

TARINI MINERALS PVT LTD

(A UNIT OF D.R.PATNAIK & ALTRADE GROUP)

Ref.NoDIOM/TM/EC-COMP/08-A-19-20

Date:25.04.2019

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 Deojhar Iron Ore Mining Project of M/s. Tarini Minerals Pvt.Ltd. for the period, October 2018 to March 2019 – Reg.**

Ref: 1. SEIAA Clearance letter no. SEIAA/26/9, dated 27.11.2009
2. SEIAA (Odisha) Ref no. 3427/SEIAA, dated 30.05.2015
3. MoEF&CC notification no. 4624 (Published in Gazette of India) dt. 26.11.2018


Sir,

With reference to the above mentioned subject, we are herewith submitting the six monthly EC compliance reports along with comprehensive data analysis (in soft copy along with e-mail) for the period of **October 2018 to March 2019**.

This for your kind information, please.

Yours Faithfully

For M/s. Tarini Minerals Pvt. Ltd


for **Mines Manager**
Deojhar Iron Ore Mines
Mines Manager
Deojhar Iron Mines
M/s. Tarini Minerals (P) Ltd.

Encl. As above

2018-2019

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, Parivesh Bhawan, 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 E.C Compliance
report for
Deojhar Iron Ore Mines
Of
M/s. Tarini Minerals Pvt. Ltd.
For the period of
October-2018 to March-2019**

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

A. SPECIFIC CONDITIONS

SL. No.	SPECIFIC CONDITION	COMPLIANCE
1	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.	<p>Water sprinkling on haul road with the help of water tankers for dust suppression being carried out regularly and dry fog system are installed in the screen & crusher plants. Retaining walls 526 m along with garland drain (482 m) has been constructed all around the mines dump which is sub-grade in nature to prevent mines run-off water to the nearby water bodies. Other necessary measures have also been implemented like gully plugs at regular intervals etc. The details of the Retaining wall and Dump details given bellow Table - 1 & 2.</p> <p>Regular maintenance of HEMMs and other vehicles are being carried to ensure the maximum reduction in noise pollution and create an efficient environment for employees to work for.</p> <p>There are no such OB dumps, there are 5 nos. of sub grade dumps which are stabilized at ear marked area with proper sloping and terracing, and coir matting for better stabilization.</p> <p>The photos regarding the same has been shown as below in Photo —3 and 4.</p>
2	The applicant will take necessary steps for socio economic development after a detailed Primary Socio-economic Survey of the people of Core area on need based assesment for providing employment, education, health, drinking water and sanitation, road and communication	<p>Different projects has been undertaken in consultation with "JANASADHANA" for the socio-economic development of the local belongs to adjoining villages with development of Infrastructure, Health, Sanitation, Education, drinking water & sanitation etc. All the financial</p>

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<p>facilities etc. A report is to be submitted by the proponent to SEIAA regularly on 1st June and 1st December of each calendar year.</p>	<p>details are provided Table No-03 and socio-Economic Development Activities are as follows which is in practice on continual basis:</p> <p><u>INFRASTRUCTURE -</u></p> <ul style="list-style-type: none">• Repairing and black topping of Village Road connecting Road from Deojhar to Murgabeda being carried as & when required.• Repairing of interior village roads. <p><u>EDUCATION</u></p> <ul style="list-style-type: none">• The school at village Murgabeda got improved by providing the teaching facility with the appointment of teachers from 2009 onwards.• We are providing teachers at Mahadevnasa, Kuldum Village primary school from 2010.• We have appointed one teacher at Sialijoda primary school in 2013.• Renovation of school building & Angnabadi compound wall, etc.• Additional School Bus provided to adjoining villages.• Additional teachers have been posted in the adjoining villages.• Distribution of Uniforms, Books, slates, pencil, etc. to the school students.• Mid day meal is being provided at free of cost for class IX & X at Deojhar High School.• Facilitating the Independence & Republic Day functions at adjoining schools by funding the entire celebration by extending
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		<p>various tournaments among school children.</p> <p><u>HEALTH</u></p> <ul style="list-style-type: none"> • Health-Check-up camp covering adjoining villages and free supply of medicines have been conducted. • Extending the Dispensary along with the ambulance facility to local villages with the availability Doctor& Staff and free medicine. <p><u>DRINKING WATER FACILITY & SANITATION</u></p> <ul style="list-style-type: none"> • 2. No's of deep bore wells got provided at village Murgabeda and one deep bore well for Silijoda village. • Regular & periodical supply of drinking water to the adjoining villages with the water tankers. <p><u>OTHER PERIPHERAL ACTIVITIES</u></p> <ul style="list-style-type: none"> • Murga Mahadev Temple renovation work (Bathing area has been tiled & guard bars, Cloth changing room, Glazed tiled Bench, etc) already completed. • Regular maintenance of temple housekeeping, etc. • Conducting game and entertainment programmed for local villagers. <p><u>EMPLOYMENT OPPORTUNITIES</u></p> <ul style="list-style-type: none"> • Locals from adjoining villages are engaged in various activities of mines. • Besides the above Temple
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		<p>maintenance staff comprises 3.No. of Lady Employees are from Local villages.</p> <ul style="list-style-type: none"> • Posting of additional teachers in schools from locality. • Development of self-help groups for villagers is under planning.
3	The applicant will comply with the points concerns and issues raised by the people during public hearing on 4th February, 2009 in accordance with the commitments made by him thereon.	<p>We have full-filled the commitment regarding the demands raised during the public hearing and compliance are made as per the commitments i.e. Infrastructure development, Health, Sanitation, Education, etc. All the raised points are addressed and complied. The details have been attached here in Table - 4.</p>
4	The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.	<p>Necessary statutory clearances/approval/permissions from the concerned authorities have been obtained such as: Consent to Operate from SPCB, Ground Water Permission from CGWA, Hazardous waste authorization, approved mining plan from IBM, Forest clearance from MoEF, etc.</p> <p>Forest Clearance from MoEF (copy attached as Annexure – 2), Consent to Operate from SPCB, Orissa vide letter No.: 2603/IND-I-CON-1373 date 14.03.2019 (copy attached as Annexure – 3), Approved Mining Plan from IBM vide letter No.MP/FM/07-ORI/BHU/2014-15/3834 dated. 05.12.2014 (copy attached as Annexure – 4).</p>
5	For post environmental clearance monitoring, the applicant will submit half yearly compliance report in respect of the stipulated terms and conditions of this Environmental Clearance to the State Environmental Impact Assessment	<p>Half yearly compliance is being submitted as per the EC conditions on time to time basis. The half yearly compliance status reports are as follows: Table no.05.</p>

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	Authority (SEIAA), Orissa on 1st June and 1stDecember of each calendar year.	
6	The core zone should be monitored intensively with no. of stations as prescribed by CPCB, Delhi and unit of pollutant level should be expressed as NAAQ of CPCB, Delhi. The detail methodology adopted for analysis of samples shall be cleared indicated.	The project has already established for the monitoring of AAQ in the core as well as buffer zone of the ML area. There is 1 no. of monitoring station in core zone i.e. Mines Office and there are 5 no. of Monitoring stations in the buffer zone such as, Deojhar Village, Murgabeda Village, Mahadev nasa village, Boneikela Village and Bhadrasahi village. Monitoring of AAQ is being carried out every month except during monsoon. The monitoring reports are well within the norms as per NAAQS notification made by the CPCB. The detailed report of the AAQ is attached in Annexure - 5.
7	The proponent shall submit ground tooting baseline data on flora and fauna and CSR activities already carried out within three months to the SEIAA, Orissa.	The site specific Wildlife Conservation Plan has been prepared by Mr. P.K. Sarangi, Rtd. IFS Officer & got approved by PCCF (Wildlife), Chief Wildlife Warden, Odisha. The project has estimated cost of Rs. 54 Lakhs which includes cost for both buffer zone i.e. Rs. 41 Lakhs which is already deposited through RTGS No. BARBH4179631316 dated. 28.06.2014 in favor of CA Fund and core zone i.e. Rs. 13 Lakhs for the conservation and management of wildlife. Project proponent has appointed 4 nos. of watchers for protection of wild animals with the expenditure of Rs. 3.8 Lakhs/annum. Apart from that, the project proponent has constructed check dam & check weirs to restrict the mixing of undesired substances in nearby streams & also established guard wall along the sides of nallas. The copy

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		of the same is attached as Annexure — 6 (approval letter).
8	No two pits shall be simultaneously worked. After exhausting the first mine pit and before starting mining operations in the next pit, reclamation and plantation works in the exhausted pit shall be completed so as to ensure that reclamation, forest cover and vegetation should be visible during the first year of mining operations in the next pit. This process will follow till the last pit is exhausted. Adequate rehabilitation of mined pit shall be completed before any new ore body is worked.	There is only one mines pit i.e. Pit No.-1 which is still active. The project is operating according to the above mentioned condition and following as per the approved mining scheme/plan including PMCP as approved by IBM.
9	Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.	There is only one mines pit and the project has maintained the safety zone of 7.5 m width around the ML boundary. In this regard, the project has covered the dumps with application of mixed grass seeds along the slopes to stabilize and also to reduce wash off in case of rains during monsoon. The project has done 41, 270 numbers of saplings in and around the ML area till the reporting period with different varieties of native species in the safety zone, & peripheral area of ML. photo of the same is attached as photo – 4 & 7 . Plantation details have been given in table – 6 .
10	Zero waste mining concept shall be implemented either by putting up pelletisation plant or disposal of low grade ores/fines to prospective buyers.	Due to the incorporation of better & efficient machineries and latest technologies, we ensure that zero wastes will be coming out due to the mining activity. Steps have been initiated to work out in this context.
11	The following shall be implemented viz. (a) dump run off should be diverted into settling ponds until it is clear (b) adequate	The project has taken the following steps a. Run off generated from Dump areas are being diverted to mines

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	<p>rain water harvesting and ground water recharging facilities should be developed in the core zone, (c) attempt should be made to achieve zero water balance.</p>	<p>pit only and rest quantity is channelized through settling pits with proper checks before disposal to natural water bodies.</p> <p>b. We have implemented the roof top rain water harvesting structures and settling pits cum harvesting structures in the mines areas towards recharge of the ground water.</p> <p>c. Steps have been taken to achieve zero water balance like implementation of STP (Ultra Filtration Unit) for treatment of domestic effluent and reuse of the treated water for mines dust suppression and nearby gardening purpose.</p>
12	<p>Maintenance of roads through which transportation of ores are undertaken shall be carried by the project regularly at its own cost.</p>	<p>The project has black topped the transportation approach roads and regular maintenance of the main approach road along with the mines haul roads are being carried out by engaging the grader periodically, the roads are without ruts & potholes. The project is also ensuring the tarpluin covers over the loaded trucks so as to prevent the spillage of the materials. The Project authority are regularly monitoring the emission of the vehicle to ascertain whether the vehicle meet the pollution norms.</p> <p>The photo of the same is attached as photo # 13.</p>
13	<p>Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records shall be submitted to the</p>	<p>There is regular monitoring of the Fugitive dust emission. The project has taken adequate measures like dry fog system in screen plants, water sprinkling in mines haulage roads etc. towards dust suppression purposes. The project has established the monitoring of fugitive</p>

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	SEIAA, Orissa.	dust in the mining lease area, there are 6 no. of monitoring station i.e. Mines Pit, Mines haul road, screening plant, Workshop, Mines Office and Crusher area. Monitoring of AAQ/FD is being carried out in different locations of nearest human habitation in consultation with SPCB. The monitoring report reveals that the parameters are well within the norms made by the SPCB. The analysis report of the same is attached as Annexure – 9.
14	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 steps are being followed by proper care towards public roads to ensure that the trucks should not be overloaded during transportation: besides these trucks are being covered with tarpaulins while transportation of the iron ore. Time to time awareness program is being carried out for the operators/drivers etc. towards the same. Photo of the same is attached as photo # 13.
15	Rain water harvesting shall be undertaken to recharge the ground water source.	In the entire area, where ever possibility of wash off, flow of sediments etc. is anticipated retaining wall, garland drain, check weirs, & check dams have been provided apart from that the roof top rain water harvesting structure got implemented towards augmentation of ground water in the camp area. Photo of the same has been attached as Photo — 12.
16	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.	There is regular monitoring of the ground water quality on quarterly basis, as per the monitoring locations there are 7 nos. of locations and monitoring of the surface water quality is also being carried out in 6 locations. The records are also maintained for this purpose & it's being monitored 4 times in a year i.e. pre-monsoon, monsoon, post monsoon

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		<p>and winter.</p> <p>The monitoring of ground and surface water quality records submitted to SEIAA, Orissa on half yearly basis and Regional Office of MoEF, Bhubaneswar. The results reveals all the test results are very well within the norms prescribed by the SPCB/CPCB/MoEF/CGWA. The analysis report of the same is attached as Annexure – 10 & 11.</p>
17	<p>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.</p>	<p>The project has provided necessary precautionary measures like siltation pit towards protection of silt carry over into the nearby surface water bodies followed by retaining walls and garland drains at the toe of the dumps. Apart from that interference like guard wall all across the bank of the nallah, a length of 380 mtr. and check weirs at the strategic locations are provided. Stabilization of the dumps being done with the application of mixed grass seeds towards vegetation and dump slope stabilization. The photos regarding the same have been attached as Photo 2,8, 9 & 10.</p>
18	<p>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 or perennial nallah (if any) flowing through the ML area be arrested. De-silting at regular intervals shall be carried out.</p>	<p>To arrest silt from mines run off, a number of catch drains and settling cum percolation pits have been constructed with garland drains around the mines working areas. Nallah protection guard walls have also been constructed across the length of the nallah. Time to time de-silting is followed before each monsoon.</p>
19	<p>Provisions shall be made for the housing the labours 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</p>	<p>The is no such housing being made for the labours within the lease area however the project has commonly created a temporary housing facility for the work force by facilitating fuel for cooking, septic tank followed by soak</p>

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	<p>the form of temporary structures to be removed after the completion of the project.</p>	<p>pit for domestic effluents (STP-Ultra Filtration Unit), drinking water, medical health care etc.. The photograph of the temporary housing structure along with STP-Ultra Filtration Unit facility has been shown in Photo — 11.</p>
<p align="center">20</p>	<p>Occupational health and safety measures for the workers including identification of work related health hazards, training on malaria dust eradication, HIV, and health effects on exposure to respirable mineral dust etc. shall be carried out. The proponent shall engage a full time qualified doctor who is trained in occupational health. Periodic 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 mining on their health 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 itself.</p>	<p>Initial Medical Examination & Periodical Medical Examination of the workers engaged in the project is being undertaken periodically for permanent and outsider employees along with the pre-medical examination of persons employed, 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. Workers are provided with protective respiratory devices & time to time training on safety & health aspects is being provided. A full time qualified Occupational health doctor with provision of Occupational Health center has been provided near the mines area. During the reporting period only 05 Nos. of PME carried out and no IME carried out and on the basis of the tests there is none of the above mentioned employees was found by Silicosis/Pneumoconiosis or occupational health related diseases. A sample PME report of an employee is attached as Annexure-7.</p>

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21	<p>Shelter belt i.e. (wind break of 15m width and consisting of at least around the 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 SPCB guidelines. Density of 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.</p>	<p>There are no such human habitation/schools etc. within the ML area. However, the project has covered all the sub-grade dumps with plantation with native species and application of mixed grass seeds along the slopes to stabilize and also to reduce wash off in case of rains during monsoon.</p> <p>A safety zone of 7.5 m width around the ML boundary is being maintained.</p> <p>The project has done 41, 270 numbers of saplings in and around the ML area with different varieties of native species in the safety zone, & peripheral area of ML.</p>
22	<p>This environmental clearance is subjected to forest clearance under the Forest (Conservation) Act, 1980.</p>	<p>The forest clearance has been obtained over an area of 34.365 ha vide MoEF letter no: F No.8- 216/1992-FC dated 31st March 1993. As per the present circular dated 01.04.2015 from MoEF, Govt. of India the forest clearance over 34.365 Ha will be extended up to the coterminous of the extended lease period.</p>
23	<p>The mining operation shall be restricted to above ground water table and it should not intersect the groundwater table.</p>	<p>The Project proponent working at a depth of 590 aMSL which is far above the ground water level and ground water level exist 540 aMSL. The ultimate depth of the bottom of the approval Mining Scheme is at 548m RL. Therefore, intersection of ground water table during the whole life of the ML area shall not be obstructed. However, the Project has carried out a detailed study on hydrology and hydro-geological aspect of the area through an expert agency and base line data developed for future reference.</p>

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24	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.	There is no generation of the top soil during mining operations. In case of top soil generation generated in future, it should be stored in an earmarked area and necessary precaution may be taken to preserve its nutrient values.
25	The over burden (OB) generated during the mining operation shall be temporarily 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 28° Back filling shall be done as per approved mining plan; back filling to start from 3rd year onwards of the mining operations and the entire quantity of waste shall be backfilled and liquidated within five years. There shall be no external OB dumps after the 6th year of the mining operations. The backfilled area shall be afforested. Backfilling has to be done in a manner that it is restored to the normal ground level. Monitoring and management of rehabilitated areas should continue till the vegetation is established and becomes self-generating compliance status to be reported to the appropriate authorities.	There are 5 nos. of sub-grade dumps which has grade value more than 45 % of Fe i.e. marketable grade. The sub-grades are stacked in an identified area inside ML area by maintaining proper slope. All the Sub-grade dumps have been planted along the slope to stabilize and also to reduce wash off in case of rain cut during monsoon. Coir matting in the sub-grade dumps has been provided and their material is 100 % biodegradable. The project has done 41, 270 numbers of saplings during the year 2018-19 in and around the ML area with varieties of native species in the safety zone, & peripheral area of ML. As per back filling, monitoring and management of rehabilitated area is concerned, the project will abide by the conditions as per the approved mining scheme and progressive mine closer plan. Monitoring and management of rehabilitated areas will be continued until vegetation becomes self-sustaining. The other details are mentioned in the specific condition no. xi and in table 7.
26	The funds earmarked for the environment protection measures shall be judiciously utilized. Under no circumstances this funds shall be diverted for other purposes. Year wise expenditure for these funds should be reported to the SEIAA, Orissa.	The funds earmarked for environmental protection are being utilized for the same. The year wise environmental expenses are shown in table No. 08.
27	The above mentioned stipulated conditions shall be complied in time	We are abiding by the said conditions. We are herewith submitting six monthly

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	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 Environmental Protection (EP) Act, 1986.	EC compliance reports once in a six month as per the schedule. The details have been given by table No. 5 .
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Tables

Table No. 1 – Retaining Walls Details

SI.No	Location	Length (Meter)	Width (Meter)	Height (Meter)
1	Near Pillar no. 2 to 3	73	1.2	1.2
2	Pillar no. 3 to 7	250	1.2	1.5
3	Near Pillar no. 12 to 13	44	1.2	1.6
4	Near Pillar no. 30 to 31	66	1.2	1.5
5	Near Pillar no.17	43	1.2	1.3
6	Near Jindal Road	50	1.2	1.2

Table No. 2 – Dump Details

SI.No	Name of the Dump	Location	Area in Ha.	Quantity (CUM)
1	Dump – 1	Near ML Pillar no. 28 - 29	0.876	65700
2	Dump – 2	Near ML Pillar no. 15 - 16	0.382	28650
3	SG – 1	Near ML Pillar no. 29 - 30	0.075	208028
4	SG – 2	Near ML Pillar no. 31	0.866	192582
5	SG – 3	Near ML Pillar no. 3 - 9	1.483	20000

Table No.3 – Year Wise Expenses

Sl. No	Description	Expenses in Lakhs							
		For the Year 2011-12	For the Year 2012-13	For the year 2013-14	For the Year 2014-15	For the year 2015-16	For the year 2016-17	For the year 2017-18	For the year 2018-19
1	Infrastructure	51.8	2.0	0	0.00	0.58	0.80	0.20
2	Education	2.33	6.5	4.38	3.1	4.81	5.84	6.01	5.57
3	Health	1.85	8.3	6.15	4.8	6.91	8.53	8.36	5.01
4	Drinking Water Facility	1.96	4.5	2.94	2.0	0.18	0.18	2.04	0.45
5	Other Peripheral Activities	1.60	1.7	2.98	1.8	1.47	1.089	3.520	2.34
6	Employment	99.80	31.5	117.94	58.5	0.00	0	0	0
7	Total	107.56	104.3	136.39	70.20	13.37	16.219	20.73	13.57

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Table No. 04: Compliance to the points raised in Public Hearing

Sl. No.	Public Hearing consents by the Project Proponent	Compliance Status
1	The Project Proponent assured with consultation with Govt. department and as per their advice they will adopt all the measures to keep the sound pollution under control especially during blasting.	Due to availability of soft material there is no blasting is being carried and the excavation work is carried out by engaging excavators only. Anyhow noise is being monitored and the results are well within the prescribed norms, copy is enclosed in Annexure –1 .
2	To construct Check dam for Mahadev Nasa Nalla and for this the project proponent invited the village committee to come with a proposal for the same.	We ensure that natural watercourse of Mahadev Nalla will not be obstructed due to our mining operations. Necessary precautionary measures were well taken in consultation with Govt. bodies to avoid any sort of interference like providing guard wall & check weir at bank of Mahadev Nallah.
3	Suitable dump management system to minimize the pollution and all wastes are being dumped inside the lease area.	Sub grade is being stacked in an identified area inside ML Area by maintaining proper terracing & slope. It has also developed with garland drain and retaining wall along with native sapling plantation for stabilization of critical areas of dump.
4	Company has formed an Environment cell and they are monitoring this on regular basis to keep this under control.	A separate environmental management cell is in operation under the control of Mines Manager, which is looking after all environmental activities including Environmental Monitoring.
5	The Project proponent will give priority in employing skilled local people such as drivers, drillers, operators, etc. according to their	Local peoples are being given priority in employing skilled local people such as drivers, drillers, operators, etc. according to their qualification.

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

	qualification.	
6	The Project proponent assured that they will re-open all the schools in Murgabeda Village those are not running at present and will appoint 4 teachers in those Schools on permanent basis.	The School is running effectively with engagement of teaching facilities with appointment of teachers. Study materials like books, slates, pencils etc. are being provided. Mid-day meal is provided at free of cost for class IX & X at Deojhar High School. Bus facility is being provided for Deojhar high school and for Sarswati Sisu Mandir, Bileipada.
7	The project proponent is already supplying drinking water to Murgabeda villages through water tanker and will continue this facility.	2 no. of bore wells with drinking water facilities are provided for the villagers of the Muragbeda, about a population of around 1000 no's.
8	The Project proponent is ready to construct inter village connecting roads in Murgabeda village and they invited proposal from the village committee for the same.	Inter connecting village roads are made up of black top in length of 1.8 Km to suppress the dust. The photo of the same is enclosed as photo 5.
9	The project proponent has already opened a dispensary here for locals for availing medical facility free of cost where a doctor is available. One Ambulance is always available there at service.	Medical facilities like dispensary and ambulances are being provided. Medical health camp is being organized at regular intervals for the local villagers with free of cost medicines. The photo of the same is enclosed as photo 6.
10	Regarding electrification of villages, we have requested the concerned Village committee along with Sarpancha to come forward with the latest status and the proposal so that they can support and assist the village committee for electrification.	It is being carried out with the village committee members by providing materials for Street Light Connections to nearby villages.

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

11	The Project Proponent assured that they are following all the Govt. rules regarding employment and statutory payments.	It is being followed.
12	The project proponent requested the Murgabeda Temple committee to come with a proposal so that they can consider for its renovation.	Temple renovation work is completed with the proposals of Temple Committee members. The bathing area has been developed with anti-slippery tiles and guard bars and a cloth changing room have provided. Two male and three female labours have deployed for proper up- keep of the temple.

Table 5 – Six Monthly Compliance Submission details

Sl.No	Compliance Time Period	Date of Submission
1	April 2018 to September 2018	20.11.2018
2	October 2017 to March 2018	30.05.2018
3	April 2017 to September 2017	25.11.2017
4	October 2016 to March 2017	25.05.2017
5	April 2016 to September 2016	19.11.2016
6	October 2015 to March 2016	25.05.2016
7	April 2015 to September 2015	16.11.2015
8	October 2014 to March 2015	26.05.2015
9	April 2014 to September 2014	22.11.2014
10	October 2013 to March 2014	25.05.2014
11	April 2013 to September 2013	25.11.2013

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

Table 6- Plantation Details

Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.		
Sl.No	Year	No. of Sapling
1	2004 – 2005	1900
2	2005 – 2006	1200
3	2006 – 2007	2000
4	2007 – 2008	2400
5	2008 – 2009	3100
6	2009 – 2010	3623
7	2010 – 2011	2050
8	2011 – 2012	1727
9	2012 – 2013	6000
10	2013 – 2014	6050
11	2014 - 2015	1100
12	2015 - 2016	Nil
13	2016 - 2017	1300
14	2017 - 2018	8020
15	2018-2019	800
Total		41270

Table 7-Environmental Measures Details

Sl.No	Measures taken	Location	Dimensions
1	Retaining Wall	Near Pill No. 2 – 3 Pillar No. 3 – 7 Near Pillar No. 12 – 13 Near Pillar No. 30 – 31 Near Pillar No. 17	73m x 1.2m x 1.2m 250m x 1.5m x 1.2m 44m x 1.6m x 1.2m 66m x 1.5m x 1.2m 43m x 1.3m x 1.2m
2	Garland drains in the above location		482m x 1m x 1m
3	Check Weir	Near Sub – grade dump Near SG dump – 1 Near SG dump – 1	3240 CUM 252 CUM 230 CUM
4	Check dam cum de-silting pit cum percolation pit		3600 CUM
5	Guard wall across the nallah		380m x 1.5m x 1.2m

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

Table 8-Details of Environmental Expenses

Environmental Expenditure of Deojhar Iron Ore Mining Project of M/s. Tarini Minerals Pvt. Ltd, District, Keonjhar, Orissa.								
		Cost, Rs. In Lakhs						
Sl. No.	Activity	2011-2012	2012-2013	2013-2014	2014-2015	2016-2017	2017-18	2018-19
1	Dry-fog system installed & maintenance	4.00	1.00	0.16	0.05	0.40	0.30	0.20
2	Arrangement of wetting provision at drilling machine	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	Water tankers two no's for water sprinkling	4.70	4.10	4.71	3.55	2.70	2.35	2.00
4	Plantation program with maintenance cost	1.43	2.60	0.58	0.85	0.15	1.89	0.50
5	Purchasing & monitoring equipment's	0.89	0.00	0.00	0.00	0.00	0.00	0.00
6	Occupational Health & Hygiene	5.74	3.45	5.13	3.00	6.91	8.36	5.01
7	Rain water harvesting structures	4.45	0.20	0.25	0.23	00	0.1	0.1
8	Check dam, retaining wall maintenance work	2.10	1.80	5.91	1.55	1.00	0.8	0.3
9	Site specific sewage treatment plant with maintenance	1.20	0.50	0.55	0.45	1.50	0.5	0.2
10	Dump stabilization with Coir-Geo textiles and vegetation	3.22	12.50	3.66	2.00	0.00	7.2	0.3
11	Service Centre cum ETP & its maintenance	0.45	1.00	0.55	0.65	0.10	0.10	0.1
Total amount incurred		28.18	27.15	21.5	12.33	12.76	21.6	8.71

Reporting Period: October-2018 to March-2019

Annexure

Annexure – 1 : Noise Level Monitoring Report

Monthly Average Work Zone and Ambient Noise level Report of Deojhar Iron ore Mines , M/s Tarini Mineral Pvt,Ltd.						
Month	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Ambient Noise level in dB(A)						
Village Murgabeda	52.95	50.30	49.85	53.31	54.00	53.20
Village Mahadev Nasa	52.00	53.05	54.77	52.75	54.80	53.55
Village Boneikala	53.20	52.42	56.35	53.59	55.95	55.12
Village Bhadrasahi	53.48	54.95	51.87	55.63	54.23	53.65
Village Deojhar	51.55	54.10	53.65	55.12	53.40	52.50
Work Zone Noise Level in dB(A)						
Mines Office	66.65	68.10	67.35	68.50	69.61	69.45
Screening Plant Area	74.68	72.89	74.65	73.47	75.21	74.56
Loading Point	71.15	70.65	70.50	73.70	72.23	71.37
Weigh Bridge	71.15	69.93	65.55	70.50	71.02	69.25

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

Annexure – 2 : Forest Clearance Copy

11

ANNEXURE - VII

F. No. 8-216/1992-FC
Government of India
Ministry of Environment & Forests
(F.C. Division)

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110 003.
Dated: 10th March, 2008.

To
**The Principal Secretary (Forests),
Government of Orissa,
Bhubaneswar**

Sub: **Diversion of 36.42 ha of Reserved forest land (Thakurani RF) in Keonjhar district for mining of iron ore by Sri Niranjan Patnaik (now M/s Tarini Minerals (P) Ltd.) - Making the forest clearance co-terminus with Mining Lease period regarding.**

Sir,

I am directed to refer to your letter No. 10F (Cons)/20/07/1287 dated 17.07.2007 on the above cited subject, wherein the Ministry of Environment & Forests has been requested to make the forest clearance co-terminus with the revised Mining Lease period in respect of the above said proposal, under Section 2 of the Forest (Conservation) Act, 1980. The State Government of Orissa has also informed that the said Mining Lease has been transferred by the State Government from Sri Niranjan Patnaik to M/s Tarini Minerals P. Ltd. with prior approval of the Ministry of Mines, Government of India.

Ministry of Environment and Forests had accorded approval under Section 2 of the Forest (Conservation) Act, 1980 for diversion of 34.365 ha of forest land in Keonjhar district, Orissa, for mining lease in favour of Sri Niranjan Patnaik for a period of ten years, subject to certain conditions, vide letter dated 31.03.1993.

The request of the State Government of Orissa has been examined in the Ministry of Environment and Forests. After considering the above request of the State Government of Orissa and careful examination of all the aspects in detail, the Central Government hereby grants approval to extend the period of diversion of forest land, earlier granted by the Ministry of Environment & Forests under the said Act, to make the forest clear co-terminus with the period of Mining Lease granted by the State Government of Orissa i.e. upto 31.03.2014. However, it has been observed that prior permission of the Ministry of Environment & Forests has not been obtained while transferring the lease from Sri Niranjan Patnaik to M/s Tarini Minerals P. Ltd. and, therefore, this has been treated as a violation of the Forest (Conservation) Act, 1980 and, it has been decided that the User Agency shall be liable to pay Penal Compensatory Afforestation over an equal amount of non-forest land.

Accordingly the above approval by the Ministry of Environment & Forests shall be subject to the following conditions:-

1. The non-forest land to the extent of 36.49 ha identified for the purpose of Compensatory Afforestation shall be transferred and mutated in favour of the State Forest Deptt followed by its notification as Reserved Forest / Protected Forest.
2. Penal Compensatory Afforestation shall be raised and maintained over an equal amount of non-forest land at the project cost. For this purpose, the User Agency shall identify / make available suitable non-forest land in consultation with the State Government. The non-forest land so identified and made available shall be transferred and mutated in the name of the State Forest Department and shall be declared as Reserved Forest / Protected Forest.

H
10/3/08

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

3. The User Agency should pay the cost of Wildlife Management Plan as per norms prescribed by the State Government vide letter No. 22296/F&E dated 30.12.2005.
4. Mining activities shall be allowed only after a valid Environmental Clearance for mining in the said area has been obtained by the User Agency.
5. The State Government shall charge the Net Present Value (NPV) under this proposal from the User Agency as per the orders of the Hon'ble Supreme Court of India dated 30.10.2002 and 01.08.2003 in IA No. 566 in WP (C) No. 202/1995 and as per the guidelines issued by this Ministry vide letters No. 5-1/1998-FC (Pt. II) dated 18.09.2003, as well as letter No. 5-2/2006-FC dated 03.10.2006 in this regard.
6. 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 on receipt of the report from the Expert Committee, shall be charged by the State Government from the User Agency. The User Agency shall furnish an undertaking to this effect.
7. All the funds received from the User Agency under the project shall be transferred to in Account No. 344901010070128 of Corporation Bank, Block-11, CGO Complex, Phase-1, Lodhi Road, New Delhi-110003.
8. All other conditions stipulated at the time of forest clearance under Section-2 of the Forest (Conservation) Act, 1980 for the mining lease of 34.363 ha of forest land in Keonjhar district, vide this Ministry's letter dated 31.03.1993, shall be complied with by the User Agency.

Yours faithfully,

(A.K. Joshi)

Assistant Inspector General of Forests

Copy to:-

1. The PCCF, Govt. of Orissa, Bhubaneswar.
2. The Nodal Officer, O/o PCCF, Bhubaneswar.
3. The Chief Conservator of Forests (Central), Regional Office, Bhubaneswar.
- ✓ 4. The User Agency.
5. Monitoring Cell of the Ministry.
6. Guard File.

(A.K. Joshi)
Assistant Inspector General of Forests

Annexure- 3 : Consent to Operate Copy from OSPCB



CONSENT ORDER
DEOJHAR IRON ORE MINES OF M/S. TARINI MINERALS PVT. LTD..

Page 1 of 13

BY REGD. POST WITH AD

STATE POLLUTION CONTROL BOARD, ODISHA

A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012
Phone-2561909, Fax: 2562822, 2560955 E-mail: paribesh1@ospcbboard.org, Website: www.ospcbboard.org

CONSENT ORDER

No. 2003 / IND - I-CON- 1373 Dt. 14.03.2019 /

CONSENT ORDER NO. 444

Sub: **Consent for discharge of sewage and trade effluent under section 25/26 of Water (PCP) Act, 1974 and for existing / new operation of the plant under section 21 of Air (PCP) Act, 1981.**

Ref: Your Online Application No. **2402344 Dated 06.01.2019 & online reply dated 31.01.2019**

Consent to operate is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed thereunder to

Name of the Industry: **DEOJHAR IRON ORE MINES OF M/S. TARINI MINERALS PVT. LTD..**

Name of the Occupier & Designation: **SRI PINAKI MONDAL, MINES MANAGER**

Address: **AT/PO: GUALI, DIST: KEONJHAR.**

This consent order is valid for the period up to **31.03.2024** from the date of issue of this order.

This consent order supersedes the earlier consent order issued vide letter No. 4610 dated 27.03.2017.

Details of Products Manufactured

Sl. No	Product	Quantity
01.	Iron Ore	1.5 MTPA

Details of Mineral Handling Plants /Units


01	Operation of stationary crushing plant of capacity 1x400 TPH
02.	Operation of mobile screening plants of capacity 3X 200 TPH

This consent order is valid for the specified outlets, discharge quantity and quality, specified chimney/stack, emission quantity and quality of emissions as specified below. This consent is granted subject to the general and special conditions stipulated herein.

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

Annexure – 4 : Approved Mining Plan Copy


भारत सरकार
खान मंत्रालय
भारतीय खान ब्यूरो
क्षेत्रीय खान नियंत्रक का कार्यालय

REGD. PARCEL
Fax No. (0674) 2744430
E- mail: ro.bhubaneswar@ibm.gov.in

No. MP/FM/07-ORI/BHU/2014-15/3834

महानी काम्प्लेक्स, दूसरी मंजिल
308, डिस्ट्रिक्ट सेन्टर, चंद्रशेखरपुर
भुवनेश्वर-751016
दिनांक / Date: 05.12.2014

To
Shri D. R. Patnaik, Managing Director,
Deojhar Iron Ore Mines,
M/s Tarini Minerals Private Limited,
At- Boneikala, Joda, Dist-Keonjhar, Odisha.

Sub: Approval of Mining Plan of Deojhar Iron Ore Mines along with Progressive Mine Closure Plan (PMCP), over an area of 34.365 Ha. in Keonjhar district of Odisha State, submitted by M/s Tarini Minerals Private Limited under Rule 24 (A) of MCR, 1960.

Ref:-
i. Your letter No. TMPL/BBS/101 dated 20.05.2014.
ii. This office letter of even no dated 28.05.2014.
iii. This office letter of even no. dated 04.06.2014 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.
iv. This office letter of even no. dated 11.07.2014.
v. Your RQP letter no. PMP/IBM/05/2014 dated 07.08.2014.
vi. This office letter of even no. dated 09.10.2014.
vii. This office letter of even no. dated 09.10.2014 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.
viii. Your RQP letter no. PMP/IBM/09/2014 dated 20.10.2014.
ix. Your letter No. TMPL/246 dated 31.10.2014.

Sir,
In exercise of the power conferred by Clause (b) of Sub-Section (2) of Section 5 of Mines & Minerals (Regulation & Development) Act, 1957 read with Government of India Order No. S.O. 445 (E) dated. 28.04.1987, I hereby APPROVE the above said mining plan with following conditions.

- I. The Mining Plan is approved without prejudice to any other law applicable to the mine area from time to time whether made by the Central Government, State Government or any other authority and without prejudice to any order or direction from any court of competent jurisdiction.
- II. The proposals shown on the plates and/or given in the document is based on the lease map /sketch submitted by the applicant/ lessee and is applicable from the date of approval.
- III. It is clarified that the approval of aforesaid Mining Plan does not in any way imply the approval of the Government in terms of any other provision of Mines & Minerals (Development & Regulation) Act, 1957, or the Mineral Concession Rules, 1960 and any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 or the rules made there under, Mines Act, 1952 and Rule & Regulations made there under.
- IV. Indian Bureau of mines has not undertaken verification of the mining lease boundary on the ground and does not undertake any responsibility regarding correctness of the boundaries of the leasehold shown on the ground with reference to lease map & other plans furnished by the applicant / lessee.
- V. At any stage, if it is observed that the information furnished, data incorporated in the document are incorrect or misrepresent facts, the approval of the document shall be revoked with immediate effect.
- VI. Next Financial Assurance shall be due for submission on 31.03.2019.

DVI/2017
M/05/14

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

-2-

- VII. Your attention is invited to the Supreme Court judgment in W.P. (C) No.435 of 2012, dated 21.04.2014 for compliance. The approval is therefore, issued without prejudice to and is subject to the said directions of the Supreme Court as applicable in your case.
- VIII. This Mining Plan is approved with a special condition that, this approval will be valid for 09 years (with effect from 05.09.2014), that is the life of the mine as per the reserve / resource estimated in the document.

The next Scheme of Mining will be due for submission on 01.12.2018.

भवदीय / yours faithfully,

Encl: One copy of approved Mining Plan.


5/12/14
(M BISWAS)
क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Copy for kind information to:

- 1) Shri Pradeept Mohapatra, RQP, C/o- Triveni Consultancy Services, Po. Box No. 1, Unchabali, Post- Joda, Via- Bamebari, Dist- Keonjhar, Odisha- 758 034.
- 2) The Director of Mines Safety, Directorate General of Mines Safety, Chaibasa Region, At & Post Chaibasa, District – Singhbhum West along with one copy of the approved Mining Plan by **REGISTERED PARCEL**.
- 3) The Director of Mines, Directorate of Mines, Government of Odisha, Heads of the Department Building, New Capital, Bhubaneswar- 751 001 Odisha along with one copy of approved Mining Plan by **REGISTERED PARCEL**.


(M BISWAS)
क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

Annexure – 5 – Summarized AAQ Report

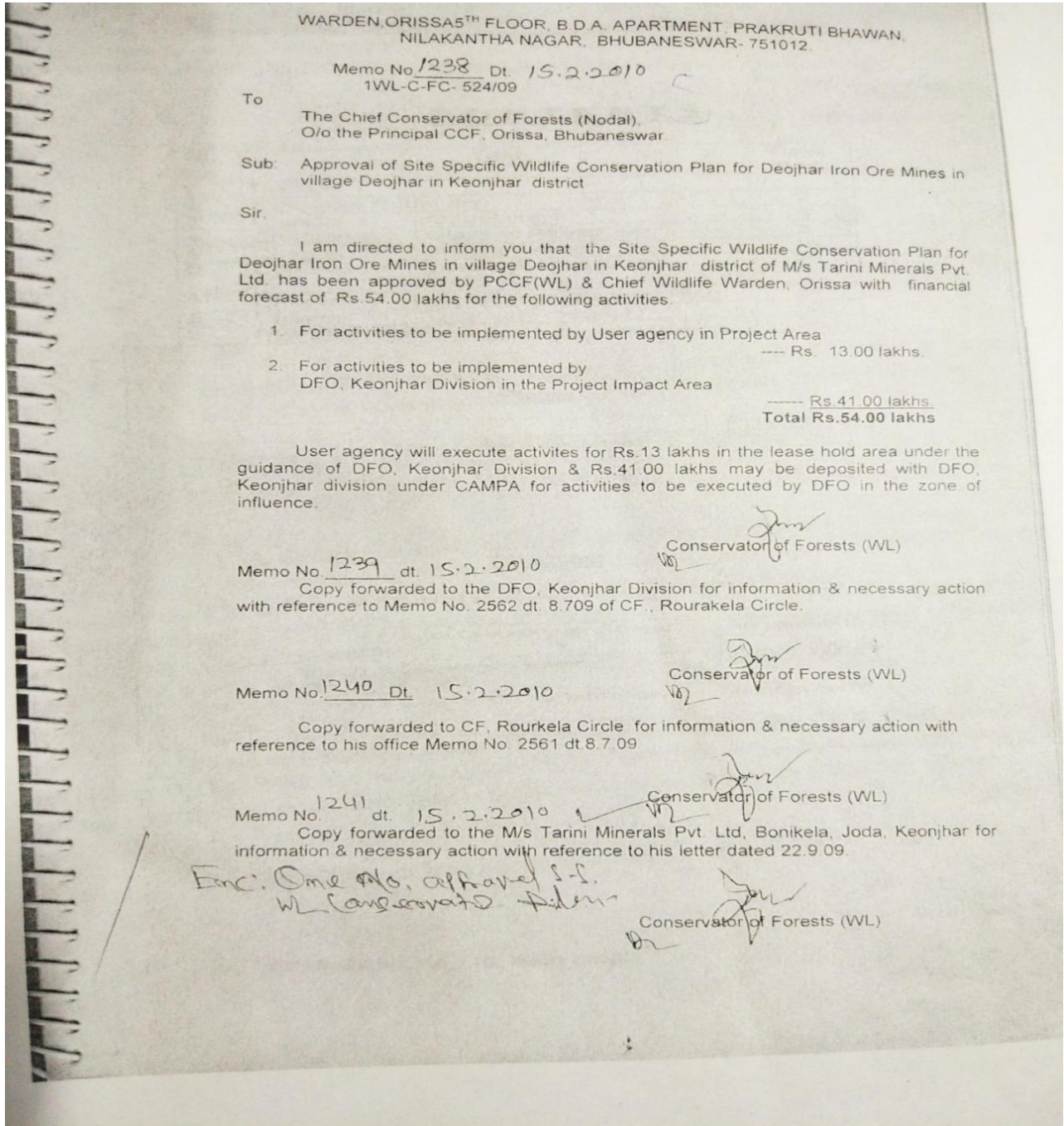
Deojhar Iron Ore Mines of M/s Tarini Minerals Pvt. Ltd.						
Summarized Monthly Average Ambient Air Quality Monitoring Report						
Sampling Location	Month	Ambient Air Quality Parameters in $\mu\text{gm}/\text{m}^3$				
		Range	P.M-10	P.M.-2.5	SO ₂	NO _x
Mines Site office	Oct-18	Avg.	68.50	19.38	10.70	11.94
	Nov-18	Avg.	65.25	18.25	7.48	8.24
	Dec-18	Avg.	66.25	20.13	10.55	11.63
	Jan-19	Avg.	78.75	19.88	12.48	14.66
	Feb-19	Avg.	77.88	23.13	8.03	10.21
	Mar-19	Avg.	77.63	27.38	10.55	11.63
Village Deojhar	Oct-18	Avg.	66.75	20.75	10.45	12.06
	Nov-18	Avg.	66.88	18.63	7.36	8.08
	Dec-18	Avg.	69.00	22.50	10.80	12.08
	Jan-19	Avg.	72.50	20.00	11.09	12.78
	Feb-19	Avg.	79.13	25.63	8.84	10.28
	Mar-19	Avg.	75.50	26.38	9.59	11.79
Village Murgabeda	Oct-18	Avg.	65.88	24.38	10.43	11.78
	Nov-18	Avg.	58.50	15.25	7.41	8.21
	Dec-18	Avg.	70.00	23.50	10.43	11.83
	Jan-19	Avg.	70.00	18.88	11.70	13.83
	Feb-19	Avg.	61.88	17.25	7.26	8.88
	Mar-19	Avg.	73.13	23.13	11.36	12.98
Village Mahadev Nasa	Oct-18	Avg.	69.63	23.50	10.68	11.93
	Nov-18	Avg.	60.25	15.75	7.45	8.99
	Dec-18	Avg.	62.50	18.63	11.40	12.93
	Jan-19	Avg.	72.50	19.63	11.39	14.40
	Feb-19	Avg.	67.63	19.50	8.81	10.33
	Mar-19	Avg.	78.50	24.88	9.79	11.18
Village Baneikala	Oct-18	Avg.	70.50	23.00	10.68	12.01
	Nov-18	Avg.	53.75	15.00	11.34	12.51
	Dec-18	Avg.	61.63	18.63	10.63	11.90
	Jan-19	Avg.	75.75	21.00	9.34	10.93
	Feb-19	Avg.	63.25	18.75	9.26	11.74
	Mar-19	Avg.	67.63	22.50	10.43	11.73
Village Bhadrasahi	Oct-18	Avg.	68.50	20.88	11.06	12.73
	Nov-18	Avg.	61.38	17.25	11.45	12.84
	Dec-18	Avg.	58.63	15.63	10.84	12.25
	Jan-19	Avg.	65.00	17.13	9.20	10.81
	Feb-19	Avg.	61.38	16.38	8.51	11.50
	Mar-19	Avg.	69.50	20.75	11.25	12.76

Note – The above tests are carried by B.S Envi. Tech P. Ltd Laboratory & its accredited by NABL and MoEF&CC.

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

Annexure – 6 : Wild Life Conservation Plan Copy



Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

Annexure – 7 : Sample PME Report of an Employee

Report of Medical Examination Under Rule 29 B
(To be issued in Triplicate) **

10001033

Correspondence No. 7-5531

Certified that Mr. Ananda Pradhan employed as LT in Deojhar mine, Forest # No. 39 has been examined for an initial/periodical* medical examination. He/She* appears to be 37 years of age. The findings of the examination authority are given in the attached sheet, it is considered that he/she* is fit for any employment in mine

(i)* is radically fit for any employment in mine
 (ii)* is suffering from _____ and is radically unfit for
 (iii) any employment in mine or
 (iv) any employment below ground, or
 (v) any employment of work
 (vi)* is suffering from _____ and should get free disability* certificate and should be again examined within a period of _____ months. He/She* will appear for re-examination with the result of test of _____ and the opinion of _____ specialist from _____
 He/She* may be permitted/not* permitted to carry on his/her duties during this period.



Ananda Pradhan
 Signature of the Examining Authority

Name and Designation in Block Letters

Place : HS-Tech Diagnostic Centre, Joda
 Date : 2/3/19

- Delete whatever not applicable
 - Original - To be kept with Examining Authority
 - Pink Copy - To be handed over to Person Concerned.
 - Yellow Copy - To be sent to the concerned Manager of the Mine.

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

Annexure – 8 : PUC Certificate Copy of Vehicle

POLLUTION UNDER CONTROL CERTIFICATE
(Under rule 129 - A(1) of OMV Rule 1993)

Vehicle Regt. No.: **OR 05AD-8299** CR-01
 Date of issue: **28/04/19** Valid upto: **28/10/19**

Pollution Level:
 CO (%)
 HC (ppm)
 SD (g/gal) **27.8%**

PUC Certificate issued by:
SONE AUTO EMISSION TEST
 Signature: _____

License No and Seal:
STA-POLL-1/2862

Vehicle Pass. CR-01

POLLUTION UNDER CONTROL CERTIFICATE
(Under rule 129 - A(1) of OMV Rule 1993)

SONE AUTO EMISSION TEST CENTRE
 M.H.-215, KASHIPUR, LAUMPADIA, KEONJHAR, ODISHA
 PH: 06437138611

Label Code: **OD** License No: **STA-POLL-1/2862** Test Station Code: **09**

PUC No.: **0009039529** Vehicle Reg No: **OR 05AD-8299**
 Name: **M/S THIRIBENI EARTH** Category: **Car**
 Address: **MOVERS LTD** Make: **Mahindra**
UNCHABALI Model: **BOLERO XL**
KEONJHAR Date of Reg.: **2005**
 Date: **20/04/19** Speedo mtr Rdg: **0**
 Time: **10:40 AM** Engine No.: **GAB4H02-055**
 Fuel: **Diesel** Chassis No.: **GAK82H15751**

Flucting Cycle Mean: RPM Min: **00820** RPM Max: **02690**


SNo.	RPM min	RPM max	Km-1	HSU %	OTPC
1	00820	02690	00.73	27.5	064.00
2	00830	02610	00.73	28.9	064.00
3	00820	02650	00.69	25.7	064.00
4	00830	02630	00.85	30.6	065.00

Valid upto: **28/10/19**
 Grade: **A**
 Test Fee: **100**

Mean: **00825** **02645** **00.76km** **27.8%** **064.00**

This vehicle meets Emission Standards Prescribed under Rule 115(2) of Central Motor Vehicle Rules, 1989.

Agri-Registered Regulatory Sone Auto Emission Testing Centre
 M.H.-215, Keonjhar.
 LIC No.-STA-CTC-POLL-1/2002



Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

Annexure – 9 : Fugitive Dust Monitoring Report

Deojhar Iron Ore Mines of M/s Tarini Minerals Pvt. Ltd.			
Monthly Average Fugitive Dust Monitoring Report			
Sampling Location	Month	Fugitive Dust Monitoring Parameters in $\mu\text{gm}/\text{m}^3$	
Mines Bench/ Mines Face	Oct-18	Avg.	374.50
	Nov-18	Avg.	362.50
	Dec-18	Avg.	417.50
	Jan-19	Avg.	380.50
	Feb-19	Avg.	409.50
	Mar-19	Avg.	454.00
Haulage Road	Oct-18	Avg.	307.50
	Nov-18	Avg.	308.50
	Dec-18	Avg.	379.00
	Jan-19	Avg.	356.00
	Feb-19	Avg.	382.00
	Mar-19	Avg.	399.00
Screening Plant	Oct-18	Avg.	412.00
	Nov-18	Avg.	444.50
	Dec-18	Avg.	467.00
	Jan-19	Avg.	444.50
	Feb-19	Avg.	472.00
	Mar-19	Avg.	572.00
Crushing plant	Oct-18	Avg.	483.00
	Nov-18	Avg.	474.50
	Dec-18	Avg.	463.50
	Jan-19	Avg.	416.50
	Feb-19	Avg.	473.50
	Mar-19	Avg.	559.00
Ore Storage & loading Area	Oct-18	Avg.	316.00
	Nov-18	Avg.	352.50
	Dec-18	Avg.	352.50
	Jan-19	Avg.	358.50
	Feb-19	Avg.	374.50
	Mar-19	Avg.	337.00
Waste Dump	Oct-18	Avg.	355.50
	Nov-18	Avg.	332.00
	Dec-18	Avg.	354.50
	Jan-19	Avg.	324.00
	Feb-19	Avg.	333.50
	Mar-19	Avg.	409.00
<p><i>Note – The above tests are carried by B.S Envi. Tech P. Ltd Laboratory & its accredited by NABL and MoEF&CC.</i></p>			

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

Annexure – 10 : Ground Water Monitoring Report

Deojhar Iron Ore Mines								
M/s Tarini Minerals Pvt. Ltd.								
Quarterly Ground Water Quality Report								
Oct-18								
Location			Vill. Murgabeda	Vill. Daldir	Vill. Mahadev Nasa	Vill. Deojhar	Vill. Bileipada	Inside ML Area
Sl. No.	Test Parameter	Units	Result					
1	Odour	...	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
2	Colour	Hazen	<5	<5	<5	<5	<5	<5
3	pH	..	6.87	6.89	6.75	6.90	6.73	6.75
4	Turbidity	NTU	<1	<1	<1	<1	1	<1
5	Total Hardness as CaCO ₃	mg/l	36	280	240	250	310	290
6	Iron as Fe	mg/l	<0.05	0.06	0.07	0.04	0.1	0.06
7	Chlorides as Cl	mg/l	19	78	48	34	90	90
8	Total Dissolved solids	mg/l	87	509	450	446	480	510
9	Calcium as Ca	mg/l	10.4	78	60	55	86	77
10	Magnesium as Mg	mg/l	2.4	21	22	27	23	24
11	Sulphate as SO ₄	mg/l	9	12	20	15	48	92
12	Notrate as NO ₃	mg/l	7.5	6.5	5.9	7.4	34	25
13	Flouride as F	mg/l	0.14	0.4	0.38	0.43	0.39	0.37
14	Alkalinity as CaCO ₃	mg/l	24	260	250	270	160	146
15	Boron as B	mg/l	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1
16	Aluminium as Al	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
17	Copper as Cu	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
18	Manganese asb Mn	mg/l	<0.03	0.03	0.07	<0.03	0.03	<0.03
19	Selenium as Se	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
20	Zinc as Zn	mg/l	0.04	0.9	0.56	0.04	0.15	0.07
21	Cadmium as Cd	mg/l	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
22	Lead as Pb	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
23	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
24	Arsenic as As	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
25	Chromimum as Cr	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

Deojhar Iron Ore Mines								
M/s Tarini Minerals Pvt. Ltd.								
Quarterly Ground Water Quality Report								
Jan-19								
Location			Vill. Murgabeda	Vill. Daldir	Vill. Mahadev Nasa	Vill. Deojhar	Vill. Bileipada	Inside ML Area
Sl. No.	Test Parameter	Units	Result					
1	Odour	...	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
2	Colour	Hazen	<5	<5	<5	<5	<5	<5
3	pH	..	7.21	7.12	7.2	7.1	7.16	7.96
4	Turbidity	NTU	<1	<1	<1	<1	1	<1
5	Total Hardness as CaCO3	mg/l	45	295	255	260	325	300
6	Iron as Fe	mg/l	<0.06	0.1	0.1	0.08	0.14	0.1
7	Chlorides as Cl	mg/l	25	85	55	40	100	100
8	Total Dissolved solids	mg/l	106	536	482	470	518	536
9	Calcium as Ca	mg/l	12.0	80	68	58	90	85
10	Magnesium as Mg	mg/l	4	23	21	28	24	21
11	Sulphate as SO4	mg/l	10	15	23	18	51	96
12	Notrate as NO3	mg/l	7	8	7	8	36	28
13	Flouride as F	mg/l	0.18	0.48	0.42	0.49	0.44	0.42
14	Alkalinity as CaCO3	mg/l	30	280	265	280	175	155
15	Boron as B	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
16	Aluminium as Al	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
17	Copper as Cu	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
18	Manganese asb Mn	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
19	Selenium as Se	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
20	Zinc as Zn	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
21	Cadmium as Cd	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
22	Lead as Pb	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
23	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
24	Arsenic as As	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
25	Chromimum as Cr	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Note – The above tests are carried by B.S Envi. Tech P. Ltd Laboratory & its accredited by NABL and MoEF&CC.

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

Annexure – 11 : Surface Water Monitoring Report

<i>Deojhar Iron Ore Mines</i>								
<i>M/s Tarini Minerals Pvt. Ltd.</i>								
<i>Surface Water Quality Report</i>								
<i>Jan-19</i>								
Location			Suna Nadi U/S	Suna Nadi D/S	Baitarani River	Mahadev Nallah U/S	Mahadev Nallah D/S	Jojo Camp Nallah
Sl. No.	Test Parameter	Units	Result					
1	Colour	...	5	5	5	5	5	5
2	Odour	...	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	pH	...	6.87	6.91	7.22	6.9	6.72	6.68
4	Oil & grease	mg/l	<1	<1	<1	<1	<1	<1
5	Total Suspended Solids	mg/l	28	40	21	24	28	25
6	Total Dissolved solids	mg/l	154	178	119	62	82	84
7	Iron as Fe	mg/l	0.18	0.31	0.17	0.16	0.2	0.34
8	Flouride as F	mg/l	0.31	0.34	0.2	0.19	0.21	0.23
9	Boron as B	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10	BOD for 3 days at 27°C	mg/l	6	6	4	4	6	5
11	COD	mg/l	24	24	18	18	28	24
12	Chlorides as Cl	mg/l	23	26	20	19	25	23
13	Phosphate as P	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
14	Sulphide as S ²	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
15	Sulphate as SO ₄	mg/l	13	15	13	10	15	11
16	Percent Sodium	...	38.2	40.1	28.4	30.9	31.9	33.1
17	Residual Sodium Carbonate	mg/l	Nil	Nil	Nil	Nil	Nil	Nil
18	Total Volatile Suspended Solids	mg/l	14	17	<10	<10	14	12
19	Nickel as Ni	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
20	Copper as Cu	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
21	Manganese as Mn	mg/l	0.04	0.05	<0.02	<0.02	<0.02	<0.02
22	Chromium as Cr	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
23	Selenium as Se	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
24	Zinc as Zn	mg/l	0.06	0.07	<0.02	<0.02	<0.02	<0.02
25	Cadmium as Cd	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
26	Lead as Pb	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
27	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
28	Arsenic as As	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Note – The above tests are carried by B.S Envi. Tech P. Ltd Laboratory & its accredited by NABL and MoEF&CC.

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha

PHOTOS



Photo-1: Mobile Water Tanker for dust suppression on mines haul road



Photo-2 &3: Retaining wall along with Plantations at the toe of dump slopes



Photo-4: Plantation on Dump Slopes

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha



Photo-5&6: Inter connecting village roads are made up of black top and 24 x7 Ambulance facilities

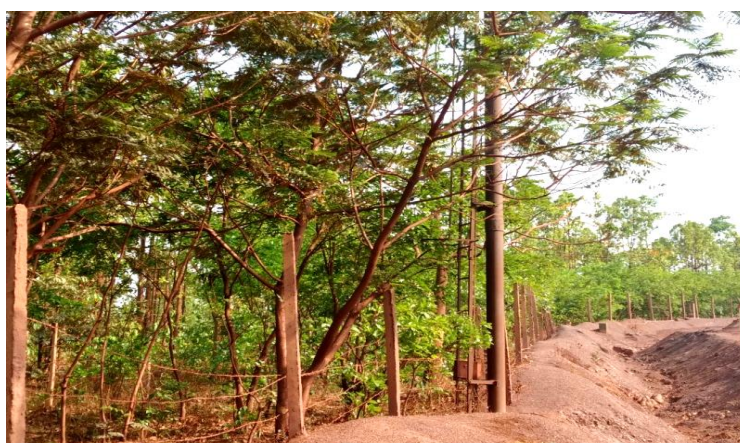


Photo-7: Safety Zone Plantation



Photo-8& 9: Settling cum water harvesting pit

Reporting Period: October-2018 to March-2019

Compliance Status of Environmental Clearance Condition –“ Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” Located near village Deojhar (Thakurani RF) of Keonjhar Dist., Odisha



Photo-10: Check Weir



Photo-11: STP for treatment of Domestic Waste Water (Ultra Filtration Unit)



Photo-12: Roof top Rain Water Harvesting structure & Recharge pit



Photo-13: Mineral dispatch truck with tarpaulin cover on top