

Ref. No.: SML-KIOM/MoEF/2020-2021/114 Date:13.07.2020

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 yearly Environmental Clearance Compliance Report of Khandbandh Iron Ore Mining Project of M/s. Sree Metaliks Ltd. for the period October 2019 to March, 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.in and also uploading the same in our company website with comprehensive data analysis reports (supporting photographs and monitoring reports) for the period October 2019 to March 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

_bter

Mines Manager
Khandabandh Iron Ore Mines
M/s. Sree Metaliks Limited

Mines Manager

Encl. As above

CIN: U26939WB1995PLC075633 SML HOUSE, MAIN ROAD, BARBIL - 758035, KEONJHAR, ORISSA, INDIA Six Monthly EC Compliance Report

Period: October 2019 to March, 2020

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



Khandbandh Iron Ore Mines M/s. Sree Metaliks 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.
- 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.

SL.	SPECIFIC CONDITIONS	STATUS AS ON DATE / ACTION TAKEN	
I	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 .	
II	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 .	
111	The applicant will comply with the points, concerns and issues raised by the people during public hearing on 18 th February, 2009 in accordance with the commitments made by him thereon.	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 .	
IV 	The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.	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 and when required.	

\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	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 ensuring the submission of half yearly compliance report to SEIAA, Orissa as well as Regional Office of MOEF&CC, Bhubaneswar on 1st June and 1st December of each calendar year of the mines lease. 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 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 Gravimetric
VII	The proponent shall submit ground toothing baseline data on flora & fauna and CSR activities already carried out within three months to the SEIAA. Adequate buffer zone shall be	The proportent has already carried the ground toothing baseline data on flora & fauna and CSR activities by engaging AISD, Ranchi. The report is attached as Annexure # 1. Adequate buffer zone between two
VIII	maintained between two consecutive mineral bearing deposits.	consecutive minerals bearing deposits is being carried as per the approved mining plan/scheme. However, there is only one pit mining operation is carried.
ΙΧ̈́τ	Zero waste mining concept shall be implemented either by putting up palletization plant or disposing off low grade ores/fines to the prospective buyers	waste Mining Concept as per the

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. Photo enclosed as Photo #3.
ΧI	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 of monitoring on regular basis of monitoring reports are being submitted on regular basis to SEIAA. The reserved state, all the parameters are well within the prescribed norms. The first report of the same is enclosed 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 be removed after the completion of the project	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.

Occupational health and safety measures for the workers including identification of work related health malaria on trainina 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 to monitoring for exposure 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 health their mining on 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 Occupational Health required. center shall be established near the mine site itself.

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 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.

XVIII

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 1370 no. of sapling during 2019-20 with native species across the safety zone, road side, dump sites, etc.in consultation with local Forest Dept. 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.	As per the approved mining plan by
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 topsoil shall be used for land reclamation and plantation.	The project has kept the top soil in an earmarked area with proper stabilization measures and will also ensures that, the same will be utilized for land reclamation and plantation purposes. 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 of the mining onwards vear 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 level. the normal ground 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 details of Corpus Fund shall be submitted to the SEIAA 5 years in advance of final mine closure for approval.	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.

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 # 7.**

XXIX

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.

<u>TABLE # 01</u>
Details of the EMP measures implemented

Table No. 1.1 – Environmental Protection measures

SI. No Particulars Retaining Wall		Location	Dimensions in M	
		Near mine gate sub-grade	133X1X1	
.1.	(L x W x H) in M	dump		
	Retaining Wall	Work shop side dump	104x1x1	
2	(LxWxH) in M			
	Garland drain	From weighbridge gate to	150x1x0.5	
3	(L x W x H) in M	bottom crusher side		
4	Garland drain	On running bench besides	110x1x0.5	
4	(L x W x H) in M	mine haul road		
•	Check dam	Near Pillar No F	8x1x1.5	
3			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.	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 raised 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, Education, electrification, Employment and road development.	In this Content I would like to mention that Khandbandh Iron Ore Mines of Sree Metaliks Limited has started operation on March 2018. Most of the issue as raised during public hearing meeting like road development, Employment, Supply of drinking water etc. are taken into consideration and being full filled
2	Apart from that some other issue are taken under CSR activities	 (I) 05 Nos. of Sewing Machines are provided to the SHG of this locality to develop their skinless 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		

TABLE # 04
Details of the Environmental Expenses

	Environme	ental Expenses		
SI. No	Description	Budget: Capital Cost (As per EIA/EMP)	Expense in 2018-19 (in Lakhs)	Expense in 2019-20 (in Lakhs)
1	Air Quality Management			
	Dust Suppression	24.00	24.00	24.00
	Dry fog	12.00	12.00	12.00
2	Water Quality Management			
	Retaining Wall& Garland drain	26.285	0	25.00
	Check Dam, Settling Ponds etc.			
3	Dump Management			
	Plantation	0.85	2.001	0.65
	Coir Matting & grass seed application			
4	Occupational Health & Hygiene	0.50	0.15	0.26
	IME/PME			
	Safety Items			
5	Environmental Monitoring			
	Monitoring Charges	10.00	3.00	6.00
	Calibration of Instruments	4.00	0.00	0
6	Water Conservation Measures			
	Rain water harvesting and its maintenance	10.00	8.00	6.00
	Others		0	0
	TOTAL	87.635	49.15	73.91

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: <u>info@aisdindia.org</u>
Phone & Fax: +91 651 2551034

Oct. 2018

ANNEXURE - 2: Fugitive Dust Monitoring Report



GSTIN: 21AAACE6224D1ZE



Environmental Research and Services (India) Pvt. Ltd.

Plot No: 3-22, Sector-B, Industrial Estate Chandaka, Infacity Road, Bhubaneswar-751024. Odisha Tel: +91-9437021932, +91-9937690329 , 6-mail: ersibbsr@gmail.com

ULR-TC744019000000283F

Test Report Format No.: ERSIPL/FM/37

TEST REPORT (AMBIENT AIR) - Fugitive Emission

Pg No: 1 of 1

Date: 02 Nov 2019

Test Report No: ERSIPL/TR/AA/330

Name and Address of the Customer :

Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd Khandbandh , Joda, Keonjhar-758034.

Sample Collected by Sample Collected in presence of

Representative of ERS (i) Pvt. Ltd. Representative of Client.

Date of Sampling/Monitoring Sample Received on

21-22.10.2019 26.10.2019 26.10.2019

Analysis Started on Analysis Completed on Method of Sampling

31.10.2019 As per guidelines for sampling & measurement of notified

Quantity of Sample **Environment Condition**

AAQ parameters (NAAQS 2009)-CPCB 01 sample for each parameter

Sunny

Test Findings*

	Monitoring Stations	Sample Id	Date of Monitoring	Analysis Result in µg/m³
SI. No				PM (Particulate Matter)
				IS: 5182 (Part 4)- 1999, Reaffirmed 2014, Gravimetric Method
1	Near Mines Bench	2154	22.10.2019	227,47
2	Near Haul Roads (inside lease)	2155	22 10.2019 ,	187.36
3	Near Waste Dump	2159	21.10.2019	234.44
4	Near Screening Plant	2157	21.10.2019	253.53
5	Near Ore storage and loading	2158	21.10.2019	196.16
6	Near Crushing Point	2156	21.10.2019	247.03
	Permissible I	Limits		1200.0

Note-*Monitoring carried out with control measures

(Authorized Signatory) S.P.Pattanayak

END OF TEST REPORT.

ANNEXURE – 3:Ground Water Quality Report



GSTIN: 21AAACE6224D1ZE



Environmental Research and Services (India) Dvt. Ltd.

ing MSD, VEC 17925 : 2005 (MAIN), Romadited Laboratory, DSPCR Emparally dispersory and ISD 9101 - 2915 Cartified Company;

Plot No: 8-22, Sector-5, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

ULR-TC744019000000285P

Test Report Format No.: ERSIPL/FM/40

TEST REPORT (Water/ Waste Water)-Ground Water

Pg No: 1 of 2

Date: 02 Nov 2019

Name and Address of the Customer

Test Report No: ERSIPL/TR/WA/400

: Khandbandh Iron Ore Mines of M/s Sree Metaliks Ltd

Khandbandh, Joda, Keonjhar-758034

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.

- 1. ERSIPL/WA/1477 2. ERSIPL/WA/1478
- 3. ERSIPL/WA/1479
- 4. ERSIPL/WA/1480

.

: 19-20.10.2019

Representative of ERS (I) Pvt. Ltd.

: Representative of Client.

: 25.10.2019 26.10.2019

: 31.10.2019

: IS 3025: Part 1: 1987, Reaffirmed 2014

: 2ltrs

: Glass Bottle & HDPE Bottle

: All Tests carried out in Room Temperature

Locations

1. Open well in Village Jajanga

2. Bore well in Village Khandbandh near OMC Colony

Result

3. Open well in Village Khandbandh 4. Open well in Village Jalahuri

i	Parameters Analysed	Test Method	Unit	timit as per 15:10508, 2812	ERSIPL/ WA/1477	ERSIPL/ WA/1478	ERSIPL/ WA/1479	ERSIPL/ WA/1480
)1	Colour	IS 3025:Part 04: 1983 Reaffirmed 2017	Hazen	5.0	<5.0	<5.0	<5.0	<5.0
)2	Odour	IS 3025 Part 05: 1983 Reaffirmed 2017		Agreesble (A)	Α	Α	Α	Α
)3	Taste	IS 3025:Part 07,08: 1984 Reaffirmed-2017		Agreeable (A)	A	A	A	A
)4	pH	65 3025:Part 11: 1983 Reaffirmed-2017	No	6.5 to 8.5	6.52	6.11	6.27	6.57
41							8	

01	Colour	Reaffirmed 2017	Hazen	5.0	<5.0	<5.0	65.0	43.0
02	Odour	IS 3025 Part 05: 1983 Reaffirmed 2017		Agreesble (A)	A	A	Α	Α
03	Taste	IS 3025-Part 07,08: 1984 Reaffirmed-2017		Agreeable (A)	A	A	A	A
04	pH	6 3025:Part 11: 1983 Reaffirmed-2017	No	6.5 to 8.5	6.52	6.11	6.27	6.57
05	Turbidity	IS 3025:Part 10: 1984 Reaffirmed-2017	NTU	1.0	0.5	0.2	0.5	0.3
06	Total Hardness as CaCO	is 3025:Part 21: 2009 Reaffirmed-2014	mg/L	200.0	75.24	61.38	41.58	118.8
07	Total Iron	IS 3025 Part 53; 2003 Reaffirmed-2014	mg/L	0.3	<0.07	<0.07	<0.07	<0.07
08	Chloride	IS 3025:Part 32: 1988 Reaffirmed 2014	mg/L	250.0	13.69	16.63	16.63	25.43
09	Total DissolvedSolids	IS 3025:Part 16: 1984 Reaffirmed-2014	mg/L	500.0	118.8	97.5	56.4	177.8
10	Calcium as Ca	S 3025:Part 40: 1901 Realfirmed-2014	m _B /L	75.0	16.66	14.28	7.14	24.60
11	Sulphate as SO ₄	S 3025:Part #4: 1986 Reaffirmed 2014	mg/L	200.0	2.25	1.62	1.87	6.37
12	Fluoride	IS 3075:Part 60: 7078 Reaffirmed-2013	mg/l	1.0	<0.1	<0.1	<0.1	<0.1
13	Total Alkalinity as	15 3025:Part 23: 1986 Reaffirmed 2014	mg/L	200.0	26.0	26.0	18.0	74.0

ANNEXURE - 4:Surface water quality report



GSTIN: 21AAACE6224D1ZE



Environmental Research and Services (India) Dvt. Ltd.

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infoctly Road, Bhubaneswar-751024, Odisha Tel: +91-9437021932, +91-9937590329, E-mail: ersibbsr@gmail.com

ULR-TC744019000000284P

Test Report Format No.: ERSIPL/FM/40

TEST REPORT (WATER/WASTE WATER) Surface Water

Pg No: 1 of 1

Date	02	Nov	201	3

Name and Address of the Customer

Test Report No: ERSIPL/TR/WA/399
Khandbandh Iron Ore Mines of M/s Sree Metalliks Ltd
Khandbandh, Ioda, Keonjhar-758034

Date of Sampling

18-22.10.2019 Representative of ERS (I) Pvt. Ltd.

Sample Collected by Sample Collected in presence of

Representative of Client. 25.10.2019 26.10.2019

Sample Received on Analysis Started on Analysis Completed on

31.10.2019 IS 3025: Part 1: 1987, Reaffirmed 2014

Analysis Started on Analysis Completed on Method of Sampling

2ltrs

Quantity of Sample
Type of Container

Glass Bottle & HDPE Bottle All Tests carried out in Room Temperature

Environment Condition Sample ID, No.

Location

- ERSIPL/WA/1481
 ERSIPL/WA/1482
- Water from ziver Baltarani, near village Jalahuri
 Water from Dalco Nala Neer TATA Pump House No.07
 Water From Suna Nadi (up-stream of Mines Lease Area)
- ERSIPL/WA/1483
 ERSIPL/WA/1484
- Water From Suna Naci (down stream of Minos Linese Area)
- 5. ERSIPL/WA/1485

5. Suffece Rum	off water reca	Western	loveling pump house
		Marke	all h

	Test Parameters T		Unit	Result					Salaranin
S. No.		Test Method		ERSIPL/ WA/ 1481	ERSIPL/ WA/ 1482	ERSIPL/ WA/ 1483	ERSIPL/ WA/ 1484	ERSIPL/ WA/ 1485	public manufact on parts 22% (Caro - 6)*
1	pst	15 3025: Part 11:1983, Reaffirmed 2017	No	7.05	5.87	6.91	6.62	6.31	8.5 - 8.5
2	Dissolved Daygest	iS 3025; Part 38:1991, Reaffirmed 2014	regit	6.6	2.9	6.2	5.8	5.1	5.0 (mls
3	(3 days at 2 f C)	is 3075/Fart 44:1993 Realismed 2014	ma/L	<2.0	3.4	2.8	2.4	<2.0	3.0
4	Fluoride (as F)	15 3025: Part 60:2008, Heatharned 2013	mg/L	<0.1	0.14	<0.1	<0.1	<0.1	1.5
5	Heravalent Chromium (as Cr'6)	IS 3025: Part 52-2003, Restliment 2014	/Lgm	NO	ND ND	ND	ND	ND	8.05
6	Phenalic Compounds	15.3025: Part 43:1992, Realformed 2014	mg/L	ND	ND	ND	NI2	NO	0.003
7	Colpur	15 3025: Part 04:1983, Restricted 2017	Hazen	45.D	45.0	<5.0	<5.0	<5.0	300
8	Total Coliform	iS 1672:1981, Reaffirmed 2004	MPN/ 100 ml	124.0	2240.0	、<5.0	<5.0	<5.0	560.0
9	Arsenic (as As)	15 3025; Part 37:1985; Realticened 2014	mg/L	ND	NO	ND	NO	ND	5.2
	NO Not Detected			4					

ND-Net Detector

* Class - B - Water for endoor both-no

(Authorized Signatory)

ANNEXURE - 5: FC Copy



Government of India: भारत दिकार Ministry of Environment, Fore: t & Climate Change! पर्गाव एवं, यन एवं फरवापु परिवर्तन मं तस्य Easte in Regional Office! गृती हो । या गार्थास्य Al3, Chandrasekhorpur! एउ, फरवासरवरपुर Bhuban sewar = 751 (23) धुकनबुर - \ १२ २३)

Telephone: 00:74-2301213, 2001248, 2302452, 2002453. Fax: 674-2302482. E mail gegabst medical-

No.5-ORC097/2010-IBHU

A-anerone-2

16 h December, 2016

LOEC 2015)*

Principal Secretary, rest & Environment Department,

Govt. 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.

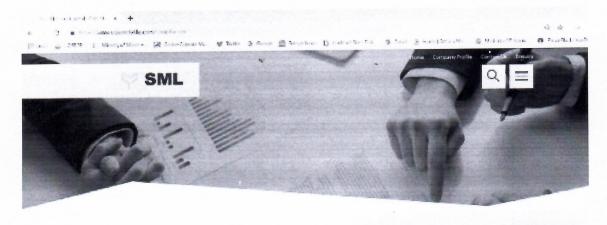
I am directed to refer to State Govt. letter No. 10F(Cons)88/2009-4788/F&E dated 08.03.2010, wherein prior approval of the Ministry of Environment & Forests for diversion of 30.980 ha of forest land in Baitarani Reserve Forests in Keonjhar district, Orissa for Iron ore mining by M/s Sree Metaliks Ltd., 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, Fores: & 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 Metaliks Ltd., subject to the fulfillment of the following conditions:-

- i) Legal status of the diverted forest land shall remain unchanged.
- ii) 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.
- iii) 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 Kgonjhar district from the funds provided by the user agency.

Contd....2

ANNEXURE – 6: Update of EC Compliance in website



Compliances

Compliance Reports of Iron Ore Mining

- 2 Public Cantrol Considerce Report
- E Environment Comp tance Report

ANNEXURE – 7: Site Specific Wild Life Conservation Plan

OFFICE OF THE
PRINCIPAL CHIEF CONSERVATOR OF FORESTS (WILDLIFE)
AND CHIEF WILDLIFE WARDEN: ORISSA: BHUBANESWAR751012.

Memo No. 44 00 /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.
in ML area

Rs.14.00 Lakhs

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

Rs.68.00 Lakhs

the DFO, Keonjhar Division in the 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: October 2019 to March, 2020

Photo #2 Showing Drilling Machine with Water Injecting System



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

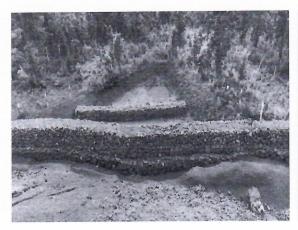




Photo #4 Haul road maintenance by Grader application



Photo #5 Showing Trucks and Dumpers Covered With Tarpaulin



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

