Ministry of Mines National Mineral Exploration Trust Minutes of the 74th Technical-cum-Cost Committee-1 (TCC-1) meeting held on 20th and 21st February, 2025 through video conferencing

The 74th meeting of the Technical-cum-Cost Committee-I (TCC-1) of the National Mineral Exploration Trust (NMET) was held via video conferencing under the chairmanship of Dr. S. Ravi, Deputy Director General (DDG), Geological Survey of India Training Institute (GSITI) and Chairman, TCC-1, NMET, on 20th and 21st February, 2025.

Members of TCC-1, NMET and representatives from DGM Chhattisgarh, DMG Karnataka, DGM Maharashtra, GSI, MECL, OMC Ltd, Geo Exploration and Mining Solutions, Gemcokati Exploration Pvt Ltd, Geo Marine Solutions Pvt. Ltd., Geo Technical Mining Solutions, Geovale Services Pvt Ltd., Critical Mineral Trackers, APC Drilling & Construction Pvt. Ltd, Indian Mines Planners and Consultants, and Mining Tech Consultancy Services Ltd. have attended the meeting through their respective VC modes.

The list of participants is enclosed in Annexure-1.

Shri C. Parthasarathi, Director, GSI and Member Secretary, TCC-1, NMET, welcomed Dr. S. Ravi, DDG, GSI and Chairman, TCC-1, NMET, Members of the TCC-1 and participants representing various Notified Exploration Agencies (NEAs) and Notified Private Exploration Agencies (NPEAs).

Dr. S. Ravi, Chairman of TCC-1, NMET, extended a warm welcome to all members of TCC-1 and participants representing various NEAs and NPEAs and conducted the proceedings as per circulated agenda.

Agenda 74.1: Technical evaluation of new project proposals

Agenda.74.1.1. Preliminary Exploration (G-3 Stage) for Titaniferous Magnetite in Khursipar Block, District: Gondia, Maharashtra.

[Implementing Agency: MECL]

- a) The proposed area forms a part of Amgaon Gneissic Complex and falls in SOI toposheet no. 64C/07
- b) This is a lapsed lease area under the 10(A) 2(B) case. MECL informed that DGM Maharashtra has requested MECL for further exploration vide Letter No. Tech/1848/2023/3938, dated 22/12/2023) since the initial 10(A) 2(B) area was less.
- c) The lease (0.03 sq. km area), granted to M/s R.R. Shende (27-11-2006 to 27-11-2008) reported 0.026 MT of iron ore resources by sinking six trial pits (1.8–4m depth).
- d) GSI (2006-07) conducted P-1 stage exploration for PGE within Titaniferous magnetite bearing meta-pyroxenites of Khursipar-Manegaon area and reported >1.5% TiO2 with maximum value upto 15.1% in 15 samples.
- e) Moreover, two mining leases of Maharashtra State Mining Corporation Ltd exist at the north-western boundary of the proposed block area.
- f) The committee stated that DMG, Maharashtra should ensure that block could not be auctioned and got recommended for re-exploration.
- g) The proposed block comprises linear TVM band along with lenses of meta-ultramafites engulfed within granite gneiss. The TVM band is seen trending in N-S direction with pinch and swell structure.

- h) After a thorough review, the committee observed that MECL had included granite outside the initially proposed block just to increase the area, despite it not being mineralized. MECL responded that the area could not be expanded southward due to the presence of a highway.
- i) However, the committee advised MECL to extend the block beyond the highway to the south to include the entire TVM band shown in LSM map of GSI but no extension is needed to the east. Additionally, the committee recommended including "V" in the project title. MECL subsequently modified the block accordingly.
- j) The committee suggested to carry out mapping at 1:2000 scale and 1000m drilling in 17 boreholes at 200m spacing.

The committee recommended the proposal for approval of EC for "Preliminary Exploration (G-3 Stage) for Magnetite and associated Vanadium mineralization in Khursipar Block, District: Gondia, Maharashtra" with an estimated cost of ₹ 273.10 lakh (including GST) within time schedule of 12 months for carrying out the proposed work and submission of report as per Annexure - 2A & 2B. The item will be reviewed after 4th and 8th months.

Agenda.74.1.2. Preliminary Exploration (G-3) for Kyanite and Sillimanite in Malada Block (2.10 sq. km), Bhandara District, Maharashtra.

[Implementing Agency: MECL]

- a) The proposed area forms a part of Sakoli Fold Belt (SFB) and falls in SOI toposheet no. 55P/3.
- b) The Sakoli series in Bhandara district hosts kyanite-sillimanite deposits within chloritemuscovite schists.
- c) GSI's regional and large-scale mapping identified eight new potential occurrences of kyanite, sillimanite, and corundum. The district has both state and private mining leases, with two located at the northwestern boundary of the proposed block.
- d) This is a lapsed lease area under the 10(A) 2(B) case. MECL informed that DGM Maharashtra requested for further exploration (Letter No. Tech/1848/2023/3938, dated 22/12/2023).
- e) The lease (0.03 sq. km), granted to M/s S.S. Islam (15-01-2003 to 14-01-2005) reported 2 kyanite bands in the area and established 9200 tonnes kyanite resource in the lapsed lease hold area.
- f) GSI conducted exploration in the area during 1977-78 and reported the presence of low-grade sillimanite. MECL's reported Al₂O₃ values were also low. The committee noted that data availability was limited, because the existing information obtained only from trenching due to extensive soil cover in the area. Additionally, the committee noted that the boundary had been extended southward without control. Hence, the committee recommended that the southern extension be minimized due to a lack of supporting evidence and suggested reducing the area accordingly.

Recommendations of TCC-1:

The committee recommended the proposal for approval of EC for "Preliminary Exploration (G-3 Stage) for Kyanite and Sillimanite in Malada Block, District-

2

Bhandara and Gondia, Maharashtra" with an estimated cost of ₹ 140.41 lakh (including GST) within time schedule of 10 months for carrying out the proposed work and submission of report as per Annexure - 3A & 3B. The item will be reviewed after 03rd & 06th months.

Agenda 74.2 Review of Ongoing Projects/Completed Project & Timeline Extension

Agenda 74.2.1. Preliminary Exploration (G-3) for Manganese in Nagardhan Block (2.00 sq. km), Nagpur District, Maharashtra. [Implementing Agency: MECL]

- a) MECL informed that the project was approved in the 34th EC Meeting held on 13th March, 2024. The sanction order was issued on 12th March, 2024 with timeline of 11 months (up to 11.02.2025) and approved cost was INR 1,30,65,806/-.
- b) After completion of geological mapping & trenching, the block was reviewed in 68th TCC held on 28th, 29th & 30th August 2024 where committee recommended to commence drilling in the northern limb in three boreholes involving 180m.
- c) MECL informed that on the basis of results from geological mapping, trenching & sampling 3 BHs have been drilled and 36 core samples are analysed. However, core logging of 3 boreholes indicated complex subsurface structure. Only one ore zone above threshold (10% Mn) in MNB-01 borehole was intersected. The committee was informed that analytical results are awaited.
- d) MECL, informed that all the field activities have been completed however there was 3month delay in drilling due to cultivation season. Hence, MECL requested time extension upto April 2025 for GR submission.
- e) The committee noted the progress of the project and agreed for time extension upto 30th April 2025.

Recommendation of TCC-1

The TCC-1 approved timeline extension upto 30th April 2025 to complete GR preparation, internal peer review and final submission.

Agenda 74.2.2. Reconnaissance survey (G-4) for Diamond in part of a Palaeo-channel in Krishna Basin near Mangalgiri, Guntur District, Andhra Pradesh. [Implementing Agency: Geo Marine Solutions Pvt Ltd.]

- a) Geo Marine Solutions Pvt Ltd. informed that the project was approved in the 38th EC Meeting held on 29th November, 2024. The sanction order was issued on 30th December, 2024 with timeline of 12 months (up to 30.12.2025) and approved cost was INR 2,06,54,529/-.
- b) Geo Marine informed during the project submission, the committee was requested to consider that the drilling and geophysical components were previously outsourced. However, as in-house resources have now been developed, these components can be managed internally. Geo Marine requested to change all outsourced work to in – house components. Accordingly, the revised cost for the project was also presented.

Recommendation of TCC-1

The committee agreed to modify the outsourced drilling components to in-house and advised Geo Marine to present the revised cost sheet during review of

the project for approval of TCC-1 and the change of costs will be decided during the review of the progress of the work.

Agenda 74.2.3. Preliminary exploration (G3 stage) for Vanadium, Titanium and associated minerals in beach and dune sands of Talashil block, Sindhudurg district, Maharashtra.

[Implementing Agency: Geo Marine Solutions Pvt Ltd.]

- a) Geo Marine Solutions Pvt. Ltd. informed that the project was approved in the 34th EC Meeting held on 13th March, 2024 The sanction order was issued on 25th April, 2024 with timeline of 10 months (up to 11.01.2025) and approved cost was INR 1,36,12,863/-.
- b) Geo Marine informed that in the 73rd TCC-1 meeting of NMET, the committee had agreed to review the project after receipt of peer reviewer's comments and had approved time extension upto 28th February 2025 for GR submission.
- c) Geo Marine informed that exploration was carried out as per MEMC rule 2015 in an area of 5.84 sq.km in Talashil block stretching 12.8 km length, 130-900m width.
- d) The total tonnage of the (TEHM) Total Economic Heavy Minerals viz. Titano-magnetite and Ilmenite upto 6.0m below ground level is 8.9076 MMT is TEHM Heavy Minerals within total Sand body of 53. 0467 MMT (Avg. grade is 16.84%). In terms of the metal content in TEHM: V2O5 : 0.18%, TiO2 : 11.7%, Fe2O3 : 35.2%
- e) Geo Marine mentioned that The Atomic mineral content in the samples of Talashil block (analysed at AMD, Hyderabad) is ranging between 0.0074 % to 0.0099 %. The threshold value for monazite in beach sand as per AMCR 2016, amended in 2019 is 0.00%. The Resource Estimation and Estimation of Metal oxides (Fe2O3, TiO2, V2O5)is as given below:

Seq.	Name	Grade (avg) %	Total Tonnage (MMT)
1	Total sand body	-	53.04678
2	VHM (A+B+C)	16.791 ± 2.90	8.908 ±1.542

Resource Estimation

Estimation of Metal oxides (Fe2O3, TiO2, V2O5)

Seq.	Metal Oxide	Avg. Grade in total Sand (%)	Avg. Grade in VHM (%)	Total Tonnage (MMT)
1	Fe2O3	5.8659	35.2	3.111753
2	TiO2	2.0393	11.7	1.081808
3	V2O5	0.0338	0.18	0.017910

- f) Besides, Geo Marine Solutions Pvt Ltd. Also showed the analytical values >0% for monazite in the samples.
- g) While appreciating the outcome of the project, the committee raised concern on the presence of monazite in the samples. The committee unanimously concluded that further course of action in the item will have to be taken into compliance with the AMCDR rules instead of MEMC rules.

The TCC-1 recommended Geo Marine Solutions Pvt Ltd to submit the GR at the earliest.

Agenda 74.2.4. Preliminary Survey (G3) for graphite in Lamer-Panga Block-A (13. 99 sq. Km) in Kalahandi district of Odisha.

[Implementing Agency: OMC]

- a) The OMC informed that the project was approved in the 27th EC Meeting held on 10th January, 2023. The sanction order was issued on 03rd February, 2023 with timeline of 16 months and approved cost was INR 2,32,65,315/-.
- b) The agency further informed that the project was reviewed in the 73rd TCC-1 meeting held on 30th and 31st January, 2025 and got recommended time extension upto 31st March 2025 and also to submit revised cost sheet as the actual number of core samples in the project analysed was different from the approved one.
- c) In view of the above, OMC presented the revised cost sheet for the project indicating the actual expenditure incurred in case of outsourced components and 225 nos. of additional samples for chemical analysis. The total revised cost of the project ₹1,54,89,630/-.

Recommendation of TCC-1

The TCC-1 approved the revised cost sheet for "Preliminary Survey (G3) for graphite in Lamer-Panga Block-A in Kalahandi district of Odisha" with additional 225 nos of chemical samples and total revised cost of the project ₹154.90 Lakhs as given at Annexure-4.

Agenda 74.2.5. Preliminary exploration (G-3 Stage) for Gold Exploration in Dimirimunda Block (5 Sq. Km), District: Keonjhar, Odisha. [Implementing Agency: OMC]

- a) The OMC 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 12 months and approved cost was INR 2,01,98,905/-.
- b) The agency further informed that the project was reviewed in the 73rd TCC-1 meeting held on 30th and 31st January, 2025 agreed for pre-closure of the project and recommended time extension upto 31st March 2025. Further, the committee advised OMC to submit revised cost sheet for the project in next TCC-1.
- c) In view of the above, OMC presented the revised cost sheet for the project indicating the actual expenditure with the total revised cost of the project ₹25,91,450/-.

Recommendation of TCC-1

The TCC-1 recommended for pre-closure of the project "Preliminary exploration (G-3 Stage) for Gold in Dimirimunda Block, District: Keonjhar, Odisha" with revised cost of ₹25.91 Lakhs as given in Annexure-5.

Agenda 74.2.6. Reconnaissance Survey (G-4 Stage) for Graphite in and around Khairmal area (83.34 Sq.km), Bolangir, District, Odisha. [Implementing Agency: OMC]

- a) The OMC informed that the project was approved in the 37th EC Meeting held on 23th September, 2024. The sanction order was issued on 23rd October, 2024 with timeline of 10 months (up to 22.08.2025) and approved cost was INR 85,26,720/-.
- b) OMC further informed that out of 83.34 sq.km approved area, geological mapping has been completed in 50 sq.km area on 1: 12500 scale. 20 nos. BRS samples has been collected. Location for 20 cu. m trenching has been identified and negotiation with locals is in progress. Further, potential area will be selected for SP survey based on field observations and analytical data of surface sampling.
- c) OMC informed that graphite is structurally controlled and occurring along the folded limb. However, the occurrence of graphite could not be properly explained through interpreted geological map.

The TCC-1 advised OMC to expedite mapping and elucidate the graphite schist through proper interpretation. Trenching should be done only after bringing out the graphite horizon.

Agenda 74.2.7. Preliminary exploration (G-3 Stage) for Gold Exploration in Salaikana Block (3.98 Sq. Km), District: Keonjhar, Odisha. [Implementing Agency: OMC]

- a) The OMC 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 12 months and approved cost was INR 2,01,98,905/-.
- b) OMC further informed that the project was reviewed in the 70th TCC-1 meeting of NMET where the committee recommended concluding the project and approved additional 37 samples and 3 months' time extension upto 4th January 2025 for GR submission.
- c) OMC informed that drone magnetic survey was carried out in the block and requested TCC-1 for approval of the same.
- d) The committee opined that any additional component in the ongoing projects is to be recommended by the TCC-1 before the same is being implemented by the agency.
- e) The committee did not approve the cost for Drone Magnetic Survey. OMC presented the revised cost of the project for ₹26,82,885/- with time extension upto 31st March 2025.

Recommendation of TCC-1

The TCC-1 recommended pre-closure of the project "Preliminary exploration (G-3 Stage) for Gold in Salaikana Block, District: Keonjhar, Odisha" with revised cost of ₹26.83 Lakhs as given at Annexure 6 with time extension upto 31st March 2025 for submission of GR.

Agenda 74.2.8. Preliminary exploration (G-3 Stage) for Iron ore in Madhyapur Block (6.5 Sq.Km), District: Keonjhar, Odisha. [Implementing Agency: OMC]

a) The OMC informed that the project was approved in the 32nd EC Meeting held on 06th December, 2023. The sanction order was issued on 15th December, 2023 with timeline of 12 months and approved cost was INR 1,97,07,639/-.

- b) The OMC also apprised that the project was reviewed in the 71st TCCC1 meeting of NMET where the committee recommended OMC to submit the report under G4 stage @15% Fe cut-off at the earliest and submit the revised cost sheet to NMET secretariat. The committee also approved time extension up to 14th March 2025.
- c) OMC requested approval of TCC-1 for Bulk Density analysis of samples. In reply the committee opined that the earlier recommendations of the committee has not been adhered by OMC. Further TCC-1 did not approve the analysis of samples for bulk density. The TCC-1 recommended time extension upto 31st April 2025 for submission of GR after peer review.

The TCC recommended time extension upto 30th April 2025 for submission of GR

Agenda 74.2.9. Preliminary exploration (G-3 Stage) for Limestone in Alda Block Raipur & Baldodabazar – Bhatapara District: Chhattisgarh. [Implementing Agency: DGM Chhattisgarh]

- a) DGM Chhattisgarh informed that the project was approved in the 33rd EC Meeting held on 19th February, 2024. The sanction order was issued on 28th February, 2024 with timeline of 10 months (27.12.2024) and approved cost was INR 1,59,77,570/-.
- b) DGM Chhattisgarh further informed that drilling is in progress in the block. Out of approved 16 Bhs, 11 BHs have been completed and 1 BH is under progress. DGM requested for exclusion of 4 nos. of boundary boreholes due to standing crops.
- c) In view of the above, the TCC-1 agreed for exclusion of 4 boreholes.TCC-1 recommended the revised cost of the project for ₹1,42,74, 012/-.

Recommendation of TCC-1

The TCC-1 approved for exclusion of 4 BHs. from the approved quantum of the project with revised cost of the project as ₹ 142.74 Lakhs as given at Annexure-7.

74.3 Review of procurement proposals

Agenda 74.3.1. Financial Assistance from NMET funds to procure Machinery Laboratory Equipment/instruments etc. aimed at enhancing the exploration activities.

[Implementing Agency: DGM Chhattisgarh]

- a) DGM Chhattisgarh informed that the project was approved in the 28th EC Meeting held on 16th March, 2023 The sanction order was issued on 3rd April, 2023 with timeline of 12 months and approved cost was INR 4,78,27,000/-.
- b) DGM Chhattisgarh further informed in the 35th EC of NMET time extension was granted upto 31.12 2024.
- c) DGM Chhattisgarh informed the committee that the tendering process was delayed due to non-availability of customized bid in GeM portal. This was resolved after months of correspondences with NMET and GeM. TCC-1 was apprised that the customized bids were floated in January 2025.
- d) In view of the above, DGM Chhattisgarh requested for time extension upto August 2025.

The TCC-1 recommended 8 months' time extension upto 31st August 2025 for the project.

Agenda 74.3.2. Financial Assistance from NMET funds to procure Machinery Laboratory Equipment/instruments etc. aimed at enhancing the exploration activities. (Cost Ratification and approval Hyperspectral Core Scanner with XRF and Core Scanner with LIBS technology).

[Implementing Agency: MECL]

a) MECL informed that the project was approved in the 33rd EC Meeting held on 19th February, 2024. The OM was issued on 1st March, 2024 with timeline of 12 months and approved cost was INR 3244.87 lakh, break up of which is given below:

S. No.	Name of Equipment	Rate (approx. in ₹Lakh)	Unit	Amount (in ₹lakh)
1	Hyper Spectral Core Scanner with LIBS	1868.00	01	1868.00
2	Hyper Spectral Core Scanner with XRF	1110.00	01	1110.00
3	Gamma Ray Spectrophotometer	30.00	02	60.00
4	WD-XRF	206.87	01	206.87
	Total (excluding GST, custom duty	etc.)	•	3244.87

- b) MECL informed that approval for the global tender was granted on 04th June, 2024, for the Hyperspectral Core Scanner with XRF and on 03rd October, 2024 for the Core Scanner with LIBS. Following approvals, the global tenders for the Hyperspectral Core Scanner with XRF was floated on 23rd July, 2024, and for the Core Scanner with LIBS on 24th October, 2024, on the Central Public Procurement Portal, both including a Pre-Bid clause.
- c) The global tender process for the Hyperspectral Core Scanner with XRF and Core Scanner with LIBS has now been completed, and the L-1 price has been disclosed.
- d) TCC-1 was apprised that MECL had proposed a cost of ₹1110 lakhs (excluding GST), which included 5 years AMC for one Hyperspectral core scanner with XRF unit. However, MECL received an L-1 bidder price of ₹1728.77 lakhs for one Hyperspectral core scanner with XRF unit, which includes a 3-year CAMC and 18% GST. This price comprises ₹1213.01 lakhs (excluding GST and CAMC) for the instrument, ₹252.05 lakhs (excluding GST) for the 3-year CAMC, and ₹263.71 lakhs as GST, totaling ₹1728.78 lakhs. Therefore, MECL requested approval for an additional amount of ₹418.02 lakhs for the procurement of Hyperspectral Core Scanner with XRF. MECL provided the break up details for Hyperspectral Core Scanner with XRF is given below:

	S.	Equipment	Approved	Amount pa	yable by NM	IET (as Per	Approval)	L-1	L-1	GST	Total L-1
1	No.		Qty. (No.)	NMET Approved Without GST (in Lakhs.)	CAMC/ Extended warranty cost (in lakhs)	GST (18%) (in Lakh)	Total Cost including GST (in lakhs)	Bidder cost excluding GST (in Lakhs)	bidder cost of CAMC excluding GST (in Lakh)	(18%) in Lakhs	Bidder bid including GST and CAMC (in Lakh)
1	1.	Hyperspectral Core Scanner with XRF	1	1110.80	0.00	199.944	1310.74	1213.01	252.05	263.71	1728.77

- e) Similarly, MECL had proposed for Hyperspectral Core scanner with LIBS at a cost of ₹1868.00 lakhs (excluding GST but including custom duty, clearance, freight, sea shipment charges) where cost of AMC was not included. MECL received an L-1 bidder price of ₹2574.20 lakhs for one Core scanner with LIBS unit, which includes a 3-year Extended Warranty (as CAMC), 18% GST and other taxes like custom duty, landing charges etc. This price comprises ₹1511.68 lakhs (excluding extended warranty, GST and other taxes) for the instrument, ₹436.75 lakhs (excluding GST) for the 3-year extended warranty, and ₹625.77 lakhs as GST and other taxes, totaling ₹2574.19 lakhs.
- f) In view of the above, an additional amount of ₹369.95 lakhs for Core scanner with LIBS was requested by MECL for approval of EC to complete the process of procurement. The break up details for Core Scanner with LIBS is given below:

S. No.	No. Qty. (No.)					r Approval)	L-1 Bidder	L-1 bidder	GST (18%)	Total L-1 Bidder
			NMET Approved Without GST (in Lakhs.)	CAMC/ Extended warranty cost (in lakhs)	GST (18%) (in Lakh)	Total Cost including GST (in lakhs)	cost excluding GST and other taxes (in Lakhs)	cost of extended warranty excluding GST (in Lakh)	& other taxes (in Lakhs)	including Extended warranty GST and other taxes (in Lakh)
1.	Core Scanner with LIBS	1	1868.00	0.00	336.24	2204.24	1511.68	436.75	625.77	2574.19

- g) In view of the above, MECL also requested for 18 months' time extension for completion of the project.
- h) After reviewing the proposal, TCC-1 has made the following observations:
 - MECL has floated the tenders with specifications for Hyperspectral Core Scanner with XRF and Core Scanner with LIBS whereas approval by NMET was accorded for Hyperspectral Core Scanner with XRF and Hyperspectral Core Scanner with LIBS. Reason for not floating tender for TCC approved Hyperspectral Core Scanner with LIBS was not mentioned by MECL.
 - EC of NMET has approved the cost of Rs.3244.87/- excluding GST and custom duty. No approval was accorded towards CAMC for both the instruments. However, MECL has floated the tenders by including the 5 years of CAMC.
 - MECL is seeking approval of Rs. 4302.97 lakhs (including GST, 3 years of CAMC for Hyperspectral Core Scanner with XRF and 3 years extended warranty for Core Scanner with LIBS and custom duty for core scanner with LIBS). Perusal of the revised price submitted by MECL shows that the major deviation in the price is due to inclusion of CAMC, warranty and change in the technical specifications for Hyperspectral Core Scanner with LIBS for which MECL should have sought the approval of TCC before floating the tender or before finalizing the technically qualified bidder.

TCC-1 deliberated that the equipment under consideration would be first of its kind in the country and will ensure infusion of new technology in the field of mineral exploration. In view of the above, TCC-1 agreed to recommend the revision of cost to EC of NMET. The committee instructed MECL to submit justification for the deviation in cost and specification before next EC of NMET. Further, the committee also recommended 18 months i.e. 30th September 2026 to complete the process of procurement of the instruments.

Recommendation of TCC-1

The TCC-1 recommended the revised cost for Hyperspectral Core Scanner with XRF at ₹ 1728.77 lakhs inclusive of GST and a three-year CAMC and Core Scanner with LIBS at ₹ 2574.19 lakhs, inclusive of GST, other taxes and a three-year Extended warranty for approval of EC.

The TCC-1 also recommended 18 months i.e. 30th September 2026 for completion of procurement of the instruments- Core Scanner with LIBS, Hyper Spectral Core Scanner with XRF, Gamma Ray Spectrophotometers (2 nos) and WD-XRF.

Additional Agenda under 74.3.

Agenda 74.3.3. Financial Assistance from NMET funds to procure MT instruments and related Software [Implementing Agency: GSI]

- a) Geological Survey of India (GSI) informed that baseline geophysical data generation programmes like National Geophysical Mapping Programme (NGPM), National Aerogeophysical Mapping Programme (NAGMP) are being carried out by GSI. Magnetotelluric (MT) method which works on the principle of natural electromagnetic (EM) induction inside earth, is the most widely used geophysical method for 3D mineral system mapping, 3D geological and structural mapping, geothermal investigation, geohazard studies and also for hydrocarbon exploration.
- b) Further, since 1970s MT technique was being used by National Geophysical Research Institute (NGRI). The MT Survey is applied in mineral exploration, geothermal exploration, oil exploration, Earthquake precursor phenomena and geo-engineering problems.
- c) TCC-1 was apprised that GSI currently has six numbers of 8-channel MT instruments those have entire range of MT data collection starting from 1km to hundreds of kilometers depending upon the nature of conductivity of the sub-surface. Upon procurement, training on magneto-telluric data acquisition for 25 days and data processing for 20 days were included with the procurement of MT instrument for 20 officers from GSI. Currently the instruments are deployed in two pilot projects of GSI in ER and SR.
- d) Considering the success of MT survey across different countries and also in India by other organizations, a National Magneto Telluric Survey (NMTS) programme, has been proposed by GSI with an aim to create a 3D mineral system framework of known mineralized zones and to discover new deposit locations under the cover.

Instruments requi	Instruments required to be Freshly Procured						
Regions (Excluding NER)	No. of 8 Channel Instruments Required						
SR/ER	6						
CR	6						
WR	6						
Total	18						

e) In view of the NMTS programme, GSI has proposed for purchase of the following through NMET fund :

Software Required (To be purchased with equipment)	Fresh License Requiremen t	Total Numbers Required (Fresh)	Hardware requirement	Total Numbers Required (Fresh)
MT Processing	1/instrument	18	Rugged Laptop (To be purchased with equipment)	18
MT 1D/2D inversion (Winglnk)	3/region	6	64 GB RAM/ 16 core Processor Workstation (3 numbers/ region)	6

- f) GSI informed that the tentative timeline for the completion of the procurement process is 14 months considering the time required for permission for Make in India exemption from DPIT, Tendering process, etc.
- g) In view of the above GSI sought approval of TCC-1 for the following :
 - Procurement of 18 nos. of 08-channel instruments with an amount of ₹22,32,00000/- (Rupees Twenty two crore thrity two lakhs only) plus GST @18%n and 08 rugged field laptop amounting to ₹40,200,000/- (Rupees four crore two lakhs only) with 2 year warranty and 5 years CAMC through NMET fund.
 - ii. Procurement of 06 nos .of Winklink software with 7 years warranty with estimated cost of ₹40,900,000/-(Rupees four crore nine lakhs only) and 6 nos. of workstations with 2 years warranty and 5 years CAMC with an estimated amount of ₹48,300,000/-(Rupees four crore eighty three lakhs only)
- h) Upon review of the proposal, the TCC-1 sought clarification from GSI on the following lines.
 - i. Type of MT survey instrument to be procured along with purpose.
 - ii. Type of survey to be carried out i.e. Cratonic Scale, Transect Scale or Thematic Scale along with the road map.
 - iii. Justification for 18 nos. of instruments at a time when 06 are already available with the department for use. Proper deployment chart should be produced to avoid redundancy.
 - iv. Deployment mechanism for both instrument and man power as they differ from survey to survey.



- v. Man power availability to use, synthesis and interpret the data once procured.
- vi. Availability of MT instruments with other organization and possibilities for either outsourcing or collaboration.
- i) Even though, GSI responded all the queries by saying that the currently available 06 nos. of 8-Channel MT Survey instruments are utilized to carry out cratonic scale surveys in two pilot projects of ER and SR and also planning to launch nationwide MT Survey Program (i..e. Broadband Magneto-Telluric (BBMT): 13.5 km spacing; Long Period Magneto-Telluric (LPMT): 55 km spacing and One-degree sheet coverage: 64 BBMT and 4 LPMT stations), the committee sought more clarity on the proposal as the results of the ongoing surveys by GSI is not known yet. The committee was informed that AMD has recently purchased two 8-channel MT Survey instruments and currently using them for their own projects on thematic scale.
- j) The committee advised GSI to organize a one-day workshop to gather feedback from various stakeholders, user agencies, and institutions utilizing these instruments. The purpose is to refine the scale of the survey, finalize the five-year plan, and return to the TCC with stakeholder comments, case studies, and a comprehensive plan for data generation and interpretation.

The Committee agreed in-principle for the procurement of the instrument but advised GSI to organize a one-day workshop to gather feedback from various stakeholders, user agencies, and institutions utilizing these instruments. The purpose is to refine the scale of the survey, finalize the five-year plan, and return to the TCC with stakeholder comments, case studies, and a comprehensive plan for data generation and interpretation. The proposal is deferred until submission of detailed proposal by GSI as per the recommendations of TCC-1.

72.4. Project Evaluation for in-Principle Approval

Agenda.74.4.1. Reconnaissance Survey (G4) for Manganese, Graphite and REE mineralization in Venkampatruni-Rega, Tatiguda, Konda Lakshmipuram areas, Vizianagaram district, Andhra Pradesh.

[Implementing Agency: APC Drilling & Construction Private Limited.]

- a) The proposed area falls in f SOI toposheet no. No. 65N/11.
- b) GSI conducted G3-stage exploration in Palavalasa and Laxmipuram Blocks, identified Mn resources along with presence of graphite and REE. In Gadabavalasa Block-1 and Block-2, GSI recommended for seamless upgradation of Block-1. G3 stage investigation in the Perapi-Pattikayalavalasa-Laveru-Gollapalem area suggested detailed exploration of adjacent northern and southern regions.
- c) Based on previous manganese exploration and Bhukosh geological maps, a 30.30 sq. km gap area has been identified for G4-stage investigation for manganese, graphite, and REE mineralization.
- d) DMG, AP informed the house that the proposed area shows overlapping with 2 existing mining lease areas. Additionally, the area has overlap with GSI G4 stage work too.

Recommendations of TCC-1:

The committee did not approve the item.

Agenda.74.4.2. Preliminary Exploration (G3) for REE Mineralization in Temna-Barwahi Block, Balrampur Ramanuganj District, Chhattisgarh.

[Implementing Agency: APC Drilling & Construction Private Limited.]

- a) The proposed area falls in the SOI toposheet no. No. 53Pl/8.
- b) GSI conducted G4 Stage exploration and reported many allanite bearing pegmatite bodies around Anandpur Area, Balrampur District showing REE values upto 2951.37 ppm.
- c) BRS as well as stream sediment samples analysed during the study reported anomalous zones in central, southwestern, northeastern and southeastern parts.
- d) APC Drilling & Construction Private Limited has proposed G3 stage proposal in Southwestern part covering maximum number of pegmatite bodies.
- e) The committee was informed that DMG, CG is conducting work in and around the area. However, after reviewing the proposal, the committee observed that the GSI reported REE values, around 1000 ppm, are insufficient for a G3 stage item, as this stage requires better control over mineralization.

Recommendations of TCC-1:

The committee did not approve the item but suggested APC Drilling & Construction Private Limited to visit the area, collect samples and if the analytical values are encouraging, APC Drilling & Construction Private Limited may come for in-principle approval.

Agenda.74.5.3. Reconnaissance Survey (G4) for Graphite, Manganese and associated minerals in Pittada-Mentada-Golupallem area, Vizianagaram district, Andhra Pradesh.

[Implementing Agency: APC Drilling & Construction Private Limited.]

- a) The proposed area forms a part of SOI toposheet no. No. 65N/3 & N/7.
- b) In 2016-17, GSI conducted 1:12,500 scale mapping in parts of Toposheet No. 65N/3 (Mn: 0.16%–37.70%) and identified four potential blocks. Graphite mineralization was also reported in the Parasam-Garudabilli area.
- c) GSI reported graphite mineralization as follows:
 - Gunkalam area: Graphite fixed carbon (FC) ranged from 0.31% to 70.44%, averaging 5% FC.
 - Ompalli area: Eleven BRS samples showed FC ranging from 0.02% to 3.64%, averaging 1.08% FC.
 - Ambativalasa: Mineralized zone exhibited FC from 0.27% to 4.88%, averaging 2.28% FC.
 - Parasam area: Seven BRS samples recorded FC from 0.43% to 7%, averaging 1.98% FC.
- d) Additionally, GSI reported manganese, cobalt, and associated mineralization in Ginnam and Lingalavalasa.
- e) Based on previous GSI exploration and Bhukosh geological maps, a 38.80 sq. km gap area has been identified for a G4-stage reconnaissance survey for graphite, manganese, and associated mineralization.

- f) The committee was informed that GSI had conducted STM in the area and had recommended certain zones in the report. However, the area proposed by APC does not fall within any of those recommended zones.
- g) Upon review, the committee observed that 50% of the proposed area consists of sillimanite gneiss, while the other half covers garnetiferous migmatite. APC was advised to focus on sillimanite gneiss for exploration.

The committee did not approve the item but suggested APC Drilling & Construction Private Limited to visit the area, collect samples and if the analytical values are encouraging, APC Drilling & Construction Private Limited may come for in-principle approval.

Agenda.74.4.4. Reconnaissance Survey (G4) for Iron ore in Yaparlapadu area, Kurnool District, Andhra Pradesh.

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Agenda.74.4.5. Reconnaissance Survey (G4) for Iron in Dhone area, Nandyal District, Andhra Pradesh State.

[Implementing Agency: Critical Mineral Tracker]

- a) The proposed Yaparlapadu area forms a part of SOI toposheet no. No. 57I/2 & 57E/14 and Dhone area forms a part of SOI toposheet no. No. 57 I/3 & 57 E/ 15.
- b) CMT reported that mineralization in the area is more prominent along two major fracture zones trending WNW–ESE and NNE–SSW. The primary ore mineral is hematite, with secondary iron minerals such as limonite (dark yellow) and goethite (brownish red) observed as encrustations. Specular hematite is also present in certain locations.
- c) Fault breccia has been identified, with Fe₂O₃ mineralization occurring adjacent to these zones but with a limited ore thickness. Additionally, the mineralization exhibits a lenticular pattern with varying thickness. Samples were collected from bedrock, pits, trenches, and surface floats to assess the iron ore grade.
- d) CMT conducted a field visit and observed the presence of quartzite bands within dolomite. It was noted that both proposed areas fall within the same mineralized zone and exhibit a similar pattern of mineralization.
- e) Based on these findings, the committee recommended combining both areas and formulating a G4 stage investigation covering approximately 100 sq. km.

Recommendations of TCC-1:

The committee recommended CMT to merge both the blocks to prepare one G4 item and present the DPR in forthcoming TCC-1 meeting.

Agenda.74.5.6. Reconnaissance Survey (G4) for REE Mineral in Kasipatnam area, Vizianagaram and Vishakhapatnam Districts, Andhra Pradesh. [Implementing Agency: Critical Mineral Tracker]

- a) The proposed area falls within SOI toposheet no. 65N/3 & 65N/4.
- b) DMG, AP informed the committee that the area neither overlaps with their work nor includes any leasehold area.

- c) However, the committee was informed that 60% of the proposed area overlaps with GSI's approved FS program for FS: 2025-26.
- d) Additionally, it was noted that APMDC had conducted rathole mining for Ce-bearing apatite in the area.

Recommendations of TCC-1: The committee did not approve the item.

Agenda.74.4.7. Reconnaissance Survey (G4) for Gold Prospect in Sasvihalli area, Davangere District, Karnataka.

[Implementing Agency: Geovale Services Pvt: Ltd.]

- a) The project area is located within parts of SOI toposheet nos. 48N/13, 57B/1 and 57B/2 and it belongs to northern part of Chitradurga Schist Belt which is known for gold mineralization.
- b) GSI conducted Kanivahallai G4 stage gold investigation (2018-19) and reported 25ppb to 2084ppb gold and 200ppm to 2700ppm. Another G4 stage in Uppanyakanahalli and Bagali area carried out by GSI (2016-17) reported higher values of gold upto 3.06 ppm and anomalous values for chromium, arsenic and copper. Kanivahallai and Uppanyakanahalli and Bagali block were also recommended by GSI for auction.
- c) The proposed G4 block lies towards south of the above-mentioned area and shows structural and geological continuity.
- d) GSI had handed over a Geological Memorandum (GM) of the Kanivahallai block to the Karnataka state, and it lies north of the proposed Geovale area. DMG, Karnataka, subsequently allocated the block to Geovale for further exploration, but they have yet to receive a response from Geovale.
- e) Part of the proposed area has already been taken up by GSI for FS: 2025-26 for copper, with a 30% overlap. In response, Geovale stated that forest cover in the area is a concern. The committee advised Geovale to conduct a field assessment of the forest conditions and propose a G3 stage investigation accordingly.

Recommendations of TCC-1:

The committee did not approve the Sasvihalli project but advised Geovale to submit DPR for the Kanivahallai GM which was handed over by DGM, Karnataka.

Agenda.74.4.8. Reconnaissance Survey (G4) for Limestone in Jewra area, Yavatmal, Maharashtra.

[Implementing Agency: Indian Mine Planners & Consultants]

- a) The proposed area falls in SOI toposheet(s) 56I/13, 56I/14 No. 56M/1 and 56M/2 of Penganga Group.
- b) The flux grade limestone of Mangurda Formation of Penganga Group is the target lithology.
- c) The avg. chemical analysis of limestone sample analysed by DGM shows 46.53% CaO, 7.20% SiO2.
- d) DMG Maharashtra informed that the area is overlapping with the area already explored by DMG, Maharashtra and is under the process of auction.

Recommendations of TCC-1:

The committee did not approve the item.

Agenda.74.4.9 Preliminary Exploration (G3) for Nickel (Ni) & Base metals near Vemula Village, YSR (Kadapa) District, Andhra Pradesh. [Implementing Agency: Mining Tech Consultancy Services Ltd.]

- a) The proposed area falls in SOI toposheet no 57 J/7 of Cuddapah Supergroup.
- b) The NGCM of GSI identified copper (61–104 ppm in 19 composite samples) near Midipenta and Rachigaripalle, along with elevated nickel (14–406 ppm) and chromium (up to 774 ppm) near Vemula.
- c) A G4-level reconnaissance survey (FS 2019–20, FS 2020–21) around Rachigaripalle reported nickel (up to 1000 ppm) and chromium (up to 3000 ppm) within differentiated gabbro near Vemula. Previous gravity and magnetic surveys indicated the presence of ferromagnesian minerals in the area.
- d) The committee found the area to be promising for Ni, Cu, and Sc mineralization. Therefore, the agency has been advised to conduct a field visit, collect samples from areas not previously explored by GSI, analyze them, and present a DPR with the analytical data.

Recommendations of TCC-1:

The committee accorded in-principle approval for the item and advised Mining Tech Consultancy Services Ltd to submit the DPR in forthcoming TCC-1 meeting.

Agenda.74.4.10. Preliminary Exploration (G3) for Limestone-Usilampati-Thirumangalam block, Madurai district, Tamil Nadu. [Implementing Agency: Geotechnical Mining Solution.]

- a) The area falls in toposheet no 58G/3
- b) Shri N.K.N. Iyengar says the limestones in this area are of the kankar type; but they are very irregular in thickness and quality. The thickness ranges from 0.2 m. to 1.0 m. associated with ferruginous and aluminous clayey impurities.
- c) Accordingly, GTMS conducted field work and collected samples from the 9 samples of the open wells of the proposed block area.
- d) The committee was informed that the area has lease applications pending.

Recommendations of TCC-1:

The committee did not approve the item.

Agenda.74.4.11. Preliminary Exploration (G3) for limestone in Chanai Khurd Block, Chandrapur District, Maharashtra. [Implementing Agency: Gemcokati Exploration Pvt: Ltd.]

- a) The area falls in toposheet no 56I/14 and belongs to P-G Valley, Penganga Group Limestone.
- b) The area lies east of Rupapeth north of Savalhira block which is being executed by DGM, MS under NMET funding and are showing encouraging values.
- c) Moreover, few Cement Factories and dolomite mines are situated in the vicinity of this block area also suggest the potentiality of the area.
- d) The committee noted that comments from DMG, Maharashtra, regarding this area are yet to be received. Therefore, the agency has been advised to wait for these comments.

The committee stated that Gemcokati Exploration Pvt: Ltd should resubmit the proposal presenting the analytical results for in-principle approval after obtaining the state DMG's comments.

Agenda.74.4.12. Reconnaissance Survey (G4) for Vanadium and Titanium in Malaida-Katema area, District: Rajnandgaon, Chhattisgarh. [Implementing Agency: Gemcokati Exploration Pvt: Ltd.]

- a) The area falls in toposheet no 64C/11&15 and belongs Dongargarh Supergroup. The agency informed the committee that the proposed area is located adjacent to the Maneri-Sitapala area and shares the same geological characteristics.
- b) The committee noted that while the proposed area lies adjacent to the Maneri-Sitapala area, which has been explored under NMET funding, the agency does not have any data from the proposed area itself.
- c) The committee advised the agency to give the updated district name in title of the proposal.

Recommendations of TCC-1:

The committee advised Gemcokati to conduct a field visit, collect and analyze samples, and then resubmit the proposal for in-principle approval.

Agenda.74.4.13. Reconnaissance Survey (G4) for Iron Ore in Morli Block (40 sq km), Gadchiroli District, Maharashtra.

[Implementing Agency: Gemcokati Exploration Pvt: Ltd.]

- a) The area falls in toposheet no 65A/6 and belongs Bastar Craton.
- b) DGM Maharashtra conducted initial exploration in Wureea Hill within the Surjagad Hill Range (65A/06), delineating 14 prospects with a cumulative resource of 154.24 Mt. Later, Damkod-Wadvi (65A/10) and Bhamragarh (65A/11) Hill Ranges were also explored, identifying 12 iron ore deposits in Damkod-Wadvi.
- c) The proposed block, within Surjagad Hill Range (65A/11), has exposed iron ore on hilltops and float ore on slopes, with DGM reporting (+60%) Fe. M/s Lloyd operates mines to the west, while five adjacent blocks to the east have been auctioned. In 2023–24, NMET completed exploration in five southern blocks after 40–45 years.
- d) DMG, Maharashtra, informed the committee that they are working on the matter and will send their comments soon.

Recommendations of TCC-1:

The committee decided to wait for DMG's comments, after which Gemcokati will resubmit the proposal for in-principle approval.

Agenda.74.4.14. Reconnaissance Survey (G-4) for REE & RM mineralization in Jarawandi-Sahgaon area (133 sq km), Gadchiroli District, Maharashtra.

Agenda.74.4.15. Reconnaissance Survey (G4) for REE & RM mineralization in Bande-Saver area (129 Sq. km), Uttar Bastar Kanker District, Chhattisgarh.

[Implementing Agency: Gemcokati Exploration Pvt: Ltd.]

Gemcokati Exploration Pvt. Ltd. has already presented the above two items in earlier meeting of TCC-1.

Agenda.74.4.16. Reconnaissance Survey (G4) for Iron ore in Rengawahi-Sitram area (100 sq. km), Narayanpur Districts, Chhattisgarh. [Implementing Agency: Gemcokati Exploration Pvt: Ltd.]

- a) The area falls in SOI toposheet no. 65A/09 & 65A/10.
- b) BMQ enclaves within the Bengpal gneiss are the host rock for Iron Ore, where mining is currently going on by M/s Jaiswal Nicco Limited in South & North Meta Bodali areas of Pakhanjore Tehsil and by M/s Bajrang Power & Ispat Limited, M/s Monnet Ispat and Energy Limited and M/s Pushpa Steel Mining Limited in Hahaldih area of Durgkundal Tehsil, Topo sheet 64D/16.
- c) Five resource bearing NMET funded G4 items had been concluded from adjacent Maharashtra.
- d) In this context, the proposed area is suggested for G4 Reconnaissance Survey in view of reported occurrence of Gold and ongoing mining of Iron Ore and recommendations made by GSI for targeting host rock lithology for Gold & Iron Ore mineralization in this area.
- e) After review the committee suggested that the block may be modified by keeping the major river as the western border and extend towards further northeast.

Recommendations of TCC-1:

The committee advised Gemcokati to conduct a field visit, collect and analyze samples, and then resubmit the proposal for in-principle approval.

Agenda.74.4.17. Reconnaissance Survey (G4) for Vanadium and Titanium in Belpara-Kamansur area, Rajnandgaon District, Chhattisgarh. [Implementing Agency: Gemcokati Exploration Pvt: Ltd.]

- a) The area belongs to Kotri Dongargarh bimodal volcanic belt and falls in SOI toposheet no. 64D/15.
- b) The current exploration programme (G-4) is formulated based on geochemical studies of BRSs collected during field-work carried out by geologists of Gemco-Kati Exploration private limited and positive validation of V2O5 from 0.10-0.43wt% & TiO2 from 0.62-1.38wt% from the block area.
- c) The committee noted that comments from DMG, Chhatisgarh, regarding this area are yet to be received. Therefore, the agency has been advised to wait for these comments. Meanwhile the agency can generate more data.

Recommendations of TCC-1:

The committee recommended to wait for DMG's comments, after which the agency will resubmit the proposal for in-principle approval.

Annexure 1

List of participants attended 74th meeting of Technical-cum-cost Committee (TCC-I) of NMET held on 20th and 21st February, 2025 through video conferencing mode

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Annexure 2A Estimated cost for Preliminary Exploration (G-3 Stage) for Magnetite and associated vanadium mineralisation in Khursipar Block, District- Gondia, Maharashtra Block area- 3.10 sq. km; No. of Boreholes-17, Borehole Depth- 60m, Schedule timeline- 12 months, Review : 4 months, 8 months									
				er NMET SoC 20-21	Estimated Cost of				
S. No.	Item of Work	Unit	SoC-Item	Rates as per	the	Proposal	Remarks		
			-SI No.	SoC	Qty.	Amount (Rs)			
Α	GEOLOGICAL WORK								
1	Borehole logging, mapping (1:2000) with contouring, sampling & Report writing								
i	Charges for one Geologist- Field	day	1.2	11,000	140	15,40,000			
ii	Charges for one Geologist per- HQ	day	1.2	9,000	50	4,50,000			
iii	2 labours/ party (As per rates of Central Labour Commissioner)	day	5.7	526	280	1,47,280	Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher		
iv	Trench and Core Sampling -1 Samplers Labour charge not included	day		5,100	67	3,41,700			
V	4 labours/ party for smpling (As per rates of Central Labour Commissioner)	day	5.7	526	268	1,40,968	Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher		

06/3/25 2

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2	Survey (on 1:2000 Scale)						
i	Bore Hole Fixation and determination of co-ordinates & Reduced Level of the boreholes by DGPS and boundary coordinates	Per Point of observation	1.6.2	19,200	24	4,60,800	17 BHs and 7 boundary coordinates
ii	Charges of Surveyor	one surveyor per day	1.6.1a	8,300	30	2,49,000	
iii	Labours Charges for survey work;	day	5.7	526	120	63,120	Amount will be reimbursed as per the notified rates for unskilled labor by the Central Labour Commissioner or respective State Govt. whichever is higher
	Sub Total- A					33,92,868	
В	PITTING AND TRENCHING						
i	Trenching / Pitting	Cu m	2.1.1	3330	150	4,99,500	150 cu.m. for trench/pit
	S	ub Total- B				4,99,500	
С	DRILLING						
i	Drilling upto 300m (Very Hard Rock) (1 rigs)	m	2.2.1.5a	12,650	1,000	1,26,50,000	
ii	Borehole deviation Survey	m	2.2.6	330	-	-	
iii	Land / Crop Compansation	per BH	5.6	20,000	17	3,40,000	Amount will be reimbursed as per actuals or max. Rs. 20000 per BH with certification from local authorities
iv	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	24	48,000	17 BHs and 7 boundary points
v	Transportation of Drill Rig & Truck associated per drill	Km	2.2.8	36	350	12,600	To & fro Nagpur

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vi	Monthly Accomodation Charges for drilling Camp (up to 2 Rigs)	month	2.2.9	50,000	4	2,00,000	
vii	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	1	2,50,000	
viii	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	1	2,50,000	
ix	Approach Road Making (Flat Terrain)	Km	2.2.10b	22,020	5	1,10,100	
x	Core Preservation: One complete borehole plus mineralised cores of all the remaining Bhs	m	5.3	1,590	300	4,77,000	
	Su	ub Total- C				1,43,37,700	
D	LABORATORY STUDIES						
1	Chemical Analysis						
i	Primary & Check samples						
	a. Primary Samples for total Fe, FeO, SiO2, Al2O3, P, S, TiO2, MnO, MgO, V, Sc, Ni, Co	Nos	4.1.15a and 4.1.15b	6,305	450	28,37,250	Trench/bedrock-200, BH-250
	b-External(10%) Check samples from NABL Lab for total Fe, FeO, SiO2, Al2O3, P, S, TiO2, MnO, MgO, V, Sc, Ni, Co	Nos	4.1.15a and 4.1.15b	6,305	45	2,83,725	
	c. For PGE	Nos	4.1.5d	11,800	20	2,36,000	
	d. 34 element ICPMS Study	Nos	4.1.14	7,731	20	1,54,620	Surface samples-10 and core sample- 10
2	Physical & Petrological Studies						
i	Preparation of thin section	Nos	4.3.1	2,353	10	23,530	
ii	Complete petrographic study report	Nos	4.3.4	4,232	10	42,320	
iii	Preparation of polished section	Nos	4.3.2	1,549	10	15,490	
iv	Complete mineragraphic study report	Nos	4.3.4	4,232	10	42,320	

Dorrolli 06/3/25

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V	Digital Photographs	Nos	4.3.7	280	10	2,800	
vi	XRD Analysis for mineral phase study	Nos	4.5.1	4,000	10	40,000	
vii	Determination of Fine: Lump ratio	cu m	4.9	6,523	-	-	
viii	Bulk density determination	Nos	4.1	3,540	5	17,700	
	S	ub Total- D				36,95,755	
Е	т	otal A to D				2,19,25,823	
F	Geological Report Preparation		5.2	For the projects having cost exceeding Rs. 150 lakhs but less than Rs. 300 lakhs - A minimum of Rs. 7.5 lakhs or 3% of the value of work whichever is more		7,50,000	
G	Peer review Charges		As per EC decision			30,000	
н	Preparation of Exploration Proposal (5 Hard copies with a soft copy)	5 Hard copies with a soft copy	5.1	2% of the Cost or Rs.5 Lakhs whichever is lower		4,38,516	
I	Total Estima	ted Cost with	out GST			2,31,44,339	
J	Provision	for GST (189	% of I)			41,65,981	GST will be reimbursed as per actual and as per notified prescribed rate
K	Total Estim			2,73,10,321			
	R	s. in lakhs				273.10	
Note:							
1	Strict adherence to the Ministry of Fir	nance's and G	GFR guidelin	es is mandator	y. Ever	y transaction n	nust adhere to GFR rule 21.

Dorralt. 06/3/25

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

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Time S	Schedule/ Action Plan fo	or Preliminary				Magnet dia Dist				nadium i	nineraliz	ation	in Khu	rsipa	r Blo	ck
S. No.	Particulars	Months	1	2	3	4		5	6	7	8		9	10	11	12
1	Camp Setting	Months														
2	Survey Party days (1 Party)	days]					-				
3	Trenching / Pitting	cu.m														
4	Drilling (1 rig)	m														
5	Geologist Party days (1 Party)	days					Review					Review				
6	Sampling days for Trench & Core Sampling (1 Party)	days					Rev					Rev				
7	Camp winding	Months														
8	Laboratory Studies	days										1				
9	Geologist days, HQ	days]				
10	Report Writing with Peer Review	days														

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							Annexure 3A			
E	stimated cost for Preliminary Ex Block area- 1.28 sq. km; No.		N	laharashtra						
S.				er NMET SoC 20-21		ated Cost of the				
No.	Item of Work	Unit	Unit	Unit	Unit	SoC-Item -	C-Item - Rates as per		Proposal	Remarks
			SI No.	SoC	Qty.	Amount (Rs)				
Α	GEOLOGICAL WORK									
1	Borehole logging, mapping (1:2000), Topo Survey,sampling & Report writing									
i	Charges for one Geologist- Field	day	1.2	11,000	120	13,20,000				
ii	Charges for one Geologist per- HQ	day	1.2	9,000	30	2,70,000				
iii	2 labours/ party (As per rates of Central Labour Commissioner)	day	5.7	526	240	1,26,240	Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher			
iv	Trench and Core Sampling -1 Samplers Labour charge not included	day	1.5.2	5,100	28	1,42,800				
v	4 labours/ party for smpling (As per rates of Central Labour Commissioner)	day	5.7	526	112	58,912	Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or			

06/3/25

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							respective State Govt. whichever is higher
2	Survey (on 1:2000 Scale)						
i	Bore Hole Fixation and determination of co-ordinates & Reduced Level of the boreholes by DGPS and boundary coordinates	Per Point of observation	1.6.2	19,200	13	2,49,600	8 BHs and 5 boundary coordinates
ii	Charges of Surveyor	one surveyor per day	1.6.1a	8,300	30	2,49,000	
iii	Labours Charges for survey work;	day	5.7	526	120	63,120	Amount will be reimbursed as per the notified rates for unskilled labor by the Central Labour Commissioner or respective State Govt. whichever is higher
		Sub Total	- A			24,79,672	
В	PITTING AND TRENCHING						
i	Trenching / Pitting	Cu m	2.1.1	3330	150	4,99,500	
	Sub Total- B	· · · ·			·	4,99,500	
С	DRILLING						
i	Drilling upto 300m (Hard Rock) (1 rigs)	m	2.2.1.4a	11,500	500	57,50,000	
ii	Borehole deviation Survey	m	2.2.6	330	-	-	
iii	Land / Crop Compensation	per BH	5.6	20,000	8	1,60,000	Amount will be reimbursed as per actuals or max. Rs. 20000 per BH with certification from local authorities

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iv	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	13	26,000	8 BHs and 5 boundary points
v	Transportation of Drill Rig & Truck associated per drill	Km	2.2.8	36	250	9,000	To & fro Nagpur
vi	Monthly Accomodation Charges for drilling Camp (up to 2 Rigs)	month	2.2.9	50,000	3	1,50,000	
vii	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	1	2,50,000	
viii	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	1	2,50,000	
ix	Approach Road Making (Flat Terrain)	Km	2.2.10a	22,020	5	1,10,100	Road Making will be considered as per the requirement and Road Making Charges will be reimbursed later
x	Core Preservation: One complete borehole plus mineralised cores of all the remaining Bhs	m	5.3	1,590	200	3,18,000	This amount will be reimbursed after successful delivery of the cores to concerned libraries/authorities
		Sub Tota	al- C			70,23,100	
D	LABORATORY STUDIES						
1	Chemical Analysis						
i	Primary & Check samples						
	Primary Samples for major oxides (SiO2, Al2O3, Fe2O3, TiO2, FeO, MnO, P2O5, CaO, MgO, Na2O, K2O and LOI)	Nos	4.1.15a	4,200	200	8,40,000	Trench/bedrock-100, BH-100
	External(10%) Check samples from NABL Lab for major oxides (SiO2, Al2O3, Fe2O3,	Nos	4.1.15a	4,200	20	84,000	

06/3/25

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	TiO2, FeO, MnO, P2O5, CaO, MgO, Na2O, K2O and LOI)						
2	Physical & Petrological Stusies						
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	Modal analysis of thin section	Nos	4.3.8	3,780	10	37,800	
iv	Aspect Ratio Study	Nos	4.3.4	4,232	10	42,320	
V	Digital Photographs	Nos	4.3.7	280	10	2,800	
vi	Bulk density determination	Nos	4.1	3,540	5	17,700	
		Sub Tota	I- D			10,90,470	
E		Total A t	o D			1,10,92,742	
F	Geological Report Preparation		5.2	For the projects having cost exceeding Rs. 50 lakhs but less than Rs. 150 lakhs - A minimum of Rs. 2.5 lakhs or 5% of the value of work whichever is more		5,54,637	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	
н	Preparation of Exploration Proposal (5 Hard copies with a soft copy)	5 Hard copies with a soft copy	5.1	2% of the Cost or Rs.5 Lakhs whichever is lower		2,21,855	EA has to submit the Hard Copies and the soft copy of the final proposal along with Maps and Plan as suggested by the TCC-NMET in its meeting while clearing the proposal.

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I	Total Estimated Cost without GST	1,18,99,234							
J	Provision for GST (18% of I)	21,41,862	GST will be reimbursed as per actual and as per notified prescribed rate						
К	Total Estimated Cost with GST	1,40,41,096							
	Rs. in lakhs	140.41							
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 co prevailing govt. of India rules/guidelines on procurement.	ompetent authority a	against delinquent agency as per						
3	If any part of the project is outsourced, the amount will be reimbursed as per t SoC. In case of execution of the project by NEA on its own, a Certificate reg required.								
4	Necessary efforts should be made to minimize any adverse impact on the envir	onment during expl	oration activities.						
5	Any item of work not mentioned above shall be added as per SoC.								
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.								

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													Anne	xure 3B
Time	Schedule/Action plan fo	r Preliminary	Explorat		for Kya t, Maha			nanite ir	Malada	Block	(1.28	sq. kr	n), Bha	ndara
S. No.	Particulars	Months	1	2	3		4	5	6		7	8	9	10
1	Camp Setting	Months												
2	Survey Party days (1 Party)	days												
3	Trenching / Pitting	cu.m												
4	Drilling (1 rig)	m												
5	Geologist Party days (1 Party)	days				Review				Review				
6	Sampling days for Trench & Core Sampling (1 Party)	days				Rev				Rev				
7	Camp winding	Months												
8	Laboratory Studies	days]]				
9	Geologist days, HQ	days]]				
10	Report Writing with Peer Review	days												

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P	evised Estimated Cost for	Proliminary Ex	nloration (G3) for ar	anhite in l	amor-Panga I	Block-/	(13 99 c	a Km) in Ka	Annexure 4
				-		ency - OMC		(10. 00 3	q. ((iii) iii ((a	
					APPROV	OVED QUANTITY WORK DONE/ Revised Quantum				
SI. No	Item of Work	Unit	SoC Item SI. No.	Rate as per SoC (in Rs) excludi ng GST 18%	Total Quantit y	Amount (Rs.)	Qua ntity	Unit Price (in Rs.) (withou t GST @ 18%)	Amount (in Rs.)	Remarks
Α	GEOLOGICAL WORK									
1	Charges for One Geologist - Field	per day	1.3	11,000	120	13,20,000	120	11000	1320000	
2	Charges for One Geologist - HQ	per day	1.3	9,000	30	2,70,000	30	9000	270000	
3	Labour Charges for Geological mapping (2 Nos.) Base rate- 443/-	per day	5.7	443	240	1,06,320	240	443	106320	
4	Charges for one Sampler	per day	1.5.2	5,100	35	1,78,500	35	5100	178500	

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5	Labour Charges for sampling work (4 Nos.) Base rate- 443/-	per day	5.7	443	140	62,020	140	443	62020	
6	Charge for 1 surveyor	per day	1.6.1a	8,300	30	2,49,000	30	8300	249000	
7	Labour Charges for survey (4 Nos.) Base rate- 443/-	per day	5.7	443	120	53,160	120	443	53160	
	Sub Total A					22,39,000			2239000	
В	TRENCHING									
1	Trenching	Cu.m	2.1.1	3,330	200	6,66,000	0	-	0	
	Sub Total-B					6,66,000		-	0	
С	DRILLING (Outsourced)								0	
1	Surface Drilling	per m	2.2.1.4	11,500	1000	1,15,00,000	721. 5	9270	66,88,305	Total drilling meterage is 883 m in 17 Bhs. Due to less recovery in 161.50 m, 721.50 m of the total drilling meterage has been paid.However expence doesn't exceed the approved amount.
2	Land/Crop compensastion	Per Bore hole	5.6	20,000	20	4,00,000	0	20,000	-	
3	Construction of concrete pillar(12"x12"x30")	Per Bore hole	2.2.7a	2,000	20	40,000	0	2,000	-	

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4	Drill core preservation (in - house)	Per m	5.3	1,590	250	3,97,500	410	1,590	6,51,900	295 +115 (1 BH + Mineralised zone) A total of 883 meter core drilling has been carried out however all drill core have been preserved in coreshed present at Rayagada regional office, OMC Ltd.
	Sub Total-C					1,23,37,500			73,40,205	
D	GROUND GEOPHYSICAL (Outsourced)									
1	Self-potential / Charged Potential	LineKm	3.3a	29,600	10	2,96,000	10	19,999	1,99,990	As per work order the rate per LineKm is Rs. 19,999/ However expence doesn't exceed the approved amount & Actual Cost incurred by implementing Agency
	Sub Total D					2,96,000			1,99,990	
Е	LABORATORY STUDIES									
1	Chemical Analysis									
	i) Primary samples and C	heck samples fo	r Graphite	(Core San	nples)	,		1	1	

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a) Primary samples for Proximate Analysis (Ash, Moisture, V.M. and F.C.)	Nos	4.1.16	3,000	250	7,50,000	472	3,000	14,16,000	Total of 472 nos. (out of which 450 nos.samples are core sample and 22 nos.samples are grab sample) of primary Sample were analysed at Jawaharlal Nehru Aluminium Research Development & Design Centre (JNARDDC). 1. Total 450 nos. of core samples (Out of which 359 nos. samples are above 2% FC and 91 nos. samples are 1-2% FC) have been analysed out of total 655 nos. of core samples in mineralised zone of approximately 1m thickness of interval. 2. Sampling is carried out 1 mtr in both foot wall and hanging wall of graphite bands whereas some samples have been analysed from 3m to 4m interval in non- mineralised zone.
b) Check sample Proximate Analysis (Ash, Moisture, V.M. and F.C.)	Nos	4.1.16	3,000	25	75,000	50	3,000	1,50,000	50 nos. of check Sample were analysed at Jawaharlal Nehru Aluminium Research Development & Design Centre (JNARDDC). 10% samples have been analysed as check sample of total number of core samples.
c) REE	Nos	4.1.13	5,380	10	53,800	0	-	0	
	ii) Compos	site Sample	es for Gra	ohite (Cor	e Samples)				

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	Sub Total-E					12,46,470			17,32,410	
viii)	Bulk density	Nos	4.1	3,540	5	17,700	5	550	2750	05 nos. of bulk density sampleswere analysed at M/s. Inspectorate Griffith India Pvt. Ltd. (IGI)
vi)	Mineralographic studies	Nos	4.3.4	4,232	10	42,320	10	4,232	42320	Sample Analysed at Ravenshaw University, Cuttack.
v)	Preparation of polished section	Nos	4.3.2	1,549	10	15,490	10	1,549	15490	Sample Analysed at Ravenshaw University, Cuttack.
iv)	Petrographic studies	Nos	4.3.4	4,232	10	42,320	10	4,232	42320	Sample Analysed at Ravenshaw University, Cuttack.
iii)	Preparation of thin section	Nos	4.3.1	2,353	10	23,530	10	2,353	23530	Sample Analysed at Ravenshaw University, Cuttack.
ii)	ICP-MS Studies	Nos	4.1.14	7,731	10	77,310	0	-	0	
i)	X-RD Studies	Nos	4.5.1	4,000	10	40,000	10	4,000	40000	Sample Analysed at Ravenshaw University, Cuttack.
2	Physical Analysis									
	b) Total Sulphur (S)	Nos	4.2.14	1,900	10	19,000	0	-	0	
	a)Proximate Analysis (Ash, Moisture, V.M. and F.C.)	Nos	4.1.16	3,000	30	90,000	0	-	0	

06/3/25

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	Total A+B+C+D+E			 1,67,84,970			1,15,11,60 5	
	Total Outsourced Cost						68,88,295	
F	Tender preparation, publishing & finalisation	one time	2.3	3,35,699	0	-	1,37,766	
G	GEOLOGICAL REPORT PREPARATION	One Number (5 Hard copies) along with soft copy	5.2	7,50,000	0	-	5,75,580	
н	PEER REVIEW		As per EC decision	10,000	0	-	30,000	
I	PREPARATION OF EXPLORATION PROPOSAL	3,35,699	0	-	2,30,232			
J	Operational charges		6.0 iii	15,00,000			6,41,622	
	Т	 29,31,398			16,15,200			
	Total A+	·B+C+D+E+F+G+	+H+I+J	1,97,16,368			1,31,26,80 5	

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	GST 18%	35,48,946	23,62,825						
	Grand Total(A to M+18% GST)	2,32,65,314	1,54,89,63 0						
	Rs. In Lacs		154.90						
1	Strict adherence to the Ministry of Finance's and GFR guidelines	s is mandatory. Every transac	ction must adhere to GFR rule 21	Ι.					
2	In case of delay/non- performance, the appropriate action will b govt. of India rules/guidelines on procurement.	e taken by competent autho	rity against delinquent agency a	as per prevailing					
3	If any part of the project is outsourced, the amount will be reim case of execution of the project by NEA on its own, a Certificate								
4	Necessary efforts should be made to minimize any adverse impa	act on the environment durin	g exploration activities.						
5	Any item of work not mentioned above shall be added as per SoC.								
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.								

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											Annexure 5
	Revised Es	timated Cost for Pr Area - 5.0	•	exploration (G3 No.of BH: NA; Implementin	Timeli	ne- 05th Octobe		•	•	har, Odish	a
			Rates as per NMET SoC 2020-21		Aproved Estimated Cost of the Proposal		Rev	ised C	Remarks / Justification		
Sr. No.	Item of Work *	Unit *	SoC- Item No. *	Rates as per SoC * (a)	Qty. (b)	Total Amount (Rs) (a*b)	SoC- Item No. *	Qty.	Total Amount	Change in %	
Α				Ge	ologica	al Work					
1	Geological mapping, (1:2000 scale) & Sampling										
а	Charges for Geologist per day (HQ)	Day	1.3	9,000	40	3,60,000	9,000	40	3,60,000	0.00	
b	Charges for Geologist per day (field)	Actual	1.3	11,000	150	16,50,000	11,000	120	13,20,000	0.00	
с	Labours(2 no.s/Geologist)	Day	5.7	494	300	1,48,200	494	240	1,18,560	0.00	Assisted the Geologists in Mapping, sample collection and support.
d	Charges for one Sampler per day (1 Party)	one sampler per day	1.5.2	5,100	13	66,300	5,100	7	35,700		

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е	Labours (4 Nos/ Sampler)	Day	5.7	494	52	25,688	494	28	13,832		
f	Surveyer	One surveyer per day	1.6.1a	8,300	30	2,49,000					
g	DGPS Survey	per point of observation	1.6.2	19,200	10	1,92,000					
2		,		Trenchi	ng		•				
а	Excavation of Trenches upto 2m depth	per cu m.	2.1.1	3,330	40	1,33,200		-	-	NA	Trenching was not carried out due to dense forest and BRS Samples yielding negative results
		Sub Total-	- A			28,24,388			18,48,092	0.00	
В			Petro	ological samp	les(surfa	ace & BH core	samples)			
i	preparation of standard thin sections	Nos	4.3.1	2353	10	23530		0	-	NA	
ii	Complete Petrographic/Ore microscopy Study/Mineragraphic	Nos	4.3.4	4232	5	21160		0	-	NA	
iii	Preparation of unmounted polished section of rock	Per sample	4.3.3	1185	10	11850		0	-	NA	
		Sub-Total	В			56540			-		
С			D	igital photogr	aph of th	nin polished se	ection				
	Digital photographs	Nos	4.3.7	280	10	2800		0	0	NA	
	1	I			1		1	1	1 1		12

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		Sub-Tota	al C			2800			0	NA	
D				La	boratory	Studies	•	•			
1	Chemical Analysis										
а	Primary Samples for Gold by fire assay (40 BRS+20 trench+40 BH core	Nos	4.1.5a	2380	70	166600	2380	51	121380	72.86	72.86% utilised
b	Check Sample for Gold by fire assay(10% External)	Nos	4.1.5a	2380	7	16660	2380	3	7140	42.86	42.86% utilised
с	Gold Analysis by AAS method(MIBK Method)	Per sample	4.1.6	1557	30	46710		0	0	NA	
d	Check Sample AAS Method	Per sample	4.1.6	1557	3	4671		0	0	NA	
		Sub-Tota	al D			234641			128520		
E				Ge	ophysica	l Survey					
а	Induced Polarization(Dipole- Dipole)	line km	3.4a	69950	20	1399000		0	0		
		Sub Tota	I-E			1399000					
F				Dril	ling(After	Review)	•		•		
а	Drilling upto 300m (Hard Rock)	m	2.2.1.4a	11500	1000	11500000		0	0		Surface sampling yielded negative results, so drilling was not carried out.
	Sub-Total F					11500000			0		

Dorralti 06/3/25

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		Total (A to) F)		16017369	1976612	
G	Preparation of Exploration Proposal(5 Hard copies with a soft copies)	5 Hard copies with a soft copy	5.1	2% of the cost subject to a maximum of Rs. 5 lakh	320347	39532	Yet to be incurred; EA has to submit the final proposal along with Maps and Plan as suggested by the TCC-NMET in its meeting while clearing the proposal.
Н	Geological Report Preparation	5 Hard copies with a soft copy	5.2	For the projects having cost exceeding Rs. 150 laks but less than Rs.300 lakh-A minumum of Rs.7.5 lakh or 3% of the value of work whichever is more	750000	150000	Yet to be incurred; Reimbursedment 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		30000	30000	Yet to be incurred
J	Total Estimated Cost without GST				17117716	2196144	
к	Provision of GST @ 18%				3081188.88	395306	

06/3/25 2

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L	Total Estimated Cost with GST			20198904.88		2591450		
	Or say in Lakhs (Rs)			201.9890488		25.91		
Note:	Advance of 80.79 Lakh received on 5th October, 2023							
1	Strict adherence to t	he Ministry of Fina	ince's and GFR g	uidelines is mandatory. Every	transaction n	nust adhere to G	FR rule 21.	
2	In case of delay/non govt. of India rules/g			on will be taken by competent	authority aga	inst delinquent a	agency as per p	revailing
3				be reimbursed as per the Par ertificate regarding non outso				T SoC. In
4	Necessary efforts sh	ould be made to n	ninimize any adve	rse impact on the environme	nt during expl	oration activities	·	
5	Any item of work no	t mentioned above	shall be added a	s per SoC.				
6	All the Geological Re	eports and data are	e to be uploaded	on NGDR as per MERT templa	ate by the age	ncv		

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											Annexure 6
	Revised Estimate	e Cost for Prelimi Area - 3.	•	ration (G3) for (No.of BH: NA; Implementir	Timeli	ine- 05th Oct	•	•		t: Keor	ıjhar, Odisha
			Rates as per NMET SoC 2020-21		Aproved Estimated Cost of the Proposal		Revised Cost of the Project				/
Sr. No.	Item of Work *	c* Unit *	SoC- Item No. *	Rates as per SoC * (a)	Qty. (b)	Total Amount (Rs) (a*b)	Rates as per SoC * (a)	Qty	Total Amount	t Cha nge in %	Remarks / Justification
Α				G	eologic	al Work					·
1	Geological mapping, (1:2000 scale) & Sampling										Completed
а	Charges for Geologist per day (HQ)	Day	1.3	9,000	40	3,60,000	9,000	40	3,60,000	0.00	
b	Charges for Geologist per day (field)	Actual	1.3	11,000	150	16,50,000	11,00 0	120	13,20,000	0.00	
с	Labours(2 no.s/Geologist)	Day	5.7	494	300	1,48,200	494	240	1,18,560	0.00	Assisted the Geologists in Mapping, sample collection and support.
d	Charges for one Sampler per day (1 Party)	one sampler per day	1.5.2	5,100	13	66,300	5,100	10	51,000		
е	Labours (4 Nos/ Sampler)	Day	5.7	494	52	25,688	494	40	19,760		

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Surveyer	One surveyer per day	1.6.1a	8,300	30	2,49,000				
DGPS Survey	per point of observation	1.6.2	19,200	10	1,92,000				
Trenching					•				
Excavation of Trenches upto 2m depth	per cu m.	2.1.1	3,330	40	1,33,200	-	-	NA	Trenching was not carried out due to dense forest and BRS Samples yielding negative results
	Sub Tota	I- A			28,24,388		18,69,320	0.00	
		Petro	ological samp	oles(sur	face & BH core s	samples)			
preparation of standard thin sections	Nos	4.31	2353	10	23530	0	0	NA	
Complete Petrographic/Ore microscopy Study/Mineragraphi c	Nos	4.3.4	4232	5	21160	0	0	NA	
Preparation of unmounted polished section of rock	Per sample	4.3.3	1185	10	11850	0	0	NA	
	Sub-Tota	al B			56540		0		
		C)igital photog	raph of	thin polished se	ection			
Digital photographs	Nos	4.3.7	280	10	2800	0	0	NA	
	DGPS Survey Trenching Excavation of Trenches upto 2m depth preparation of standard thin sections Complete Petrographic/Ore microscopy Study/Mineragraphi c Preparation of unmounted polished section of	Surveyerper dayDGPS Surveyper point of observationTrenchingExcavation of Trenches upto 2m depthper cu m.Excavation of Trenches upto 2m depthper cu m.Preparation of standard thin sectionsSub TotaOmplete Petrographic/Ore microscopy Study/Mineragraphi cNosPreparation of unmounted polished section of rockPer sample	Surveyper day1.6.1aDGPS Surveyper point of observation1.6.2TrenchingExcavation of Trenches upto 2m depthper cu m.2.1.1Sub Total- APetropreparation of standard thin sectionsNos4.31Complete Petrographic/Ore 	Surveyper day1.6.148,300DGPS Surveyper point of observation1.6.219,200TrenchingExcavation of Trenches upto 2m depthper cu m.2.1.13,330Sub Total- APetrological samppreparation of standard thin sectionsNos4.312353Complete Petrographic/Ore microscopyNos4.3.44232Preparation of unmounted polished section of rockPer sample4.3.31185	Surveyerper day1.6.1a8,30030DGPS Surveyper point of observation1.6.219,20010TrenchingExcavation of Trenches upto 2m depthper cu m.2.1.13,33040Sub Total- APetrological samples(sur preparation of standard thin sectionsComplete Petrographic/Ore microscopy Study/Mineragraphi cNos4.3.442325Preparation of unmounted polished section of rockPer sample4.3.3118510	Surveyper day1.6.1a8,300302,49,000DGPS Surveyper point of observation1.6.219,200101,92,000TrenchingExcavation of Trenches upto 2m depthper cu m.2.1.13,330401,33,200Sub Total- APetrological samples(surface & BH core spreparation of standard thin sectionsNos4.3123531023530Complete Petrographic/Ore microscopyNos4.3.44232521160Preparation of unmounted polished section of rockPer sample4.3.311851011850	Surveyper day observation1.6. Ta8,300302,49,000Image: constraints of the second se	Survey per day 1.6.1a 6.300 30 2.43,000 Image: section of the	Surveyper day1.6. 1a6,300302.49,000Image: second se

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		Sub-Tota	al C			2800			0	NA	
D				La	y Studies	•					
1	Chemical Analysis										
а	Primary Samples for Gold by fire assay (40 BRS+20 trench+40 BH core	Nos	4.1.5a	2380	70	166600	2380	77	183260	110. 00	110% utilised
b	Check Sample for Gold by fire assay(10% External)	Nos	4.1.5a	2380	7	16660		0	0	NA	
с	Gold Analysis by AAS method(MIBK Method)	Per sample	4.1.6	1557	30	46710		0	0	NA	
d	Check Sample AAS Method	Per sample	4.1.6	1557	3	4671		0	0	NA	
		Sub-Tota	al D			234641			183260		
E				Geo	ophysic	cal Survey					
а	Induced Polarization(Dipole- Dipole)	line km	3.4a	69950	20	1399000		0	0		The area was covered under dense forest and vegetation. Hence, Drone Magnetic Survey was carried out in place of IP Survey which was originally approved in the sanction order.
		Sub Tota		1399000							
F				Drill	ing(Aft	er Review)					

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а	Drilling upto 300m (Hard Rock)	m	2.2.1.4a	11500	100 0	11500000	0	0	Surface sampling yielded negative results, so drilling was not carried out.
	Sub-Total F					11500000		0	
		Total (A t	o F)			16017369		20,52,580	
G	Preparation of Exploration Proposal(5 Hard copies with a soft copies)	5 Hard copies with a soft copy	5.1	2% of the cost subject to a maximum of Rs. 5 lakh		320347		41,052	Yet to be incurred; EA has to submit the final proposal along with Maps and Plan as suggested by the TCC- NMET in its meeting while clearing the proposal.
Н	Geological Report Preparation	5 Hard copies with a soft copy	5.2	For the projects having cost exceeding Rs. 150 laks but less than Rs.300 lakh- A minumum of Rs.7.5 lakh or 3% of the value of work whichever is more		750000		150000	Yet to be incurred; Reimbursedment 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			30000		30000	Yet to be incurred
J	Total Estimated Cost without GST					17117716		2273632	

06/3/25

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К	Provision of GST @ 18%	3081188.8 8	409254							
L	Total Estimated Cost with GST	20198904. 88	2682885							
	Or say in Lakhs (Rs)	201.98904 88	26.83							
Note:	Advance of 80.79 Lakh received on 5th October, 2023									
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 govt. of India rules/guidelines on pro	appropriate action will be taken by competent au urement.	ithority against delinquent agency as per pro	evailing						
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.									
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.									
5	Any item of work not mentioned abo	shall be added as per SoC.								
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.									

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										Annexure
Revi	sed Estimate Cost for			n; Nos. of B	orehole	e in Alda Block - 12 (Revised) ncy: DGM Chha	; Completion			icts, Chhattisgarh
			Rates as per NMET SoC 2020-21		Aproved Estimated Cost of the Proposal		Revised			
S. No.	Item of work	rk Unit	SoC Item - S. No.	Rates as per SoC	Qty.	Amount	Rates as per SoC	Qty.	Total Amount	Remarks / Justification
А.	GEOLOGICAL WORK									
1	Survey Party Days (1 party)	Day	1.6.1a	8300	60	498000	8300	60	498000	
2	Labour charges for Survey work	Per Labour	5.7	504	240	120960	504	240	120960	
3	Geologist Party Days (1 Party) Field	Day	1.3	11000	90	990000	11000	85	935000	
4	Geologist Party Days (1 Party) HQ	Day	1.3	9000	30	270000	9000	30	270000	
5	Labour charges for Geological Field work	Per Labour	5.7	504	180	90720	504	170	85680	
6	Core Sampling Party Days - (2 Parties)	Day	1.5.2	5100	91	464100	5100	75	382500	
7	Labour for Sampling	Per Labour	5.7	504	364	183456	504	300	151200	

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	Sub Total A					2617236			2443340	
В.	DRILLING									
1	Surface drilling (2 rigs)	Meter	2.2.1.3	5242	800	4193600	6775	630	4268250	Due to double crop 04 Nos. of borehole could not be drilled. MoC Rate at the time of Approval of the Project
2	Road making (flat terrain)	Per km	2.2.10a	22020	10	220200	22020	10	220200	
3	Transportation (2 rigs)	Per km	2.2.8	36	600	21600	36	600	21600	
4	Monthly Accommodation charges for drilling camp	Monthly basis	2.2.9	50000	4	200000	50000	4	200000	
5	Camp Establishment cost	Per Drill	2.2.9a	250000	2	500000	250000	2	500000	
6	Camp Winding	Per Drill	2.2.9b	250000	2	500000	250000	2	500000	
7	Drill core preservation	Per meter	2.2.8	1590	600	954000	1590	480	763200	According to reduced of 4 nos. borehole
	Sub Total B					6589400			6473250	
C.	LABORATORY STUDIES									
а	Bulk density	per sample	4.1	3540	5	17700	3540	5	17700	
b.	Chemical Analysis									
1	Primary + Check Samples									

06/3/25 2

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	(i) Primary Samples 7 radicals (CaO%, MgO%, SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ %, P2O5, & LOI)	per sample	4.1.15a	4200	660	2772000	4200	500	2100000	BRS;20+BH;480 Nos. of sample will be reduced due to 12 Nos. of boreholes
	(ii)For Check Samples 7 radicals (CaO%, MgO% SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ %,P2O5, & LOI)	per sample	4.1.15a	4200	66	277200	4200	50	210000	Nos. of sample will be reduced as per primary samples
	(iii) Petrological study	per sample	4.3.4	4232	5	21160	4232	5	21160	
	(iv) preparation of standard thin section	per sample	4.3.1	2353	5	11765	2353	5	11765	
	Sub Total C					3099825			2360625	
D.	Land/crop compensation	Per BH	5.6	20000	16	320000	20000	0	0	Not utilised
	Sub Total D					320000			0	
Ε.	Total A + B + C + D				-	12626461			11277215	
	Peer review					30000			30000	
F.	Preparation of exploration proposal	One Number (5 Hard copies along with soft copy)	5.1		1	252529			225544	

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	Geological Report Preparation	Copy per 5 Hard copies of report along with soft copy	5.2	ii	1	631323	563861				
	Sub Total F					913852	819405				
	Grand Total E+F					13540313	12096620				
	GST 18%					2437256	2177392				
	Grand Total: with GST 18%					15977569	14274012				
	•						Rs. 142.74 Lakhs				
Note:											
1	Strict adherence to t	the Ministry o	of Finance's	s and GFR	guideli	nes is mandatory. Ev	ery transaction must adhere to GFR	t rule 21.			
2	In case of delay/non- govt. of India rules/g				ion will	be taken by competer	nt authority against delinquent agen	cy as per prevailing			
3							Paragraph 3 of NMET SoC and Item outsourcing of any component/proje				
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.										
5	Any item of work no	t mentioned a	above shal	l be added	as per	SoC.					
6	All the Geological R	eports and da	ata are to b	e uploade	d on NG	DR as per MERT tem	plate by the agency.				

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