

Ref. No.: SML-KIOM/MoEF/2020-2021/253

Date: 12.11.2020

To,
The Member Secretary,
State Environment Impact Assessment Authority, Odisha
(Ministry of Environment, Forests & Climate Change)
Government of India,
Qr. No-5RF-2/1, Unit-IX,
Bhubaneswar -751 022.

Sub: Half yearlyEnvironmental Clearance Compliance Report of Khandbandh Iron Ore Mining Project of M/s. SreeMetaliks Ltd. for the period April 2020 to September 2020 – Reg.

Ref: 1. SEIAA Clearance letter no. SEIAA/362, dated. 06.09.2010

2. MoEF&CC notification no. 4624 (Gazette of India notification) dt. 26.11.2018

Dear Sir,

With reference to the above cited subject and gazette notification, we are submitting herewith the six monthly compliance report in soft copy by E-mail i.e. roez.bsr-mef@nic.inand also uploading the same in our company website with comprehensive data analysis reports (supporting photographs and monitoring reports) for the period **April 2020 to September 2020** in respect of Khandbandh Iron Ore Mining Project of M/s. Sree Metaliks Ltd.

This for your kind information, please.

Yours sincerely,

For M/s. Sree Metaliks Ltd. Khandbandh Iron Ore Mines

- Inter

Mines Manager

Mines Manager

Khandabandh Iron Ore Mines

Encl. As above M/s. Sree Metaliks Limited

Copy to:

- 1. The Director (S), Regional Office (EZ), Ministry of Environment, Forest & Climate Change, A-31, Chandrasekharpur, Bhubaneswar.
- 2. The Chairman, Central Pollution Control Board, PariveshBhawan, CBD-Cum Office Complex, Delhi 110032
- 3. The Chairman, State Pollution Control Board, Orissa, A/118, Nilakantha Nagar, Unit VIII, Bhubaneswar 751012
- 4. The Regional Director, Central Ground Water Board, Government of India, South Eastern Region, Bhubaneswar 751030.

Six Monthly EC Compliance Report

Period: April 2020 to September, 2020

Environment Clearance Letter no.: SEIAA/362, dated. 06.09.2010



Khandbandh Iron Ore Mines M/s. SreeMetaliks Ltd.

Khanbandh, Joda, Keonjhar, Odisha www.sreemetaliks.com

Copy to:

- 1. The Director (S), Regional Office (EZ), Ministry of Environment, Forest & Climate Change, A-31, Chandrasekharpur, Bhubaneswar.
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- 4. The Regional Director, Central Ground Water Board, Government of India, South Eastern Region, Bhubaneswar 751030.

SPECIFIC CONDITIONS	STATUS AS ON DATE / ACTION TAKEN
The applicant (Project Proponent) will take necessary measures for prevention, control and mitigation of Air Pollution, water pollution, noise pollution and land pollution including solid waste management as mentioned by him in form-I, final EIA reports and Environment management Plan (EMP) in compliance with prescribed statutory norms and standards.	The project is taking care of necessary environmental protection measures for prevention, control and mitigation of Air Pollution, water pollution, noise pollution and land pollution including solid waste management in compliance with prescribed statutory norms and standards. The details of the same are mentioned in the table no. # 1. The photographs witnessing the same i.e. dust suppression by water tanker, plantation, settling pits, retaining wall etc. Enclosed as Photo # 1& 2.
The applicant will take necessary steps for socio economic development of the people of the area on need based assessment for providing employment, education, health care, drinking water and sanitation, road and communication facilities. After a detailed primary Socio-Economic survey.	The project has already undertaken the socio-economic development study of the people by carrying out a need based assessment with provision of employment, education, health care, drinking water and sanitation, road and communication facilities. The report of the same is enclosed as Annexure # 1 .
The applicant will comply with the points, concerns and issues raised by the people during public hearing on 18th February, 2009 in accordance with the commitments made by him thereon. The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.	The project has complied all the points, concerns & issues raised by the people during public hearing during operation of the ML area. The detailed point wise compliance of same is mentioned in the Table no. # 2 . The project has obtained necessary statutory clearances / approval / permissions from the concerned authorities i.e. Lease Deed from Govt. of Odisha, Mining Plan from IBM, Forest Clearance from MOEFCC, Consent to establish & Operate from SPCB etc. However, we will also follow the same as
	The applicant (Project Proponent) will take necessary measures for prevention, control and mitigation of Air Pollution, water pollution, noise pollution and land pollution including solid waste management as mentioned by him in form-I, final EIA reports and Environment management Plan (EMP) in compliance with prescribed statutory norms and standards. The applicant will take necessary steps for socio economic development of the people of the area on need based assessment for providing employment, education, health care, drinking water and sanitation, road and communication facilities. After a detailed primary Socio-Economic survey. The applicant will comply with the points, concerns and issues raised by the people during public hearing on 18th February, 2009 in accordance with the commitments made by him thereon. The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when

V	For post environmental clearance monitoring, the applicant will submit half-yearly compliance report in respect of the stipulated terms and conditions of Environmental Clearance to the State Environmental Impact Assessment Authority (SEIAA), Orissa on 1st June and 1st December of each calendar year.	The project is submitting half yearly compliance report to SEIAA, Orissa as well as Regional Office of MOEF&CC, Bhubaneswar on 1st June and 1stDecember of each calendar year. The details are mentioned in the Table no. # 3.		
VI	The core zone should be monitored intensively with number. Of stations as prescribed by CPCB, Delhi and unit of pollutant level should be expressed as NAAQ standards of CPCB, Delhi. The detail methodology adopted for analysis of samples shall be cleared indicated and should be in accordance of NAAQs.	The project has already established 4 no. of AAQ monitoring station in the core and 4 no. AAQ monitoring station in buffer zone for monitoring of the AAQ as per NAAQs notifications made by the CPCB and the project is also adopting the analysis of sample as cleared indicated in the NAAQs. SI.N Pollutant Method of Measurement 1 SO2 Ultraviolet Fluorescence 2 NO2 Chemiluminescence 3 SPM(PM10) Gravimetric 4 SPM(PM2.5) Gravimetric 5 CO CO monitor		
VII	The proponent shall submit ground toothing baseline data on flora & fauna and CSR activities already carried out within three months to the SEIAA.	The proponent has already carried the ground toothing baseline data on flora & fauna and CSR activities by engaging AISD, Ranchi.		
VIII	Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.	Adequate buffer zone between two consecutive minerals bearing deposits is being carried as per the approved mining plan/scheme. However, there is only one pit mining operation is carried.		

IX	Zero waste mining concept shall be implemented either by putting up palletization plant or disposing off low grade ores/fines to the prospective buyers	The project is ensuring to adopt the Zero waste Mining Concept as per the approved mining plan.
X	The following shall be implemented viz. (a) dump run off should be diverted into setting ponds until it is clear (b) adequate rain water harvesting and ground water recharging facilities should be adapted in the core zone, (c) attempt should be made to achieve zero water balance.	 The project has adopted the followings; Dump run off generated during rainy season is being diverted to the Settling Pits and also to the mines pit for percolation. Photo enclosed as Photo # 3. Adequate rain water harvesting structures are provided for ground water recharge purposes with implementation of Garland drains, Settling pits, Trenches etc. at the strategic locations. Photo enclosed as Photo # 3.
XI	Maintenance of roads through which transportation of ores are undertaken shall be carried by the project proponent regularly at his own cost.	The project is ensuring and maintaining the transportation roads on regular basis by engaging grader. Photo enclosed as Photo # 4.
XII	Fugitive dust generation shall be controlled and regularly monitored at locations of nearest human habitation (including schools and other public amentias located nearest to sources of dust generation as applicable) and records shall be submitted to the SEIAA. Orissa annually.	The project is carrying the fugitive dust monitoring on regular basis and monitoring reports are being submitted on regular basis to SEIAA. The results reveals that, all the parameters are very well within the prescribed norms. The test report of the same is enclosed as Annexure # 2.
XIII	Transportation of ore shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore /dust takes place.	The project is ensuring that the trucks are not being overloaded during transportation and we also ensure that all the trucks used for the mineral transport are covered with tarpaulin to avoid the spillage of ore. Photo enclosed as Photo # 5.

XIV	Monitoring of ground and surface water quality shall be regularly conducted and records should be maintained and data shall be submitted regularly to SEIAA, Orissa.	The project is carrying out the monitoring of ground water in 6 locations and surface water in 4 locations on regular basis of the said parameters. Test reports of the same are enclosed as Annexure # 3 & 4 .
XV	The proponent shall ensure that no silt originating due to mining activity is transported in the surface water course. Measures for prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion shall be carried out with geo-textile matting or other suitable material, and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.	The project is ensuring and implementing the necessary precautionary measures by application of grass seeds and plantations over the dump slopes towards control of soil erosion along with construction of guard wall of gabion boxes check dams, check weirs, settling pits etc. at toe of the dumps for prevention and control of soil erosion and management of silt. Photo enclosed as Photo # 6.
XVI	Trenches / garland drains shall be constructed at foot of dumps to arrest silt from being carried to water bodies. Adequate number of check dams shall be constructed across seasonal/ perennial Nallah (if any) flowing through the ML area and silts be arrested. De-silting at regular intervals shall be carried out.	There is no presence of any seasonal/perennial nallah flowing through the ML area. However, the project has constructed guard wall of gabion boxes, trenches, garland drains, check weirs, settling pits etc. at toe of the dumps & strategic locations for prevention and control of soil erosion and management of silt. Photo enclosed as Photo # 6.
XVII	Provisions shall be made for the housing of the labors within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. the housing may be in the form of temporary structures to	Not Applicable, as the workers engaged in mines activity are from the locals. However, the project has made the provision of mobile toilets, safe drinking water, and health care facilities inside the mines premises.

be removed after the completion of the project

Occupational health and safety measures for the workers including identification of work related health trainina on malaria hazards. eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. The proponent shall engage a full time qualified trained doctor who is health. Periodic occupational monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness program for workers on impact of their health mining on and precautionary measures like use of personal equipment's etc. shall be carried out periodically. Review of impact of various health measures undertaken (at interval of five years or less) shall be conducted followed by follow up action wherever required. Occupational Health center shall be established near the mine site itself.

XVIII

Initial Medical Examination & Periodical Medical Examination of the workers engaged in the project is being undertaken periodically for employees, who are engaged in the process of mining & are likely exposed to dust to observe any contractions due to exposure to dust. This is being carried as per in compliance to Mines Act 1952 & rules 1956 and amendments there to. The Periodical Medical Examination & Initial Medical Examination was held for 02 Nos. & 10 Nos. of employees for the period of April 2020 to September 2020.

The various tests include PFT, X-Ray, and lung spirometry etc. On the basis of the above tests, there is none of the above mentioned employees was found by Silicosis/ Pneumoconiosis or occupational health related diseases during the examination.

XIX	Shelter belt i.e. wind break of 15 m width and consisting of at least 5 tiers around lease facing the human habitation, school/agricultural fields etc. (if any in the vicinity) in the safety zone/backfilled and reclaimed areas, around voids and roads shall be raised. Green belt development and selection of plant species shall be as per CPCB guidelines. Density of the trees has to be around 2500 plants per hectare, herbs and shrubs shall also form a part of afforestation program besides tree plantation. Help and guidance of local DFO may be sought in the matter. Details of year wise afforestation program including rehabilitation of mined out area shall be submitted to the SEIAA, Orissa within six months.	The mine is located inside the Forest area and it is also surrounded by other mines leases. There is no such presence of human habitations in and around the ML area. The project has started back filling of the exhausted mines voids during 2019-20 over an area of 0.648 Ha as approved in the Mining Plan by IBM. However, the project has planted 448 no. saplings of native species across the safety zone, river safety zone etc. in consultation with local Forest Dept. during the reporting period. Photos of the same given in as Photos # 1A.
xx	This environmental clearance is subjected to forest clearance under the Forest (Conservation) Act, 1980.	The project has obtained the Forest Clearance from the MOEFCC, GOI over an area of 30.980 Ha of Forest land under the FC Act, 1980.Copy enclosed as Annexure # 5.
XXI	The mining operation shall be restricted to above ground water table and it should not intersect the groundwater table. The depth of mine should be restricted to the depth mentioned in Form 1-A at the most.	Indian Bureau of Mines, Gol and hydrogeology study, the ground water table exists at 510 m RL and present mines operation is restricted at 547 M RL. So, there is no occurrence of ground water intersection during the reporting period.
XXII	The top soil shall temporarily be stored at earmarked site (s) only and it should not be kept unutilized for long (not more than 3 years). The	The project had kept the top soil in an ear-marked area with proper stabilization measures. The same is utilized for land reclamation and plantation purposes
	topsoil shall be used for land reclamation and plantation.	during the Rainey season. Photos of the same given in as Photos # 7 .

The over burden (OB) generated during the mining operation shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time and its phase-wise stabilization shall be carried out. Proper terracing of OB dump shall be carried out so that the overall slope shall not exceed Back filling shall be done as per approved mining plan, mine closure plan. Back filling to start from 3rd onwards of the mining operation and the entire quantity of waste generated shall be backfilled and used within five years. There shall be no external OB dumps after the 6th year of the mining operations. The backfilled area shall be afforested. Back-filling has to be done in a manner that it is restored ground level. the normal Monitoring and management of rehabilitee areas should continue till the vegetation is established and self-generating becomes compliance status to be reported to the appropriate authorities.

The over burden (OB) generated during the mining operation are being stacked at earmarked dump site(s) only and it's active one. Proper terracing of OB dump is being carried out so that the overall slope shall not exceed as per approved mining plan. The dump is provided with retaining wall at toe followed by garland drain and settling pits. Photos of the same given in as Photos # 1B. However, back filling is being carried over an area of 0.648 ha in the exhausted pit as per approved mining plan/mine closure plan during 2019-20. The back-filling area will be monitored and managed with plantation till the vegetation is established and becomes self-sustained.

XXIV

XXIII

The funds earmarked for the environment protection measures shall be judiciously utilized. Under no circumstances this funds shall be diverted for other purposes like regular maintenance of vehicles/machineries/ purchase or salary of staff. Year wise expenditure for this fund should be reported to the SEIAA, Orissa.

The project has ear marked the funds for implementation of environment protection measures and the same is being used for same. The details of the same are mentioned in **table no. # 4.**

XXV	The critical parameters such as SPM, RSPM, NO _X in the ambient air within the impact zone, peak particle velocity at 300 m distance or within the nearest habitation, whichever is closure 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 20012/1/2006-1A.II (M) dated 27.05.2009 issued by Ministry of Environment and forest, which is available on the website of the Ministry www.envfor.nic.in shall also be refereed in this regard for its compliance.	The said critical parameters are being monitored & uploaded in the company's website bearing address https://www.sreemetaliks.com/. The said monitored parameters i.e. for AAQ: PM10, PM2.5, SO2, NOx, CO & discharge for surface run off discharge from the mine (treated) etc. is being displayed at the main gate of the mines of the company for public domain. The details of the same enclosed as Annexure # 6 .
XXVI		A Final mine closer plan along with detailed corpus fund will be submitted to the ministry of Environment & Forest 5 years in advance of final mine closure for approval.
XXVII	The project proponent shall obtained necessary prior permission of the competent authorities for drawl of requisite quantity of water (Surface water and ground water) required for the project	The project has already obtained the necessary clearances from the competent authority for drawl of requisite quantity of Surface water and ground water. The copy of Ground water NOC is enclosed as Annexure # 7 .

XXV	The project proponent shall prepare wild life conservation plan in consultation with DFO and adequate safety and mitigation measures should be incorporated to protect the wildlife, flora, fauna to mitigate the adverse impacts of mining on them.	The project has prepared the Wild Life Conservation Plan in consultation with DFO and the same got approved by PCCF (Wildlife) & Chief Wild Life Warden, Bhubaneswar with estimated cost of INR 14 Lakhs towards activities to be implemented within the ML area and INR 68 Lakhs towards activities to be implemented by the DFO in the project impact area. Copy of the same is enclosed as Annexure # 8 .
XXI	The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in withdrawal of this environmental clearance and attract action under the Provisions of Environment Protection (EP) Act, 1986.	We will abide by the said condition.
XXX	land to a condition which is fit for	The project has started back filling of the part of the exhausted mines voids during 2019-20 over an area of 0.648 Ha out of total ML area of 35.774 Ha as approved in the Mining Plan by IBM. The back-filling area will be monitored and managed with plantation till the vegetation is
	growth of fodder, flora, fauna, etc.	established and becomes self-sustained to restore the land to a condition which is fit for growth of fodder, flora, fauna, etc.

TABLE # 01 Details of the EMP measures implemented

Table No. 1.1 – Environmental Protection measures

SI. No Particulars		Particulars Location	
1	Retaining Wall	Near mine gate sub-grade	133X1X1
	(L x W x H) in M	dump	
2	Retaining Wall	Work shop side dump	104x1x1
	(L x W x H) in M		
3	Garland drain	From weighbridge gate to	150x1x0.5
<u> </u>	(L x W x H) in M	bottom crusher side	
4	Garland drain	On running bench besides	110x1x0.5
	(L x W x H) in M	mine haul road	
3	Check dam	Near Pillar No F	8x1x1.5
		(A. I. Test, grassically	6x1x1.5
4 Check Weir		Near Pillar No E	27.24x1x1
	Settling Pit (in CUM)	Near Pillar No E	40x20x3.5
5			30x20x3.0
		Near Pillar No D	20x10x3.0

Table No. 1.2

SI. No.	SI. No. Particulars Location		Quantity	
1	Plantation (in Nos.)	New sapling and gap filling in S/Z	300 nos.	
2	Coir Matting (in Sq. M)	SG Dump	5000 Sq.M.	

TABLE # 02
Public Hearing Compliance

Compliance of the issues rose at the public hearing meeting on dt. 18.02.2009 is given in the following table;

SI. No.	Particulars	Compliance		
1	Supply of Drinking water,	In this Content I would like to mention that		
	Education, electrification,	Khandbandh Iron Ore Mines of SreeMetaliks		
	Employment and road	Limited has started operation on March 2018.		
	development.	Most of the issue as raised during public hearing		
		meeting like road development, Employment,		
		Supply of drinking water etc. are taken into		
	d	consideration and being full filled		
2	Apart from that some	(I) 05 Nos. of Sewing Machines are provided		
	other issue are taken	to the SHG of this locality to develop their		
	under CSR activities	skillness and earnings.		
	-	(II) Ceiling fans are being provided at class rooms of Kundurpani, Jalahari and Khandbandh U.P. Schools.		

TABLE # 03 Submission of EC Compliance details

	EC Compliance submission Details				
SI. No.	Period	Date of Submission			
1.	October, 2017 to March, 2018	28.05.2018			
2.	April to September, 2018	30.11.2018			
3.	October, 2018 to March, 2019	26.05.2019			
4.	April to September, 2019	25.11.2019			
5.	October, 2019 to March, 2020	13.07.2020			

<u>TABLE # 04</u> Details of the Environmental Expenses

		Environmental	Expenses		
SI. No	Description	Budget: Capital Cost (As per EIA/EMP)	Expense in 2018-19 (in Lakhs)	Expense in 2019-20 (in Lakhs)	Expense in 2020-21 up to September 2020 (in Lakhs)
1	Air Quality Management				
	Dust Suppression	24.00	24.00	24.00	12.00
	Dry fog	12.00	12.00	12.00	6.00
2	Water Quality Management			*	
	Retaining Wall& Garland drain	26.285	0	25.00	14.00
	Check Dam, Settling Ponds etc.				3.00
3	Dump Management				
	Plantation	0.85	2.001	0.65	0.80
	Coir Matting & grass seed application	3 CD5 ()			2.50
4	Occupational Health & Hygiene	0.50	0.15	0.26	0.15
	IME/PME				
	Safety Items	ν		2	
5	Environmental Monitoring				
	Monitoring Charges	10.00	3.00	6.00	2.83
	Calibration of Instruments	4.00	0.00	0	
6	Water Conservation Measures	v 10/11/30 1354 U	- 3 A C () 3 D	To 2001-34 5-130.	
	Rain water harvesting and its maintenance	10.00	8.00	6.00	3.00
	Others .		0 '	0	
	TOTAL	87.635	49.15	73.91	43.45

ANNEXURE - 1

Socio Economic Study, Need based assessment and preparation of CSR/ ESC Plan of Project Affected Villages aroundKhandbandh Iron Ore Mines of M/s. Sree Metaliks Ltd., at Barbil in Keonjhar district of Odisha



Sree Metaliks Limited

SML House, Main Road, P.O Barbil, District., Keonjhar, Odisha, 758035, India

Study conducted by



ASIAN INSTITUTE FOR SUSTAINABLE DEVELOPMENT

Sreenibas, Shiv Bhavan Lane, Morabadi, Ranchi, Jharkhand - 834008

Email: info@aisdindia.org

Phone & Fax: +91 651 2551034

ANNEXURE - 2: Fugitive Dust Monitoring Report



Environmental Research and Services (lacks) P.J. Ed.

Piot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bnubancswar-7/10/4, 04 Tel: +91-9437021932, +91-9937690329 , E-mail: ersibbsr@gmail.com

ULR-TC744020000000216F

Test Report Format No.: ERSIPL/FM/37

TEST REPORT (AMBIENT AIR) - Fugitive Emission

Pg No 1 of 1

Date: 09 Sept 2020

Test Report No: ERSIPL/TR/AA/111

Name and Address of the Customer :

Khandbandh Iron Ore Mines of M/s Sree Metaliks 11.1

Khandbandh, Joda, Keonjhar-758034

Sample Collected by Sample Collected in presence of Representative of ERS (i) Pvt. Ltd. Representative of Customer.

Date of Sampling/Monitoring
Sample Received on
Analysis Started on

01-02.09.2020 04.09.2020 04.09.2020

Analysis Started on Analysis Completed on Method of Sampling

07.09.2020
As per guidelines for sampling & measurement of not food

AAQ parameters (NAAQS 2009) CPCB
Quantity of Sample : 01 sample for each parameter

Environment Condition

Or sample for each paramet

- Sunny

Test Findings*

SI. No	Monitoring Stations	Sample Id	Date of Monitoring	Analysis Result in µg/m ³ PM (Particulate Matter) IS: 5182 (Part 4) 1989 Reaffirmed 2014, Gravers 1 Method
1	Near Mines Bench	2855	01.09 2020	213.31
,	Near Hauf Roads (inside lease)	2856	01.09.2020	184.69
1	Near Waste Dump	2860	02.09.2020	197.46
4	Near Screening Plant	2858	01.09.2020	2/3.81
5	Near Ore storage and loading	2859	02.09.2020	237.32
13.	Near Crushing Point	2857	01.09.2020	197.69
Pern	nissible Limits			1200.0
No	te-*Monitoring carried out with con	trol measures		

ANNEXURE – 3: Ground Water Quality Report



Environmental Research and Services (India) Pvt. Ltd.

(An ISO/REC 17025 - 2005 (NABL) Accredited Laboratory, OSPCB Empanelled Laboratory and ISO 9001 : 2015 Cartified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha Tel: +91-9437021932, +91-9937690329 , E-mail: ersibbsr@gmail.com

ULR-TC744020000000173P

Test Report Format No.: ERSIPL/FM/40

TEST REPORT (Water/ Waste Water)-Ground Water

Pg No: 1 of 1

Date: 13 July 2020

Name and Address of the Customer

Test Report No: ERSIPL/TR/WA/090

Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd

Khandbandh, Joda, Keonjhar-758034

Date-of Sampling

Sample Collected by

Representative of ERS (I) Pvt. Ltd. : Representative of Client.

Sample Collected in presence of

: 06.07.2020

Sample Received on Analysis Started on

: 06.07.2020

02.07.2020

Analysis Completed on Method of Sampling

: 13.07.2020

Quantity of Sample

: IS 3025: Part 1: 1987, Reaffirmed 2014

Type of Container

: Glass Bottle & HDPE Bottle

Environment Condition

: All Tests carried out in Room Temperature

Sample ID. No. 1. ERSIPL/WA/1855

Locations 1. Open well in Village Jajanga

2. ERSIPL/WA/1856

2. Bore well in Village Khandbandh near OMC Colony

3. ERSIPL/WA/1857

3. Open well in Village Khandbandh

A Onen well in Village Jalahuri

4. ERSIPL/WA/1858				1	Result					
SI	Parameters Analysed	Test Method	Unit	Permissible Limit as per IS:10500, 2012	ERSIPL/ WA/ 1855	ERSIPL/ WA/ 1856	ERSIPL/ WA/ 1857	ERSIPL/ WA/ 1858		
01	Turbidity	IS 3025:Prrt 10: 1984 Reaffirmed-2017	NTU	1.0	0.5	0.2	0.5	0.3		
02	рН	IS 3025:Part 11: 1983 Reaffirmed-2017	No	6.5 to 8.5	6.70	6.73	6.55	6.79		
03	Total Hardness as CaCO ₃	IS 3025:Part 21: 2009 Reaffirmed-2014	mg/L	200.0	76.0	62.0	42.0	108.0		
04	Total Iron	IS 3025:Part 53: 2003 Reaffirmed-2014	mg/L	0.3	<0.07	<0.07	<0.07	<0.07		
05	Chloride	IS 3025:Part 32: 1988 Reaffirmed-2014	mg/L	250.0	20.36	18.47	18.47	27.19		
06	Total Dissolved Solids	IS 3025:Part 1G: 1984 Reaffirmed-2014	mg/L	500.0	117.5	96.2	56.4	177.8		
07	Calcium as Ca	IS 3025:Part 40: 1991 Reaffirmed-2014	mg/L	75.0	21.64	18.43	10.42	25.65		
08	Sulphate as SO ₄	IS 3025:Part 24: 1986 Reaffirmed-2014	mg/L	200.0	3.25	2.62	1.87	5.87		
09	Fluoride	IS 3025:Part 60: 2008 Reaffirmed-2013	mg/L	1.0	<0.1	<0.1	<0.1	<0.1		
10	Total Alkalinity as	IS 3025:Part 23: 1986 Roaffirmed-2014	mg/L	200.0	28.0	30.0	20.0	76.0		

ANNEXURE - 4: Surface water quality report



Environmental Research and Services thrus

Plot No: B-22, Sector-B, Industrial Estate Chandalia, Infocity Road, Bhubaneswar 751 Tel: +91-9437021932, +91 9937690329 , E-mail: ersibbsr@gmail.com

ULR-TC744020000000217P

Test Report Format No.: ERSIPL/FM/40

Pg No. 1 of

TEST REPORT (WATER/WASTE-WATER)

Date: 09 Sept 2020

Name and Address of the Customer

Test Report No: ERSIPL/TR/WA/113

Date of Sampling

Sample Collected by Sample Collected in presence of

Sample Received on

Analysis Started on Analysis Completed on

Method of Sampling Quantity of Sample

Type of Container

Environment Condition Sample ID. No.

Khandbandh Iron Ore Mines of M/s Sree Metaliks 140

Khandbandh, Joda, Keonjhar-758034

01.09.2020

Representative of ERS (I) Pvt. Ltd. Representative of Customer.

04.09.2020

04.09.2020

07.09.2020

IS 3025: Part 1: 1987, Reaffirmed 2014

Glass Bottle & HDPE Bottle

All Tests carried out in Room Temperature

Location

- 1. Water from river Baitarani, near village Jalahur.
- 2. Water from Dalco Nala Near TATA Pump House No
- 3. Water From Suna Nadi (up-stream of Minos Lease John
- . Water From Suna Nadi (down-stream of Mines Inches Acce

	4. ERSIPL/WA/1927 (Surface Water)	4.
i. o.	Test Parameters	Test Method	in I

ERSIPL/WA/1924 (Surface Water)

2. ERSIPI/WA/1925 (Surface Water)

[RSIPL/WA/1926 (Surface Water)

4.					Sels Ar			
S. No.	Test Parameters	Test Method	Unit	ERSIPL/ WA/ 1924	ERSIPL/ WA/ 1925	ERSIPL/ WAA 1926	ERSIPL/ WA/ 1927	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	nit	IS 3025: Part 11:1983, Reafurmed 2017	No	6.61	5.98	7.02	6.88	6,5 8 5
	Dissolved Oxygen	IS 3025: Part 38:1991, Reaffirmed 2014	mg/l	5.1	7.8	7.2	6.3	Su (mer)
i.	(3 days at 27 ^c C)	15:3025:Pert 44:1993 Reaftirmed 2014, 27" C 3 days	ng/I	3.7	5.2	5.1	4.5	5.0
4	Fluoride (as F)	IS 3025: Part 60:2008, Reaftirmed 2013	mg/L	0.15	<0.1	<0.1	<0.1	1.5
4	Hexavalent Chromium (as Cr 6)	IS 3025: Part 52:2003, Reaffirmed 2014	mg/L	ND	ND	ND	ND	0.65
6	aphenolic Compounds	IS 3025: Part 43:1992, Reaffirmed 2014	mg/L	ND	ND	ND .	ND	0.005
4	#Colour	IS 3025: Part 04:1983, Reaffirmed 2017	Hazen	20-25	15-20	10-15	10-15	300
× .	#Lotal Coliform	IS 1622:1981, Reaffirmed 2004	MPN/ 100 ml	12.0	84.0	<5.0	<5.0	MAR II
9	#Arsenic (as As)	IS 3025: Part 37.1958, Reaffirmed 2014	mg/t	ND	ND	ND	ND .	0.2

ANNEXURE - 5:FC Copy



Government of Incliar भारत । स्थानर

Ministry of Environm 'nt, Fore' t & Climate Chaege/ पर्गाव एण, यन एवं प्रख्यापु परिवर्तन मं ॥लय

Easte n Regional Office/ गृगीं क्षे । य क्रागीलय

A/3, Chandrasekharpur/ ए३, चम्प्रचारपुर

Bhubon :swar - 751 (23) भुवनबुर - १ ५९ २२३

Telephone: 0074-2801213, 2001248, 2302452, 2002453. Fax: . 674-2302482. E mail recs.bsr.mg/dqil-.in

No.5-ORC097/2010-BHU

RETARY

America - 2

16 h December, 2016

* Princ

Principal Secretary, est & Environment Department,

Govi. of Orissa, Bhubaneswar.

Sub:-

Diversion of 30.980 ha of forest land in Baitarani Reserve Forests in Keonjhar district, Orissa for Iron ore mining by M/s Sree Metaliks Ltd.

I am directed to refer to State Govt. letter No. 10F(Cons)88/2009-4788/F&E dated 08.03.2010, wherein prior approval of the Ministry of Environment & Forests for liversion of 39.980 ha of forest land in Baitarani Reserve Forests in Keonjhar district, Orissa for Iron ore mining by M/s Sree Metaliks Ltd., was sought in accordance with Section-2 of the Forest (Conservation) Act, 1980. After due consideration of the proposal by the Ministry of Environment & Forests and on the basis of recommendation of State Advisory Group held on 19.10.2010, the in-principle approval for diversion of the said forest land was accorded by Ministry vide this office letter of even number dated 11.03.2011, subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the in-principle approval and has requested to grant final approval of the proposal.

2. In this connection, I am directed to say that on the basis of the compliance report furnished by the State Government of Odisha vide their letter No.10F(Cons)477/2011-14946/F&E dated 11.08.2016, approval of the Ministry of Environment, Forest & Climate Change is hereby granted under Section 2 of the Forest (Conservation) Act, 1980 for diversion of 30.980 ha of forest land in Baitarani Reserve Forests in Keonjhar district, Orissa for Iron ore mining by M/s Sree Metalliks Ltd., subject to the fulfillment of the following conditions:-

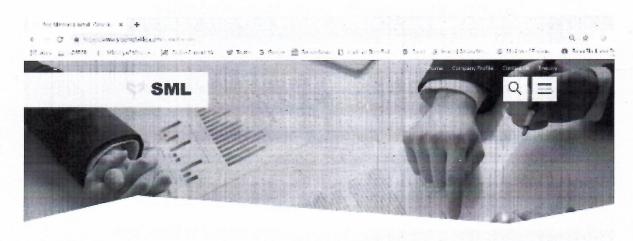
- Legal status of the diverted forest land shall remain unchanged.
- Additional amount of NPV of the diverted forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India, shall be charged by State Govt. from the user agency. An undertaking from the user agency shall be obtained in this regard.
- Compensatory Afforestation shall be raised and maintained over 31.00 ha of non-forest land identified in village Champajhar in Plot No.166/179(P) and 166/180(P) of Khata No.24 of Parbat-II Kissam in Telkoi Tehsil of Keonjhar district from the funds provided by the user agency.

Contd....2

Reporting Period: APRIL TO SEPTEMBER 2020

A.V.

ANNEXURE - 6: Update of EC Compliance in website



Compliances

Compliance Reports of Iron Ore Mining

- 2 Polist on Cardiol Conscience Report
- Environment Compliance Report

Annexure -7: GW NOC Approval letter





Government of India जल शक्ति मंत्रालय, Ministry of Jai Shakti जल संसाधन, नदी विकास और गंगा संरक्षण विभाग

Department of Water Resources, River Development & Ganga Rejuvenation के द्वीप भूजल प्राधिकरण, बोद्दार्ग होते थेते. Central Ground Water Authority,

South Eastern Region भुजल भवन, खंडागिरी चोक्त, भुवनेश्वर, ओडिया, भारत -751030

भुषल भवन, संडागरा वाक, भुवनवर आडवा, भारत -751030 Bhujal Bhawan, Khandagiri Square. Bhubaneswar, Odisha. India -751030

NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION

Project Name: Khandbandh Iron						n Ore N	Aines Of	M/s Sree	Metaliks	Ltd.			
Project Addres	At-kl	At-khandbandh,, Po-Joda, Dist-Keonjhar											
Town:			Joda	•				Block:	Joda	ı			
District:			Kend	Kendujhar				State:	Odis	ha			
Pin Code:		d											
Communication	Plot	Plot No-k8/552 Bhubaneswar, Bhubaneswar, Khordha. Odisha - 751003											
Address of CSWB Regional Office : Central Ground Water Board South Eastern Region, Bhujal Bhawan, Kho Square, Nh-5, Bhubaneshwar, Khordha, Odisha - 751030								Khandag					
. NOC No.:	CG	WANO	C/MINA	ORIG/	2019	6703							
. Application	No.: 21-	4/2347/	DR/MIN	R/MIN/2019				Category:			Mining		
4. Project Stat	us Exi	isting Pro	oject	ect				5. NOC Type:			New		
E. Valid from: 21/11/2019							7. Valid up to:			20/1	20/11/2021		
B. Ground Wa	ter Abstracti	on Perm	itted:										
Fresh V	Vater		Salir	Saline Water			Dewatering				Total		
m³/day	m³/year	m	²/day	1	m³/yea	эг	m³/day	/ /	n³/year	m³/	day	m³/year	
	3577.00			,						9.	80	3577.00	
. Details of g	round water	abstract	ion /De	wateri	ng str	uctures							
	Total E	xisting I	No.:0	•					Total Pr	oposed I	No.:1		
		DW	DCB	BW	TW	MP	DW	DCB	BW	TW	MP		
Abstraction Structure* 0				0	0	0	0	0	1	0	0		
DW-Dug Wei DC	B-Dug-cum-Ba	re Well; BV	N-Bore V	Vel TV	-Tube	Well, MP	-Mine Pit						
0. Quantum of	f ground wat	ler recha	rge(m²	yearn				828	48.00				
			(Co	mplia	nce C	onditio	ons give	n overlea	of)				

(PK Mohapatra)
REGIONAL DIRECTOR

Physic No. 0047 (2:5014)	Fax No. 1674-2950332
#1 E-mail diser cgwh/finic in	#14071 (Website: cgwb govin

जल ही जीवन है। इसे बचार्षे। Water is precious. Save it.

<u>ANNEXURE – 8:Site Specific Wild Life Conservation Plan</u>

OFFICE OF THE
PRINCIPAL CHIEF CONSERVATOR OF FOREST'S (WILDLIFE)
AND CHIEF WILDLIFE WARDEN: ORISSA: BHUBANESWAR751012.

751012.

Memo No. 44 (7) /1WL(C)SSP-311 /2011.

Dated, Bhubaneswar the th June, 2011.

To

2.7.11

The Chief Conservator of Forests (Nodal), O/O the Principal Chief Conservator of Forests, Orissa, Bhubaneswar.

Sub: Approval of site specific wildlife conservation plan of Khandabandh Iron Ore Mines of M/S Sree Metaliks Ltd. in the district of Keonjhar.

I am directed to inform you that the Site Specific Wildlife Conservation Plan for Khandabandh Iron Ore Mines of M/S Sree Metaliks Ltd. in the district of Keonjhar has been approved by the Principal Chief Conservator of Forests (WL) & Chief Wildlife Warden, Orissa with financial forecast of Rs.82.00 lakhs for the following activities.

1.For activities to be implemented by M/S Sree Metaliks Ltd.

Rs.14.00 Lakhs

in ML area

2.For activities to be implemented by the DFO, Keonjhar Division in the

Rs.68.00 Lakhs

Project impact area-

Total: Rs.82.00 Lakhs

Various activities in the lease hold area will be executed by the User Agency under the guidance of D.F.O., Keonjhar Division. Rs.68.00 Lakhs may be deposited with the Divisional Forest Officer, Keonjhar Division under CAMPA for implementation of various activities within the project impact area.

Encl: Two Nos. of approved

S.S. WL Conservation Plan.

Approved by Principal C.C.F. (WL),

Orissa, Bhubaneswar.

Conservator of Forests (WL).

Contd..2

Photographs of Environmental Safeguard Measures

Photo #1A showing Plantation at safety zone& inside MI area





Photo #1B showing Retaining wall & garland drain around OB Dumps









Reporting Period: APRIL TO SEPTEMBER 2020

Photo #2 Showing Drilling Machine with Water Injecting System

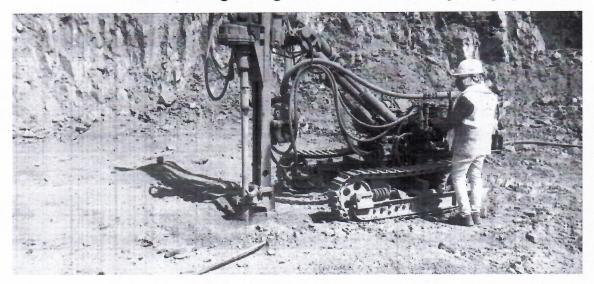


Photo # 3 & 6 - Showing settling tanks with check weir & check dams at strategic locations

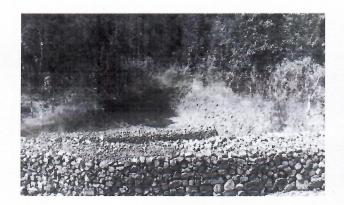




Photo #4Haul road maintenance by Grader application



Photo #5Showing Trucks and Dumpers Covered With Tarpaulin



Photo #7Showing Stacking of Top soil in the earmarked area

