



RAJASTHAN STATE MINES & MINERALS LIMITED
(A Government of Rajasthan Enterprise)
SBU & PC LIGNITE, JAIPUR

Khanij Bhawan, Tilak Marg, C-Scheme, Jaipur-302005

Corporate Office: 4, Meera Marg, Udaipur-303001

Registered Office: C-89-90, Lal Kothi Scheme, Jaipur-302015

PH: (0141)2227947, 2227408, 2227360 FAX: 0141-2227761 E-mail jaipur_rsmml@rajasthan.gov.in
CIN-U14109RJ1949SGC000505, Website: www.rsmml.com, **GSTIN-08AAACR7857H120**

Ref : RSMML/SBU-PC(L)/F.5/VBD/2023-24/194

Date-15.05.2023

To,

The Deputy Director/Scientist-C,
Integrated Regional Office (IRO),
Ministry of Environment, Forests & Climate Change,
Aranya Bhawan, Jhalana Dungri,
Jaipur(Raj)
e-mail- iro.jaipur-mefcc@gov.in

Sub: Six monthly compliance report of Environmental Clearance for Giral Lignite Mines, Distt. Barmer (Rajasthan) for the period of Octo.-2022 to March-2023.

Dear Sir,

In compliance of conditions stipulated in the Environmental Clearance vide letter No.J-11015/94/2014-IA.II(M) dated 12th March, 2015 & Project Code- Thermal & Coal; please find enclosed herewith half yearly report for the period of Octo.-2022 to March-2023, in respect of Giral Lignite Mines, Distt. Barmer (Rajasthan).

Thanking you,

Yours faithfully,

(Arun Singh)

Head & In-charge (Lignite)
& Project Proponent

Encl : As above

ARUN SINGH
HEAD & IN-CHARGE (LIGNITE)



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-sd-

(Arun Singh)
Head & In-charge (Lignite)
& Project Proponent

Encl : As above

- Copy to: 1. The Director(S), Ministry of Environment, Forest & Climate Change, Govt. of India, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi 110 003 (INDIA)
e-mail- monitoring-ec@nic.in
2. The Member Secretary, Rajasthan State Pollution Control Board, 4, Institutional Area, Jhalana Dungri, Jaipur, e-mail- member-secretary@rpcb.nic.in
3. Dy.General Manager (System), Corporate Office, Udaipur to upload on RSMML website

(Arun Singh)
Head & In-charge (Lignite)
& Project Proponent

ARUN SINGH
HEAD & IN-CHARGE (LIGNITE)

Name of Project: Giral Lignite Project, District, BarmerClearance letter no. J-11015/94/2014-IA-II (M), dated 12th March, 2015.

Compliances Report:- October 2022 to March 2023

| S.No. | (A) Specific Conditions: | Status of implementation : |
|-------|---|--|
| i. | The maximum production from the mine at any given time shall not exceed the limit as prescribed in the EC. | The maximum production from the mine at any given time will not exceed the limit as prescribed in the EC. |
| ii. | The validity of the EC is for the life of the Mine or as specified in the EIA Notification, 2006, whichever is earlier. | Agreed |
| iii. | Coal transportation in pit by Tippers, Surface to Siding by Tippers and loading at siding by Pay loader. | Transportation of ROM (lignite) carried out for mercantile sector transportation through trucks. |
| iv. | There shall be no external OB dumps. | Over-burden is being dumped at earmarked site as proposed in EIA & EMP and overall slope of 28° is being maintained. Back filling has commenced. Monitoring and management of rehabilitation areas continue till the vegetation become self-sustaining. Status of compliances is being sent regularly. |
| v. | The contractual labours shall be provided with housing facilities at work place. | All the contractual labours have provided housing facilities at work place (contractor camp) and Technical staff at Bharka (13 Km.). |
| vi. | All three voids left after filling of the excavated area located in different blocks will be developed as water storage ponds. | Presently two nos. of pit are in working. 3 rd block i.e. Thumbali to be opened in future. At the conceptual stage all the three voids after filling of the excavated area will be converted in water pond. |
| vii. | The depth of the internal void shall be 35 m from the ground level and should be adequate for fishery purpose. | At the time of closure the internal void will be 35m from the ground level & adequate for fishery purpose. |
| viii. | All safety measures shall be taken as per CMR, 1957 & related Circulars. | All safety measures have been taken as per CMR, 1957, 2017 & related circulars of DGMS. |
| ix. | The production shall be within the same Mining Lease area. | The production of lignite has within the same mining lease area only. |
| x. | The OB shall be completely re-handled at the end of the mining and will be back filled up to the ground level and covered with about a meter thick top and put to use. The land after mining shall be brought back for agriculture purpose. | The outside OB will be completely re-handled at the end of the mining and will be backfilled up to ground level and covered with about a meter thick top soil. |
| xi. | Garland drains be provided. | The Garland drain is already |

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| | | constructed along the benches in the pit and constructed. |
| xii. | Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent of the mine. | No river/nallah flowing near or adjacent of the mine area. |
| xiii. | The CSR cost should be Rs 5 Per Tonnes of Coal produced which should be adjusted as per the annual inflation. | Agreed |
| xiv. | Everybody in the core area should be provided with mask for protection against fugitive dust emissions. | Regular water spraying arrangement carried out on haul roads, loading & unloading points to protect fugitive dust emissions. Marks for protection against fugitive dust emissions have been provided. |
| xv. | Dust mask to be provided to everyone working in mining area. | Dust mask have been provided to every employees working in mining area. |
| xvi. | The supervisory staff should be held personally responsible for ensuring compulsory regarding wearing of dust mask in the core area. | All the employees working in the core area have used the dust mask. All the statutory personnel i.e. Overman, Mining Sirdar look after the above responsibility very well to ensure safety of person employed. |
| xvii. | People working in the core area should be periodically tested for the lung diseases and the burden of cost on account of working in the coal mine area. | Health check-ups of all the employees are periodically conducted for the lung diseases as per norms of DGMS. |
| xviii. | The mining area should be surrounded by green belt having thick closed thick canopy of the tree cover. | The mining area will be covered by green belt having thick closed thick canopy of the tree cover. |
| xix. | The embankment constructed along the river boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side and stabilised with plantation so as to withstand the peak water flow and prevent mine inundation. | There is no river/nallah flowing adjacent to the mine area. |
| xx. | There shall be no overflow of OB into the river and into the agricultural fields and massive plantation of native species shall be taken up in the area between the river and the project. | There is no river/nallah flowing in the lease area. Also there will be no overflow of OB into the agriculture fields due to adequate retaining wall with siltation ponds will be constructed all around the external dump. |
| xxi. | Catch drain and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flow from soil, OB and mineral dumps. The water so collected shall be utilized for watering the mine area, roads, green belt development, etc. The drains shall be regularly de-silted and maintained | Approximate 1.5 Kms. Length X 1.5 Mtrs. Width X 1.5 Mtrs. Depth Garland drain constructed around the OB Dump and approximate 50 Nos. Siltation ponds constructed size 3 Mtrs. X 3 Mtrs. X 3 Mtrs. Proposed |

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| | properly. Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50 % safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. | 1.5 Kms. Length X 1.5 Mtrs. Width X 1.5 Mtrs. Depth garland drain and 20 Nos. Of siltation ponds size 20 Mtrs. X 20 Mtrs. X 3 mtrs. |
| xxii. | Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data. | Retaining wall of 1.50m height & 2.0m wide to check run-off and siltation has been constructed. |
| xxiii. | Crushers at the CHP of adequate capacity for the expansion project shall be operated with high efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc. | There is no mineral processing unit at mines. |
| xxiv. | Drills shall be wet operated. | There is no needed of drilling for mining operation. |
| xxv. | The project authorities shall undertake regular repairing and tarring of roads used for mineral transportation. A 3-tier green belt comprising of a mix of native species shall be developed all along the major approach roads. | The new black top road has been constructed for mineral transportation. A 3-tier green belt comprising of a mix of native species will be developed all along the major approach roads. |
| xxvi. | Controlled blasting shall be practiced with use of delay detonators and only during day time. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented. | No blasting operation is carried for mining operation. |
| xxvii. | A progressive afforestation plan shall be implemented covering an area of 892.38 ha at the end of mining, which include reclaimed External OB dump area(157.28 ha), Internal OB dump area (660.10 ha), Green belt(75.00 ha) and in township located outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 1000 plants per ha. Massive plantation shall be carried out in open spaces in and around the mine and a 3-tier avenue plantation along the main approach roads to the mine. | Total area to be brought under afforestation covering an area of 892.38 ha at the end of mining, which include reclaimed External OB dump area (157.28 ha), Internal OB dump area (660.10 ha), Green belt (75.00 ha) by planting native species in consultation with the local DFO/Agriculture department. The density of the trees will be kept as per norms of MOEF clearance. |
| xxviii. | An estimated total 5023.805 Mm ³ of OB will be generated during the entire life of the mine. Out of which 386.855 Mm ³ of OB will be dumped in three external OB Dumps an earmarked area covering 157.28 ha of land with height of 30 meter in 3 lifts. 4636.95 Mm ³ of will be three | Overburden has been dumped at earmark site as proposed in EIA & EMP and an overall slope of 28° has maintained. Monitoring and management of rehabilitation areas will continue till the vegetation |

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| | internal OB dump in covering an area of 660.10 ha with height of 12 metres each lift. The maximum height of external OB dump for hard OB will not exceed 90 m. The maximum slope of the dump shall not exceed 28 degrees. Monitoring and management of reclaimed dump sites shall continue till the vegetation become self-sustaining and compliance status shall be submitted to MOEF and its Regional Office on yearly basis. | becomes self sustaining. Status of compliances is being sent regularly. The back filling has already been commenced and is being reclaimed by top soil and the land will be used in a productive and sustainable manner and every month survey, back filling dump area by our Survey team. |
| xxix. | The proponent should prepare restoration and reclamation plan for the degraded area. The land be used in a productive and sustainable manner. | The backfilling has already commence and are reclaimed by top soil and the land be used in a productive & sustainable manner. |
| xxx. | Compensatory Ecological & Restoration of waste land, other degraded land and OB dumps in lieu of breaking open the land be carried out. | The backfilling has already commence and are reclaimed by top soil and the land used in a productive & sustainable manner. |
| xxxi. | The mining should be phased out in sustainable manner. No extra over burden dumps are permitted. | The mining operation has in sustainable manner. Presently all the OB used as backfilling & no outside OB dumping at the mines site. |
| xxii. | No ground water shall be used for mining operations. | No ground water have used for mining operation. The maximum ultimate depth of mine working is 60 m & ground water range from 90 m to 110 m below the ground level. |
| xxiii. | Of the total quarry area of 883 ha, the backfilled quarry area of 660.10 ha shall be reclaimed with plantation and a void of 222.90 ha at a depth of 40 m which is proposed to be converted in to a water body shall be gently sloped and the upper benches shall be terraced and stabilised with plantation/afforestation by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. | Total backfilled area to be brought under afforestation at the end of mine life will not less than 660.10 ha and a void of 222.90 ha at a depth of 40 m which will be converted in to a water body will be gently sloped and the upper benches will be terraced and stabilized with plantation/afforestation in consultation with the local DFO/Agriculture department. The density of the trees shall be around 2500 plants per ha. |
| xxiv. | Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity shall be done four times a year in pre-monsoon(May), monsoon(August), post-monsoon(November) and winter (January) seasons and for quality in May, Data thus collected shall be submitted to the Ministry of Environment, Forests & climate change and the Central Pollution Control Board quarterly | In the core and Buffer zone there is no well/tube well for drinking purpose. Only saline water is available in the area from 90 m to 110 m below the ground level. |



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| | within one month of monitoring. | |
| xxv. | The company shall put up artificial ground water recharge measures for augmentation of ground water resource in case monitoring indicates a decline in water table. The project authorities shall meet water requirement of nearby villages(s) in case the village wells go dry due to dewatering of mine. | Ground water recharge measures have been proposed, which are under progress. There are no wells around the village & mine area; because, there is no availability of ground water. Drinking water source is about 13 kms away from the mines site; i.e. at Bharka (PHED tube well). |
| xxvi. | Sewage treatment plant shall be installed in the existing colony. ETP shall also be provided for workshop and CHP wastewater. | There is no colony at mines site & all the employees are living in Barmer town. The existing contractor not having any workshop. Also there is no coal handling plant within the lease area. |
| xvii. | Besides carrying out regular periodic health check up of their workers, 10 % of the workers identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment, if any, through an specialised agency /institution within the District/ State and the results reported to this Ministry and to DGMS. | As per the norms of DGMS regular periodic health checkups of the workers & 10% of the workers and villagers carried of regular interval by Doctors and Compounders as well as IME/PME of RSMML staff and contractor workers at Giral mines are going on as per prescribed mining rules (DGMS). |
| xviii. | Land oustees shall be compensated as per the norms laid out R&R Policy of CIL, or the National R&R Policy or R&R Policy of the State Government whichever is higher. | Land Acquisition has been made by the State Govt. for the purpose of lignite mining & compensation has been paid to land owners as per the approval of State Govt. & in line with Land Acquisition Act, 1894. |
| xxix. | For monitoring land use pattern and for post mining land use, a time series of land use maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEF &CC and its concerned Regional office. | Digital processing of the entire lease area using remote sensing technique is being undertaken once in three years for monitoring land use pattern and will be submitted to MoFE and its Regional Office. |
| xl. | A detailed Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forests & Climate Change within 6 months of grant of Environment Clearance. | Final Mine Closure Plan along with details of Corpus Fund will be submitted to the Ministry 5 years in advance of final mine closure for approval. |
| xli. | The project authorities shall in consultation with the Panchayats of the local villages and administration identify socio-economic and welfare measures under CSR to be carried out over the balance life of the mine. | We are complied Vide letter no. 24 & 25 dated 02.04.2015, to Sarpanch, Gram Panchayat, Akali/Kotra, Sheo, Barmer, advised to submit the |

2/1/2016

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| | | proposal under CSR scheme. |
| xlii. | Corporate Environment Responsibility | |
| | a) The company shall have a well laid down Environment Policy approved by the Board of Directors. | We are always Environment conscious. Our policy is always for preservation and improvement in ECOLOGY. |
| | b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environment or forest norms/conditions. | Our Environment Policy has provision for immediate detection of any infringements/deviation/violation of the environment or forest norms/conditions. |
| | c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished. | <p style="text-align: center;">Managing Director ↑ Head-SBU & PC ↑ Unit Head ↑ Mines Manager</p> |
| | d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliance /violations of environmental norms to the Board of Directors of the company and /or shareholders or stakeholders at large. | We do have the same. However our company does not believe in non-compliance/violations of environment norms. |
| S. No. | (B) General Conditions: | |
| i. | No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment, Forests & Climate Change. | No change has been carried in mining technology and scope of work. |
| ii. | No change in the calendar plan of production for quantum of mineral coal shall be made. | No change in the calendar plan for excavation, quantum of mineral lignite and overburden. |
| iii. | Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM ₁₀ , PM _{2.5} , SO ₂ and NO _x monitoring. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. carried out at least once in six months. | <p>Ambient air monitoring stations already established in core zone as well as in buffer zone for PM₁₀, PM_{2.5}, SO₂, and NO_x in consultation with RSPCB.</p> <p>Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. carried out once in six months. Last monitoring of above heavy metals was done in March, 2023.</p> |
| iv. | Data on ambient air quality (PM ₁₀ , PM _{2.5} , SO ₂ and NO _x) and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly submitted to the Ministry including its concerned | Six (6) monthly ambient air quality (PM ₁₀ , PM _{2.5} , SO ₂ and NO _x) and heavy metals reports are sending to MoEF, Integrated Regional Office at |

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| | Regional office and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognised under the EPA rules, 1986 shall be furnished as part of compliance report. | Jaipur and RSPCB regularly. Reports are enclosed. |
| v. | Adequate measures shall be taken for control of noise level below 85 dBA in the work environment, Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs. | Measures are being taken for controlling & managing noise level below 85 dBA. Ear plugs & muffs are being provided to all HEMM operator, supervisor etc. There are no drilling & blasting operations in the mines. |
| vi. | Industrial wastewater (workshop and waste water from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422(E) dated 19 th May, 1993 and 31 st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents. | Contractor not having any work shop. The contractor only washes machinery in the camp site in the mining area. All the greasing and oiling work done at mines site/Barmer. The waste water properly collected, treated and conforms to the standards prescribed and discharge. |
| vii. | Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded. | Vehicular emissions are being checked & controlled. During the despatch to open market tarpaulin sheets are used for loaded trucks. |
| viii. | Monitoring of environment quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EPA Rules, 1986. | Adequate numbers and types of pollution monitoring equipments, like dust sampler for SPM, Personnel dust sampler, noise meter, wind monitor etc. have been provided and got analysed through a laboratory recognised under EPA Rules, 1986. |
| ix. | Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. | Persons working in dusty areas are being provided protective respiratory devices and also imparted adequate training & information on safety and health at V.T. centre at mines. |
| x. | Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof. The quality of environment due to outsourcing and the health and safety issues of the outsourced manpower should be addressed by the company while outsourcing. | Health checkups of all the employees are being conducted periodically, as per the norms of The Mines Rule, 1995 and 10 th /11 th conferences on safety in mines. No occupational diseases have been reported so far. All the employees provided ear plugs/ear muffs, safety helmet, safety boots, luminous jackets. |
| xi. | A separate environmental management cell with suitable qualified personnel shall be set up under | A separate environmental management cell (comprising |

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| | the control of a Senior Executive who will report directly to the Head of the company. | qualified personnel) has been set up and persons are directly reporting to the competent authority. |
| xii. | The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional office. | The fund earmarked for environmental control measures are not being utilized for any other purpose. Year-wise expenditure on environmental protection measures will be reported accordingly. |
| xiii. | The project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the Ministry of Environment , Forests & Climate Change at http://envfor.nic.in . | It was advertised in two local newspaper widely circulated around the project. 1. Danik Bhaskar, Dated 20-03-2015. 2. Janta Sahkar, Dated 20-03-2015. |
| xiv. | A copy of the environmental clearance letter shall be marked to concern Panchayat/Zila Parishad, Municipal Corporation or Urban local body and local NGO, if any, from whom any suggestion/ representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on company's website. | Copy of clearance letter has been sent to concerned Panchayat, Tahsildar, Sheo, Pradhan, Sheo for their information on 20-03-2015. |
| xv. | A copy of the environmental clearance letter shall be shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Sector, and Collector's Office/Tehsildar's Office for 30 days. | Complied. |
| xvi. | The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain. The monitoring data of environmental quality parameter (air, water, noise and Soil) and critical pollutant such as PM ₁₀ , PM _{2.5} , SO ₂ , and NO _x (ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mine office and in corporate office and on company's website. | Complied. |
| xvii. | The project proponent shall submit six monthly compliance reports on status of compliance of the | Six monthly compliance reports of the stipulated environmental |



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| | stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of this Ministry, respective Zonal Offices of CPCB and the SPCB. | clearance conditions (both in hard copy and e-mail) to the Regional office located at Jaipur, RSPCB submitted periodically. |
| cviii. | The Regional Office of this Ministry located in the Region shall monitor compliance of the stipulated conditions. The project authorities shall extend full cooperation of the office(s) of the Regional Office by furnishing the requisite data/information/monitoring reports. | Full cooperation to the officer(s) of Regional Office, Jaipur is being extended and all the information are being furnished regarding stipulated conditions. |
| xix. | The Environmental statement for each financial year ending 31 March in Form-V is mandated to be submitted by the project proponent for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of FC conditions and shall be sent to the respective Regional Officers of the MoEF & CC by email. | Complied |

5/2/22

17/5/22
Head & In-Charge (Lignite)
ARUN SINGH
HEAD & IN-CHARGE (LIGNITE)

Rajasthan State Mines & Minerals Ltd.

Unit: Giral Lignite Project, Barmer

Sound Monitoring record for the month of October- 2022

| Sl. no. | Date | Locations | dB | | Remarks |
|---------|------------|------------------------|------|------|--|
| | | | Min. | Max. | |
| 1 | 22.10.2022 | Site office (In side) | 25.5 | 29.7 | |
| 2 | 22.10.2022 | Site office (Out Side) | 26.3 | 31.4 | |
| 3 | 22.10.2022 | Thumbli village | 25.4 | 29.5 | |
| 4 | 22.10.2022 | Weigh bridge(In side) | 35.2 | 40.4 | Trucks are in operation for weighing. |
| 5 | 22.10.2022 | Weigh bridge(Outside) | 37.6 | 42.5 | " |
| 6 | 22.10.2022 | Mining camp. | 25.3 | 30.1 | |
| 7 | 22.10.2022 | Plantation area | 25.4 | 30.2 | |
| 8 | 22.10.2022 | Rest shelter | 27.5 | 31.3 | |
| 9 | 22.10.2022 | R-37 (In Side cabin) | 50.2 | 55.1 | Volvo EC-480 DL is in operation for O/B loading |
| 10 | 22.10.2022 | R-37(Out Side cabin) | 60.4 | 65.2 | " |
| 11 | 22.10.2022 | R-37 (In Side cabin) | 49.6 | 54.0 | Volvo EC-480 DL is in operation for O/B loading |
| 12 | 22.10.2022 | R-37(Out Side cabin) | 59.2 | 64.5 | " |
| 13 | 22.10.2022 | R-46 (In Side cabin) | 49.3 | 54.7 | Volvo EC-480 DL is in operation for I/B loading |
| 14 | 22.10.2022 | R-46(Out Side cabin) | 60.0 | 64.4 | " |
| 15 | 22.10.2022 | R-47 (In Side cabin) | 50.5 | 55.1 | Volvo EC-480 DL is in operation for O/B loading |
| 16 | 22.10.2022 | R-47 (Out Side cabin) | 60.4 | 64.3 | " |
| 17 | 22.10.2022 | MT-47 (In Side cabin) | 49.2 | 54.5 | Volvo EC-290 BLC is in operation for lignite loading |
| 18 | 22.10.2022 | MT-47 (out Side cabin) | 59.3 | 64.7 | " |
| 19 | 22.10.2022 | MT-84 (In Side cabin) | 50.6 | 55.2 | Volvo EC-290 BLC is in operation for lignite loading |
| 20 | 22.10.2022 | MT-84 (out Side cabin) | 59.5 | 64.6 | " |
| 21 | 22.10.2022 | Back fill area | 43.1 | 47.3 | Dumpers are in operation for O/B unloading |
| 22 | 22.10.2022 | Haul road | 43.3 | 47.2 | Trucks are crossing with lignite. |
| 23 | 22.10.2022 | Giral village | 25.0 | 30.1 | |



Manager (Geology)
GLP, Barmer

Rajasthan State Mines & Minerals Ltd.

Unit: Giral Lignite Project, Barmer

Sound Monitoring record for the month of November- 2022

| Sl. no. | Date | Locations | dB | | Remarks |
|---------|------------|------------------------|------|------|--|
| | | | Min. | Max. | |
| 1 | 18.11.2022 | Site office (in side) | 26.1 | 30.8 | |
| 2 | 18.11.2022 | Site office (Out Side) | 27.4 | 32.2 | |
| 3 | 18.11.2022 | Thumbli village | 25.2 | 30.6 | |
| 4 | 18.11.2022 | Weigh bridge(in side) | 36.1 | 41.5 | Trucks are in operation for weighing. |
| 5 | 18.11.2022 | Weigh bridge(Outside) | 38.5 | 43.7 | " |
| 6 | 18.11.2022 | Mining camp. | 25.6 | 31.0 | |
| 7 | 18.11.2022 | Plantation area | 26.1 | 31.4 | |
| 8 | 18.11.2022 | Rest shelter | 26.4 | 32.0 | |
| 9 | 18.11.2022 | R-46 (In Side cabin) | 49.3 | 54.7 | Volvo EC-480 DL is in operation for O/B loading |
| 10 | 18.11.2022 | R-46(Out Side cabin) | 59.2 | 64.6 | " |
| 11 | 18.11.2022 | R-46 (In Side cabin) | 50.3 | 55.5 | Volvo EC-480 DL is in operation for O/B loading |
| 12 | 18.11.2022 | R-46(Out Side cabin) | 60.1 | 65.3 | " |
| 13 | 18.11.2022 | R-47 (In Side cabin) | 50.2 | 54.6 | Kobelco SK 210 HD LC is in operation for Lignite loading |
| 14 | 18.11.2022 | R-47(Out Side cabin) | 59.5 | 64.8 | " |
| 15 | 18.11.2022 | R-36 (In Side cabin) | 49.6 | 54.2 | Volvo EC-480 DL is in operation for O/B loading |
| 16 | 18.11.2022 | R-36 (Out Side cabin) | 60.0 | 64.1 | " |
| 17 | 18.11.2022 | MT-47 (In Side cabin) | 51.3 | 55.8 | Volvo EC-480 DL is in operation for O/B loading |
| 18 | 18.11.2022 | MT-47 (out Side cabin) | 61.0 | 66.3 | " |
| 19 | 18.11.2022 | R-32 (In Side cabin) | 50.1 | 54.7 | Volvo EC-290 BLC is in operation for lignite loading |
| 20 | 18.11.2022 | R-32 (out Side cabin) | 59.6 | 65.0 | " |
| 21 | 18.11.2022 | Back fill area | 44.2 | 48.0 | Dumpers are in operation for O/B unloading |
| 22 | 18.11.2022 | Haul road | 44.1 | 49.3 | Trucks are crossing with lignite. |
| 23 | 18.11.2022 | Giral village | 25.7 | 30.2 | |

Manager (Geology)
GLP, Barmer

Rajasthan State Mines & Minerals Ltd.

Unit: Giral Lignite Project, Barmer

Sound Monitoring record for the month of December- 2022

| Sl. no. | Date | Locations | dB | | Remarks |
|---------|------------|------------------------|------|------|--|
| | | | Min. | Max. | |
| 1 | 16.12.2022 | Site office (in side) | 27.0 | 31.7 | |
| 2 | 16.12.2022 | Site office (Out Side) | 28.1 | 33.5 | |
| 3 | 16.12.2022 | Thumbli village | 26.6 | 32.0 | |
| 4 | 16.12.2022 | Weigh bridge(in side) | 37.2 | 42.3 | Trucks are in operation for weighing. |
| 5 | 16.12.2022 | Weigh bridge(Outside) | 39.1 | 44.5 | " |
| 6 | 16.12.2022 | Mining camp. | 26.5 | 31.4 | |
| 7 | 16.12.2022 | Plantation area | 27.3 | 32.1 | |
| 8 | 16.12.2022 | Rest shelter | 26.5 | 31.7 | |
| 9 | 16.12.2022 | R-46 (In Side cabin) | 50.4 | 55.6 | Volvo EC-480 DL is in operation for O/B loading |
| 10 | 16.12.2022 | R-46(Out Side cabin) | 60.1 | 65.2 | " |
| 11 | 16.12.2022 | R-46 (In Side cabin) | 51.4 | 56.0 | Volvo EC-480 DL is in operation for O/B loading |
| 12 | 16.12.2022 | R-46(Out Side cabin) | 61.2 | 66.4 | " |
| 13 | 16.12.2022 | R-47 (In Side cabin) | 50.5 | 55.7 | Kobelco SK 210 HD LC is in operation for Lignite loading |
| 14 | 16.12.2022 | R-47(Out Side cabin) | 60.2 | 65.5 | " |
| 15 | 16.12.2022 | R-32 (In Side cabin) | 50.1 | 55.3 | Volvo EC-290 BLC is in operation for lignite loading |
| 16 | 16.12.2022 | R-32 (Out Side cabin) | 59.6 | 64.2 | " |
| 17 | 16.12.2022 | MT-47 (In Side cabin) | 49.6 | 54.7 | Volvo EC-480 DL is in operation for O/B loading |
| 18 | 16.12.2022 | MT-47 (out Side cabin) | 59.8 | 64.9 | " |
| 19 | 16.12.2022 | MT-47 (In Side cabin) | 50.5 | 55.6 | Volvo EC-480 DL is in operation for I/B loading |
| 20 | 16.12.2022 | MT-47 (out Side cabin) | 59.1 | 64.2 | " |
| 21 | 16.12.2022 | Back fill area | 43.6 | 48.8 | Dumpers are in operation for O/B unloading |
| 22 | 16.12.2022 | Haul road | 44.5 | 49.5 | Trucks are crossing with lignite. |
| 23 | 16.12.2022 | Giral village | 26.3 | 31.7 | |


Manager (Geology)
GLP, Barmer

Rajasthan State Mines & Minerals Ltd.

Unit: Giral Lignite Project, Barmer

Sound Monitoring record for the month of January- 2023

| Sl. no. | Date | Locations | dB | | Remarks |
|---------|------------|------------------------|------|------|---|
| | | | Min. | Max. | |
| 1 | 20.01.2023 | Site office (in side) | 25.7 | 29.1 | |
| 2 | 20.01.2023 | Site office (Out Side) | 26.3 | 30.2 | |
| 3 | 20.01.2023 | Thumbali village | 25.0 | 30.4 | |
| 4 | 20.01.2023 | Weigh bridge(in side) | 33.5 | 37.8 | Trucks are in operation for weighing. |
| 5 | 20.01.2023 | Weigh bridge(Outside) | 38.4 | 42.7 | " |
| 6 | 20.01.2023 | Mining camp. | 25.0 | 30.5 | |
| 7 | 20.01.2023 | Plantation area | 25.7 | 29.2 | |
| 8 | 20.01.2023 | Rest shelter | 25.3 | 30.6 | |
| 9 | 20.01.2023 | R-46 (In Side cabin) | 48.8 | 53.0 | Volvo EC-480 DL is in operation for O/B loading |
| 10 | 20.01.2023 | R-46(Out Side cabin) | 57.2 | 62.3 | " |
| 11 | 20.01.2023 | R-46 (In Side cabin) | 50.3 | 54.6 | TATA Hitachi Zaxix -470 is in operation for O/B loading |
| 12 | 20.01.2023 | R-46(Out Side cabin) | 59.4 | 63.8 | " |
| 13 | 20.01.2023 | R-47 (In Side cabin) | 49.6 | 54.9 | Volvo EC-480 DL is in operation for I/B loading |
| 14 | 20.01.2023 | R-47(Out Side cabin) | 60.1 | 64.5 | " |
| 15 | 20.01.2023 | R-32 (In Side cabin) | 50.5 | 55.2 | Kobelco SK 210 HD LC is in operation for Lignite loading |
| 16 | 20.01.2023 | R-32 (Out Side cabin) | 60.1 | 65.3 | " |
| 17 | 20.01.2023 | R-36 (In Side cabin) | 50.2 | 54.5 | TATA Hitachi Zaxix -470 is in operation for O/B loading |
| 18 | 20.01.2023 | R-36 (Out Side cabin) | 59.6 | 64.2 | " |
| 19 | 20.01.2023 | MT-47 (In Side cabin) | 49.1 | 54.3 | TATA Hitachi Zaxix -220 is in operation for Lignite loading |
| 20 | 20.01.2023 | MT-47(Out Side cabin) | 59.0 | 64.4 | " |
| 21 | 20.01.2023 | Back fill area | 42.5 | 47.5 | Dumpers are in operation for O/B unloading |
| 22 | 20.01.2023 | Haul road | 43.0 | 48.1 | Trucks are crossing with lignite. |
| 23 | 20.01.2023 | Giral village | 24.2 | 29.0 | |

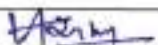

 Manager (Geology)
 GLP, Barmer

Rajasthan State Mines & Minerals Ltd.

Unit: Giral Lignite Project, Barmer

Sound Monitoring record for the month of February- 2023

| Sl. no. | Date | Locations | dB | | Remarks |
|---------|------------|------------------------|------|------|--|
| | | | Min. | Max. | |
| 1 | 18.02.2023 | Site office (in side) | 26.5 | 30.3 | |
| 2 | 18.02.2023 | Site office (Out Side) | 27.0 | 31.6 | |
| 3 | 18.02.2023 | Thumbali village | 25.5 | 30.8 | |
| 4 | 18.02.2023 | Weigh bridge(in side) | 34.6 | 38.9 | Trucks are in operation for weighing. |
| 5 | 18.02.2023 | Weigh bridge(Outside) | 39.2 | 44.0 | " |
| 6 | 18.02.2023 | Mining camp. | 25.4 | 30.3 | |
| 7 | 18.02.2023 | Plantation area | 26.3 | 30.4 | |
| 8 | 18.02.2023 | Rest shelter | 26.2 | 31.0 | |
| 9 | 18.02.2023 | R-46 (In Side cabin) | 49.7 | 54.3 | Kobelco SK 210 HD LC is in operation for Lignite loading |
| 10 | 18.02.2023 | R-46(Out Side cabin) | 58.6 | 63.4 | " |
| 11 | 18.02.2023 | R-46 (In Side cabin) | 50.8 | 55.3 | TATA Hitachi Zaxix -470 is in operation for I/B loading |
| 12 | 18.02.2023 | R-46(Out Side cabin) | 60.1 | 65.2 | " |
| 13 | 18.02.2023 | R-47 (In Side cabin) | 50.2 | 54.4 | Volvo EC-480 DL is in operation for O/B loading |
| 14 | 18.02.2023 | R-47(Out Side cabin) | 59.3 | 64.2 | " |
| 15 | 18.02.2023 | R-36 (In Side cabin) | 49.1 | 54.5 | Kobelco SK 210 HD LC is in operation for Lignite loading |
| 16 | 18.02.2023 | R-36 (Out Side cabin) | 58.7 | 63.8 | " |
| 17 | 18.02.2023 | R-36 (In Side cabin) | 50.9 | 55.2 | Volvo EC-480 DL is in operation for O/B loading |
| 18 | 18.02.2023 | R-36 (Out Side cabin) | 60.3 | 64.7 | " |
| 19 | 18.02.2023 | R-87 (In Side cabin) | 50.1 | 54.5 | TATA Hitachi Zaxix -470 is in operation for O/B loading |
| 20 | 18.02.2023 | R-87 (Out Side cabin) | 59.2 | 64.0 | " |
| 21 | 18.02.2023 | Back fill area | 43.3 | 47.8 | Dumpers are in operation for O/B unloading |
| 22 | 18.02.2023 | Haul road | 44.2 | 48.2 | Trucks are crossing with lignite. |
| 23 | 18.02.2023 | Giral village | 25.3 | 30.3 | |


Manager (Geology)
GLP, Barmer

Rajasthan State Mines & Minerals Ltd.

Unit: Giral Lignite Project, Barmer

Sound Monitoring record for the month of March- 2023

| Sl. no. | Date | Locations | dB | | Remarks |
|---------|------------|------------------------|------|------|--|
| | | | Min. | Max. | |
| 1 | 22.03.2023 | Site office (in side) | 26.7 | 31.9 | |
| 2 | 22.03.2023 | Site office (Out Side) | 28.2 | 32.4 | |
| 3 | 22.03.2023 | Thumbali village | 26.3 | 31.5 | |
| 4 | 22.03.2023 | Weigh bridge(in side) | 35.5 | 40.2 | Trucks are in operation for weighing. |
| 5 | 22.03.2023 | Weigh bridge(Outside) | 41.3 | 46.5 | " |
| 6 | 22.03.2023 | Mining camp. | 26.0 | 31.2 | |
| 7 | 22.03.2023 | Plantation area | 26.2 | 31.6 | |
| 8 | 22.03.2023 | Rest shelter | 27.0 | 32.3 | |
| 9 | 22.03.2023 | R-35 (In Side cabin) | 50.6 | 55.0 | Volvo EC-480 DL is in operation for O/B loading |
| 10 | 22.03.2023 | R-35(Out Side cabin) | 60.1 | 65.7 | " |
| 11 | 22.03.2023 | R-35 (In Side cabin) | 50.2 | 55.5 | TATA Hitachi Zaxix -470 is in operation for O/B loading |
| 12 | 22.03.2023 | R-35(Out Side cabin) | 60.3 | 65.7 | " |
| 13 | 22.03.2023 | R-89 (In Side cabin) | 49.3 | 54.5 | TATA Hitachi Zaxix -470 is in operation for O/B loading |
| 14 | 22.03.2023 | R-89(Out Side cabin) | 58.2 | 63.6 | " |
| 15 | 22.03.2023 | R-36 (In Side cabin) | 50.0 | 54.8 | Kobelco SK 210 HD LC is in operation for Lignite loading |
| 16 | 22.03.2023 | R-36 (Out Side cabin) | 59.2 | 64.2 | " |
| 17 | 22.03.2023 | R-88 (In Side cabin) | 48.6 | 53.7 | Volvo EC-480 DL is in operation for O/B loading |
| 18 | 22.03.2023 | R-88 (Out Side cabin) | 58.8 | 63.5 | " |
| 19 | 22.03.2023 | R-46 (In Side cabin) | 50.3 | 54.9 | TATA Hitachi Zaxix -470 is in operation for I/B loading |
| 20 | 22.03.2023 | R-46 (Out Side cabin) | 59.5 | 64.2 | " |
| 21 | 22.03.2023 | Back fill area | 44.1 | 48.5 | Dumpers are in operation for O/B unloading |
| 22 | 22.03.2023 | Haul road | 45.5 | 49.6 | Trucks are crossing with lignite. |
| 23 | 22.03.2023 | Giral village | 26.0 | 31.2 | |

Hanu
Manager (Geology)
GLP, Barmer



TEAM TEST HOUSE

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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

| | | | |
|-------------------------|---|----------------------|-----------------------------------|
| Report No.: | RSMML/Barmer/Air/2023/03/01 | Date : | 30.03.2023 |
| Issued To : | M/s Rajasthan State Mines & Minerals Ltd. Giral Lignite Mines Barmer, Barmer, Rajasthan | Type of Unit : | Mines |
| Type of Sample : | Ambient Air Quality Monitoring | Point of Collection | Site Office |
| Unit's representative : | Mr. Ashok Maru | Sample Collection By | Unit's Representative |
| Sampling Duration | 24 (Hrs.) | Sampling Plan : | IS 5182:2000 (Part 14) RA 2014 |

RESULTS

| S. No. | Date of Sampling | Nitrogen Dioxide NO ₂ [$\mu\text{g}/\text{m}^3$] | Particulate Matter (PM 2.5) [$\mu\text{g}/\text{m}^3$] | Sulphur Dioxide SO ₂ [$\mu\text{g}/\text{m}^3$] | Particulate Matter (PM 10) [$\mu\text{g}/\text{m}^3$] |
|--|------------------|--|---|---|--|
| 1 | 02.03.2023 | 12.96 | 36.25 | 4.77 | 76.81 |
| 2 | 09.03.2023 | 13.25 | 32.77 | 5.29 | 74.28 |
| 3 | 17.03.2023 | 14.81 | 34.41 | 6.81 | 75.39 |
| 4 | 24.03.2023 | 13.55 | 30.92 | 5.42 | 73.26 |
| Limits as per National Ambient Air Quality Standard, 2009 | | 80.00 | 60.00 | 80.00 | 100.00 |

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
- # This report is not to be reproduced wholly or in part and can not be used evidence in the court of law and should not be used in any advertising media without our special permission in writing.
- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.

Senior Analyst

Kajesh Maneshwar
Authorized Signatory
(Report No: RSMML/Barmer/Air/2023/03/01)



TEAM TEST HOUSE

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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

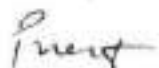
| | | | |
|-------------------------|---|----------------------|-----------------------------------|
| Report No.: | RSMML/Barmer/Air/2023/03/03 | Date : | 30.03.2023 |
| Issued To : | M/s Rajasthan State Mines & Minerals Ltd. Giral Lignite Mines Barmer, Barmer, Rajasthan | Type of Unit : | Mines |
| Type of Sample : | Ambient Air Quality Monitoring | Point of Collection | Rest Shelter |
| Unit's representative : | Mr. Ashok Maru | Sample Collection By | Unit's Representative |
| Sampling Duration | 24 (Hrs.) | Sampling Plan : | IS 5182:2000 (Part 14) RA 2014 |

RESULTS

| S. No. | Date of Sampling | Nitrogen Dioxide NO ₂ [$\mu\text{g}/\text{m}^3$] | Particulate Matter (PM 2.5) [$\mu\text{g}/\text{m}^3$] | Sulphur Dioxide SO ₂ [$\mu\text{g}/\text{m}^3$] | Particulate Matter (PM 10) [$\mu\text{g}/\text{m}^3$] |
|--|------------------|--|---|---|--|
| 1 | 02.03.2023 | 13.42 | 35.41 | 5.29 | 68.91 |
| 2 | 09.03.2023 | 12.81 | 32.27 | 4.81 | 71.25 |
| 3 | 17.03.2023 | 14.20 | 31.68 | 5.20 | 73.45 |
| 4 | 24.03.2023 | 12.49 | 31.29 | 4.78 | 70.36 |
| Limits as per National Ambient Air Quality Standard, 2009 | | 80.00 | 60.00 | 80.00 | 100.00 |

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
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- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.


Purnima
Senior Analyst


Rajan Maheshwar
Authorized Signatory
(Report No: RSMML/Barmer/Air/2023/03/03)



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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

| | | | |
|-------------------------|---|----------------------|-----------------------------------|
| Report No.: | RSMML/Barmer/Air/2023/03/02 | Date : | 30.03.2023 |
| Issued To : | M/s Rajasthan State Mines & Minerals Ltd. Giral Lignite Mines Barmer, Barmer, Rajasthan | Type of Unit : | Mines |
| Type of Sample : | Ambient Air Quality Monitoring | Point of Collection | Weigh Bridger |
| Unit's representative : | Mr. Ashok Maru | Sample Collection By | Unit's Representative |
| Sampling Duration | 24 (Hrs.) | Sampling Plan : | IS 5182:2000 (Part 14) RA 2014 |

RESULTS

| S. No. | Date of Sampling | Nitrogen Dioxide NO ₂ [$\mu\text{g}/\text{m}^3$] | Particulate Matter (PM 2.5) [$\mu\text{g}/\text{m}^3$] | Sulphur Dioxide SO ₂ [$\mu\text{g}/\text{m}^3$] | Particulate Matter (PM 10) [$\mu\text{g}/\text{m}^3$] |
|--|------------------|--|---|---|--|
| 1 | 02.03.2023 | 15.81 | 36.41 | 5.17 | 71.96 |
| 2 | 09.03.2023 | 14.76 | 32.90 | 5.68 | 75.45 |
| 3 | 17.03.2023 | 13.92 | 35.46 | 4.81 | 73.95 |
| 4 | 24.03.2023 | 15.45 | 32.48 | 5.25 | 70.68 |
| Limits as per National Ambient Air Quality Standard, 2009 | | 80.00 | 60.00 | 80.00 | 100.00 |

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
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Senior Analyst


Rajesh Maheshwari
Authorized Signatory
(Report No: RSMML/Barmer/Air/2023/03/02)



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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

| | | | |
|-------------------------|---|----------------------|-----------------------------------|
| Report No.: | RSMML/Barmer/Air/2023/03/04 | Date : | 30.03.2023 |
| Issued To : | M/s Rajasthan State Mines & Minerals Ltd. Giral Lignite Mines Barmer, Barmer, Rajasthan | Type of Unit : | Mines |
| Type of Sample : | Ambient Air Quality Monitoring | Point of Collection | Mining Area |
| Unit's representative : | Mr. Ashok Maru | Sample Collection By | Unit's Representative |
| Sampling Duration | 24 (Hrs.) | Sampling Plan : | IS 5182:2000 (Part 14) RA 2014 |

RESULTS

| S. No. | Date of Sampling | Nitrogen Dioxide NO ₂ [$\mu\text{g}/\text{m}^3$] | Particulate Matter (PM 2.5) [$\mu\text{g}/\text{m}^3$] | Sulphur Dioxide SO ₂ [$\mu\text{g}/\text{m}^3$] | Particulate Matter (PM 10) [$\mu\text{g}/\text{m}^3$] |
|--|------------------|--|---|---|--|
| 1 | 02.03.2023 | 14.82 | 43.26 | 5.61 | 79.85 |
| 2 | 09.03.2023 | 12.55 | 40.19 | 6.22 | 81.76 |
| 3 | 17.03.2023 | 15.68 | 42.78 | 5.48 | 78.46 |
| 4 | 24.03.2023 | 13.91 | 39.28 | 7.21 | 82.44 |
| Limits as per National Ambient Air Quality Standard, 2009 | | 80.00 | 60.00 | 80.00 | 100.00 |

Notes :-

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Senior Analyst

Authorized Signatory
(Report No: RSMML/Barmer/Air/2023/03/04)



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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

| | | | |
|----------------------------------|---|---|------------------|
| Report No. | RSMML/Barmer/WW/2023/03/01 | Date : | 30.03.2023 |
| Issued To : | M/s Rajasthan State Mines & Minerals Ltd. Giral Lignite Mines Barmer, Barmer, Rajasthan | Type of Unit : | Mine |
| Type of sample / Discipline : | Liquid Effluents | Date of Sample Collection/Monitori ng : | 24.03.2023 |
| Point of Collection : | Giral Lignite Mines | Date of Receipt : | 25.03.2023 |
| Date of Test/Analysis : | 25.03.2023 to 30.03.2023 | Sampling Plan : | APHA 2017 : 1060 |
| Quantity of Sample : | 2 ltr. | Sample Collected By : | By Courier |
| Unit's representative : | Mr. Ashok Maru | Condition of Sample : | Fit for testing |

RESULTS

| S.No | Parameters | Observed Value | Testing Protocol | Limits as per Environment protection rules, 1986 |
|------|--|----------------|----------------------|---|
| 1 | Total Suspended Solids [mg/l] | 90 | APHA.2017:2540-D | 100 |
| 2 | Biochemical Oxygen Demand (BOD) [mg/l] | 18.35 | APHA 2017:5210-B | 30 |
| 3 | Chemical Oxygen Demand (COD) [mg/l] | 115.6 | APHA:2017 : 5220-C | 250 |
| 4 | pH | 7.27 | APHA:2017 : 4500 H+B | 5.5 - 9.0 |
| 5 | Oil & Grease [mg/l] | 3 | APHA 2017 : 5520 B | 10 |

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
- # This report is not to be reproduced wholly or in part and can not be used evidence in the court of law and should not be used in any advertising media without our special permission in writing.
- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.

Purni Mal Yogi
Senior Analyst

Rajendra Kumar
(Report No: RSMML/Barmer/WW/2023/03/01)



TEAM TEST HOUSE

(Unit of Team Institute of Science & Technology Pvt. Ltd.)

Approved by Ministry of Environment and Forest, Government of India as Environmental Laboratory

RSPCB

ISO 9001:2015,

ISO 14001:2015,

ISO 45001:2018 (OH&S)

JDA/UDH

Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RHCO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

| | | | |
|----------------------------------|---|---|-----------------|
| Report No. | RSMML/Barnet/Soil/2023/03/01 | Date : | 30.03.2023 |
| Issued To : | M/s Rajasthan State Mines & Minerals Ltd. Giral Lignite Mines Barnet, Barnet, Rajasthan | Type of Unit : | Mine |
| Type of sample / Discipline : | Soil Sample | Date of Sample Collection/Monitoring : | 24.03.2023 |
| Point of Collection : | Near to GB-2 Pit | Date of Receipt : | 25.03.2023 |
| Date of Test/Analysis : | 25.03.2023 to 30.03.2023 | Sampling Plan : | Not Available |
| Quantity of Sample : | - | Sample Collected By : | By Courier |
| Unit's representative | Mr. Ashok Maru | Condition of Sample : | Fit for testing |

RESULTS

| S.No | Parameters | Observed Value | Testing Protocol |
|------|--|----------------|------------------|
| 1 | Electrical Conductivity (EC) [micromho/cm] | 602 | Method Manual |
| 2 | pH | 8.33 | Method Manual |
| 3 | Moisture Content [%] | 6.41 | Method Manual |
| 4 | Calcium Carbonate [%] | 1.15 | Method Manual |
| 5 | Available Nitrogen [Kg/ha] | 0.19 | Method Manual |
| 6 | Available Phosphorous [Kg/ha] | 13.2 | Method Manual |
| 7 | Available Potassium [Kg/ha] | 128 | Method Manual |
| 8 | Organic Matter [%] | 0.47 | Method Manual |

Notes :-

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Senior Analyst

Authorized Signatory
(Report No: RSMML/Barnet/Soil/2023/03/01)



TEAM TEST HOUSE

(Unit of Team Institute of Science & Technology Pvt. Ltd.)

Approved by Ministry of Environment and Forest, Government of India as Environmental Laboratory

RSPCB

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Office : E-65, Chitraujan Marg,
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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

| | | | |
|----------------------------------|---|---|-----------------|
| Report No. | RSMML/Barmer/Soil/2023/03/02 | Date : | 30.03.2023 |
| Issued To : | M/s Rajasthan State Mines & Minerals Ltd. Giral Lignite Mines Barmer, Barmer, Rajasthan | Type of Unit : | Mine |
| Type of sample / Discipline : | Soil Sample | Date of Sample Collection/Monitoring : | 24.03.2023 |
| Point of Collection : | Near Jalela Pit | Date of Receipt : | 25.03.2023 |
| Date of Test/Analysis : | 25.03.2023 to 30.03.2023 | Sampling Plan : | Not Available |
| Quantity of Sample : | - | Sample Collected By : | By Courier |
| Unit's representative : | Mr. Ashok Manu | Condition of Sample : | Fit for testing |

RESULTS

| S.No | Parameters | Observed Value | Testing Protocol |
|------|--|----------------|------------------|
| 1 | Electrical Conductivity (EC) [micromho/cm] | 523 | Method Manual |
| 2 | pH | 8.42 | Method Manual |
| 3 | Moisture Content [%] | 4.93 | Method Manual |
| 4 | Calcium Carbonate [%] | 1.66 | Method Manual |
| 5 | Available Nitrogen [Kg/ha] | 0.69 | Method Manual |
| 6 | Available Phosphorous [Kg/ha] | 24.2 | Method Manual |
| 7 | Available Potassium [Kg/ha] | 94 | Method Manual |
| 8 | Organic Matter [%] | 0.46 | Method Manual |

Notes :-

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Senior Analyst

Authorized Signatory
(Report No: RSMML/Barmer/Soil/2023/03/02)

Rajasthan State Mines & Minerals Ltd.

Giral lignite Project, Barmer

SPM Sample results for the month of March, 2023

| Sample .no. | Date | Location | RPM($\mu\text{g}/\text{M}^3$) | SPM($\mu\text{g}/\text{M}^3$) | TSPM ($\mu\text{g}/\text{M}^3$) |
|----------------|------------|--------------|---------------------------------|---------------------------------|-----------------------------------|
| 1 | 18.03.2023 | Rest Shelter | 86.688 | 98.765 | 185.453 |
| 2 | 20.03.2023 | Rest Shelter | 87.804 | 121.680 | 209.484 |
| 3 | 22.03.2023 | Site Office | 62.601 | 92.682 | 155.283 |
| 4 | 24.03.2023 | Site Office | 87.912 | 132.713 | 220.626 |
| 5 | 25.03.2023 | Weigh Bridge | 113.736 | 140.384 | 254.120 |
| 6 | 27.03.2023 | Weigh Bridge | 140.786 | 152.432 | 293.218 |
| 7 | 29.03.2023 | Mining Area | 136.104 | 168.674 | 304.778 |
| 8 | 30.03.2023 | Mining Area | 141.005 | 168.253 | 309.258 |



Manager (Geology)
Giral lignite Mines, Barmer

Rajasthan State Mines & Minerals Ltd.

Giral lignite Project, Barmer

SPM Sample results for the month of December, 2022

| Sample .no. | Date | Location | RPM($\mu\text{g}/\text{M}^3$) | SPM($\mu\text{g}/\text{M}^3$) | TSPM ($\mu\text{g}/\text{M}^3$) |
|----------------|------------|--------------|---------------------------------|---------------------------------|-----------------------------------|
| 1 | 17.12.2022 | Rest Shelter | 72.079 | 79.772 | 151.851 |
| 2 | 19.12.2022 | Rest Shelter | 86.419 | 93.552 | 179.971 |
| 3 | 21.12.2022 | Site Office | 54.415 | 90.598 | 145.013 |
| 4 | 23.12.2022 | Site Office | 90.729 | 112.144 | 202.873 |
| 5 | 26.12.2022 | Weigh Bridge | 112.244 | 135.531 | 247.775 |
| 6 | 27.12.2022 | Weigh Bridge | 114.285 | 155.219 | 269.504 |
| 7 | 29.12.2022 | Mining Area | 139.717 | 158.294 | 298.011 |
| 8 | 31.12.2022 | Mining Area | 141.005 | 167.460 | 308.465 |



Manager (Geology)

Giral lignite Mines, Barmer



Rajasthan State Mines & Minerals Limited

(A Government of Rajasthan Enterprise)

S.B.U. LIME STONE

8, West Patel Nagar, Circuit House Road, Jodhpur- 342011

Phone: 0291 2511031/2516199 Fax: 0291 2511029 (e-mail: rsmmjodhpur@rsmm.com)

CENTRAL LABORATORY

An ISO 9001:2015 Certified Laboratory

REF.: F19 (S)/LIG - IB/2022-23/ 3018

Date 27.03.2023

Issued to:

GENERAL MANAGER
LIGNITE PROJECT,
BARMER.

Ref: RSMM/GLP/ENV/2022-23/770

DATE-22/03/2023

Sample Received On Date: 27.03.2023

SAMPLE PARTICULARS

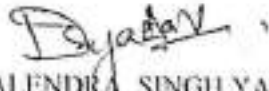
Two Samples of Drinking Water from Giral and Sonari Mines collected on 22.03.2023

TEST RESULTS

(Analysed as per IS-1514: 1990)

| S. No. | Properties | RSMM/IB/03-23/3758 Giral-01 | RSMM/IB/03-23/3759 Sonari -02 |
|--------|---|--------------------------------|----------------------------------|
| 1. | pH | 7.70 | 7.7 |
| 2. | Temperature °C | 21.50 | 21.50 |
| 3. | Alkalinity Phenolphthalein (CaCO ₃) | Nil | Nil |
| 4. | Alkalinity Methyl Orange (CaCO ₃) | 50 | 40 |
| 5. | Total Hardness | 130 | 120 |
| 6. | Calcium Hardness | 50 | 50 |
| 7. | Magnesium Hardness | 80 | 70 |
| 8. | Carbonate Hardness | 50 | 40 |
| 9. | Non Carbonate Hardness | 80 | 80 |
| 10. | Chlorides as Cl ⁻ | 70 | 60 |
| 11. | Sulphate | 24 | 21 |
| 12. | Fluoride | - | - |
| 13. | TDS | 256 | 232 |

Note: All results except at Sr. No.1 & 2 are in mg/L.


(Dr. SHALENDRA SINGH YADAV)
Sr. Manager & Incharge (Lab)

Note : (i) The above Analysis Results Pertain to the Sample received in the Laboratory .



Rajasthan State Mines & Minerals Limited

(A Government of Rajasthan Enterprise)

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CENTRAL LABORATORY

An ISO 9001:2015 Certified Laboratory

REF: F19 (SBU) - B 2022-23 / 2183

Date: 26.12.2022

Issued to:

GENERAL MANAGER
LIGNITE PROJECT
BARMER.

Ref: RSMM/GH/ENV/2022-23/24

DATE: 22/12/2022

Sample Received On Date: 26.12.2022

SAMPLE PARTICULARS


Two Samples of Drinking Water from Giral and Sonari Mines collected on 20.12.2022

TEST RESULTS

(Analysed as per IS-1514: 1990)

| S. No. | Properties | RSMM/1B/12-22/3306 Giral-01 | RSMM/1B/12-22/3307 Sonari -02 |
|--------|--|--------------------------------|----------------------------------|
| 1. | pH | 7.80 | 7.6 |
| 2. | Temperature °C | 20.60 | 20.30 |
| 3. | Alkalinity Phenolphthalein (CaCO ₃) | Nil | Nil |
| 4. | Alkalinity Methyl Orange (CaCO ₃) | 50 | 50 |
| 5. | Total Hardness | 150 | 140 |
| 6. | Calcium Hardness | 60 | 60 |
| 7. | Magnesium Hardness | 90 | 80 |
| 8. | Carbonate Hardness | 50 | 50 |
| 9. | Non Carbonate Hardness | 100 | 90 |
| 10. | Chlorides as Cl ⁻ | 80 | 80 |
| 11. | Sulphate | 25 | 21 |
| 12. | Fluoride | - | - |
| 13. | TDS | 206 | 166 |

Note: All results except at Sr. No. 1 & 2 are in mg/Lit.


(Dr. SHALENDRA SINGH YADAV)
Sr. Manager & Incharge (Lab)

Note: (i) The above Analysis Results Pertain to the Sample received in the Laboratory.