



TAMIL NADU MINERALS LIMITED
(A Government of Tamil Nadu Undertaking)
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GST TIN No : 33AABCT 2250P1ZA

Rc. No: 950/M/2019

Date: 14.05.2024

To
The Additional Director,
Ministry of Environment, Forests & Climate Change
Regional Office (SEZ),
Chennai.

Dear Sir,

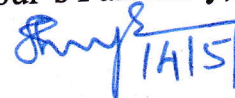
Sub :- Submission of 2nd Half yearly report (OCT'23 to MAR'24) for the Year 2023-24 on Ambient Air Quality & Water Quality of our Sivaganga Graphite Mine – details - submitted – Regarding .

Ref : Ministry of Environment, Forests & Climate Change, New Delhi vide notification No.SO 5845(E) Dated 26.11.2018

In order to fulfil the general condition No. B(IV) of Environment Clearance No. We submit herewith the 2nd Half yearly report for the year 2023 – 2024 (OCT'23 to MAR'24) on Ambient Air Quality & Water Quality Report of our Sivaganga Graphite Mine, M/S Tamilnadu Minerals Limited (TAMIN)

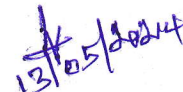
Thanking you

Your's Faithfully,


14/5/2024

Factory Manager


14/5/24


13/05/2024


13/5/24

POINT WISE REPLY EC CONDITIONS & EC CONDITIONS

Sl no	Standard EC Condition	Action taken
	I. Statutory Compliance 1. This Environment Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common cause conditions as may be applicable.	EC obtained & it is fulfilled.
	2. The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2 nd August, 2017 in writ petition (Civil) No. 114 of 2014 in matter of Common cause versus Union of India & Ors before commencing the mining operations.	Statuarory requirement are fulfilled as per the low.
	3. The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the project proponent through their respective department of Mining & Geology in strict compliance of judgment of Hon'ble Supreme Court dated 2 nd August, 2017 in writ petition (Civil) No 114 of 2014 in matter of Common cuase versus Union of India & Ors.	Compensation full paid to ADMG its enclosed receipt of the same.
	4. This Environment Clearance shall become operational only after receiving formal NBWL clearance from MOEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wild Life, If applicable to the Project.	Not Applicable to this project.
	5. This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, If applicable to the Project.	Not Applicable to this project.
	6. Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The Mining activity shall not commence prior to obtaining Consent to Establish / Consent to operate from the concerned State Pollution Control Board/Committee.	CTO obtained valid till 31.03.2027
	7. The PP shall adhere to the provision of Mines Act , 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere	As per the stage under guidelines of DGMS & IBM we followed.

	to various Circulars issued by Directorate General of Mines Safety (DGMS) and Indian Bureau of Mines time to time.	
	8. The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.	Not applicable as No private land owned in our lease hold area.
	9. The Project Proponent shall follow the mitigation measures provided in MoEF & CC's Office Memorandum No. Z-11013/57/2014-IA-II (M), dated 29 th October 2014, titled "Impact of Mining activities on Habitations-Issues related to the mining projects wherein Habitations and villages are surrounded by the Mine Lease area".	Mitigation being Followed.
	10. The Project Proponent shall obtain necessary prior permission of the competent authorities of drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the Project.	Obtained
	11. A copy of EC letter will be marked to concerned Panchayat / Local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.	EC Letter Marked to concerned Panchayat No comments from local
	12. State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional Office, District Industries Centre and Collector's Office/ Tahsildar's office for 30 days.	Letter communicated
	13. The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be vernacular language of the concerned area. The advertisement shall be done within 7 days the issue of the clearance letter monitoring that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and website of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MOEFCC, Regional Office	Grant of EC letter Advertised in local newspaper

	compliance and record.	
	14. The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.	No charge in ownership
	II. Air quality monitoring and preservation	
	15. The Project proponent shall install a minimum 3 (Three) online Ambient Air Quality Monitoring Stations 1 (one) in upwind and 2 (two) in downwind direction based on long term climatologically data about wind direction such that an angle of 120 ⁰ is made between the monitoring locations to monitor critical parameters, relevant for mining operations of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The Ambient air quality shall also be monitored at prominent places like the office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places, The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.	Action is being taken to install 3 online Ambient Air Quality monitoring stations.
	16. Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metal led road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM 10 and PM 2.5 are evident such as haul road, loading and unloading point and transfer points. The fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level confirm to the standards prescribed by the MoEFCC/ Central Pollution Control Board,	Complied Water tanker regular water sprinkling done. Mass plantation completed to arrest the dust.

	III. Water Quality Monitoring and preservation	
	<p>1. In case, immediate mining scheme envisages intersection of ground water table, then Environment Clearance shall become operational only after receiving formal Clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.</p>	<p>Mining operation do not inter section with ground water table.</p>
	<p>2. Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams are flowing in an around the village, should not be disturbed. The water table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the project proponent has to provide water to the villagers for their use. A provision of regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The report on changes in Ground water level and quality shall be submitted on Six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater department / State Pollution Control Board.</p>	<p>We strictly followed the instructions concerned Records maintained.</p>
	<p>3. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground water Authority/ State Ground water Department. The report on changes in Ground water</p>	<p>Water portability tests are conducted through TWAD, certificate is enclosed. If changes are found we will submitted to half yearly compliance report to CGWA/SGWD SPCB</p>

	level and quality shall be submitted on Six-monthly basis to the Regional Office of the Ministry, CGWA and State Ground water Department / State Pollution Control Board.	
	<p>4. The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ Springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The PP shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided carryout regular monitoring w.r.t PH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and / or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies in lease area shall be carried out four times in a Year viz. pre-monsoon (April-May), Monsoon(August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.</p>	Records are maintained and six month report submitted to MoEF&CC.
	<p>5. Quantity of Polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in run-off shall be monitored along with Total suspended</p>	There is no polluted water generated from mining operations.

	<p>Solids(TDS), Dissolved Oxygen(DO), pH and Total suspended solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The Circular No. J-20012/1/2006-IA,II (M) dated 27.05.2009 issued by the Ministry of Environment, Forest and Climate Change may also be referred in this regard.</p>	
	<p>6. PP shall plan, develop and implement rainwater harvesting measures on ong term basis to augment ground water resources in the area in consultation with Central Ground water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.</p>	<p>We implemented rain water harvesting measure around the mines & bore well points.</p>
	<p>7. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to confirm to the noticed standards prescribed from the time to tinme. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The Workshop effluent shall be treated after its initial passage through Oil and grease trap.</p>	<p>Complied.</p>
	<p>8. The water balance/ water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee</p>	<p>Not Applicable</p>
	<p>IV. Noise and vibration monitoring and prevention</p>	
	<p>9. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.</p>	<p>Noise survey conducted and it is in norms certificate enclosed.</p>
	<p>10. The Illumination and sound at night at project sites disturb the villages in</p>	<p>Noise survey conducted and only General shift.</p>

	<p>respect both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to the mining operations. Habitations have a right for darkness and minimal noise levels at night. PP is must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.</p>	<p>Illumination not required for Mining operations. No illumination and sound at project sites installed.</p>
	<p>11. The PP shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc., should be provided with ear plugs / muffs. All personnel including laborers working in dusty area shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.</p>	<p>Provided suitable resources for control of noise levels below 85 dBA in the work environment. All mine safety equipments provided to labour impacting work on safety and health as.</p>
	<p>V. Mining Plan</p>	
	<p>12. The PP shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e quantum of mineral, waste, overburden, inter burden and top soil etc. No change in basic mining proposal like mining technology, total excavation, mineral and waste production, lease area and scope of working (viz method of mining & over burden and & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan</p>	<p>Working parameters of mining plan adhered to.</p>

	<p>16. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.</p>	<p>We were maintained as per the DGMS statute.</p>
	<p>17. The reclamation of waste dump sites shall be done in scientific manner as per the approved mining plan cum progressive mine closure plan.</p>	<p>Reclamation waste done all the dead dumps</p>
	<p>18. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain in the slope stability, prevent erosion and surface run off. The selection of local species regulates local climate parameters and help in adaption on plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/compactors thereby ensuring proper filling/leveling of dump mass. In critical areas, use of geo textiles/geo-membranes / clay liners/ Bentonite etc. shall be undertaken for stabilization of the dump.</p>	<p>With the help of Dozer Dozing the dump and Dump Terrain step dumping provided and as per the DGMS statute maintained safety.</p>
	<p>19. The project proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC</p>	<p>Our dumps height that less than 30 mts only.</p>
	<p>20. Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off water and flow of sediments directly into the water bodies (Nallah/River/Pond etc). The collected water should be utilized for watering the</p>	<p>Setting tanks are constructed around the mine pit to avoid the rainwater water settings ponds are de-silted regularly.</p>

	mine area, roads, green belt development , plantation etc. The drains/sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season , and maintained properly.	
	21. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments /silt material. The sedimentation pits/sumps shall be constructed at the corners of the garland drains.	Complied
	22. The topsoil , if any ,shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long . the physical parameters of the top soil dumps like height , width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r t. safety in Mining operations shall be strictly adhered to maintain the stability of Dumps. The Top soil shall be used for reclamation and plantation purpose.	Topsoil were pressured at the Mine lease area separately, and same of the utilized for reclamation and plantation purpose at mine lease area.
	VII Transportation	
	23. No transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by	No transportation of minerals through roads passing through villages/habitations.

	<p>the PP in consultation with nodal State Government Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of road is increased to handle the traffic load. The Pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain pollution under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.</p>	
	<p>24. The main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. Shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The Belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.</p>	<p>Water sprinkling arrangement are done. Through the water tanker water sprinkling will be done.regularly.</p>
	<p>VIII Green belt</p>	
	<p>25. The PP shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the</p>	<p>We were developed green belt all along the lease area for buffer zone/safety Zone 7.5m</p>

	<p>active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mining Plan.</p>	
	<p>26. The PP shall carry out plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides. In community area etc. by planting the native species in consultation with the Forest Department/ Agricultural Department/ Rural Development Department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care trees.</p>	<p>No backfilley arranged.</p>
	<p>27. The PP shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with State Government. In this regard, PP should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.</p>	<p>No grazing land talls within mine lease area.</p>
	<p>28. The PP shall undertake all precautionary measures for conservation and protection of endangered Flora and Fauna and Schedule-I species during Mining operation. A Wildlife Conservation plan shall be prepared for the same clearly delineating action to be taken for conservation of Flora & Fauna. The</p>	<p>Not applicable to the project.</p>

	Plan shall be approved by Chief Wild Life Warden of the State Government.	
	29. And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.	Not applicable to the project.
IX Public Hearing and Human Health issues		
	30. The PP shall appoint an Occupational Health Specialist for regular as well as Periodical Medical Examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also Carry out Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEFCC Regional Office and DGMS on Half-Yearly basis.	Regular Health checkup camp conducted by the Management and Multispecialty Hospitals and Reports &Records and kept at the office.
	31. The PP must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The PP shall maintain accurate and systematic record of HRA. The HRA of neighborhood has to focus on Public Health problems like Malaria, Tuberculosis, HIV, Anemia, Diarrhea in children under five, respiratory infections due to bio mass cooking. The PP shall also create awareness and educate the nearby community and workers for sanitation, Personal Hygiene, Hand washing, not to defecate in open, Woman health and Hygiene (Providing Sanitary Napkins), hazard of	Zero Harm Health assessment conducted periodically and risk and kept at the office. Emergency cases. our by vehicle or by Ambulance and sent to Govt.Hospitals which were nearby the Mining Project.

	<p>tobacco and alcohol use. The PP shall carryout base line HRA for all the category of workers and thereafter every Five Years.</p>	
	<p>32. The Proponent shall carry out Occupational Surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for land exposure Blood Lead, For welders Full Ophthalmologic Assessment; For Manganese miners a complete \neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium - Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 Years, including the results of and the records of physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the mine is less than 30 Years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17X14 inches and of good quality).</p>	<p>All the documents were kept at the office. Occupational Health surveillance we conducted and remedial measure will be taken.</p>
	<p>33. The PP shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 – 24.9, (b) the Final Chest X-Ray compared with base line X-Ray should not show any capacities, (c) At the end</p>	<p>All the standards and documents and Annual returns was submitted regularly.</p>

	<p>of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEVI), Forced Vital Capacity (FVC), and the ratio unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEFCC annually along with details of the relief and compensation paid to workers having above indications.</p>	
	<p>34. The PP shall ensure that personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.</p>	<p>All types of safety devices are wearing and provided adequate training.</p>
	<p>35. The PP shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking , mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.</p>	<p>Rest shelter are constructed with safe drinking water provisions .Hygienically maintained toilets constructed Near path room.</p>
	<p>36. The activities proposed in Action plan prepared for addressing the issues raised during the public Hearing shall be completed as per the budgetary provisions mentioned in the Action</p>	<p>We work implement as per the District Authorities will be done.</p>

	Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.	
	X Corporate Environment Responsibility (CER)	
	37. The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per the Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. Photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.	Complied
	38. PP shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEFCC and its concerned Regional Office.	Financial utilized for Environment protection measures maintained separately.
	XI Miscellaneous	
	39. The PP shall prepare digital map (land use & Land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.	Land use plan prepared will submit the R.O of MOEF&CC
	40. The Project authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	We will inform financial closure to concerned authorities.
	41. The PP shall submit six monthly compliance reports on the status of the implementation of the stipulated	Compliance report submitted regularly to MOEF&CC &

	environmental safeguards to the MoEF&CC & Its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.	SPCB/CPCB
	42. A separate 'Environmental Management Cell' with suitable qualified manpower should be set – up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEFCC.	Environment Management cell with switch manpower set up under the control of a Senior Executive maintained we will enclose the same. Complied.
	43. The concerned Regional Office of the MoEFCC shall randomly monitor compliance of the stipulated conditions. The Project authorities should extend full cooperation to the MoEFCC Officer(s) by furnishing the requisite data / Information / monitoring reports.	We will co-operate taken MOEF&CC officer and &required data monitoring reply submitted regularly to the MOEF&CC

Your's Faithfully,

[Signature]
14/5/2024

Factory Manager

[Signature]
14/5/24

[Signature]
13/05/2024

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COMPLIANCE REPORT OF WATER ACT

Additional conditions as per the Consent of Water Act

Sl.No.	EC Conditions	Compliance Status
Conditions to be complied before commencing mining operations		
1	The unit shall treat and dispose the sewage through Septic tank and Soak Pit arrangement	Provided septic tank followed by soak pit periodically cleaning as per the condition
2	The unit shall ensure that no trade effluent is generated at any stage of it's process	There is no trade effluent generation from the Mining activities.
3	The unit shall comply with the conditions imposed in the Environmental Clearance vide letter F.No.23-153/2018-IA.II(V) dated:25.02.2020	The EC Conditions are complied.
4	The unit shall comply with the Approval of Mining plan (including Progressive Mine Closure Plan) issued by Indian Bureau of Mines dated:22.03.2019	The unit is comply with as per the approval of Mining Plan & Progressive Mine closure plan .
5	The unit shall furnish details of works to be carried out such as remediation plan, natural and community resource augmentation plan to be completed within 2023, along with monthly target statement and completion plan, within a month's time to TNPCB.	Details were furnished & submitted to TNPCB Periodically
6	The unit shall complete the works assigned under remediation plan, natural resource augmentation and community resource augmentation to be completed by 2020-21 within 6 months as per the Environmental clearance and for the remaining works to be carried out during 2022-23 a detailed action plan/target statement with commitment shall be furnished. If not, the bank guarantee will be forfeited by the TNPCB without further notice.	The works are completed.
7	The unit shall furnish detailed compliance report for the direction issued by the Board vide proc dated:02.11.2021	Agreed
8	The unit shall not obstruct the free flow of rain water, collection odais passing through this mining site.	We have constructed garland drains all along the dumps and working pits collected rain water

		to settling tanks. Through the motors water supplied to the irrigation purpose for surrounding villages by CSR activities.
9	The unit shall comply with Mines and Minerals (Development and Regulation) Amendment Act, 2015	Our unit complied as per the MMDR Act 2015
10	Peripheral plantations shall be raised as wind belts to minimize the dry tailings being air-borne and to prevent the soil erosion	To prevent soil erosion and Air-borne dust, Mass plantation done at surrounding mines and haul road side plantation, outside the lease area. Dumps & top soil dumps are stabilized by the local natural species.
11	The unit shall carry out reclamation programmer as per the progressive mine closure plan by Indian Bureau of Mines.	We carried out reclamation and rehabilitation at the dead Dumps and some of the Area covered with Top soil and made plantation. Topsoil dumps are covered by local natural species to preserve the fertilizers and to avoid the soil Erosion and to strengthen slope stability of the dumps.
12	Garland drains shall be provided around the open cast excavation area, stacking, loading area and periphery of waste dumps so as to collect and discharge the rush of water during heavy rain. The water collected in the garland drain shall flow towards the settling tank.	We provided all along the working pits and connected to the other pit to collect rainwater through Garland drains.
13	The unit shall provide collection sump at suitable location to collect the rain water and seepage water and the same shall be utilized for irrigation	We provided Garland Drains to all the working pit to collect the rain water and seepage water are used for irrigation purpose as per the CSR activities.
14	Wherever practicable, the mine water shall be utilized for irrigation and to the plantations raised to stabilize the mine waste dumps.	Mine water fully utilized for irrigation, plantation, and to stabilize the mine waste Dumps
15	The overburden and mine waste shall be used for reclamation, restoration and rehabilitation of the terrain without affecting the natural drainage and water regimes.	Accumulated total waste used for reclamation, restoration and rehabilitation of the Terrain without affecting the natural Drainage and water regimes.

16	The unit shall ensure that waste shall be dumped within the lease area and it will not create any damages to adjacent property, agricultural fields, public utility and human settlement shall not cause any barrier or obstruction to any water course.	Waste Dump designed with in the lease area and II nd pit Extension Northern side. Safe distance maintained toe of overburden dumps.
17	The unit shall collect the top-soil from the mining area and preserve it biologically and to utilize the same for plantation of trees during the reclamation program.	All collected topsoil are preserved and recorded the quantity which shall be used for road tapping and plantation regarding the reclamation programme at the mines.
18	The mining lease holder shall after ceasing mining operations, undertake regressing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna, etc.,	As per the Mine Closure Plan workings were under progress
19	The unit's operation shall not attract any public complaints.	There is no public complaints against the Project .
20	The unit shall furnish the compliance report of the Environmental Clearance condition issued by MoFF & CC Vide letter R.No.23-153/2018-IA.II(V) dated:25.02.2020 once in 6 month to this office	Half Yearly compliance report submitted to MOEF & CC regularly.
21	The unit shall adhere to the depth of mining mentioned in the Environmental Clearance issued	Depth is maintained as per the Review of the Mining Plan approved by the IBM
22	The unit shall strictly adhere to the approved mine closure plan	No final mine closure plan proposed for this project.
23	The unit shall not use "use and throwaway plastic" such as plastic sheets used for food wrapping spreading on dining table etc., plastic plates, plastic coated tea cups, plastic tumbler, water pouches and packets, plastic straw, plastic carry bags and plastic flags irrespective of thickness within the industry premises. Instead unit shall encourage use of eco friendly alternative such as banana leaf, are coconut palm, stainless steel, glass, porcelain plates/cups/cloth bag, jute bag etc.,	Proved at prominent places & using of eco friendly banana leaf, areca nut palm. Stainless steel, glass, porcelain plates/cups/sloth bag, jute bag etc.,

24	The unit shall ensure that at least 2 percent of the net profit is spent for corporate Environment Responsibility (CER) activities such as constructing toilets and providing safe drinking water to the government schools/hospitals in the villages where the mining activity proposed to be carried out and other activities as mentioned in the companies Act, 2013 and MoEF & CC-OM dated:01.05.2018	Compiled
25	The separate environment and safety management cell formed by the unit shall be retained throughout the lifetime of the mine, for implementation of the stipulated environmental safeguards of mining operation	Safety management cell formed for implementation of the stipulated environmental safeguards of mining operation
26	The unit shall comply with the E Waste, Management Rules 2016, E waste as listed in Schedule-I generated by them shall be channelized through collection centre or dealer of authorized producer or dismantlers or recycler or through the designated take back service provider of the producer to authorized dismantler or recycler. The unit shall maintain records of E-waste generated by them in Form-2 and make such records available for scrutiny by the TNPCB. The unit shall file annual returns in Form-3; to the TNPCB on or before the 30 th day of June following the financial year.	Action under process to sell the generated lubricating waste oil to the authorized dismantlers'
27	The unit shall carry out Occupational health surveillance towards 'Zero Harm' from their mining	Health check up conducted by Primary Health Centre, Keelapungudi on 22.04.2021, 07.07.2021, 12.07.2021 & 03.02.2022. In the year 2022 and 2023 periodical medical checkup conducted for staff and workers Appollo Multi specialty Hospital, Madurai. For 2024 Medical Camp

[Signature] 14/5/2024

Factory Manager

[Signature]
14/5/24

[Signature]
13/05/2024

[Signature]
BB
13/5/24

SPECIAL CONDITIONS

1. This renewal of consent is valid for operating the facility for the manufacture of products/byproducts (Col.2) at the rate (Col.3) mentioned below. Any change in the product/byproduct and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Sl.No	Description	Quantity	Unit	Compliance Status	
Product Details					
1	Graphite Raw Ore in the Mine lease area of 236.85 Ha between East Longitude 78023'40.20" to 270270.36" and North Latitude 90 52'30" to 9054'0"	105000	TPA	No Change in the Products/byproduct. There is no change in the quantity	
By-Product Details					
1	NIL	0	NIL		
Intermediate Product Details					
1	NIL	0	NIL		

2. This renewal of consent is valid for operating the facility with the below mentioned outlets for the discharge of sewage/trade effluent. Any change in the outlets and the quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Outlet No.	Description of Outlet	Maximum daily discharge	Point of disposal	
Effluent Type: Sewage				There is no Point source of emission in mines area
1	Sewage	3.0	On Industry's own land	

[Signature] 14/5/2024

Factory Manager

[Signature]
14/5/24

[Signature]
13/05/2024

[Signature]
BB
13-5-24



Eco Tech Labs Pvt Ltd

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TC-5937

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NABL Accredited Testing Laboratory Vide Certificate No. TC-5937

TEST REPORT

ULR No : TC593724000001582F

Report No : TRET0524029

Report Date: 10.05.2024

Page 1 of 1

Name of the Client : M/s.TamilNadu Minerals Limited
Address of the Project : Sivaganga. Graphite Mine Sivaganga.
Sample Name : Ambient Air Quality
Sample Code : ETL0524027
Sample Description : Ambient air
Sample Condition : -
Sample Drawn By : Eco Tech Labs P.Ltd
Sampling date : 02.05.2024
Sampling Plan & Procedure : ETL/QAD/SOP/09
Received date : 03.05.2024
Sample Location : Pit -3 South Side 9°53'30"N 78°24'37"E
Commenced on : 03.05.2024
Customer Reference : -
Completed on : 09.05.2024

I.CHEMICAL TESTING

1. Atmospheric Pollution

S.No	Parameters	Test Method	Results	Units	NAAQ Standards: 2009	
1	Sulphur Dioxide	IS: 5182 (P- 2) 2023(RA:2012)	13.6	µg/m ³	80 (24 Hours)	50 (Annual)
2	Oxides of Nitrogen	IS: 5182 (P- 6) :2006(RA :2012)	20.3	µg/m ³	80 (24 Hours)	40 (Annual)
3	Respirable Suspended Particulate Matter (PM10)	IS: 5182 (P-23) :2006(RA:2012)	50.5	µg/m ³	100 (24 Hours)	60 (Annual)
4	Particulate Matter (PM 2.5)	IS:5182 (p-24) : 2019	25.1	µg/m ³	60 (24 Hours)	40 (Annual)
5	Carbon monoxide	ETL/CHL/SOP/008	BQL(LOQ:1.15)	mg/m ³	4 (1 Hour)	2 (8 hours)
6	Lead	IS: 5182 (P- 22) :2004(RA:2014)	BQL(LOQ :0.025)	µg/m ³	1 (24 Hours)	0.5 (Annual)
7	Ozone	IS: 5182 (P- 9) :2019(RA:2009)	BQL(LOQ :10)	µg/m ³	180 (1 Hour)	100 (8 Hours)
8	Ammonia	IS:5182 : (P-25) : 2018	BQL (LOQ: 5)	µg/m ³	400 (24 Hours)	100 (Annual)
9	Benzene	IS: 5182 (P- 11) :2006(RA:2012)	BQL(LOQ :0.5)	µg/m ³	5 (Annual)	5 (Annual)
10	Benzo(a)pyrene	IS: 5182 (P-12) :2004(RA:2014)	BQL (LOQ: 0.5)	ng/m ³	1 (Annual)	1 (Annual)
11	Arsenic	ETL/INS/SOP/002	BQL (LOQ: 1)	ng/m ³	6 (Annual)	6 (Annual)
12	Nickel	USEPA IO - 3.2 : 2020	BQL (LOQ: 2.5)	ng/m ³	20 (Annual)	20 (Annual)

Note: BQL-Below Quantification Limit, LOQ - Limit of Quantification

End of Report



Authorised Signatory - Chemical

S. Kokila
Lab Manager

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NABL Accredited Testing Laboratory Vide Certificate No. TC-5937

TEST REPORT

ULR No : TC593724000001583F

Report No : TRETLO524030

Report Date: 10.05.2024

Page 1 of 1

Name of the Client : M/s.TamilNadu Minerals Limited

: Sivaganga. Graphite Mine Sivaganga.

Address of the Project

Sample Name : Stack Emission

Sample Description : DG Stack

Sample Code : ETL0524028

Sample Condition : -

Sample Drawn By : Eco Tech Labs P.Ltd

Sampling date : 02.05.2024

Sampling Plan & Procedure : ETL/QAD/SOP/10

Received date : 03.05.2024

Sample Location : Pit -3 West Side (125 KVA) 9°53'30"N
78°24'37"E

Commenced on : 03.05.2024

Customer Reference : -

Completed on : 09.05.2024

I.CHEMICAL

1. Atmospheric Pollution

S.No	Parameters	Test Method	Results	Units	MoEF Standards
1	Particulate Matter	IS: 11255 (P -1) 1985 (RA:2019)	0.104	g/kw-hr	≤ 0.2
2	Sulphur Dioxide	IS: 11255 (P -2) 1985 (RA:2018)	0.125	g/kw-hr	-
3	Oxides of Nitrogen	IS:11255 (P -7) 2005 (RA :2022)	0.741	g/kw-hr	-
4	Carbon monoxide	IS : 13270: 1992 (RA : 2019)	BQL(LOQ:0.03)	g/kw-hr	≤ 3.5
5	Flow Rate	IS: 11255 (P -3) (RA:2019)	412	Nm ³ /hr	-

Note: BQL-Below Quantification Limit, LOQ - Limit of Quantification

End of Report



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NABL Accredited Testing Laboratory Vide Certificate No. TC-5937

TEST REPORT

ULR No :TC5937240000001584F

Report No :TRETLO524031

Report Date: 10.05.2024

Page 1 of 1

Name of the Client : M/s.TamilNadu Minerals Limited
Address of the Project : Sivaganga. Graphite Mine Sivaganga.

Sample Name : Noise Monitoring

Sample Code : ETL0524029 to ETL0524033

Sample Drawn By : Eco Tech Labs P.Ltd

Sampling Procedure : ETL/CHL/IOP/035

Customer Reference : -

Sample Description : Ambient Noise

Sample Condition : -

Sampling date : 02.05.2024

Received date : 03.05.2024

I.CHEMICAL TESTING

1. Atmospheric Pollution

S.No	Location	Time (hrs)	Day Time
			Noise level in dB (A)
1	Pit - 3 South Side 9°53'31"N 78°24'35"E	9.30	51.4
2	Pit - 3 West Side 9°53'31"N 78°24'39"E	10.05	52.8
3	Pit - 3 North Side 9°53'32"N 78°24'37"E	10.40	52.7
4	Pit - 3 East Side 9°53'33"N 78°24'42"E	11.15	54.3
5	Site Office 9°53'52"N 78°25'19"E	11.50	53.8

CPCB Limits:

- i) Industrial Area : Day Time - 75 dB (A); Night Time - 70 dB(A)
- ii) Commercial Area : Day Time - 65 dB (A); Night Time - 55 dB(A)
- iii) Residential Area : Day Time - 55 dB (A); Night Time - 45 dB(A)
- iv) Silence Zone : Day Time - 50 dB (A); Night Time - 40 dB(A)
- v) Working Zone : Day Time - 90 dB (A)

End of Report



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TEST REPORT

ULR No : TC5937240000001585F

Report No : TRETLO524032

Report Date: 10.05.2024

Page 1 of 1

Name of the Client : M/s.TamilNadu Minerals Limited
Address of the Project : Sivaganga. Graphite Mine Sivaganga.

Sample Name : Soil
Sample Code : ETL0524034
Sample Drawn By : Eco Tech Labs P.Ltd
Sampling Plan & Procedure : ETL/QAD/SOP/08
Sample Location : Near Working Pit 9°53'30"N
78°24'35"E
Customer Reference : -

Sample Description : -
Sample Condition : Good
Sampling date : 02.05.2024
Received date : 03.05.2024
Commenced on : 03.05.2024
Completed on : 09.05.2024

I.CHEMICAL TESTING

1. Pollution and Environment

S.No	Parameters	Test Method	Results	Units
1	pH (at 25°C)	IS:2720 (P-26) 1987,RA:2021	7.72	-
2	Electrical Conductivity	IS:14767,2016	0.12	mS/cm
3	Water Content	IS 2720(Part 2):1973 RA 2020	9.18	%
4	Chloride	FAO 2007(Page No- 48): 2020	12.5	mg/kg
5	Calcium as Ca	FAO 2007(Page No- 48): 2020	29.6	mg/kg
6	Sodium	FAO 2007(Page No- 44): 2020	368	mg/kg
7	Available Potassium	FAO 2007(Page No- 44): 2020	385	mg/kg
8	Organic Matter	IS:2720 (P-22) 1972, RA:2020	0.28	%
9	Magnesium as Mg	FAO 2007(Page No- 48): 2020	8.98	mg/kg
10	Total Soluble Sulphates	IS:2720 (P-27) 1977 RA:2020	36.5	mg/kg
11	Cation Exchange Capacity	IS:2720 (P-24) 1976;RA:2010	11.4	meq/100g
12	Carbonate	FAO 2007(Page No- 46): 2020	NIL	mg/kg
13	Bicarbonate	FAO 2007(Page No- 46): 2020	63.2	mg/kg

Note: BQL-Below Quantification Limit, LOQ - Limit of Quantification

End of Report



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TEST REPORT

ULR No :TC593724000001586F

Report No : TRETLO524033

Report Date:10.05.2024

Page 1 of 1

Name of the Client : M/s.TamilNadu Minerals Limited
Address of the Project : Sivaganga. Graphite Mine Sivaganga.

Sample Name : Water Sample Description : Drinking Water
Sample Code : ETL0524035 Sample Condition : Good
Sample Drawn By : Eco Tech Labs P.Ltd Sampling date : 02.05.2024
Sampling Plan & Procedure : ETL/QAD/SOP/07 Received date : 03.05.2024
Sample Location : Near Site Office 9°53'45"N 78°25'16"E Commenced on : 03.05.2024
Customer Reference : - Completed on : 09.05.2024

I.CHEMICAL TESTING

1. Water

S.No	Parameters	Test Method	Results	Units	Acceptable Limits for Drinking Water as per IS: 10500:2012
1	pH (at 25°C)	IS:3025(P-11)1983 RA: 2022	7.82	-	6.5 - 8.5
2	Electrical Conductivity	IS:3025(P-14) 2013	650	µS/cm	-
3	Colour	IS:3025 (P-4)1983 RA: 2021	3	Hazen Unit	5
4	Turbidity	IS:3025(P-10)1984 RA: 2023	BQL(LOQ:1)	NTU	1
5	Total Dissolved Solids	APHA 24 th Edn.2540-C-2023	436	mg/L	500
6	Total Suspended Solids	IS:3025(P-17)-1984 RA:2022	BQL(LOQ:2)	mg/L	-
7	Total Hardness as CaCO ₃	APHA 24 th Edn.-2340-C -2023	234	mg/L	200
8	Calcium as Ca	APHA 24 th Edn.- 3500-B -2023	47.7	mg/L	75
9	Magnesium as Mg	APHA 24 th Edn-3500 Mg-B-2023	27.9	mg/L	30
10	Chloride as Cl	IS:3025(P-32)-1988 RA: 2019	82.2	mg/L	250
11	Sulphate as SO ₄	APHA 24 th Edn-4500 So4-E-2023	105	mg/L	200
12	Total Alkalinity as CaCO ₃	APHA 24 th Edn-2320 B-2023	135	mg/L	200
13	Iron as Fe	IS 3025 (PART 53): 2014	BQL(LOQ:0.1)	mg/L	1.0
14	Silica as SiO ₂	IS:3025(P-35)1988 RA: 2023	10.4	mg/L	-

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End of Report



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Lab Manager

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