

WESTERN COALFIELDS LIMITED

OFFICE OF THE SUB AREA MANAGER

PAUNI II EXPANSION OC

Ref.No. WCL/BA/SAM/PSA/Civil/ 145

Date:- 30/11/2023

To

Addl. Principal Chief Conservator of Forests,
Ministry of Environment, Forests & Climate Change,
Regional Office (WCZ),
Ground Floor, East Wing,
New Secretariat Building,
Civil Lines, Nagpur – 440001 (M.S.)

Subject: - Submission of Six monthly Environment Compliance report in respect of PAUNI II EXPANSION OC MINE, Ballarpur Area, WCL.

Dear Sir,

Enclosed herewith please find, Six Monthly Environment Compliance report in respect of PAUNI II EXPANSION OC MINE for period from 01.04.2023 to 30.09.2023.


Amendment in EC ref no:J-11015/80/2016-IA.II(M) dated 01/12/2020

EC ref no:J-11015/80/2016-IA.II(M) dated 13/03/2020

EC No.J/11015/80/2016/IA.II' (M) Dated: 28.03.2019

Thanking you.

Yours Faithfully,


Sub Area Manager,
Pauni II Expn OC

Copy to:-

- 1.Regional Officer, MPCB, Chandrapur
- 2.AGM, Ballarpur Area, WCL
- 3.GM(Environment), WCL HQ, Civil Lines, Nagpur
- 4.GM(Environment), CMPDIL RI -IV, Nagpur
- 5.ANO(Environment), Ballarpur Area, WCL



No. J-11015/80/2016-IA.II (M)
Government of India
Ministry of Environment, Forest & Climate Change
Impact Assessment Division

Indira Paryavaran Bhawan,
 Jorbagh Road, N Delhi – 3
 Email: lk.bokolia@nic.in Tel: 01124695301

Dated: 1st December, 2020

To,

The General Manager (Environment),
 M/s Western Coalfields Ltd,
 Coal Estate, 9th Floor, Civil Lines,
Nagpur - 1 (Maharashtra)

Email: gmenvironment.wcl@nic.in; wclenv@yahoo.in

Sub: Expansion of Pauni-II Opencast Coal Mining Project from 0.6 MTPA to 3.25 MTPA of M/s Western Coalfields Limited in mine lease area of 1095.52 ha located in District Chandrapur (Maharashtra) – Amendment in Environment Clearance - reg.

Sir,

This has reference to your online proposal No. LA/MH/CMIN/170637/2020 dated 31st August, 2020 on the above-mentioned subject.

2. The Ministry of Environment, Forest and Climate Change has considered the proposal for amendment in Environment clearance dated 28th March, 2019 to the Expansion of Pauni-II Opencast Coal Mining Project from 0.6 MTPA to 3.25 MTPA of M/s Western Coalfields Limited in mine lease area of 1095.52 ha located in District Chandrapur (Maharashtra), subject to compliance of certain terms and conditions, which *inter-alia* included the following specific conditions: -

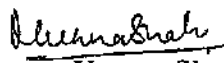
(iii) PP shall implement in-pit belt conveyor system in next 3 years from the issue of this letter"

(xviii) the Percentage of CER may be at least 2 times the amount given in the OM dated 01st May, 2018 recommended by EAC and item wise details along with time bound action plan shall be prepared and submitted to Ministry's Regional Office"

3. Amendment has been sought by project proponent citing the deployment of In-pit belt conveyor system in the mine is technically difficult proposition and the same is not included in the approved Project Report / Mining Plan. Similarly, specific condition no. (xviii) as state above, PP has proposed for modification with the condition that the project proponent shall comply with the provisions contained in this ministry's OM dated 1st May, 2018 as applicable, regarding Corporate Environment Responsibility (CER).

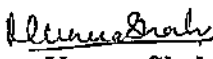
4. The proposal was considered by the sectoral Expert Appraisal Committee (EAC) in its 2nd meeting held on 28-29 September, 2020 and recommended the proposal for amendment in specific condition (iii) only. Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval for amendment in Environment Clearance of the **Expansion of Pauni-II Opencast Coal Mining Project from 0.6 MTPA to 3.25 MTPA of M/s Western Coalfields Limited in mine lease area of 1095.52 ha located in District Chandrapur (Maharashtra)**, under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of additional as under:

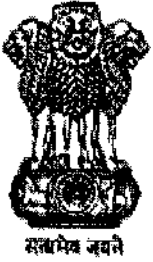
- PP shall implement off pit conveyor system i.e. from Coal Handling Plant to Railway siding with silo loading facility in three years (i.e. 2023).
5. All other terms and conditions stipulated in the earlier Environmental Clearance dated 28th March, 2019 and 13th March, 2020 shall also apply in addition above conditions.
6. This issues with the approval of the competent authority.


(Munna Kumar Shah)
Scientist D

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The Principal Secretary, Department of Environment, Government of Maharashtra, 15th Floor, New Admn. Bldg, Madam Cama Road, Mantralaya, Mumbai - 32 (Maharashtra)
3. The Additional PCCF (Central), Ministry of Environment Forest and Climate Change, Regional Office (Western Central Zone), Ground Floor, East Wing, New Secretariat Building Civil Lines, Nagpur-1 (Maharashtra)
4. The Chairman, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
5. The Chairman, Maharashtra State Pollution Control Board, Kalapataru Point, 3rd & 4th Floors, Sion, Matunga Scheme Road No. 8, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai - 2
6. The District Collector, Chandrapur, Government of Maharashtra
7. Monitoring File/ Guard File / Notice Board


(Munna Kumar Shah)
Scientist D



No. J-11015/80/2016-IA.II (M)
Government of India
Ministry of Environment, Forest & Climate Change
Impact Assessment Division

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi - 3

Dated: 13th March, 2020

To,

The General Manager (Environment),
M/s Western Coalfields Ltd,
Coal Estate, 9th Floor, Civil Lines,
Nagpur - 1 (Maharashtra)

Email: gmenvironment.wcl@nic.in; wclenv@yahoo.in

Sub: Expansion of Pauni-II Opencast Coal Mining Project from 0.6 MTPA to 3.25 MTPA of M/s Western Coalfields Limited in mine lease area of 1095.52 ha located in District Chandrapur (Maharashtra) - Revalidation and Environment Clearance - reg.

Sir,

This has reference to your online proposal No. IA/MH/CMIN/133855/2019 dated 28th December, 2019 on the above-mentioned subject.

2. The Ministry of Environment, Forest and Climate Change has considered the proposal for extension of environmental clearance dated 28th March, 2019 to the Expansion of Pauni-II Opencast Coal Mining Project from 0.6 MTPA to 3.25 MTPA of M/s Western Coalfields Limited in mine lease area of 1095.52 ha located in District Chandrapur (Maharashtra), for a period of one year and subject to compliance of certain terms and conditions, which *inter-alia* included the following and other conditions: -

'The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31st December, 2019.

3. In line with the above condition, Project Proponent submitted the compliance of all the specifics conditions including one season baseline data. Site inspection was carried out by Regional Office, Nagpur on 26th July, 2019 to monitor the status of compliance of conditions stipulated in the environmental clearance dated 28th March, 2019 and certified compliance report was submitted vide its letter dated 5th December, 2019.

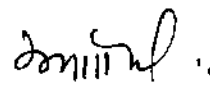
4. The proposal was considered by the sectoral Expert Appraisal Committee (EAC) in its meeting held on 24th January, 2020 and recommended for continuance of the project and validity of environmental clearance dated 28th March, 2019 for a period of 30 years or life of the mine, whichever is earlier subject to the terms and conditions stipulated therein remaining the same and with additional conditions. Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval for continuance of the

Expansion of Pauni-II Opencast Coal Mining Project from 0.6 MTPA to 3.25 MTPA of M/s Western Coalfields Limited in mine lease area of 1095.52 ha located in District Chandrapur (Maharashtra), for a period of 30 years or life of the mine, whichever is earlier, under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of additional as under:-

- (i) EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc
- (ii) All the partially complied condition observed by Ministry's Regional Office in certified compliance report dated 5th December, 2019 shall be completed in 3 years.
- (iii) PP shall implement in-pit belt conveyor system in next 3 years from the issue of this letter.
- (iv) Project proponent to plant 100,000 nos. of native trees with broad leaves along the periphery of the mine to prevent the effect of air pollution in 3 years of the issue of this letter. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer
- (v) The Project Proponent shall comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- (vi) Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commencing after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.
- (vii) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- (viii) Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and

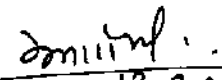
villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area”.

- (ix) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs 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 light/night hours.
- (x) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
- (xi) Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing 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. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent”. The implementation report of the above said condition shall be sent to the Regional Office of the Ministry
- (xii) PP shall not divert proposed nallah till it justifies the reason of diversion
- (xiii) PP shall ensure regular water supply to the nearest villages.
- (xiv) CTE/CTO for the project shall be obtained from the SPCB as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, and the SPCB shall follow the mechanism/protocol issued by the Ministry vide letter no. Q-16017/38/2018-CPA dated 24th October, 2019 while issuing the CTE/CTO for the project, for improvement of environmental quality in the area.
- (xv) The green belt of at least 5-10 m width shall be developed in more than 40% of the total project area, mainly along the periphery of mine boundary, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xvi) In addition, the project proponent shall develop greenbelt outside the plant premises such as avenue plantation, plantation in vacant areas, social forestry etc.
- (xvii) Monitoring of compliance of EC conditions may be submitted with third party audit every year.



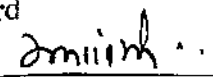
- (xviii) The percentage the CER may be atleast 2 times the amount given in the OM dated 1st May, 2018 recommended by the EAC and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- (xix) Effective fugitive emission control measures should be imposed in the process, transportation, packing etc.
- (xx) Transportation of materials by rail/ conveyor belt, wherever feasible.
- (xxi) A detailed water harvesting plan may be submitted by the project proponent
- (xxii) In case, domestic waste water generation is more than 10 KLD, the industry may install STP.
- (xxiii) Monitoring of compliance of EC conditions may be submitted with third party audit every year
5. All other terms and conditions stipulated in the earlier Environmental Clearance dated 28th March, 2019 shall also apply in addition above conditions.

6. This issues with the approval of the competent authority.


 13.3.2020
 (Manoj Kumar Gangeya)
 Director

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The Principal Secretary, Department of Environment, Government of Maharashtra, 15th Floor, New Admn. Bldg, Madam Cama Road, Mantralaya, Mumbai - 32 (Maharashtra)
3. The Additional PCCF (Central), Ministry of Environment Forest and Climate Change, Regional Office (Western Central Zone), Ground Floor, East Wing, New Secretariat Building Civil Lines, Nagpur-1 (Maharashtra)
4. The Member Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
6. The Member Secretary, Maharashtra State Pollution Control Board, Kalapataru Point, 3rd & 4th Floors, Sion, Matunga Scheme Road No. 8, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai - 2
7. The District Collector, Chandrapur, Government of Maharashtra
8. Monitoring File 10. Guard File 11. Record File 12. Notice Board


 13.3.2020
 (Manoj Kumar Gangeya)
 Director

No. J-11015/80/2016-IA.II (M)
Government of India
Ministry of Environment, Forest & Climate Change
IA-II (Coal Mining) Division

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi - 3
Dated: 28th March, 2019

To,
The General Manager (Environment),
M/s Western Coalfields Ltd.,
Coal Estate, 9th Floor, Civil Lines,
Nagpur - 1 (Maharashtra)

Email: gmenvironment.wcl@nic.in; wclenv@yahoo.in

Sub: Expansion of Pauni-II Opencast Coal Mining Project from 0.6 MTPA to 3.25 MTPA of M/s Western Coalfields Limited in mine lease area of 1095.52 ha located in District Chandrapur (Maharashtra) - Revalidation and Environment Clearance - reg.

Sir,

This has reference to your online proposal No. IA/MH/CMIN/90274/2016 dated 11th January, 2019 on the above-mentioned subject.

2. The Ministry of Environment, Forest and Climate Change has considered the proposal for revalidation of the environmental clearance dated 2nd February, 2006 as mandated under the Ministry's Notification dated 6th April, 2018, and grant of environmental clearance to expansion of Pauni-II Opencast Coal Mining project from 0.60 MTPA to 3.25 MTPA in mine lease area of 1095.52 ha of M/s Western Coalfields Ltd located in village Sakhri, Tehsil Rajura, District Chandrapur (Maharashtra) under the provisions of the EIA Notification, 2006.

3. The proposal was considered by the Expert Appraisal Committee (EAC) in its 42nd meeting held on 24th January, 2019. The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under:-

(i) The project area is covered under Survey of India Topo Sheet No56 M/1 and 56 M/5 and is bounded by the geographical coordinates ranging from N 19° 48' 19" to N 19° 48' 19" N and longitudes E 79° 13' 48" and E 79° 16' 13".

(ii) Coal linkage of the project is proposed for MahaGenco, KPCL, GSCCL & various consumers

(iii) Employment generated is 945 Nos. Employment provided is 182 nos., Monetary compensation given- 20 Nos. balance 743 Nos. persons will be provided employment from the project. The project involves 954 nos. project affected families.

(iv) The project is reported to bridge the gap (to the extent of the peak production capacity of the project) between demand & supply of non-coking coal for the power houses and other bulk consumers of western as well as southern part of the country.

(v) Earlier, the environment clearance to the project was obtained under EIA Notification, 1994 vide Ministry's letter 1/2005-IA.II (M) dated 2nd February, 2006 for 0.60 MTPA in mine lease area of 316.30 ha.

(vi) Total mine lease area is 1095.52 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the WCL Board on Vide letter no WCL/BD/SECTT/BM-307/2018/830 dated 26th December, 2018.



(vii) The land usage pattern of the project is as follows:

Pre-mining land use details (Area in Ha)

S. No.	Land Use	Within ML Area	Outside ML Area	Total
1	Agricultural Land	718.69	0	718.69
2	Forest Land	0	0	0
3	Wasteland	60.53	0	60.53
4	Grazing Land	0	0	0
5	Surface Water Bodies	0	0	0
6	Settlements	0	0	0
7	Others (Industrial)	316.30	0	316.30
	Total Project Area	1095.52	0	1095.52

Post Mining

S. No.	Land use	Land use (ha)				Total
		Plantation	Water Body	Public Use	Undisturbed	
1	External OB Dump	214.57	0	0	0	214.57
2	Top Soil Dump	35.40	0	0	0	35.40
3	Excavation / Quarry	107.0	188.35	0	0	295.35
4	Roads	0.5	0	1.5	0	2.0
5	Built-up Area (Colony/office)	3.0	0	7.0	0	10.0
6	Green Belt	0.0	0.0	0.0	0	0.0
7	Undisturbed Area	0.0	0.0	186.41	0.0	186.41
8	Internal OB dumps	58.93	0.0	0.0	0.0	58.93
9	Virgin area	350.0	0.0	0.0	0.0	350.0
	Total Area	769.4	188.35	194.91	0.0	1152.66

(viii) Total land requirement for Pauni-II Expansion OC Mine is 1152.66 ha. Out of 1152.66 ha land, 21.61 ha land which is already acquired for Pauni OC has to be transferred to Pauni-II Expansion OC by boundary readjustment.

(ix) Total agricultural land of 1050.99 ha and govt land of 89.60 ha is involved in the project. About 12.7 ha of forest land is also required in overall 1152.66 ha land. The application for Stage-I FC has already been made but FC is yet to be secured.

(x) Now considering the present position of the mine and the surged demand of power grade coal from WCL mines for the power plants of Maharashtra and as per the requirements of MoEF& CC (for project involving forest land but not having Stage-I FC in hand), a Mining Plan by excluding the Forest land and adjacent non-forest land (for maintaining mine geometry) has been prepared as Phase-I for the proposed expansion from 0.60 to 3.25 MTPA.

(xi) In view of public hearing and the ToR secured for total land area of 1152.66 ha, fresh proposal for EC or amendment therein, shall be submitted to take into account the additional land after receipt of stage-I forest clearance for the forest land of 12.07 ha.

(xii) Total geological reserve reported in the mine lease area is 42.847MT with 30.63 MT mineable reserves. Out of total mineable reserve of 30.63MT, 30.63 MT are available for extraction. Percent of extraction is 72%.

8/8

- (xiii) Two seams with thickness ranging from 2.55 m – 10.95 m are workable. Grade of coal is G-9, stripping ratio 1 in 6.19, while gradient is 1 in 6 to 1 in 7.
- (xiv) Method of mining operations would be Opencast with Shovel dumper combination method. Life of mine is 13 years.
- (xv) The project has three external OB dumps in an area of 214.57 ha with 90 m height and 184.32 Mm³ of OB. The OB from the current mining operations shall be backfilled from 6th year onwards, one internal OB in an area of 107.0 ha with 80.73 Mm³ of OB.
- (xvi) Total quarry area is 295.35 ha out of which backfilling will be done in 107 ha while final mine void will be created in an area of 188.35 ha with a depth of 200 m. Backfilled quarry area of 107 ha shall be reclaimed with plantation. Final mine void will be converted into water body
- (xvii) Transportation of coal has been proposed by dumpers in mine pit head, from surface to siding by tippers/dumpers and at sidings by pay loaders.
- (xviii) Reclamation Plan in an area of 769.4 ha, comprising of 214.57 ha of external dump, 35.40 ha of top soil dump, 107.0 ha of internal dump, 412.43 ha for green belt development.
- (xix) No forest land has been reported to be involved in the Phase-I project.
- (xx) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
- (xxi) The ground water level has been reported to be varying between 6.05 m to 8.40 m during pre-monsoon and between 1.85 m to 7.90 m during post-monsoon. Total water requirement for the project is 880 KLD.
- (xxii) Application for obtaining the approval of the Central Ground Water Authority for withdrawal of groundwater from CGWA has been applied on 19th January, 2017.
- (xxiii) Public hearing has been conducted on 1st December, 2018 for expansion of Pauni-II Opencast Coal Mining Project in an area of 1152.66 ha, in compliance with the ToR dated 30th March, 2017, at Manoranjan Kendra, Sasti colony, Near CGM office, WCL Ballarpur area, Taluka Rajura, District Chandrapur (Maharashtra).
- (xxiv) Sakhari & Lendi Nallah is flowing along boundary of lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government.
- (xxv) Baseline monitoring of environmental parameters has been carried out during Nov'2015 to Jan'2016.
- (xxvi) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to MPCB and also to MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits.
- (xxvii) No court cases, violation cases are pending against the project of the PP.
- (xxviii) The project does not involve violation of the EIA Notification, 1994 and amendment issued there under. The coal production from the mine was started from the year 2016-17 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations, with the details as under:

Year	EC sanctioned Capacity (MTPA)	Actual production (MTPA)	Excess production
2016-17	0.60	0.510	Nil
2017-18	0.60	0.306	Nil
2018-19 (up to 31 st December, 18)	0.60	0.543	Nil

- (xxix) Total cost of the project is Rs.483.6948 crores. Cost of production is Rs.1018.96/- per tonne. CSR cost is Rs.2 per tonne, R&R cost is Rs.318.58 crores. Environment Management Cost is Rs. 97.09 lakhs.

SK

(xxx) The proposal for renewal of consent for Pauni II OC of 0.60 MTPA production capacity was considered in the 6th Consent committee meeting of MPCB for 2018-19 held on 17/18.12.2018 at MPCB, Mumbai vide application no. MPCB CONSENT 0000039454.

4. The sectoral Expert Appraisal Committee in its meeting held on 24th January, 2019 has recommended for revalidation of the existing environmental clearance as mandated under the Ministry's Notification dated 6th April, 2018 and grant of environmental clearance to the expansion project. Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval for revalidation of the existing environmental clearance dated 2nd February, 2006, and grant of environmental clearance to the expansion of Pauni-II Opencast Coal Mining project from 0.60 MTPA to 3.25 MTPA of M/s Western Coalfields Ltd in mine lease area of 1095.52 ha located in village Sakhri, Tehsil Rajura, District Chandrapur (Maharashtra), for a period of one year, under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto, subject to the compliance of the terms & conditions and environmental safeguards as under:-

- (i) The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31st December, 2019.
- (ii) The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 3.25 MTPA prior to commencement of the increased production.
- (iii) Transportation of coal from face to Coal heap shall be carried out by truck. Further, coal transportation from Coal heap to Coal Handling Plant shall be through covered trucks.
- (iv) To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.
- (v) Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at railway siding, etc.
- (vi) The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 3.25 MTPA.
- (vii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (viii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.
- (ix) To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.
- (x) Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.
- (xi) Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.
- (xii) A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.

4.1 The grant of environmental clearance is further subject to compliance of the generic conditions as under:

(a) Mining

- (i) Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.

ck

(ii) No change in mining method, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forest and Climate Change.

(iii) Mining shall be carried out as per the approved mining plan including Mine Closure Plan, abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).

(iv) No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.

(b) Land reclamation and water conservation

(i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale shall be submitted to Ministry of Environment, Forest and Climate Change/Regional Office (RO).

(ii) The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/Gol Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS.

(iii) The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective state government as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.

(iv) The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the "during mining"/"post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the Ministry of Environment, Forest and Climate Change/Regional Office on six monthly basis.

(v) The top soil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized for long. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office on six monthly basis.

sd

(c) Emissions, effluents, and waste disposal

- (i) Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of $PM_{10}/PM_{2.5}$) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
- (ii) Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area in a phased manner. The green belt comprising a mix of native species shall be developed all along the major approach/ coal transportation roads.
- (iii) The transportation of coal shall be carried out as per the provisions and route proposed in the approved Mining Plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.
- (iv) Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- (v) Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.
- (vi) Coal handling plant shall be operated with effective control measures viz. bag filters/water or mist sprinkling system etc to check fugitive emissions from crushing operations, conveyor system, transfer points, etc.
- (vii) Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
- (viii) Catch/garland drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression measures and green belt development. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.
- (ix) Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Oil and grease trap shall be installed and maintained fully functional with effluents

SK

discharge adhering to the norms. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste.

(x) Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.

(d) Illumination, noise & vibration

(i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & its RO on six-monthly basis.

(ii) Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

(iii) Controlled blasting techniques shall be practiced in order to mitigate ground vibrations and fly rocks as per the guidelines prescribed by the DGMS.

(iv) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

(e) Occupational health & safety

(i) The project proponent shall undertake occupational health survey for initial and periodical medical examination of the workers engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% 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.

(ii) Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.

(iii) Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.

(f) Ecosystem and biodiversity conservation

(i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.

(g) Public hearing, R&R and CSR

(i) Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan

Page 7 of 11



submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.

(ii) The project proponent shall ensure the expenditure towards socio-economic development in and around the mine, in every financial year as per the Corporate Social Responsibility Policy as per the provisions under Section 135 of the Companies Act, 2013

(iii) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

(iv) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

(h) Corporate environment responsibility

(i) The Company shall have a well laid down environment policy duly approved by Board of Directors. The environment policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions. Also, the company shall have a defined system of reporting of non-compliances/violations of environmental norms to the Board of Directors and/or shareholders/stakeholders.

(ii) The project proponent shall comply with the provisions contained in this Ministry's OM dated 1st May, 2018, as applicable, regarding Corporate Environment Responsibility.

(iii) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions should be displayed on website of the Company.

(iv) A separate environmental management cell both at the project and company headquarter level, with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.

(v) Action plan for implementing EMP and environmental conditions shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

(vi) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

(i) Statutory Obligations

(i) The environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Court, NGT and any other Court of Law from time to time, and as applicable to the project.



- (ii) This environmental clearance shall be subject to obtaining wildlife clearance, if applicable, from the Standing Committee of National Board for Wildlife.
- (iii) The project proponent shall obtain Consent to Establish/Operate under the Air Act, 1981 and the Water Act, 1974 from the concerned State Pollution Control Board.
- (iv) The project proponent shall obtain the necessary permission from the Central Ground Water Authority (CGWA).

(j) Monitoring of project

- (i) Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM₁₀, PM_{2.5}, SO₂ and NO_x. 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. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
- (ii) The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- (iii) The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- (iv) The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- (v) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to Ministry of Environment, Forest and Climate Change/Regional Office.
- (vi) Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- (vii) The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental conditions to the Ministry of Environment, Forest and Climate Change/Regional Office. For half yearly monitoring reports the data should be monitored for the period of April to September and October to March of the financial years.



(viii) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

(k) Miscellaneous

(i) Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.

(ii) The project authorities shall inform to the Regional Office regarding commencement of mining operations.

(iii) A copy of the environmental clearance shall be marked to concerned Panchayat. A copy of the same shall also be sent to the concerned State Pollution Control Board, Regional Office, District Industry Sector and Collector's Office/Tehsildar Office for information in public domain within 30 days.

(iv) The EC shall be uploaded on the company's website. The compliance status of the stipulated EC 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.

(v) The project authorities shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of this clearance, informing that the project has been accorded environmental clearance and a copy of the same is available with the State Pollution Control Board and also at website of the Ministry.

(vi) 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 EC conditions and shall be sent to the respective Regional Offices of the MoEF&CC by e-mail. Concerns raised during public hearing.

(vii) The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India/High Courts and any other Court of Law relating to the subject matter.

5. The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit.

6. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

7. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

SB

8. The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the orders dated 2nd August, 2017 of Hon'ble Supreme Court in WP (Civil) No.114/2014 in the matter of 'Common Cause Vs Union of India & others.

9. The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology, in strict compliance of the judgment of Hon'ble Supreme Court.

10. This environmental clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable, and other statutory requirements.

11. This issues in supersession of the earlier environmental clearance granted by the Ministry vide letter dated 2nd February, 2006.

S.Kd
28/3/2019
(S. K. Srivastava)
Scientist E

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The Principal Secretary, Department of Environment, Government of Maharashtra, 15th Floor, New Admn. Bldg, Madam Cama Road, Mantralaya, Mumbai - 32 (Maharashtra)
3. The Additional PCCF (Central), Ministry of Environment Forest and Climate Change, Regional Office (Western Central Zone), Ground Floor, East Wing, New Secretariat Building Civil Lines, Nagpur-1 (Maharashtra)
4. The Member Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
5. The Advisor, Coal India Limited, SCOPE Minar, Core-I, 4th Floor, Vikas Marg, Laxmi Nagar, New Delhi
6. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
7. The Member Secretary, Maharashtra State Pollution Control Board, Kalapataru Point, 3rd & 4th Floors, Sion, Matunga Scheme Road No. 8, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai - 2
8. The District Collector, Chandrapur, Government of Maharashtra
9. Monitoring File 10. Guard File 11. Record File 12. Notice Board

S.Kd
28/3/2019
(S. K. Srivastava)
Scientist E

PAUNI II EXPANSION OC

Amendment in EC ref no:J-11015/80/2016-IA.II(M) dated 01/12/2020

S.no	Condition	Compliance
i	PP shall implement off pit conveyor system i.e. from Coal Handling Plant to railway siding with silo loading facility in 3 years (i.e. 2023).	In this regard, Silo loading facility is proposed and approved in Board also. PR for the same is prepared. Further, NIT has been also approved for the same. It is expected that, same will be commissioned at the earliest.

EC ref no:J-11015/80/2016-IA.II(M) dated 13/03/2020

S. no	Condition	Compliance
i	EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc	EC/CTO conditions are being complied strictly. Summary of some important EC/CTO conditions given below: Consent to operate under Air & Water Act is granted for additional capacity 3.25 MTPA up to 31.03.2024 vide consent no. FORMAT 1.0/CAC/UAN no. MPCB-Consent-0000166167/CR 2307001645. Copy of same is enclosed as Annexure A. CGWA NOC for abstraction of groundwater has been obtained which is valid from 30/09/2019 to 29/09/2021. Further renewal application has been submitted and under final stage of approval. Copy of same is enclosed as Annexure B.
ii	All the partially complied condition observed by Ministry's Regional Office in certified compliance report dated 5th December, 2019 shall be completed in 3 years.	Noted and all the partially complied conditions observed by Ministry's Regional Office in certified compliance report dated 5th December, 2019 have been complied. Copy of same is enclosed as Annexure C.
iii	PP shall implement in-pit belt conveyor system in next 3 years from the issue of this letter.	This condition has been changed/amended as per EC amendment ref no:J-11015/80/2016-IA.II(M) dated 01/12/2020.

v	Project proponent to plant 100,000 nos. of native trees with broad leaves along the periphery of the mine to prevent the effect of air pollution in 3 years of the issue of this letter. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer	<div>Plantation details are as follows:</div> <table><tr><th>Sr no .</th><th>Year</th><th>Plantation (Nos.)</th><th>Area (Ha)</th></tr><tr><td>1</td><td>2017-18</td><td>25000</td><td>10.0</td></tr><tr><td>2</td><td>2020-21</td><td>31000</td><td>12.4</td></tr><tr><td>3</td><td>2021-22</td><td>20000</td><td>7.48</td></tr><tr><td>4</td><td>2022-23</td><td>50000</td><td>20.0</td></tr><tr><td>5</td><td>2023-24</td><td>36250</td><td>14.5</td></tr><tr><td colspan="2">TOTAL</td><td>162250</td><td>49.88</td></tr></table> <div>Afforestation land use as per EMP at the end of mine life is as below:</div> <table><tr><th>Sr no.</th><th>Location</th><th>Plantation (Ha)</th></tr><tr><td>1</td><td>External OB dump</td><td>214.57</td></tr><tr><td>2</td><td>Top soil Dump</td><td>35.4</td></tr><tr><td>3</td><td>Land reclaimed after re- handling of Top soil</td><td>58.93</td></tr><tr><td>4</td><td>Excavation</td><td>107.00</td></tr><tr><td>5</td><td>Roads</td><td>0.50</td></tr><tr><td>6</td><td>Built up area</td><td>3.00</td></tr><tr><td>7</td><td>Undisturbed area</td><td>350.00</td></tr></table>	Sr no .	Year	Plantation (Nos.)	Area (Ha)	1	2017-18	25000	10.0	2	2020-21	31000	12.4	3	2021-22	20000	7.48	4	2022-23	50000	20.0	5	2023-24	36250	14.5	TOTAL		162250	49.88	Sr no.	Location	Plantation (Ha)	1	External OB dump	214.57	2	Top soil Dump	35.4	3	Land reclaimed after re- handling of Top soil	58.93	4	Excavation	107.00	5	Roads	0.50	6	Built up area	3.00	7	Undisturbed area	350.00
Sr no .	Year	Plantation (Nos.)	Area (Ha)																																																			
1	2017-18	25000	10.0																																																			
2	2020-21	31000	12.4																																																			
3	2021-22	20000	7.48																																																			
4	2022-23	50000	20.0																																																			
5	2023-24	36250	14.5																																																			
TOTAL		162250	49.88																																																			
Sr no.	Location	Plantation (Ha)																																																				
1	External OB dump	214.57																																																				
2	Top soil Dump	35.4																																																				
3	Land reclaimed after re- handling of Top soil	58.93																																																				
4	Excavation	107.00																																																				
5	Roads	0.50																																																				
6	Built up area	3.00																																																				
7	Undisturbed area	350.00																																																				
2023-24v	The Project Proponent shall comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 21R August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.	<div>The mine has started its operation in FY 2016-17 and at present is in its 7th year of operation. The life of mine is 10 yrs. The progress of mining activities are being carried out as per approved mining plan.</div> <div>Year wise production details are as follows:</div> <table><tr><th>Year</th><th>Production (MTPA)</th><th>EC Capacity (MTPA)</th></tr><tr><td>2016-17</td><td>0.51</td><td>0.60</td></tr><tr><td>2017-18</td><td>0.306</td><td>0.60</td></tr><tr><td>2018-19</td><td>0.599</td><td>0.60</td></tr><tr><td>2019-20</td><td>2.105</td><td>3.25</td></tr><tr><td>2020-21</td><td>2.8</td><td>3.25</td></tr><tr><td>2021-22</td><td>3.249</td><td>3.25</td></tr></table>	Year	Production (MTPA)	EC Capacity (MTPA)	2016-17	0.51	0.60	2017-18	0.306	0.60	2018-19	0.599	0.60	2019-20	2.105	3.25	2020-21	2.8	3.25	2021-22	3.249	3.25																															
Year	Production (MTPA)	EC Capacity (MTPA)																																																				
2016-17	0.51	0.60																																																				
2017-18	0.306	0.60																																																				
2018-19	0.599	0.60																																																				
2019-20	2.105	3.25																																																				
2020-21	2.8	3.25																																																				
2021-22	3.249	3.25																																																				

		2022-23	3.25	3.25																				
		2023-24 (Upto sept 2024)																						
		As per the above details, there is no violation in the coal production, from the commencement of the mine.																						
vi	Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commencing after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.	CGWA NOC for abstraction of groundwater has been obtained which is valid from 30/09/2019 to 29/09/2021.Further renewal application is been submitted to CGWA, and under final stage of approval. Copy of same is enclosed as Annexure B.																						
vii	Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.	<p>Personal working in dusty areas are provided with dust masks. Periodical health check-up of mine workers are carried out once in 5 years with the purpose of detecting occupational diseases & hearing impairment.</p> <p>Every worker in the mine is examined in 5 years-up to the age of 45 and the workers who are above 50 years are subjected to periodic medical examination at two and a half years interval.</p> <p>Area Hospital in WCL Ballarpur Area is a 25 bedded hospital with a team of qualified doctors. Infrastructure available in the Hospital are Spirometry instrument, ECG machine, Audiometer, X-ray machine, Blood testing apparatus, Eco friendly generator etc. At present, since opening no such occupational diseases and or hearing impairment has been recorded. The prevention measure for burns, malaria and provision of antisnake venom are ensured.</p> <p>Details of IME and PME done at Ballarpur Area is given below:</p> <table><tr><th>Year</th><th>IME (in nos.)</th><th colspan="2">PME (in nos.)</th></tr><tr><td></td><td>Acheived</td><td>Target</td><td>Acheived</td></tr><tr><td>2021</td><td>953</td><td>1220</td><td>1425</td></tr><tr><td>2022</td><td>857</td><td>1220</td><td>1216</td></tr><tr><td>2023</td><td></td><td></td><td></td></tr></table>			Year	IME (in nos.)	PME (in nos.)			Acheived	Target	Acheived	2021	953	1220	1425	2022	857	1220	1216	2023			
Year	IME (in nos.)	PME (in nos.)																						
	Acheived	Target	Acheived																					
2021	953	1220	1425																					
2022	857	1220	1216																					
2023																								

		Details of IME and PME done at Pauni II project is given below:			
		Year	IME (in nos.)	PME (in nos.)	
			Acheived	Target	Acheived
		2021	369	12	55
		2022	222	12	50
viii	Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-1 1013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".	The project proponent is adhering to the mitigation measures as per the guideline specific under the title 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area' OM No. Z11013/5712014- IA.II (M) dated 29th October, 2014.			
ix	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs 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 light/night hours.	The lighting arrangements in the mine are oriented away from the village and there is no disturbance to the villagers due to the lighting inside in the mine. Illumination in mine is maintained as per guidelines of CMR 2017. Sound level during both day and night are found under permissible limits. Copy of same is enclosed as Annexure D.			
x	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.	A survey has been conducted by CMPDI on existing flora and fauna in post monsoon period of 2016. No endangered, endemic species of flora and fauna found in both core and buffer zones. No migratory fauna found in both core and buffer zones. As such no conservation plan is required. Copy of same is enclosed as Annexure E.			

xi	<p>Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing 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. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent".</p> <p>The implementation report of the above said condition shall be sent to the Regional Office of the Ministry</p>	<p>Noted and will be complied. Afforestation plan will be as per EMP.</p> <p>Afforestation land use as per EMP at the end of mine life is as below:</p> <table border="1"> <thead> <tr> <th>Sr no.</th><th>Location</th><th>Plantation (Ha)</th></tr> </thead> <tbody> <tr> <td>1</td><td>External OB dump</td><td>214.57</td></tr> <tr> <td>2</td><td>Top soil Dump</td><td>35.4</td></tr> <tr> <td>3</td><td>Land reclaimed after re- handling of Top soil</td><td>58.93</td></tr> <tr> <td>4</td><td>Excavation</td><td>107.00</td></tr> <tr> <td>5</td><td>Roads</td><td>0.50</td></tr> <tr> <td>6</td><td>Built up area</td><td>3.00</td></tr> <tr> <td>7</td><td>Undisturbed area</td><td>350.00</td></tr> </tbody> </table>	Sr no.	Location	Plantation (Ha)	1	External OB dump	214.57	2	Top soil Dump	35.4	3	Land reclaimed after re- handling of Top soil	58.93	4	Excavation	107.00	5	Roads	0.50	6	Built up area	3.00	7	Undisturbed area	350.00
Sr no.	Location	Plantation (Ha)																								
1	External OB dump	214.57																								
2	Top soil Dump	35.4																								
3	Land reclaimed after re- handling of Top soil	58.93																								
4	Excavation	107.00																								
5	Roads	0.50																								
6	Built up area	3.00																								
7	Undisturbed area	350.00																								
xii	<p>PP shall not divert proposed nallah till it justifies the reason of diversion</p>	<p>Agreement for flood study of diversion of Sakhari nallah into Pauni nallah has been signed on 18/11/2021. Copy of same is enclosed as Annexure F.</p>																								
xiii	<p>PP shall ensure regular water supply to the nearest villages.</p>	<p>Excess water from Sedimentation tank of Pauni II Expansion OC is sent to pond at Sakhari Village based on requirement after treatment through pressure filter and availability of water in pond is ensured throughout the year and it also helps in recharging the ground water levels in the surrounding areas of the mine.</p>																								

xiv	CTE/CTO for the project shall be obtained from the SPCB as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, and the SPCB shall follow the mechanism/protocol issued by the Ministry vide letter no. Q- 16017/38/2018-CPA dated 24th October, 2019 while issuing the CTE/CTO for the project, for improvement of environmental quality in the area.	Complied. Consent to operate under Air &Water Act is granted for additional capacity 3.25 MTPA up to 31.03.2024 vide consent no. FORMAT 1.0/CAC/UAN no. MPCB-Consent-0000166167/CR 2307001645. Copy of same is enclosed as Annexure A.			
xv	The green belt of at least 5-10 m width shall be developed in more than 40% of the total project area, mainly along the periphery of mine boundary, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.	Plantation details are as follows:			
		Sr no	Year	Plantation (Nos.)	Area (Ha)
		1	2017-18	25000	10.0
		2	2020-21	31000	12.4
		3	2021-22	20000	7.48
		4	2022-23	50000	20.0
		TOTAL		126000	49.88
xvi	In addition, the project proponent shall develop greenbelt outside the plant premises such as avenue plantation, plantation in vacant areas, social forestry etc.	Distribution of plants has been done in nearby villages outside leasehold area for plantation(Sasti, Babapur, Rampur, Dhoptala, Gouri, Ballarpur Nagar Parishad) details for last some years are as follows:			
		Year	Distribution (nos)		
		2018-19	14000		
		2019-20	20000		
		2020-21	3600		
		2021-22	1000		
xvii	Monitoring of compliance of EC conditions may be submitted with third party audit every year.	NEERI has conducted the third party in FY 2021-22. Copy of same is enclosed as Annexure G . In addition to the same, NEERI has conducted another inspection in 2022-23. Copy of the same is awaited.			

xviii	The percentage the CER may/se atleast 2 times the amount given in the OM dated 1st May, 2018 recommended by the EAC and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	As per the OM dated 01/05/2018, 0.75% of additional capital investment will be re-appropriated form other heads in Project Report against Corporate Environment Responsibility. Copy of same is enclosed as Annexure H.
xix	Effective fugitive emission control measures should be imposed in the process, transportation, packing etc.	Adequate mitigation measures have been put in place at various dust generating sources to control dust and other fugitive emissions. The details of existing systems are as follows: 10 nos of rain guns installed at coal stock. 8 nos. rain guns installed at weighbridge. Portable sprinklers with flexible pipes are provided at coal stock yard for dust suppression. 1 hired mobile water tankers of capacity 4 KL are in operation along with 2 no. departmental tankers of 9 KL and 28 KL each. Plantation of 126000 has been done along periphery of mine will also act as a natural barrier against dust. In addition to the same, Trolly mounted foggers are proposed and it is expected that, tender may floated in 2023-24 and same will be commissioned in 2024-25.
xx	Transportation of materials by rail/conveyor belt, wherever feasible.	80 % (approx.) of coal produced from the Pauni II Expansion OC is dispatched through rail mode. Only 20% of coal is dispatched via road.
xxi	A detailed water harvesting plan may be submitted by the project proponent	Roof top rain water harvesting system has been completed for Manager Office of Pauni II Expansion OC. Excess mine water from Sedimentation tank after treatment through pressure filter is used to recharge pond at Sakhari village. In addition to the same, work is awarded for new sedimentation pond at project and same has been already completed.
xxii	In case, domestic waste water generation is more than 10 KLD, the industry may install STP.	Exiting manpower is accommodated in Sasti township where 1 MLD STP is in operation. Septic tanks are in place for the domestic waste water in offices. STP will be constructed based on requirement in future.

xxiii	Monitoring of compliance of EC conditions may be submitted with third party audit - every year	NEERI has conducted the third party in FY 21-22. Copy of same is enclosed as Annexure G. In addition to the same, NEERI has conducted another inspection in 2022-23. Copy of the same is awaited.
-------	--	--

Environmental Clearance No.J/11015/80/2016/IA.II (M)

Dated: 28.03.2019

Sr.N	Conditions	Compliance
01	The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before st 31 December, 2019.	Complied. Results submitted to EAC.
02	The project proponent shall obtain Consent to establish from State Pollution Control Boards for the proposed peak capacity of 3.25 MTPA prior to commencement of the increased production.	Complied. Consent to operate under Air & Water Act is granted for additional capacity 3.25 MTPA up to 31.03.2024 vide consent no. FORMAT 1.0/CAC/UAN no. MPCB-Consent-0000166167/CR 2307001645. Copy of same is enclosed as Annexure A.
03	Transportation of coal from coal face to coal heap shall be carried out by trucks. Further coal transportation from coal heap to coal handling plant shall be through covered trucks.	Complied. Transportation of coal from coal face to coal heap is carried out by trucks. Coal transportation from coal heap to coal handling plant is done through tarpaulin covered trucks.
04	To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided by mist type sprinklers.	Mobile crusher has been provided. Adequate dust suppression arrangement will be put into operation once it comes up. At present coal from Pauni II Expansion OC is crushed in Gouri I&II(A) OC CHP premises. Dust suppression measures at Gouri are 3 nos departmental mobile tankers with capacity 28 KL each and 1 no. hired tanker with capacity 12 KL. 9 nos of sprinklers are installed at CHP in Gouri I&II(A) OC. Dust suppression measures at Pauni II Expansion OC are 10 nos of rain guns installed at coal stock. 8 nos rainguns installed at weighbridge. Portable sprinklers with flexible pipes are provided at coal stock yard for dust suppression. Additionally, Trolley mounted fogger system is proposed at project in FY 2023-24. As on date, 1 hired mobile water tankers of capacities 4 KL and 2 no. contractual 28 KL and 9 KL of capacity are in operation.

05	<p>Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers.</p> <p>Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangements, wind barrier wall and vertical greenery system, greenbelt, dust suppression arrangement at railway siding, etc.</p>	<p>Adequate mitigation measures have been put in place at various dust generating sources to control dust and other fugitive emissions. The details of existing systems are as follows: 10 nos of rain guns installed at coal stock. 8 nos rainguns installed at weighbridge. Portable sprinklers with flexible pipes are provided at coal stock yard for dust suppression. 1 hired mobile water tankers of capacities 4 KL each and 2 no. contractual 28 KL and 9 Kl of capacity are in operation.</p>																																
06	<p>The company shall obtain approval of CGWA for use of groundwater for mining operations for its enhanced capacity of 3.25 MTPA.</p>	<p>CGWA NOC for abstraction of groundwater has been obtained which is valid from 30/09/2019 to 29/09/2021.Further renewal application is been submitted to CGWA, and under final stage of approval. Copy of same is enclosed as Annexure B.</p>																																
07	<p>Continuous monitoring of occupational safety and other health hazards, and the corrective action needed to be ensured</p>	<p>Initial medical examination (IME) is done for every worker. Moreover regular health checkups through periodical medical examination (PME) of all the workmen once in 5 years as per the statue and workers above 55 years of age once in a year is conducted. All the works are being carried out with all the safety measures and awareness is being created among employees for safety and to avoid any accidents.</p> <p>Details of IME and PME done at Ballarpur Area is given below:</p> <table><tr><th>Year</th><th>IME (in nos.)</th><th colspan="2">PME (in nos.)</th></tr><tr><td></td><td>Acheived</td><td>Target</td><td>Acheived</td></tr><tr><td>2021</td><td>953</td><td>1220</td><td>1425</td></tr><tr><td>2022</td><td>857</td><td>1220</td><td>1216</td></tr></table> <p>Details of IME and PME done at Pauni II project is given below:</p> <table><tr><th>Year</th><th>IME (in nos.)</th><th colspan="2">PME (in nos.)</th></tr><tr><td></td><td>Acheived</td><td>Target</td><td>Acheived</td></tr><tr><td>2021</td><td>369</td><td>12</td><td>55</td></tr><tr><td>2022</td><td>222</td><td>12</td><td>50</td></tr></table>	Year	IME (in nos.)	PME (in nos.)			Acheived	Target	Acheived	2021	953	1220	1425	2022	857	1220	1216	Year	IME (in nos.)	PME (in nos.)			Acheived	Target	Acheived	2021	369	12	55	2022	222	12	50
Year	IME (in nos.)	PME (in nos.)																																
	Acheived	Target	Acheived																															
2021	953	1220	1425																															
2022	857	1220	1216																															
Year	IME (in nos.)	PME (in nos.)																																
	Acheived	Target	Acheived																															
2021	369	12	55																															
2022	222	12	50																															

08	Persons of nearby villages shall be given training on livelihood and skill development to make them employable.	Agreed. Mobile repairing training programme from/ 19/02/2019 to 19/03/2019(25 nos. participants) Beautician course from 03/03/2019 to 31/03/2019 (25 nos. participants), was organized for local communities in 2018-19 with an expenditure of 2.82 lakhs. Tailoring Programme for 25 nos. participants has been completed.																												
09	To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.	Agreed. Medical camp has been conducted at nearby Sasti village on 12/07/2019. In FY 2020-21, 2021-22 and FY 2022-23, regular medical camps are also conducted at Area Hospital for all nearby villages in Ballarpur area. CSR clinic is provided at area hospital which attends 150 persons (avg) per month from different villages surrounding mines of Ballarpur Area. Copy of same is enclosed as Annexure I.																												
10	Thick green belt of adequate width at the final boundary in the downwind direction of the project site shall be developed to mitigate the dust pollution.	Plantation details are as follows: <table><tr><td>Sr no</td><td>Year</td><td>Plantation (Nos.)</td><td>Area (Ha)</td></tr><tr><td>1</td><td>2017-18</td><td>25000</td><td>10.0</td></tr><tr><td>2</td><td>2020-21</td><td>31000</td><td>12.4</td></tr><tr><td>3</td><td>2021-22</td><td>20000</td><td>7.48</td></tr><tr><td>4</td><td>2022-23</td><td>50000</td><td>20.0</td></tr><tr><td>5</td><td>2023-24</td><td>36250</td><td>14.5</td></tr><tr><td colspan="2">TOTAL</td><td>162250</td><td>64.88</td></tr></table>	Sr no	Year	Plantation (Nos.)	Area (Ha)	1	2017-18	25000	10.0	2	2020-21	31000	12.4	3	2021-22	20000	7.48	4	2022-23	50000	20.0	5	2023-24	36250	14.5	TOTAL		162250	64.88
Sr no	Year	Plantation (Nos.)	Area (Ha)																											
1	2017-18	25000	10.0																											
2	2020-21	31000	12.4																											
3	2021-22	20000	7.48																											
4	2022-23	50000	20.0																											
5	2023-24	36250	14.5																											
TOTAL		162250	64.88																											
11	Efforts shall be made for using alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.	There is no utilization of surface water in mine. The entire demand viz. for dust suppression, plantation, washing etc. is met from the pumped out mine water. In this regard, NOC from CGWA has been obtained.																												
12	A third party assessment of EC compliance shall be undertaken once in 3 years through agencies like ICFRI/NEERI/IIT or any other expert agency identified by the ministry.	Third party assessment of EC compliance has been done by NEERI in FY 21-22. Copy of same is enclosed as Annexure G. In addition to the same, NEERI has conducted another inspection in 2022-23. Copy of the same is awaited.																												

	GENERAL CONDITIONS	
A.	MINING	
01	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislation made there under as applicable.	Mining operations are being carried out and continue to be carried out as per provisions of Mines act 1952 and no deviation is being made during operations. Copy of the blasting study along with slope stability study attached.
02	No change in mining method, calendar programme and scope of working shall be made without obtaining prior approval of the Ministry of Environment, Forest and Climate change.	Noted and will be complied. No change in mining technology is envisaged.
03	Mining shall be carried out as per approved mining plan including Mine Closure Plan, abiding by mining laws related to coal mining and the relevant circulars issued by DGMS.	Mining operations is being carried as per mining plan by abiding all the mining rules and DGMS guidelines issued time to time and will continue to be carried out accordingly. Copy of the blasting study along with slope stability study attached.
04	No mining shall be carried out in the forest land without obtaining FC as per Forest (conservation) Act, 1980 and also adhering to the scheduled Tribes and other traditional forest dwellers (Recognition of forest rights) Act, 2006 read with provisions of the Indian Forest Act, 1927.	Agreed.
B	LAND RECLAMATION AND WATER CONSERVATION	

1	Digital survey of entire lease hold area/core zone using satellite remote sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50000 scale shall be submitted to MoEF&C/Regional Office.	Digital survey of entire lease hold area/core zone using satellite remote sensing survey is carried out once in three years. Last survey has been done in 2021. The copy of report is attached as Annexure J. The same is submitted to RO, MOEFCC along with six monthly report. Also, it is available on company's website.
2	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operation, considering the presence of river/ rivulet/ pond/ lake etc. shall be prepared and implemented by the project proponent. The surface drainage plan and or any diversion of natural water courses shall be as per approved mining plan/EIA/EMP report and with due approval of the concerned state/GoI authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per permission of DGMS.	The embankment all along the periphery of quarry 3 m above H.F.L and 30 m width provided. At present there is no diversion of any surface water courses. However as per approved mining plan, there is a provision in future for diversion of Nallah, which will be carried out with due permission/ approval from the concerned authority / department of state government in order to prevent the danger of inundation from surface water inrush, protective embankment has been constructed as per the permission of DGMS and the dimensions are as below: Length: 1580m Height: 3 m above H.F.L. Top Width: 30 m Bottom Width: 36 m
3	The final mine void depth should be preferably be as per the approved Mine Closure Plan, and in case exceeds 40 m adequate engineering intervention shall be provided for sustenance of aquatic life. The remaining area shall be backfilled and covered with thick and alive topsoil. Post mining land shall be rendered usable for agriculture / forestry purposes and shall be handed over to the respective state government as specified in guidelines for preparing of Mine Closure Plan issued by the Ministry of Coal dated 27 th August 2009 and subsequent amendments.	The mine has started its operation in FY 16-17 and at present is in its 7 th year of operation. The life of mine is 10 yrs. The progress of mining activities are being carried out as per approve mining plan. The Mine Closure Plan is an integral part of approve Mining Plan. The post mining land use will be as per approved reports. The final mine void depth which will be reached after the end of mine will be appropriately addressed. As per the approved plan the post mining scenario shows 107 Ha as backfilled area against total excavated area of 273.79 Ha. The backfilled area is propose to be converted to afforested area. The land after completion of all closure activities and reimbursement of corpus deposited appropriate action for handing over the land will be taken. A mine closure plan was approved by the WCL Board along with opening of a corpus fund / account was opened at the Oriental Bank of Commerce, Jaripataka Branch, Nagpur.

4	<p>The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the during mining / post mining land use pattern, which is an integral plan of approved mining plan and EIA/EMP submitted to the Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MoEF&C on six monthly basis.</p>	<p>The excavation, external OB dumping, plantation etc. are being carried as per the approved Mining Plan in conformity with the submitted Mining land use plans & EIA –EMP submitted to MOEF&CC.</p> <p>Six monthly EC compliance report is regularly submitted to Ministry of Environment, Forest Climate Change/Regional Office, Nagpur which comprises data sheet with data excavated area, backfilling, external OB dump including top soil & afforestation data. Copy of same is enclosed as Annexure K</p>
5	<p>The top soil shall temporarily be stored at earmarked sites only and shall not be kept unutilized for long. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be established with native grass species to prevent erosion and surface runoff. The other OB dump shall be vegetated with native flora species. The excavated area shall be backfilled and afforested inline with approved mine closure plan. Monitoring and management of rehabilitated areas shall be continued until the vegetation becomes self sustaining. Compliance status shall be submitted to the MoEF&C on six monthly basis.</p>	<p>The top soil is being dumped temporarily at earmarked site and this soil will be used for blanketing backfilled area as well as external OB dump, in accordance with mine closure plan / approved Mining Plan.</p> <p>It has been stacked at separate dump with proper slope at the earmarked site and will be used for reclamation of mined out area in future.</p> <p>Year wise breakup is as follows:</p> <p>2016-17 – 1.18 Mm³ 2017-18 – 0.60 Mm³ 2018-19 – 0.491 Mm³ 2019-20 – 2.114 Mm³ 2020-21 – 3.910 Mm³ 2021-22 – 4.473 Mm³ 2022-23 (as on date)- 0.255 Mm³</p>
C	EMISSIONS, EFFLUENTS, and WASTE DISPOSAL	

1	Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective controls measures such as regular water/mist sprinkling/raingun etc shall be in critical areas prone to air pollution such as haul roads, loading/unloading and transfer points, fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that ambient air quality parameters shall confirm with norms prescribed by Central/State Pollution Control Board.	Coal transportation is done through tarpaulin covered trucks. At present, 10 nos of rain guns installed at coal stock. 8 nos rainguns installed at weighbridge. Additional 10 nos rainguns to be installed at coal stock in FY 2021-22. 1 hired mobile water tankers of capacities 4 KL and 2 no. contractual of 28 KL and 9 KL of capacity are in operation. Ambient air quality is being monitored on fortnightly basis by CMPDIL and reports are being sent to Maharashtra Pollution Control Board and all values are under permissible limit.																															
2	Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the Mine Lease area in a phased manner. The greenbelt comprising of mix of native species shall be developed all along the major approach / coal transportation roads.	Plantation details are as follows: <table><tr><td>Sr no</td><td>Year</td><td>Plantation (Nos.)</td><td>Area (Ha)</td></tr><tr><td>1</td><td>2017-18</td><td>25000</td><td>10.0</td></tr><tr><td>2</td><td>2020-21</td><td>31000</td><td>12.4</td></tr><tr><td>3</td><td>2021-22</td><td>20000</td><td>7.48</td></tr><tr><td>4</td><td>2022-23</td><td>50000</td><td>20.0</td></tr><tr><td>5</td><td>2023-24</td><td>36250</td><td>14.5</td></tr><tr><td colspan="2">TOTAL</td><td>162250</td><td>64.88</td></tr></table>				Sr no	Year	Plantation (Nos.)	Area (Ha)	1	2017-18	25000	10.0	2	2020-21	31000	12.4	3	2021-22	20000	7.48	4	2022-23	50000	20.0	5	2023-24	36250	14.5	TOTAL		162250	64.88
Sr no	Year	Plantation (Nos.)	Area (Ha)																														
1	2017-18	25000	10.0																														
2	2020-21	31000	12.4																														
3	2021-22	20000	7.48																														
4	2022-23	50000	20.0																														
5	2023-24	36250	14.5																														
TOTAL		162250	64.88																														
3	Transportation of coal shall be carried out as per the provisions and routes proposed in approved mining plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a bypass road, it should be constructed so that the impact of sound, dust and accidents could be appropriate mitigated.	Agreed, transportation of coal will be carried out as per the provisions and routes proposed in approved mining plan. The existing route does not pass through any village. Till CHP is constructed, presently the coal is transported to CHP of Gouri I&II OC as indicated earlier. As per present condition there are adequate control measures for control of dust, sound and accidents.																															

4	Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining PUC certificate from authorized pollution testing centre.	Complied. Only vehicles with valid PUC are being allowed for coal transportation.
5	Coal Stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression systems. Belt conveyors shall be fully covered to avoid air borne dust. Side cladding all along the gantry shall be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.	Drills are being wet operated. Coal stock pile / yard are provided with 10 nos of rain guns. 8 nos ranguns installed at weighbridge.1 hired mobile water tankers of capacities 4 KL each and 2 no. contractual 28 KL and 9KL of capacity are in operation.
6	Coal handling plant shall be operated with effective control measures viz. Bag filters / water or mist sprinkling systems to check fugitive dust emissions from crushing operations, conveyor system transfer points etc.	<p>CHP hasn't been constructed yet. Adequate dust suppression arrangement will be put into operation once it comes up. At present coal from Pauni II Expansion OC is crushed in Gouri I&II(A) OC CHP premises. Dust suppression measures at Gouri are 3 nos departmental mobile tankers with capacity 28 KL each and 1 no hired tanker with capacity 12 KL. 9 nos of sprinklers are installed at CHP in Gouri I&II(A) OC . Dust suppression measures at Pauni II Expansion OC are 10 nos of rain guns installed at coal stock. 8 nos ranguns installed at weighbridge. 1 hired mobile water tankers of capacities 4 KL each and 2 no. contractual 28 KL and 9 KL of capacity are in operation.</p> <p>Regarding Fugitive dust monitoring, it is submitted that as per CMR 123 of 1957, 8 hour weighted work zone standard for fugitive emission is $3000 \mu\text{g}/\text{m}^3$.</p> <p>At present coal from Pauni II Expansion OC is crushed in Gouri I&II(A) OC CHP premises. Fugitive dust monitoring is carried out at CHP (Gouri I&II (A) OC) Weighbridge (Gouri I&II (A) OC)</p>

7	<p>Groundwater excluding mine water shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of groundwater resources.</p>	<p>No groundwater, other than pumped water from mine is being used for meeting the industrial demand viz. dust suppression, plantation, etc. No groundwater is used for extraction of coal and or excavation of OB / soil. Out of 1095.52 Ha, only 273.79 Ha is in use for excavation, 244.9 OB dumping, 10 Ha for embankment and infrastructure which comes to 48.25% total land. The remaining land of 566.83 Ha is still untouched and serving as ground water recharge structures. The level of ground water in the wells in the buffer zone is being Monitored continuously round the year at quarterly interval. As per the results there are such adverse effects on ground water levels. Further Roof top rain water harvesting system provided at Manager office. In addition a pond at Sakhari village which is fed with excess mine pumped out water after sedimentation and pressure filter which also serves as ground water recharge structure.</p>
---	--	---

8	<p>Catch drains and siltation pounds of appropriate size should be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into river and water bodies. Further dump material shall be compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains.</p> <p>Sump capacity should also provide adequate retention periods to allow proper settling of silt materials. The water so collected in the sump shall be utilized for dust separation measures and green belt development. Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on rainfall data. Plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.</p>	<p>Complied.</p> <p>Catch drains / garland drains of appropriate sizes have been constructed around the OB dump and quarry to arrest flow of silt and sediments into natural water course.</p> <p>These catch drains /garland drains are desilted before onset of every monsoon.</p> <p>Garland Drain of dimension of length 8.3 Km x width 3.0m x height 2.0m is provided.</p> <p>Catch Drain of dimension – length 8.3 Km x width 3.0m x height 2.0 m is provided.</p> <p>The sump made at the quarry floor which collects all the silts & sediments form OB benches.</p> <p>In this regard, it may be noted that, cross drainage is provided over the OB benches, which carry all the material to the mine sump. Further, OB dumps are also compacted and water from top is guided to the toe finally to the catch drains. The water thus collected in the sump gets adequate retention time to allow proper setting of suspended materials. The supernatant water is pumped out on surface & fed into one no of surface sedimentation tank of size 38.40 m x 23.40 m x 1.55 m for secondary treatment. The treated water from surface sedimentation tank used for watering the mine area & green belt development. The excess water from sedimentation tank is being diverted to pond at sakhari village after treatment through Pressure Filter which acts as groundwater recharge structure. The catch drains are de-silted before onset of every monsoon. The OB dump is within the acquired land and native species will be planted once dump attain he final shape and height.</p>
9	<p>Industrial waste water from CHP, workshop and waste water from the mine should be properly collected, treated so as to conform to the standards prescribed under EPA 1986 and the rules made there under or as amended from time to time.</p> <p>Oil and grease trap should be installed before discharge of workshop effluent.</p>	<p>At present as already indicated, CHP is yet to be constructed. The effluent in this mine comes from workshop and mine. For treatment of workshop effluent, 150 KLD treatment plan has already been put in place. The plant has inbuilt Oil and Grease trap with Oil skimmer and for effective treatment a clari-floculator is provided. For treatment of mine water, it may be noted that strata seepage water coming down the cross drainage finally gets accumulated in the mine sump made at the floor of the seam. The water gets its first stage settlement at the mine sump having a capacity of 54.73 Million Gallons. Subsequently, supernatant water is pumped out and fed into surface sedimentation tank of size 38.40 m x 23.40 m x 1.55 m which gives 2nd stage settlement. The quality of</p>

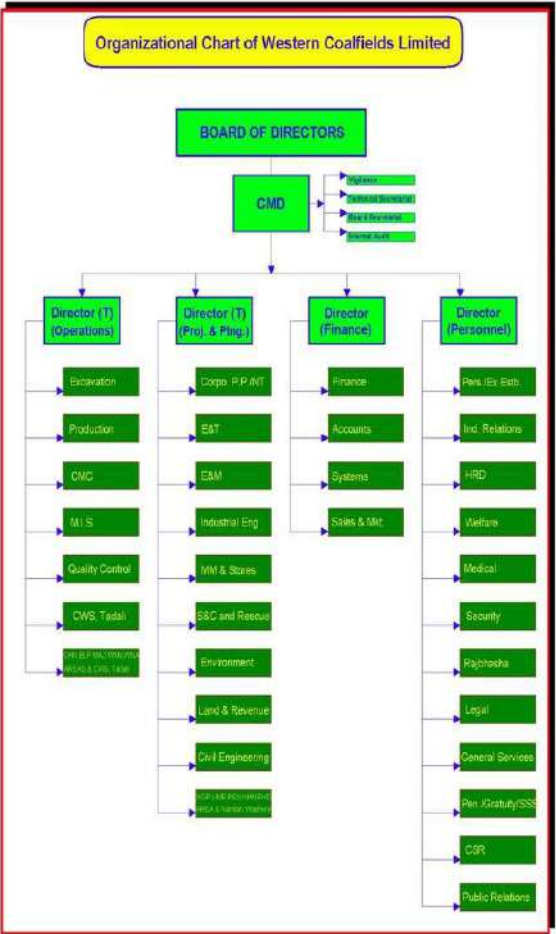
		effluent is monitored every fortnight. The report of monitoring results is enclosed.																						
10	Adequate groundwater recharge measures shall be taken up for augmentation of groundwater. The project authorities shall meet the water requirements of nearby villages in case the village wells goes dry due to dewatering of mine.	In this regard, action taken reply given at point no. 7 may also be referred. Roof top rain water harvesting system provided at Manager office. The mine water is pumped out on surface & fed into one no of surface sedimentation tank of size 38.40 m x 23.40 m x 1.55 m for secondary treatment. The treated water from surface sedimentation tank used for watering the mine area & green belt development. The excess water from sedimentation tank is being diverted to pond at Sakhari village after treatment through Pressure Filter which also acts as ground water recharge structure.																						
D	ILLUMINATION, NOISE & VIBRATIONS																							
1	Adequate illumination shall be ensured in all mine locations as per DGMS standards and monitored weekly. The report of same be submitted in this ministry and RO on a six monthly basis.	Agreed. Illumination has been maintained as per new CMR guidelines. Copy of same is enclosed as Annexure D																						
2	Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations of HEMM etc. should be provided with ear plugs/ muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programmes for users to be conducted. Progress in usage of such accessories be monitored.	<p>Agreed. Adequate measures are taken for control of Noise pollution. Workers engaged in blasting and drilling operations, operation of HEMM, etc are provided with ear plugs/muffs. Regular awareness programs for training and retraining of workers are also conducted in vocational training center of area.</p> <p>Details of VTC trainings carried out at Ballarpur Area is given below:</p> <table border="1"> <thead> <tr> <th rowspan="2">Year</th><th colspan="2">VTC Training</th></tr> <tr> <th>Target</th><th>Acheived</th></tr> </thead> <tbody> <tr> <td>2021-22</td><td>680</td><td>592</td></tr> <tr> <td>2022-23 (upto Sept 2022)</td><td>680</td><td>440</td></tr> </tbody> </table> <p>Details of VTC trainings carried out at Pauni II project, Ballarpur Area is given below:</p> <table border="1"> <thead> <tr> <th rowspan="2">Year</th><th colspan="2">VTC Training</th></tr> <tr> <th>Target</th><th>Acheived</th></tr> </thead> <tbody> <tr> <td>2021-22</td><td>40</td><td>31</td></tr> <tr> <td>2022-23 (upto Sept 2022)</td><td>40</td><td>40</td></tr> </tbody> </table>	Year	VTC Training		Target	Acheived	2021-22	680	592	2022-23 (upto Sept 2022)	680	440	Year	VTC Training		Target	Acheived	2021-22	40	31	2022-23 (upto Sept 2022)	40	40
Year	VTC Training																							
	Target	Acheived																						
2021-22	680	592																						
2022-23 (upto Sept 2022)	680	440																						
Year	VTC Training																							
	Target	Acheived																						
2021-22	40	31																						
2022-23 (upto Sept 2022)	40	40																						

3	Controlled blasting techniques shall be practiced in order to mitigate ground vibrations and fly rock as per the guidelines prescribed by the DGMS.	Complied. Controlled Blasting is being practiced as per DGMS permission. Copy of same is enclosed as Annexure L																																
4	The noise levels shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six monthly basis.	Agreed, being complied. Ambient noise level are being monitored fortnightly at Manager Office, Pauni Sub Area. Copy of same is enclosed as Annexure M All values are well within the permissible limit																																
E	OCCUPATIONAL HEALTH & SAFETY																																	
1	Proponent shall undertake an Occupational Health Survey for initial and Regular Periodical medical examination of the workers engaged in the Project and maintain records accordingly as per the Mines Rules, 1955 and DGMS Circulars. Besides being regular periodic checkup, 20% of the workers identified from workforce engaged in active mining operations shall be subjected to health checkup for occupation disease and impairment, if any.	<p>Personal working in dusty areas are provided with dust masks. Periodical health check-up of mine workers are carried out once in 5 years with the purpose of detecting occupational diseases & hearing impairment. Every worker in the mine is examined in 5 years- up to the age of 45; the workers who are above 50 years are subjected to periodic medical examination at two and a half years interval.</p> <p>Area Hospital in WCL Ballarpur Area is a 25 bedded hospital. Till date, since opening no such occupational diseases and or hearing impairment has been recorded.</p> <p>Details of IME and PME done at Ballarpur Area is given below:</p> <table><tr><th>Year</th><th>IME (in nos.)</th><th colspan="2">PME (in nos.)</th></tr><tr><td></td><td>Acheived</td><td>Target</td><td>Acheived</td></tr><tr><td>2021</td><td>953</td><td>1220</td><td>1425</td></tr><tr><td>2022</td><td>857</td><td>1220</td><td>1216</td></tr></table> <p>Details of IME and PME done at Pauni II project is given below:</p> <table><tr><th>Year</th><th>IME (in nos.)</th><th colspan="2">PME (in nos.)</th></tr><tr><td></td><td>Acheived</td><td>Target</td><td>Acheived</td></tr><tr><td>2021</td><td>369</td><td>12</td><td>55</td></tr><tr><td>2022</td><td>222</td><td>12</td><td>50</td></tr></table>	Year	IME (in nos.)	PME (in nos.)			Acheived	Target	Acheived	2021	953	1220	1425	2022	857	1220	1216	Year	IME (in nos.)	PME (in nos.)			Acheived	Target	Acheived	2021	369	12	55	2022	222	12	50
Year	IME (in nos.)	PME (in nos.)																																
	Acheived	Target	Acheived																															
2021	953	1220	1425																															
2022	857	1220	1216																															
Year	IME (in nos.)	PME (in nos.)																																
	Acheived	Target	Acheived																															
2021	369	12	55																															
2022	222	12	50																															
2	Personnel (including outsourcing employee) 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.	Personnel working (including outsourcing employee) in dusty areas provided with protective respiratory devices and advised to wear the same during the work.																																

3	Skill training as per safety norms specified by DGMS shall be provided to all workman including the outsourcing employee to ensure high safety standards in mine.	The skill training as per safety norms specified by DGMS are provided to all workmen including contractual and supervisors as detailed below:
F	ECOSYSTEM & BIODIVERSITY CONSERVATION	
1	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department.	A survey has been conducted by CMPDI on existing flora and fauna in post monsoon period of 2016. No endangered, endemic species of flora and fauna found in both core and buffer zones. No migratory fauna found in both core and buffer zones. As such, presently no such conservation plan is required. Copy of same is enclosed.
G	PUBLIC HEARING, R&R, AND CSR ACTIVITIES	
1	Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall complete all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land oustees should be compensated as per the norms laid out R&R Policy of the Company or the National R&R Policy or R&R Policy of the State Government, as applicable.	Noted and all the issues raised during the public hearing are being properly addressed. Land oustees has been compensated and employment has been given to all the eligible persons as per R&R policy. All the guidelines will be adhered from time to time framed by Government body in future.
2	The project proponent shall ensure that the expenditure towards socio economic development in and around the mine in every financial year, in pursuance of its Corporate Social Responsibility Policy under Section 135 of the Companies Act, 2013.	Agreed, and it is complied as per the CIL's CSR policy under Companies Act, 2013, The fund for the CSR will be allocated based on 2% of the average net profit of the Company for the three immediate preceding financial years or Rs 2.00 per Tonne of Coal Production of the previous year whichever is higher. Copy of same is enclosed as Annexure N.

3	The project proponent shall follow the mitigation measures provided in Office Memorandum No.Z- 11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".	The project proponent is adhering to the mitigation measures as per the guideline specific under the title 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area' OM No.Z11013/57/2014- IA.II (M) dated 29th October, 2014.
4	The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if	There is no acquisition of grazing land, as such not applicable.
	any. In this context, Project Proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land.	
H	CORPORATE ENVIRONMENT RESPONSIBILITY	
1	The Company should have a well laid down Environment Policy approved by the Board of Directors. The Environment Policy should prescribe for standard operating process/procedures to bring into focus any infringements /deviation/violation of the environmental or forest norms/conditions. To have proper checks and balances, the Company should have a well laid down system of reporting of non-compliance's/violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large.	<p>Complied. The Coal India Limited Corporate Environment Policy 2019 duly followed WCL is attached herewith.</p> <p>The company has a well laid down environment policy approved by WCL Board. To deal with environmental issues and for ensuring compliance with environmental clearance conditions. At project level, Environment Management cell is headed by Sub- Area and is assisted by Project Nodal Officer (Environment).</p> <p>At Area level, Area General Manager, Heads the environment cell and is assisted by General Manager (Operation) and Nodal Officer (Environment)</p> <p>At Corporate level at Headquarter, there is full fledged Environment Department which is headed by General Manger (Environment) with a multi disciplinary team of qualified and experienced engineers. The head of Corporate Environment</p>

		department reports directly the Director (Technical) , who is nominated owner of the company.
2	The project proponent shall comply with the provisions contained in this ministry's OM dated 1 st May, 2018, as applicable, regarding Corporate Environment Responsibility.	Noted.
3	The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions should be displayed on website of the Company.	<p>The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions was displayed on website of the Company. The same is placed below for your kind perusal.</p> <p>To deal with environmental issues and for ensuring compliance with environmental clearance conditions, at project level, Environment Management cell is headed by Sub-Area and is assisted by Project Nodal Officer (Environment).</p> <p>At Area level, Area General Manager, Heads the environment cell and is assisted by General Manager (Operation) and Nodal Officer (Environment)</p> <p>At Corporate level at Headquarter, there is full fledged Environment Department which is headed by General Manger (Environment) with a multi disciplinary team of qualified and experienced engineers. The head of Corporate Environment department reports directly the Director (Technical) , who is nominated owner of the company.</p>

		 <p>The organizational chart for Western Coalfields Limited is structured as follows:</p> <ul style="list-style-type: none"> BOARD OF DIRECTORS (top level) CMD (Chief Managing Director, second level) Support Functions (reporting to CMD): <ul style="list-style-type: none"> Engineers Technical Secretary Public Relations General Audit Four Directors (third level): <ul style="list-style-type: none"> Director (T) (Operations): <ul style="list-style-type: none"> Excavation Production CMC MIS Quality Control CWS, Tatali Production/Technical Services & Logistics Director (T) (Proj. & Plan.): <ul style="list-style-type: none"> Corpo. P.P. Mt. EAT EAM Industrial Eng. MM & Stores S&C and Resour. Environment Land & Revenue Civil Engineering Coal & Mineral Research & Development Director (Finance): <ul style="list-style-type: none"> Finance Accounts Systems Sales & Mkt. Director (Personnel): <ul style="list-style-type: none"> Rec. & Ex. Estb. Ind. Relations HRD Welfare Medical Security Rajchasha Legal General Services Pension/Gratuity/SSS CGR Public Relations <p>It has been uploaded on WCL website, linked as http://www.westerncoal.in/?q=node/431</p>
4	<p>A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will Report directly to the Head of the Organization</p>	<p>To deal with environmental issues and for ensuring compliance with environmental clearance conditions, at project level, Environment Management cell is headed by Sub- Area Manager, colliery manager and is assisted by Project Nodal Officer (Environment).</p> <p>At Area level, Area General Manager, Heads the environment cell and is assisted by General Manager (Operation) and Nodal Officer (Environment)</p> <p>At Corporate level at Headquarter, there is full fledged Environment Department which is headed by General Manger (Environment) with a multi disciplinary team of qualified and experienced engineers. The head of Corporate Environment department reports directly the Director (Technical) , who is nominated owner of the company..</p>

5	<p>Action plan for implementing EMP conditions shall be prepared and duly approved by competent authority. The year wise funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose.</p> <p>Year wise progress of implementation of action plan shall be reported to the Ministry and its Regional Office along with six monthly compliance report.</p>	Being complied. The funds earmarked for environment protection measures are kept in separate account and it is not used for any other purpose. Expenditure statement is shown in every six monthly compliance report sent to MoEF&CC.
6	<p>Self-environment audit shall be conducted annually. Even three years third party environment audit shall be carried out.</p>	<p>Self internal environmental audit system has been setup in the company recently.</p> <p>At Area level, a multi disciplinary committee has been constituted by order of competent authority to review the compliance status every month through a formatted checklist.</p> <p>Inter-area inspection to review compliance status is being done on quarterly basis.</p>
I	STATUTORY OBLIGATIONS	
1	Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, NGT	Noted
	and any other Court of Law, if any, as may be applicable to this project.	
2	This Environmental Clearance is subject to obtaining requisite wildlife if applicable from the Standing Committee of National Board for Wildlife.	No endangered fauna was observed in core and buffer zone as per the baseline data generated for Flora and Fauna in Environment Impact Assessment / Environment Management Plan which is enclosed. As such wildlife clearance is not applicable
3	The Project Proponent shall obtain Consent to Establish and Consent to Establish/ Operate under the Air Act, 1981 and the Water Act, 1974 from the concerned State Pollution Control Board.	<p>Complied</p> <p>Consent to operate under Air & Water Act is granted for additional capacity 3.25 MTPA up to 31.03.2024 vide consent no. FORMAT 1.0/CAC/UAN no. MPCB-Consent-0000166167/CR 2307001645. Copy of same is enclosed as Annexure A.</p>

4	The Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA). Application to CGWA for abstraction of groundwater for enhanced production capacity of 3.25 MTPA is in advanced stage of approval.	CGWA NOC for abstraction of groundwater has been obtained which is valid from 30/09/2019 to 29/09/2021. Further renewal application is been submitted and under final stage of approval. Copy of same is enclosed as B.
J	MONITORING OF PROJECT	
1	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM10, PM2.5, SO2 and NOx 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. Online AAQ monitoring stations may also be installed in addition to regular monitoring stations as per the requirement and/or in consultation with SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. carried out at least once in six months.	Four ambient air quality monitoring station covering core as well as buffer zone are established as follows BP OA-1 Mine Office – Pauni II OC BP ₂ OA-2- Substation – Pauni II OC BP OA-3- Sakhari Village BPOA -4 – Workshop Pouni OC The stations have been fixed considering the meteorological data, topographical features etc. The monitoring is carried out with due prior intimation to MPCB. Monitoring data is being submitted to MOEF & CC & MPCB regularly. The report of monitoring results is enclosed
2	The ambient air quality monitoring in the core zone shall be carried out to ensure the coal industry standard notified under GSR 742 (E) Dated 25.09.2000 and as amended from time to time by CPCB. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr, etc. shall be regularly reported to the ministry regional office and to the CPCB/SPCB.	Ambient Air quality monitoring is being carried out as per GSR 742(E). Copy of same is enclosed as M.

3	The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the coal industry standards of GSR 742 (E) Dated 25.09.2000 and as amended from time to time by CPCB.	The effluent discharge are monitored as per GSR 742(E). Copy of same is enclosed as M.
4	The monitoring data shall be uploaded on the company website and displayed at the project site at a suitable location. The circular no.J- 20012/1/2006/.1A.11(M) Dated 27.05.2009 issued by MoEF&CC shall also be referred in this regard for compliance.	Monitoring data is being regularly uploaded at WCL official website www.westerncoal.in and also displayed at the project site i.e Entrance of Sub Area Manager's Office.
5	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year pre- monsoon, monsoon, post- monsoon and winter and the data thus collected may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office.	The groundwater level monitoring is being carried out by CMPDIL, 4 times a year in pre-monsoon (May), Monsoon (August), Post-monsoon (November) and Winter (January) seasons and for quality once in a year. The monitoring report is regularly sent to Regional Officer, CGWB Nagpur with a copy to MoEF&CC & CPCB. Copy of same is enclosed as M
6	Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to MoEF&CC / Regional Office.	Upstream and downstream samples were collected from Sakhari and Lendi Nallah by CMPDI. Results of the samples collected are attached as Annexure O

7	Project proponent shall submit six monthly reports on the status of the implementation of the stipulated environment conditions to the Ministry of Environment, Forest and Climate Change and its Regional Office. For half yearly monitoring reports data should be monitored for the period April to September and October to March of the financial years	The six monthly report is being sent regularly within the stipulated time, as mentioned to Regional officer MPCB Chandrapur and MoEF&CC, Nagpur. Copy of same is enclosed as Annexure K.
8	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information / monitoring reports.	Agreed. Full cooperation shall be provided to the officers of Regional Office.
K	MISCELLANEOUS	
1	Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.	Agreed, will be complied. Energy consumption of mine is reduced in the last few years. 60 KWh Solar power plant has been set up at AGM office of Ballarpur Area to promote use of renewable energy sources.
2	The project authorities shall inform to the Regional Office regarding commencement of the mining operations.	Agreed, with the submission of Six monthly report, the details of commencement of project given to RO, MOEF&CC.
3	A copy of Environment clearance letter will be marked to concern Panchayat. A copy of the same shall also be sent to the concerned pollution control board, Regional office, District Industry Centre and Collector's office/ Tehsildar Office for 30 days.	Complied.

4	The EC shall be uploaded on the company's website. The, compliance status of the stipulated EC 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.	Agreed, a copy of EC has been uploaded on company website. A copy of six monthly has also been uploaded.
5	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue 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 also at web site of the Ministry of Environment, Forest and Climate Change at www.environmentclearance.nic .	Advertised in two News papers Mahavidarbha Hindi – 17.03.2020 Chandrapur Samachar – 17.03.2020. Copy of same is enclosed as Annexure O.
6	The Environmental Statement for each financial year ending 31 March in Form-V is mandated to be submitted by the PP for the concerned State Pollution Control Board as prescribed under the	The audit statement is also uploaded on company website. The Environmental Statement for each financial year is filled in Form-V before 30th september of each year. Environmental Statement for FY 2021-22 submitted within the stipulated time is attached. Copy of same is enclosed as Annexure P.
	Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the Company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF & CC by e-mail.	

7	The above conditions will be enforced inter alia under the provision of the water Act, 1974 and Air Act, 1981, Environment protection act, 1981 and the public liability act, 1991 along with their amendments and their rules and any other order passed by Hon'ble Supreme Court of India /High courts and any other court of law to the subject matter.	Noted.
5.	The proponent shall abide by all the commitments and recommendations made in the EIA EMP report and also that during presentation to EAC. All the commitments made on the issues raised during Public hearing shall also be implemented in letter and spirit.	Noted for compliance.
6.	The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The ministry or any other competent authority may stipulate any further condition for environmental protection.	Noted for compliance. Relevant details on consents from MPCB and NOC from CGWA have been given in earlier points.
7.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of NGT Act, 2010.	Does not pertain to the project.
8	The coal company/project proponent shall be liable to pay	Noted.
	the compensation against the illegal mining, if any, and as raised by the respective State government at any point of time, in terms of the orders dated 2/08/2017 of Hon'ble Supreme court in WP (Civil) no. 114/2014 in the matter of Common cause Vs Union of India and others.	

9.	The concerned state government shall ensure mining operation to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology, in strict compliance of judgment of Hon'ble Supreme court	Does not pertain to the project.
10.	This EC shall not be operational till such time the project proponent complies with the above said judgment, as applicable, and other statutory requirements.	Noted.
11.	This issues in supersession of the earlier EC granted by the Ministry vide letter dtd: 02/02/2006.	Noted.



भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन, नदी विकास
और गंगा संरक्षण विभाग
केन्द्रीय भूमि जल प्राधिकरण
Government of India
Ministry of Jal Shakti
Department of Water Resources,
River Development & Ganga Rejuvenation
Central Ground Water Authority

(भूजल निकासी हेतु अनापत्ति प्रमाण पत्र)

NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION

Project Name:	M/s Pauni-II OC Mine		
Project Address:	Near Pauni Village, Wardha Valley Colafield		
Village:	Pauni	Taluka:	Rajura
District:	Chandrapur	State:	Maharashtra
Pin Code:	442905		
Communication Address:	General Manager (Env), WCL (HQ), Nagpur, Maharashtra - 440001		
Address of CGWB Regional Office :	Central Ground Water Board Central Region, N.S. Building, Civil Lines, Nagpur, Maharashtra – 440001		

1.	NOC No.:		CGWA/NOC/MIN/ORIG/2019/6229									
2.	Application No.:		21-4/728/MH/MIN/2017			3.	Category:		Mining			
4.	Project Status:		Existing Project			5.	NOC Type:		New			
6.	Valid from:		30/09/2019			7.	Valid up to:		29/09/2021			
8.	Ground Water Abstraction Permitted:											
Fresh Water			Saline Water			Dewatering			Total			
m³/day		m³/year	m³/day		m³/year	m³/day		m³/year	m³/day		m³/year	
17.00		6205.00				654.00		238710.00	671.00		244915.00	
9.	Details of ground water abstraction /Dewatering structures											
Total Existing No.:3						Total Proposed No.:0						
		DW	DCB	BW	TW	MP	DW	DCB	BW	TW	MP	
Abstraction Structure*		0	0	2	0	1	0	0	0	0	0	
*DW- Dug Well; DCB-Dug-cum-Bore Well; BW-Bore Well; TW-Tube Well; MP-Mine Pit												
10.	Quantum of ground water recharge/harvesting (m³/year):					57654.00						
11.	Number of Piezometers (Observation wells) to be constructed/ monitored & Monitoring mechanism.					No. of Piezometers		Monitoring Mechanism				
							Manual		DWLR**		DWLR With Telemetry	
**DWLR - Digital Water Level Recorder					2		0		1		1	

(Compliance Conditions given overleaf)

Digitally signed by
NANDAKUMARAN P
Date: 2019.10.09 14:19:47 +05'30'

सदस्य (केन्द्रीय भूमि जल प्राधिकरण)
Member (CGWA)

Validity of this NOC shall be subject to compliance of the following mandatory conditions:

1. No additional ground water abstraction and/or de-watering structures shall be constructed for this purpose without prior approval of the Central Ground Water Authority (CGWA).
2. The proponent shall seek prior permission from CGWA for any increase in quantum of groundwater abstraction (more than that permitted in NOC for specific period).
3. All ground water abstraction/ de-watering structures shall be fitted/continue to be fitted with digital water flow meters by the firm at its own cost. Daily ground water abstraction data shall be monitored / continue to be monitored (in case of renewal) by the firm and recorded in a log book. Details of month-wise ground water abstraction shall be submitted to the Regional Director, CGWB on annual basis.
4. In case the ground water abstraction is more than 10 m³/day, monthly water level monitoring data shall be maintained and submitted annually to the Regional Office of CGWB. Wherever groundwater withdrawal is more than 500 m³/day, the firm shall install telemetry system in one of the piezometers and share USER ID and password of the telemetry system with the Regional Director, CGWB.
5. In case ground water abstraction is more than 10 m³/day, ground water quality shall be monitored once in a year (during pre- monsoon period) and the report submitted to the Regional Director, CGWB.
6. Ground water augmentation/harvesting measures, as stipulated in the NOC, shall be implemented (in new cases) / continue to be maintained (in case of renewal) in consultation with the Regional Director, CGWB.
7. Proof of recharge/ water harvesting (photographs of structures constructed) shall be submitted to the Regional Director, CGWB. The firm shall also undertake periodic maintenance of recharge/water harvesting structures at its own cost.
8. The firm shall optimize water use through recycling/ reuse of waste water after proper treatment.
9. The project proponent shall take all necessary measures to prevent contamination of ground water in the premises, failing which the firm shall be responsible for any consequences arising thereupon.
10. In case of industries likely to contaminate the ground water, no recharge measures shall be taken up by the firm inside the plant premises. The runoff generated from the rooftop shall be stored and put to beneficial use by the firm.
11. Wherever the NOC is for abstraction of saline water and the existing wells (s) is /are yielding fresh water, the same shall be sealed and new tubewell(s) tapping saline water zone shall be constructed within 3 months of the issuance of NOC. The firm shall also ensure safe disposal of saline residue, if any.
12. In case of mining projects, additional key wells shall be established in consultation with the Regional Director, CGWB for ground water level monitoring four (4) times a year (January, May, August and November) in core as well as buffer zones of the mine.
13. Unexpected variations in inflow of ground water into the mine pit, if any, shall be reported to the Regional Director, Central Ground Water Board.
14. The firm shall report compliance of the NOC conditions online in the website (www.cgwa-noc.gov.in) within one year from the date of issue of this NOC.
15. This NOC is subject to prevailing Central/ State Government rules/ laws/ norms or Court orders related to construction of tube well/ ground water abstraction structure/ recharge or conservation structure/dischage of effluents or any such matter as applicable.
16. This NOC does not absolve the proponents of their obligation/ requirement to obtain other statutory and administrative clearances from appropriate authorities.
17. The issue of this NOC does not imply that other statutory/ administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and take decisions independently of the NOC.
18. This NOC is being issued without any prejudice to the directions of the Hon'ble NGT/ court orders in cases related to ground water or any other related matters.
19. Application for renewal can be submitted online from 90 days before the expiry of NOC. Application for renewal of expired NOCs shall not be entertained and subsequent ground water withdrawal, if any, shall be illegal & liable for legal action as per provisions of Environment Protection Act (EPA), 1986.

(Non-compliance of the conditions mentioned above is likely to result in the cancellation of NOC and legal action against the proponent.)



Application for Issue of NOC to Abstract Ground Water (NOCAP)



Welcome : gmwd
Previous Login Date Time: 20/11/2021 10:29:56 AM , IP Address: 59.97.236.135

[Logout](#)

[Applicant Home](#) [Apply](#) [Feedback](#) [Change Password](#) [Profile](#)

Information

[Guidelines](#)
[Steps for Filling Online Application](#)

Documents Required

Documents Required for Online Application

- ▶ Industrial
- ▶ Infrastructure
- ▶ Mining

Track Status

[Application Status](#)
▶ Online

Location

[Area Type](#)
[Segment-B Area Type](#)
[Regional office Location](#)
[CGWA Headquarters](#)
[Know Your Environmental Compensation\(EC\)](#)
[Know Your Penalty](#)
[Ground Water Abstraction/Restoration Charges](#)

Reports

Application Status

Application No :	21-4/728/MH/MIN/2017		
Receive Date :	25/10/2021		
Name of Mining :	PAUNI-II OC MINE		
Application Processing Fee :	Rs. 5000.00/- (Rupees Five Thousand Only) (Submitted: Yes)		
Ground Water Abstraction/Restoration Charge :	Charge:	No Charge	
	Arear:	No Arear	
Current Stage :	Application Processing Stage		
Current Status :	In Process		
Address :	Central Ground Water Board Central Region N.S. BuildingCivil Lines NAGPUR MAHARASHTRA		

Current Status

Application Verification							
Receive Date	From User Name	To User Name	Forwarded User Name	Action Date	Action Internal Status	Action Comment	Copy of Application Received On
28/09/2021		(Evaluation Officer) Central Ground Water Board Central Region	(Evaluation Officer) Central Ground Water Board Central Region	25/10/2021	Approved	APPLICATION WILL BE PROCESSED AND APPROVED PROVIDED REVISED DOCUMENTS ARE SUBMITTED BY PP WITHING GIVEN TIME	



COAL INDIA LIMITED



CORPORATE ENVIRONMENT POLICY

2018

Environmental Policy Statement:

Coal India Limited(CIL) is committed to promote sustainable development by protecting the environment through integrated project planning & design, prevention / mitigation of pollution, conservation of natural resources, restoration of ecology & biodiversity, recycling/ proper disposal of wastes, addressing climate change and inclusive growth. It also aims to bringing awareness amongst its stakeholders for continual improvement in environmental performances following best practices.

OBJECTIVES:

Coal India Limited shall endeavor to:

- 1. Plan & design projects with due consideration to environmental concerns for Sustainable Development.*
- 2. Conduct mining and associated operation in an environmentally responsible manner to comply with applicable laws and other requirements related to environmental aspects.*
- 3. Prevent pollution of surrounding habitation by continuous monitoring and adopting suitable measures for environment protection.*
- 4. Implement Environment Management Plans in all our mines /projects effectively to mitigate pollution, conservation of natural resources and restoration of ecology & biodiversity.*
- 5. Ensure compliance of all applicable Environmental Clearance& Forestry Clearance conditions and other statutory conditions issued by regulatory agencies.*
- 6. Recycling of wastes on the principle of REDUCE, REUSE and RECYCLE.*
- 7. Put special thrusts on efficient energy utilization / renewable energy as a measure to reduce carbon foot-print.*
- 8. Strive for continual improvement in our environmental performances by setting targets, measuring progress and taking corrective action.*
- 9. Taking measures to render productive post mining land use.*
- 10. Implementation of activities applicable to CIL arising out of International Conventions.*
- 11. Create environmental awareness among the employees and the local communities through pro-active communication and training.*

STRATEGIES FOR IMPLEMENTATION OF ENVIRONMENTAL POLICY:

Back Ground:

Coal India Limited subscribes to the view of Sustainable Development. Unless the environment can sustain all the developmental activities, any pursuit of development in isolation can cause irreparable damage to the ecosystem and associated environmental attributes. Keeping this view in mind, Coal India Limited attaches top priority towards sustainable development and approved its 'Corporate Environmental Policy' in December 1995, which was subsequently revised in 2012. However the present policy is the amendment of the 2012 Policy and is complimentary to the National Environmental Policy, 2006.

This modification in the present policy is the outcome of the experience gained since 2012 keeping in view the modifications / amendments made time to time in environmental policies and additional stipulation notified by MoEF&CC (Ministry of Environment, Forest& Climate Change) and other organisations concerning mine closure, reclamation of degraded land, environmental clearance etc. and also with the objective of revisiting the corporate policy.

This Policy has a vision of Green Mining and mission of 100% compliance of environmental statutes applicable to coal mining industry.

Strategies: Coal India adopts the strategies appended below for effective implementation:

1. MINE/ PROJECT PLANNING & DESIGN FOR SUSTAINABLE DEVELOPMENT:

- a) Coal being a non-renewal energy source, extraction shall be planned prudently to meet national requirement in a planned way. The projects shall be designed on the principle of Sustainable Development with due consideration to environment, mine closure ,safety and aspirations of the stakeholders at the planning& design stage itself with due regard to mine closer plan.
- b) While preparing the Mining plan/project reports, the effort shall be to incorporate latest mining technologies and equipment's with optimal capacity, which are more environment friendly.

- c) All Mining Plan/ project reports will be provided with detailed provisions for ensuring environmental compliances.

2. ENVIRONMENTAL IMPACT ASSESSMENT (EIA) & ENVIRONMENT MANAGEMENT PLAN (EMP)

- a. All mine planning and design shall be environmentally acceptable and operation shall be carried out in such a way as to facilitate the compliance of stipulated environmental standards.
- b. EIA& EMP for all projects shall be formulated as per the approved ToR (Terms of Reference) and public consultations for obtaining Environmental Clearance (EC) from MoEF&CC. Similarly, in the existing projects needing enhancement of production capacities with or without increase in land, change of technology, renewal of lease and change in land use etc. fresh EC is required to be sought as per norms. The projects shall be operated after obtaining Consent to Establish (CTE)/Consent to Operate (CTO) from State Pollution Control Boards (SPCB).
- c. Detailed Mine Closure Plans shall be prepared for all existing and new mines as per the MoC (Ministry of Coal) guidelines.

3. COMPLIANCE OF THE STATUTORY REQUIREMENTS:

The implementation of EMP and fulfillment of all other statutory requirements like conditions of EC, FC and consents to establish & operate, including timely submission of returns to statutory bodies and various agencies, are to be ensured at all levels.

4. MEASURES TO MITIGATE POLLUTION:

a) Air Pollution:

- i) Generation of dust is to be controlled at the source to the possible extent with necessary control measures during drilling, blasting, loading, unloading, CHP transfer points etc.
- ii) Deployment of eco-friendly mining technologies.
- iii) Dust generation is to be minimized along coal / waste transportation routes.
- iv) Mechanized transportation of coal to be encouraged.
- v) Green belt is to be created around the source of dust.

b) Water pollution:

- i) The mine water and other effluent shall be treated to ensure the discharge norms as per statute. The treated effluent shall be utilized to the extent possible with a view to achieve maximum water conservation.
- ii) Oil & grease from the effluent shall be removed by Oil & Grease Traps for proper disposal.

c) Noise / ground vibration:

- i) All measures to minimize noise pollution will be taken including maintenance of HEMM, equipment and provision of PPE where required.
- ii) Suitable controlled blasting techniques shall be followed to reduce ground vibration as well as noise pollution.

d) Land reclamation:

- i) Progressive and concurrent reclamation of mined out areas will be carried out as per approved EIA/EMP and Mine Closure Plan (MCP).
- ii) Slopes of external dumps are the important area to be suitably graded / terraced for effective reclamation and plantation.
- iii) Preservation of top soil is required for future use. Old as well as existing non-active dumps are to be technically and biologically reclaimed.
- iv) Monitoring of reclamation work of all opencast mines will be done through Satellite Surveillance. The outcome shall be put in the websites.

e) Mine closure plans:

Mine Closure Plan (MCP) shall be prepared for each mine. MCP are being delineated in two phases viz. progressive and final mine closure. Appropriate funds are set aside and deposited under a special Escrow fund every year as per MoC guidelines, to be utilized for proper and final mine closure.

For mines closed prior to issuance of MoC guidelines (i.e. 27th August, 2009) suitable action to be taken as per provisions of Mines Act 1952.

f) Mine fire

CIL shall endeavour to reduce occurrence of mine fire and subsidence due to mining activity. Monthly report shall be submitted to top management of the subsidiary and CIL and Quarterly to company board. Action Plan for mine fire control shall be implemented. Monitoring will be done through Satellite Surveillance/other suitable technology.

g) Monitoring:

- I. All receptors in and around the mining projects shall be monitored regularly to assess the efficacy of the pollution control / mitigation measures within stipulated standards.
- II. Effect of mining on the hydrology of the area will be monitored through measurement of water level and its quality of nearby wells and bore holes provided for this purpose. Conservation of water through rainwater harvesting shall be taken up.
- III. Area and Unit environmental cells shall have regular interaction with the people in and around the coal mines and other allied units on matters related to environment to take necessary and timely corrective actions.
- V. Environmental initiatives and monitoring through self and third party environment audit shall be conducted for generating useful data for taking corrective actions and mitigation measures as per guidelines.

h) Other measures:

- I. Special emphasis shall be given to undertake R&D related to various facets of coal mine environmental management in collaboration with Central Mine Planning and Design Institute (CMPDI) and other competent institutions.
- II. Besides ensuring statutory compliance, the CIL desires to set high standards and continual improvement.
- III. A number of mines and establishments of CIL are ISO 14001 certified and balance mines & establishments shall be ISO 14001 certified in phased manner.
- IV. CSR and R&R policies of CIL are to be incorporated for better planning and implementation of the socio-economic issues of coal mining areas.
- V. The coal mining environmental issues are complex and require multi-disciplinary approach to address the same. CIL will endeavor to enter into MoUs with expert agencies of repute to assist in environment issues and also help in capacity building of CIL executives.
- VI. CIL conduct periodical medical examination (PME) of its work force on routine basis in compliance of the requirement mining rules and regulation, additional test will be done as and when require.

5. PRESERVATION OF BIO-DIVERSITY:

- a) This will start from mine planning including technically and biologically reclamation of mined out areas in collaboration with State Forest Departments, Wild Life Divisions, NGOs etc. working in the fields of bio-diversity conservation.

- b) The selection of species for plantation shall be done in consultation with the local community to include the local species and their preferences, if any.

6. COAL BENEFICIATION / COALWASHERIES:

- a) For beneficiation of Runoff Mines (ROM) coal, washeries are being set up in a phased manner as per requirement and statutes.
- b) Slurry Management System (SMS) in all washeries shall be organized to ensure collection of fines, gainful utilization of rejects viz. power generation in Fluidized Bed Combustion (FBC) plants, selling to brick manufacturers or adopting other environmental friendly disposal options as feasible.
- c) The reject dumps and tailings shall be suitably handled to avoid any contamination.
- d) The effluent from washeries including tailings pond shall be suitably treated and reused to minimize water consumption with zero discharge concept.

7. CONSERVATION AND CLEAN TECHNOLOGY:

- a) R&D projects shall be taken up to promote clean coal technology and improve the existing technologies.
- b) Energy saved is energy produced. Voluntary energy audit to be done for corrective action to reduce carbon footprint.
- c) Clean Development Mechanisms will be explored for reducing emission of Green House Gases by exploration, identification, preparation of projects reports for extraction of methane from Coal Bed, Coal Mine, Abandoned Mine, Ventilation Air, UG Coal Gasification, generation and utilization of renewable energy etc.

8. AWARENESS PROGRAMME:

- a) Publicity to generate awareness through exchange & communication of information, newsletters and periodicals on environment, seminars, workshops, celebration of World Environment Day etc. at CIL / Subsidiary HQs, Areas & units to be undertaken. Regular training programs to be organized at various levels to inculcate awareness among employees.
- b) Courses on environmental and forestry laws and Environmental Protection Measures and the Corporate Policy to be organized for project executives for improving knowledge.
- c) CIL to give annual awards for achieving excellence in environment related

issues and activities. These awards will be in recognition for implementation of EMP, land reclamation and compliance of statutes, proper maintenance of air & water quality and noise level.

9. WASTE MANAGEMENT:

CIL will undertake appropriate action for safe handling, storage and disposal of solid waste and hazardous waste generated from its industrial set up and colonies as per relevant rules. The biomedical waste generated from hospitals and dispensaries will be collected and disposed in appropriate facilities created as per statutes. E-waste management and handling of various types of e-waste generated in its operations will be done as per rule.

10. CORPORATE ENVIRONMENT RESPONSIBILITY:

Corporate Environment Responsibility (CER) is mandatory for issuing environmental clearance for all the Greenfield and Brownfield projects as per directives of MoEFCC with effect from 1st May, 2018 (O.M.No.22-65/2017-IAIII dt. 19.06.2018). Budgetary provisions should be kept for implementation of provisions of CER for all the projects which will be submitted to MoEFCC for grant of environmental clearance.

11. INCORPORATION OF VIEWS OF STAKEHOLDERS:

CIL will critically examine and incorporate the viewpoints of various stakeholders like PAPs/PAFs, Parliamentary Committees, Standing Sub-Committees, NGOs etc. CIL being a listed entity with stock exchange, it will also take into consideration the observations/viewpoints of international investors.

12.IMPLEMENTATION OF POLICY:

- i) **Manpower:** CIL shall have environmental divisions at decision making & operational levels in its structure. The environment department shall be set up and strengthened at:
 - i) CIL Corporate HQ at Kolkata
 - ii) Subsidiary HQs
 - iii) Areas / Units / Collieries / Workshops /Washeries
 - iv) CMPDI (HQ) & CMPDI Regional Institutes
- ii) **Roles and Responsibilities:** The environmental department, set up at company HQs, Areas and Unit levels with appropriate manpower and resources, shall be responsible for implementation of policy, obtaining EC, FC, consent to establish

& operate, statutes requirements and undertaking mitigation measures besides preparation of action plan every year and also to intimate the status of implementation to the management regularly.

iii) Annual Environment Budget (Revenue & Capital): The Annual Environment Budget (revenue & capital) shall be prepared based on the action plan including monitoring of various bench marks and the budget utilization. The year wise funds earmarked for environmental protection measures shall be kept in separate accounts with Environmental cost code.

13. FLEXIBILITY TO THE SUBSIDIARY COMPANIES:

CEP 2018 will be applicable for all subsidiaries of CIL. The subsidiary company Boards have been authorized to approve necessary modifications in CEP 2018 with reference to unique conditions prevailing at the concerned subsidiary.

REVIEW OF ENVIRONMENTAL POLICY:

In view of the present fast changing social, economic and environmental scenario, this Policy shall be reviewed every 5 years to incorporate the changes in the legal, technical, environmental, economic and social inputs prevailing at that time. Whenever, there is change in National Environmental Policy or other National / State relevant policies, Acts etc, this Corporate Environmental Policy would be reviewed and suitably revised.



STRICTLY RESTRICTED
FOR COMPANY USE ONLY
The information given in this report is not to be communicated either directly or indirectly to the press or to any person not holding an official position in the CIL / Government

ENVIRONMENTAL MONITORING REPORT

PAUNI II OC

BALLARPUR AREA

WESTERN COALFIELDS LTD.


JOB NO. 4094423068



MAY 2023

Environment Laboratory
NABL Accredited vide Cert. No. TC-7102
CMPDI
REGIONAL INSTITUTE-IV, KASTURBA NAGAR,
JARIPATKA, NAGPUR, PIN – 440 014

AN ISO 9001:2015 COMPANY

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	--------------------	--

TEST REPORT NO.	RIN/TR/MAY-23/47	DATE OF ISSUE	30-06-2023
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 Part-4:1999(RA 2019), PM-10: IS-5182 Part 23:2006(RA 2017), PM2.5: USEPA Quality Assurance guidance document volume-II (part-II)-2.12:2016, NO2: IS 5182 Part-06:2006(2017), SO2:IS 5182 Part-2:2001(RA 2017)		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : LSOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		16-05-23 TO 15-06-23

MINE OFFICE BP2OA1							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
07-05-2023	08-05-2023	236	138	36	12	BDL	Clear Sky/Calm
21-05-2023	22-05-2023	232	134	32	13	BDL	Clear Sky/Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	


SUBSTATION BP2OA2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
07-05-2023	08-05-2023	238	136	38	11	BDL	Clear Sky/Calm
21-05-2023	22-05-2023	234	132	34	10	BDL	Clear Sky/Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

SAKHARI VILLAGE BP2OA3							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
07-05-2023	08-05-2023	134	38	28	7	BDL	Clear Sky/Calm
21-05-2023	22-05-2023	138	36	26	8	BDL	Clear Sky/Calm
NAAQS, 2009		-	100	60	80	80	

WORKSHOP PAUNI OC BPOA2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
06-05-2023	07-05-2023	240	144	42	13	BDL	Clear Sky/Calm
20-05-2023	21-05-2023	248	140	40	12	BDL	Clear Sky/Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	



Analysed by


Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	--------------------	--

SAMPLE DESCRIPTION	Water sample		
Test Required	pH: IS 3025 -Part 11:1983(RA 2017),TSS: IS 3025-Part 17:1984(RA 2017),COD: APHA (23rd Edition) 5220 C :2017,O &G: IS 3025-Part 39:1991(RA 2019) & BOD: IS 3025 (Part 44): 1993 (RA 2019)		
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES :	16-05-23 TO 15-06-23

MINE WATER DISCHARGE: BP2OW1				
DATE OF SAMPLE COLLECTION	ANALYSIS RESULTS			
	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
07-05-2023	8.10	16	24	BDL
21-05-2023	7.71	14	20	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25-09- 2000	5.5 - 9.0	100	250	10



Analysed by

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	--------------------	--

NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROCTOCOL FOR AMBIENT NOISE MEASUREMENT, JUNE-2015
SAMPLING METHOD	LSOP 6

MANAGER OFFICE:		BPON1	
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
	DETECTION LIMIT	DAY TIME	NIGHT TIME
MAY'23	05-05-2023	55.9	54.8
MAY'23	19-05-2023	55.6	54.7
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

CHP		BPON2	
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
	DETECTION LIMIT	DAY TIME	NIGHT TIME
MAY'23	05-05-2023	67.7	66.9
MAY'23	19-05-2023	65.8	64.9
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70



Ashwin B Wasnik
Reviewed by



Deepanshu Sahu
Authorised by

1. This report cannot be reproduced in part or full without written of the management.
2. Laboratory activities are performed at the Laboratory permanent facility that is ground floor, Environment Lab, CMPDI RI-IV, Nagpur.
3. This report refers to the values related to the items tested.

***** End of report *****



STRICTLY RESTRICTED
FOR COMPANY USE ONLY
The information given in this report is not to be communicated either directly or indirectly to the press or to any person not holding an official position in the CIL / Government

ENVIRONMENTAL MONITORING REPORT

PAUNI II OC

BALLARPUR AREA

WESTERN COALFIELDS LTD.


JOB NO. 4094423068



JUNE 2023

Environment Laboratory
NABL Accredited vide Cert. No. TC-7102
CMPDI
REGIONAL INSTITUTE-IV, KASTURBA NAGAR,
JARIPATKA, NAGPUR, PIN – 440 014

AN ISO 9001:2015 COMPANY

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	--------------------	--

TEST REPORT NO.	RIN/TR/JUNE-23/47	DATE OF ISSUE	31-07-23
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 Part-4:1999(RA 2019), PM-10: IS-5182 Part 23:2006(RA 2017), PM2.5: USEPA Quality Assurance guidance document volume-II (part-II)-2.12:2016, NO2: IS 5182 Part-06:2006(2017), SO2:IS 5182 Part-2:2001(RA 2017)		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : LSOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		16-06-23 TO 15-07-23

MINE OFFICE BP2OA1							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
FROM	TO	5	5	2	6	10	
09-06-23	10-06-23	245	144	38	13	BDL	cloudy sky/light breeze
22-06-23	23-06-23	236	135	36	11	BDL	cloudy sky/light breeze
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

SUBSTATION BP2OA2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
FROM	TO	5	5	2	6	10	
09-06-23	10-06-23	238	132	34	12	BDL	cloudy sky/light breeze
22-06-23	23-06-23	232	134	32	10	BDL	cloudy sky/light breeze
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

SAKHARI VILLAGE BP2OA3							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
FROM	TO	5	5	2	6	10	
07-06-23	08-06-23	138	38	28	8	BDL	Clear Sky/Calm
08-06-23	09-06-23	126	36	26	7	BDL	cloudy sky/light breeze
13-06-23	14-06-23	122	32	22	7	BDL	Clear Sky/Calm
14-06-23	15-06-23	134	28	24	8	BDL	cloudy sky/light breeze
20-06-23	21-06-23	136	34	26	6	BDL	Clear Sky/Calm
21-06-23	22-06-23	130	30	24	7	BDL	cloudy sky/light breeze
27-06-23	28-06-23	132	36	26	8	BDL	Clear Sky/Calm
28-06-23	29-06-23	138	38	28	7	BDL	cloudy sky/light breeze
NAAQS, 2009		-	100	60	80	80	

WORKSHOP PAUNI OC BPOA2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
FROM	TO	5	5	2	6	10	
08-06-23	09-06-23	232	132	36	12	BDL	cloudy sky/light breeze
23-06-23	24-06-23	228	126	26	11	BDL	cloudy sky/light breeze
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	



Analysed by

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	
---	--------------------	---

SAMPLE DESCRIPTION	Water sample	
Test Required	pH: IS 3025 -Part 11:1983(RA 2017),TSS: IS 3025-Part 17:1984(RA 2017),COD: APHA (23rd Edition) 5220 C :2017,O &G: IS 3025-Part 39:1991(RA 2019) & BOD: IS 3025 (Part 44): 1993 (RA 2019)	
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES : 16-06-23 TO 15-07-23

MINE WATER DISCHARGE: BP2OW1				
DATE OF SAMPLE COLLECTION	ANALYSIS RESULTS			
	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
13-06-23	8.77	18	28	BDL
29-06-23	8.23	22	32	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25-09- 2000	5.5 - 9.0	100	250	10



Analysed by

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	--------------------	--

NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROTOCOL FOR AMBIENT NOISE MEASUREMENT, JUNE-2015
SAMPLING METHOD	LSOP 6

MANAGER OFFICE:		BPON1	
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
	DETECTION LIMIT	DAY TIME	NIGHT TIME
JUNE'23	10-06-23	55.5	54.6
JUNE'23	24-06-23	56.5	55.6
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

CHP		BPON2	
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
	DETECTION LIMIT	DAY TIME	NIGHT TIME
JUNE'23	10-06-23	64.5	63.6
JUNE'23	24-06-23	64.6	63.7
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70



Ashwin B Wasnik
Reviewed by



Deepanshu Sahu
Authorised by

1. This report cannot be reproduced in part or full without written of the management.
2. Laboratory activities are performed at the Laboratory permanent facility that is ground floor, Environment Lab, CMPDI RI-IV, Nagpur.
3. This report refers to the values related to the items tested.

***** End of report *****



STRICTLY RESTRICTED
FOR COMPANY USE ONLY
The information given in this report is not to be communicated either directly or indirectly to the press or to any person not holding an official position in the CIL / Government

ENVIRONMENTAL MONITORING REPORT

PAUNI II OC

BALLARPUR AREA

WESTERN COALFIELDS LTD.


JOB NO. 4094423068



JULY 2023

Environment Laboratory
NABL Accredited vide Cert. No. TC-7102
CMPDI
REGIONAL INSTITUTE-IV, KASTURBA NAGAR,
JARIPATKA, NAGPUR, PIN – 440 014

AN ISO 9001:2015 COMPANY

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	--------------------	--

TEST REPORT NO.	RIN/TR/JULY-23/47	DATE OF ISSUE	31-08-2023
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 Part-4:1999(RA 2019), PM-10: IS-5182 Part 23:2006(RA 2017), PM2.5: USEPA Quality Assurance guidance document volume-II (part-II)-2.12:2016, NO2: IS 5182 Part-06:2006(2017), SO2:IS 5182 Part-2:2001(RA 2017)		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : LSOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		16-07-23 TO 14-08-23

MINE OFFICE BP2OA1							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
FROM	TO	5	5	2	6	10	
13-07-2023	14-07-2023	212	145	42	14	BDL	Cloudy Sky /Light Breeze
27-07-2023	28-07-2023	251	124	36	14	BDL	Cloudy Sky /Light Breeze
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

SUBSTATION BP2OA2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
FROM	TO	5	5	2	6	10	
13-07-2023	14-07-2023	210	132	39	12	BDL	Cloudy Sky /Light Breeze
27-07-2023	28-07-2023	234	136	43	13	BDL	Cloudy Sky /Light Breeze
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

SAKHARI VILLAGE BP2OA3							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)				ENVIRONMENT CONDITIONS (Sky/Wind)	
		PM ₁₀	PM _{2.5}	No ₂	So ₂		
FROM	TO	5	2	6	10		
04-07-2023	05-07-2023	52	24	12	BDL		Rainy Sky /Light Breeze
05-07-2023	06-07-2023	60	22	13	BDL		Clear Sky / Calm
11-07-2023	12-07-2023	48	26	9	BDL		Cloudy Sky /Light Breeze
12-07-2023	13-07-2023	57	28	8	BDL		Cloudy Sky /Light Breeze
18-07-2023	19-07-2023	39	20	6	BDL		Rainy Sky /Light Breeze
19-07-2023	20-07-2023	46	23	8	BDL		Rainy Sky /Light Breeze
25-07-2023	26-07-2023	50	26	6	BDL		Rainy Sky /Light Breeze
26-07-2023	27-07-2023	56	29	8	BDL		Rainy Sky /Light Breeze
NAAQS, 2009		100	60	80	80		

WORKSHOP PAUNI OC BPOA2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
FROM	TO	5	5	2	6	10	
13-07-2023	14-07-2023	210	136	32	12	BDL	Cloudy Sky light breeze
27-07-2023	28-07-2023	213	125	40	13	BDL	Cloudy Sky light breeze
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	



Analysed by

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	-------------	--

FUGITIVE DUST MONITORING


TEST REQUIRED	SPM: IS 5182 Part-4:1999(RA 2019), PM-10: IS-5182 Part 23:2006(RA 2017) & PM2.5: USEPA Quality Assurance guidance		
SAMPLE DESCRIPTION	Air sample(Fugitive)		
SAMPLING METHOD : LSOP 4		PERIOD OF PERFORMANCE OF LAB ACTIVITIES:	16-07-23 TO 14-08-23

WEIGH BRIDGE BNDOF1				
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in µg/m³)		ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	
FROM	TO	5	5	
26-Jul-23	27-Jul-23	420	341	Cloudy Sky light breeze

CHP BNDOF2				
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in µg/m³)		ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	
FROM	TO	5	5	
26-Jul-23	27-Jul-23	462	361	Cloudy Sky light breeze



Analysed by

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	-------------	--

SAMPLE DESCRIPTION	Water sample	
Test Required	pH: IS 3025 -Part 11:1983(RA 2017),TSS: IS 3025-Part 17:1984(RA 2017),COD: APHA (23rd Edition) 5220 C :2017,O &G: IS 3025-Part 39:1991(RA 2019) & BOD: IS 3025 (Part 44): 1993 (RA 2019)	
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES : 16-07-23 TO 14-08-23

MINE WATER DISCHARGE:BP2OW1				
DATE OF SAMPLE COLLECTION	ANALYSIS RESULTS			
	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
04-07-2023	8.10	36	52	BDL
23-07-2023	7.85	32	44	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25-09- 2000	5.5 - 9.0	100	250	10



Analysed by

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	-------------	--

NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROCTOCOL FOR AMBIENT NOISE MEASUREMENT, JULY-2015
SAMPLING METHOD	LSOP 6

MANAGER OFFICE:		BPON1	
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
	DETECTION LIMIT	20	20
JULY'23	14-07-2023	55.5	56.6
JULY'23	28-07-2023	54.8	53.7
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

CHP		BPON2	
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
	DETECTION LIMIT	20	20
JULY'23	14-07-2023	60.7	59.5
JULY'23	28-07-2023	57.6	56.8
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70



Amol Kamble
Reviewed by



Deepanshu Sahu
Authorised by

1. This report cannot be reproduced in part or full without written of the management.
2. Laboratory activities are performed at the Laboratory permanent facility that is ground floor, Environment Lab, CMPDI RI-IV, Nagpur.
3. This report refers to the values related to the items tested.

***** End of report *****



STRICTLY RESTRICTED
FOR COMPANY USE ONLY
The information given in this report is not to be communicated either directly or indirectly to the press or to any person not holding an official position in the CIL / Government

ENVIRONMENTAL MONITORING REPORT

PAUNI II OC

BALLARPUR AREA

WESTERN COALFIELDS LTD.


JOB NO. 4094423068



AUGUST 2023

Environment Laboratory
NABL Accredited vide Cert. No. TC-7102
CMPDI
REGIONAL INSTITUTE-IV, KASTURBA NAGAR,
JARIPATKA, NAGPUR, PIN – 440 014

AN ISO 9001:2015 COMPANY

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	--------------------	--

TEST REPORT NO.	RIN/TR/AUG-23/47	DATE OF ISSUE	30-09-2023
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 Part-4:1999(RA 2019), PM-10: IS-5182 Part 23:2006(RA 2017), PM2.5: USEPA Quality Assurance guidance document volume-II (part-II)-2.12:2016, NO2: IS 5182 Part-06:2006(2017), SO2:IS 5182 Part-2:2001(RA 2017)		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : LSOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		15-08-23 TO 15-09-23

MINE OFFICE BP20A1							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
FROM	TO	5	5	2	6	10	
10-08-2023	11-08-2023	265	146	39	14	BDL	Clear Sky /Light Breeze
24-08-2023	25-08-2023	268	156	45	15	BDL	Clear Sky /Light Breeze
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

SUBSTATION BP20A2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
FROM	TO	5	5	2	6	10	
10-08-2023	11-08-2023	250	136	35	15	10	Clear Sky /Light Breeze
24-08-2023	25-08-2023	238	147	39	14	BDL	Clear Sky /Light Breeze
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

SAKHARI VILLAGE BP20A3							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		PM ₁₀	PM _{2.5}	No ₂	So ₂		
FROM	TO	5	2	6	10		
01-08-2023	02-08-2023	54	25	12	BDL		Cloudy Sky /Light Breeze
02-08-2023	03-08-2023	47	28	10	BDL		Rainy Sky /Light Breeze
08-08-2023	09-08-2023	52	20	9	BDL		Clear Sky /Light Breeze
09-08-2023	10-08-2023	59	30	11	BDL		Clear Sky /Light Breeze
16-08-2023	17-08-2023	62	28	12	BDL		Clear Sky /Light Breeze
17-08-2023	18-08-2023	54	33	10	BDL		Cloudy Sky /Light Breeze
22-08-2023	23-08-2023	64	22	13	BDL		Cloudy Sky /Light Breeze
23-08-2023	24-08-2023	59	36	9	BDL		Cloudy Sky /Light Breeze
29-08-2023	30-08-2023	65	20	10	BDL		Clear Sky /Light Breeze
30-08-2023	31-08-2023	48	26	8	BDL		Clear Sky /Light Breeze
NAAQS, 2009		100	60	80	80		

WORKSHOP PAUNI OC BPOA2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
FROM	TO	5	5	2	6	10	
03-08-2023	04-08-2023	234	132	32	12	BDL	Clear Sky / Light Breeze
18-08-2023	19-08-2023	234	110	37	12	BDL	Rainy Sky /Light Breeze
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	



Analysed by

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	--------------------	--

SAMPLE DESCRIPTION	Water sample	
Test Required	pH: IS 3025 -Part 11:1983(RA 2017),TSS: IS 3025-Part 17:1984(RA 2017),COD: APHA (23rd Edition) 5220 C :2017,O &G: IS 3025-Part 39:1991(RA 2019) & BOD: IS 3025 (Part 44): 1993 (RA 2019)	
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES : 15-08-23 TO 15-09-23

MINE WATER DISCHARGE: BP2OW1				
DATE OF SAMPLE COLLECTION	ANALYSIS RESULTS			
	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
10-08-2023	7.65	36	48	BDL
24-08-2023	7.45	24	48	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25-09- 2000	5.5 - 9.0	100	250	10


Analysed by

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	--------------------	--

NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROTOCOL FOR AMBIENT NOISE MEASUREMENT, AUG-2015
SAMPLING METHOD	LSOP 6

MANAGER OFFICE:		BPON1	
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
	DETECTION LIMIT	20	20
AUG'23	05-08-2023	55.7	54.7
AUG'23	21-08-2023	56.8	55.9
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

CHP		BPON2	
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
	DETECTION LIMIT	20	20
AUG'23	05-08-2023	58.8	57.6
AUG'23	21-08-2023	57.9	56.5
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70



Ashwin B Wasnik
Reviewed by



Deepanshu Sahu
Authorised by

1. This report cannot be reproduced in part or full without written of the management.
2. Laboratory activities are performed at the Laboratory permanent facility that is ground floor, Environment Lab, CMPDI RI-IV, Nagpur.
3. This report refers to the values related to the items tested.

***** End of report *****



STRICTLY RESTRICTED
FOR COMPANY USE ONLY
The information given in this report is not to be communicated either
directly or indirectly to the press or to any person not holding an official
position in the CIL / Government

ENVIRONMENTAL MONITORING REPORT

PAUNI II OC

BALLARPUR AREA

WESTERN COALFIELDS LTD.


JOB NO. 4094423068



SEPTEMBER 2023

Environment Laboratory
NABL Accredited vide Cert. No. TC-7102
CMPDI
REGIONAL INSTITUTE-IV, KASTURBA NAGAR,
JARIPATKA, NAGPUR, PIN – 440 014

AN ISO 9001:2015 COMPANY

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	--------------------	--

TEST REPORT NO.	RIN/TR/SEPT-23/47	DATE OF ISSUE	27-10-23
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 Part-4:1999(RA 2019), PM-10: IS-5182 Part 23:2006(RA 2017), PM2.5: USEPA Quality Assurance guidance document volume-II (part-II)-2.12:2016, NO ₂ : IS 5182 Part-06:2006(2017), SO ₂ :IS 5182 Part-2:2001(RA 2017)		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : LSOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		15-09-23 TO 15-10-23

MINE OFFICE BP20A1							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
FROM	TO	5	5	2	6	10	
07-09-23	08-09-23	210	144	54	15	BDL	Rainy sky /Light Breeze
21-09-23	22-09-23	230	169	42	16	BDL	Rainy sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

SUBSTATION BP20A2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
FROM	TO	5	5	2	6	10	
07-09-23	08-09-23	236	125	38	12	BDL	Rainy sky /Light Breeze
21-09-23	22-09-23	265	169	45	16	11	Rainy sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

SAKHARI VILLAGE BP20A3							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)				ENVIRONMENT CONDITIONS (Sky/Wind)	
		PM ₁₀	PM _{2.5}	No ₂	So ₂		
FROM	TO	5	2	6	10		
05-09-23	06-09-23	69	32	10	BDL	Rainy sky / Light Breeze	
06-09-23	07-09-23	62	30	12	BDL	Rainy sky / Light Breeze	
12-09-23	13-09-23	75	35	10	BDL	Rainy sky / Light Breeze	
13-09-23	14-09-23	65	30	9	BDL	Rainy sky / Light Breeze	
19-09-23	20-09-23	86	36	12	BDL	Cloudy Sky /Calm	
20-09-23	21-09-23	69	29	10	BDL	Rainy sky /	
26-09-23	27-09-23	88	33	10	BDL	Clear Sky / Calm	
27-09-23	28-09-23	80	37	9	BDL	Clear Sky / Calm	
NAAQS, 2009		100	60	80	80		

WORKSHOP PAUNI OC BPOA2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
		SPM	PM ₁₀	PM _{2.5}	No ₂	So ₂	
FROM	TO	5	5	2	6	10	
03-09-23	04-09-23	216	136	47	19	12	Rainy/ Light Breeze
19-09-23	20-09-23	245	147	53	12	BDL	Rainy/ Light Breeze
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	


Analysed by

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	--------------------	--

SAMPLE DESCRIPTION	Water sample	
Test Required	pH: IS 3025 -Part 11:1983(RA 2017),TSS: IS 3025-Part 17:1984(RA 2017),COD: APHA (23rd Edition) 5220 C :2017,O &G: IS 3025-Part 39:1991(RA 2019) & BOD: IS 3025 (Part 44): 1993 (RA 2019)	
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES : 15-09-23 TO 15-10-23

MINE WATER DISCHARGE: BP2OW1				
DATE OF SAMPLE COLLECTION	ANALYSIS RESULTS			
	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
02-09-23	7.60	48	28	BDL
21-09-23	7.58	36	28	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25-09- 2000	5.5 - 9.0	100	250	10


Analysed by

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
---	--------------------	--

NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROTOCOL FOR AMBIENT NOISE MEASUREMENT, SEPT-2015
SAMPLING METHOD	LSOP 6

MANAGER OFFICE:		BPON1	
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
	DETECTION LIMIT	20	20
SEPT'23	05-09-23	55.9	54.8
SEPT'23	21-09-23	57.8	56.7
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

CHP		BPON2	
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
	DETECTION LIMIT	20	20
SEPT'23	05-09-23	58.5	57.9
SEPT'23	21-09-23	58.9	57.8
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70



Ashwin B Wasnik
Reviewed by



Deepanshu Sahu
Authorised by

1. This report cannot be reproduced in part or full without written of the management.
2. Laboratory activities are performed at the Laboratory permanent facility that is ground floor, Environment Lab, CMPDI RI-IV, Nagpur.
3. This report refers to the values related to the items tested.

***** End of report *****

STRICTLY RESTRICTED
FOR COMPANY USE ONLY
The information given in this report is not to be
communicated either directly or indirectly to the press or
to any person not holding an official position in the CIL /
Government

DRINKING WATER MONITORING REPORT

BALLARPUR AREA

WESTERN COALFIELDS LTD.

JOB NO.4094423068




QE-SEPTEMBER 2023



Environment Laboratory
NABL Accredited vide Cert. No. TC-7102
CMPDI
REGIONAL INSTITUTE-IV, KASTURBA NAGAR,
JARIPATKA, NAGPUR, PIN – 440 014

AN ISO 9001:2015 COMPANY



Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report Drinking water quality monitoring data	
---	--	---

TEST REPORT NO.	RIN/TR/SEPT-23/DW16	DATE OF ISSUE	27-10-2023
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR	SAMPLE DESCRIPTION	WATER SAMPLE
NAME OF AREA	BALLARPUR	SAMPLING METHOD: LSOP 5	
NAME OF PROJECT	GOURI I & II OC	SAMPLING PLAN: LQR 47	
NO. OF PAGES	2		

NAME OF LOCATION:		FILTER PLANT			SAMPLING DATE:		12-07-2023
SL. NO.	PARAMETER	TEST METHOD	DETECTION LIMIT	ANALYSIS RESULT	IS 10500:2012		
					REQUIREMENT (ACCEPTABLE LIMIT)	PERMISSIBLE LIMIT IN THE ABSENCE OF ALTERNATE SOURCE	
1	Colour (Hazen)	IS 3025 Part-4 Pt-Co Method: 2017	1	2	5	15	
2	Odour	IS 3025 Part-5:2014	Qualitative	Agreeable	Agreeable	Agreeable	
3	Turbidity (NTU)	IS 3025 Part-10 Nephelometric Method: 2012	1	1	1	5	
4	pH Value	IS 3025 Part-11 Electrometric Method: 2017	2	7.25	6.5 to 8.5	No relaxation	
5	Total Hardness (as CaCO ₃) - mg/l	IS 3025 Part-21 EDTA Metod: 2014	4	236	200	600	
6	Iron (as Fe) -mg/l	IS 3025 Part-53 AAS Flame Method:2014	0.06	BDL	0.3	No relaxation	
7	Chlorides (as Cl ⁻) - mg/l	IS 3025 Part-32 1988 Argentometric Method:2014	2	42	250	1000	
8	Residual Chlorine -mg/l	APHA, 23rd Edition 4500-G DPD Colorometric method: 2017	0.02	BDL	0.2	1	
9	Fluoride (as F ⁻) - mg/l	APHA, 23rd Edition 4500-F D SPADNS Method: 2017	0.02	0.66	1	1.5	
10	TDS -mg/l	IS 3025 Part-16 Gravimetric Method: 2017	25	454	500	2000	
11	Calcium (as Ca) -mg/l	IS 3025 Part-40 : 2014	1.6	43	75	200	
12	Magnesium (as Mg) -mg/l	APHA (23rd Ed.) 3500 B, Calculation Method:2017	3	31	30	100	
13	Copper (as Cu) -mg/l	IS 3025 Part-42 AAS Flame Method :2014	0.03	BDL	0.05	1.5	
14	Manganese as (Mn)- mg/l	IS 3025 Part-59, AAS Flame Method: 2006	0.02	BDL	0.1	0.3	
15	Sulphate (as SO ₄ ⁻²) -mg/l	APHA (23rd Edition) 4500E Turbidimetric Method:2017	2	83	200	400	
16	Nitrates (as NO3) - mg/l	APHA (23rd Edition) 4500-NO3-B UV Spectrophotometric method:2017	0.5	12	45	No relaxation	
17	Cadmium as (Cd)- mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.0005	BDL	0.003	No relaxation	
18	Lead as (Pb) -mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.005	BDL	0.01	No relaxation	
19	Selenium (Se) –mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.01	No relaxation	
20	Arsenic (As)-mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.05	No relaxation	
21	Zinc as (Zn) -mg/l	IS 3025 Part-49 AAS Flame Method:2014	0.01	BDL	5	15	
22	Total Chromium -mg/l	IS 3025 Part-52 Clause 6, AAS Flame Method:2014	0.03	BDL	0.05	No relaxation	
23	Boron as (B) -mg/l	APHA, 23rd Edition 4500 B-C Carmine Method:2017	0.002	BDL	0.5	1	
24	Alkalinity -mg/l	IS 3025 Part-23:2014	4	168	200	600	
25	Nickel-mg/l	APHA, 23rd Edition 3113 B AAS FLAME Method:2017	0.005	BDL	0.02	No relaxation	
26	Aluminum (Al)-mg/l	APHA (23rd Edition) 3113B AAS-GTA Method:2017	0.005	BDL	0.1	0.2	

BDL: BELOW DETECTION LIMIT




SCIENTIFIC ASSISTANT



DEEPANSHU SAHU
AUTHORIZED SIGNATORY

- 1 This Report refers to the values related to the items tested.
- 2 This Report cannot be reproduced in part or full without written permission of the management.

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report Drinking water quality monitoring data	
---	--	---

TEST REPORT NO.	RIN/TR/SEPT-23/DW17	DATE OF ISSUE	27-10-2023
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR	SAMPLE DESCRIPTION	WATER SAMPLE
NAME OF AREA	BALLARPUR	SAMPLING METHOD: LSOP 5	
NAME OF PROJECT	SASTI OC	SAMPLING PLAN: LQR 47	
NO. OF PAGES	2		

NAME OF LOCATION:		FILTER PLANT		SAMPLING DATE:		12-07-2023
SL. NO.	PARAMETER	TEST METHOD	DETECTION LIMIT	ANALYSIS RESULT	IS 10500:2012	
					REQUIREMENT (ACCEPTABLE)	PERMISSIBLE LIMIT IN THE ABSENCE OF
1	Colour (Hazen)	IS 3025 Part-4 Pt-Co Method: 2017	1	1	5	15
2	Odour	IS 3025 Part-5:2014	Qualitative	Agreeable	Agreeable	Agreeable
3	Turbidity (NTU)	IS 3025 Part-10 Nephelometric Method: 2012	1	1	1	5
4	pH Value	IS 3025 Part-11 Electrometric Method: 2017	2	7.85	6.5 to 8.5	No relaxation
5	Total Hardness (as CaCO ₃) - mg/l	IS 3025 Part-21 EDTA Method: 2014	4	56	200	600
6	Iron (as Fe) -mg/l	IS 3025 Part-53 AAS Flame Method:2014	0.06	BDL	0.3	No relaxation
7	Chlorides (as Cl ⁻) - mg/l	IS 3025 Part-32 1988 Argentometric Method:2014	2	24	250	1000
8	Residual Chlorine -mg/l	APHA, 23rd Edition 4500-G DPD Colorometric method: 2017	0.02	BDL	0.2	1
9	Fluoride (as F ⁻) - mg/l	APHA, 23rd Edition 4500-F D SPADNS Method: 2017	0.02	0.92	1	1.5
10	TDS -mg/l	IS 3025 Part-16 Gravimetric Method: 2017	25	190	500	2000
11	Calcium (as Ca) -mg/l	IS 3025 Part-40 : 2014	1.6	27.2	75	200
12	Magnesium (as Mg) -mg/l	APHA (23rd Ed.) 3500 B, Calculation Method:2017	3	6.4	30	100
13	Copper (as Cu) -mg/l	IS 3025 Part-42 AAS Flame Method :2014	0.03	BDL	0.05	1.5
14	Manganese as (Mn)- mg/l	IS 3025 Part-59, AAS Flame Method: 2006	0.02	BDL	0.1	0.3
15	Sulphate (as SO ₄ ⁻²) -mg/l	APHA (23rd Edition) 4500E Turbidimetric Method:2017	2	18	200	400
16	Nitrates (as NO ₃) - mg/l	APHA (23rd Edition) 4500-NO ₃ -B UV Spectrophotometric method:2017	0.5	4	45	No relaxation
17	Cadmium as (Cd)- mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.0005	BDL	0.003	No relaxation
18	Lead as (Pb) -mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.005	BDL	0.01	No relaxation
19	Selenium (Se) -mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.01	No relaxation
20	Arsenic (As)-mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.05	No relaxation
21	Zinc as (Zn) -mg/l	IS 3025 Part-49 AAS Flame Method:2014	0.01	BDL	5	15
22	Total Chromium -mg/l	IS 3025 Part-52 Clause 6, AAS Flame Method:2014	< 0.03	BDL	0.05	No relaxation
23	Boron as (B) -mg/l	APHA, 23rd Edition 4500 B-C Carmine Method:2017	< 0.002	BDL	0.5	1
24	Alkalinity -mg/l	IS 3025 Part-23:2014	220	24	200	600
25	Nickel-mg/l	APHA, 23rd Edition 3113 B AAS FLAME Method:2017	BDL	BDL	0.02	No relaxation
26	Aluminum (Al)-mg/l	APHA (23rd Edition) 3113B AAS-GTA Method:2017	BDL	BDL	0.1	0.2

BDL: BELOW DETECTION LIMIT




SCIENTIFIC ASSISTANT



DEEPANSHU SAHU
AUTHORIZED SIGNATORY

- 1 This Report refers to the values related to the items tested.
- 2 This Report cannot be reproduced in part or full without written permission of the management.

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report Drinking water quality monitoring data	
---	--	---

TEST REPORT NO.	RIN/TR/SEPT-23/DW18	DATE OF ISSUE	27-10-2023
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR	SAMPLE DESCRIPTION	WATER SAMPLE
NAME OF AREA	BALLARPUR	SAMPLING METHOD: LSOP 5	
NAME OF PROJECT	NEW DHOPTALA OC	SAMPLING PLAN: LQR 47	
NO. OF PAGES	2		

NAME OF LOCATION:		MANAGER OFFICE		SAMPLING DATE:		13-07-2023
SL. NO.	PARAMETER	TEST METHOD	DETECTION LIMIT	ANALYSIS RESULT	IS 10500:2012	
					REQUIREMENT (ACCEPTABLE)	PERMISSIBLE LIMIT IN THE ABSENCE OF
1	Colour (Hazen)	IS 3025 Part-4 Pt-Co Method: 2017	1	1	5	15
2	Odour	IS 3025 Part-5:2014	Qualitative	Unobjectionable	Agreeable	Agreeable
3	Turbidity (NTU)	IS 3025 Part-10 Nephelometric Method: 2012	1	2	1	5
4	pH Value	IS 3025 Part-11 Electrometric Method: 2017	2	7.95	6.5 to 8.5	No relaxation
5	Total Hardness (as CaCO ₃) - mg/l	IS 3025 Part-21 EDTA Method: 2014	4	560	200	600
6	Iron (as Fe) -mg/l	IS 3025 Part-53 AAS Flame Method:2014	0.06	BDL	0.3	No relaxation
7	Chlorides (as Cl ⁻) - mg/l	IS 3025 Part-32 1988 Argentometric Method:2014	2	412	250	1000
8	Residual Chlorine -mg/l	APHA, 23rd Edition 4500-G DPD Colorimetric method: 2017	0.02	0.02	0.2	1
9	Fluoride (as F ⁻) - mg/l	APHA, 23rd Edition 4500-F D SPADNS Method: 2017	0.02	0.36	1	1.5
10	TDS -mg/l	IS 3025 Part-16 Gravimetric Method: 2017	25	1520	500	2000
11	Calcium (as Ca) -mg/l	IS 3025 Part-40 : 2014	1.6	140	75	200
12	Magnesium (as Mg) -mg/l	APHA (23rd Ed.) 3500 B, Calculation Method:2017	3	52	30	100
13	Copper (as Cu) -mg/l	IS 3025 Part-42 AAS Flame Method :2014	0.03	BDL	0.05	1.5
14	Manganese as (Mn)- mg/l	IS 3025 Part-59, AAS Flame Method: 2006	0.02	0.027	0.1	0.3
15	Sulphate (as SO ₄ ⁻²) -mg/l	APHA (23rd Edition) 4500E Turbidimetric Method:2017	2	157	200	400
16	Nitrates (as NO ₃) - mg/l	APHA (23rd Edition) 4500-NO ₃ -B UV Spectrophotometric method:2017	0.5	4	45	No relaxation
17	Cadmium as (Cd)- mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.0005	BDL	0.003	No relaxation
18	Lead as (Pb) -mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.005	BDL	0.01	No relaxation
19	Selenium (Se) -mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.01	No relaxation
20	Arsenic (As)-mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.05	No relaxation
21	Zinc as (Zn) -mg/l	IS 3025 Part-49 AAS Flame Method:2014	0.01	0.021	5	15
22	Total Chromium -mg/l	IS 3025 Part-52 Clause 6, AAS Flame Method:2014	0.03	BDL	0.05	No relaxation
23	Boron as (B) -mg/l	APHA, 23rd Edition 4500 B-C Carmine Method:2017	0.002	BDL	0.5	1
24	Alkalinity -mg/l	IS 3025 Part-23:2014	4	392	200	600
25	Nickel-mg/l	APHA, 23rd Edition 3113 B AAS FLAME Method:2017	0.005	BDL	0.02	No relaxation
26	Aluminum (Al)-mg/l	APHA (23rd Edition) 3113B AAS-GTA Method:2017	0.005	BDL	0.1	0.2

BDL: BELOW DETECTION LIMIT




SCIENTIFIC ASSISTANT



DEEPANSHU SAHU
AUTHORIZED SIGNATORY

- 1 This Report refers to the values related to the items tested.
- 2 This Report cannot be reproduced in part or full without written permission of the management.

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report Drinking water quality monitoring data	
---	--	---

TEST REPORT NO.	RIN/TR/SEPT-23/DW19	DATE OF ISSUE	27-10-2023
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR	SAMPLE DESCRIPTION	WATER SAMPLE
NAME OF AREA	BALLARPUR	SAMPLING METHOD: LSOP 5	
NAME OF PROJECT	BALLARPUR UG	SAMPLING PLAN: LQR 47	
NO. OF PAGES	2		

NAME OF LOCATION: FILTER PLANT				SAMPLING DATE: 14-07-2023		
SL. NO.	PARAMETER	TEST METHOD	DETECTION LIMIT	ANALYSIS RESULT	IS 10500:2012	
					REQUIREMENT (ACCEPTABLE LIMIT)	PERMISSIBLE LIMIT IN THE ABSENCE OF ALTERNATE SOURCE
1	Colour (Hazen)	IS 3025 Part-4 Pt-Co Method: 2017	1	2	5	15
2	Odour	IS 3025 Part-5:2014	Qualitative	Agreeable	Agreeable	Agreeable
3	Turbidity (NTU)	IS 3025 Part-10 Nephelometric Method: 2012	1	2	1	5
4	pH Value	IS 3025 Part-11 Electrometric Method: 2017	2	7.60	6.5 to 8.5	No relaxation
5	Total Hardness (as CaCO ₃) - mg/l	IS 3025 Part-21 EDTA Method: 2014	4	256	200	600
6	Iron (as Fe) -mg/l	IS 3025 Part-53 AAS Flame Method:2014	0.06	BDL	0.3	No relaxation
7	Chlorides (as Cl ⁻) - mg/l	IS 3025 Part-32 1988 Argentometric Method:2014	2	78	250	1000
8	Residual Chlorine -mg/l	APHA, 23rd Edition 4500-G DPD Colorimetric method: 2017	0.02	BDL	0.2	1
9	Fluoride (as F ⁻) - mg/l	APHA, 23rd Edition 4500-F D SPADNS Method: 2017	0.02	0.88	1	1.5
10	TDS -mg/l	IS 3025 Part-16 Gravimetric Method: 2017	25	660	500	2000
11	Calcium (as Ca) -mg/l	IS 3025 Part-40 : 2014	1.6	68.2	75	200
12	Magnesium (as Mg) -mg/l	APHA (23rd Ed.) 3500 B, Calculation Method:2017	3	30	30	100
13	Copper (as Cu) -mg/l	IS 3025 Part-42 AAS Flame Method :2014	0.03	BDL	0.05	1.5
14	Manganese as (Mn)- mg/l	IS 3025 Part-59, AAS Flame Method: 2006	0.02	BDL	0.1	0.3
15	Sulphate (as SO ₄ ⁻²) -mg/l	APHA (23rd Edition) 4500E Turbidimetric Method:2017	2	74	200	400
16	Nitrates (as NO ₃) - mg/l	APHA (23rd Edition) 4500-NO ₃ -B UV Spectrophotometric method:2017	0.5	12	45	No relaxation
17	Cadmium as (Cd)- mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.0005	BDL	0.003	No relaxation
18	Lead as (Pb) -mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.005	BDL	0.01	No relaxation
19	Selenium (Se) -mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.01	No relaxation
20	Arsenic (As)-mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.05	No relaxation
21	Zinc as (Zn) -mg/l	IS 3025 Part-49 AAS Flame Method:2014	0.01	0.014	5	15
22	Total Chromium -mg/l	IS 3025 Part-52 Clause 6, AAS Flame Method:2014	0.03	BDL	0.05	No relaxation
23	Boron as (B) -mg/l	APHA, 23rd Edition 4500 B-C Carmine Method:2017	0.002	BDL	0.5	1
24	Alkalinity -mg/l	IS 3025 Part-23:2014	4	236	200	600
25	Nickel-mg/l	APHA, 23rd Edition 3113 B AAS FLAME Method:2017	0.005	BDL	0.02	No relaxation
26	Aluminum (Al)-mg/l	APHA (23rd Edition) 3113B AAS-GTA Method:2017	0.005	BDL	0.1	0.2

BDL: BELOW DETECTION LIMIT



SCIENTIFIC ASSISTANT



DEEPANSHU SAHU
AUTHORIZED SIGNATORY

- 1 This Report refers to the values related to the items tested.
- 2 This Report cannot be reproduced in part or full without written permission of the management.

STRICTLY RESTRICTED
FOR COMPANY USE ONLY

The information given in this report is not to be
communicated either directly or indirectly to the press
or to any person not holding an official position in the
CIL / Government

DRINKING WATER MONITORING REPORT

BALLARPUR AREA

WESTERN COALFIELDS LTD.

JOB NO.4094423068



QE-JUNE 2023

Environment Laboratory
NABL Accredited vide Cert. No. TC-7102
CMPDI
REGIONAL INSTITUTE-IV, KASTURBA NAGAR,
JARIPATKA, NAGPUR, PIN – 440 014

AN ISO 9001:2015 COMPANY

**Environment Laboratory
CMPDI RI-IV, NAGPUR**

Test Report
Drinking water quality monitoring data



TC-7102

TEST REPORT NO.	RIN/TR/JUNE-23/DW16	DATE OF ISSUE	31-07-23
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR	SAMPLE DESCRIPTION	WATER SAMPLE
NAME OF AREA	BALLARPUR	SAMPLING METHOD: LSOP 5	
NAME OF PROJECT	GOURI I & II OC	SAMPLING PLAN: LQR 47	
NO. OF PAGES	2		

NAME OF LOCATION:		FILTER PLANT			SAMPLING DATE:		06-05-23	
SL. NO.	PARAMETER	TEST METHOD	DETECTION LIMIT	ANALYSIS RESULT	IS 10500:2012			
					REQUIREMENT (ACCEPTABLE LIMIT)	PERMISSIBLE LIMIT IN THE ABSENCE OF ALTERNATE SOURCE		
1	Colour (Hazen)	IS 3025 Part-4 Pt-Co Method: 2017	1	3	5	15		
2	Odour	IS 3025 Part-5:2014	Qualitative	Unobjectionable	Agreeable	Agreeable		
3	Turbidity (NTU)	IS 3025 Part-10 Nephelometric Method: 2012	1	4	1	5		
4	pH Value	IS 3025 Part-11 Electrometric Method: 2017	2	7.58	6.5 to 8.5	No relaxation		
5	Total Hardness (as CaCO ₃) - mg/l	IS 3025 Part-21 EDTA Metod: 2014	4	240	200	600		
6	Iron (as Fe) -mg/l	IS 3025 Part-53 AAS Flame Method:2014	0.06	BDL	0.3	No relaxation		
7	Chlorides (as Cl ⁻)- mg/l	IS 3025 Part-32 1988 Argentometric Method:2014	2	54	250	1000		
8	Residual Chlorine -mg/l	APHA, 23rd Edition 4500-G DPD Colorometric method: 2017	0.02	0.03	0.2	1		
9	Fluoride (as F ⁻) - mg/l	APHA, 23rd Edition 4500-F D SPADNS Method: 2017	0.02	0.439	1	1.5		
10	TDS -mg/l	IS 3025 Part-16 Gravimetric Method: 2017	25	440	500	2000		
11	Calcium (as Ca) -mg/l	IS 3025 Part-40 : 2014	1.6	61	75	200		
12	Magnesium (as Mg) -mg/l	APHA (23rd Ed.) 3500 B, Calculation Method:2017	3	22	30	100		
13	Copper (as Cu) -mg/l	IS 3025 Part-42 AAS Flame Method :2014	0.03	BDL	0.05	1.5		
14	Manganese as (Mn)- mg/l	IS 3025 Part-59, AAS Flame Method: 2006	0.02	BDL	0.1	0.3		
15	Sulphate (as SO ₄ ⁻²) -mg/l	APHA (23rd Edition) 4500E Turbidimetric Method:2017	2	74	200	400		
16	Nitrates (as NO3) - mg/l	APHA (23rd Edition) 4500-NO3-B UV Spectrophotometric method:2017	0.5	22.28	45	No relaxation		
17	Cadmium as (Cd)- mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.0005	BDL	0.003	No relaxation		

18	Lead as (Pb) -mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.005	BDL	0.01	No relaxation
19	Selenium (Se) –mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.01	No relaxation
20	Arsenic (As)-mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.05	No relaxation
21	Zinc as (Zn) -mg/l	IS 3025 Part-49 AAS Flame Method:2014	0.01	BDL	5	15
22	Total Chromium -mg/l	IS 3025 Part-52 Clause 6, AAS Flame Method:2014	0.03	BDL	0.05	No relaxation
23	Boron as (B) -mg/l	APHA, 23rd Edition 4500 B-C Carmine Method:2017	0.002	BDL	0.5	1
24	Alkalinity -mg/l	IS 3025 Part-23:2014	4	192	200	600
25	Nickel-mg/l	APHA, 23rd Edition 3113 B AAS FLAME Method:2017	0.005	BDL	0.02	No relaxation
26	Aluminum (Al)-mg/l	APHA (23rd Edition) 3113B AAS-GTA Method:2017	0.005	BDL	0.1	0.2

BDL: BELOW DETECTION LIMIT



SCIENTIFIC ASSISTANT



DEEPANSHU SAHU
AUTHORIZED SIGNATORY

- | | |
|---|--|
| 1 | This Report refers to the values related to the items tested. |
| 2 | This Report cannot be reproduced in part or full without written permission of the management. |

**Environment Laboratory
CMPDI RI-IV, NAGPUR**

Test Report
Drinking water quality monitoring data



TEST REPORT NO.	RIN/TR/JUNE-23/DW17	DATE OF ISSUE	31-07-23
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR	SAMPLE DESCRIPTION	WATER SAMPLE
NAME OF AREA	BALLARPUR	SAMPLING METHOD: LSOP 5	
NAME OF PROJECT	SASTI OC	SAMPLING PLAN: LQR 47	
NO. OF PAGES	2		

NAME OF LOCATION: FILTER PLANT				SAMPLING DATE: 08-05-23		
SL. NO.	PARAMETER	TEST METHOD	DETECTION LIMIT	ANALYSIS RESULT	IS 10500:2012	
					REQUIREMENT (ACCEPTABLE)	PERMISSIBLE LIMIT IN THE ABSENCE OF
1	Colour (Hazen)	IS 3025 Part-4 Pt-Co Method: 2017	1	3	5	15
2	Odour	IS 3025 Part-5:2014	Qualitative	Unobjectionable	Agreeable	Agreeable
3	Turbidity (NTU)	IS 3025 Part-10 Nephelometric Method: 2012	1	4	1	5
4	pH Value	IS 3025 Part-11 Electrometric Method: 2017	2	7.55	6.5 to 8.5	No relaxation
5	Total Hardness (as CaCO ₃) - mg/l	IS 3025 Part-21 EDTA Method: 2014	4	680	200	600
6	Iron (as Fe) -mg/l	IS 3025 Part-53 AAS Flame Method:2014	0.06	BDL	0.3	No relaxation
7	Chlorides (as Cl ⁻) - mg/l	IS 3025 Part-32 1988 Argentometric Method:2014	2	94	250	1000
8	Residual Chlorine -mg/l	APHA, 23rd Edition 4500-G DPD Colorimetric method: 2017	0.02	0.03	0.2	1
9	Fluoride (as F ⁻) - mg/l	APHA, 23rd Edition 4500-F D SPADNS Method: 2017	0.02	0.521	1	1.5
10	TDS -mg/l	IS 3025 Part-16 Gravimetric Method: 2017	25	990	500	2000
11	Calcium (as Ca) -mg/l	IS 3025 Part-40 : 2014	1.6	180	75	200
12	Magnesium (as Mg) -mg/l	APHA (23rd Ed.) 3500 B, Calculation Method:2017	3	57	30	100
13	Copper (as Cu) -mg/l	IS 3025 Part-42 AAS Flame Method :2014	0.03	0.032	0.05	1.5
14	Manganese as (Mn)- mg/l	IS 3025 Part-59, AAS Flame Method: 2006	0.02	0.028	0.1	0.3
15	Sulphate (as SO ₄ ⁻²) -mg/l	APHA (23rd Edition) 4500E Turbidimetric Method:2017	2	208	200	400
16	Nitrates (as NO ₃) - mg/l	APHA (23rd Edition) 4500-NO ₃ -B UV Spectrophotometric method:2017	0.5	5.53	45	No relaxation

17	Cadmium as (Cd)- mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.0005	BDL	0.003	No relaxation
18	Lead as (Pb) -mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.005	BDL	0.01	No relaxation
19	Selenium (Se) –mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.01	No relaxation
20	Arsenic (As)-mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.05	No relaxation
21	Zinc as (Zn) -mg/l	IS 3025 Part-49 AAS Flame Method:2014	0.01	0.021	5	15
22	Total Chromium -mg/l	IS 3025 Part-52 Clause 6, AAS Flame Method:2014	< 0.03	BDL	0.05	No relaxation
23	Boron as (B) -mg/l	APHA, 23rd Edition 4500 B-C Carmine Method:2017	< 0.002	BDL	0.5	1
24	Alkalinity -mg/l	IS 3025 Part-23:2014	220	212	200	600
25	Nickel-mg/l	APHA, 23rd Edition 3113 B AAS FLAME Method:2017	BDL	BDL	0.02	No relaxation
26	Aluminum (Al)-mg/l	APHA (23rd Edition) 3113B AAS-GTA Method:2017	BDL	BDL	0.1	0.2

BDL: BELOW DETECTION LIMIT



SCIENTIFIC ASSISTANT



DEEPANSHU SAHU
AUTHORIZED SIGNATORY

- | | |
|---|--|
| 1 | This Report refers to the values related to the items tested. |
| 2 | This Report cannot be reproduced in part or full without written permission of the management. |

**Environment Laboratory
CMPDI RI-IV, NAGPUR**

Test Report
Drinking water quality monitoring data



TEST REPORT NO.	RIN/TR/JUNE-23/DW18	DATE OF ISSUE	31-07-23
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR	SAMPLE DESCRIPTION	WATER SAMPLE
NAME OF AREA	BALLARPUR	SAMPLING METHOD: LSOP 5	
NAME OF PROJECT	NEW DHOPTALA OC	SAMPLING PLAN: LQR 47	
NO. OF PAGES	2		

NAME OF LOCATION:		MANAGER OFFICE		SAMPLING DATE:		12-05-23
SL. NO.	PARAMETER	TEST METHOD	DETECTION LIMIT	ANALYSIS RESULT	IS 10500:2012	
					REQUIREMENT (ACCEPTABLE)	PERMISSIBLE LIMIT IN THE ABSENCE OF
1	Colour (Hazen)	IS 3025 Part-4 Pt-Co Method: 2017	1	2	5	15
2	Odour	IS 3025 Part-5:2014	Qualitative	Unobjectionable	Agreeable	Agreeable
3	Turbidity (NTU)	IS 3025 Part-10 Nephelometric Method: 2012	1	3	1	5
4	pH Value	IS 3025 Part-11 Electrometric Method: 2017	2	7.34	6.5 to 8.5	No relaxation
5	Total Hardness (as CaCO ₃) - mg/l	IS 3025 Part-21 EDTA Method: 2014	4	680	200	600
6	Iron (as Fe) -mg/l	IS 3025 Part-53 AAS Flame Method:2014	0.06	BDL	0.3	No relaxation
7	Chlorides (as Cl ⁻) - mg/l	IS 3025 Part-32 1988 Argentometric Method:2014	2	78	250	1000
8	Residual Chlorine -mg/l	APHA, 23rd Edition 4500-G DPD Colorimetric method: 2017	0.02	0.02	0.2	1
9	Fluoride (as F ⁻) - mg/l	APHA, 23rd Edition 4500-F D SPADNS Method: 2017	0.02	0.421	1	1.5
10	TDS -mg/l	IS 3025 Part-16 Gravimetric Method: 2017	25	1000	500	2000
11	Calcium (as Ca) -mg/l	IS 3025 Part-40 : 2014	1.6	188	75	200
12	Magnesium (as Mg) -mg/l	APHA (23rd Ed.) 3500 B, Calculation Method:2017	3	52	30	100
13	Copper (as Cu) -mg/l	IS 3025 Part-42 AAS Flame Method :2014	0.03	0.039	0.05	1.5
14	Manganese as (Mn)- mg/l	IS 3025 Part-59, AAS Flame Method: 2006	0.02	0.031	0.1	0.3
15	Sulphate (as SO ₄ ⁻²) -mg/l	APHA (23rd Edition) 4500E Turbidimetric Method:2017	2	197	200	400
16	Nitrates (as NO ₃) - mg/l	APHA (23rd Edition) 4500-NO ₃ -B UV Spectrophotometric method:2017	0.5	6.96	45	No relaxation
17	Cadmium as (Cd)- mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.0005	BDL	0.003	No relaxation
18	Lead as (Pb) -mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.005	BDL	0.01	No relaxation

19	Selenium (Se) –mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.01	No relaxation
20	Arsenic (As)-mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.05	No relaxation
21	Zinc as (Zn) -mg/l	IS 3025 Part-49 AAS Flame Method:2014	0.01	0.027	5	15
22	Total Chromium -mg/l	IS 3025 Part-52 Clause 6, AAS Flame Method:2014	0.03	BDL	0.05	No relaxation
23	Boron as (B) -mg/l	APHA, 23rd Edition 4500 B-C Carmine Method:2017	0.002	BDL	0.5	1
24	Alkalinity -mg/l	IS 3025 Part-23:2014	4	204	200	600
25	Nickel-mg/l	APHA, 23rd Edition 3113 B AAS FLAME Method:2017	0.005	0.008	0.02	No relaxation
26	Aluminum (Al)-mg/l	APHA (23rd Edition) 3113B AAS-GTA Method:2017	0.005	BDL	0.1	0.2

BDL: BELOW DETECTION LIMIT




SCIENTIFIC ASSISTANT



DEEPANSHU SAHU
AUTHORIZED SIGNATORY

- | | |
|---|--|
| 1 | This Report refers to the values related to the items tested. |
| 2 | This Report cannot be reproduced in part or full without written permission of the management. |

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report Drinking water quality monitoring data	
---	---	---

TEST REPORT NO.	RIN/TR/JUNE-23/DW19	DATE OF ISSUE	31-07-23
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR	SAMPLE DESCRIPTION	WATER SAMPLE
NAME OF AREA	BALLARPUR	SAMPLING METHOD: LSOP 5	
NAME OF PROJECT	BALLARPUR UG	SAMPLING PLAN: LQR 47	
NO. OF PAGES	2		

NAME OF LOCATION:		FILTER PLANT		SAMPLING DATE:		12-05-23
SL. NO.	PARAMETER	TEST METHOD	DETECTION LIMIT	ANALYSIS RESULT	IS 10500:2012	
					REQUIREMENT (ACCEPTABLE LIMIT)	PERMISSIBLE LIMIT IN THE ABSENCE OF ALTERNATE SOURCE
1	Colour (Hazen)	IS 3025 Part-4 Pt-Co Method: 2017	1	2	5	15
2	Odour	IS 3025 Part-5:2014	Qualitative	Unobjectionable	Agreeable	Agreeable
3	Turbidity (NTU)	IS 3025 Part-10 Nephelometric Method: 2012	1	3	1	5
4	pH Value	IS 3025 Part-11 Electrometric Method: 2017	2	7.85	6.5 to 8.5	No relaxation
5	Total Hardness (as CaCO ₃) - mg/l	IS 3025 Part-21 EDTA Method: 2014	4	280	200	600
6	Iron (as Fe) -mg/l	IS 3025 Part-53 AAS Flame Method:2014	0.06	BDL	0.3	No relaxation
7	Chlorides (as Cl ⁻) - mg/l	IS 3025 Part-32 1988 Argentometric Method:2014	2	76	250	1000
8	Residual Chlorine -mg/l	APHA, 23rd Edition 4500-G DPD Colorimetric method: 2017	0.02	0.02	0.2	1
9	Fluoride (as F ⁻) - mg/l	APHA, 23rd Edition 4500-F D SPADNS Method: 2017	0.02	0.392	1	1.5
10	TDS -mg/l	IS 3025 Part-16 Gravimetric Method: 2017	25	510	500	2000
11	Calcium (as Ca) -mg/l	IS 3025 Part-40 : 2014	1.6	79	75	200
12	Magnesium (as Mg) -mg/l	APHA (23rd Ed.) 3500 B, Calculation Method:2017	3	21	30	100
13	Copper (as Cu) -mg/l	IS 3025 Part-42 AAS Flame Method :2014	0.03	BDL	0.05	1.5
14	Manganese as (Mn)- mg/l	IS 3025 Part-59, AAS Flame Method: 2006	0.02	BDL	0.1	0.3
15	Sulphate (as SO ₄ ⁻²) -mg/l	APHA (23rd Edition) 4500E Turbidimetric Method:2017	2	65	200	400
16	Nitrates (as NO ₃) - mg/l	APHA (23rd Edition) 4500-NO ₃ -B UV Spectrophotometric method:2017	0.5	6.10	45	No relaxation
17	Cadmium as (Cd)- mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.0005	BDL	0.003	No relaxation
18	Lead as (Pb) -mg/l	APHA, 23rd Edition 3113 B AAS GTA Method:2017	0.005	BDL	0.01	No relaxation
19	Selenium (Se) -mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.01	No relaxation

20	Arsenic (As)-mg/l	APHA, 23rd Edition 3114 C AAS-VGA Method:2017	0.005	BDL	0.05	No relaxation
21	Zinc as (Zn) -mg/l	IS 3025 Part-49 AAS Flame Method:2014	0.01	BDL	5	15
22	Total Chromium -mg/l	IS 3025 Part-52 Clause 6, AAS Flame Method:2014	0.03	BDL	0.05	No relaxation
23	Boron as (B) -mg/l	APHA, 23rd Edition 4500 B- C Carmine Method:2017	0.002	BDL	0.5	1
24	Alkalinity -mg/l	IS 3025 Part-23:2014	4	220	200	600
25	Nickel-mg/l	APHA, 23rd Edition 3113 B AAS FLAME Method:2017	0.005	BDL	0.02	No relaxation
26	Aluminum (Al)-mg/l	APHA (23rd Edition) 3113B AAS-GTA Method:2017	0.005	BDL	0.1	0.2

BDL: BELOW DETECTION LIMIT

J. Shrivastava

SCIENTIFIC ASSISTANT

Deepanshu Sahu

DEEPANSHU SAHU
AUTHORIZED SIGNATORY

- 1 This Report refers to the values related to the items tested.
- 2 This Report cannot be reproduced in part or full without written permission of the management.

चंद्रपूर, मंगलवार दि. १७ मार्च २०२०

गंभीरता से ध्यान देकर तत्काल शहर में शुरू अड्डागुड नाला पाइपलाइन की मरम्मत करें, ऐसी निर्माण और चामोशी-आष्टी इस मांग पार्षद सतीश विधाते ने नव राष्ट्रीय महामार्ग का कार्य शुरू होने के मुख्य अधिकारी को सौंपे ज्ञापन में से ठेकेदार खुदाईकरण कर रहे हैं.

Western Coalfields Limited
(A Subsidiary of Coal India Limited)

NOTICE

Environmental Clearance was accorded by MoEF & CC for Expansion of Pauri II Opencast Coal Mining Project (From 0.60 MTPA to 3.25 MTPA) of M/s. Western Coalfields Limited (Ballarpur Area) vide its letter No. J-11015/80/2016-IA.II(M) dated 28.03.2019. Subsequently, MoEF & CC has accorded approval for continuance of Environmental Clearance of Expansion of Pauri II Opencast Coal Mining Project (from 0.60 MTPA to 3.25 MTPA) of M/s. Western Coalfields Limited located in District Chandrapur (Maharashtra) for a period of 30 years or life of the mine, whichever is earlier under provisions of the Environment Impact Assessment notification, 2006 and subsequent amendments/circulars thereto vide its letter No. J-11015/80/2016-IA.II(M) Dated 13.03.2020. Copy of the Environmental Clearance letter dated 13.03.2020 may be seen at website of the Ministry of Environment, Forests & Climate Change (MoEF&CC) at-

<http://environmentclearance.nic.in>

हिंदी महाविद्वर्भ

५

वायरस के कहर को देखते हुए एहतियात के तौर पर हमने कलर्स कोई खबर नहीं आई, लेकिन अब वह सलमान खान की फिल्म कभी ईद कभी दिवाली में नजर आएंगे. पिकविला की एक रिपोर्ट के अनुसार, आसिम रियाज को सलमान के भाई का रोल ऑफर किया गया है. फिल्म में तीन ऐक्टर्स सलमान खान के भाई के रोल में नजर आएंगे और आसिम को इन्हीं में से एक रोल ऑफर किया गया है. मूवी मस्ती: बिग बॉस से खुली आसिम की किस्मत, बॉलिवुड हिरोइन संग करेंगे आशिकीबिग बॉस १३ के पॉपुलर कंटेस्टेंट आसिम रियाज की बॉलिवुड में एंट्री तय लग रही है. अब खबर है कि आसिम रियाज को जैकलीन फर्नांडिस के साथ एक प्रोजेक्ट मिल गया है और इस खबर से उनके फैन्स की खुशी का ठिकाना नहीं है. सोशल मीडिया पर दोनों का विडियो खूब देखा जा रहा है, हालांकि अभी इसकी कोई आधिकारिक घोषणा नहीं की गई है, लेकिन अगर यह सच है तो यह आसिम रियाज के फैन्स के लिए किसी ट्रीट से कम नहीं. आसिम रियाज भले ही बिग बॉस १३ नहीं जीत पाए, लेकिन इंटरनेशनल लेवल पर भी वह मशहूर हो गए हैं. उनके पास ऑफर्स की बाढ़ सी आ गई है. कुछ दिनों पहले जैकलीन फर्नांडिस के साथ उनका गाना भी अंग्रेजी में रिलीज हुआ, जिसे काफी पसंद किया गया. अब ग्लोबल हिमांशी खुराना के साथ भी वह सिंगल कल्ला सोहना नई में नजर आएंगे. कुछ दिनों पहले ही इस सॉन्ग का फर्स्ट लुक रिलीज किया गया. वहीं हाल ही आसिम रियाज ने पॉपुलर रैपर बोहमिया के साथ भी लाइव परफॉर्म करने के बारे में बताया.

सिरोचा का साप्ताहिक बाजार बंद रखने का आदेश जारी किया है. जिसके कारण व्यापारी और ग्राहकों को भारी परेशानियों का सामना करना पड़ेगा. जबकि कोरोना से सावधानी के चलते यह जल्दी है.

ओदी जाए-मांग

और निवासी अन्य पिछड़े प्रवर्ग के हैं. प्राप्त जानकारी के अनुसार, समाज के स्कूलों के प्रधानाचार्यों को इस प्रवर्ग से इस प्रवर्ग के अनेक छात्रों का कल्याण विभाग के पास पेश नहीं आओं को छात्रवृत्ति के लाभ से वंचित न देकर ओबीसी समाज के छात्रों को भी मांग ज्ञापन में की गई. इस समय नगरो, विकास सालबे, उदय नैताम, आदि उपस्थित थे.

17
HINDI MAHAVIDARBA - CHANDRA



Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

FORM V

(See Rule 14)

Environmental Audit Report for the financial Year ending the 31st March 2023

Unique Application Number

MPCB-ENVIRONMENT_STATEMENT-0000060652

Submitted Date

28-09-2023

PART A

Company Information

Company Name

Western Coalfields Limited Pauni II
Expansion OC

Application UAN number

166167

Address

Pauni II Expansion OC mine, WCL
Ballarpur Area, Rajura, Chandrapur

Plot no

-

Taluka

Rajura

Village

Sakhari

Capital Investment (In lakhs)

26895.24

Scale

L.S.I

City

Chandrapur

Pincode

442905

Person Name

G V S Prasad

Designation

Sub ARea Manager

Telephone Number

8275968501

Fax Number

07173230076

Email

envpouni2@gmail.com

Region

SRO-Chandrapur

Industry Category

Red

Industry Type

R35 Mining and ore beneficiation

Last Environmental statement submitted online

yes

Consent Number

Format1.0/CAC/UAN
No.MPCBCONSENT-0000166167/CR/2307001645

Consent Issue Date

2023-07-26

Consent Valid Upto

2024-03-31

Establishment Year

2016

Date of last environment statement submitted

Sep 25 2022 12:00:00:000AM

Industry Category Primary (STC Code) & Secondary (STC Code)

Product Information

Product Name

Coal

Consent Quantity

3.25

Actual Quantity

3.25

UOM

MT/A

By-product Information

By Product Name

-

Consent Quantity

0

Actual Quantity

0

UOM

MT/A

Part-B (Water & Raw Material Consumption)

1) Water Consumption in m3/day

Water Consumption for Process	Consent Quantity in m3/day	Actual Quantity in m3/day
	347.00	300.00
Cooling	0.00	0.00
Domestic	20.00	50.00
All others	210.00	200.00
Total	577.00	550.00

2) Effluent Generation in CMD / MLD

Particulars	Consent Quantity	Actual Quantity	UOM
Trade effluent	454	104	CMD

2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)

Name of Products (Production)	During the Previous financial Year	During the current Financial year	UOM
coal (CUBIC METER/TONNE)	0.033	0.033	CMD

3) Raw Material Consumption (Consumption of raw material per unit of product)

Name of Raw Materials	During the Previous financial Year	During the current Financial year	UOM
EXPLOSIVES (KG/TONNE)	2.25	2.75	

4) Fuel Consumption

Fuel Name	Consent quantity	Actual Quantity	UOM
Diesel	0	274	KL/A

Part-C

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

[A] Water

Pollutants Detail	Quantity of Pollutants discharged (kL/day) Quantity	Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour Concentration	Percentage of variation from prescribed standards with reasons %variation	Standard	Reason
Report attached in Part I	0	0	-	-	-

[B] Air (Stack)

Pollutants Detail	Quantity of Pollutants discharged (kL/day) Quantity	Concentration(Mg of Pollutants discharged(Mg/NM3) Concentration	Percentage of variation from prescribed standards with reasons %variation	Standard	Reason
NO stack monitoring	0	0	-	-	-

Part-D

HAZARDOUS WASTES

1) From Process

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
5.1 Used or spent oil	0	0	KL/A

2) From Pollution Control Facilities

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
35.3 Chemical sludge from waste water treatment	0	0	Ton/Y

Part-E

SOLID WASTES

1) From Process

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Overburden	18041000	18658000	M3/Anum

2) From Pollution Control Facilities

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
-	0	0	CMD

3) Quantity Recycled or Re-utilized within the unit

Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	CMD

Part-F

Please specify the characteristics(in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

1) Hazardous Waste

Type of Hazardous Waste Generated	Qty of Hazardous Waste	UOM	Concentration of Hazardous Waste
0	0	KL/A	-

2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
Overburden	118658000	M3/Anum	-

Part-G

Impact of the pollution Control measures taken on conservation of natural resources and consequently on the cost of production.

Description	Reduction in Water Consumption (M3/day)	Reduction in Fuel & Solvent Consumption (KL/day)	Reduction in Raw Material (Kg)	Reduction in Power Consumption (KWH)	Capital Investment(in Lacs)	Reduction in Maintenance(in Lacs)
Impact of the pollution Control measures	0	0.038	-1616000	-103000	0	0

Part-H

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.
[A] Investment made during the period of Environmental Statement

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
---	-----------------------------------	----------------------------

[B] Investment Proposed for next Year

<i>Detail of measures for Environmental Protection</i>	<i>Environmental Protection Measures</i>	<i>Capital Investment (Lacks)</i>
Tyre Wash System	environmental protection abatement of pollution, prevention of pollution	50

Part-I

Any other particulars for improving the quality of the environment.

Particulars

-

Name & Designation

G V S Prasad, Sub Area Manager

UAN No:

MPCB-ENVIRONMENT_STATEMENT-0000060652

Submitted On:

28-09-2023