Sub Total C					**13,77,500**			**2,59,000**	**16,36,500**	
D	**LABORATORY STUDIES**										
1	**Chemical Analysis**										
i)	**Primary samples**										

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	a. Analysis of 9 radicals i.e. K, Na, Water insolubles, Mg, Cl, Br, I, Li & CaSO4, B, F	Nos	4.1.1	8,157	1,000	81,57,000			-		
ii)	**Check samples Internal (5%) and External(10%)**										
	a. Analysis of 9 radicals i.e. K, Na, Mg, Cl, Br, I, Li, CaSO4 & Water insolubles, B, F	Nos	4.1.1	8,157	150	12,23,550			-		
iii)	XRD analysis for identification of minerals (Random)	Nos	4.5.1	4,000	20	80,000			-		
	Sub-Total -1					**94,60,550**			-		
2	**Physical Laboratory**										
i.	Specific Gravity Determination	No.	4.8.1	1,605	5	8,025			-		
	Sub Total- D					**94,68,575**			-		
E	**Total - A to D**					**6,03,65,625**			**47,19,700**	**6,50,85,325**	

G	Geological Report Preparation		5.2	For the projects having cost more than Rs. 300 lakhs - A minimum of Rs. 9 lakhs or 3% of the value of work whichever is more subject to a max. amount of Rs. 20 lakhs		18,10,969			1,41,591	19,52,560	EA has to submit the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET
H	Peer review Charges		As per EC decision			10,000			-	10,000	
	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. 5.0 Lakhs whichever is lower		5,00,000			-	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

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											meeting while clearing the proposal
J	**Total Estimated Cost** without GST					6,26,86,594			48,61,291	6,75,47,885	
K	**Provision for GST (18% of G)**	%				1,12,83,587			8,75,032	1,21,58,619	GST will be reimbursed as per actual and as per notified prescribed rate
L	**Total Estimated Cost with GST**					7,39,70,181			57,36,323	7,97,06,504	
				Say in Lakhs (Rs.)		*739.70*			*57.36*	*797.07*	

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. In case of execusion of the project by NEA on its own, a Certificate regarding non outsourcing of any component/ project is required.

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