स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड STEEL AUTHORITY OF INDIA LIMITED _{सेल SAIL} बोकारो इस्पात संयंत्र

BOKARO STEEL PLANT

एम.ओ.एम., चिडिया MOM, CHIRIA

Ref. No.: MOM/PC/6/289

Date:30.05.2025

To,

The Dy. Director General of Forest (C) Regional Office, Ministry of Environment, Forest and Climate Change, 2nd Floor, Headquarter – Jharkhand State Housing Board, Harmu Chowk. Ranchi - 834002.

Sub: Six Monthly status of Compliance to the Conditions Stipulated in Environmental Clearance granted by MOEFCC for 0.75 MTPA Iron ore production from Dhobil Iron Ore Mining project of M/s SAIL vide letter No:J-11015/251/2009-IA. II(M), dated:24.01.2012, Modification vide letter No:J-11015/251/2009-IA.II(M), dated 01.05.2012, Amendment vide letter No:J-11015/251/2009-IA. II(M), dated 19.04.2017, dated 04.04.2022 and dated 21.12.2023 for the period of October-2024 to March-2025.

Sir,

Please find the enclosed herewith the Six monthly compliance report for the period October-2024 to March-2025 with respect to the conditions stipulated by MOEFCC, GoI, New Delhi in the Environmental Clearance grant order of Manoharpur Ore Mines for production of 0.75 MTPA iron ore production from Dhobil Iron Ore Mining project of M/s SAIL vide MoEFCC letter No:J-11015/251/2009-IA. II(M), dated:24.01.2012, Modification vide letter No:J-11015/251/2009-IA.II(M), dated 01.05.2012, Amendment vide letter No:J-11015/251/2009-IA. II(M), dated 19.04.2017, dated 04.04.2022 and dated 21.12.2023.

Thanking you.

Yours faithfully, For, Steel Authority of India Ltd.

(Ravi Ranjan)

General Manager (Mining)

MOM, BSL, SAIL

Copy to:

- 1) Director, IA, MoEF&CC, GOI, Indira Paryavaran Bhavan, Aliganj, JorBagh Road, New Delhi -110003.
- 2) Member Secretary, JSPCB, HEC, Dhurwa, Ranchi 834004.
- 3) In-charge, Central Pollution Control Board, Southern Conclave, Block 502,5th & 6th Floors, 1582 Rajdanga Main Road, Kolkata - 700107 (W. B.).

Chiria Office: MOM Chiria, Po.-Ps: Chiria, W. Singhbhum, Jharkhand-833106, E-MAIL: momchiria@gmail.com, momperschiria@gamil.com

Head Office: Addm. Building, Bokaro Steel Plant, Bokaro City, Jharkhand - 827001

Regd. Office: Ispat Bhawan, Lodhi Road, New Delhi-110003, Phone: +91-11-2436-7481 (14 Lines), Fax: 24367015

Status of Compliance to Conditions Stipulated in Environmental Clearance granted

by

MoEFCC, Gol, New Delhi

Vide Order No: J-11015/251/2009-IA. II (M), Dated: 24.01.2012, Modification vide letter No:J-11015/251/2009-IA.II(M), dated 01.05.2012, Amendment vide letter No:J-11015/251/2009-IA.II(M), dated 19.04.2017, dated 04.04.2022 and dated 21.12.2023 for production of 0.75 MTPA

From

Dhobil Iron Ore Mining Project

(Period: October' 2024 to March' 2025)



STEEL AUTHORITY OF INDIA LIMITED

BOKARO STEEL PLANT (BSL) MANOHARPUR ORE MINES P.O. – CHIRIA, PIN: 833106

DIST. : SINGHBHUM (WEST)

JHARKHAND STATE



Environment Clearance letter No:J-11015/251/2009-IA. II(M), Dated:24th January, 2012 of Dhobil Iron Ore Mining Project for production of 0.75MTPA (ROM) of iron ore.

Half yearly compliance report for the period: October-2024 to March-2025

A. Specific Conditions

SI. No	Condition	Compliance Status as on March' 2025
i	The project proponent shall obtain Consent to Establish and Consent to Operate from the Jharkhand State Pollution Control Board and effectively implement all the conditions	Consent to Establishment was obtained from Jharkhand State Pollution Control Board for a capacity of 0.75 MTPA, vide letter no: 1398, dated: 18.05.2012.
	stipulated therein.	Consent to Operate has also been obtained from Jharkhand State Pollution Control Board for a capacity of 0.75 MPTA, vide letter Ref No. JSPCB/HO/RNC/CTO-11644643/2022/247, dated: 07.03.2022, with validity up to 31.03.2027. Conditions stipulated in the Consents are being complied with. Status of Conditions Compliance placed as Annexure-1 .
ii	Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004, as may be applicable to this project.	Noted.
iii	Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to the project.	Provision of Wildlife (Protection) ACT 1972 is not attracted to the Project as there are no Wildlife sanctuaries, National Parks or similar places specified in the Act within 10 KM radius of the project.
iv	Environmental clearance is subject to obtaining clearance under Forest (Conservation) Act, 1980 for diversion of forest land. Mine working shall be restricted to the area for which forestry clearance has been obtained.	Forest Clearance was obtained vide letter No: 8-20/98-FC, dated: 21.10.98 for mine working over 29.411 Ha. Mine working restricted within 29.411 Ha for which forestry clearance was obtained.
V	Necessary wildlife clearance, as applicable, shall also be obtained.	There is no wild life sanctuary, National Park, wildlife habitat within 10 KM of project site. Hence, Not Applicable.
vi	The Mining operations shall be restricted to above the groundwater table and it should not intersect the groundwater table. In case of working below the groundwater table, priorapproval of the Ministry of	Water table level at mining lease area is about 400 m AMSL and present working depth of the mine is 610 m AMSL and ultimate working depth of the mine is 592m AMSL. Hence there is no intersecting of Mine workings with the ground water table.



CL No	Condition	Compliance Status of an March' 2025
SI. No	Condition Environment and Forests and the Central	Compliance Status as on March' 2025 We hereby undertake that In case of working below
	Ground Water Authority shall be obtained,	the groundwater table, we will obtain prior
	for which a detailed hydro-geological study	approval of the Ministry of Environment, Forest &
	shall be carried out.	Climate Change and the Central Ground Water
	Shall be carried out.	Authority for which a detailed hydro-geological
		study will be carried out.
vii	The project proponent shall ensure that no	Due precautions are being taken to avoid
V 11	natural watercourseand/or water resources	obstructions to natural water resources by
	shall be obstructed due to any mining	providing drains and bounds etc. at required places.
	operations. The first order streams and the	harman Barana and a canada a calaman haraa
	seasonal nallahs originating from the	
	mining lease area shall be protected.	
viii	The top soil, if any shall temporarily be	At present, the mining operations are being carried
	stored at earmarked site(s) only and it	out within the existing broken area and hence no
	should not be kept unutilized for long. The	top soil is generated during this period.
	topsoil shall be used for land reclamation	If any top soil encountered it will be stored
	and plantation.	separately and used for reclamation & plantation
		purpose.
ix	The over burden (OB) generated during the	The over burden (OB) generated during the mining
	mining operations shall be stacked at	operations is being stored at earmarked site.
	earmarked dump site(s) only and it should	Dumping of over burden & inter burden waste on
	not be kept active for a long period of time	stabilized dump (WD-1& WD-2) was stopped.
	and their phase-wise stabilization shall be	. , , , , , , , , , , , , , , , , , , ,
	carried out. There shall be two external	Stabilized through Terracing and Coir geo-textiles
	over burden dumps. The stabilized dump in	and Sal Plantation (native species) over the Waste
	area of 5.23 ha shall not be used for	dumps.
	dumping in future. The new dump created	Retaining wall with garland drain and settling pits
	in an area of 7.9 ha shall have maximum	was constructed around the OB Dump no:1 and
	projected height of 15 m. Proper terracing	Dump No:2 to control surface runoff from the
	of the OB dumps shall be carried out so	dumps.
	that the overall slope of the dump shall be	Dimensions of existing Retaining wall are 1.2 m
	maintained to 28°. The OB dump should be	height and 1.2 m width.
	scientifically vegetated with suitable native	Dhotographs showing the retaining well garland
	species to prevent erosion and surface run	Photographs showing the retaining wall, garland
	off. In critical areas, use of geo textiles shall be undertaken for stabilization of the	drain and settling pits,coir geo-textiles,Plantation over Waste Dump No:1& 2 ,Check Dams
	dump. Monitoring and management of	constructed around the OB Dumps, Sub Grade
	rehabilitated areas shall continue until the	dump and Fines dump are placed as Annexure-2.
	vegetation becomes self-sustaining.	·
	Compliance status shall be submitted to	Reclamation & rehabilitation by backfilling is not
	the MOEF and its Regional Office located at	applicable because No void has been available for
	Bhubaneswar on six monthly bases.	backfilling, as the mine has not gone up to the
		ultimate pit depth level.



SI. No	Condition	Compliance Status as on March' 2025
х	Catch drains and siltation ponds of appropriate size shall be constructed	Six monthly Compliance Status is being submitted to the Ministry of Environment & Forests and Climate Change its Regional Office located at Ranchi. Retaining wall of 1090 m length (325 mts concrete retaining wall & 765 mts length boulder retaining
	around the mine working soil, mineral and OB dump(s) to prevent run off of water and flow of sediments directly into the HamsadagaarNallah, the koina River, the seasonal nallahs and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly de-silted particularly after the monsoon and maintained properly. Garland drains, setting tanks and check dams of appropriate size, gradient and length shall be constructed around the mine pit, soil, mineral and over burden dumps to prevent run off of water and flow of sediments directly into the HamsadagaarNalla, the Koina River, the seasonal nallahs and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area	wall) was constructed around the Sub Grade dump, OB Dumps and Fines dump. Dimensions of existing Retaining wall are 1.2 m height and 1.2 m width. Catch drains and settling pits provided at the subgrade dump / Fines Dump were de-silted. Around 430 m³ of silt has been removed during 2024-25. Photographs showing the retaining wall, garland drain, and settling pits, Check Dams constructed around the OB Dumps, Sub Grade dump and Fines dump are placed as Annexure-2. Sump capacity: At present mining operations are being carried out much above the water table. During the rainy season no working will be planned from the bottom most bench of the mines. The rain water from working area will be channelized towards bottom most working bench of the Mine. Due to pervious nature of the strata the water will be percolated in to the ground within few days.
	adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and de-silted at regular intervals.	Necessary of pumping was not raised since opening of the mines. Hence the size of the bottom most bench is size of the sump.
хi	Dimension of the retaining wall at the toe of the over burden dumps and the OB benches within the mine to check run-off and siltation shall be based on the rain fall data.	Retaining wall of about 1090 m (325 m concrete & 765 m boulder wall) was constructed around the Sub Grade dump, OB Dump and Fines dump. Considering the rainfall data of the area, retaining walls with 1.2 m height and 1.2 m width are being provided and regularly de-silted.



Cl s:	A 11.1	0		
SI. No	Condition	Compliance Status		
xii	The void left unfilled in an area of 6 ha shall	After complete exploita	•	
	be converted into water body. The higher	activities will be done a	•	•
	benches of excavated void/mining pit shall	Progressive Mine Closu	•	_
	be terraced and plantation done to stabilize	Mine closure, the foll	-	viii be
	the slopes. The slope of higher benches	undertaken for the use of	•	mada
	shall be made gentler for easy accessibility	1. The slope of higher		
	by local people to use the water body. Peripheral fencing shall be carried out all	gentler and void area 6 water body.	o na wiii be converti	eu iiito
	along the excavated area.	2. Plantation will be done	to stabiliza the slan	00
	along the excavated area.	3. Peripheral fencing will	•	
		excavated area.	be carried out an ale	ing the
		The Existing mining oper		
		within 29.411 ha area o		
		area of 513.036 ha. Retai	_	• •
		Fines, Sub-grade dumps		
		part of the Western side (1.5 km) was provided		_
		area. Photographs of ba	_	_
		Mine workings are placed	_	iid tiic
xiii	Plantation shall be raised in an area of	Total Safety Zone plan		90 ha
7	126.645 ha including a 7.5 m wide green	completed and being r		
	belt in the safety zone around the mining	carried out every year a		
	lease, over burden dumps, mine benches,	within ML, road sides of		
	around water body, along the roads etc. by	afforestation during last r	nine years are as foll	ows:
	planting the native species in consultation	Year	No of saplings	
	with the local DFO/Agriculture Department.	2024-25	1000	
	The density of the trees should be around	2023-24	800	
	2500 plants per ha. Greenbelt shall be	2022-23	1465	
	developed all along the mine lease area in a	2021-22	660	
	phased manner and shall be completed	2020-21	650	
	within first five years.	2019-20	1100	
		2018-19	600	
		2017-18	600	
		2016-17	600	
		The Existing mining oper	_	
		within 29.411 ha area o	ut of the total lease	e hold
		area of 513.036 ha.		
		However, 35.87 ha area v	was covered for gree	en belt
		development. Out of whi	_	
		is within the mining	•	
		plantation area is outside		
İ				



SI. No	Condition	Compliance Status as on March' 2025
		Present working is being done about 2.0 Km inside the safety zone i.e. lease boundary and most of the Safety Zone area covered by virgin forest. Photographs showing the plantation during 2024-25 are placed at Annexure-4.
xiv	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Regular water sprinkling is being done on haul roads, loading and unloading point by using 4 no's mobile water sprinklers. 158 mtr length Fixed water sprinkler installed at Main Haul Road in Dhobil Mines. Water spraying arrangement (DFDSS) has been provided in Mobile crushing and screening Unit. The transportation road is being maintained regularly with proper grading and repair of potholes. The transport roads are also being cleaned regularly including removal of spillages if any to keep clean & tidy. Ambient air quality monitoring is being done at regular intervals and monitoring results are found within the norms of National Ambient Air Quality Standards. Photographs showing Fixed water sprinkler at Main Haul Road, Water spraying arrangement in Mobile
		crushing & screening Unit, water spraying on haul roads, Siding area and trucks Covered with Tarpaulin Sheet during transportation are placed at Annexure-5.
xv	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	CGWB, State Unit Office (SUO), Ranchi approved Rainwater Harvesting Plan of Dhobil Mines on 18.01.2024. As proposed in approved plan, to augment ground water resources Roof top Rainwater Harvesting at Guest House and General Office, Chiria and Rain water harvesting pond at Railway Siding Manoharpur & Dhobil Mines have been constructed.
		Measures taken for augmentation of ground water resources: (i) Check bunds, Garland drains and siltation pond has been constructed to control water flow and surface runoff.



SI. No	Condition		Compliance Status as on	March' 2025
		the	As the mine pits are locate surface runoff from the mi rted to mine pits, from wh and.	ning areas have been
		mini	IIT, Kharagpur, a world ng institute of the cou prehensive CAT Plan ion.	ntry, was prepared
		Plan river Meg appr tota mine exec DFO to o lease towa relat	prehensive Catchment And for Saranda Forest area system (which hahatuburu, Gua & Chiria roved by PCCF (HoFF), Goal financial outlay of Rs. es located in Saranda) aution of different work as a saranda vide letter dated leposit an amount of Rs. es of Manoharpur Ore Mile) which was deposited by ards implementation of ed to Bio-conservation, estructures as per approved.	fed by Karo & Koina includes Kiriburu, a mines of SAIL) was J on 01.02.2022 with 12286.307 lakh (all to be utilized for items. Accordingly, 128.11.2022 directed. 5.43 crores for all nes (including Dhobil y SAIL on 29.11.2022 of recommendation Eco-restoration &
		in t Dho	CAT structures (04 nos) as he approved compreher bil lease (Three Check dam already been Constructed.	nsive CAT Plan wrt ns and One Toe Wall)
	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 installing new piezometers during the mining operation.	arou wate at th	work of 6 nos. of existing and the mines have been er level monitoring. Grour se selected wells are being wals i.e. 4 times in a year.	selected for ground nd water table levels
	The periodic monitoring (at least four times on a year-pre-monsoon (April-May), monsoon (August), post-monsoon		Range of water levels d during winter is as follows,	
	(November) and winter (January); once in each season shall be carried out in	ID	Location	Water level below the Ground Surface (in meters)
	consultation with the State Ground Water Board/Central Ground Water Authority and	G1	Adjacent to community centre at Anqua	6.15- 6.30
	the data thus collected may be sent regularly to the Ministry of Environment and Forest and its Regional Office	G2	Opposite to community centre at Angua	6.30-6.40



SI. No	Condition	Complian	ce Status	s as on March	ı' 2025
	Bhubaneswar, the Central Ground Water	G3 Near Angu		l Steel	
	Authority and the Regional Director, Central	Village Ga			1.90-2.10
	Ground Water Board. If at any stage, it is	G4 Siva Mand		3	3.25-3.35
	observed that the groundwater table is	G5 Near CNI (Church	-	7.95-8.00
	getting depleted due to the mining activity;	G6 Near Bisra	Chowk	:	1.70-1.80
	necessary corrective measures shall be carried out.	In addition to all (150 feet) and provided and intervals i.e. 4 t	another are be	at Dhobil Viing monitore	llage 200 feet
		Monitoring data water quality is Water Authorit Ranchi. Ground and during Wir placed in Anne	being some some some some being some some some some some some some some	ubmitted to C entral Ground evels during I piezometer	Central ground Water Board, Post Monsoon photograph is
	Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintained.	Regular monit perennial nalla monitored on Accredited lab records are beir	i.e. Ha mont / JSPCE	amsadagaar I hly basis t B authorized	Nalla, is being hrough NABI
	Regular monitoring of water quality upstream and downstream of the HamsadagaarNalla shall be carried out and record of monitored date should be maintained and submitted to the Ministry of Environment and Forests, its Regional Office, Bhubaneswar, the Central	Water quality is downstream of on monthly bas JSPCB authorize submitting to N Climate Change Central Grounds	Hamsad sis throused agen Ministry s, it's Re	dagaar Nalla ugh NABL Accies and reso of Environm egional Office	is being done ccredited lab/ults are being ent, Forest & e, Ranchi, the
	Groundwater Authority, the State Pollution Control Board and the Central Pollution Control Board.	Control Board Board. The Rar Parameters duri as follows-	and the nge of ι ng Octo	Central Pol upstream and ober-2024 to I	lution Control d downstream March-2025 is
	Control Board and the Central Pollution	Control Board Board. The Rar Parameters duri as follows- Parameter	and the nge of ι	Central Pol upstream and ober-2024 to I Up-stream	lution Control downstream March-2025 is
	Control Board and the Central Pollution	Control Board Board. The Rar Parameters duri as follows- Parameter pH(at 24.8°C)	and the nge of u ng Octo Unit	Central Pol upstream and ober-2024 to I Up-stream 6.69-7.52	downstream March-2025 is Down-stream 6.92-7.57
	Control Board and the Central Pollution	Control Board Board. The Rar Parameters duri as follows- Parameter pH(at 24.8°C) Temperature	and the nge of u ng Octo Unit - °C	Central Pol upstream and ober-2024 to I Up-stream 6.69-7.52 23.30-25.10	Down-stream 6.92-7.57 23.5-25.0
	Control Board and the Central Pollution	Control Board Board. The Rar Parameters duri as follows- Parameter pH(at 24.8°C) Temperature Turbidity	and the nge of u ng Octo Unit - °C NTU	Up-stream 6.69-7.52 23.30-25.10 10.90-32.40	Down-stream 6.92-7.57 23.5-25.0 1.11-3.50
	Control Board and the Central Pollution	Control Board Board. The Rar Parameters duri as follows- Parameter pH(at 24.8°C) Temperature Turbidity Colour	unit "C NTU Hazen	Up-stream 6.69-7.52 23.30-25.10 10.90-32.40 13.40-24.00	Down-stream 6.92-7.57 23.5-25.0 1.11-3.50 10.4-16.3
	Control Board and the Central Pollution	Control Board Board. The Rar Parameters duri as follows- Parameter pH(at 24.8°C) Temperature Turbidity Colour DO	unit C NTU Hazen mg/L	Up-stream 6.69-7.52 23.30-25.10 10.90-32.40 13.40-24.00 6.5-7.20	Down-stream 6.92-7.57 23.5-25.0 1.11-3.50 10.4-16.3 6.60-6.90
	Control Board and the Central Pollution	Control Board Board. The Rar Parameters duri as follows- Parameter pH(at 24.8°C) Temperature Turbidity Colour DO BOD	unit "C NTU Hazen mg/L mg/L	Up-stream 6.69-7.52 23.30-25.10 10.90-32.40 13.40-24.00 6.5-7.20 BDL (DL:1.0)	Down-stream 6.92-7.57 23.5-25.0 1.11-3.50 10.4-16.3 6.60-6.90 BDL (DL:1.0)
	Control Board and the Central Pollution	Control Board Board. The Rar Parameters duri as follows- Parameter pH(at 24.8°C) Temperature Turbidity Colour DO BOD TH (as CaCo ₃)	unit "C NTU Hazen mg/L mg/L	Up-stream 6.69-7.52 23.30-25.10 10.90-32.40 13.40-24.00 6.5-7.20 BDL (DL:1.0) 72.7-86.40	Down-stream 6.92-7.57 23.5-25.0 1.11-3.50 10.4-16.3 6.60-6.90 BDL (DL:1.0) 53.60-82.30
	Control Board and the Central Pollution	Control Board Board. The Rar Parameters duri as follows- Parameter pH(at 24.8°C) Temperature Turbidity Colour DO BOD	unit "C NTU Hazen mg/L mg/L	Up-stream 6.69-7.52 23.30-25.10 10.90-32.40 13.40-24.00 6.5-7.20 BDL (DL:1.0)	Down-stream 6.92-7.57 23.5-25.0 1.11-3.50 10.4-16.3 6.60-6.90 BDL (DL:1.0)

Condition

SI. No

Compliance Status as on March' 2025



31. 110	Condition	Compliance Status as on March 2025
		Water quality Monitoring data is being submitted to Central ground Water Authority and Central Ground Water Board, Ranchi. Water quality data is attached in Annexure – 8.
xix	The Project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) required for the project.	Permission obtained from Water Resource Department, Govt. of Jharkhand and agreement has been made with Water Ways Division, Chaibasa for drawl of water from Hamsadagara Nalla to the tune of 0.62 MCM per annum for Manoharpur Ore Mines, Chiria with validity up to 02.08.2027.
xx	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.	CGWB, State Unit Office (SUO), Ranchi approved Rainwater Harvesting Plan of Dhobil Mines on 18.01.2024. As proposed in approved plan, Roof top Rainwater Harvesting and Rain water harvesting pond are constructed.
		Three rainwater harvesting ponds have been provided at Mines Area, General Office, Chiria and Manoharpur Railway Siding Area.
		As the mine pits are located at the hill top, all the surface runoff from the mining areas have been diverted to mine pits, from where it seeps in to the ground.
		Photograph showing the roof top Rain water harvesting for Guest House & rainwater harvesting ponds are placed at Annexure – 9 .
xxi	Appropriate mitigative measures shall be taken to prevent pollution of the Koina River in consultation with the State Pollution Control Board.	As the mine pits are located at the hill top, all the surface runoff from the mining areas have been diverted to mine pits, from where it seeps in to the ground.
		As per the instruction of Jharkhand State Pollution Control Board during site visits Retaining wall, check dams, garland drains have been constructed to prevent pollution of water bodies at Dhobil Mines.
		Comprehensive Catchment Area Treatment (CAT) Plan for Saranda Forest area fed by Karo & Koina river system (which includes Kiruburu, Meghahatuburu, Gua& Chiria mines of SAIL) was approved by PCCF (HoFF), GoJ on 01.02.2022 with total financial outlay of Rs. 12286.307 lakh (all mines located in Saranda) to be utilized for
Period	: October' 2024 to March' 2025	Page 8



SI. No	Condition	Compliance Status as on March' 2025
		execution of different work items. Accordingly, DFO, Saranda vide letter dated 28.11.2022 directed to deposit an amount of Rs. 5.43 crores for all leases of Manoharpur Ore Mines (including Dhobil lease) which was deposited by SAIL on 29.11.2022 towards implementation of recommendation related to Bio-conservation, Eco-restoration & Infrastructures as per approved CAT Plan.
		The CAT structures suggested by IIT KGP within Dhobil Mining lease (Three Check dams and One Toe Wall) were Constructed in consultation with the SPCB / Sate Forest Dept.
xxii	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral from mine face to the beneficiation plant. The vehicles shall be covered with a tarpaulin and shall not be overloaded.	Pollution Under Control (PUC) certificate is made compulsory for deployment of vehicles in Mines. Scheduled/Preventive maintenance of HEMM and light vehicles are under taken in Workshops/Garages to keep emissions level under control. The vehicles used for transportation of ore are covered with tarpaulins and ensured that there is no overloading.
xxiii	No blasting shall be carried out after the Sunset. Blasting operation shall be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	 Blasting is being done only in day time in specified time i.e. 4 – 4.30 PM. Controlled blasting with slurry explosives and NONEL detonators is being done to minimize ground vibrations and to arrest fly rocks & boulders.
xxiv	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to the Ministry of Environment and Forests and its Regional Office located at Bhubaneswar.	The entire mine lease is in Ankua RF of Saranda Forest Division. The mining and associated activities in Dhobil Iron Ore Mining Project are confined in already broken up area of 29.411 ha out of total lease area of 513.036 ha. Land use and land cover (LULC) map of Dhobil lease area has been prepared by Department of Mining Engineering Indian Institute of Technology (Indian School of Mines) Dhanbad using high Resolution Satellite image obtained from Cartosat-2 LISS-IV sensor on the scale of cadastral map arranged from NRSC.
		Land use and land cover pattern of the lease area as on January 2025 is as follows,



SI. No	Condition	Compliance Status as on M	arch' 2025
		LU/LC classes	Area (ha)
		Mine lease Boundary	513.036
		Dense forest	338.593
		Open forest	49.898
		Mining area	27.454
		Water body	0.100
		Built-up land	0.543
		Open scrub / Agriculture land	43.029
		Waste Land	53.419
		LU/LC Report prepared by Dep Engineering, IIT (Indian School of given in the Annexure – 10.	-
xxv	Drills shall either be operated with dust extractors or equipped with water injection system.	Drills are equipped with water in	ection system.
xxvi	Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and	Regular water sprinkling is be roads, loading and unloading po mobile water sprinklers.	-
	unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	158 mtr length Fixed water sp Main Haul Road, Dhobil Mine arrangement has been provided and screening Unit.	s. Water spraying
		19 KL Water tank below constructed and Fixed water pinhas been laid in siding area. Wat provided at 50 mts interval for with flexible hose to prevent dust	pe line of 400mts er tapes have been spraying of water
		Being ensued effective oper sprinklers @ 4–5 hrs per shift.	ration of mobile
		Ambient air quality monitoring regular intervals and monitoring ensuring as per the National A Standards.	oring results are
		Photographs showing Fixed water Haul Road, Water spraying arraic crushing & screening Unit, water roads, Siding area and truction Tarpaulin Sheet during transport Annexure-5.	ngement in Mobile r spraying on haul ks Covered with



SI. No	Condition	Compliance Status as on March' 2025
xxvii	Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.	Septic Tanks with soaking pits have been provided for the various accommodations. Septic Tank & Soaking Pits are being cleaned regularly and maintained.
		5KLD STP &5KLD ETP has been installed and put in operation from 25.02.2025. at SAIL Chiria Hospital. Photographs showing the 5KLD STP & 5 KLD ETP are placed at Annexure-6 .
		For Supply, Installation, Testing, Commissioning and maintenance of 30 KLD STP at Chiria township Open Tender Enquiry was issued vide Ref No: BSL/JGOM/CC/18 of 2024-25 dated 29.03.2025 and four parties submitted bids. Installation of 30KLD STP will be completed by 31 st December-25.
		Since 1998, the mine is operated through Composite Mining contractor and all the HEMM and equipment were deployed by the contractor. Most of maintenance jobs are done at their work shop at Rourkela/Manoharpur.
		However, Vehicle washing facility with Oil grease traps was provided at Chiria general office for vehicles.
xxviii	Pre-placement medical examination and PME of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	Pre-placement medical examination and periodical medical examination of all the workers engaged in the Mine are being carried out and records are being maintained.
xxix	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely elephant, sloth bear, Indian wolf, python etc. spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultationwith the State Forest and wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the	All precautions are under taken not to disturb the flora and fauna in the mining lease area. Necessary facilities are being extended to local forest department for their inspection and monitoring of forest area. IWLMP for West Singhbhum District of Jharkhand was prepared by an Expert Committee constituted by the State Govt. vide notification dated 27.08.2011. SAIL was assigned responsibility for institutionalizing and funding the study. After submission of report on IWLMP by the Committee, GoJ vide letter dated 19.09.2014 forwarded to MoEFCC, GoI. MoEFCC vide order dated 26.08.2014 constituted a Multi-Disciplinary Expert Committee



SI. No	Condition	Compliance Status as on March' 2025
	project cost. All the safeguard measures brought out in the wildlife Conservation Plan so prepared specific to the project site shall be effectively implemented. A copy of action plan shall be submitted to the Ministry of Environment and Forests and its Regional Office, Bhubaneswar.	(MDEC) to examine IWLMP. IWLMP was again refined and revised IWLMP was finally submitted by the Expert Committee to GoJ and MoEFCC, GoI on 10.03.2016. Final IWLMP was appraised in 45th meeting of Standing Committee of National Board for Wildlife on 04.09.2017 wherein the committee appreciated the IWLMP.
		MPSM was approved by MoEFCC on 08.06.2018 wherein it has been stated that the prescription of IWLMP prepared and approved by the State Wildlife Authority, National Board of Wildlife (NBWL) and Project Elephant (PE) of MoEFCC must be followed. IWLMP was presented before GoJ on 29.10.2018. Further the compliance of the observations pointed was submitted by SAIL to GoJ on 01.02.2019. Further, GoJ vide letter dated 30.04.2019 raised certain queries, which was replied on 31.05.2019.
		IWLMP is pending with GoJ for approval. Realization of money towards implementation of IWLMP shall be collected from lease holders.
		SAIL has submitted an undertaking to abide by the guidelines and contribute fund for implementation of IWLMP on prorate basis.
xxx	The entire mining lease area shall be fenced by erecting solar powered electric fencing all round it. The fencing so erected shall be maintained properly and the cost towards erection and maintenance of solar powered	As the project area falls within the RF, the matter has been discussed with forest officials. State Forest Department officials are of the opinion that Solar fencing may obstruct/ effect the movement of wild life animals.
	electric fencing shall be borne by the project proponent out of the project cost.	Accordingly, the matter is being discussed with DFO, Saranda Division and a request letter has been submitted to DFO, Saranda on 12.03.2024 and 21.03.2025.
		For installation of 2KMs Solar Power Fencing along the Dhobil Working area (FC permitted area) Open Tender Enquiry was issued vide Ref No: MOM/CC/NIT/2025-26/01, dated 18.04.2025 and five parties submitted bids. Installation will be completed by Oct-25



SI. No	Condition	Compliance Status as on March' 2025
xxxi	No transportation of ore outside the mine	No transportation of ore outside the mine lease
	lease area shall be carried out after the	area allowed after the sunset
	sunset.	
xxxii	The critical parameters such as RSPM	Regular air & water quality monitoring is being
	(Particulate matter with size less than 10	done on monthly basis and results are being
	um i.e. PM10) and NOx in the ambient air	submitted to State Pollution Control Board and
	within the impact zone, peak particle	other statutory authorities.
	velocity at 300 m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored (TDS, DO, pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. J-20012/1/2006-IA (M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry	Blast induced ground vibration study was conducted through M/S IOCL Business Development Group (E). Study reports Max PPV (mm/s) in any orthogonal direction is 2.278 mm/s,whereas Max PPV mm/sec) permissible as per DGMS is 15mm/s. Results of Air & Water quality data is being displayed at in public domain through Electronic Display board at main gate of General Office of Mines. Photograph of Electronic Display board is place at Annexure-11.
	www.envfor.nic.in shall also be referred in this regard for its compliance.	
xxxiii	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Not Applicable at present. Presently mining activities is restricted with 29.411 ha area only. However, after complete extraction of ore, the Mine Closure activities will be done as per the IBM approved Mine Closure Plan. We hereby undertake that, Final Mine closure plan along with the fund details will be submitted to the ministry 5 years in advance.



B. General Conditions

SI. No	Condition	Compliance Status as on March' 2025
i	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.	Mining is done as per the IBM approved Mining Plan. No change in mining technology and scope of working has been made.
ii	No change in the calendar plan including excavation, quantum of mineral iron ore and waste should be made.	ROM production and total excavation are kept within permitted EC capacity and as per the approved Mining Plan. The quantity of Production from 1 st April-2024 to 31 st March-2025 is as follows: Lump: 197949.54 Tons Fines: 209457.05 Tons ROM: 407406.59 Tons
iii	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10µm i.e. PM10) and NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	Ten nos. of Air quality monitoring stations have been established considering the topographical features and meteorological data. Regular Air & Water quality monitoring is being done on monthly basis and results are being submitted to State Pollution Control Board and other statutory authorities.
iv	Data on ambient air quality RSPM (Particulate matter with size less than 10um i.e., PM10) & NOx should be regularly submitted to the Ministry of Environment and Forests including its Regional office located at Bhubaneswar and the State Pollution Control Board/Central Pollution Control Board once in six months.	Ambient air quality monitoring data is being submitted to Jharkhand State Pollution Control Board and Central Pollution Control Board, MoEF& CC, New Delhi and Regional Office, Ranchi along with the compliance reports. Environmental Lab has been set up at Manoharpur Ore Mines, Chiria with the following equipment - a)Respirable Dust Sampler, Model-APM460(BL), b) Fine Particulate Sampler, Model-PM 550 M, C) Gaseous Sampling Attachment, Model-APM411(TE), D) Sound Level meter, Model-SLM 100, E) Multi parameter Tab, F) Turbidity Meter, G) UV Spectrophotometer, F) Analytical Weighing Balance.



SI. No	Condition	Compliance Status as on March' 2025
		Air, Water and Noise quality monitoring is being carried out by MOM Chiria on monthly basis regularly.
		In addition to this, environmental quality monitoring is also being carried out by NABL accredited Labs on monthly basis.
		PM10 Continuous Ambient Air Quality Monitoring station (CAAQMS) was installed at Railway siding with online connectivity to JSPCB/PCB portal on 07.09.2020.
		PM10 CAAQMS station photographs and CAAQMS Ambient Air Quality Monitoring reportis placed as Annexure – 12.
V	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	To minimize fugitive dust emissions Water spraying on haul roads, loading and unloading and at transfer points are being done regularly. Photographs showing Fixed water sprinkler at Main Haul Road, Water spraying arrangement in Mobile crushing & screening Unit, water spraying on haul roads, Siding area and trucks Covered with Tarpaulin Sheet during transportation are placed at Annexure-5.
vi	Measures should be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in	Workers engaged in operations of HEMM are provided with ear plugs. The Range of noise level during October-2024 to March-2025 is as follows:
	operations of HEMM, etc. should be	S. Location Observed Noise level
	provided with ear plugs/muffs.	No. {Leq in dB(A)}
		Day Time Night Time 1 Dhobil Mines 70.3-70.8 56.1-56.3
		2 Mobile Crushing 73.7-74.3 61.5-62.5 & Screening Plant
		3 Sukri ML Junction 67.1-69.1 55.7-58.7
		4 Gindung Village 64.8-68.4 51.4-54.9
		Manoharpur 68.2-68.3 57.6-64.4 Railway Siding
		6 Patharbasa 61.7-63.5 50.2-50.7
		7 General Office 63.1-64.5 48.7-49.2
		8 Dhobil Village 52.7-59.4 44.1-44.4
		9 Chiria Hospital 48.4-49.1 38.9-39.3
		Noise levels measured in and around the mines is
		placed in Annexure – 13.



SI. No	Condition	Compliance Sta	itus as on March' 2025
Vii	Industrial waste water (Workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422(E) dated19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	provided at Chiria gen Industrial waste wat water from the mine)	ery with Oil grease traps was eral office for vehicles. Ter (Workshop and waste is being properly collected ected from the Oil & Grease ted in log book.
viii	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	engaged in dust prone 208 employees (Contrundergone training of during FY 2024-25. 136 employees have	ovided to all employees e areas. Factual & Departmental) have on safety & health aspects Fee undergone occupational ogram during FY 2024 -25.
ix	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.	A full-fledged Environment Management Cell (EMC) has been established to look after environment aspects headed by an experienced engineer with more than 20 years' experience in the field of environment in the rank of DGM who directly reports Head of Mines.	
х	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Bhubaneswar.	There will be separate budget for Environment Lease department. The allocated budget will exclusively used for Environment & Lease experies only. Year wise expenditure from 2013-14 Environmental protection measures is as furnity.	
		Year	Approximate Expenditure
		2024-25	74.69 Lakhs
		2023-24	70.96 Lakhs
		2022-23	58.97 Lakhs
		2021-22 2020-21	57.82 Lakhs 53.67 Lakhs
		2019-20	53.45Lakhs
		2018-19	48.54 Lakhs
		2017-18	50.84 Lakhs
		2016-17	53.02 Lakhs



SI. No Compliance Status as on Ma		s on March' 2025	
		2015-16	44.60 Lakhs
		2014-15	25.70 Lakhs
		2013-14	42.00 Lakhs
хi	The project authorities should inform to	This old mine started oper	ration in the year 1991.
	the Regional Office located at	Hence start of land devel	opment not Applicable.
	Bhubaneswar regarding date of financial	However, the copy of the E	Environmental Clearance
	closures and final approval of the project	has been sent to the Regio	nal Office, MoEF, Ranchi
	by the concerned authorities and the date	for kind information.	
	of start of land development work.		
xii	The Regional Office of this Ministry located	Full co-operation is extend	ded to the officers of
	at Bhubaneswar shall monitor compliance	the Regional Office, Mo	EF& CC, Ranchi, by
	of the stipulated conditions. The project	furnishing the requisite	data / information /
	authorities should extend full cooperation	monitoring reports.	
	to the officer(s) of the R. O. by furnishing		
	the requisite date/information/monitoring		
	reports.		
xiii	The project proponent shall submit six	Six monthly compliance re	•
	monthly reports on the status of	implementation of environ	_
	compliance of the stipulated EC conditions	being submitted to MoEF&	· · ·
	including results of monitored data (both	Office – MoEF&CC, Rar	
	in hard copies as well as by e-mail) to the	Control Board and State Po	llution Control Board.
	MoEF, its R.O. Bhubaneswar, The	Copy of the complian	nce report including
	respective Zonal Office of Central Pollution	environmental quality dat	
	Control Board the State Pollution Control	the SAIL web site i.e. www.	- -
	Board. The proponent shall upload the		
	status of compliance of the EC conditions,		
	including results of monitored data on		
	their website and shall update the same		
	periodically. It shall simultaneously be sent		
	to the Regional Office of the Ministry of		
	Environment & Forests, Bhubaneswar, the		
,,,i, .	respective Zonal Office of CPCB and SPCB.	The convert Clearance las	tor was notified in the
xiv	A copy of the clearance letter shall be sent	The copy of Clearance let	
	by the proponent to concerned panchayat, ZilaParisad/Municipal Corporation, Local	public places. The clearanc the Company website i.e. w	· · · · · · · · · · · · · · · · · · ·
		the company website i.e. w	ww.san.co.m.
	Body and the Local NGO, if any from whom suggestions, if any were received while		
	processing the proposal. The clearance		
	letter shall also be put on the website of		
	the Company by the proponent.		
	the company by the proponent.		



SI. No	Condition	Compliance Status as on March' 2025
xv	The State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and the Collector's office/Tehsildar's office for 30 days.	-
xvi	The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the Regional office of the Ministry of Environment and Forests, Bhubaneswar by e-mail.	Environmental Statement for the financial year 2024-25 ending 31 st March, 2025 has been submitted to the Jharkhand State Pollution Control Board vide reference No: MOM/PC/6/286, dated: 03-05-2025.
xvii	The project authorities should advertise at least in two local newspapers of the District or State in the project is located and 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 and Forests at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhubaneswar.	Advertisement was given in two local newspapers Times of India (English) and PrabathKabar(Local Language Hindi) within 7 days of the issue of the environmental clearance for the project.
		ndment on 04.04.2022
	The project Proponent Shall submit a progress report completion of the conveyor belt on six monthly basis	While granting Stage — I Forest Clearance (FC) over 595.075 ha during March 2011 for development of Manoharpur Group of Mining Leases, MoEFCC inter-alia stipulates that: Condition No. 1: Over the next 20 years, only 25% of the total forest area being diverted (i.e. 595.075 ha) will be broken up.



SI. No	Condition	Compliance Status as on March' 2025
		Condition No. 14: Only mining and primary and secondary crushing would take place in the forest area. Processing, beneficiation, blending, stockpiling, railway sidings, infrastructure and all township facilities will be 15 km away in non- forest land.
		Condition No. 15: Only closed conveyor systems will be used for transportation of ore.
		Accordingly, development of Chiria has been planned with State-of-the-art technologies to comply with conditions imposed in Stage-I FC. DPER for development of Chiria Mines made through reputed consultant M/s HATCH, Australia for expansion to 7.0 MTPA with a scope to expand to 15 MTPA in 2 nd Phase. Processing, beneficiation, blending, stockpiling, railway sidings were proposed at Patharbasa (Nearest available Nonforest) which is about 15 km from mines.
		i). Subsequently, the FC proposal for diversion of 14.88 Ha forest land for installation of Land Distance Belt Conveyor was submitted online on 31.01.2017. The proposal was considered by Regional Expert Committee (REC) of MoEFCC, Regional Office (RO), Ranchi on 11.03.2019. Subsequently, MoEFCC, RO, Ranchi vide letter Odated 14.03.2019 sought certain information from PCCF (Nodal), GoJ.
		ii). MoEFCC, RO, Ranchi vide letter dated 02.04.2019 requested MoEFCC, GoI to convey the outcome of the review of Management Plan for Sustainable Mining (MPSM) of Saranda & Chaibasa districts, so that decision can be taken for diversion of 14.88 ha FC proposal of Chiria.
		iii). The information sought by MoEFCC, RO, Ranchi vide letter dated 11.03.2019 was submitted by



SI. No	Condition	Compliance Status as on March' 2025
		SAIL to DFO, Saranda vide letter dated 12.08.2019 & subsequently on 02.03.2020. Further, PCCF (Nodal), GoJ vide letter dated 05.01.2021 forwarded the FC proposal for diversion of 14.88 Ha forest land to Principal Secretary (F, E & CC), Jharkhand. Thereafter, OSD (F, E & CC), GoJ vide letter dated 04.02.2021 requested Secretary, (Mines & Geo), GoJ to provide lease period validity of Manoharpur Group of Mining Leases. It is pertinent to mention that the extension of lease period of Chiria leases has been linked with No-Mining Zone issue of MPSM. Since, 05.01.2021, FC proposal for diversion of 14.88 Ha forest land is pending with Principal Secretary (F, E & CC), Jharkhand.
		iv). In view of decision of MoEFCC for keeping Chiria leases under "No Mining Zone", Chairman, SAIL vide letter dated 11.07.2022 requested for the intervention of the Ministry of Steel for taking up the matter with MoEFCC to enable mining in other mining leases of Chiria over and above already broken up area of Dhobil lease where mining is continuing. Consequently, Hon'ble Steel Minister, vide letter dated 20.07.2022 requested Hon'ble Minister MoEFCC to allow mining in already broken up area of the Chiria leases which are with SAIL for a long time, along with resumption of Reassessment Study on MPSM to be carried out concurrently.
		(vi) In reply to the request of Hon'ble Minister of Steel, Hon'ble Minister MoEFCC vide letter dtd 11.08.2022 informed that the decision to discontinue the re-assessment study entrusted to ICFRE has already been communicated to Ministry of Steel on



SI. No	Condition	Compliance Status as on March' 2025
		11.04.2022.
		Therefore, due to No-Mining Zone issue of MPSM,
		the FC proposal for diversion of 14.88 Ha forest
		land for installation of Land Distance Belt Conveyor
		of Chiria is pending and consequently there is no
		progress in completion of the conveyor belt.

Specific EC Conditions for (Mining of Minerals) in EC amendment on 21.12.2023.

SI.	Condition	Compliance Status as on March' 2025
1.1	As committed by the Project Proponent, modular type STPs shall be installed in place of Septic Tanks by March, 2024 with a provision to use the treated sewage for	5KLD STP &5KLD ETP has been installed and put in operation from 25.02.2025 at SAIL Chiria Hospital. Photographs showing the 5KLD STP & 5 KLD ETP are placed at Annexure-6.
	plantation.	For Supply, Installation, Testing, Commissioning and maintenance of 30KLD STP at Chiria township Open Tender Enquiry was issued vide Ref No: BSL/JGOM/CC/18 of 2024-25 dated 29.03.2025 and four parties submitted bids. Installation of 30KLD STP will be completed by 31 st December-25.
2.1	The project proponent shall strictly adhere to the conclusions made in the minutes of personal hearing dated 10.11.2023.	Noted.
2.2	This amendment in EC will be valid for a period of a 2 (two) years only w.e.f 23.01.2024.	Noted.
3.1	The Project Proponent shall adhere to the pollution control measures suggested by the Central Pollution Control Board (CPCB) in the environmental guidelines for crushing/screening activity.	Water spraying (DFDSS) provided in Mobile crushing & screening Units. All the Conveyor belts and transfer points are covered with flexible sheets. Three sides and top of hoper (Unloading Point) covered with GI Sheets.
4.1	The Project Proponent shall strictly adhere to the conclusions made during the personal hearing held on 10.11.2023.	Noted.
4.2	All other terms and conditions mentioned in the EC letter dated 24.01.2012, 01.05.2012, 19.04.2017 and 04.04.2022 shall remain unchanged.	Noted.



5.1	To increase the density of trees, the Project Proponent needs to undertake the plantation in low density areas within the mine lease area.	Plantation is carried out every year at low tree density areas within ML.
6.1	Mining activity is restricted to an area of 29.411 ha for which the Stage-II Forest Clearance is available.	Forest Clearance was obtained vide letter No: 8-20/98-FC, dated: 21.10.98 for mine working over 29.411 Ha. Mine working restricted within 29.411 Ha for which forestry clearance was obtained.
7.1	The Project Proponent should follow-up the matter regarding solar powered electric fencing with DFO, Saranda to reach at a decision thereof.	The matter is being discussed with DFO, Saranda Division and a request letter has been submitted to DFO, Saranda on 12.03.2024 and 21.03.2025. For installation of 2KMs Solar Power Fencing along the Dhobil Working area (FC permitted area) Open Tender Enquiry was issued vide Ref No:MOM/CC/NIT/2025-26/01,dated 18.04.2025 and five parties submitted bids. Installation will be completed by Oct-25
8.1	The Project Proponent shall convert the unpaved road into concrete road to reduce the fugitive dust.	For construction of 80 mtr length Cement concrete road before enter into Public road at Railway Siding Manoharpur Open Tender Enquiry was issued vide Ref No: MOM/CC/NIT/2025-26/03, dated 25.04.2025 and three parties submitted bids. Construction will be completed by Oct-25
8.2	Fugitive dust monitoring during transportation shall be monitored regularly at all the sensitive receptors and report shall be submitted quarterly to the Regional Office of MoEF&CC.	Fugitive dust monitoring during transportation are being monitored through NABL accredited lab regularly at all the sensitive receptors and report are being submitting on quarterly to the Regional Office of MoEF&CC. Monitoring report for Q4 of 2024-25 is attached as—Annexure -14.
8.3	Over loading of transport equipment's should be avoided to prevent spillage. Vehicles involved in transporting the material should be covered with tarpaulin to prevent fugitive dust emission.	Trucks Covered with Tarpaulin Sheet during transportation and Ensuring no over loading of transport equipment's to prevent spillage.
8.4	The Project Proponent shall maintain the entire mineral transportation route by road at their own cost. The Project Proponent shall also periodically maintain the roads to reduce the fugitive emissions from roads and also the vehicular emissions.	The entire mineral transportation route by road is being maintained regularly to prevent fugitive emissions



8.5	Regular sprinkling shall be done on roads to suppress the dust at the source.	Regular water sprinkling is being done on haul roads, loading and unloading point by using 4 no's mobile water sprinklers. 158 mtr length Fixed water sprinkler installed at Main Haul Road in Dhobil Mines
8.6	The Project Proponent shall undertake the dense plantation all along the haul roads and approach roads to attenuate the fugitive dust.	Plantation is carried out every year at low tree density areas within ML, all along the haul roads and approach roads.
9.1	The Project Proponent shall create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) in order to ensure the compliance of Notification published by MoEF&CC on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance reports.	To create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) awareness program was organized at Vocational Training Center (VTC), Chiria in the month of March-2025. Photograph of awareness program is place at Annexure-15.
10.1	The mining lease holders shall, after ceasing mining operations, undertake regrassing 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. The implementation report of the above said condition shall be submitted to the Ministry's Regional Office.	Noted.

(Ravi Ranjan)

General Manager (Mining) Manoharpur Ore Mines, Chiria



Annexure-1

Compliance Status of CTO for Dhobil Mining lease

S. No.	A. Specific Conditions:	Compliance Status
i	That, the over burden dump shall be made in	Complied.
	accordance with conditions imposed in Environmental Clearance.	The Over burden generated from mining operations is dumped in the dump yard demarcated in the approved mining plan and leveled properly. Terracing, drains have been formed around the dump to control surface runoff.
ii	That, the occupier shall do mining in broken up	The Mining operation is being carried out within the
	area 29.411 hectares only and shall submit a	broken area of 29.411 Ha as per the IBM Approved
	copy of six monthly report regarding	Mining Scheme.
	compliance of conditions imposed in Environmental Clearance to Regional Office, MOEF, Govt. of India, Ranchi under intimation to the Board Head Quarter.	Six monthly Compliance Status is being submitted to the Ministry of Environment & Forests and Climate Change its Regional Office located at Ranchi.
iii	That, the mining operation shall be restricted to above the ground water table and it should	Complied.
	be not intersect the ground water table.	Water table level at mining lease area is about 400 m AMSL and present working depth of the mine is 610 m AMSL and ultimate working depth of the mine is 592 m AMSL. Hence there is no intersecting of Mine workings with the ground water table.
iv.	That, the top soil, if any shall temporarily be	Complied.
	stored at earmarked site(s) only and it should not be kept unutilized for long. The top soil shall be used for land reclamation and plantation.	At present, the mining operations are being carried out within the existing broken area and hence no top soil is generated during this period. If any top soil encountered it will be stored separately and used for reclamation & plantation purpose.
V.	That, the occupier shall do blasting operation only during the day time.	1. Blasting is being done only in day time in specified time i.e. 4 – 4.30 PM.
		2 Controlled blasting with slurry explosives and NONEL detonators is being done to minimize ground vibrations and to arrest fly rocks & boulders.
vi.	That, the occupier shall do sprinkling of water on haul road and dusty areas.	To minimize fugitive dust emissions Water spraying on haul roads, loading and unloading and at transfer points are being done regularly.



vii.	That, the occupier shall reclaim the mined out areas after mining activities and plantation shall be done at the reclaimed site.	At present, the mining operations are being carried out within the existing broken area and hence no reclamation activity is carried out. After the complete exploitation of ore within the existing broken area, reclamation and plantation activities will be undertaken as per the IBM approved Mine Closure Plan.
viii	That the transportation shall be done through covered vehicle to avoid fugitive dust emission.	All vehicles are covered with Tarpaulin cover to arrest the fugitive dust emission.
ix.	That, the occupier shall construct garland drain, setting tanks and check dams at appropriate places to prevent runoff water and flow of sediments into the HamsadagaarNalla the Koina river and other water bodies and submit photographs to the Board Head Quarter.	Retaining wall, garland drain and check dams are provided to prevent runoff water and flow of sediments into the Hamsadagara Nalla the Koina river and other water bodies.
x.	That, the occupier shall construct ETP for workshop.	Since 1998, the mine is operated through Composite Mining contractor and all the HEMM and equipment were deployed by the contractor. Most of maintenance jobs are done at their work shop at Rourkela/Manoharpur.
		However, vehicle washing facility with Oil, grease traps collection arrangement provided at Chiria for light vehicles.
xi	That, the occupier shall noise monitoring report to the board.	Noise monitoring report is being submitted to the board and the Ministry of Environment & Forests and Climate Change its Regional Office located at Ranchi along with the compliance report.
xii	That, the occupier shall submit photographs tree plantation , rain water harvesting water sprinkling system	Photographs of tree plantation, rain water harvesting water sprinkling system is being submitted to the board and the Ministry of Environment & Forests and Climate Change its Regional Office located at Ranchi along with the compliance report.
xiii	That the occupier shall submit applications for renewal of consent under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air Act, 1981 again 120 days prior to the date of expiry of this consent i.e. 08.03.2018 to 31.03.2022,	Noted.



	with requisite fee and documents showing compliance of all of the above conditions.	
xiv	This Consent to Operate (CTO) supersede previous CTO granted vide Ref No. JSPCB/HO/RNC/CTO-2010693/2018/486, Dated: 2018-03-09 valid upto 31.03.2022 and	Noted.
	stands revised up to this extent.	
XV	That the occupier shall comply with all the	Comply with all the conditions of Environmental
	conditions of Environmental Clearance (EC) ref	Clearance (EC) ref No:J-11015/251/2009-IA.II(M),
	No:J-11015/251/2009-	Dated:24.01.2012 (With Amendments
	IA.II(M),Dated:24.01.2012(With Amendments	Dated:01.05.2012 and 19.04.2017)
	Dated:01.05.2012 and 19.04.2017)	Dateu.01.03.2012 and 19.04.2017)

S.						Compliance Status
		That, the occupier shall maintain the National Ambient Air Quality Standard given below:			Complied.	
	SI. No	Pollutant	Time Weighted Average	Industrial Residential , Rural and Other Area	Connection in Ambient Air Ecologically sensitive Area (notified by Central Govt)	The ambient air quality is being regularly monitored and quality maintained within the prescribed standard
	(1)	(2)	(3)	(4)	(5)	
	1	Sulphur Dioxide (SO2), μg/m³	Annual 24 hour	50 80	20 80	
	2	Nitrogen Dioxide (NO2), μg/m ³	Annual 24 hour	40 80	30 80	
	3	Particulate Matter(size less than 10 um) or PM2.5, µg/m ³	Annual 24 hour	60 100	60 100	
	4	Particulate Matter(size less than 2.5 um) or PM2.5, µg/m³	Annual 24 hour	40 60	40 60	
	5	Ozone)O3), μg/m ³	8 hours 1 hour	100 180	100 180	
	6	Lead (Pb) μg/m ³	Annual 24 hour	0.50 1.0	0.50 1.0	
	7	Carbon Monoxide (CO) mg/m ³	8 hours 1 hours	02 04	02 04	
	8	Ammonia (NH3) μg/m ³	Annual 24 hours	100 400	100 400	
	9	Benzene (C6H6)	Annual	05	05	



		3				
		/m³			24	
	10 Be	• •	Annual	01	01	
	1 1 7	rene (BaP) rticulate Phase				
		ly ng/m³	A 10 10 10 1	00	00	
		senic (As) ng/m3	Annual	06	06	
		kel (Ni) ng/m³	Annual	20	20	
		erial No. 1 to 4 –	•	. 6.		
		o. 5 to 12 As app	<u>`</u>			
		e occupier shall			Quality within	1 .
	t <u>he stan</u>	idard and the qu	antity, as fol			maintained within the standard.
	SN	Param	eter	9	Standard	
				100	4 3	
	1	Particulate Matt	er	100 mչ	g/ Nm²	
3.	That. th	e occupier shall	keep proces	s effluent	in close-circuit	The effluent discharge quality is being
		quality of efflu				
		e standard(s) and			•	
	SN	Param		-	tandard	standard.
	1	Total Suspende	ea Solias	100 mg/		
	2	BOD		30 mg/L		
	3	COD		250 mg/		
	4	Oil & Grease		10 mg/L		
4.	4. That the occupier shall dispose of solid wastes as follows:			The main solid waste generated from		
	SI. No	Waste	Type	Mode	of Disposal	mining operations is OB & Waste which
					-	is dumped in the yard demarcated in the
	1	Hazardous Car	bonaceous	In Co-pro	cessing in	approved mining plan and leveled
		Wastes		high temp	o. furnaces or	properly. To control surface runoff
				kilns		Terracing has been done around the
	2	Hazardous No	n-	In TSDF		dump.
		Carbonaceous	Wastes			The quantity of used oil and batteries is
	3	Non—Carbona	aceous Non-	As a subs	stitute of Soil	very negligible. However used oil stored
		Hazardous solid		or Mineral		temporarily stored in sealed drums for
		wastes/Mine (Over Burden			auction to registered recycler.
		1.43.63, 1411116	z z z z z z z z z z z z z z z z z z z	[
5.	That th	ne occupier sha	ll keep D.G	Sets (s)	within acoustic	Complied.
	enclosure (s) and shall keep the height (s) of exhaust pipes			·		
	(s) as per Central Pollution Control Board norm.					
	(s) as per certifal Pollution Control Board Horni.					



6. That the occupier shall create and maintain Central Ground Water Board/State Ground Water Directorate approved \ system of rain water harvesting-cum-ground water recharge and submit the photographic view of the structures within a month.

As the mine pits are located at the hill top, all the surface runoff from the mining areas have been diverted to mine pits, from where it seeps in to the ground.

Rooftop rainwater harvesting system provided for Guest House& General Office at Chiria. Provided counter bunds across Nallahs, Trenches in plantation areas.

Three rainwater harvesting ponds have been provided at Mines Area, General Office, Chiria and Manoharpur Railway Siding Area.

7. That, the occupier shall grow and maintain greenery of the project in the periphery and other available spaces and shall continue enhancing its plant density and biodiversity.

Complied.

Plantation is being carried out every year at low tree density of areas, road sides etc. Details of year wise afforestation during last seven years are as follows:

daring lace series years are as remember				
Year	No of saplings			
2024-25	1000			
2023-24	800			
2022-23	1465			
2021-22	660			
2020-21	650			
2019-20	1100			
2018-19	600			
2017-18	600			
2016-17	600			

The Existing mining operation is being carried out within 29.411 ha area out of the total lease hold area of 513.036 ha. However, 35.87 ha area was covered for green belt development. Out of which 5.88 ha plantation area is within the mining lease and 29.97 ha of plantation area is outside the lease hold area.

8. That, the occupier shall submit environmental; statement with supporting stoichiometric calculations analyses reports, every year latest by 30th September of the next financial year.

Environmental Statement for the financial year 2024-25 ending 31st March, 2025 has been submitted to the Jharkhand State Pollution Control Board



		vide reference No: MOM/PC/6/286,
	That the case of a shall a least account A did account and	dated: 03-05-2025.
9.	That the occupier shall submit report(s) duly monitored and issued by an NABL accredited/ISO 9001:2008 and OHSAS 18001:2007 certified laboratory in compliance sub-para (2), (3), (4) and (5) of paragraph 3 of this CTO yearly at required periodicity.	Complied. Regular monitoring of the desired parameters is being done by JSPCB or its authorized agencies.
10.	That, this CTO is valid subjected to the validity of mining	Noted.
	Lease/Mining Plan/ecofriendly/Environmental Clearance, if	
	applicable. In case of no renewal of Mining Lease/Mining	
	Plan, this consent shall be treated as revoked automatically.	
	That, this CTO is issued from the environmental angle only and does not absolve the occupier from other statutory obligations prescribed under another law or any other instrument in force. The sole and complete responsibility to comply with these conditions laid down in all other laws for the time- being in force, rests with the industry/unit/occupier.	Noted.
12.	That, this CTO shall not in any way, adversely affect or	Noted
	jeopardize the legal proceeding, if any, instituted in the past or that could be, instituted against you by the State Board	
	for violation or the provisions of the Act or the Rules made	
	there under.	
13.	That, the occupier shall comply with all applicable provisions	Noted
	of the water (Prevention & Control of Pollution Act, 1974;	
	the Water (Prevention & Control of Pollution) Cess Act, 1977;	
	the Air (prevention and Control of Pollution) Act, 1981; and	
	the Environment (Protection) Act, 1986 and Rules made	
	there under.	



Annexure - 2





Retaining wall at Waste Dump-1







Garland Drain & Silting pond at Waste Dump-1





Retaining wall at Waste Dump-2







Garland Drain & Silting pond at Waste Dump-2



Annexure – 2







Annexure – 2 Photographs of Check Dams constructed across the Seasonal Nalla of Dhobil Mines-





Annexure-3













Fencing provided at around the Quarry



Annexure – 4 Photographs showing the Plantation during 2024-25 at MOM, Chiria





Dump stabilization through Geo Coir Textile at Waste Dump-2



Photographs showing the Plantation at MOM, Chiria





Plantation at General Office, Chiria





Plantation at General Office, Chiria



Plantation Near Rabindar Bhawan, Chiria



Plantation at Transport Road

Plantation at Vacant areas



Water sprinkling arrangements









Fixed water sprinkler at Main Haul Road, Dhobil Mines







Transportation Road

Haul Road







Crushing & Screening Plant at Dhobil Lease



Trucks Covered with Tarpaulin Sheet during transportation





Water sprinkling system at Railway Siding Area by fixed water pipe line





Water sprinkling at Railway Siding Area



Annexure-6 INSTALLATION OF 5KLD STP & 5KLD ETP AT SAIL Chiria Hospital









5KLD STP & 5KLD ETP at SAIL Chiria Hospital



GROUND WATER LEVEL MEASUREMENTS

A. Ground Water levels in and around the Mines

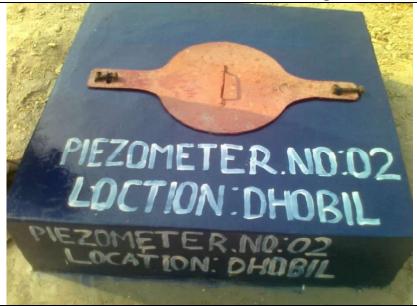
Location		Water level below the Gro			
ID	Location of Open Wells	During Post Monsoon	During Winter		
G1	Adjacent to community center at Anqua	6.15	6.30		
G2	Opposite to community center at Anqua	6.30	6.40		
G3	Near Anqua Model Steel Village Gate	1.90	2.10		
G4	Siva Mandir	3.25	3.35		
G5	Near CNI Church	7.95	8.00		
G6	Near BisraChowk	1.70	1.80		

		Water level below the Ground Surface (in meters				
SI. No. Location of Piezomet		During Post Monsoon	During Winter			
1	Chiria Village	4.10	3.95			
2	Dhobil Village	3.70	3.60			





Piezometer at Chiria Village



Piezometer at Dhobil Village



WATER QUALITY OF HAMSADAGARA NALLA

(Period: October-2024 to March-2025)

	Location - Upstream of Hamsadagara Nalla									
S. No.	Parameter	Unit	Standards as per IS: 2296-1982	ОСТ	NOV	DEC	JAN	FEB	MAR	
1	pH(at 25°C)	-	6.5 - 8.5	6.69	6.77	7.43	7.52	7.28	7.34	
2	Temperature	°C	-	25.10	24.90	23.30	24.10	23.60	24.90	
3	Turbidity	NTU	-	32.40	29.80	11.80	12.40	10.90	12.40	
4	Colour	Hazen	300	24.0	21.20	16.20	14.50	13.40	15.20	
5	DO	mg/L	4(min)	7.20	6.90	6.50	6.70	6.90	6.70	
6	BOD(@20°C for 5 days)	mg/L	3.0	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	
7	Total Hardness (as CaCo₃)	mg/L	-	83.60	86.40	72.70	76.70	78.30	86.20	
8	TDS	mg/L	1500	178.00	185.00	168.00	173.00	166.00	178.00	
9	TSS	mg/L	-	43.80	45.20	36.80	38.50	28.80	30.20	
10	Iron	mg/L	50	0.430	0.424	0.112	0.123	0.072	0.176	

	Location -Downstream of Hamsadagara Nalla									
S. No.	Parameter	Unit	Standards as per IS: 2296-1982	ОСТ	NOV	DEC	JAN	FEB	MAR	
1	pH(at 25°C)	-	6.5 - 8.5	6.86	6.92	7.54	7.57	7.32	7.45	
2	Temperature	°C	-	24.90	25.00	23.50	24.30	23.80	25.00	
3	Turbidity	NTU	-	2.96	3.16	1.11	1.36	2.40	3.50	
4	Colour	Hazen	300	14.00	16.30	10.40	11.70	10.90	11.80	
5	DO	mg/L	4(min)	6.90	6.80	6.60	6.80	6.70	6.80	
6	BOD(@ 20°C	mg/L	3.0	BDL	BDL	BDL	BDL	BDL	BDL	
	for 5 days)			(DL:1.0)	(DL:1.0)	(DL:1.0)	(DL:1.0)	(DL:1.0)	(DL:1.0)	
7	Total Hardness	mg/L	-	58.30	63.00	53.60	58.00	74.20	82.30	
	(as CaCo ₃)	/1	4500	44400	452.00	4.42.00	455.00	4.65.00	404.00	
8	TDS	mg/L	1500	144.00	152.00	143.00	155.00	165.00	181.00	
9	TSS	mg/L	-	15.80	18.40	16.60	17.80	12.20	14.60	
10	Iron	mg/L	50	0.116	0.124	0.102	0.121	0.087	0.16	



Annexure – 9



Roof top Rain Water Harvesting at Chiria Guest House





Rain Water Harvesting Pond in Dhobil Lease







Rain Water Harvesting Pond at General Office, Chiria





Rain Water Harvesting Pond at Railway siding



Dhobil ore mining lease area land use and land cover:

Dhobil ore mining lease area (513.036 ha) is also classified into the six classes. The distribution of area is dense forest (338.593 ha), open forest (49.898 ha), mining area (27.454 ha), water body (0.10 ha), agricultural land/ open scrubland (43.029 ha), wasteland (53.419 ha) and built-up land (0.543 ha) shown in Figure-1.

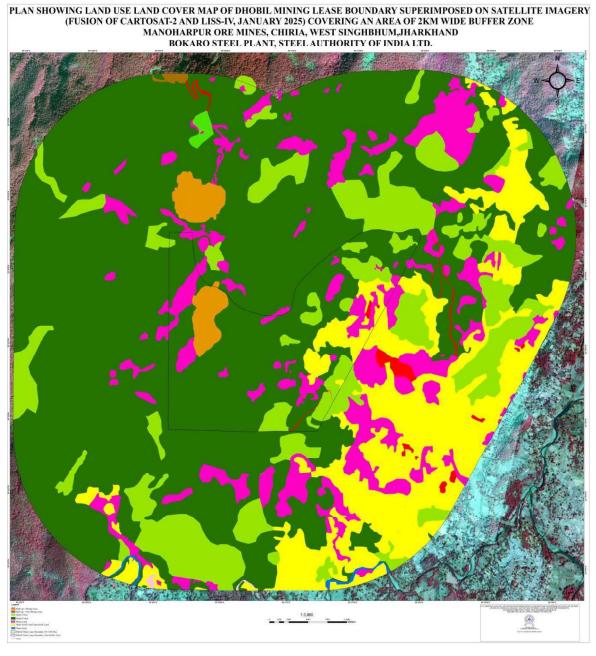


Figure 1: Land use Land cover map of Dhobil ore mining lease area



Accuracy assessment was carried out using field data, existing maps and land cover map of (Bhuvan ISRO). Then location of the field points was chosen using random stratified method to represent different land cover classes of the area. The land cover mapping of the images, ancillary data and the result of visual interpretation was integrated with the classification result using GIS in order to improve the classification accuracy of the classified image.

The classification distributions are shown below:-.

S. No.	LU/LC	Dhobil Mine lease (in Ha)
1.	Built-up Land	0.543
2.	Agriculture/Scrub Land	43.029
3.	Dense forest	338.593
4.	Open Forest	49.898
5.	Water body	0.100
6.	Waste land	53.419
7.	Mining	27.454
8.	Total Area (ha)	513.036

Dhobil mining lease Area_2025 (Ha)

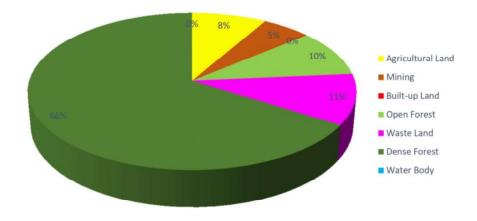


Figure 2: Land use distribution of Dhobil lease area



Photograph of Electronic Display board



Front view



Rear view



AMBIENT AIR QUALITY

(Period: October-2024 to March-2025)

S. No.	Sampling Period		PM10 (μg/m3)				
	Location	OCT	NOV	DEC	JAN	FEB	MAR
1	Dhobil Mine Entry Point	60.10	75.40	69.90	74.70	74.90	76.10
2	Dhobil Village	56.30	67.00	66.20	67.50	65.10	68.60
3	Chiria Hospital	52.00	61.60	65.50	65.60	62.70	66.00
Norm as per NAAQS		100 μg/m3					

S. No.	Sampling Period		PM2.5(μg/m³)				
	Location	ОСТ	NOV	DEC	JAN	FEB	MAR
1	Dhobil Mine Entry Point	30.50	45.00	40.70	42.40	42.30	40.40
2	Dhobil Village	26.20	39.00	35.00	35.10	32.80	28.30
3	Chiria Hospital	27.70	34.10	34.40	33.90	31.30	33.30
Norm a	Norm as per NAAQS		3				

S. No.	Sampling Period		SO ₂ (µg/m³)				
	Location	ОСТ	NOV	DEC	JAN	FEB	MAR
1	Dhobil Mine Entry Point	10.20	13.80	13.10	14.00	12.50	12.80
2	Dhobil Village	10.70	11.00	12.10	11.20	11.90	11.80
3	Chiria Hospital	7.90	9.10	10.20	10.80	11.80	11.00
Norm as per NAAQS		80 μg/m	3				

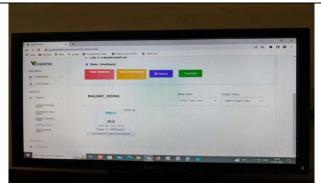
S. No.	Sampling Period		NO ₂ (μg/m³)				
	Location	ОСТ	NOV	DEC	JAN	FEB	MAR
1	Dhobil Mine Entry Point	23.20	29.50	29.40	32.10	29.00	31.30
2	Dhobil Village	21.80	22.90	30.00	27.90	23.00	24.00
3	Chiria Hospital	21.10	19.30	20.80	22.70	23.10	22.70
Norm as per NAAQS		80 μg/m3	3	,			



Annexure-12 Continuous Ambient Air Quality Monitoring System (CAAQMS) at Manoharpur Railway Siding.











VASTHI ENVIRO

Industry: MANOHARPUR ORE MINES SIDING,

Industry Code:

Industry Category: MINING Industry Type: Ambient Station: RAILWAY_SIDING P S-MANOHARPUR,Jharkhand

Mauza- MANOHARPUR, PS-MANOHARPUR

WEST SINGHBHUM

	RAILWAY_SIDING(PMI0)
Range	0-10000
Unit	μg/m3
Limit	NA
Min	36.66
Max	62.42
Avg	48.14

SL	Datentime	RAILWAY_SIDING(PM10)
1	2025-03-01 00:00:00	44.225733
2	2025-03-02 00:00:00	46.581061
3	2025-03-03 00:00:00	49.335018
4	2025-03-04 00:00:00	47.219831
5	2025-03-05 00:00:00	52.579824
6	2025-03-06 00:00:00	47.689832
7	2025-03-07 00:00:00	54.924085
8	2025-03-08 00:00:00	40.041132
9	2025-03-09 00:00:00	45.565681
10	2025-03-10 00:00:00	52.639635
11	2025-03-11 00:00:00	55.076104
12	2025-03-12 00:00:00	50.045946
13	2025-03-13 00:00:00	48.764828
14	2025-03-14 00:00:00	44.510983

page 1 / 2



VASTHI ENVIRO

Industry: MANOHARPUR ORE MINES SIDING, Industry Code: Industry Category: MINING Industry Type: Ambient

Industry Type: Ambient Station: RAILWAY_SIDING P S-MANOHARPUR,Jharkhand

Mauza- MANOHARPUR, PS-MANOHARPUR

WEST SINGHBHUM

SL	Datentime	RAILWAY_SIDING(PMI0)
15	2025-03-15 00:00:00	50.184272
16	2025-03-16 00:00:00	46.525573
17	2025-03-17 00:00:00	52.599734
18	2025-03-18 00:00:00	42.898509
19	2025-03-19 00:00:00	47.81427
20	2025-03-20 00:00:00	36.66175
21	2025-03-21 00:00:00	50.736722
22	2025-03-22 00:00:00	40.270301
23	2025-03-23 00:00:00	43.827915
24	2025-03-24 00:00:00	53.565897
25	2025-03-25 00:00:00	51.928675
26	2025-03-26 00:00:00	39.526447
27	2025-03-27 00:00:00	45.59124
28	2025-03-28 00:00:00	46.893303
29	2025-03-29 00:00:00	45.41139
30	2025-03-30 00:00:00	56.224021
31	2025-03-31 00:00:00	62.419998



NOISE QUALITY REPORT (Period: October-2024 to Mach-2025)

S. No.	Sampling Location	Regulatory Limit	Regulatory Limit	Ob		loise level dB(A)}	in Leq
		(in day time)	(in night time)	Oct	to Dec	Jan to Mar	
		{dB(A)}	{dB(A)}	Day	Night	Day	Night
		, , ,		Time	Time	Time	Time
1	Dhobil Mines	75	70	70.8	56.3	70.3	56.1
2	Dhobil Mobile Crushing	75	70	74.3	61.5	73.7	62.5
2	& Screening Plant			74.5	61.5	/3./	02.5
3	Sukri ML Junction	75	70	69.1	55.7	67.1	58.7
4	Gindung Village	75	70	68.1	54.9	64.8	51.4
5	Manoharpur Railway	75	70	68.3	64.4	68.2	57.6
3	Siding			08.3	04.4	06.2	37.0
6	Patharbasa	75	70	61.7	50.7	63.5	50.2
7	General Office	75	70	64.5	49.2	63.1	48.7
8	Dhobil Village	55	45	59.4	44.1	52.7	44.4
9	Chiria Hospital	55	45	49.1	39.3	48.4	38.9



FUGITIVE AIR QUALITY REPORT



ENVIRONMENTAL LABORATORIES &

PLOT NO-30, MANSAROVAR ENCLAVE, TUPUDANA HATIA, RANCHI-834003 (JHARKHAND) GST NO:- 20AAECE9713D1Z4 BORATORIES & ENGINEERING SERVICES PVT. LTD.

Email: info@elespl.co.in, eles.ranchi@gmail.com
Phone no.: 0651-2290103

Website: www.elespl.co.in

TEST REPORT

Test Report No.	: ELES/RNC/2025/1897	Report Release Date	: 21.03.2025
Work Order No.	: MOM/CC/WO/2023-24/50	Work Order Date	: 14.03.2024
ULR No.	: TC1358725000001856F	Schedule	: Monthly (March'25)

CUSTOMER DET	AILS	SAMPLE DETAILS		
Customer Name	: Manoharpur Ore Mines, Chiria	Sample Ref. No.	: ELES/RNC/2025/FA/2116	
		Location	: Manoharpur Railway Siding	
Address	: At- Chiria, PO- Chiria,	Sampling Date	: 16.03.2025	
	Dist- West Singhbhum, Jharkhand- 833106	Sample Received Date	: 17.03.2025	
		Type of Sample	: Fugitive Air	
		Sampling Procedure	: ELES/DOC/SMPL/02	
Plant Status	: Operational	Sampling Done By	: ELES Pvt. Ltd.	
Period of Analysis	: 17.03.2025 to 21.03.2025	Sample Condition	: Sealed & Preserved	

MI	METEOROLOGICAL INFORMATION				
1	Average Temperature (°C)	: 32	2	Barometric Pressure (mmHg)	: 744
3	Relative Humidity (%)	: 61	4	Weather Condition	: Clear

Discipline: Chemical		Group: Atmospheric Pollution		
Parameter	Unit	Test Protocol	Result	
Suspended Particulate Matter (SPM)	μg/m ³	IS 5182 (Part-4): 2019	163.2	
Sulphur Di- Oxide (SO ₂)	μg/m³	IS 5182 (Part-2/Sec1): 2023	13.7	
Nitrogen Di- Oxide (NO ₂)	μg/m³	IS 5182 (Part-6): 2022	25.1	



****End of Report****

Authorised Signatory Akash Kumar Quality Manager

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"Save Environment, Save Future"





PLOT NO-30, MANSAROVAR ENCLAVE, TUPUDANA HATIA, RANCHI-834003 (JHARKHAND) GST NO:- 20AAECE9713D1Z4

VGINEERING SERVICES PVT. LTD.

Email: info@elespl.co.in, eles.ranchi@gmail.com

Phone no.: 0651-2290103 Website: www.elespl.co.in



TEST REPORT

Test Report No.	: ELES/RNC/2025/1895	Report Release Date	: 21.03.2025
Work Order No.	: MOM/CC/WO/2023-24/50	Work Order Date	: 14.03.2024
ULR No.	: TC1358725000001854F	Schedule	: Monthly (March'25)

CUSTOMER DET.	CUSTOMER DETAILS		SAMPLE DETAILS		
Customer Name	: Manoharpur Ore Mines, Chiria	Sample Ref. No.	: ELES/RNC/2025/FA/2114		
	A CONTRACTOR OF THE CONTRACTOR	Location	: Bachamguttu		
Address	: At- Chiria, PO- Chiria,	Sampling Date	: 16.03.2025		
	Dist- West Singhbhum,	Sample Received Date	: 17.03.2025		
	Jharkhand- 833106	Type of Sample	: Fugitive Air		
		Sampling Procedure	: ELES/DOC/SMPL/02		
Plant Status	: Operational	Sampling Done By	: ELES Pvt. Ltd.		
Period of Analysis	: 17.03.2025 to 21.03.2025	Sample Condition	: Sealed & Preserved		

MI	ETEOROLOGICAL INFORMATION			
	Average Temperature (°C) : 32	2	Barometric Pressure (mmHg)	: 744
3	Relative Humidity (%) : 61	4	Weather Condition	: Clear

Discipline: Chemical		Group: Atmospheric Pollution		
Parameter	Unit	Test Protocol	Result	
Suspended Particulate Matter (SPM)	μg/m³	IS 5182 (Part-4): 2019	144.7	
Sulphur Di- Oxide (SO ₂)	μg/m ³	IS 5182 (Part-2/Sec1): 2023	7.4	
Nitrogen Di- Oxide (NO ₂)	μg/m ³	IS 5182 (Part-6): 2022	23.3	



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TEST REPORT

Test Report No.	: ELES/RNC/2025/1894	Report Release Date	: 21.03.2025
Work Order No.	: MOM/CC/WO/2023-24/50	Work Order Date	: 14.03.2024
ULR No.	: TC1358725000001853F	Schedule	: Monthly (March'25)

CUSTOMER DETAILS		SAMPLE DETAILS		
Customer Name	: Manoharpur Ore Mines, Chiria	Sample Ref. No.	: ELES/RNC/2025/FA/2113	
	•	Location	: Sukri ML Junction	
Address	: At- Chiria, PO- Chiria,	Sampling Date	: 16.03.2025	
1100100	Dist- West Singhbhum,	Sample Received Date	: 17.03.2025	
	Jharkhand- 833106	Type of Sample	: Fugitive Air	
		Sampling Procedure	: ELES/DOC/SMPL/02	
Plant Status	: Operational	Sampling Done By	: ELES Pvt. Ltd.	
Period of Analysis	: 17.03.2025 to 21.03.2025	Sample Condition	: Sealed & Preserved	

MET	TEOROLOGICAL INFOR	MATION			V
	Average Temperature (°C)		2	Barometric Pressure (mmHg)	: 744
_	Relative Humidity (%)	: 61	4	Weather Condition	: Clear

Discipline : Chemical		Group: Atmospheric Pollution		
Parameter	Unit	Test Protocol	Result	
Suspended Particulate Matter (SPM)	μg/m³	IS 5182 (Part-4): 2019	203.4	
Sulphur Di- Oxide (SO ₂)	μg/m ³	IS 5182 (Part-2/Sec1): 2023	9.8	
Nitrogen Di- Oxide (NO ₂)	μg/m³	IS 5182 (Part-6): 2022	28.6	



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PLOT NO-30, MANSAROVAR ENCLAVE, TUPUDANA HATIA, RANCHI-834003 (JHARKHAND) GST NO:- 20AAECE9713D1Z4

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TEST REPORT

Test Report No.	: ELES/RNC/2025/1563	Report Release Date	: 12.03.2025
Work Order No.	: MOM/CC/WO/2023-24/50	Work Order Date	: 14.03.2024
ULR No.	: TC1358725000001534F	Schedule	: Monthly (March'25)

CUSTOMER DET	AILS	SAMPLE DETAILS	
Customer Name	: Manoharpur Ore Mines, Chiria	Sample Ref. No.	: ELES/RNC/2025/FA/1713
Customer		Location	: Dhobil Mines Haul Road
Address : At- Chiria, PO- Chiria,	Sampling Date	: 06.03.2025	
	Dist- West Singhbhum,	Sample Received Date	: 07.03.2025
	Jharkhand- 833106	Type of Sample	: Fugitive Air
		Sampling Procedure	: ELES/DOC/SMPL/02
Plant Status	: Operational	Sampling Done By	: ELES Pvt. Ltd.
Period of Analysis	: 07.03.2025 to 12.03.2025	Sample Condition	: Sealed & Preserved

METEOROLOGICAL INFORMATION	1 TO	
1 Average Temperature (°C) : 27	2 Barometric Pressure (mmHg	g) : 744
Relative Humidity (%) : 58	4 Weather Condition	: Clear

Discipline : Chemical		Group: Atmospheric Pollution		
Parameter	Unit	Test Protocol	Result	
Suspended Particulate Matter (SPM)	μg/m ³	IS 5182 (Part-4): 2019	189.3	
Sulphur Di- Oxide (SO ₂)	μg/m ³	IS 5182 (Part-2/Sec1): 2023	11.6	
Nitrogen Di- Oxide (NO ₂)	μg/m³	IS 5182 (Part-6): 2022	22.2	



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TEST REPORT

Test Report No.	: ELES/RNC/2025/1562	Report Release Date	: 12.03.2025
Work Order No.	: MOM/CC/WO/2023-24/50	Work Order Date	: 14.03.2024
ULR No.	: TC1358725000001533F	Schedule	: Monthly (March'25)

CUSTOMER DET	AILS	SAMPLE DETAILS	
Customer Name	: Manoharpur Ore Mines, Chiria	Sample Ref. No.	: ELES/RNC/2025/FA/1712
		Location	: Waste Dump
Address : At- Chiria, PO- Chiria,	Sampling Date	: 06.03.2025	
	Dist- West Singhbhum,	Sample Received Date	: 07.03.2025
	Jharkhand- 833106	Type of Sample	: Fugitive Air
		Sampling Procedure	: ELES/DOC/SMPL/02
Plant Status	: Operational	Sampling Done By	: ELES Pvt. Ltd.
Period of Analysis	: 07.03.2025 to 12.03.2025	Sample Condition	: Sealed & Preserved

MI	ETEOROLOGICAL INFOR	MATION			7
1	Average Temperature (°C)	: 27	2	Barometric Pressure (mmHg)	: 744
3	Relative Humidity (%)	: 58	4	Weather Condition	: Clear

Discipline : Chemical		Group: Atmospheric Pollution	
Parameter	Unit	Test Protocol	Result
Suspended Particulate Matter (SPM)	μg/m ³	IS 5182 (Part-4): 2019	222.4
Sulphur Di- Oxide (SO ₂)	μg/m³	IS 5182 (Part-2/Sec1): 2023	13.3
Nitrogen Di- Oxide (NO ₂)	μg/m³	IS 5182 (Part-6): 2022	24.7



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Phone no.: 0651-2290103 Website : www.elespl.co.in



TEST REPORT

Test Report No.	: ELES/RNC/2025/1561	Report Release Date	: 12.03.2025
Work Order No.	: MOM/CC/WO/2023-24/50	Work Order Date	: 14.03.2024
ULR No.	: TC1358725000001532F	Schedule	: Monthly (March'25)

CUSTOMER DET	AILS	SAMPLE DETAILS	
Customer Name	: Manoharpur Ore Mines, Chiria	Sample Ref. No.	: ELES/RNC/2025/FA/1711
		Location	: Mobil Crushing & Screening Plant
Address : At- Chiria, PO- Chiria,		Sampling Date	: 06.03.2025
	Dist- West Singhbhum,	Sample Received Date	: 07.03.2025
	Jharkhand- 833106	Type of Sample	: Fugitive Air
		Sampling Procedure	: ELES/DOC/SMPL/02
Plant Status	: Operational	Sampling Done By	: ELES Pvt. Ltd.
Period of Analysis	: 07.03.2025 to 12.03.2025	Sample Condition	: Sealed & Preserved

MI	ETEOROLOGICAL INFOR	RMATION				
1	Average Temperature (°C)	: 27	2	Barometric Pressure (mmHg)	: 744	
3	Relative Humidity (%)	: 58	4	Weather Condition	: Clear	

Discipline : Chemical		Group: Atmospheric Pollution	
Parameter	Unit	Test Protocol	Result
Suspended Particulate Matter (SPM)	μg/m ³	IS 5182 (Part-4): 2019	312.3
Sulphur Di- Oxide (SO ₂)	μg/m³	IS 5182 (Part-2/Sec1): 2023	16.8
Nitrogen Di- Oxide (NO ₂)	μg/m ³	IS 5182 (Part-6): 2022	30.9



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Akash Kumar
Quality Manager

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Annexure – 15

<u>Photographs of Ban of Single Use Plastic (SUP) awareness program</u>

<u>conducted on 08.03.2025 at VTC, Chiria</u>

