Ministry of Mines
National Mineral Exploration Trust

Minutes of the 22nd meeting of Technical-cum-Cost Committee (TCC), NMET held on 13th and 14th November 2019 at NALCO (HRD Centre for Excellence), NALCO Nagar, Bhubaneswar, Odisha

The 22nd meeting of Technical-Cum-Cost Committee (TCC) of National Mineral Exploration Trust (NMET) was held under the chairmanship of Shri D. Mohan Raj, Addl. Director General & Head, National Mission-II, GSI, Nagpur on 13th and 14th November, 2019 at NALCO (HRD Centre for Excellence), NALCO Nagar, Bhubaneswar, Odisha. The list of participants is as per **annexure-1A & 1B**.

Shri Manoj Kumar, Director and Member Secretary, TCC-NMET, welcomed Shri D. Mohan Raj, Additional Director General, National Mission-II, GSI and Chairman, TCC and all the Members of the TCC and participants representing various NEAs of the meeting. He informed that due to official engagement, Shri Vinay Pal, Assistant Cost Account Officer could not attend the meeting. The Chairman TCC granted leave of absence to the expert member.

Dr. L. P. Singh, Director & HoD, NMET and Shri D. Mohan Raj, Additional Director General, National Mission-II, GSI and Chairman, TCC welcomed all the participants.

The agenda-wise discussion followed.

22.1: Discussion of the Action Taken Report of the minutes of 21st TCC Meeting held on 26th and 27th June, 2019

The Member Sectretary, TCC, NMET presented the Action Taken Report (ATR) of the 21st TCC meeting held on 26th and 27th June 2019 at GSI, Nagpur. ATR of various agenda points are annexued in **annexure-2.**

22.2: Evaluation of new proposals:

22.2.1: General Exploration for Limestone in Diggaon Block, District- Kalaburgi, Karnataka. (G2)

- **i.** Mineral Exploration Corporation Limited (MECL) proposed General Exploration (G2) for Limestone in Diggaon Block, District- Kalaburgi, Karnataka.
- **ii.** MECL had submitted the proposal for G3 level exploration which was discussed in 16th TCC of NMET held on 25th September 2018 at Central Region, GSI, Nagpur. Proposal was approved in 10th meeting of Executive Committee of NMET at an estimated cost of 205.98 lakhs.
- **iii.** MECL completed the exploration work and delineated two potential Zones (Zone-I and Zone-II).
- **iv.** Cement grade limestone (Zone I & II) resources of 530.80 million tonnes (Zone-I 400.05 mt & Zone-II 130.75MT) was established under Inferred category (333) with average grade 45.45% CaO, 1.00% MgO & 11.59% SiO2.
- **v.** Average thickness of cement grade limestone varies from 6.40 m to 48.00 m in Zone-I and 13.00 m to 31.80 m in Zone-II. Both the Zones are separated by intervening layer of 50-60m at depth.
- **vi.** The continuity and the resource of the lower limestone band (Zone-II) lying ~50m below the 1st Limestone band (Zone-I)), was established in the G3 stage itself by drilling 3 boreholes. Since there is a parting of 50m between the 1st and the 2nd zones, the TCC was of the opinion to develop only the Zone-I at G2 stage of exploration only. Accordingly, modification of the proposal, by recalculation of the drilling meterage for each borehole was suggested.

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vii. MECL has modified the proposal as per the decision of the committee.

viii. The committee recommended for further development of the block in drilling up to the Zone-I (upper zone) only with borehole grid spacing of 400x400m and restricting the depth of each boreholes up to 50m.

ix. There are 35 boreholes to be drilled in the area, with total drilling of 1750m. The detailed mapping 1:4,000 scale being completed in the G3 stage is sufficient hence, duration for completion of the works and submission of report is set for 12 months at a cost of 319.27 lakhs.

x. Calculation of resource is to be done as per the threshold value of IBM, to be shown separately for both the bands (Zone-I) and (Zone-II done in G3 stage), as per the stage of exploration.

xi. There is no requirement of ore beneficiation for limestone.

The Committee recommended the proposal for approval of General Exploration (G2) for Limestone in Diggaon Block, District- Kalaburgi, Karnataka with estimated cost of Rs. 319.27 Lakhs including GST and time schedule of 12 months for carrying out proposed work in G2 stage and submission of report as per Annexure-3A and 3B

22.2.2: Preliminary Exploration for Copper in Deravad area (Part of NMET Block ID: WR-RAJ-02), District- Udaipur, Rajasthan. (G3)

i. MECL proposed Preliminary Exploration (G3) for Copper in Deravad area (Part of NMET Block ID: WR-RAJ-02), District- Udaipur, Rajasthan.

ii. The area was explored by MECL for G4 stage exploration on the basis of surficial investigations and geophysical data and two areas viz. Deravad and Bansra were selected for test drilling.

iii. In the Deravad area, borehole no. MNC-04 has intersected hanging wall lodes of 7.69m×0.99% Cu and 0.82m×0.82% Cu. The other boreholes missed these blind ore bodies.

iv. In the Bansra area, a single lode with 0.59 m of 0.24% Cu has been intersected in the borehole MNC-09. However, the other three boreholes in the Bansra area does not show any potential mineralized zones.

v. The TCC after examining the proposals and detailed discussions, has opined that, since Cu mineralisation is intersected in the G4 stage exploration in 2 out of 5 boreholes drilled, extension of G4 level exploration is suggested in order to ascertain the continuity of the mineralised zones intersected in these boreholes. Since, there is no sufficient data (strike length, width and grade of mineralised zone) taking up of the G3 stage of exploration is not recommended.

vi. The committee suggested for detailed trenching work to be taken up across the strike, collection of channel / groove samples at regular interval depending on the geology, structure to get the strike continuity of these lodes on surface. Based on the encouraging values of the trench values (if any) and correlation of geophysical data three (3) conditional boreholes to be drilled in the North and South Blocks as extension to G4 stage of exploration.

vii. The three boreholes with 60m vertical depth to be drilled (as in previously drilled boreholes at 60m vertical depth) for correlation of the mineralised zone (if any). The proposed depth of these three boreholes at a depth of 140m, 120m and 70m (= 330m) is recommended. Since detailed geological map is available in the G4 stage exploration itself, there is no need to map again. More pitting and trenching in the southern block and channel sampling to be carried out in anomalous zones. Total cost is 92.98 lakhs with a time duration of 7 months for completion and submission of report.

The Committee recommended the proposal for approval as Extension of Reconnaissance Survey (G4) for Copper in Deravad area (Part of NMET Block ID: WR-RAJ-02), District- Udaipur, Rajasthan with estimated

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cost of Rs. 92.98 Lakhs including GST and time schedule of 7 months for carrying out the proposed work and submission of report as per Annexure-4A and 4B.

22.2.3: General Exploration for Magnesite in Iswal - Selu Block, District- Udaipur, Rajasthan. (G2)

- **i.** MECL proposed General Exploration (G2) for Magnesite in Iswal - Selu Block District- Udaipur, Rajasthan.
- **ii.** MECL carried out G4 level of exploration in Iswal-Selu-Kathar-Tula (Thala) block, (Block ID WR-RAJ-14) and identified and reported the presence of magnesite. The explored Selu Magnesite prospect area established a resources of 10.045 million tonnes of (Grade 3A and 4 combined Category) magnesite in 16.79 hectares with average thickness of 26.73 meters having MgO 39.76%, CaO 3.46%, SiO_2 2.40%, Fe_2O_3 5.65%, Al_2O_3 0.23% and LOI 46.94%.
- **iii.** The committee examined the proposal and recommended for taking up exploration as G2 stage exploration, as the boreholes were drilled wherever the exposures of magnesite was present in those areas.
- **iv.** In G2 stage, drilling must be done at a grid interval of 150m x 150m considering the irregular habit.
- **v.** The drilling to be carried out towards the margin of the block wherever the magnesite was established in the previous stage of exploration. No boreholes will be drilled in the areas where the magnesite is not persisting/ vanishing.
- **vi.** Recommended for drilling 43 boreholes with grid spacing of 150x150m and the individual boreholes up to a depth of 30m (as average magnesite thickness is 26m), the total drilling meterage being calculated as 1290m. DM on 1: 4,000 scale with contour interval of 2m covering an area of 1.02 sq.km is suggested taking a time duration of 14 months at a cost of 303.88 lakh.

The Committee recommended the proposal for approval of General Exploration (G2) for Magnesite in Selu Block District- Udaipur, Rajasthan with estimated cost of Rs. 303.88 Lakhs including GST and time schedule of 14 months for carrying out the proposed work and submission of report as per Annexure-5A and 5B.

22.2.4: General Exploration for Potash in Lakhasar Sub-Basin, District-Bikaner, Rajasthan. (G2)

- **i.** MECL proposed General Exploration (G2) for Potash in Lakhasar Sub Basin, District-Bikaner, Rajasthan.
- **ii.** The G3 level exploration has been carried out in Lakhasar Sub-Basin and Potash Resource was estimated in 10.04 Sq km area out of 13.107 Sq. Km area of Lakhasar block in Lakhasar Sub Basin spread in 29.90 sq km area.
- **iii.** The Chairman informed that the Government of Rajasthan has requested only to carry out G3 level of exploration for Potash in the State. He suggested that MECL should propose G3 level projects in the adjacent area of the remaining Lakhasar Sub Basin of 29.90 sq km area, wherever the potash values are > 4 to 5%. The proposal should be of G3 stage with grid spacing of 800m with bromine and chlorine ratios determined to arrive at the salinity ratio.

The Committee asked to submit G3 level project proposal in the adjacent area of the remaining Lakhasar Sub Basin of 29.90 sq km with a grade of 4 – 5% K in the area in next TCC Meeting.

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22.2.5: General Exploration for Limestone Block in Adanakurichi Village, Sendurai Taluk, Ariyalur District, Tamil Nadu. (G2)

a. MECL has presented G2 stage exploration for limestone in 4 nos. blocks for the Govt of Tamil Nadu in Adanakurichi (1.51 sq.km), Unjini (0.41 sq.km), Alathiyur (1.31 sq km), and Anadavadi (1.31 sq.km) Blocks.

b. In Ananadawadi and Unjini blocks, the depth of boreholes is at 60m whereas in the Alathiyur and Adanakurichi the dip being towards east so the depth varies from 70m in the west to 120m in east.

c. The committee has suggested that the blocks are smaller hence should be merged with the adjacent blocks.

d. If any previous boreholes are drilled in the area they may be included in their grid. Initially to start with G3 stage of exploration with grid spacing of 800m x 800m is recommended. Upon intersection of good limestone bands (with CaO, MgO and SiO_2 in the range) it can be upgraded to G2 stage subsequently. Justification for the exploration along with a certificate from the DGM, Tamil Nadu to the extent that after successful completion of the exploration in those blocks, they would be auctioned.

e. The committee directed to re-submit the proposals for discussions.

i. MECL proposed General Exploration (G2) for Limestone Block in Adanakurichi Village, Sendurai Taluk, Ariyalur District, Tamil Nadu.

ii. The committee after examining the proposal suggested the modify the proposal and recommended to drill 7 boreholes on 400m x 400m grid with 630m drilling upto averge depth of 90m or upto 2-3m in bed rock below Limestone (the depth varies from 70 to 120m), covering an area of 1.51 sq.km on 1 : 4,000 scale with a contour interval of 2 m with a time duration of 9 months for completion of the proposed work and submission of report at a cost of 115.92 lakh.

iii. The area of influence along the block boundary to be taken into consideration for decidong the borehole locations and it is suggested to keep the boreholes 200m away from the boundary.

iv. The NMET secretariate must ensure that the approval of the EC may be conveyed only after the reciept of a certificate from the Directorate of Mining and Geology, Tamil Nadu for the feasibility of e-auction of the block after successful completion of exploration work.

The Committee recommended the proposal for approval of General Exploration (G2) for Limestone Block in Adanakurichi Village, Sendurai Taluk, Ariyalur District, Tamil Nadu with estimated cost of Rs. 115.92 Lakhs including GST and time schedule of 9 months which includes the circulation of report as per Annexure-6A and 6B

22.2.6: General Exploration for Limestone in Alathiyur Block, Ariyalur District, Tamil Nadu. (G2)

i. MECL proposed General Exploration (G2) for Limestone in Alathiyur Block, Ariyalur District, Tamil Nadu.

ii. The committee after examining the proposal suggested the modifications and recommended to drill 7 boreholes on 400m x 400m grid with 630m drilling upto averge depth of 90m or upto 2-3m in bed rock below Limestone (the depth varies from 70 to 120m), covering an area of 1.31 sq.km on 1 : 4,000 scale with a contour interval of 2m with a time duration of 9 months for completion of the work proposed and submission of report at a cost of 115.92 lakh.

iii. The area of influence of block boundary to be taken into consideration for boreholes locations and to keep 200m from the boundary to the nearest borehole.

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iv. The NMET secretariate must ensure that the approval of th EC may be conveyed only after the reciept of a certificate from the Directorate of Mining and Geology, Tamil Nadu regarding feasibility for e-auction of the block after successful completion of exploration work.

The Committee recommended the proposal for approval of General Exploration (G2) for Limestone Block in Alathiyur Block, Ariyalur District, Tamil Nadu with estimated cost of Rs. 115.92 Lakhs including GST and time schedule of 9 months carrying out the proposed work and submission of report as per Annexure-7A and 7B

22.2.7: General Exploration for Limestone in Anandwadi Block, District, Ariyalur, Tamil Nadu. (G2)

i. MECL proposed General Exploration (G2) for Limestone Block in Anandwadi Block, Ariyalur District, Tamil Nadu.

ii. The committee recommended to drilled 7 boreholes on 400m x 400m grid at a depth of each boreholes at 60m or upto 2-3m in bed rock below Limestone totaling 420m drilling, on 1.31 sq.km area with detailed mapping on 1 : 4,000 scale with contour interval of 2m on a time duration of 8 months at a cost of 89.73 lakh.

iii. The area of influence of block boundary to be taken into consideration for boreholes locations and to keep 200m from the boundary to the nearest borehole.

iv. The NMET secretariate must ensure that the approval of the EC may be conveyed only after the reciept of a certificate from the Directorate of Mining and Geology, Tamil Nadu regarding feasibility for e-auction of the block after successful completion of exploration work.

The Committee recommended the proposal for approval of General Exploration (G2) for Limestone Block in Anandwadi Block, Ariyalur District, Tamil Nadu with estimated cost of Rs. 89.73 Lakhs including GST and time schedule of 8 months for carrying out the proposed work and submission of report as per Annexure-8A and 8B

22.2.8: General Exploration for Limestone in Unjini Block, Ariyalur District, Tamil Nadu. (G2)

i. MECL proposed General Exploration (G2) for Limestone Block in Unjini Block, Ariyalur District, Tamil Nadu.

ii. The committee recommended to drill 4 boreholes upto a depth of 60m or upto 2-3m in bed rock below Limestone with a total of 240m drilling, covering an area of 0.41 sqkm on 1 : 4, 000 scale with a contour interval of 2m with a time duration of 6 months at a cost of 64.04 lakhs.

iii. The area of influence of block boundary to be taken into consideration for boreholes locations and to keep 200m from the boundary to the nearest borehole.

iv. The NMET secretariate must ensure that the approval of the EC may be conveyed only after the reciept of a certificate from the Directorate of Mining and Geology, Tamil Nadu regarding feasibility for e-auction of the block after successful completion of exploration work.

The Committee recommended the proposal for approval of General Exploration (G2) for Limestone Block in Unjini Block, Ariyalur District, Tamil Nadu with estimated cost of Rs. 64.04 Lakhs including GST and time schedule of 6 months for carrying out the proposed work and submission of report as per Annexure-9A and 9B

22.2.9: Reconnaissance Survey for deep seated mineral prognosis by Geophysical Techniques: Lithospheric structure and relationship with Kimberlite clusters of Kalyandurg-Timmasamudram-Chigicherala, Ananantpur district, Andhra Pradesh. (G4)

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i. Dr. Prasanta K Patro, CSIR-NGRI proposed Reconnaissance Survey (G4) for deep seated mineral prognosis by Geophysical Techniques: Lithospheric structure and relationship with Kimberlite clusters of Kalyandurg-Timmasamudram-Chigicherala (KTC), Ananantpur district, Andhra Pradesh.

ii. The identified KTC block comprises three kimberlite clusters and Ramagiri-Penakacherla Schist belt, which is associated with gold mineralization.

iii. It is proposed to deploy integrated geophysical methods such as, audio magnetotellurics, Controlled Source magnetotellurics, long period magnetotellurics, Gravity, Magnetics, over the identified KTC block cutting across Kalyandurg, Timmasamudram and Chigicherla Kimberlite clusters.

iv. The available NGPM data and detailed geophysical data over Timmasamudram cluster will be interpreted.

v. Based on magnetotellurics data interpreted results of few areas will be covered by detailed gravity and magnetic surveys and ground follow-ups will be carried out.

vi. The Committee suggested for comprehensive studies including Geological, Geophysical and metallic deposit studies (Diamond/Gold/Basemetal) also to be included in the proposal.

vii. A MoU to be signed between NGRI and GSI for proposed project, defining the clear cut role of Geologists and Geophysicist of GSI and Geophysicist of NGRI in different time lines, Quantification of work components for geologists and geophysicist.

viii. The target should not be restricted to Kimberlite only, rather gold and basemetal mineralisation of Penakacherla schist belt must be included.

ix. The costing to be done as per the SOC of Mines and the proposal may be resubmitted with the above details.

The Committee recommended to resubmit the proposal for comprehensive Geological and Geophysical studies targeting Metallic Deposit Studies (Diamond/Gold/Basemetal) in next TCC Meeting.

22.2.10: General Exploration for Limestone in Reddipalaiyam Amalgamated Block, Ariyalur district, Tamil Nadu. (G2)

i. KIOCL proposed General Exploration (G2) for Limestone in Reddipalaiyam Amalgamated Block, Ariyalur district, Tamil Nadu.

ii. The committee examined the proposals and suggeted the following modifications in the proposals.

iii. Three smaller blocks (A3 - 32.597 ha, A6 - 63.46 ha and A15 -115.55 ha) are to be amalgamated in the Reddiplayam limestone block in Ariyalur district, TN covering an area of 211.612 ha (A3-32.597 +A6-63.46+A15-115.55). Usually the size of the exploration blocks for the bulk minerals varies from 4 to 5 sq.km area. Based on the letter from the TN government requesting for smaller areas available for exploration in TN to be taken up in NMET funded projects, the NMET has relaxed the norms to accommodate such blocks and suggested to prepare a block with area of 2.11 sq.km.

i. The amalgamated block with 2.11 sq.km area to be mapped on 1 : 4000 sacle with contour interval of 2m. The boreholes planned in 200m x 200m grid to be modified as 400m grid. Usually for the regular habit of bedded deposits the grids are 400m, as the area falling between mining leases, it must have continuous limestone bands. The depth of borehole must be 60m or 2-3m below the intersection of limestone bed. The influence of block boundary to be taken in to consideration for borehole locations and the borehole location should be 200m away from the boundary of the block.

ii. A certificate to be submitted by Directorate of Mining and Geology, Tamil Nadu regarding feasibility of e-auction of the block after successful completion of exploration work.

iii. The committed had suggested resubmision of the proposal incorporating above suggestions. .

iv. The KIOCL has re-submitted the modified proposal for discussions.

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v. The three blocks were combined together and made as one signle block of 2.11 sq.km with detailed mapping on 1 : 4,000 scale with contour interval of 2m, with 18 boreholes to be drilled on 400x400m grid spacing with depth of boreholes upto 60m or upto 2-3m below Limestone bed whichever is earlier. The boundary of the block has been fixed approximately 200m from the boreholes to take effect for the influence of the nearest boreholes for estimation of the reources. The cost of the exploration is Rs. 270 lakh including GST.

vi. The NMET secretariate should ensure that before conveying the approval of the EC, a certificate from the DGM, TN regarding feasibility for e-auction of the block after successful completion of exploration work in that block is obtained.

The Committee recommended the proposal for approval of General Exploration (G2) for Limestone Block in Reddipalaiyam Amalgamated Block, Ariyalur district, Tamil Nadu with estimated cost of Rs. 270 Lakhs including GST and time schedule of 7 months for carrying out the proposed work and submission of report as per Annexure-10A and 10B

22.2.11: General Exploration for Iron Ore in Village Kajlodiya, Tehsil Banera, District- Bhilwara, Rajasthan. (G2)

i. Department of Mines and Geology, Rajasthan proposed for General Exploration (G2) for Iron Ore in Village Kajlodiya, Tehsil Banera, District- Bhilwara, Rajasthan.

ii. It was informed that MECL has explored the block during 2016-17.

iii. The Geophysical studies revealed presence of ferruginous quartzite rocks beneath the float and rubble in Kajlodiya block for a strike length of 1906m with width varying from 25m to 157m.

iv. A total of 9 boreholes were drilled within this block covering a cumulative meterage depth of 880m by MECL.

v. Geological resources of Kajlodiya block is 23.30 MT with average grade Fe 22.05%, SiO_2 48.42%, Al_2O_3 5.67%, P 0.17% and LOI 2.54%. The resource has been placed under G3 category.

vi. The Committee suggested that the 1st level in-filling boreholes to be drilled in between the boreholes drilled by MECL if the spacing is more than or 400m with a vertical depth of intersection at 30m. The second level boreholes are to be planed at 60m vertical depth. The borehole spacing must be maintained at 200m. In both the first and second level boreholes, it should focus to intersect all the four iron ore bands established by MECL. If all the drilled boreholes of MECL are drilled at one level, the modified proposal should be for other level.

vii. The modified proposal may be resubmitted in next TCC Meeting.

The Committee recommended to resubmit the modified proposal as per suggestion of the committee in next TCC Meeting.

22.2.12: General Exploration for Limestone in Maonda Block, Tehsil Neem Ka Thana, District- Sikar, Rajasthan. (G2)

i. Department of Mines and Geology, Rajasthan proposed for General Exploration (G2) for Limestone in Maonda Block, Tehsil Neem Ka Thana, District- Sikar, Rajasthan.

ii. It was informed that 20 nos. of boreholes were drilled by the Department of Mines and Geology and reserves of 23.68 MT cement grade limestone was proved containing average 46% CaO with 1.75 - 2.24% MgO.

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iii. Area is covered with agricultural land with no outcrop
iv. The Committee suggested to trace the limestone body on the basis of the earlier drilled boreholes, project the limestone bands intersected in the 20 boreholes drilled and plot them on the surface map extrapolating the same on to the covered terrain. Accordingly, boreholes on 200m interval are to be planned in the profile at 60m vertical depth.
v. The modified proposal may be resubmitted in next TCC Meeting.

The Committee recommended to resubmit the modified proposal as per the suggestion in next TCC Meeting

22.2.13: General Exploration for Garnet in Garnet Block, Tehsil Deoli, District- Tonk, Rajasthan. (G2)

i. Department of Mines and Geology, Rajasthan proposed for General Exploration (G2) for Garnet in Garnet Block, Tehsil Deoli, District- Tonk, Rajasthan.
ii. The Committee informed that Garnet proposal is not suitable for NMET funding.

The Committee recommended to drop the proposal.

22.2.14: General Exploration for Iron in Bagawas Block, Tehsil Viratnagar, District- Jaipur, Rajasthan. (G2)

i. Department of Mines and Geology, Rajasthan proposed for General Exploration (G2) for Iron in Bagawas Block, Tehsil Viratnagar, District- Jaipur, Rajasthan.
ii. Proposed block lies in the vicinity of the iron ore lease hold block.
iii. Geophysical survey for 63 L Km has been carried out by Geophysical wing of Directorate of Geology and Mines in the vicinity of the existing lease area.
iv. As per Geophysical report low to moderate magnetic anomaly has been reported indicating possibility of iron ore (magnetite) in patchy zones.
v. Since the block proposed for exploration includes the part of the area under lease that will be expiring on 31-03-2020, the DGM, Rajasthan is requested to submit the proposal after the expiry of the mining lease.

The Committee recommended to resubmit the modified proposal after the expiry of mining lease.

22.3: Review of the progress of ongoing projects:

22.3.1: Review of interpreted airborne legacy data and follow-up Heliborne EM surveys.

i. RSAS, GSI presented the work carried out regarding the interpretation of airborne legacy data.
ii. The work includes the Legacy Data Compilation and Merging, Geophysical Data Processing, Geophysical Interpretation, identification of exploration Targets and recommendations for follow-up ground exploration.
iii. All airborne magnetic and radiometric data was recompiled and merged, data sets of GSI on geology, mineral occurrence, State mineral occurrence maps and other images, Ground gravity data gridded and processed and NGCM data compiled and dot maps for selected elements were prepared.
iv. Focus of the litho-structural interpretation was built around the mobile belts, namely the Rengali and Singhbhum mobile belts and targeting for mineral commodities made viz., Iron ore in the "Horse Shoe Synclinorium" and diamonds in - Baster Craton (where known lamproite pipes are already documented).
v. A total of 31 mineral exploration target areas were selected for further exploration.

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vi. Excluding ground surveys and modelling target, the remainder have been clubbed into 9 airborne survey blocks

vii. The Committee suggested to include the already explored mineral exploration blocks and all their extension and to find out new target regions for further exploration.

viii. The committee also suggested to RSAS to keep track of the blocks taken up by regions for exploration, if needed the technical inputs may be incorporated.

The Committee appreciates the work done and requested to submit the final report to NMET Secretariat.

22.3.2: Bukkapatna Block (SR-KAR-09), Tumkur District, Karnataka.

i. The project was reviewed in 21st TCC meeting held on 26th and 27th June 2019 and committee directed NMDC to submit the Geological Report as per the approved time line.

ii. NMDC informed that the final report has been submitted and requested for one month time extension till 31st October 2019.

The Committee recommended for approval of one month time extension till 31st October 2019.

22.3.3: Nandgaon-Gora-Mahewa Block, Chhatarpur, MP.

i. The project was reviewed in 21st TCC meeting held on 26th and 27th June 2019 and committee directed NMDC to submit the Geological Report as per the approved time line.

ii. NMDC presented the work done and informed the committee about the future work of Geophysical Survey and channel sampling.

iii. The Committee suggested to do channel sampling and carve out area for further exploration by integrating the aerogeophysical data followed by channel sampling and demarcate the area for drilling.

iv. Magnetic Survey followed by IP Survey is suggested for demarcating potential area for further drilling.

v. The work progress will be reviewed in next TCC Meeting for recommendation of drilling plan.

vi. The committee extended the timeline to complete the project by March 2020.

The Committee recommended for further interpretation and integration of aerogeophysical data and take up channel sampling in the potential area based on the data integration. The committee considered timeline extension of 6 months i.e. up to March, 2020 with a condition of no further extension will be granted and recommended for approval of EC.

22.3.4: Matmari Block, (SR-KAR-05), District- Raichur, Karnataka.

i. The project was reviewed in 21st TCC meeting held on 26th and 27th June 2019 and the committee recommended for systematic trench/pit sampling and directed to carry out additional/repeat 90 cu m of trenching at the condition of no cost over-run and directed to collect groove sample at an interval of 1.0m.

ii. NMDC presented the work progress and informed that one more area is also petential.

iii. The commettee suggested to follow the 21st TCC meeting recommendations and do the systematic sampling for both gold and copper.

The committee recommended to follow the 21st TCC meeting recommendations and do the systematic sampling and complete the work in approved time line.

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22.3.5: Tamiya Block, District: Bolangir, Odisha. (G4 and G2)

i. MECL presented the work done in Tamiya Block for Manganese.
ii. The Chairman, TCC-NMET asked MECL to include all the work done and analytical results in power point presentation.
iii. Contour map with all the borehole locations and station location to be included in PPT.
iv. The work progress data to be submitted to NMET Secretariat before finalisation of agenda for TCC Meeting.
v. The work progress will be reviewed in next TCC Meeting, the 5 boreholes planned is not taken up due to standing crops. The time line extension up 31-03-2020 including report submission is recommended.

The committee asked to submit all the work progress data before finalisation of agenda for TCC Meeting. The work progress will be reviewed in next TCC Meeting.

22.3.6: Rengali Block, District: Bolangir, Odisha. (G4 and G2)

i. MECL presented the work done in Rengali Block for Manganese.
ii. The Chairman, TCC-NMET asked MECL to include all the work done and analytical results in power point presentation.
iii. Contour map with all the borehole locations and station location to be included in PPT.
iv. The work progress data to be submitted to NMET Secretariat before finalisation of agenda for TCC Meeting.
v. The work progress will be reviewed in next TCC Meeting.

The committee asked to submit all the work progress data before finalisation of agenda for TCC Meeting. The work progress will be reviewed in next TCC Meeting.

22.3.7: Babja Block, District: Bolangir, Odisha. (G4 and G2)

i. MECL presented the work done in Babja Block for Manganese.
ii. The Chairman, TCC-NMET asked MECL to include all the work done and analytical results in power point presentation.
iii. Contour map with all the borehole locations and station location to be included in PPT.
iv. The work progress data to be submitted to NMET Secretariat before finalisation of agenda for TCC Meeting.
v. The work progress will be reviewed in next TCC Meeting.

The committee asked to submit all the work progress data before finalisation of agenda for TCC Meeting. The work progress will be reviewed in next TCC Meeting.

22.3.8: Biarpalli Block, District: Bolangir, Odisha. (G4 and G2)

i. MECL presented the work done in Biarpalli Block for Manganese.
ii. The Chairman, TCC-NMET asked MECL to include all the work done and analytical results in power point presentation.

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iii. Contour map with all the borehole locations and station location to be included in PPT.
iv. The work progress data to be submitted to NMET Secretariat before finalisation of agenda for TCC Meeting.
v. The work progress will be reviewed in next TCC Meeting.

The committee asked to submit all the work progress data before finalisation of agenda for TCC Meeting. The work progress will be reviewed in next TCC Meeting.

22.3.9: Limestone Projects executed by TSMDC

1. Cluster-1: Mellacheruvu, Mallareddy Gudem and Yepal Madhavaram Blocks, District- Suryapet, Telangana. (G4)
2. Cluster-2: Mattampally-1 and Mattampally-2 Blocks, District- Suryapet, Telangana. (G4)
3. Cluster-3: Raghunathapalem-1 and Raghunathapalem-2 Blocks, District- Suryapet, Telangana. (G4)
4. Cluster-4: Wazigudem and Veerappagudem Block, District- Suryapet, Telangana. (G4)
5. Cluster-5: Ramapuram Block, District- Suryapet, Telangana. (G4)
6. Cluster-6: Dondapadu and Kothagudem Blocks, District- Suryapet, Telangana. (G4)
7. Cluster-7: Jiwangi-1 and Jiwangi-2 Blocks, District- Vikarabad, Telangana. (G4)
8. Cluster-8: Malkapur Block, District- Vikarabad, Telangana. (G4)

i. TCC in its 8th meeting recommended Mineral Exploration Projects of Limestone of DMG Telangana in 15 Blocks from G-4 to G-2 stage exploration at a cost of 2976.86 lakhs.
ii. The Committee suggested to initially club the 15 blocks to make 8 clusters for carrying out G4 level exploration. Next stage of exploration shall be decided after review by the TCC on completion of G4 stage exploration.
iii. TSMDC presented the mineral exploration work carried out for limestone in 8 clusters (G4).
iv. It was informed that core samples were submitted for chemical and petrological studies. (results of external Check analysis and Composite sample are awaited)
v. Work of interpreting the data and preparation of isocore and isograde maps, lithologs and subsurface sections is completed.
vi. Work of redrawing blocks for further exploration in G2 stage in each cluster is in progress.
vii. Geological report will be finalised with recommendations after collating all geological and laboratory data.
viii. It was informed that there is time over run in all the 8 cluster and time extension till 31st January, 2020 was sought.

The committee asked to submit the Geological Report as per the prescribed format and considered timeline extension up to 31st January, 2020 with a condition that no further extension will be granted and recommended for approval of EC.

22.3.10: Chendradadar Block, District- Kabirdham, Chhattisgarh. (G3)

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i. DGM, Chhattisgarh informed that EC in its 11th meeting held on 7th February 2019 approved Chendradadar Block for bauxite exploration with an estimated cost Rs.106.66 Lakh and a timeline of 12 months.
ii. It was informed that the exploration work has not been started yet and would be started soon.

The committee asked to start the exploration work and intimate to the NMET Secretariat.

22.3.11: Lurena Block, District- Surguja, Chhattisgarh. (G3)

i. DGM, Chhattisgarh informed that EC in its 11th meeting held on 7th February 2019 approved Lurena Block for bauxite exploration with an estimated cost Rs. 112.18 Lakh and timeline of 12 months.
ii. It was informed that the exploration work has not been started yet and would be started soon.

The committee asked to start the exploration work and intimate to the NMET Secretariat.

22.3.12: Gopaltola (Salhewara) Block, District- Rajnandgaon, Chhattisgarh. (G4)

i. DGM, Chhattisgarh informed that EC in its 11th meeting held on 7th February 2019 approved Gopaltola (Salhewara) Block for Iron exploration with an estimated cost ₹108.57 Lakh and timeline of 12 months.
ii. It was informed that the exploration work has not been started yet and would be started soon.

The committee asked to start the exploration work and intimate to the NMET Secretariat.

22.3.13: Iron Ore Projects executed by DGM, Chhattisgarh

1. North Bailadila Area, District-Raigarh, Chhattisgarh. (G4)
2. Hurtarai Area Block, District-Kanker, Chhattisgarh. (G4)
3. Rowghat Block, District- Kanker, Chhattisgarh. (G4)
4. Rajhara Block, District- Balod, Chhattisgarh. (G4)
5. Salhewara Block, District- Rajnandgaon, Chhattisgarh. (G4)
6. Narayanapur Block, District- Narayanapur, Chhattisgarh. (G4)
7. Notified Area Block, District- Kanker, Chhattisgarh. (G4)
8. Aturbeda Area Block, District- Kanker, Chhattisgarh. (G4)

i. In 21st TCC Meeting held on 26th and 27th June, 2019, DGM, Chhattisgarh informed that all the proposals of G4 stage exploration in 08 iron ore blocks approved in 8th EC may be dropped in view of huge cost of forest NPV.
ii. The Committee agreed to the proposal of dropping 08 iron ore blocks above and recommended for approval of EC for both technical and financial aspects for the above projects.
iii. In 14th EC Meeting held on 9th September 2019, DGM, Chhattisgarh requested EC to defer their proposal for cancellation of 08 approved iron ore blocks. Accordingly, EC directed DGM, Chhattisgarh to submit these projects for review in next TCC meeting.
iv. DGM, Chhattisgarh presented the modified proposal in all the 8 Iron Ore blocks.
v. The Committee suggested that the area is under forest cover so blocks should be carved out on the basis of thrust/potential area and asked to submit a fresh proposal amalgamating all the 8 blocks for G4 exploration.

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The Committee asked to submit a fresh proposal amalgamating all the 8 blocks for G4 exploration and recommended for approval of EC for dropping 8 Iron Ore blocks.

22.3.14: Murtadand Block, District- Surguja, Chhattisgarh. (G3)

- **i.** In 21st TCC Meeting held on 26th and 27th June, 2019, DGM, Chhattisgarh informed that efforts are being made to get the necessary clearance.
- **ii.** The Committee suggested that the exploration work should start after forest clearance.

The committee asked to start the exploration work after forest clearance and intimate to the NMET Secretariat.

22.3.15: Review of 5 nos. of Bauxite and 3 nos. of Iron Ore blocks carried out by OMECL in Odisha.

- **i.** OMECL informed that Geological Mapping in all the 5 blocks of bauxite has been completed and further work could not be started due to want of forest clearance.
- **ii.** It was informed that forest clearance is pending at different stages with MoEF and APCCF (N) Bhubaneswar.
- **iii.** All the 3 nos. of Iron Ore projects were reviewd in 20th TCC Meeting held on 4th and 5th April, 2019
- **iv.** OMECL informed that the Large Scale mapping (1: 12,500 scale) has been completed and 200 nos. samples for chemical analysis have been collected. However, the further work including pitting/trenching and geophysical survey could not be taken up for want of forest permission.
- **v.** Directorate of Geology, Odisha informed that the overlapping of blocks notified by State Govt. for exploration through GSI, OMECL and DGM, Odisha in Khandadhar Block are under process and will be completed soon.
- **vi.** OMECL informed that revised proposal will be submitted after the notification of the blocks.

The committee asked to complete the exploration work in time and submit the Geological Report as per the prescribed format.

22.4: Additional Agenda

22.4.1: Revised estimated cost for engaging TS-QC Consultant for the project "Multi-Sensor Aero Geophysical Survey" over OGP and adjoining areas Blocks 9-12 excluding milestone 1 & 2 of Block-11.

- **i.** TCC in its 21st Meeting held on 26th and 27th June, 2019 recommended the proposal of TS-QC Consultant for the project "Multi-Sensor Aero Geophysical Survey" over OGP and adjoining areas for approval with modification. Proposal with modified cost was to be re-submitted to NMET office under intimation to Chairperson, TCC, NMET. All payments in this regard would be subject to compliance of the provision of Foreign Exchange Management Act (FEMA) 1999.
- **ii.** EC in its 14th Meeting held on 9th September 2019 approved proposal of engaging **TS-QC Consultant** for the project "Multisensor Aero-Geophysical Survey" in Block 5 of Phase-II and Block 9 to 12 of Phase-III" excluding Milestone-1 & 2 of Block-11 with an estimated cost of **US $2567583.35.**
- **iii.** Sanction Order with an estimated cost of US **$1204788.7987** was issued for engaging **TS-QC Consultant** for the project "Multisensor Aero-Geophysical Survey" in Block 9 to 12 of Phase-III only.
- **iv.** **TS-QC Consultant** for the project "Multisensor Aero-Geophysical Survey" in Block 5 to 8 of Phase-II will be issued after approval of Multisensor Aero-Geophysical Survey projects from EC.

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v. RSAS GSI Bangalore informed vide letter No.D-34/02/2018-19/45/Vol-II dated 25th October 2019 that due to oversight revised estimation was not calculated with deduction of 10% for the Milestone-1 & 2 of OGP Block-11. The details of the final revised cost including GST are given bellow

Block No.	Block area in sq. km	Block targets in L km	Cost in US Dollar	GST (18%) in US Dollar	Total Cost including GST in US Dollar
Block-9	71,132	2,60,817	276466.020	49763.8836	326229.9036
Block-10	91,801	3,36,604	333237.960	59982.8328	393220.7928
Block-11	89,583	3,28,471	325186.290	58533.5322	306975.8578*
Block-12	33,752	1,23,757	134895.130	24281.1234	159176.2534
					US $1185602.8076

*total cost was calculated after 10% deduction for Milestone-1 and 10% deduction for Milestone-2

The Committee recommended the proposal for revised cost and asked to put up in EC Meeting for information. It was also informed that the TS-QC Consultant for the project "Multisensor Aero-Geophysical Survey" in Block 5 to 8 of Phase-II will be reviewed during the finalisation of project proposals for Multisensor Aero-Geophysical Survey Blocks-5 to 8.

22.4.2: Revisiting of 6 Greenfield Exploration blocks by scout drilling and related geological work.

i. MECL proposed to revisit 6 Greenfied Mineral Exploration Block already completed for scout drilling and related geological work. The details of 6 Greenfield Exploration blocks are given below:

S. No.	State	Commodity	Block Name
1	Andhra Pradesh	Base Metals	Agnigundala North Block, Guntur (AP-09)
2	Jharkhand	Cu, Pb & Zn	Kusumarja & Adjoining Areas, Giridih (JH-08)
3	Madhya Pradesh	Base Metals & Gold	Mohar Cauldron Area, Shivpuri (MP-08)
4	Rajasthan	Copper	Isarwas-Karavalli - Baroliya-Angeni-Beras Area , Udaipur (RAJ-13)
5	Rajasthan	Copper, Gold & Molybdenum	Karoli-Nathdwara Area, Udaipur & Rajsamand (RAJ-09)
6	Rajasthan	Base Metals & Gold	Vasu-Jagat-Kharwach & Saran-Bharwawat Area, Udaipur (RAJ-21)

ii. In Karoli-Nathdwara area, Udaipur and Rajsamand (RAJ-09)
- **a.** The Committee advised to carry channel sampling across litho-units at 25m towards North and 25m South in respect of high value area to establish a total strike length of 75m of the mineralised zone (if any).
- **b.** On the basis of chemical analysis, further exploration work may be planed.

iii. Isarwas-Karavalli-Baroliya-Angeni-Beras area, Udaipur (RAJ-13)
- **a.** The Committee suggests to take up Geophysical Survey after getting forest clearance.

iv. Vasu-Jagat-Kharwach and Saran-Bharwawat area, Udaipur (RAJ-21)
- **a.** MECL informed that 5 nos of boreholes were approved by TCC.
- **b.** The Committee suggests to revisit the area after getting forest clearance.

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The Committee recommended for channel sampling in Karoli-Nathdwara area, Udaipur and Rajsamand (RAJ-09) Block and after forest clearance Geophysical and drilling may be taken up in other two blocks.

22.4.3: Time Extension due to crop harvesting and local law and order-

a. Reconnaissance Survey (G4) for Manganese Ore in Tamiya Block, District- Balangir, Odisha.
b. Reconnaissance Survey (G4) for Manganese Ore in Rengali Block, District- Balangir, Odisha.

i. MECL proposed for timeline extension in two blocks due to crop harvesting and local law and order problem.
ii. Tamiya, Balangir, Odisha for Manganese, G4: Geological Mapping & Geophysical survey (Magnetic, Gravity and IP) has been completed. 5 Boreholes location has been identified but drilling could not be taken up due to standing crops. It was requested for time extension of 5 months (31st March 2020).
iii. Rengali Block, Balangir, Odisha for Manganese, G4: Geological Mapping completed and Geophysical survey will be completed by 15th November. 5 Boreholes location has been identified but drilling could not be taken up due to standing crops. It was requested for time extension for 6 months (31st March 2020).

The Committee recommended time extension upto 31st March, 2020 for approval of EC with a condition of no further extension.

22.4.4: Additional sampling in Udwara Area, (CR-MP-01), District- Alirajpur, Madhya Pradesh.

i. MECL informed that additional 9 nos. of PGE core samples have been analysed with estimated cost of Rs. 1,06,200.00/-
ii. NMET Secretarait informed that MECL has submitted the final report vide letter no. MECL/Exp/Report-NMET/MP/2019-20/1355 dated 30/10/2019.

The Committee accorded the approval of Rs. 1,06,200.00/- for additional samples analysis and informed that matter may be put up in EC as the final report has been submitted to the Chief Secretary of State and NMET Secretarait.

22.4.5: Additional sampling in Kuhi-Khobna-Agargaon gap areas, District- Nagpur, Maharashtra.

i. MECL informed that additional 4 nos. of thin sections were prepared, petrographic studies carried out and Au analysis for 2 nos of samples is done with estimated cost of Rs. 12,100.00/-
ii. NMET Secretarait informed that MECL has submitted the final report vide letter no. MECL/Exp/Report-NMET/MH/2019-20/1165 dated 01/10/2019.

The Committee accorded the approval of Rs. 12,100.00/- for additional samples analysis and informed that matter may be put up in EC as the final report has been submitted to the Chief Secretary of State and NMET Secretarait.

22.4.6: Additional sampling in Udagi Block, Chittarpur Taluk, District- Kalaburagi, Karnataka.

i. MECL informed that additional samples analysis of limestone have been done with estimated cost of Rs. 1,76,988.00/-

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ii. NMET Secretarait informed that MECL has submitted the final report vide letter no. MECL/Exp/Report-NMET/Karnataka/2019-20/1166 dated 01/10/2019.

The Committee accorded the approval of Rs. 1,76,988.00/- for additional samples analysis and informed that matter may be put up in EC as the final report has been submitted to the Chief Secretary of State and NMET Secretarait.

22.4.7: Additional sampling in Naubasta-Kolad Block; Tehsil: Nagod; District- Satna; Madhya Pradesh. (G2)

i. NMET Secretarait informed that MECL has submitted the final report vide letter no. MECL/Exp/Report-NMET/MP/2019-20/1356 dated 30/10/2019.

The Committee informed that matter may be put up in EC as the final report has been submitted to the Chief Secretary of State and NMET Secretarait.

22.4.8: Additional sampling in Tamiya Block, District: Bolangir, Odisha (G2).

i. MECL informed that additional 8 nos. of samples analysis have been done with estimated cost of Rs. 43,613.00/-
ii. NMET Secretarait informed that MECL has submitted the final report vide letter no. MECL/Exp/Report-NMET/Odisha/2019-20/1323 dated 15/10/2019.

The Committee accorded the approval of Rs. 43,613.00/- for additional samples analysis and informed that matter may be put up in EC as the final report has been submitted to the Chief Secretary of State and NMET Secretarait.

22.4.9: Additional sampling in Ranibennur Block, (SR-KAR-08) District: Haveri & Davanagere, Karnataka (G4).

i. MECL informed that additional 48 nos. of Au samples analysis have been done with estimated cost of Rs. 66,779.00/-
ii. NMET Secretarait informed that MECL has submitted the final report vide letter no. MECL/Exp/Report-NMET/Karnataka/2019-20/1357 dated 30/10/2019.

The Committee accorded the approval of Rs. 66,779.00/- for additional samples analysis and informed that matter may be put up in EC as the final report has been submitted to the Chief Secretary of State and NMET Secretarait.

22.4.10: Additional sampling in Recherla Block, Godavari Valley Coal Field, Andhra Pradesh.

i. EC in its 4th Meeting held on 21st February 2017 approved Recherla Block with an estimated cost of **Rs. 1317.00 Lakh**.
ii. TCC in its 19th Meeting held on 18th and 19th January 2019 recommended the revised proposal of MECL to EC involving 2,000m additional drilling with appropriate sampling involving an estimated cost of **Rs. 118.46 Lakh** including GST along with presentation of 1 BH drill core at GSI core library Hyderabad.
iii. MECL presented the status of exploration work in the Recherla Block and informed that due to increase of coal seam width, no of coal samples have been increased and additional samples of coal analysis have been done with estimated cost of **Rs. 35.20 Lakh.**

iv. The total additional costs have been enhanced beyond the limit of according sanction (ie., 10% of the total cost of the project approved by EC) by TCC. Hence, the approval for additional cost will be put up in next EC meeting.

v. As the total additional cost of **₹153.66 Lakh** (approved by TCC- **₹118.46 Lakh** and proposed additional cost of **₹35.20 Lakh)** is beyond sanctioning limit of TCC. Hence, a consolidated additional cost of **₹153.66 Lakh** will be put up for approval in next EC meeting.

***The Committee recommended the proposal of additional cost for chemical analysis. The consolidated additional cost of* ₹153.66 Lakh will be put up in next EC meeting for approval.**

22.4.9: Analysis of REE samples in Coal & Lignite Projects.

i. In 14th EC Meeting held on 9th September 2019, EC Experts raised the concern about the exploration of critical minerals, viz. REE, Lithium etc. It was opined by an expert that coal contains REE. Therefore, coal samples should be analyzed for REE.

ii. EC asked to inform all exploration agencies engaged in coal and lignite exploration through NMET funding to analyze the samples for REE and share the results with Dy. DG, M-IIB, GSI, Kolkata. The data is to be utilized for further exploration for REE.

iii. The Committee suggested that for collection of samples and analysis, GSI SOP/Guidelines of Mission-IIB (Natural Energy Resources), Kolkata will be circulated to all the exploration agencies by National Mission-II, GSI, Nagpur.

The Committee suggested National Mission-II, GSI, Nagpur to circulate the GSI SOP/Guidelines of Mission-IIB (Natural Energy Resources)

22.4.10: Discussion on beneficiation samples in Naubasta-Kolad Block; Tehsil: Nagod; District- Satna; Madhya Pradesh. (G2)

i. MECL informed that IBM has asked to submit samples for ore beneficiation of Naubasta-Kolad Block samples.

ii. Beneficiation studies require minimum of 250 kg of quarter portion of solid core samples from mineralised zone.

iii. The Committee suggested that for limestone there is no need of ore beneficiation.

The Committee recommended that for limestone ore beneficiation is not required.

22.4.11: Revised timeline in respect of Veeranam Lignite sub-block 1 to 4.

i. The G1 level exploration for lignite in Veeranam Block was approved in 4th EC meeting held on 21st February, 2017 at the cost of Rs. 6763.44 Lakhs (excluding tax). The block was sub-divided in 04 sub-blocks. The work was commenced on 22nd February, 2017 with a time schedule of 36 months i.e. to be completed by 21st February, 2020. The block was proposed by NLC India Limited and was to be executed by MECL.

ii. The TCC in its 6th meeting held on 2nd and 3rd December 2016 suggested that the block should be divided in 4 sub-blocks and initially the work should be taken up in two sub-blocks with cost revision.

iii. On the recommendation of 6th TC meeting, the EC in its 5th meeting held on 6th October, 2017 accorded in-principle approval for entire block. However, the work will be first taken up in two blocks and further exploration remaining two blocks will be taken up after evaluation by TCC. NLC will

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submit the block-wise cost and the same will be examined and approved by TCC. The progress will be monitored block-wise and the release of funds will also be done block-wise.

iv. Accordingly, NLC submitted the revised cost estimates vide letter dated 5th January, 2018 with the cost of Rs. 17.89 crores for Sub-block-I, Rs. 16.38 crores for Sub-block-II, Rs. 9.91 crores for Sub-block-III and 23.25 crores for Sub-block-IV. The revised cost of the Veeranam Block stands at Rs. 67.43 crores.

v. MECL informed about the timeline for each blocks along with estimated cost.

Sub-blocks	Cost (Rs. In Crores)	Timeline
Sub-block-I	Rs. 17.89 Crores	31st March 2020
Sub-block-II	Rs. 16.38 Crores	31st July 2020
Sub-block-III	Rs. 9.91 Crores	31st July 2021
Sub-block-IV	Rs. 23.25 Crores	30th April 2022
Total	**Rs. 67.43 Crores**	

The Committee accepted the timeline and informed that there will be no further extension of timeline.

22.4.12: Updating of information regarding reconnaissance survey for Diamond in Salaiya Block.

i. MECL informed that Government of Madhya Pradesh requested MECL to carry out exploration for Diamond vide their letter No.6220 dated 09.04.2018 through NMET funding.

ii. Accordingly, a G4 level exploration proposal was prepared and put up for approval in 14th TCC Meeting held on 21st and 22nd May, 2018 at GSI, Nagpur. In meeting, the proposal was discussed and the Committee had opinion that as block is very small, same can be taken up by DGM MP in collaboration with GSI.

iii. The matter was taken up in 52nd State Geological Programing Board (SGPB) Meeting held on 29th August, 2018 and MECL informed to SGPB that exploration proposal for the block will be again put up in forthcoming TCC meeting as it is requested by DGM Madhya Pradesh vide letter number 4058/2019 dated 7th March 2019.

iv. TCC in its 20th Meeting held on 4th and 5th April 2019 evaluated the projects proposal and recommended that MECL shall visit the area to finalize the work components and the possibility for increase in the survey area may also be explored in consultation with the State Govt. The proposal may be put up in next TCC meeting for further evaluation.

v. MECL informed that a joint field visit was carried out by Geologists of MECL and DGM Jabalpur Office from 13th May to 15th May 2019.

vi. Few outcrops were examined and one bedrock sample suspected to be kimberlitic was collected for petrography and Whole Rock Geochemistry (WRG) during the field visit.

vii. The petrographic study classified the rock sample (SDB1) as opaque rich mica bearing serpentinized Peridotite.

viii. Same Rock sample (SDB1) was also studied for Whole Rock Geochemistry and result shows that the rock sample is not having any kimberlitic affinity.

ix. Standard discrimination plots also shows that the rock sample is not having any affinity towards Kimberlite.

The Committee suggested that block is not potential for Diamond exploration and for further exploration work and hence dropped.

22.4.13: Submission of Geological Reports of the projects funded through NMET.

i. NMET Secretarait informed the Committee that Geological Reports of completed projects need to be reviewed before the final submission.

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ii. It was proposed to define a proper mechanism for Peer review of the Geological Reports and final submission to NMET Secretarait.

iii. The Committee suggested that NMET Secretarait will decide the appropriate expert under their panel of experts to review the report.

iv. The report will be sent to the reviewer, upon review by the expert the comments along with the report to be sent back to the NEA for incorporation of modifications suggested by the reviewer.

v. Exploration agency will incorporate the suggestion/comments of expert reviewer of the panel and submit the final Geological Reoprt for review in TCC by a presentation incorporating all the data.

vi. Once, the committee is stafisfied with the work carried out, incorporation of all the relevant data in the report and report is in the final form, this will be submitted for the approval by the Secretary, Mines as he is the funding authority and owner of the report.

vii. Once the report is accepted by the competent authority (Secretary, Mines) it should be handed over by the NMET Secretariate to the respective state government for initiating e-auctioning process.

viii. The committee also advises that the report should not be handed over to the state governments directly the e-auctioning, as the owner of the report is the funding authority i.e., the Secretary, Ministry of Mines. Further course of action on the report rests with either the Secretary Mines or NMET secretaiate as the case may be.

Meeting ended with a vote of thanks by the Member Secretary, TCC, NMET.

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Annexure-1A

22nd Technical-cum-Cost Committee (TCC) NMET, held at NALCO (HRD Centre for Excellence), NALCO Nagar, Bhubaneswar, Odisha on 13.11.2019 and 14.11.2019

14/11/19
(P. Maharana)
AGM, NALCO
Member, TCC, NMET

14/11/2019
(Naeem Ahmad)
General Manager-Exploration
(Retd.), CMPDI Ltd.
Member, TCC, NMET

14.11.19
(Dr. Anjani Kumar)
Dy. General Manager
(Exploration) & HoD-Planning
(Retd.), MECL
Member, TCC, NMET

14/11/19
(H. K. Verma)
DGM (Finance), HCL
Member, TCC, NMET

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

14.11.2019
(J. V. Ramarao)
Director (GP), GSI
Member, TCC, NMET

14.11.19
(Dr. Manoranjan Mohanty)
Dy. Director General (Retd.)
Geological Survey of India
Member, TCC, NMET

14/1/19
(Ranjan Kumar Sinha)
Controller General (Retd.) Indian
Bureau of Mines
Member, TCC, NMET

14.11.19
(P. Tarafdar)
Dy. DG (Retd.), GSI
Member, TCC, NMET

14/11/19
(Dr. L. P. Singh)
Director, NMET, MoM
Member, TCC, NMET

14/11/19
(Manoj Kumar)
Director, GSI
Member Secretary, TCC, NMET

14/11/19
(D. Mohan Raj)
ADG & NM H-II, GSI and
Chairman, TCC, NMET

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