Ministry of Mines
National Mineral Exploration Trust
Minutes of 2nd meeting of Technical-cum-Cost Committee -II (TCC-II) held on 22nd and 23rd October, 2024

The 2nd meeting of Technical-cum-Cost Committee – II (TCC-II) of National Mineral
Exploration Trust (NMET) was held through video conferencing under the Chairmanship of Shri Pradeep Singh, Deputy Director General (DDG), Geological Survey of India (GSI) and Chairman, TCC-II, NMET on 22nd and 23rd October, 2024.

Members of TCC-II of NMET and representatives from DGM Assam, DGM Nagaland, CGM Gujarat, DGM Arunachal Pradesh, Mineral Exploration and Consultancy Limited (MECL), Central Mine Planning & Design Institute Limited (CMPDI), Jharkhand Exploration and Mining Corporation Limited (JEMCL), Maheshwari Mining Pvt. Ltd. (MMPL), Kartikay Exploration and Mining Services Private Limited, United Exploration India Pvt. Ltd., Geo Marine Solutions Pvt. Ltd., Engeotech Consultant, Mining Tech Consultancy Services Limited, GeoExpOre Pvt. Ltd., Geovale Services Private Limited etc. have attended the meeting through video conferencing mode.
The list of participants is at Annexure-1.

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

Agenda 2.1: Technical Evaluation of New Project Proposals

Agenda 2.1.1 Preliminary Exploration (G3) of Iron and Manganese Ore in Jamda-Koira Valley Iron Ore Belt in Baraiburu Iron Ore Block – I, District-West Singhbhum, Jharkhand.

[Implementing Agency: Jharkhand Exploration and Mining Corporation Limited. (JEMCL)]

a) The proposed block of 2.56 sq. km. area, falls in Survey of India toposheet no. 73F/8, and forms the part of the west Singhbhum district, Jharkhand. 90 % of the block is covered by forest area.
b) As per the comments received from GSI, the proposed block has already been explored at G3 level by GSI for Iron and Manganese. There is 100% overlap of the proposed block with previously explored area.
c) Exploration report (G3) of GSI for 2017-19 of this area was submitted to Jharkhand State Government, but it seems there area challenges in economic viability for Iron and Manganese mining here.

Recommendation TCC-II:

The committee does not recommend the proposal.

Agenda 2.1.2 Reconnaissance (G4) for Gold in Jojobera-Ulihurang Block, Arki Block, Khunti District, Jharkhand.
[Implementing Agency: Jharkhand Exploration and Mining Corporation Limited. (JEMCL)]

a) The proposed block of 12.03 sq. km. area, falls in Survey of India OSM no. F45H9, in parts of Khunti district of Jharkhand State. Complete proposed block is covered by forest.
b) More than 20 % of the proposed block is overlapping with an exploration licence of 700 sq. km. submitted by GSI and a G3 level exploration has already been carved out from GSI in this area.

Recommendation TCC-II:

The committee does not recommend the proposal. The committee advised that the area for the proposed block should be modified and a fresh proposal excluding the overlap area, may be re-submitted to NMET.

Agenda 2.1.3 Preliminary Exploration (G-3) for Tin in Kangra Block (6.35 sq.km), District- Tehri Garhwal, Uttarakhand.
[Implementing Agency: Mineral Exploration and Consultancy Limited (MECL)]

a) The exploration work (G3) is proposed in 6.35 sq. km. area which falls in Survey of India toposheet no. 53J/ 11, and forms the part of Tehri Garhwal district, Uttarakhand.
b) On the basis of geochemical sampling done by GSI (FSP 2019-2020) in this area, the distribution pattern of Tin (Sn) shows higher concentration (12.04 ppm to 185.16 ppm). The Tin content in stream sediment is 8.83 ppm.
c) During reconnaissance survey (G4), 15 bedrock samples were collected by MECL, which yielded Tin value from 17 ppm to 15654 ppm. Out of 15 bed rock samples, 9 samples yielded high concentration of Tin ranging from 100.03 ppm to 15654 ppm.
d) As per the comments received from GSI for this block, there is only a slight overlap of the proposed block with previously explored area by the GSI.
e) The committee opined that Geophysical survey will not be useful in this exploration. Initially Geological mapping with systematic grid pattern sampling should be done to identify target area for subsequent strategy/stage of exploration. Drilling will subject to GP survey outcome.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for "Preliminary Exploration (G3-Stage) for Tin in Kangra Block (6.35 sq. km. Area), District – Tehri Garhwal, Uttarakhand" with an estimated cost of 604.91 Lakh (including GST) within the time schedule of 15 months and submission of the report as per Annexures 2A & 2B. The item will be reviewed after 6 months & 10 months.

Agenda 2.1.4 Preliminary Exploration (G-3) for REE mineralization in South of Nauser (9.18 sq.km.), Bamni Dhani (3.70 sq.km.), South of Dandali (3.37 sq.km.) and South of Sarnu block (1.70 sq.km), District- Barmer, Rajasthan.
[Implementing Agency: Mineral Exploration and Consultancy Limited (MECL)]





a) The proposed blocks South of Nauser (9.18 sq. km.), Bamni Dhani (3.70 sq. km.), South of Dandali (3.37 sq. km.) and South of Sarnu block (1.70 sq. km.), falls in Survey of India toposheet no. 40O/14, and forms the part of Barmer district, Rajasthan. There is no forest area in these proposed blocks.
b) During 2005 to 2010, Ramgarh Minerals and Mining Limited (RMML) of the Baldota Group conducted a reconnaissance survey in the Kamthai area, approximately 2.5 km southeast of the Sarnu Block, and identified a reserve/resource of 5.41 million tonnes (Proved + Probable) with an average grade of 1.9% Rare Earth Elements (REE). The Kamthai area, adjacent to the Sarnu-Dandali prospects explored by the Geological Survey of India (GSI) during FSP 2018-19, and six (6) mineralized dykes of carbonatite were identified in the field, with ΣREE concentrations varying from 0.06% to 16%.
c) In FS 2023-24, MECL conducted large-scale geological mapping and geochemical sampling in the Sarnu Block, covering 118.10 sq. km. The mapping identified four key blocks with significant REE mineralization, which are being proposed for G3 stage exploration.
d) The committee decided that out of four (4) proposed blocks, initially three blocks viz. Sector I, II & III to be taken up for exploration. The committee further advised to carry out Gravity and Magnetic survey in this block instead of radiometric surveys.
e) The committee advised for pit sampling in 100m x 200m grid and systematic gravity, magnetic survey to demarcate subsurface geometry of potential lithology, considering trend of three Blocks I, II & III showing NW-SE trend based on surface exposures.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for "Preliminary Exploration (G3-Stage) for REE mineralisation in Nauser-Bamni Dhani-Dandali Block Barmer, State: Rajasthan" with an estimated cost of 610.95 Lakh (including GST) within the time schedule of 14 months and submission of the report as per Annexures 3A & 3B. The item will be reviewed after 6 months. After review, drilling will start with approval of the committee.

Agenda 2.1.5 Preliminary Exploration (G-3) for Copper and Associated Minerals in Jaridih Pipradih Block (3.01 sq.km), District- Giridih, Jharkhand.
[Implementing Agency: Mineral Exploration and Consultancy Limited (MECL)]

a) The proposed block of 4.45 sq. km. area, falls in Survey of India toposheet no. 72L/04 which is part of Giridih district, Jharkhand. As per the Decision Support System (DSS) of Forest department, Ministry of Environment, Forest and Climate Change (MOEFCC), the block area is under "not inviolate", implies Go area for exploration.
b) MECL briefed the committee that the Baraganda block, in western part from the present proposed block, is explored by MECL at G-2 level at 50m x 50m spacing, and established resources of 2.6 million tonnes with average grade of 1.41% at 0.5% Cu Cutoff & 1.1 million tonnes with average grade of 2.2% at 1.0% Cu Cutoff.
c) Based on the evaluation of Chalima G-4 block explored by MECL, three potential zones were identified. Jaridih is one of the potential areas where the present block is proposed. In this area a total 4 no trenches and 3 no of Scout boreholes have been drilled and demarcated 2 ore Copper ore lodes zones. Out of 3borehole drilled in Jaridih one borehole MCH-03 has intercepted 11.0 m copper ore lode with average 0.72% Cu, 0.42% Pb and 1.12% Zn.

d) The committee agreed that Self-Potential (SP) & Resistivity Survey will be suitable in the proposed block. BRS samples to be collected in grid pattern & channel sampling to be done across exposed lithology. Structural control of mineralisation in block to be evaluated during detailed mapping.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for "Preliminary Exploration (G3) for Copper and associated minerals in Jaridih-Pipradih Block, District: Giridih, Jharkhand" with an estimated cost of 400.21 Lakh (including GST) within the time schedule of 15 months and submission of the report as per Annexures 4A & 4B. The item will be reviewed after 6 months. After review of the geophysical survey results, drilling will start with approval of the committee.

Agenda 2.1.6 Preliminary Exploration (G-3) for Potash in Lakhasar East Extension Block (9.50 Sq.km), Lakhasar Sub Basin, District- Bikaner, Rajasthan.
[Implementing Agency: Mineral Exploration and Consultancy Limited (MECL)]

a) The proposed block of 9.50 sq. km. area, falls in Survey of India toposheet no. 44H/16, is a part of Bikaner district, Jharkhand.
b) The exploration in Lakhasar block reveals Potash zones, which have been classified into 6 major bands. Each of the bands show merging and spitting nature with rolling dip in the conformity of the respective Halite cycle showing horizontal to sub horizontal with rolling dip of 1° to 5° towards NNW, NW to W. The bands are continuing in the adjacent Lakhasar East blocks. The halite cycles and the potash zones established in the Lakhasar East block may show continuity and consistency throughout the Lakhasar sub-basin.
c) The committee advised to exclude Geological Mapping in this block. Non-core drilling is advised for 300-400m up to non-potential/overburden stratigraphic sequences to optimise drilling cost.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for "Preliminary Exploration (G3) for Potash in Lakhasar East Extension Block (9.50 Sq.km), Lakhasar Sub Basin, north western part of Rajasthan, District- Bikaner, Rajasthan" with an estimated cost of 1616.51 Lakh (including GST) within the time schedule of 15 months and submission of the report as per Annexures 5A & 5B. The item will be reviewed after 6 months. Total 15 Boreholes (700 m average depth of each borehole) will be drilled.

Agenda 2.1.7 Reconnaissance Survey (G4) for Iron, Manganese and Associated Minerals in Jauli-Sailwara Block (33.8 Sq.km), District- Jabalpur, Madhya Pradesh.
[Implementing Agency: Mineral Exploration and Consultancy Limited (MECL)]

a) The proposed block of 33.8 sq. km. area, falls in Survey of India toposheet nos. 64A/03 & 64A/07, which is a part of Jabalpur district, Madhya Pradesh. Block partially falls in forest area but there is no Eco Sensitive Zone and no wildlife Sanctuary.
b) MECL informed that they have visited the proposed block and during geological traverses, BIF, Soft laminated Hematite Ore, Specularite ore and Phyllites are observed at several places. Eight nos. of samples collected during traverses have been

analysed at MECL Chemical Lab. Among these, four samples show Fe ≥35% ranging from 39.60 to 50.96 %.

c) The committee suggested MECL, to refer the available aero-geophysical data of the area and Drone Survey may be very useful in this block. Iron & Manganese bands to be shown/marked on map.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for "Reconnaissance Survey (G4) for Iron, Manganese and Associated Minerals in Jauli-Sailwara Block (33.8 Sq.km), District: Jabalpur, State: Madhya Pradesh" with an estimated cost of 135.36 Lakh (including GST) within the time schedule of 10 months and submission of the report as per Annexures 6A & 6B. The item will be reviewed after 5 months.

Agenda 2.1.8 Preliminary Exploration (G3) of Iron Ore, Bamuri Block, Sidhi District, Madhya Pradesh.

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

a) The exploration block of 2.5 sq. km. area, falls in Survey of India toposheet no. 63H/15 which is part of Sidhi district, Madhya Pradesh.

b) During previous exploration (G4), GSI reported BIF bands in the area are persistent for kilometers without any discontinuity. Linear ridges with microfaults, folds of megascopic and microscopic nature and brreciation of BIFs in between leading to formation of iron rich zones that yield iron values up to 70% of Fe2O3 indicates potentiality of the area. The area mapped in detailed has given results that fall in medium to high grade iron and frequency of samples falling in high grade is more as compare to medium grade. The strike length is about 4.0 Km and width varies from 0.5km to 0.6km. Width may increase on both sides in consideration of mining feasibility.

c) MMPL informed that, in the proposed area for G3 investigation a total of eight BRS samples were analysed with values ranging from 43.31% to 72.18 % of Fe_2O_3.

d) The committee advised drilling of 9 boreholes, 6 nos. (600 m total depth) in 1st phase and 3 nos. in 2nd phase (400 m total depth). BH spacing may be 800m in case of regular habit/ bedded ore body. The committee also advised magnetic survey for tracing continuity of BIF bands where surface exposure are not occurring.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for "Preliminary Exploration Survey (G3) of Iron Ore and associated minerals in Bamuri Block, Sidhi District, Madhya Pradesh" with an estimated cost of 286.61 Lakh (including GST) within the time schedule of 12 months and submission of the report as per Annexures 7A & 7B. The item will be reviewed after 5 months. Nine (9) nos. of BH will be drilled up to 1000 m total drilling depth.

Agenda 2.1.9 Reconnaissance Survey (G4) for Graphite & Vanadium in and around Lalpani area, Lohit District, Arunachal Pradesh.

[Implementing Agency: Kartikay Exploration and Mining Services Private Limited]

a) The proposed area (62.20 sq. km.) falls in Survey of India toposheet nos. 92A/5 & 91D/8, which is part of Lohit district, Arunachal Pradesh.

b) Prospecting for Graphite and Vanadium deposits in and around Lalpani areas of toposheet no. 92A/5, 91D/8 resulted in identification of Graphite bearing Garnetiferrous Schist. Length of the Graphite zone is reported to be 1100 m and width around 300 m.
c) In Principal Approval has been obtained for the proposal in 1st TCC-II meeting of NMET, held on 26th Sept 2024. Block boundary has been revised as suggested by the committee in the 1st meeting.
d) The committee advised the agency to show the mineralisation host lithology on the map. Details of outcome of GSI analysis to be provided.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for "Reconnaissance Survey (G-4) for Graphite & Vanadium in and around Lalpani area, Lohit District, Arunachal Pradesh" with an estimated cost of 563.27 Lakh (including GST) within the time schedule of 15 months and submission of the report as per Annexures 8A & 8B. The item will be reviewed after 6 months & 10 months. Five (5) nos. of BH will be drilled up to 500 m total drilling depth.

Agenda 2.1.10 Preliminary Exploration (G-3) in Bairiha-Morcha Iron Ore Block, Sidhi District, Madhya Pradesh.
[Implementing Agency: Kartikay Exploration and Mining Services Private Limited]

a) The overlapping area with another NMET block has been removed from the proposed block as recommended in 1st TCC-II meeting held on 26th & 27th September 2024.
b) The proposed block of 5.35 sq. km. area falls in Survey of India toposheet no. 63H/15, in a part of Sidhi district, Madhya Pradesh.
c) The committee opined that in the proposed area iron percentage is very less. Also, the borehole planning was not presented, which is essential for further review. Committee also advised for few channel sampling in the area to confirm the potential of the area.

Recommendation TCC-II:

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

Agenda 2.1.11 Preliminary Exploration (G3) for Ni, Cr and PGE in Gamnom Block, Kamjong District, Manipur.
[Implementing Agency: United Exploration India Pvt. Ltd.]

a) The proposed exploration block (1.50 sq. km. area) falls in Survey of India toposheet no. 83K/8, in a part of Kamjong district, Manipur.
b) This block has been identified based on analytical results of the Geochemical data generated by GSI in the proposed block. There are 15 BRS points noted within the proposed block, where values of Cr vary from 2229 to 328416 ppm (Average: 24682 ppm) and Ni varies from 500 to 4167 ppm (average value: 2326 ppm). Therefore, the proposed block is considered to be potential for Ni, Cr and associated Co deposits and required for detail exploration.
c) Field study carried out by UEIPL geologists also recorded the presence of chromite pods within transitional peridotite.
d) The committee advised that after the review of the results of geological mapping & geophysical survey, drilling may be considered. For Magnetic survey 50 m line spacing with 25 m station points were advised.

e) The committee advised that Mo & Co needs to be analysed.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for "Preliminary Exploration for Nickel, Cobalt, Chromium & PGE minerals in Gamnom Block, Kamjong District, Manipur" with an estimated cost of 612.00 Lakh (including GST) within the time schedule of 18 months and submission of the report as per Annexures 9A & 9B. The item will be reviewed after 8 months & 12 months. Four (4) nos. of BH will be drilled up to 480 m total drilling depth subject to the encouraging surface investigation results.

Agenda 2.1.12 Reconnaissance Survey (G4) for Vanadium and Titanium in Magnetite bearing sand occurring in the beach/dune sands along the Saurashtra coast, from Dwarka to Gadhula, Gujarat.

[Implementing Agency: Geo Marine Solutions Pvt. Ltd.]

a) The proposal is for geological sampling by Auger drilling in 363 Line kilometre along the Saurashtra coast, Gujarat.
b) The committee agreed for collection of 353 nos. of surface samples from 1 m depth below ground level (bgl), by Auger Drill at 1000 m interval and 10 BH by Auger drill up to 5 m depth.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for "Reconnaissance Survey (G4) for Vanadium and Titanium in Magnetite bearing sand in the beach/dune sands along the Saurashtra coast, Gujarat" with an estimated cost of 170.37 Lakh (including GST) within the time schedule of 15 months and submission of the report as per Annexures 10A & 10B. The item will be reviewed after 6 months & 10 months. Total 403 m of Auger drilling will be done.

Agenda 2.2 Review of Ongoing Projects/ Completed Project & Timeline Extension

Agenda 2.2.1 Reconnaissance Survey (G-4) for Iron and Associated Minerals in Karmahi-Chuwahi Block (33.40 sq.km Area), District- Sidhi, Madhya Pradesh.

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

a) Present exploration block of 33.40 sq. km. area falls in Survey of India toposheet no. 63H/12, in part of Sidhi District, Madhya Pradesh.
b) MECL informed that the project was recommended in 57th TCC meeting of NMET held on 26th September 2023 & approved in 32nd EC of NMET on 6th December, 2023. The sanction order was issued on 12th December, 2023 with timeline of 09 months and approved cost was INR 1,39,81,360/-.
c) MECL informed that peer review comments have been attended and the geological report will be submitted within 31st December 2024.

Recommendation TCC-II:

The committee recommended that the timeline of 31st December 2024, should be followed for report submission.





Agenda 2.2.2 Reconnaissance Survey (G-4) for Manganese and Associated Minerals in Katori-Jhiriya Block (140.22 Sq. Km), District- Balaghat, Madhya Pradesh.
[Implementing Agency: Mineral Exploration and Consultancy Limited (MECL)]

a) The exploration block of 140.2 sq. km. falls in Survey of India toposheet no. 55O/14, in parts of Balaghat District, Madhya Pradesh.
b) On recommendation of 47th TCC of NMET the project was approved in 27th EC on 10th January 2023. The sanction order was issued on 03rd February, 2023 with timeline of 14 months and approved cost was INR 1,67,81,229/-. The project was reviewed in 58th TCC meeting and recommendations were given for pitting/trenching & drilling based on the approved quantum of work.
c) MECL informed that the proposed boreholes location falls in reserved forest hence application for permission was applied. As the forest permission is in progress, 6-month time extension was approved in 66th TCC meeting held on 24th June 2024.
d) As, the forest clearance is awaited for this block, MECL has requested for further extension of timeline for 6-month.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for 6-month extension of timeline up to 31st March 2025 for report submission.

Agenda 2.2.3 Preliminary Exploration (G-3) For Bauxite, Titanium & Associated Minerals in Siskari Pat Block (0.28 sq km), District - Lohardaga, Jharkhand.
[Implementing Agency: Mineral Exploration and Consultancy Limited (MECL)]

a) Present exploration project of 0.28 sq. km. area falls in Survey of India toposheet no.73A/10, in parts of Lohardaga District, Jharkhand.
b) On recommendation of 61st TCC, NMET 33rd EC meeting held on 19th February 2024 has approved the project. The sanction order was issued on 27th February, 2024 with timeline of 06 months (up to 26.08.2024) and approved cost was INR 74,20,449/-.
c) Timeline extension up to 30th November 2024 was accorded by the committee in 1st meeting of TCC-II of NMET held on 26th & 27th September, 2024.
d) MECL informed that Peer Review will be done & project report will be submitted as per the given timeline.

Recommendation TCC-II:

The committee recommended that the timeline of 30th November 2024, should be followed for report submission.

Agenda 2.2.4 Reconnaissance Survey (G-4) for REE in Kumhardih Khijuri-Pachambha Block, (Block area- 175.27 sq. km), District- Giridih, Jharkhand.
[Implementing Agency: Mineral Exploration and Consultancy Limited (MECL)]

a) Present exploration block of 175.28 sq. km. area, falls in Survey of India toposheet no. 72L/02 in parts of Giridih District of Jharkhand State.
b) The project was recommended in 59th TCC, NMET held on 28th & 29th November, 2023 and was approved in 32nd EC, NMET on 6th December 2023. The sanction order

was issued on 12th December, 2023 with timeline of 09 months and approved cost was INR 78,09,636/-.

c) MECL requested for additional chemical analysis of 10 samples for major oxides and timeline extension up to 31st December 2024.
d) The committee agreed for chemical analysis of additional 10 samples for major oxides.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for extension of timeline up to 31st December, 2024 for report submission and Chemical analysis of additional 10 samples for major oxides with total estimated total cost of the project at 78.63 Lakh (including GST) as at Annexure- 11

Agenda 2.2.5 Reconnaissance Survey (G-4) for Iron, Manganese and Associated Minerals in Tikariya Block (146.0 Sq. Km), Districts- Jabalpur, Katni and Umaria, Madhya Pradesh.

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

a) MECL informed that the project was approved in the 31st EC meeting held on 12th September, 2023. The sanction order was issued on 05th October, 2023 with timeline of 10 months and approved cost was INR 2,21,83,799/-.
b) MECL requested for timeline extension up to 31st December 2024 for report submission.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for extension of timeline up to 31st December 2024 for report submission.

Agenda 2.2.6 Preliminary Exploration (G-3) for Copper and associated minerals in Thakurdih Area-1 Block (5.1 sq.km.), Singhbhum Copper Belt, East Singhbhum district, Jharkhand (Revision of Cost sheet)

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

a) The exploration block of 5.1 sq. km. area, falls in Survey of India toposheet no. 73J/11, in parts of East Singhbhum District, Jharkhand. The area is located in the southeastern end of Singhbhum Copper Belt.
b) The project was recommended by 63rd TCC meeting held on 22nd, 26th & 27th March 2024 and was approved by 35th EC, NMET on 16th May 2024. The sanction order was issued on 20th May, 2024 with timeline of 12 months (up to 19.05.2025) and approved cost was INR 4,36,02,614/-.
c) In the 1st TCC II meeting, MECL informed that considering the thick mineralised zone, 770 additional samples were analysed. Additional 770 numbers of samples are approved by the committee. MECL submitted revised cost for chemical analysis of additional 700 samples for Primary & Check Analysis for Cu, Pb, Zn, Ni, Co, Mo & W

Recommendation TCC-II:

The committee recommended the proposal for chemical analysis of additional 700 samples for this project with an estimated cost of 466.78 Lakh (including GST) as at Annexure- 12

Agenda 2.2.7 Preliminary Exploration (G-3) for Diamond in adjacent area of Angira-B & Angira-A Block (2.3 sq.km.), Chhattarpur district, Madhya Pradesh. (Revised Cost sheet).

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

a) The exploration block of 2.30 sq. km. area, falls in Survey of India toposheet no. 54P/07, in parts of Chhattarpur District, Madhya Pradesh.
b) The block was recommended in 58th TCC, held on 30th & 31st October 2023 and approved in 32nd EC meeting held on 06th December 2023. The sanction order was issued on 12th December, 2023 with timeline of 18 months and approved cost was INR 5,61,53,521/-.
c) During the 1st meeting of TCC II, the committee recommended cross checking of lamproite samples. The committee also approved infill Ground Magnetic and TDM survey followed by geochemical soil sampling and drill hole plan. MECL submitted revised cost for infill (additional) Ground Magnetic survey and Electromagnetic (TDEM) survey.

Recommendation TCC-II:

The committee recommended the proposal for additional Magnetic survey and Electromagnetic (TDEM) survey in the block with an estimated total cost of the project at 616.20 Lakh (including GST) as at Annexure- 13A &13B.

Agenda 2.2.8 Preliminary Exploration (G-3) for Coal In North of Rajathari block, Pench Kanhan Coal Field, Chindwara district, MP.

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

a) The present exploration block of 49.17 sq. km. area, falls in Survey of India toposheet nos. 55J/11 & 55J/15, in parts of Chhindwara District, Madhya Pradesh.
b) The project was recommended in 32nd TCC held on 10 & 11 August 2021 and approved in 24th EC held on 18 May 2022. The sanction order was issued on 02nd June, 2022 with timeline of 20 months and approved cost was INR 13,88,23,254/-.
c) Timeline extension was granted up to 31st October 2024 in the 67th TCC meeting of NMET held on 24th, 25th and 26th July 2024.
d) CMPDI informed that the project report will be submitted as per the given timeline.

Recommendation TCC-II:

The committee recommended that the timeline of 31st October 2024, should be followed for report submission.

Agenda 2.2.9 Reconnaissance Survey (G-4) for Coal in Khapia Block, North Karanpura Coal Field, Hazaribagh district, Jharkhand.

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

a) CMPDI informed that the project was approved in 28th EC meeting held on 16 March, 2023. The sanction order was issued on 03rd April, 2023 with timeline of 12 months and approved cost was INR 1,61,48,115/-.
b) Time extension up to 31 October 2024 was given in 64th TCC.

c) CMPDI informed that forest clearance was taken for the project but due to local law & Order conditions drilling work in the block could not commenced till date. So, a timeline extension of the project for 6 months was proposed.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for 6-month extension of timeline up to 02nd April 2025 for report submission.

Agenda 2.2.10 Preliminary Exploration (G-3) of Bauxite in Dhuliapat block, Lohardaga district Jharkhand.

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

a) CMPDI informed that the project was approved in the 27th EC meeting held on 10th January, 2023. The sanction order was issued on 24th March, 2023 with timeline of 12 months and approved cost was INR 82,20,938/-.
b) The committee was informed that 9 months' time extension up to 31st December, 2024 was recommended in the 65th TCC meeting held on 28th, 30th & 31st May, 2024.
c) CMPDI informed that thicker bauxite band was observed in the block than that was expected during project formulation. Hence, CMPDI requested for additional cost submitted for Core drilling and chemical analysis of additional samples with extension of timeline up to 31st December 2024.

Recommendation TCC-II:

The committee recommends the proposal for the approval of EC for additional cost submitted for Core drilling and chemical analysis of additional samples in the project with an estimated project cost of 94.21 Lakh (including GST) as given at Annexure -14 and timeline extension up to 31st December 2024.

Agenda 2.2.11 Financial Assistance from NMET funds to procure Machinery Laboratory Equipment/instruments etc. aimed at enhancing the exploration activities.

[Implementing Agency: DGM Assam]

a) DGM, Assam informed that the project was approved in the 27th EC meeting held on 10th January, 2023. The sanction order was issued on 24th March, 2023 with timeline of 12 months and approved cost was INR 4,03,64,950/-.
b) The committee advised to DGM Assam to submit a consolidated list of items to be procured with estimated cost, to NMET. Comments will be requested from GSI and IBM for the estimated cost of the machinery, Laboratory Equipment/instruments etc.

Recommendation TCC-II:

The committee deferred the proposal till the receipt of desired comments for procurement of the machinery, Laboratory Equipment/instruments etc. from GSI & IBM.

Agenda 2.2.12 Financial Assistance from NMET funds to procure Machinery Laboratory Equipment/instruments etc. aimed at enhancing the exploration activities.

[Implementing Agency: DGM Nagaland]

a) DGM, Nagaland informed that the project was approved in the 28th EC meeting held on 16th March, 2023. The sanction order was issued on 03rd April, 2023 with timeline of 12 months and approved cost was INR 4,80,46,000/-. Further, in the 29th EC meeting on 31st March, 2023 INR 14,25,000/- was approved for procurement of additional Equipment/instruments .
b) The committee advised to DGM Nagaland to submit a consolidated list of items to be procured with estimated cost, details of venders, details of market survey etc. to NMET. Comments will be requested from GSI and IBM for the estimated cost of the machinery, Laboratory Equipment/instruments etc.

Recommendation TCC-II:

The committee deferred the proposal till the receipt of desired comments for procurement of the machinery, Laboratory Equipment/instruments etc. from GSI & IBM.

Agenda 2.2.13 Preliminary Exploration (G-3) for vanadium and titanium in Dandi-Onjal-Surwada Block in Navasari and Valsad Districts, Gujarat (Revised Cost).

[Implementing Agency: CGM, Gujarat (Geo Marine Solutions Private Ltd.)]

a) MECL informed that the project was approved in the 33rd EC meeting held on 19th February, 2024. The Office Memorandum was issued on 12th March, 2024 with timeline of 12 months (up to 11.03.2025) and approved cost was INR 86,27,644/-.
b) In view of recommendations in the 1st TCC II meeting, revised cost was presented by the agency.

Recommendation TCC-II:

The committee recommended the revised cost amounting to ₹ 89,78,326.36/- for the project as given at Annexure- 15

Agenda 2.2.14 Financial Assistance from NMET funds to procure Machinery Laboratory Equipment/instruments etc. aimed at enhancing the exploration activities.

[Implementing Agency: DGM Arunachal Pradesh]

a) DGM Arunachal Pradesh informed that the project was approved in the 28th EC meeting held on 16th March, 2023. The sanction order was issued on 03rd April, 2023 with timeline of 12 months and approved cost was INR 81,00,000/-.
b) Procurement of equipment (1 ArcGIS software & 1 DGPS) has been completed through inviting tender. Training on installation and uses of GIS software has also been completed.
c) Additional timeline extension of 6-months was requested by DGM Arunachal Pradesh.
d) The committee asked to submit justification from DGM Arunachal Pradesh for delay in project timeline.

Recommendation TCC-II:

The committee recommended time line extension up to 31.03.2025 and asked DGM Arunachal Pradesh to submit the justification for delay to NMET Secretariat

Agenda 2.2.15 Reconnaissance Survey (G-4) for Limestone and Dolomite in and around Menga Area (26 sq. km.) of Upper Subansiri District of Arunachal Pradesh.
[Implementing Agency: DGM Arunachal Pradesh]

a) DGM, Arunachal Pradesh informed that the project was ratified in the 33rd EC meeting held on 19th February, 2024. The sanction order was issued on 15th January, 2024 with timeline of 12 months and approved cost was INR 1,76,01,521/-.
b) DGM Arunachal Pradesh requested for additional timeline extension for 8-months.

Recommendation TCC-II:
The committee recommends the proposal for the approval of EC for extension of timeline up to 31st March 2025 for report submission.

Agenda 2.3 Cost Evaluation of New Project Proposals

The recommendation of the TCC-II of NMET for cost evaluation of new proposals are included in the recommendation of agenda 2.1 and agenda 2.2.

Agenda 2.4 Project Evaluation for In–Principle Approval

Agenda 2.4.1 Reconnaissance survey for Chromite& Nickel (G-4) in Wui, Kenjong, Tuensang districts, Nagaland.
[Implementing Agency: Maheshwari Mining Pvt. Ltd. (MMPL)]

a) As per the comments of GSI, the proposed area overlaps with G4 exploration block of GSI, FS 2016-17 for chromium and base metal.

Recommendation TCC-II:
The committee does not agree for In–Principle Approval of the project.

Agenda 2.4.2 Reconnaissance survey for Limestone (G-4) in Chipur, Tuensang districts, Nagaland.
[Implementing Agency: Maheshwari Mining Pvt. Ltd. (MMPL)]

a) As per the comments of GSI, the proposed area overlaps with G4 exploration block of GSI, FS 2016-17 for chromite and limestone.
b) As per the comments received by State Government, the project work proposed in the area will be a repetitive work.

Recommendation TCC-II:
The committee does not agree for In–Principle Approval of the project.

Agenda 2.4.3 Reconnaissance survey for Magnetite and Chromite (G-4) in Phokphur, Kiphire districts, Nagaland.
[Implementing Agency: Maheshwari Mining Pvt. Ltd. (MMPL)]

a) Maheshwari Mining Pvt. Ltd. (MMPL) presented the details of proposed exploration work.

b) DGM Nagalnd communicated that , GSI and DGM Nagaland has already carried out G3 exploration in the proposed block where 44 boreholes were drilled with resource estimation about 55MMT.Further, DGM Nagaland had carried out G4 exploration for extended blocks with resources estimated of 12.02 MMT. DGM Nagaland is on the process is on the process of taking up G2/G3 Exploration for those extended blocks. Therefore, the proposed G4 exploration scheme by Maheshwari Mining Private Limited will be mere repetition of work.

Recommendation TCC-II:

The committee does not agree for In–Principle Approval of the project.

Agenda 2.4.4 Reconnaissance survey (G-4) for Iron ore associated with gold and sulphides in Goalpara, Lakhipur, Dudhnai, Gopalpura districts, Assam.
[Implementing Agency: Maheshwari Mining Pvt. Ltd. (MMPL)]

a) As per the comments of GSI, there is 60% overlap of the proposed area with GSI's previous G3 exploration block. GSI has explored the area for W, Sn & Ree in FS 2014-15 and for Iron in FS 2016-18.
b) The committee suggested MMPL, to submit the scout borehole plan to TCC-II. Also, the BMQ bands are to be shown in the map.

Recommendation TCC-II:

MMPL was advised to resubmit the proposal for In–Principle Approval after removing the overlap area from the block.

Agenda 2.4.5 Reconnaissance survey for REE (G-4) in Wopeng Rongpi Gaon, Karbi Anglong districts, Assam.
[Implementing Agency: Maheshwari Mining Pvt. Ltd. (MMPL)]

a) GSI has done mapping on 1:63,000 scale in this area. There is no adverse comment received for this project from GSI & State Government of Assam.

Recommendation TCC-II:

The committee has given In–Principle Approval to the proposal.

Agenda 2.4.6 Reconnaissance survey for REE (G-4) in Luhajuri, Karbi Anglong districts, Assam.
[Implementing Agency: Maheshwari Mining Pvt. Ltd. (MMPL)]

a) As per the comments received from GSI, the proposed block overlaps with GSI proposal. However, the extent of overlap is not clear.
b) The committee opined that, GSI should be asked for its comment for the block.

Recommendation TCC-II:

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

Agenda 2.4.7 Reconnaissance survey (G-4) for Limestone in Faguapada, Karamdihi, Goppur, Lahuraniberna, East Siang districts, Arunachal Pradesh.
[Implementing Agency: Maheshwari Mining Pvt. Ltd. (MMPL)]

a) The committee suggested that exploration report of GSI of this area should be consulted by the proposing agency and the area to be carved out where resource has not been estimated earlier.

Recommendation TCC-II:

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

Agenda 2.4.8 Reconnaissance survey for Limestone (G-4) in Rottung, East Siang districts, Arunachal Pradesh.
[Implementing Agency: Maheshwari Mining Pvt. Ltd. (MMPL)]

a) The committee suggested that exploration report of GSI of this area should be studied by the agency and the potential area to be identified for the proposal.

Recommendation TCC-II:

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

Agenda 2.4.9 Reconnaissance Survey (G-4) for Limestone in and around Gaisabad area in Damoh District of Madhya Pradesh.
[Implementing Agency: Engeotech Consultant]

a) However, the proposed exploration work for limestone in this area has potential, the proposed area is overlapping with the State DGM's exploration area.

Recommendation TCC-II:

The committee does not agree for In–Principle Approval of the project.

Agenda 2.4.10 Preliminary Exploration (G-3) for the assessment of Bauxite, and Gallium in weathered zone in Naredi Bauxite Block, Kachchh District, Gujarat.
[Implementing Agency: Geo Marine Solutions Pvt. Ltd.]

a) The proposed block falls in Survey of India Toposheet no. 41E/04, in parts of Kachchh District, Gujarat.
b) The area was recommended for closed space drilling for delineating concealed bauxite pockets by CGM, Gujarat. Chemical analysis data of the bauxite shows average Al_2O_3 51.49% and average SiO_2 5.03%, in this block. CGM, Gujarat has reported resource of 27.85 MMT.
c) The NGCM (GSI) data for regolith near Naredi shows Al_2O_3 22.48% and Gallium value of 29 ppm.
d) There are no adverse comments received for this proposal from GSI and State Government.

Recommendation TCC-II:

The committee has given In–Principle Approval to the proposal.

Agenda 2.4.11 Preliminary Exploration (G-3) for the assessment of Bauxite, and Gallium in weathered lateritic zone in Sandhan Bauxite Block, Kachchh District, Gujarat.
[Implementing Agency: Geo Marine Solutions Pvt. Ltd.]

a) Geo Marine Solutions Pvt. Ltd. Presented the details of proposed exploration project.
b) The NGCM (GSI) data for Regolith sample nearby the area of Sandhan Bauxite Block in Survey of India Toposheet no. 41E/04 shows Al_2O_3 value of 11-12% and Gallium value of 11-17 ppm.

Recommendation TCC-II:

The committee has given In–Principle Approval to the proposal.

Agenda 2.4.12 Preliminary Exploration (G-3) for the assessment of Bauxite, and Gallium in weathered lateritic zone in Vamoti Nani Bauxite Block, Kachchh District, Gujarat.

[Implementing Agency: Geo Marine Solutions Pvt. Ltd.]

a) Geo Marine Solutions Pvt. Ltd. presented the details of proposed exploration project.
b) The NGCM (GSI) data for Stream Sediment near Vamoti Nani in Survey of India Toposheet no. 41E/04 shows Gallium value ranging from 30 ppm- 34 ppm.
c) MECL informed that the block is entirely overlapping with identified proposed blocks of MECL in Gujarat state for exploration at various levels which are being taken up during FY 2024-25.

Recommendation TCC-II:

The committee does not agree for In–Principle Approval of the project.

Agenda 2.4.13 Reconnaissance Survey (G-4) for Lithium near Niruna and Dhoro Village, Lakhpat, Nakhatrana and Bhuj Taluka, Kachchh District, Gujarat.

[Implementing Agency: Mining Tech Consultancy Services Limited]

a) The committee opined that some sampling and chemical analysis results should be added up to the proposal to prove the potential of Li in the proposed block.

Recommendation TCC-II:

The committee does not agree for In–Principle Approval of the project.

Agenda 2.4.14 Reconnaissance Survey (G-4) for Lithium near Niruna and Dhori Village, Nakhatrana and Bhuj Taluka, Kachchh District, Gujarat.

[Implementing Agency: Mining Tech Consultancy Services Limited]

a) The committee opined that some sampling and chemical analysis results should be added up to the proposal to prove the potential of Li in the proposed block.

Recommendation TCC-II:

The committee does not agree for In–Principle Approval of the project.

Note: Agenda 2.4.15 to agenda 2.4.19, the CGM, Gujarat has informed that they have carved out 212 projects for mineral exploration in Gujarat and the proposal submitted by the agencies are part of the 212 projects, CGM Gujarat has requested for some more time to provide comments.





Recommendation TCC-II:

In view of the above, the committee decided to defer the projects till receipt of comments from CGM Gujarat.

Agenda 2.4.20 Reconnaissance survey (G-4) for REE in Goma River Basin in Pachmahal district, Gujarat.

[Implementing Agency: Geovale Services Private Limited]

a) CGM, Gujarat commented that the proposed area is not listed in their 212 proposed projects of mineral exploration.
b) The committee has asked the agency for submission of the ongoing project report and on the basis of results from that report further decision will be taken.

Recommendation TCC-II:

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

Agenda 2.4.21 Reconnaissance survey (G-4) for REE in Mesri River Basin in Pachmahal district, Gujarat.

[Implementing Agency: Geovale Services Private Limited]

a) CGM, Gujarat commented that the proposed area is not listed in their 212 proposed projects of mineral exploration.
b) The committee has asked the agency for submission of the ongoing project report and on the basis of results from that report further decision will be taken.

Recommendation TCC-II:

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

Agenda 2.4.22 Reconnaissance survey (G-4) for REE in Zinjva, Revas, Sabarkantha district, Gujarat.

[Implementing Agency: Geovale Services Private Limited]

The committee decided to defer the project till receipt of comments from CGM Gujarat.

List of participants attended 2nd meeting of Technical-cum-cost Committee (TCC-II) of NMET held on 22nd and 23rd October, 2024 through video conferencing mode

SL. No.	Name/ Designation	email ID	Contact No.	Status
1.	Shri Pradeep Singh, Dy. Director General, GSI, Kolkata	ddg.it@gsi.gov.in	9810233957	**Chairman, TCC - II**
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Annexure 2A

Estimate cost for Preliminary Exploration (G-3) for Tin in Kangra Block (6.35 sq.km) ,District- Garhwal, Uttarakhand
Total Area - 6.35 sq. km; Completion Time - 15 Months, Review: 6 & 10 months , Drilling: 600 m, 10 nos.

E	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	Additional Rate for Exploration work in remote and inaccessible terrain in North Eastern States and Himalayan terrain (3.35 times higher than the normal SoC)	Qty.	Total Amount (Rs)	
1	**Geology & Survey**							
1.1	Geologist man days (1 No.) for geological map & Report (HQ)	day	1.3	9,000		60	5,40,000	
1.2	Geologist (Field) man days for core logging/mapping/ Sampling/topographic survey (1:4000 scale)	day	1.3	11,000	36,850	200	73,70,000	
1.3	Unskilled Labour (Field) (2 workers per geologist)	day	5.7	526	1,762	400	7,04,840	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
1.4	Survey Party Days for topographic survey (4m contour)	days	1.6.1a	8,300	27,805	60	16,68,300	

1.5	Unskilled Labour (Survey) (4 workers per Surveyer)	Days	5.7	526	1,762	240	4,22,904	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
1.6	Sampling man days - Sampler, Labour charge not included	day	1.5.2	5,100	17,085	65	11,10,525	
1.7	4 labours/ party (Rs 526/day/labour) (As per rates of Central Labour Commissioner) for sampling work	day	5.7	526	1,762	260	4,58,146	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
1.8	Determination of co-ordinates and Reduced Level (RL) of boreholes by DGPS including boundary corner points.	Nos.	1.6.2	19,200	64,320	16	10,29,120	Boreholes 10 Nos. + Block Boundary 06 Nos.
	Sub-Total 1						**1,33,03,835**	
2	**Excavation**							
2.1	Pitting/Trenching (upto 2m)-Trenching	Cu.m	2.1.1	3,330	11,156	60	6,69,330	
	Sub-Total 2						**6,69,330**	
Phase-2								
3	**Drilling**							
3.1	Drilling -hard rock (up to 300m)	m	2.2.1.5a	11,500	38,525	600.00	2,31,15,000.00	
3.2	Land / Crop Compensation (in case the BH falls in agricultural Land)	per BH	5.6	20,000	67,000	10.00	6,70,000.00	As per actual
3.3	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	6,700.00	10.00	67,000.00	
3.4	Transportation of Drill Rig & Truck associated per drill (for 2 rig)	Km	2.2.8	36	121	5,200	6,27,120.00	2600 Km to and fro for one rig





3.5	Monthly Accomodation Charges for drilling Camp (up to 2 Rigs)	month	2.2.9	50,000	1,67,500.00	6	10,05,000.00	
3.6	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	8,37,500.00	2	16,75,000.00	
3.7	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	8,37,500.00	2	16,75,000.00	
3.8	Road Making (Rugged-Hilly Terrain)	Km	2.2.10b	32,200	1,07,870.00	5	5,39,350.00	
3.9	Drill Core Preservation	per m	5.3	1,590	5,326.50	300	15,97,950.00	
	Sub-Total 3						**3,09,71,420**	
4	**Laboratory Studies (Phase 1 & Phase 2)**							
4.1	Primary Bedrock/channel/pit/trenching + Check Sample - 34 Elements of ICPMS	per sample	4.1.15	7,731	NA	363.00	28,06,353.00	Closed space sampling in grid pattern-300 Nos+trecnhing 30 Nos+check samples-33
4.2	Core samples+ Check Sample - 34 Elements of ICPMS (Primary+Internal check+ External check)	per sample	4.1.16	7,732	NA	154.00	11,90,728.00	Borehole samples-140+check samples
4.2	Preparation of thin section	Nos	4.3.1	2,353	NA	5	11,765.00	
4.3	Complete petrographic study report	Nos	4.3.4	4,232	NA	5	21,160.00	
4.4	Preparation of Polished Section	Nos	4.3.2	1,549	NA	20	30,980.00	
4.5	Complete Mineragraphic study report	Nos	4.3.4	4,232	NA	20	84,640.00	
4.6	Whole Rock Analysis(Major Oxides)	Nos	4.1.15a	4,200	NA	5	21,000.00	
4.7	XRD	Nos	4.5.1	4,000	NA	20	80,000.00	
4.8	SEM	per hour	4.4.2	2,940	NA	10	29,400.00	
4.9	Bulk Density	per sample	4.1	3,540	NA	10	35,400.00	
	Sub-Total -4						**43,11,426**	
5	**Total 1 to 4**						**4,92,56,011**	

6	**Geological Report Preparation**	**5 Hard copies with a soft copy**	**5.2**	Detailed exploration with cost of work exceeding ₹ 300 lakh: A minimum of ₹ 9 lakh or 3% of the value of work whichever is more subject to a maximum amount of ₹ 20 lakh and ₹ 10,000/- per each additional copy			**14,77,680**	
7	**Peer review Charges**		**As per EC decision**				**30,000**	
8	**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**	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.
9	**Total Estimated Cost without GST**						**5,12,63,691**	
10	**Provision for GST (18% of G)**	**%**					**92,27,464**	GST will be reimburse as per actual and as per notified prescribed rate
11	**Total Estimated Cost with GST**						**6,04,91,156**	**or say Rs. 604.67 Lakh**
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 execution of the project by NEA on its own, a certificate regarding non outsourcing of any component/project is required.								





Annexure 2B

Time Schedule/ Action plan for Preliminary Exploration (G-3) for Tin in Kangra Block (6.35 sq.km) ,District- Garhwal, Uttarakhand

			1	2	3	4	5	6		7	8	9	10		11	12	13	14	15
1	Camp setting	Month																	
2	Geologist days (Field)	Month																	
3	Sampling days, core sampling	Party days																	
4	Geophyscial Survey																		
5	Core drilling (2 rig)	Party days																	
6	Camp winding																		
7	Laboratory studies	Month																	
8	Geologist days (HQ)	Month																	
9	Report writing/ Peer review	Party days																	

Review

Review

Annexure 3A

Estimate Cost of Preliminary Exploration (G-3) for REE mineralization in South of Nauser (9.18 sq.km.), Bamni Dhani (3.70 sq.km.), South of Dandali (3.37 sq.km.) ans South of Sarnu block (1.70 sq.km), District- Barmer, Rajasthan.
Total Area - 16.25 sq km (South of Nauser (9.18 Sq. Km), Bamni Dhani (3.70 Sq. Km) and South of Dandali (3.37 Sq. Km)); Completion Time -14 Months, Review after 6 months , Drilling : after review

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**						
a	Charges for Geologist at field for detailed mapping (1: 2000), pitting, sampling etc	day	1.2	11,000	180	19,80,000	
b	Labour Charges for Geologist	day	5.7	526	360	1,89,360	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
c	Charges for Geologist at HQrs for data processing	day	1.3	9,000	60	5,40,000	
d	Charges for Sampler for samples	one sampler per day	1.5.2	5,100	127	6,47,700	
e	Labour Charges for Sampling Work	day	5.7	526	508	2,67,208	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
	Sub-Total A					**36,24,268**	
B	**PITTING AND TRENCHING**						

a	Pitting	Cu m	2.1.2	3,800	1,950	74,10,000	(As per actuals) Grid 100mx200m, Pitrting not to be taken up if transported cover is more than 3m
	Sub-Total B					**74,10,000**	
C	**Geophysical Survey**						
1	Gravity - Magnetic Method - Regional / Detailed (0.5 to 200 sq.km depending on the objective)	Per station	3.1b	4,500	6,571	2,95,69,500	Line spacing 100m, station interval :25 m
2	Charges for Geophysicist party days at field	day	3.18	11,000	-	-	
3	Charges of Surveyor	day	1.6.1a	8,300	-	-	
4	Labour Charges for Geologist	day	5.7	526	-	-	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
4	Charges for Geophysicist party days at HQ for data processing & interpretation	day	3.18	9,000	45	4,05,000	
	Sub-Total C					**2,99,74,500**	
D	**LABORATORY STUDIES**						
1	**Chemical Analysis**						
	Primary Samples (Channel sample BR + Pit)						
i)	**Primary samples**						
	a. REE , RM and associated Trace Elements (34 Element)by ICPMS	Nos	4.1.14	7,731	925	71,51,175	775 Pit samples, 150 BRS
iii)	**External check samples (10%)**						
	a. REE , RM and associated Trace Elements (34 Element)by ICPMS	Nos	4.1.14	7,731	93	7,18,983	

2	**Physical & Petrological Stusies**						
i)	Preparation of thin section	Nos	4.3.1	2,353	20	47,060	
ii)	Complete petrographic study report	Nos	4.3.4	4,232	20	84,640	
iii)	Preparation of polish section	Nos	4.3.2	1,549	10	15,490	
iv)	Complete mineragraphic study report	Nos	4.3.4	4,232	10	42,320	
v)	Digital Photographs	Nos	4.3.7	280	20	5,600	
vi)	XRD Study	Nos	4.5.1	4,000	30	1,20,000	
vii)	EPMA Study	Hour	4.4.1	8,540	6	51,240	
	Sub-Total –D					**82,36,508**	
E	**Total A+B+C+D**					**4,92,45,276**	
	Geological Report Preparation	**5 Hard copies with a soft copy**	**5.2**	A minimum of ₹ 9 lakh or 3% of the value of work whichever is more subject to a maximum amount of ₹ 20 lakh and ₹ 10,000/- per each additional copy		**20,00,000**	EA has to submit the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.

G	**Peer review Charges**		**As per EC decision**			**30,000**	
H	**Preparation of Exploration Proposal (5 Hard copies with a soft copy)**	**5 Hard copies with a soft copy**	**5.1**	**2% of the Cost or Rs. 5.00 Lakhs whichever is lower**		**5,00,000**	
I	**Total Estimated Cost without GST**					**5,17,75,276**	
J	**Provision for GST (18% of L)**	**%**				**93,19,550**	GST will be reimburse as per actual and as per notified prescribed rate
K	**Total Estimated Cost with GST**					**6,10,94,826**	
or Say Rs. , In Lakhs:						***610.95***	
Note:							
*	Taking rate from OM of Sarnu Block, Barmer, Rajasthan; OM No 23/332/2023-NMET/05 dated 03.04.2023						
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/ Acton Plan for Preliminary Exploration (G-3) for REE mineralization in South of Nauser (9.18 sq.km.), Bamni Dhani (3.70 sq.km.), South of Dandali (3.37 sq.km.) and South of Sarnu block (1.70 sq.km), District- Barmer, Rajasthan.

		1	2	3	4	5	6		7	8	9	10	11	12	13	14
1	Camp Setting															
2	Geological Party Days															
3	Pitting & Sampling															
4	Laboratory Studies															
5	Geophysical survey															
6	Geophysical data interpretation															
7	Core Sample Preparation															
8	Camp Winding															
9	Geologist Party days, HQ															
10	Geological Report Writing															
11	Peer Review															

Annexure 4A

Estimate Cost for Preliminary Exploration (G-3) for Copper and Associated Minerals in Jaridih Pipradih Block (4.45 sq.km) ,District- Giridih, Jharkhand.
Total Area - 3.01 sq km ; Completion Time -15 Months, Review : 6 months, Drilling : 1500m, BHs: 10

pre	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 Mapping Other Geological Work & Surveying**						
	Geological mapping, (1:2,000 scale) & Trenching , drilling work	3.05 sq.km					
	a. Charges for Geologist per day (Field) for geological mapping & trenching work, drilling work	day	1.2	11,000	150	1650000	
	b. Labours Charges	day	5.7	526	300	157800	Amount will be reimburse as per the notified rates for unskilled labor by the Central Labour Commissioner or respective State Govt. whichever is higher
	c. Charges for Geologist per day (HQ)	day	1.3	9,000	60	540000	
	d. Charges for one Sampler per day (1 Party)	one sampler per day	1.5.2	5,100	58	295800	
	e. Labours (4 Nos)	day	5.7	526	232	122032	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
	Sub-Total A					**27,65,632**	
B	**Ground Geophysical Survey**						
1	Self - Potential & Shallow Electrical Resistivity (10-20 line KM)	Per Line Km	3.3c	60,000	30	18,00,000	

3	Geophysicist party days (Field)	per day	3.18	11,000	-	-	
4	c. Labours Charges	day	5.7	526	-	0	Amount will be reimburse as per the notified rates for unskilled labor by the Central Labour Commissioner or respective State Govt. whichever is higher
5	Geophysicist party days (HQ)	per day	3.18	9,000	30	2,70,000	
	Sub-Total B					**20,70,000**	
C	**Survey work for Block boundary demarcation, geophysical survey layout & Trenching work**						
a	DGPS Survey of Block Boundary cardinal points by DGPS + BH fixation & RL determination	Per Point of observation	1.6.2	19,200	14	268800	4 Points for Block Boundary + 10 Bhs
b	Charges of Surveyor (1 party) for **Topographic, survey** layout work & Block boundary demarcation	one surveyor per day	1.6.1a	8,300	60	498000	
c	Labours Charges for survey work;	day	5.7	526	240	126240	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 C					**8,93,040**	
D	**Trenching/Pitting**						
	a) Excavation of Trenches	per cu.m	2.1.1.	3,330	100	333000	
	Sub Total D					**3,33,000**	
E	**DRILLING (after review)**						
1	Drilling up to 300m (Hard Rock)	m	2.2.1.4a	11,500	1,500	1,72,50,000	Subject to Review Geophysical Survey, DM, Trech
2	Borehole deviation Survey by Multishot Camera	m	2.2.6	330	1,500	4,95,000	

3	Land / Crop Compansation (in case the BH falls in agricultural Land)	per BH	5.6	20,000	10	2,00,000	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	10	20,000	
5	Transportation of Drill Rig & Truck associated per drill (2 rigs)	Km	2.2.8	36	2,200	79,200	1100 km to & fro from Nagpur/ Rig
6	Monthly Accomodation Charges for drilling Camp (up to 2 Rigs)	month	2.2.9	50,000	5	2,50,000	
7	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	1	2,50,000	
8	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	1	2,50,000	
9	Road Making (Flat Terrain)	Km	2.2.10a	22,020	10	2,20,200	Road Making will be considered as per the requirement and Road Making Charges will be reimbursed for max. 5 km.
10	Drill Core Preservation	per m	5.3	1,590	450	7,15,500	
	Sub Total E					**1,97,29,900**	
F	**LABORATORY STUDIES**						
1	**Chemical Analysis**						
i)	**Geochemical Sampling (Bedrock /Soil /Trench Samples)**						
	a. first five radicals – AAS	Nos	4.1.7a	2,506	110	2,75,660	Surface - 50, Trench-60
	b. Au and Ag by Fire Assay	Nos	4.1.5a	4,760	25	1,19,000	Surface and Trench - 25, analysis of 1 radical is Rs 2380 per samples
	c. ICPMS- 34 elements	Nos	4.1.14	7,731	110	8,50,410	
ii)	**Surface Check samples 10% External**						
	a. First Five radicals –AAS	Nos	4.1.7a	2,506	11	27,566	
	b. Au and Ag by Fire Assay	Nos	4.1.5a	4,760	3	14,280	
	c. ICPMS- 34 elements	Nos	4.1.14	7,731	11	85,041	
v)	**BH Core Samples**						





	a. First Five radicals –AAS	Nos	4.1.7a	2,506	250	6,26,500	
	b. Au and Ag by Fire Assay	Nos	4.1.5a	4,760	25	1,19,000	
	c. ICPMS- 34 elements	Nos	4.1.14	7,731	250	19,32,750	
vi)	**BH Core Check samples 10% External**						
	a. First Five radicals –AAS	Nos	4.1.7a	2,506	25	62,650	
	b. Au and Ag by Fire Assay	Nos	4.1.5a	4,760	3	11,900	
	c) ICP-MS (34 elements) (for BH Samples)	Nos	4.1.14	7,731	25	1,93,275	
2	**Petrological samples (Surface & Trench/BH)**						
i	Preparation of thin section	Nos	4.3.1	2,353	10	23,530	
ii	Study of Thin Section	Nos	4.3.4	4,232	10	42,320	
3	**Mineragraphic Studies (Surface & Trench/BH Samples)**						
i	Preparation of polished section	Nos	4.3.2	1,549	10	15,490	
ii	Study of Polished Section	Nos	4.3.4	4,232	10	42,320	
iii)	Digital Photographs	Nos	4.3.7	280	10	2,800	
	Sub Total F					**44,44,492**	
H	**Borehole Geophysical Logging**	**5 Bhs of 350m each**	**3.12**	10,88,941.00	2	21,77,882	10 BH
G	**Total A to F**					**3,24,13,946**	
H	**Geological Report Preparation**	**5 Hard copies with a soft copy**	**5.2**	For the projects exceeding to Rs. 300 lakhs - A minimum of Rs.9.0 lakhs or 3% of the value of work whichever is more		9,72,418	Reimbursement will be made after submission of the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.

I	**Peer review Charges**		**As per EC decision**			**30,000**	
J	**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**	will be reimbursed after submission of the Hard Copies and the soft copy of the final proposal along with Maps and Plan as suggested by the TCC-NMET in its meeting while clearing the proposal.
K	**Total Estimated Cost without GST**					**3,39,16,364**	
L	**Provision for GST (18% of L)**	**%**				**61,04,946**	GST will be reimburse as per actual and as per notified prescribed rate
M	**Total Estimated Cost with GST**					**4,00,21,310**	
or Say Rs. , In Lakhs:						***400.21***	
1. Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.							
2. In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.							
3. If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.							
4. Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.							





Annexure 4B

Time Schedule/ Action plan for Preliminary Exploration (G-3) for Copper and Associated Minerals in Jaridih Pipradih Block (4.45 sq.km) ,District- Giridih, Jharkhand.

Sl. No.	Activities	Unit	MONTHS															
			1	2	3	4	5	6	Review	7	8	9	10	11	12	13	14	15
1	Camp Setting	Month																GR Review and submission
2	Geological mapping (1:2,000 scale)																	
3	Ground Geophysical Survey	Lkm																
4	Geophyscist party days (HQ) for data interpretation & Report																	
5	Trenching work	Month																
6	Drilling																	
7	Sampling Party days, Surface and Trench Sampling (1 Party)	day																
8	Camp Winding	Month																
9	Laboratory Studies	Nos.																
10	Geologist Party days at HQ (1 Party)	day																
11	Report Writing	Month																
12	Peer Review	Month																

Annexure 5A

Estimate Cost for Preliminary Exploration (G-3) for Potash in Lakhasar East Extesntion Block (9.50 Sq.km), Lakhasar Sub Basin, District- Bikaner, Rajasthan. Total Area - 9.50 sq km; Nos. of Borehole - 15 ; Borehole depth range - Avg 700 m ; Completion Time - 15 Months, Review after 6 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)	
A	**GEOLOGICAL WORK**						
1	**Borehole logging & sampling & report writing**						
a	Charges for one Geologist per day at HQ for report Preparation	day	1.3	9,000	60	5,40,000	
b	Charges for Geologist party per day at field for Logging	day	1.3	11,000	180	19,80,000	
c	1 party Labour (2 Nos each party)	day	5.7	526	360	1,89,360	Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
d	Charges for one Sampler per day (1 Party)	one sampler per day	1.5.2	5,100	248	12,64,800	
e	Labours (4 Nos)	day	5.7	526	992	5,21,792	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	19	3,64,800	BH-15 nos, 4 Boundary points
	Sub-Total A					**48,60,752**	
B	**DRILLING**						
1	Drilling up to 300m (Non Coring)	m	2.2.5	2,792	4,500	1,25,64,000	Non Coring rate for lignite has been considered
2	Drilling 301 to 600 m (Hard Rock) (HQ)	m	2.2.4b	15,180	4,500	6,83,10,000	Soc-Page No-2, Clause No. II: Note on Potash Drilling
	Drilling 601 to 900 m (Hard Rock) (NQ)	m	2.2.1.4c	13,225	1,500	1,98,37,500	

3	Land / Crop Compensation (in case the BH falls in agricultural Land)	per BH	5.6	20,000	15	3,00,000	Amount will be reimbursed 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	15	30,000	
5	Borehole plugging by cement	m	2.2.7b	150	10,500	15,75,000	
6	Transportation of Drill Rig & Truck associated per drill (4 rigs)	Km	2.2.8	36	10,000	3,60,000	Nagpur to Lakhasar (To & Fro for 4 rigs)
7	Monthly Accommodation Charges for drilling Camp (Rs 50000/- per Month upto 2 rigs, 50% Additional Charge for additional rigs)	month	2.2.9	1,00,000	8	8,00,000	Rs. 50000+(50000*2*50%)=1,00,000/-
8	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	2	5,00,000	
9	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	2	5,00,000	
10	Road Making (Flat Terrain)	Km	2.2.10a	22,020	5	1,10,100	Road Making will be considered as per the requirement and Road Making Charges will be reimbursed accordingly.
11	Drill Core Preservation	per m	5.3	1,590	2,590	41,18,100	
	Sub Total B					**10,90,04,700**	
C	**BOREHOLE GEOPHYSICAL LOGGING**						
1	Dual Density	m	3.11d	102	6,000	6,12,000	Dual Density, Neutron, Spectral Gamma, Resistivity and Caliper logging required for identification of Potash
2	Neutron	m	3.11f	74	6,000	4,44,000	
3	Spectral Gamma	m	3.11o	164	6,000	9,84,000	
4	Resitivity	m	3.11c	39	6,000	2,34,000	
5	Caliper	m	3.11g	19	6,000	1,14,000	
6	Geophysicist in HQ	day	3.18	9,000	20	1,80,000	
7	Geophysicist in Field	day	3.18	11,000	30	3,30,000	
	Sub Total C					**28,98,000**	
D	**LABORATORY STUDIES**						
1	**Chemical Analysis**						
i)	**Primary samples**						

	a. Analysis of 11 radicals i.e. K, Na, Water insolubles, Mg, Cl, Br, I, Li & CaSO4, F & B	Nos	4.1.1	8,157	1,800	1,46,82,600	
ii)	**Check samples External(10%)**						
	a. Analysis of 11 radicals i.e. K, Na, Water insolubles, Mg, Cl, Br, I, Li & CaSO4, F & B	Nos	4.1.1	8,157	180	14,68,260	
iii)	XRD analysis for identification of minerals (Random)	Nos	4.5.1	4,000	375	15,00,000	25 Nos of Primary samples from Potash Zones of Each Boreholes
	Sub-Total -1					**1,76,50,860**	
2	**Physical Laboratory**						
i.	Specific Gravity Determination	No.	4.8.1	1,605	30	48,150	
	Sub Total- D					**1,76,99,010**	
E	**Total - A to D**					**13,44,62,462**	
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**		**20,00,000**	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**			**30,000**	





	Preparation of Exploration Proposal (5 Hard copies with a soft copy),	5 Hard copies with a soft copy	5.1			**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
J	**Total Estimated Cost without GST**					**13,69,92,462**	
K	**Provision for GST (18% of G)**	**%**				**2,46,58,643**	GST will be reimbursed as per actual and as per notified prescribed rate
L	**Total Estimated Cost with GST**					**16,16,51,105**	
				Say in Lakhs (Rs.)		***1,616.51***	

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 5B

Time Schedule/ Action plan for Preliminary Exploration (G-3) for Potash in Lakhasar East Extesntion Block (9.50 Sq.km), Lakhasar Sub Basin, District- Bikaner, Rajasthan.

Sl. No.	Activities	Unit	MONTHS														
			1	2	3	4	5	6	Review	7	8	9	10	11	12	13	14	15
1	Camp Setting	day																
2	Core Drilling (4 rigs)	m.																
4	Geologist Party days (1 Party)	day																
5	Sampling Party days, Core Sampling	day																
6	Camp Winding	day																
7	Laboratory Studies	Nos.																
8	Geologist Party days (1 Party), HQ	day																
10	Report Writing & Peer review	day																

Annexure 6A

Estimate cost for Reconnaissance Survey (G4) for Iron , Manganese and Associated Minerals in Jauli-Sailwara Block (33.8 Sq.km), District- Jabalpur, Madhya Pradesh.
[Block area- 33.8 sq. km; Schedule timeline- 10 months, Review : 5 months, Drilling : 300 m]

S. 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.	Amount (Rs)	
A	**GEOLOGICAL WORK (1:12,500 scale)**						
i	Charges for one Geologist- Field	day	1.2	11,000	100	11,00,000	
ii	Charges for one Geologist per- HQ	day	1.2	9,000	60	5,40,000	
iii	2 labours/ party (Rs 526/day/labour) (As per rates of Central Labour Commissioner)	day	5.7	526	200	1,05,200	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher (Rate effected from 01.10.2024)
iv	Core Sampling -1 Samplers Labour charge not included	day	1.5.2	5,100	68	3,46,800	
v	4 labours/ party (Rs 522/day/labour) (As per rates of Central Labour Commissioner)	day	5.7	526	272	1,43,072	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
	Sub Total- A					**22,35,072**	
B	**PITTING AND TRENCHING**						
i	Trenching	Cu m	2.1.1	3330	150	4,99,500	
	Sub Total- B					**4,99,500**	
C	**LABORATORY STUDIES**						
1	**Chemical Analysis**						
i	**Primary & Check samples for Iron-Manganese BRS/Chip/Channel/Trench/BH samples)**						
	a. Primary Samples for Total Fe, Total Mn, Al_2O_3, CaO, SiO_2, P, S	Nos	4.1.15a	4,200	450	18,90,000	BRS/Channel Samples-150, Trench Samples-100, BH Samples-200

	and Acid insolubles						
	b. External (10%) Check samples forTotal Fe, Total Mn, Al2O3, CaO, SiO2, P, S and Acid insolubles	Nos	4.1.15a	4,200	45	1,89,000	15+10+20
ii	**Primary & Check samples for gold (BRS/Channel/Trench/Core)**						
	a. Primary Samples for Au by Fire Assay	Nos	4.1.5a	2,380	20	47,600	surface -10, BH/Trench- 10
	b.External Check (10%) samples for Au by Fire Assay	Nos	4.1.5a	2,380	2	4,760	
iii	**Trace element study (34 Elements)**	Nos	4.1.14	7,731	10	77,310	
iv	**Composite Sample analysis** for Total Fe, Total Mn, Al2O3, CaO, SiO2, P, S and Acid insolubles	Nos.	4.1.15a	4,200	20	84,000	
2	**Physical,Petrological, Mineralogical Studies**						
i	Preparation of thin section	Nos	4.3.1	2,353	10	23,530	
ii	Complete petrographic study report	Nos	4.3.4	4,232	10	42,320	
iii	Preparation of polished section	Nos	4.3.2	1,549	10	15,490	
iv	Complete mineragraphic study report	Nos	4.3.4	4,232	10	42,320	
v	Digital Photographs	Nos	4.3.7	280	10	2,800	
vi	Whole Rock Analysis (Major oxide and additional trace elements)	Nos	4.1.15a & b	7,568	10	75,680	
	Sub Total- C					**24,94,810**	
D	**DRILLING**						
i	Drilling upto 300m (very Hard Rock) (1 rigs)	m	2.2.1.5a	12,650	300	37,95,000	

ii	Land / Crop Compansation	per BH	5.6	20,000	5	1,00,000	Amount will be reimburse as per actuals or max. Rs. 20000 per BH with certification from local authorities
iii	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	5	10,000	
iv	Transportation of Drill Rig & Truck associated per drill	Km	2.2.8	36	680	24,480	Certification in this regard is required to be provided (Nagpur to Jauli village- 340 km)
v	Monthly Accomodation Charges for drilling Camp (up to 2 Rigs)	month	2.2.9	50,000	4	2,00,000	
vi	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	1	2,50,000	
vii	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	1	2,50,000	
viii	Approach Road Making (Flat Terrain)	Km	2.2.10a	22,020	5	1,10,100	Road Making will be considered as per the requirement and Road Making Charges will be reimbursed for max. 4 km.
ix	Bore Hole Fixation and determination of co-ordinates & Reduced Level of the boreholes and by DGPS	Nos	1.6.2	19,200	6	1,15,200	*5 Boreholes and 1 base station
x	One complete borehole plus mineralised cores of all the remaining Bhs	m	5.3	1,590	250	3,97,500	This amount will be reimbursed after successful delivery of the cores to concerned libraries/authorities
	Sub Total- D					**52,52,280**	
F	**Total A to E**					**1,04,81,662**	
G	**Geological Report Preparation**		**5.2**	For the projects having cost exceeding Rs. 150 lakhs but less than 300 lakhs - A minimum of Rs. 7.5 lakhs or		**7,50,000**	Reimbursement will be made after submission of the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.

				3% of the value of work whichever is more			
H	**Peer review Charges**		**As per EC decision**			**30,000**	
I	**Preparation of Exploration Proposal**	**5 Hard copies with a soft copy**	**5.1**	2% of the Cost or Rs. 5.0 Lakhs whichever is lower		**2,09,633**	
J	**Total Estimated Cost without GST**					**1,14,71,295**	
K	**Provision for GST (18% of I)**					**20,64,833**	GST will be reimburse as per actual and as per notified prescribed rate
L	**Total Estimated Cost with GST**					**1,35,36,128**	
				or Say Rs. In Lakhs		**135.36**	
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. In case of execusion of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.						

Annexure 6B

Time Schedule/ Action plan for Reconnaissance Survey (G4) for Iron , Manganese and Associated Minerals in Jauli-Sailwara Block (33.8 Sq.km), District-Jabalpur, Madhya Pradesh.

S. No.	Particulars	Months/Days	1	2	3	4	5	Review	6	7	8	9	10
1	Camp Setting	months											
2	Geological Mapping	months											
3	Survey days	days											
4	Trenching	cu.m											
5	Drilling (1 rig)	m											
6	Geologist days	days											
7	Sampling day	days											
8	Camp winding	months											
9	Laboratory Studies	months											
10	Geologist days, HQ	days											
11	Report Writing with Peer Review	months											

Annexure 7A

Estimate cost for Preliminary Exploration (G3) of Iron Ore, Bamuri Block, Sidhi District, Madhya Pradesh

Total area: 2.5 sq km, Period of Completion: 12 months BH: 9 nos., 1000m , Review: After 5 months

			Rates as per NMET		Estimated Cost of the		
			SoC 2020-21		Proposal		
S. No.	Item of Work *	Unit *	SoC- Item No. *	Rates as per SoC * (a)	Qty. (b)	Total Amount (Rs) (a*b)	Remarks
A	**Geological Mapping Other Geological Work & Surveying**						
	Geological mapping, (1:4,000 scale) & Trenching , drilling work						
i	a. Charges for Geologist per day (Field) for geological mapping & trenching work, drilling work, logging borehole fixation.	day	1.2. b	11,000	180	1980000	1:4,000 scale mapping of 2.5 sq km
ii	b. Labours Charges; Base rate	day	5.7	526	360	189360	Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher.
	c. Charges for Geologist per day (HQ)	day	1.2. a	9,000	60	540000	
	Sub Total- A					**2709360**	
B	**Survey work**						
a	DGPS Survey for BH fixation & RL determination	Per Point of observation of observation	1.6.2	19,200	16	307200	9 bh, 7 boundary pts

b	Charges of one qualified surveyor with Total Station for carrying out topographical survey in different RF and surface contouring at different interval, fixation of borehole and determination of co- ordinates & Reduced Level (RL) of the boreholes with total station etc.		1.6.1a	8,300	30	249000	For Topographical survey
c	Labours Charges for survey work;	day	5.7	526	120	63120	4 labours per day
	Sub-Total B					**6,19,320**	
C	**Geophysical Survey**						
a	Magnetic Survey (6 line km)	Per Station	3.2a	1,800	72	129600	50*500 m total station total 72
	Sub-Total C					**1,29,600**	
D	**Trenching/Pitting**						
	a) Trenchs	per cu.m	2.1.2	3,300	100	330000	
	Sub Total D					**330000**	
E	**DRILLING (after review)- In -house**						
1	Drilling up to 1200 m (very Hard rock)	m	2.2.1.4a	12,650	1000	12650000	Inclined BH 1st level 600 m for 6 nos. and 2nd level 3 nos. 400 m (width of ore body is approx 50 m)
2	Land / Crop Compansation (in case the BH falls in agricultural Land)	per BH	5.6	20,000	9	180000	As per actuals
3	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	16	32000	9 boreholes and 7 boundary pillars
4	Transportation of Drill Rig & Truck associated per drill (1 rig)	Km	2.2.8	36	1,300	46800	Raniganj to Sidhi to and fro (650 Km)





5	Monthly Accomodation Charges for drilling Camp (up to Rigs)	month	2.2.9	50,000	2	100000	
6	Drilling Camp Setting Cost	Nos	2.2.9a	250000	1	250000	
7	Drilling Camp Winding up Cost	Nos	2.2.9a	250000	1	250000	
8	Road Making (Flat Terrain)	Km	2.2.10a	22,020	5	110100	As per actuals
9	Drill Core Preservation	per m	5.3	1,590	500	795000	1 complete BH of 2nd level total 125 m, and mineralised core 375 @ 50 m/BH approx.
10a	Charges for one Sampler per day (1 Party)	one sampler per day	1.5.2	5,100	116	591600	
	Labour Charges			526	464	244064	
	Sub Total E					**15005500**	
F	**LABORATORY STUDIES**						
1	**Chemical Analysis**						
i)	**Geochemical Sampling-Surface samples (Bedrock/Channel /Soil/Stream sediment)**						
	a. Analysis of major oxides and trace samples by XRF	Nos	4.1.15a	4,200	200	840000	
	b. Analysis for Au by fire assay technique		4.1.15a	2,380	20	47600	
ii)	**Surface Check samples (10% External)**					0	
	a. Analysis of major oxides samples by XRF	Nos	4.1.15a	4,200	20	84000	
	b. Analysis for precious metals by fire assay technique		4.1.5a	2,380	2	4760	
iii)	**Trench & Check Samples from Trench**					0	
	a. Analysis of major oxides samples by XRF	Nos	4.1.15a	4,200	100	420000	





iv)	**Trench Check samples (10% External)**					0	
	a. Analysis of major oxides samples by XRF	Nos	4.1.15a	4,200	10	42000	
v)	**BH Core samples**					0	
	a. Analysis of major oxides samples by XRF	Nos	4.1.15a	4,200	500	2100000	
	b. Analysis for precious metals by fire assay technique		4.1.5a	2,380	20	47600	
vi)	**BH Core samples (10%External)**					0	
	a. Analysis of major oxides samples by XRF	Nos	4.1.15a	4,200	50	210000	
	b. Analysis for precious metals by fire assay technique		4.1.5a	2,380	2	4760	
2	**Physical & Petrological Studies**					0	
i	Preparation of thin section	Nos	4.3.1	2,353	10	23530	
ii	Study of thin section	Nos	4.3.4	4,232	10	42320	
iii	Preparation of polish section	Nos	4.3.2	1549	5	7745	
iv	study of polished section	Nos	4.3.4	4,232	5	21160	
v	Digital Photographs	Nos	4.3.7	280	10	2800	
vii	Bulk density analysis	Nos	4.8.1	1,605	3	4815	
	Total F					**3874185**	
G	**Total A to F**					**2,26,67,965**	
H	Geological Report Preparation	**5 Hard copies with a soft copy**	5.2	ii		1137398.25	Reimbursement will be made after submission of the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.

I	**Peer review Charges**		**As per EC decision**	30,000	**1**	**30,000**	
I	Preparation of Exploration Proposal (5 Hard copies with a soft copy)	5 Hard copies with a soft copy	5.1	2% of the Cost or Rs. 5.0 Lakhs whichever is less		453359.3	EA will be reimbursed after submission of the Hard Copies and the soft copy of the final proposal along with Maps and Plan as suggested by the TCC-NMET in its meeting while clearing the proposal.
J	**Total Estimated Cost without GST**					**2,42,88,723**	
K	**Provision for GST (18% of J)**					**4371970.059**	GST will be reimburse as per actual and as per notified prescribed rate
L	**Total Estimated Cost with GST**					**2,86,60,693**	
				Rs. In Lakhs		**286.61**	
Note:							
1	**Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.**						
2	**In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.**						
3	**If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execusion of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.**						
4	**Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.**						
5	**Any item of work not mentioned above shall be added as per SoC.**						

Annexure 7B

Time Schedule/ Action Plan for Preliminary Exploration (G3) of Iron Ore, Bamuri Block, Sidhi District, Madhya Pradesh

		Months												
S.No	**Item of work**	1	2	3	4	5	Review	6	7	8	9	10	11	12
1	**Camp Setup**													
2	**Large Scale Mapping (1:12,500**													
3	**Bed Rock Sampling**													
4	**Geochemical Survey**													
5	**Pitting and sampling**													
6	**Chemical analysis of surface samples**													
7	**Scout Drilling / systematic drilling**													
8	**Core sampling and its preparation**													
9	**Chemical analysis of Core Samples**													
10	**Processing of Analytical data**													
11	**Preparation of geologcial report**													

Annexure 8A

Estimate cost for Reconaissance Survey (G-4) for Graphite & Vanadium in and around Lalpani area, Lohit District , Arunachal Pradesh
[Block area-52.20 sq.km; Schedule timeline-15 months, Review: 6 &10 months , Drilling:500m, 5BH ,]

			Rates as per NMET SoC 2020-21		Estimated Cost of the		
S.No.	Item of Work	Unit	SoC-Item-Sl No.	Rates as per SoC	Proposal		Remarks
A					Qty.	Amount (Rs)	
1	**SURVEY WORK**						
	Bore Hole Fixation and determination of co-ordinates & Reduced Level of the boreholes and By DGPS	Nos	1.6.2	19,200	10	1,92,000	5 Boreholes and 1 base station and 4 corners of Block
	Surveyor			8,300	0	0	
	Labour			526	0	0	
	GEOLOGICALWORK						
	Charges for Geologist Field days	Per day	1.5.1a	11,000	200	22,00,000	Total duration of 6 months for 2 Geologist
	Charges for one Geologist per-HQ	Per day	1.5.1a	9,000	60	5,40,000	
	2labours / party (Rs 526/day/labour) (As per rates of Central Labour Commissioner)	Day	5.7	526	400	2,10,400	
	Charges for one Geologist for Core **logging & sample demarcation** - Field	Per day	1.5.1a	11,000	0	0	Drilling of 1,000m in 5 months
	Charges for one Geologist per-HQ	Per day	1.5.1a	9,000	0	0	
	3 labours / party (Rs 526/day/labour) (As per rates of Central Labour Commissioner)	Per day	5.7	526	0	0	3 labour due to hilly interior and thick vegetation area
	Charges for one Geologist for **Pitting & Trenching** - Field	Per day	1.5.1a	11,000	0	0	
	Sampler	Per day	1.5.2	5,100	134	6,83,400	
	4 labours/ party (Rs 526/day/labour) (As per rates of Central Labour Commissioner)	Per day	5.7	526	536	2,81,936	Total 4 labours for 150 days. Amount will be reimburse as per the notified rates by the Central

							Labour Commissioner or respective State Govt.whichever is higher
	SubTotal-A					**41,07,736.00**	
B	Pitting (1m x 1m x 2m) x 30	Cu m	2.1.2	3800	60	2,28,000	Depth 2m
	Trenching (1m x 1m x 8m) x 20	Cu m	2.1.1	3330	160	5,32,800	Depth 1m
	DRILLING (in-house)						
i	Drilling upto 300m (Medium hard Rock)	M	2.2.1.3a	10,100	500	50,50,000	
	PILLARING						
iii	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	5	10,000	
	Borehole plugging by Cement	Meters	2.2.7b	200	0	0	
iv	Transportation of Drill Rig & Truck associated per Drill	Km	2.2.8	36	4920	1,77,120	Certification in this regard is required to be provided-to & fro from Nagpur
v	Monthly Accommodation Charges for drilling Camp (upto 1Rigs)	Month	2.2.9	50,000	6	3,00,000	
vi	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	1	2,50,000	
vii	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	1	2,50,000	
	Approach Road Making (Hilly Terrain)	Km	2.2.10b	32,200	20	6,44,000	As per actuals
	SubTotal-B					**74,41,920.00**	
C	**Geophysical Survey**						
	Charges for 1 Geophysicist in field (without laborer)	Per day	1.5.1a	11,000	0	0	
	Charges for 1 Geophysicist at Headquarters	Per day	1.5.1a	9,000	30	2,70,000	
	Wages for 4 laborers in field with Geophysicist	Day	5.7	526	0	0	
	Charges for Gravity survey	Per Station	3.1a	3,800	0	0	
	Charge for Magnetic survey	Per Station	3.2a	1,800	0	0	
	Charge for SP survey	Per Line Km	3.3a	29,600	10	2,96,000	
	SubTotal-C					**5,66,000.00**	

	EXPLORATION COST FOR NORTH EAST STATES AND HILLY TERRAIN		**Section 5 of SoC**	**1,13,05,656**	**3.35**	**3,78,73,948**	Exploration rates shall be 3.35 times higher than the normal SoC rate for carrying out exploration work in North Eastern States and hilly terrain of Himalaya region.
D	**LABORATORYSTUDIES**						
	Proximate analysis for graphite	Per Sample	4.1.16	3000	510	15,30,000	120 BRS; 160 Trench, 30 Pits & 200 from Core Drilling samples will be generated
	ICPMS(including check samples 10%)	Per Sample	4.1.14	7731	561	43,37,091	
	Analysis for associated REE	Per Sample	4.1.13	5380	0	0	
	Petrographic studies						
	Preparation of thin sections	Per Sample	4.3.1	2353	20	47,060	
	Study of thin sections	Per Sample	4.3.4	4232	20	84,640	
	Bulk Density	Per Sample	4.8.1	1605	5	8,025	
	SubTotal-D					**60,06,816.00**	
	SubTotal-					**4,46,90,763.60**	
E	**Miscelleneous Charges**						
	Preparation of Exploration Proposal (5 Hard copies with a soft copy)	**5 Hardcopies with a soft copy**	**5.1**	500000	1	5,00,000	EA has to submit the Hard Copies and the soft copy of the final proposal along with Maps and Plan a suggested by the TCC-NMET in its meeting while Clearing the proposal.
	Geological Report Preparation		**5.2.IV**	For the projects having cost exceeding Rs.50 lakhs and less than Rs.150 lakhs- A minimum of Rs.2.5 lakhs or 5% of the		11,11,629	Reimbursement will be made after submission of the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.

				value of work Whichever is more			
	Drill Core Preservation	Per m	5.3	1590	250	3,97,500	Only for 1 bh core and 200m ore zone
	Peer review Charges		**As per EC decision**	10000	3	30,000	
	Land/ Crop compensation	Per BH	5.6	20000	15	10,05,000	Amount will be reimbursed as per actuals or max.Rs.20000perBHwithcertificationfromlocalauthorities
	SubTotal-E					**30,44,129.00**	
K	**Total Estimated Cost without GST**					**4,77,34,892.60**	
J	**Provision for GST (18%ofI)**					**85,92,280.67**	GST will be reimburse as per actual and as per Notified prescribed rate
K	**Total Estimated Cost with GST**					**5,63,27,173.27**	
Note:							
1	If any part of the project is out sourced,the amount will be reimbursed as per the Paragraph3 of NMETSoCandItemno.6ofNMETSoC.In case of execusion of the project by NEA on its own,a Certifiate regarding non out sourcing of any component/project is required.						





Annexure 8B

Time Schedule/ Action Plan for Reconnaissance Survey (G4) for Graphite & Vanadium in and around Lalpani area, Lohit District, Arunachal Pradesh

ITEMS	1	2	3	4	5	6	Review	7	8	9	10	11	Review	12	13	14	15
Large Scale Mapping (1:12500)																	
Bed Rock Sampling																	
Pitting, Trenching & Sampling																	
Geophysical Survey																	
Chemical Analysis																	
Drilling																	
Core Sampling & Preparation																	
analysis of Core Samples																	
Processing & Compilation of Data																	
Geological Report Preparation																	

Annexure 9A

Estimate Cost for Preliminary Exploration (G3) for Ni, Cr and PGE in Gamnom Block, Kamjong District, Manipur.
Area- 1.50 SQ.Km , Timeline:18 months , Review: 8 & 12 months

S. No.	Item of Work *	Unit *	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Remarks
			SoC- Item No. *	Rates as per SoC * (a)	Qty. (b)	Total Amount (Rs) (a*b)	
A	**Geological Mapping Other Geological Work & Surveying**						
	Geological mapping, (1:4000 scale) & Trenching , drilling work						
i	a. Charges for Geologist per day (Field) for geological mapping & trenching work, drilling work	Day	1.2b	11,000	180	19,80,000	
ii	b. Labours Charges; Base rate	Day		526	360	1,89,360	
	d. Charges for one Sampler per day (1 Party)	one sampler per day	1.5.2	5,100	78	3,97,800	
	e. Labours (4 Nos)	Day		526	312	1,64,112	
	Sub Total- A					**27,31,272**	
B	**Topographical Survey**						
	a. Charges for One Surveyor per day	Day	1.6.1a	8300	60	4,98,000	
	b. Labours Charges; Base rate	Day	1.6.1b	526	240	1,26,240	
	Sub Total- B					**6,24,240**	
C	**Ground Geophysical Survey**						

1	Magnetic	Point	3.2a	1,800	1,800	32,40,000	50m Line Spacing and 25m observation point interval
3	Geophysicist party days (HQ)	per day	3.18a	9,000	-	-	
4	c. Labours Charges	Day		526	-	-	
	Sub Total- C					**32,40,000**	
D	**Drilling (in- house)**						
	Drilling -hard rock (up to 300m)	M	2.2.1.4a	11,500	480	55,20,000.00	4 bhs
	Land / Crop Compensation (in case the BH falls in agricultural Land)	per BH	5.6	20,000	4	80,000.00	
	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	4.00	8,000.00	
	Transportation of Drill Rig & Truck associated per drill (for 1 rig)	Km	2.2.8	36	2,900	1,04,400.00	To & Fro from Purulia, WB (1450*2)
	Monthly Accomodation Charges for drilling Camp (up to 2 Rigs)	Month	2.2.9	50,000	3.00	1,50,000.00	
	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	1.00	2,50,000.00	
	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	1.00	2,50,000.00	
	Road Making (Rugged-Hilly Terrain)	Km	2.2.10b	32,200	2.00	64,400	As per actuals
	Drill Core Preservation	per m	5.3	1,590	480.00	7,63,200	
	Sub-Total - D					**71,90,000.00**	**-**
	Total (A+B+C+D)					**1,37,85,512**	
	TOTAL FIELD EXPLORATION COST					**1,37,85,512**	

	EXPLORATION COST FOR NORTH EAST STATES AND HILLY TERRAIN		**Section 5 of SoC**			**4,61,81,465**	Exploration rates shall be 3.35 times higher than the normal SoC rate for carrying out exploration work in North Eastern States and hilly terrain of Himalaya region.
E	Charges for Geologist per day (HQ)	Day	1.1b	9,000	60	5,40,000	
	Geophysicist party days (HQ)	per day	3.18a	9,000	30	2,70,000	
F	**LABORATORY STUDIES**						
1	**Chemical Analysis**						
i)	**Geochemical Sampling-Surface samples**						
	First Five Radicals- AAS- Cr, Ni, Co, Cu, Cd, As	**nos.**	**4.1..7a + 4.1.7.b**	2,841	**450**	12,78,450	
	First Five Radicals- AAS- Cr, Ni, Co, Cu, Cd, As- Check samples	Nos	**4.1..7a + 4.1.7.b**	2,841	45	1,27,845	10% of samples
	b. Fire Assay-PGE (including 10% Check samples)	Nos	4.1.5d	11,800	55	6,49,000	
	c. XRF (including 10% Check samples)- Major Oxides	Nos	4.1.15a	4,200	77	3,23,400	
	d. EPMA study	Hour	4.4.1	8,540	30	2,56,200	
2	**Physical & Petrological Studies**						
i	Preparation of thin section	Nos	4.3.1	2,353	50	1,17,650	
ii	Study of thin section	Nos	4.3.4	4,232	50	2,11,600	
	Sub-Total					**37,74,145**	
	Total A to E					**4,99,55,610**	

G	**Geological Report Preparation**	**5 Hard copies with a soft copy**	**5.2**	**5.2 (iii)**		**14,98,668**	Reimbursement will be made after submission of the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
G	**Peer review Charges**		**As per EC decision**			**30,000**	
I	**Preparation of Exploration Proposal (5 Hard copies with a soft copy)**	**5 Hard copies with a soft copy**	**5.1**	2% of the Cost or Rs. 5.0 Lakhs whichever is less		**3,80,000**	EA will be reimbursed after submission of the Hard Copies and the soft copy of the final proposal along with Maps and Plan as suggested by the TCC-NMET in its meeting while clearing the proposal.
J	**Total Estimated Cost without GST**					**5,18,64,279**	
K	**Provision for GST (18% of L)**					**93,35,570**	GST will be reimburse as per actual and as per notified prescribed rate
L	**Total Estimated Cost with GST**					**6,11,99,849**	
				or Say Rs. In Lakhs		**612.00**	

***Approval for drilling and no of Borehole will be given in 2nd phase**

Annexure 9B

Time Schedule/ Action plan for Preliminary Exploration (G3) for Ni, Cr and PGE in Gamnom Block, Kamjong District, Manipur.

Item of work in monthly time frame	1	2	3	4	5	6	7	8	Review	9	10	11	12	Review	13	14	15	16	17	18
Camp Set Up																				
Ground Geophysical Survey																				
Magnetic Survey																				
Geological Survey																				
Large Scale mapping in 1:4000 Scale																				
Topographic Survey																				
Topographic Survey																				
Geochemical Survey																				
Bedrock sampling																				
Chemical Analysis																				
Sample analysis																				
Petrographic and Mineral graphic studies																				
Pterographic study																				
XRD/ XRF study																				
Drilling																				
Geological report																				

Annexure 10A

Estimate Cost for Reconnaissance Survey (G4) for Vanadium and Titanium in Magnetite bearing sand occurring in the beach/dune sands along the Saurashtra coast, from Dwarka to Gadhula, Gujarat.

	Area: 363 Line KM , Time line : 15 months, Review: 6 & 10 months , Drilling (Auger): 403m						
S. 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)**	
A	**Geological Mapping Other Geological Work & Surveying**						
i	a. Charges for Geologist per day (Field) for geological sampling work	day	**1.2**	11,000	150	16,50,000	
ii	b. Labours Charges; Base rate- 2 labourer per day	day		526	300	1,57,800	
	c. Charges for Geologist per day (HQ)	day	**1.2**	9,000	120	10,80,000	
	Sub Total- A					**28,87,800**	
C	**Survey work**						
a	GPS Survey for Sample point fixation & RL determination	day	**1.6.1a**	-	-	0	
c	Labours Charges for survey work; 2 labourers per day	day		-	-	0	
	Sub-Total C					**-**	
D	**Trenching/Pitting**						
	a) Excavation of Pits	per cu.m	**2.1.1**	-	-	0	
E	**DRILLING**						
1	AUGER Drilling up to 1.0 m in 353 locations and upto 5.0 m in 10 locations	m	**2.2.2**	4,760	403	19,18,280	
4	Construction of concrete Pillar (12"x12"x30")	per borehole	**2.2.7a**	-	-	-	

5	Transportation of Drill Rig & Truck associated per drill	Km	**2.2.8**	-	-	-	
6	Monthly Accomodation Charges for drilling Camp	month	**2.2.9**	50,000	4	2,00,000	
7	Drilling Camp Setting Cost	Nos	**2.2.9a**	2,50,000	1	2,50,000	
8	Drilling Camp Winding up Cost	Nos	**2.2.9b**	2,50,000	1	2,50,000	
	Sampler- sample processing incl marking of samples, coning and quartering, packing and labelling, preparation of duplicate samples etc	day	**1.5.2**	5,100	144	7,34,400	
	Labours (4 labours)			526	576	3,02,976	
	Sub Total E					**36,55,656**	
G	**LABORATORY STUDIES**						
	Sieve and hydrometer analysis after removal of salt and organic content and drying			-	403	_	
	Separation of heavy minerals from sediment samples of 2mm size through gravity and two level magnetic separation	Nos	**4.3.6b**	13,820	403	55,69,460	
1	**Chemical Analysis**					-	
	b. For major oxides incl V2O5 and TiO2(25 % of403 samples x 3 fractions)		**4.1.15a**	4,200	302	12,68,400	
i	b. For Sc, Nb, Ta and other REE by ICPMS-34 elements(5 % of302 (XRF samples)	Nos	**4.1.14**	7,731	15	1,15,965	
ii	b. Check Samples of major oxides incl V2O5 and TiO2(10 % of302 samples)	Nos	**4.1.14**	4,200	30	1,26,000	
2	**Physical Studies**					-	

i	Microscope study		**4.3.4**	4,232	20	84,640	
ii	EPMA	Nos	**4.4.1**	8,540	5	42,700	
	Sub total G					**72,07,165**	
H	**Total A to G**					**1,37,50,621**	
I	**Geological Report Preparation**	**5 Hard copies with a soft copy**	**5.2**	Exploration cost exceeding 50 lakh but less than150 lakh: A Minimum of ₹2.5 lakh or 3% of the work whichever is more		4,12,518.63	Reimbursement will be made after submission of the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
J	**Peer review Charges**		**As per EC decision**				
K	**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 less		2,75,012.42	EA will be reimbursed after submission of the Hard Copies and the soft copy of the final proposal along with Maps and Plan as suggested by the TCC-NMET in its meeting while clearing the proposal.
L	**Total Estimated Cost without GST**					**1,44,38,152.05**	
M	**Provision for GST (18% of J)**					**25,98,867.37**	GST will be reimburse as per actual and as per notified prescribed rate
N	**Total Estimated Cost with GST**					**1,70,37,019.42**	
				or Say Rs. In Lakhs		**170.37 Lakhs**	
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. In case of execusion of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.						





Annexure 10B

Time Schedule/ Action plan for Reconnaissance Survey (G4) for Vanadium and Titanium in Magnetite bearing sand occurring in the beach/dune sands along the Saurashtra coast, from Dwarka to Gadhula, Gujarat.

MONTHS

S. No.		1	2	3	4	5	6	Review	7	8	9	10	Review	11	12	13	14	15
1	Camp Setting																	
2	Surface Drilling AUGER																	
3	Geologist Man days																	
4	Sampler Man days																	
5	Laboratory Studies																	
6	Report Writing with Peer Review																	

Annexure 11

Revised Estimate cost for Reconnaissance Survey (G-4) for REE in Kumhardih-Khijuri-Pachambha Block, (Block area- 175.27 sq. km) District- Giridih, Jharkhand.
Total block area- 175.28 sq km; Completion Time- 09 Months, Review: after 05 months

Sl. No.	Item of Work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Additional Cost		Estimated Cost	Remarks
			SoC- Item- S. No.	Rates as per SoC	Qty.	Total Amount (Rs)	Qty.	Total Amount (Rs)	Total Amount (Rs)	
1.0	**Large scale (LSM) Geological mapping (1:12500)/ Trenching/ Drilling**									
1.1	Large scale (LSM) Geological mapping/ Trenching/ Drilling									
	Geologist man days (1 No.) for Geological map & Report (HQ)	days	1.1b	9,000	30	2,70,000			2,70,000	
	a) Geologist man days (2 No) for Large scale (LSM) Geological mapping/ Trenching/ Drilling	days	1.2	11,000	180	19,80,000			19,80,000	
	b) Labour (field)	per worker	5.7	504	360	1,81,440			1,81,440	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher

	c) Sampler for Suface Samples/ Trench Samples / Core Samples Labour charge not included (1 sampler)	day	1.5.2	5100	30	1,53,000			1,53,000	
	d) 4 labours/ party (As per rates of Central Labour Commissioner)	day	5.7	504	120	60,480			60,480	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
	Sub-Total 1.0					**2644920**			**26,44,920**	
2	**Mineral Investigation**									
2.1	**Pitting**									
	a) Excavation of pits	per cu m	2.1.1	3800	30	114000			114000	
	Sub-Total 2.0					**114000**			**114000**	
3	**Laboratory Studies**									
3.1	**Chemical Analysis**									
	i) Heavy Mineral Seperation	per sample	4.3.6a, 4.3.6b	16200	80	1296000			1296000	
	ii) Surface sampling (Bed Rock Samples/Stream Sediment & Pit Samples)									





	a. For 34 elemental analysis includes Nb, Sr, Ta, W, Mo, Sn, Rb, Be, Cs, LI & REE analysis by ICP-AES / ICPMS (sequential technique)	per sample	4.1.14	7731	150	1159650			1159650	150 Bedrock Samples
	b. For 34 elemental analysis includes Nb, Sr, Ta, W, Mo, Sn, Rb, Be, Cs, LI & REE analysis by ICP-AES / ICPMS (sequential technique)	per sample	4.1.14	7731	80	618480			618480	30 Soil samples from Pits and 50 Stream Sediment Samples
	iii) Check Samples (Bed Rock/Soil/Stream Sediment Samples & Pit) -10% External									
	a. For 34 elemental analysis includes Nb, Sr, Ta, W, Mo, Sn, Rb, Be, Cs, LI & REE analysis by ICP-AES / ICPMS (sequential technique)	per sample	4.1.14	7731	23	177813			177813	
	iv) Major Oxide Analysis	per sample	4.1.15	4200	-	-	10	42000	42000	
3.2	**Petrological / Mineralographic studies**					-				
	a) Preparation of thin section	per sample	4.3.1	2,353	10	23,530			23,530	
	b) Study of thin section for petrography	per sample	4.3.4	4,232	10	42,320			42,320	
	c) Preparation of polished section	per sample	4.3.2	1,549	10	15,490			15,490	
	d) Study of polished section for mineragraphy	per sample	4.3.4	4,232	10	42,320			42,320	
	e) Digital photomicrograph of thin polished section	per sample	4.3.7	280	10	2,800			2,800	
	f) XRD Mineral Phase Analysis	per sample	4.5.1	4,000	5	20,000			20,000	

	Sub-Total 3.0					**33,98,403**		**42,000**	**3,66,273**	
4.0	**Total (1.0 to 3.0)**					**61,57,323**		**42,000**	**31,25,193**	
5.0	**Geological Report Preparation**	**Nos**	**5.2**	A Minimum of Rs. 2.5 lakhs or 5% of the work whichever is more	**1**	**3,07,866**		**2,100**	**3,09,966**	For the projects having cost up to exceeding Rs. 50 Lakhs but less than 150 Lakhs: A Minimum of Rs. 2.5 lakhs or 5% of the work whichever is more and Rs. 3000/- per each additional copy.
8.0	**Preparation of Exploration Proposal**	**Nos**	**5.1**	2% or Rs. 500000 whichever is less	**1**	**1,23,146**		**840**	**1,23,986**	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.
9.0	**Report Peer Review Charges**	**lumpsum**	**As per EC decision**	**30000**	**1**	**30,000**			**30,000**	
10.0	**Total Estimated Cost without GST (7+8+9+10)**					**66,18,336**		**44,940**	**66,63,276**	
11.0	**Provision for GST (18%)**					**11,91,300**		**8,089**	**11,99,390**	GST will be reimburse as per actual and as per notified prescribed rate

12.0	**Total Estimated Cost with GST**					**78,09,636**		**53,029**	**78,62,665**	**0.68 % of Total Approved Cost**
					Say, in Lakhs	**78.10**		**0.53**	**78.63**	
Note:										
*	Marked items not indicated in SoC and required to be taken up during the course of exploration shall be charged separately (as per actuals)									
$	Trenching/Pitting dimensions are tentative may vary depending upon the geology and field conditions									
I	Satellite imageries shall be procured from website/NRSA as the case may be and procurement charges if any shall be charged at actuals.									
#	2nd level of work shall be carried out after review of 1st level work i.e. Geological mapping, geochemical sampling and analysis									

Annexure 12

Revised Cost Estimate for Preliminary Exploration (G-3) for Copper and associated minerals in Thakurdih Area-1 Block (5.1 sq.km.), Singhbhum Copper Belt, East Singhbhum district, Jharkhand.
[Block area- 4.10 sq. km; Schedule timeline- 12 months, Review - 6 months, BH-17 (Phase-I: 1-7 Bhs, Phase-II=10 Bhs, Total 20 Bhs, 3 existing), Drilling 2200m

S. No.	Item of Work	Unit	Rates as per NMET SoC 2020-21		Previous Estimated Cost of the Proposal		Revised Estimated Cost of the Proposal		Remarks
			SoC-Item -Sl No.	Rates as per SoC	Qty.	Amount (Rs)	Qty.	Amount (Rs)	
A	**GEOLOGICAL & SURVEY WORK**								
I	Detailed geological mapping (1:4000 scale)	sq.km.			4.10 sq.km				
I	Charges for one Geologist- Field	day	1.2	11,000	130	14,30,000			
Ii	Charges for one Geologist per- HQ	day	1.2	9,000	30	2,70,000			
Iii	2 labours/ party (Rs 504/day/labour) (As per rates of Central Labour Commissioner)	day	5.7	504	260	1,31,040			Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
Iv	Sampling Party Days -1 Sampler Labour charge not included	day	1.5.2	5,100	73	3,72,300			
V	4 labours/ party (Rs 504/day/labour)	day	5.7	504	292	1,47,168			Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
Vi	Survey Party Days for topographical contour survey, block boundary and borehole points	day	1.6. 1a	8,300	30	2,49,000			

	fixation								
Vii	4 labours for surveyor	day	5.7	504	120	60,480			Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
	Sub Total- A					**26,59,988**			
B	**TRENCHING/PITTING**								
I	Excavation of Trenches	per.cu.m.	2.2.1	3,330	200	6,66,000			
	Sub Total- B					**6,66,000**			
C	**DRILLING**								
I	Drilling upto 300m (Hard Rock) (1 rigs)	m	2.2.1.4a	11,500	2,200	2,53,00,000			
Ii	Borehole deviation Survey	m	2.2.6	330	2,200	7,26,000			
Iii	Borehole Geophysical logging	5 Bhs of 350m each	3.12	622.25	2,200	13,68,950			Base reate Rs. 10, 88, 941/1750=622.25m
Iv	Land / Crop Compansation	per BH	5.6	20,000	17	3,40,000			
V	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	17	34,000			
Vi	Transportation of Drill Rig & Truck associated per drill (2 rigs)-Two way	Km	2.2.8	36	4,000	1,44,000			
Vii	Monthly Accomodation Charges for drilling Camp	month	2.2.9	50,000	4	2,00,000			
Viii	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	2	5,00,000			
Ix	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	2	5,00,000			
X	Approach Road Making (Flat Terrain)	Km	2.2.10a	22,020	6	1,32,120			





Xi	Bore Hole Fixation and determination of co-ordinates & Reduced Level of the boreholes and block boundary by DGPS	Nos	1.6.2	19,200	17	3,26,400			
Xii	Borehole core preservation-One complete borehole plus mineralised cores of all the remaining BHs	m	5.3	1,590	300	4,77,000			
	Sub Total- C					**3,00,48,470**			
D	**LABORATORY STUDIES**								
1	**Chemical analysis**								
A	**Geochemical surface samples (Primary) (Bedrock/channel)**								
	a) Primary samples for Cu, Pb, Zn, Ni, Co, Mo, & W		4.1.7a & b	3,176	30	95,280			AAS method
	Surface Check samples (10% External check)								
	c) For Cu, Pb, Zn, Ni, Co, Mo, & W		4.1.7a & b	3,176	3	9,528			AAS method
B	**Trenching Samples**								
	a) Primary samples for Cu, Pb, Zn, Ni, Co, Mo, & W		4.1.7a & b	3,176	150	4,76,400			AAS method
	Trench Check samples (10% External check)								
	c) For Cu, Pb, Zn, Ni, Co, Mo, & W		4.1.7a & b	3,176	15	47,640			AAS method
C	**BH core samples**								
	a) Primary samples for Cu, Pb, Zn, Ni, Co, Mo, & W	Nos	4.1.7a & b	3,176	350	11,11,600			AAS method

	BH Core Check samples (10% External check)								
	a) External Check sample (10% of Primary samples) for Cu, Pb, Zn, Ni, Co, Mo, & W	Nos	4.1.7a & b	3,176	35	1,11,160			AAS method
	Sub Total- D					**18,51,608**			
D-a	**Additional Samples (Phase-I & II Drilling)**								
	Primary Analysis for Cu, Pb, Zn, Ni, Co, Mo & W	Nos	4.1.7a & b	3,176			700	22,23,200	
	External Check analysis for Cu, Pb, Zn, Ni, Co, Mo & W	Nos	4.1.7a & b	3,176			70	2,22,320	
	Composite analysis for Bi, Ge, Te, Sn, Au, Ag	Nos	4.1.7a & b	2,841			30	85,230	For >0.50% cu zones
	Sub Total- D-a							**25,30,750**	
E	**Petrological & Mineragraphic studies**								
Iv	Preparation of thin section	Nos	4.3.1	2,353	10	23,530			
V	Complete petrographic study report	Nos	4.3.4	4,232	10	42,320			
Vi	Preparation of polished section	Nos	4.3.2	1,549	10	15,490			
Vii	Complete mineragraphic study report	Nos	4.3.4	4,232	10	42,320			
Viii	Digital Photographs	Nos	4.3.7	280	10	2,800			
X	Specific Gravity Determination	Nos	4.8.1	1,605	5	8,025			
	Sub Total- E					**1,34,485**			
D	**Total A to E**					**3,53,60,551**		**3,78,91,301**	

E	**Geological Report Preparation**		**5.2**	For Projects having cost less than Rs. 300 lakhs-A minimum of Rs.7,50,000 or 3% of the value of work whichever is more For the projects having cost exceeding Rs. 150 lakhs and less than Rs. 300 lakhs - A minimum of Rs. 7.5 lakhs or 3% of the value of work whichever is more		**10,60,817**		**11,36,739**	Reimbursement will be made after submission of the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
F	**Peer review Charges**		**As per EC decision**			**30,000**		**30,000**	

G	**Preparation of Exploration Proposal (5 Hard copies with a soft copy)**	**5 Hard copies with a soft copy**	**5.1**	2% of the Cost or Rs. 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 meeting while clearing the proposal.
H	**Total Estimated Cost without GST**					**3,69,51,368**		**3,95,58,040**	
I	**Provision for GST (18%)**					**66,51,246**		**71,20,447**	GST will be reimburse as per actual and as per notified prescribed rate
J	**Total Estimated Cost with GST**					**4,36,02,613.69**		**4,66,78,487.24**	
				or Say Rs. In Lakhs		**436.03**		**466.78**	***7% additional on approved cost***
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. In case of execusion of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.								
2	Additional Samples (Phase-I & II Drilling) approved by TCC-II in 1st and 2nd meeting.								





Annexure 13A

Estimate cost for Preliminary Exploration (G-3) for Diamond in adjacent area of Angira-B & Angira-A Block (2.3 sq.km.), Chhattarpur district, Madhya Pradesh. Total block area- 10.00 sq km; Completion Time- 24 Months

Sl. No	Item of Work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Estimated Cost of the Proposal		Remarks
			SoC- Item- S. No.	Rates as per SoC	Qty.	Total Amount (Rs)	Qty.	Total Amount (Rs)	
	Geological, Sampling & Survey Days								
1	**Large scale (LSM) Geological mapping/ Detailed Mapping/Trenching/Drilling**								
1.1	Geologist man days (1 party Field)	days	1.2	11,000	180	19,80,000			
1.2	Labour Charges for Mapping work	per worker	5.7	504	360	1,81,440			Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. - whichever is higher
1.3	Geologist man days (HQ)	days	1.3	9,000	120	10,80,000			(Mineral identification days by 2 geologists included & data collation)
1.4	Sampling Charges (Geochemical /Trenching/Pitting/Drilling)	day	1.5.2	5,100	40	2,04,000			
1.5	Labour Charges for Sampling Work	day	5.7	504	160	80,640			Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. - whichever is higher
	Sub-Total 1					**35,26,080**			
2	**Geophysical Surveys***								
2.1	Magnetic Surveys	per station	3.2a	1,800	1800	32,40,000			

2.3	Electromagnetic (TDEM)	per station	3.7a	21,197	0	0			
2.4	Surveyor Charges	days	1.6.1.a	8,300	100	8,30,000			
2.5	Labours Charges for Survey Work	per worker	5.7	504	400	2,01,600			Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. - whichever is higher
2.6	Geophysicist man days (HQ)	days	3.18	9,000	45	4,05,000			Data interpretation
	Sub-Total 2					**46,76,600**			
Additional Approved Geophysical Survey work									
	Magnetic Surveys	per station	3.2a	1,800			**850**	**15,30,000**	
	Electromagnetic (TDEM)	per station	3.7a	21,197			**140**	**29,67,580**	
	Sub Total 2.1							**44,97,580**	
3	**Excavation (Pitting/Trenching)**								
	Pitting	cu.m	**2.1.3**	5,330	320	17,05,600			
	Sub-Total 3					**17,05,600**			
4	**Drilling****								
4.1	a) Drilling up to 300m (2 Rigs) (Hard Rock)	per m	2.2.4 a	11,500	2000	2,30,00,000			
4.2	Borehole pillaring a) construction of concrete pillar (12"x12"x30")	per bh	2.2.7.a	2,000	10	20,000			
4.3	Transportation of drill rigs &truck associated per drill (To & Fro from HQ) (2 rig)	per km	2.2.8	36	2000	72,000			(To & Fro from HQ = 1000 kms for 1 rig)
4.4	Monthly accommodation charges for drilling camp	monthly	2.2.9	50,000	4	2,00,000			





4.5	a) Drilling camp setting (2 rigs)	per drill	2.2.9a	2,50,000	2	5,00,000			
4.6	b) Drilling camp winding (2 rigs)	per drill	2.2.9b	2,50,000	2	5,00,000			
4.7	Approach road making in flat terrain (Flat terrain)	per km	2.2.10a	22,020	5	1,10,100			Road Making will be considered as per the requirement and Road Making Charges will be reimbursed for max. 5 km.
4.8	Drill core preservation	per m	5.3	1590	2000	31,80,000			This amount will be reimbursed after successful delivery of the cores to concerned libraries/authorities
4.9	Land/crop compensation	per borehole	5.6	20000	10	2,00,000			Amount will be reimbursed as per actuals or max. Rs. 20000 per BH with certification from local authorities
4.10	Demarcation Fixation of borehole and determination of co-ordinates & Reduced Level (RL) of the boreholes by DGPS (including charges for labours deployed for the work)	Per point of observation	1.6.2	19,200	10	1,92,000			
4.11	High-Resolution Acoustic Televiewer, Magnetic Susceptibility, Induction probe, Density, Spectral Gamma, Calliper can be used for the borehole logging	m	3.12	622.35	2000	12,44,691			
	Sub-Total 4					**2,92,18,791**			
5	**Laboratory Studies**								
5.1	Chemical Analysis								

	i) Surface sampling/Pit/BH (Stream/Soil/Bed Rock/Pit Samples/Core)								
	ii) Soil/ Bedrock/ Core 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	220	30,40,400			500nos-Bedrock/soil/pit, 210nos.- drill core
	b. Heavy mineral separation by liquid	per sample	4.3.6a	2,380	220	5,23,600			500nos-Bedrock/soil/pit, 210nos.- drill core
	c. EPMA studies for suspected Heavy Mineral grains	Per hour	4.4.1	8,540	50	4,27,000			Outsourcing components, will be charged as per actual
	d. Specific Gravity (by drill core)	No. of samples	4.8.1	1,605	10	16,050			Kimberlite/Lamproite intersections (facies wise)
	e. Trace elements (34 element)	No. of samples	4.1.14	7,731	270	20,87,370			Trace elemental study
	f. XRF	No. of samples	4.1.15a	4,200	50	2,10,000			
5.4	**Petrological / Mineralographic studies**								
	a) Preparation of thin section (Surface & BH)	per sample	4.3.1	2,353	25	58,825			
	b) Study of thin section for petrography	per sample	4.3.4	4,232	25	1,05,800			
	c) Gemological study	Per sample	4.3.13	1,820	50	91,000			
	Sub-Total 5					**65,60,045**			
6	**Total (1 to 5)**					**4,56,87,116**		**5,01,84,696**	

7	**Geological Report Preparation**	Nos	5.2	A Minimum of Rs. 9 lakhs or 3% of the work	1	**13,70,613**		**15,05,541**	For the projects having cost up to exceeding Rs. 300 Lakhs: A Minimum of Rs.9 lakhs or 3% of the value of work whichever is more subject to a maximum amount of Rs. 20 lakh and Rs. 10000/- per each additional copy.
8	**Preparation of Exploration Proposal**	**Nos**	**5.1**	2% or Rs. 500000 which is less	**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.
9	**Report Peer Review Charges**	**lumpsum**	**As per EC decision**	**30000**	**1**	**30,000**			
10	**Total Estimated Cost without GST (6+7+8+9)**					**4,75,87,729**		**5,22,20,237**	
11	**Provision for GST (18%)**					**85,65,791**		**93,99,643**	GST will be reimbursed as per actual and as per notified prescribed rate
12	**Total Estimated Cost with GST**					**5,61,53,521**		**6,16,19,880**	
					Say, Rs. in Lakhs	**561.54**		**616.20**	***9.73% additional on approved cost***

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





Annnexure 13B

Time Schedule/ Action Plan for Preliminary Exploration (G-3) for Diamond in adjacent area of Angira-B & Angira-A Block (2.3 sq.km.), Chhattarpur district, Madhya Pradesh.

Sl. No.	Activities	Unit	MONTHS																							
			1	2	3	4	5	6	7	8	9	10	11	12	Review	13	14	15	16	17	18	19	20	21	22	23	24
1	Geologist Party days in field (1 Party)	day																									
2	Geophysics Party Days (1 Party Field)																										
3	Geophysics Party Days (1 Party HQ)																										
4	Survey Party days (1 Party)	day																									
5	Camp Setting	Month																									
6	Camp Winding	Month																									
7	Pitting/Trenching																										
8	Surface Drilling (2 rig)	m.																									
9	Sampling Party days, Soil/Pit Sample 100 days +Core Sample200days	day																									
10	Laboratory Studies	Nos.																									
11	Geologist Party days in HQ (60 days for hand picking of KIMs + 60 days GR)	day																									
12	Geological Report Writing with Peer Review	Month																									

Annexure 14

Revised Cost Estimate for Preliminary Exploration (G-3) of Bauxite in Dhuliapat block, Lohardaga district Jharkhand

					Total		Remarks
Sl. No	Item Work	Item no in SoC	Unit	Rates as per SoC of NMET	Qty.	Amount (Rs) In Lakh	
A	**Mineral Investigation (Outsourced)**						
1a	Core drilling	2.2.1.1b	m	6775	300	2032500	
			m	**6775**	**3.2**	**21680**	**Additional Proposed**
1b	Approach road making drill site (Hilly terrain)	2.2.10b	per km	32200	6	193200	
1c	Borehole Pillaring - Construction of Con – Pillar	2.2.7a	Per bh	2000	15	30000	
	Sub Total A					**2277380**	
B	**GEOLOGICAL WORK (In House)**						
2a	Survey Party days (1 party) without Labour	1.6.1a	Day	8300	30	249000	
2b	4 labours/ party (Rs 477/day/labour), As per rates of Central labour Commission	5.7	Day	1908	30	57240	
2c	Bore hole Fixation and determination of co-ordinates & Reduced Level and Demarcation of lease hold boundary (15 bh point and 15 boundary point)	1.6.2	Per point	19200	30	576000	
2d	Geological Party days (1 party) Field	1.2	Day	11000	120	1320000	
2e	Geological Party days (1 party)HQ	1.2	Day	9000	45	405000	
2f	4 labours/ party (Rs 477/day/labour), As per rates of Central labour Commission)	5.7	Day	1908	120	228960	Calculation error in Sanction Order
	Sub Total B					**2836200**	

C	**SAMPLING (In house)**						
3a	Core Sampling - 1 sampler without Labour	1.5.2	Day	5100	10	51000	
3b	4 labours/ party (Rs 477/day/labour, As per rates of Central labour Commission)	5.7	Day	1908	10	19080	
	Sub Total C					**70080**	
D	**PITTING- TRENCHING**						
4a	Pitting for determination of bulk density (1m x1m x1m)-2 no	2.1.1	Cu m	3330	2	6660	
	Sub Total D					**6660**	
E	**Laboratory Studies (Outsourced)**						
	Chemical Analysis						
7a	Primary Sample for 5 radicals (Al2O3, SiO2, Fe2O3, TiO2 & LOI)	4.1.15a	Per sample	4200	100	420000	
			Per sample	**4200**	**66**	**277200**	**Additional Proposed**
7c	Internal (5%) & External (10%) Check samples of 5 radicals	4.1.15a	Per sample	4200	15	63000	
			Per sample	**4200**	**10**	**42000**	**Additional Proposed**
7d	b) Composite Core samples (14 radicals, viz. Al2O3 , SiO2 , Fe2O3 , TiO2 , V2O5 , P2O5 , LOI, MnO, CaO, MgO, K2O, Na2O, SO3 & Organic carbon	4.1.15a & 4.1.15b	Per sample	4200	10	42000	
		4.1.15a & 4.1.15b	Per sample	**4200**	**30**	**126000**	**Additional Proposed**
7f	Combined determination of THA, MHA & Reactive silica	4.1.17a	Per sample	6700	10	67000	

			Per sample	**6700**	**3**	**20100**	**Additional Proposed**
	Physical & Petrological Studies						
7g	X-RD Studies on composite	4.5.1	per sample	4000	5	20000	
7i	ICP-MS studies (REE analysis of Saprolite zone)	4.1.13	per sample	5380	20	107600	
7j	ICP-MS studies (REE analysis of Bauxite Zone - 1 Borehole)			**5380**	**12**	**64560**	**Additional Proposed**
7k	Preparation of thin section	4.3.1	per sample	2353	5	11765	
	Complete Petrographic studies	4.3.4	per sample	4232	5	21160	
	Determination of Additonal Trace Elements (Zr, Sc, Ga)	4.1.15b	per 3 samples	**1263**	**166**	**209658**	**Additional Proposed**
	Geotechnical Laboratory						
7p	Determination of in situ bulk density	4.10	per sample	3540	5	17700	
	Sub Total E					**1509743**	
F	**Miscellaneous Charges**						
8a	Preparation of Exploration Proposal (2% of approved Project cost or 3.8 lakh whichever is lower)	5.1	lump sum	380000	1	177555	
8b	Outsourcing process cost (2% of approved Project cost or 5 Lakh)	2.3	lump sum	500000	1	177555	
8c	Operational charges for CMPDI	Point 3 iii of SOC				302593	
8d	Land crop compensation	5.6	Per bh	20000	15	300000	
8f	Geological Report Preparation (Min 2.5 Lakh or 5% of work value)	5.2			1	296943	

8g	Peer Reviev Charges			10000	1	30000	Peer Review Cost Revised by NMET
	Sub Total f					**1284645**	
	Sub Total (A+B+C+D+E+F)					**7984708**	
	GST (@18%)					**1437247**	
	Grand Total					**9421956**	**Approved Cost : ₹82, 20,938**
	***Additional Cost: ₹12,01,018**						

Annexure 15

Revised Estimated Cost for Preliminary Exploration (G-3) for vanadium and titanium in Dandi-Onjal-Surwada Block in Navasari and Valsad Districts, Gujarat

S. 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)	
A	**Geological Mapping Other Geological Work & Surveying**						
	Geological mapping, (1:5000 scale) & Trenching , drilling work	2.17 sq km					4.16 sq.km area was covered at 1:5,000 scale in place 2.17 sq.km without any additional cost.
i	a. Charges for Geologist per day (Field) for geological mapping & trenching work, drilling work	day	**1.3b**	11,000	75	8,25,000	
ii	b. Labours Charges; Base rate- 1 labourer per day	day		504	150	75,600	Minimum wages in Gujarat for unskilled labour effective upto 31-03-2024+H26
	c. Charges for Geologist per day (HQ)	day	**1.3a**	9,000	90	8,10,000	
	Sub Total- A					**17,10,600**	
C	**Survey work**						
a	DGPS Survey for topographic mapping, BH fixation & RL determination	day	**1.6.1a**	8,300	25	207500	
c	Labours Charges for survey work; 2 labourers per day	day		504	50	25200	Minimum wages in Gujarat effective 31-03-2024 as per labour &

							factories act.
	Sub-Total C					**2,32,700**	
E	**DRILLING (after review)**						
1	37 BH AUGER Drilling up to 5m	m	**2.2.2**	4,760	185	8,80,600	
5	Transportation of Drill Rig & Truck associated per drill	Km	**2.2.8**	2,408	36	86,688	to and from distance from mangalore to Dandi. In the original rate approved by NMET only one side was considered.
6	Monthly Accomodation Charges for drilling Camp	month	**2.2.9**	50,000	1	50,000	
7	Drilling Camp Setting Cost	Nos	**2.2.9a**	2,50,000	1	2,50,000	
8	Drilling Camp Winding up Cost	Nos	**2.2.9b**	2,50,000	1	2,50,000	
9	sample processing incl marking of samples, coning and quartering, packing and labelling, preparation of duplicate samples etc	day	**1.5.2**	5,100	37	1,88,700	Previous cost approved: 1,70,850(as per original)
10	Drill Core Preservation	per m	**5.3**	-	-	-	Previous cost approved by NMET: 1,59,000; However, since it is auger drilling in soft sediments, preservation of samples in boxes not needed.
	Sub Total E					**17,05,988**	
G	**LABORATORY STUDIES**						
1	**Chemical Analysis**						
	Separation of heavy minerals from sediment samples of 2mm size through gravity and two level magnetic separation (BH		**4.3.6b**	13,820	185	25,56,700	23,90,860(as per original)

	samples)						
	Analysis of all Major Oxides including V2O5 and TiO2 by XRF (25 % of total sub fractions. (total sub fraction-555))		**4.1.15a**	4,200	139	5,83,800	
	b. For Niobium and Tantalum, Scandium and REE by ICP -MS methods (5% of samples)		**4.1.14**	7,731	27	2,08,737	
ii)	10 % Check samples -XRF		**4.1.15a**	4,200	14	58,800	
2	**Physical Studies**						
	EPMA	**Per hour**	4.4.1	8,540	3	25,620	As suggested by first meeting of TTC-II
	Sub total G					**34,33,657**	
H	**Total A to G**					**70,82,945**	
I	**Geological Report Preparation**	**5 Hard copies with a soft copy**	**5.2**	Exploration cost exceeding 50 lakh but less than 150 lakh: A Minimum of ₹2.5 lakh or 5% of the work whichever is more		3,54,147.25	Reimbursement will be made after submission of the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.





J	**Peer review Charges**		**As per EC decision**			**30,000**	
K	**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 less		1,41,658.90	EA will be reimbursed after submission of the Hard Copies and the soft copy of the final proposal along with Maps and Plan as suggested by the TCC-NMET in its meeting while clearing the proposal.
L	**Total Estimated Cost without GST**					**76,08,751.15**	**original cost 73,11,563**
M	**Provision for GST (18% of J)**					**13,69,575.21**	GST will be reimburse as per actual and as per notified prescribed rate
N	**Total Estimated Cost with GST**					**89,78,326.36**	***Original cost with GST 86,27,644***
				or Say Rs. In Lakhs		**89.8 Lakhs**	
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. In case of execusion of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.						