

NAME OF THE PROJECT:
DEOJHAR IRON ORE MINES OF
M/s TARINI MINERALS PVT.LTD.

CLEARANCE LETTER NO. & DATE:
SEIAA CLEARANCE LETTER NO.:

- SEIAA/26/9, DATED. 27.11.2009 AND
- 3427/SEIAA, DATED 30.05.2015.

PERIOD OF COMPLIANCE REPORT:
OCTOBER-2020 TO MARCH-2021

Six Monthly E.C Compliance report

Period: October-2020 to March-2021



Deojhar Iron Ore Mines
M/s. Tarini Minerals Pvt. Ltd.

TARINI MINERALS PVT. LTD.

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

Ref. No.: DIOM/TM/EC-COMP/21-22- 15

Date: 18.05.2020

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.
E Mail: seiaaorissa@gmail.com

Sub: Half yearly Environmental Clearance Compliance Report of Deojhar Iron Ore Mining Project of M/s. Tarini Minerals Pvt.Ltd. for the period, October-2020 to March- 2021 – 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 cited subject and gazette notification, we are submitting herewith the six monthly compliance reports of the environment clearance conditions along with the comprehensive data analysis only in soft copy by e –mail i.e. seiaaorissa@gmail.com & roez.bsr-mef@nic.in of Deojhar Iron Ore Mines of M/s. Tarini Minerals Pvt. Ltd. for the period of October 20 to March 21.

This for your kind information, please.

Yours Faithfully

For M/s. Tarini Minerals Pvt. Ltd



Mines Manager
Deojhar Iron Ore Mines

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

Encl:

As above & Compliance Copy with detailed analysis report and supporting photographs and monitoring data.

Copy to:

1. The Director (S), Regional Office (EZ), Ministry of Environment, Forest & Climate Change, A-31, Chandrasekharpur, Bhubaneswar.
E mail: roez.bsr-mef@nic.in
2. The Zonal Officer, Central Pollution Control Board, Eastern Zonal Office, Kolkata, E mail: zokolkatta.cpcb@nic.in
3. The Chairman, State Pollution Control Board, Orissa, A/118, Nilakantha Nagar, Unit – VIII, Bhubaneswar – 751012,
E mail: paribesh1@ospcbboard.org
4. The Regional Director, Central Ground Water Board, Government of India, South Eastern Region, Bhubaneswar – 751030.
E mail: rdser-cgwb@nic.in

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	<p>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>	<p>The project proponent has taken up adequate measures for prevention, control and mitigation of air pollution by 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.</p> <p>Retaining walls cumulatively 526 m along with garland drain 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.</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 is 1 No. of stabilized OB dump which is still active, and are 01 no. of sub grade dump which is stabilized at ear marked area with proper sloping and terracing, plantation and coir matting.</p> <p>The photos regarding the same has been shown as below in Photo —3 and 4.</p>
2	<p>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 assessment for providing employment, education, health, drinking water and sanitation, road and communication</p>	<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-01 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 - 2.</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 - 1), Consent to Operate from SPCB, Orissa vide letter No.: 2603/IND-I-CON-1373 date 14.03.2019 (copy attached as Annexure - 2), Approved Mining Scheme from IBM for the period 2019-20 to 2023-24 vide letter No.MS/FM/39-ORI/BHU/2018-19/2501 dated. 25.01.2019 (copy attached as Annexure - 3).</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	<p>Half yearly compliance is being submitted as per the EC conditions on time to time basis. The half yearly compliance status reports are mentioned in Table no.03.</p>

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	Environmental Impact Assessment Authority (SEIAA), Orissa on 1 st June and 1 st December 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 AAQ monitoring station as per CTO issued by SPCB in the core as well as buffer zone of the ML area. Monitoring of AAQ is being carried out every month. The summarized report of the AAQ is attached in Annexure - 4.
7	The proponent shall submit ground footing baseline data on flora and fauna and CSR activities already carried out within three months to the SEIAA, Orissa.	<p>The site specific Wildlife Conservation Plan has been 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.</p> <p>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.</p> <p>The copy of the same is attached as Annexure — 5 (approval letter).</p>
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	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.

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	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.	
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 cumulatively 44,080 numbers of saplings in and around the ML area till March-2021 out of which 1510 Nos. have has been planted during April 2020-March 2021 with different varieties of native species in the safety zone photo of the same is attached as photo – 4 & 7. Plantation details have been given in table – 4.
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 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.	The project has taken the following steps a. Run off generated from Dump areas are being diverted to settling pits with proper checks before disposal to natural water bodies. b. We have implemented the roof top rain water harvesting structures and settling pits cum harvesting structures in the mines

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		<p>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 tarpaulin 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 SEIAA, Orissa.</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 dust in the mining lease area, viz. Mines Face/Haulage Road, Crusher/Screen Plant, Loading/Unloading point. The analysis report of the same is attached as Annexure – 6.</p>
14	<p>Transportation of ore shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of</p>	<p>The steps are being followed by proper care towards public roads to ensure that the trucks should not be overloaded</p>

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	ore /dust takes place.	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 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.	Regular monitoring of the ground water quality on quarterly basis, as per the monitoring locations there are 4 nos. of locations and monitoring of the surface water quality is also being carried out in 5 nos. 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 and winter. The monitoring of ground and surface water quality records being submitted to SEIAA, Orissa on half yearly basis and Regional Office of MoEF&CC, Bhubaneswar. The summarized analysis report of the same is attached as Annexure – 7 & 8.
17	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 geotextile matting or other suitable material,	The project has provided necessary precautionary measures like siltation pit ,retaining walls and garland drains at the toe of the dumps and places wherever required. Apart from that we have provided guard wall as nalla protection measures, a length of 380 mtr. and check weirs at the strategic

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	and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.	locations. 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.
18	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.	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 dump 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.
19	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 the form of temporary structures to be removed after the completion of the project.	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 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.
20	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	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

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	<p>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>lung spirometry etc. During the reporting period, there is no due for PME and no IME has been carried out.</p>
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. A safety zone of 7.5 m width around the ML boundary is being maintained. The project has cumulatively done 44,080 numbers of saplings in and around the ML area till date 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 590aMSL which is far above the ground water level and ground water</p>

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		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.
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.	At present there is 1 OB dump which is active, phase wise plantation and stabilization will be done.

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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. 05 .
27	The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in withdrawal of this environmental clearance and attract action under the provisions of Environmental Protection (EP) Act, 1986.	We are abiding by the said conditions.
Sl. No.	Additional Environmental Clearance condition of mining projects vide. OM of MoEF&CC, F.No. 22-34/2018-IA.III dated: 16.01.2020 in respect of Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.	Compliance Status
01	The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.	We will abide by the condition. At present the mining operation is going on and the mineral is not exhausted at all & it's also duly approved by the IBM in Mining Plan. Therefore, after ceasing of the mining operation or exhaust of minerals, we will undertake re-grassing of the disturbed land due mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. as duly approved in Mining Plan by IBM.

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TABLES

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 No.1 – Year Wise CSR Expenses

CSR Expenditure		
Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.		
Sl. No.	Particulars	Expenditure for the year 2020-21
1	Infrastructure	0.35
2	Education	1.24
3	Health	3.15
4	Drinking Water Facility	0.48
5	Social welfare (Peripheral Activities)	1.16
6	Electricity	0.25
7	Water Sprinkling (Inter connecting village road etc.)	3.6
TOTAL		10.23

Table No. 02: 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 .

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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 MahadevNallah.
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 qualification.	Local peoples are being given priority in employing skilled local people such as drivers, drillers, operators, etc. according to their 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	2 no. of bore wells with drinking water facilities are provided for the villagers of the Muragbeda, about a population of

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	tanker and will continue this facility.	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.
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.

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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 3 – Six Monthly Compliance Submission details

Sl.No	Compliance Time Period	Date of Submission
1	April 20 to September 20	24.11.2020
2	October 2020 to March 2020	20.05.2020
3	April 2019 to September 2019	18.11.2019
4	October 2018 to March 2019	25.04.2019
5	April 2018 to September 2018	20.11.2018
6	October 2017 to March 2018	30.05.2018
7	April 2017 to September 2017	25.11.2017
8	October 2016 to March 2017	25.05.2017
9	April 2016 to September 2016	19.11.2016
10	October 2015 to March 2016	25.05.2016
11	April 2015 to September 2015	16.11.2015
12	October 2014 to March 2015	26.05.2015

Table 4- Plantation Details

Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.				
Sl.No	Year	No. of Sapling	Location	Name of Saplings
01	2015 - 2016	Nil	....	.....
02	2016 - 2017	1300	Dump, Safety zone (Gap filling)	Neem, Karanja, Krushnachuda, Radhachude, Sal, Chatian, Sisoo, Mango etc.
03	2017 - 2018	8020	Dump, Safety zone (Gap filling) & outside	
04	2018-2019	800	Safety zone (Gap filling) & outside	
05	2019-2020	1300	Safety zone (Gap filling) & outside	
06	2020-2021	1510	Safety zone (Gap filling) & bench plantation	

Reporting Period: October-2020 to March-2021

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 5-Details of Environmental Expenses

Environmental Expenditure of Deojhar Iron Ore Mining Project of M/s. Tarini Minerals Pvt. Ltd, District, Keonjhar,		
		Cost, Rs. In Lakhs
Sl. No.	Activity	2020-21 (October-20 to March-21)
1	Dry-fog system installed & maintenance	0.1
2	Water tankers two no's for water sprinkling	3.0
3	Purchasing Env. Instrument, calibration & environment monitoring etc.	0.3
4	Occupational Health & Hygiene	1.57
5	Rain water harvesting structures	0.10
6	Site specific sewage treatment plant with maintenance	0.20
7	Service Centre cum ETP & its maintenance	0.08
Total amount incurred		5.35

Reporting Period: October-2020 to March-2021

ANNEXURES

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 – 1: Forest Clearance Copy

F. No. S-216/1996-FC
Government of India
Ministry of Environment & Forests
(F.C. Division)

Praywan Dhwani,
CGO Complex, Lodi Road,
New Delhi – 110 003.
Dated: 18th March, 2003.

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

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

Sl:

I am directed to refer to your letter No. 107 (Comp/2000/1287) dated 17.07.2003 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 cited proposal, under Section 2 of the Forest (Conservation) Act, 1980. The State Government of Odisha has also informed that the said Mining Lease has been transferred by the State Government from Sri Niranjan Pattanik 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 34.265 ha of forest land in Keonjhar district, Odisha, for mining lease in favour of Sri Niranjan Pattanik for a period of ten years, subject to certain conditions, vide letter dated 31.01.1993.

The request of the State Government of Odisha has been examined in the Ministry of Environment and Forests. After considering the above request of the State Government of Odisha 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 clearance co-terminus with the period of Mining Lease granted by the State Government of Odisha i.e. upto 14.10.2014. However, it has been observed that the permission of the Ministry of Environment & Forests has not been obtained while transferring the lease from Sri Niranjan Pattanik to M/s Tarini Minerals P. Ltd. and, therefore, this has been issued as a condition of the Forest (Conservation) Act, 1980 and, it has been decided that the User Agency shall continue to pay Forest 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:-

- The non-forest land to the extent of 34.45 ha identified for the purpose of Compensatory Afforestation shall be acquired and situated in favour of the State Forest Deptt followed by its registration as Reserved Forest / Reserved Forest.
- Forest Compensatory Afforestation shall be raised and maintained over an equal amount of non-forest land as the project area. 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 managed in the name of the State Forest Department and shall be declared as Reserved Forest / Protected Forest.

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. 12206/REG dated 03.12.2005.
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 change the New Forests Rules (NFR) under this proposal from the User Agency as per the orders of the Hon'ble Supreme Court of India dated 15.10.2002 and 01.08.2009 in LA No. 1041 in 2007 (2) SC 222/2009 and as per the guidelines issued by this Ministry vide letter No. 3031/WR/REG (P) dated 18.12.2010, as well as letter No. 4270/REG-FC dated 02.10.2009 in this regard.
6. Additional amount of NPV of the approved forest land, if any, according to the instructions of the state by the Hon'ble Supreme Court of India as received by the report from the Expert Committee, shall be charged by the State Government from the User Agency. The User Agency shall make an undertaking to this effect.
7. All the funds received from the User Agency under the proposal shall be transferred to a Project No. 2444011000012X of Corporation Bank, Branch 11, COO Chapter, Phulpara, Loda Road, Puri dated 1.03.09.
8. All other conditions stipulated in the terms of forest clearance under Section-2 of the Forest Conservation Act, 1980 for the mining lease of 24143 sq. of forest land in Keonjhar district, vide the Ministry's letter dated 21.03.1994, shall be complied with by the User Agency.

Yours faithfully,

(Signature)
 Assistant Secretary General of Mines

- Copy to:-
1. The MPP, Govt. of Orissa, Bhubaneswar.
 2. The Joint Officer, G.O. P.O., Bhubaneswar.
 3. The Joint Commissioner of Forests (General), Regional Office, Bhubaneswar.
 4. The User Agency.
 5. Monitoring CCE of the Ministry.
 6. Closed File.

(Signature)
 Assistant Secretary General of Mines

Annexure- 2 : 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. 2603 / 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.

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 – 3 : Approved Mining Scheme Copy from IBM



भारत सरकार GOVERNMENT OF INDIA
खान मंत्रालय MINISTRY OF MINES
भारतीय खान ब्यूरो INDIAN BUREAU OF MINES
क्षेत्रीय खान नियंत्रक के कार्यालय
OFFICE OF THE REGIONAL CONTROLLER OF MINES



By Road, Parcel E-4
Phone: 0674-23624
Tel/Fax: 0674-23624
of
ra.bhubaneswar@bm.gov
Plot No.149, Pukhari
BHUBANESWAR-7511

No. MS/PM/39-ORI/BHU/2018-19 / 2001

Date: 25.01.2019

To

Shri D. R. Patnaik,
Managing Director,
M/s Tarini Minerals Pvt. Ltd,
X-5, Civil Township, Rourkela,
Pin-769004, Odisha.

Sub: Approval of Review of Mining Plan of Deojhar Iron Ore Mines over an area of 34.365 ha in Keonjhar district of Odisha of M/s Tarini Minerals Private Limited submitted under rule-17 (2) of MCR, 2016.

- Ref: -i) Your letter no. nil dated 19.12.2018.
ii) This office letter of even no. dated 19.12.2018.
iii) This office letter of even no. dated 19.12.2018 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.
iv) This office letter of even no. dated 03.01.2019.
v) Your letter no. nil dated 16.01.2019 received on 18.01.2019.

Sir,

In exercise of the power delegated to me vide Gazette Notification No. S.O. 1857 (E) dated 18.05.2016, I hereby **Approve** the Review of Mining Plan including Progressive Mine Closure Plan of Deojhar Iron Ore Mines over an area of 34.365 ha of M/s Tarini Minerals Private Limited in Keonjhar district of Odisha State submitted under Rule 17 (2) of Mineral Concession Rules, 2016. This approval is subject to the following conditions:

- I. The Review of 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 Review of 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, 2016 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.

Contd. Page 2

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 – Summarized AAQ Report

Deojhar Iron Ore Mines of M/s Tarini Minerals Pvt. Ltd.							
Summerized Monthly Average Ambient Air Quality Monitoring Report							
Sampling Location	Month	Ambient Air Quality Parameters in µgm/m³					
		Range	P.M-10	P.M.-2.5	SO₂	NO_x	CO
Mine Site Office (AAQ-1)	Oct-20	Avg.	73.00	23.50	11.69	13.30	0.51
	Nov-20	Avg.	70.00	23.75	8.76	10.65	0.48
	Dec-20	Avg.	67.25	23.50	9.99	11.39	0.49
	Jan-21	Avg.	68.13	20.75	10.15	11.65	0.42
	Feb-21	Avg.	70.13	21.50	10.84	12.16	0.51
	Mar-21	Avg.	78.75	19.88	12.48	14.66	0.42
Exit Gate (AAQ-2)	Oct-20	Avg.	72.38	29.00	11.01	12.09	0.39
	Nov-20	Avg.	70.13	23.38	10.38	11.73	0.48
	Dec-20	Avg.	65.13	23.50	10.04	11.08	0.58
	Jan-21	Avg.	70.13	20.88	10.94	11.88	0.48
	Feb-21	Avg.	71.13	21.88	10.28	12.31	0.46
	Mar-21	Avg.	72.50	20.00	11.09	12.78	0.54
Murgabeda Village (AAQ-3)	Oct-20	Avg.	70.00	22.88	10.95	12.75	0.35
	Nov-20	Avg.	59.75	18.75	10.86	12.39	0.58
	Dec-20	Avg.	64.88	24.13	10.73	11.91	0.58
	Jan-21	Avg.	66.00	18.50	9.58	11.29	0.38
	Feb-21	Avg.	70.63	20.63	10.40	11.88	0.28
	Mar-21	Avg.	70.00	18.88	11.70	13.83	0.51
Bileipada Village(AAQ-4)	Oct-20	Avg.	67.75	22.13	11.04	12.91	0.38
	Nov-20	Avg.	64.38	20.88	8.58	9.78	0.53
	Dec-20	Avg.	67.00	27.63	11.00	12.43	0.57
	Jan-21	Avg.	64.13	16.88	10.34	11.68	0.52
	Feb-21	Avg.	68.88	20.63	10.86	12.26	0.49
	Mar-21	Avg.	72.50	19.63	11.39	14.40	0.62
<p>Note: Analysis & report provided by B.S Envi Tech Pvt. Ltd., Secundrabad, Telangana an MOEFCC & NABL accredited lab.</p>							

Reporting Period: October-2020 to March-2021

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 : Wild Life Conservation Plan Copy

MEMORANDUM
FOR THE MEMBER SECRETARY, ENVIRONMENTAL DEPARTMENT,
GOVERNMENT OF ODISHA, Bhubaneswar.
DATE: 15.12.2019
TO: THE MEMBER SECRETARY, ENVIRONMENTAL DEPARTMENT.

Subject: Approval of the Specific Wildlife Conservation Plan for Deojhar Iron Ore Mines in village Deojhar of Keonjhar District.

I am directed to inform you that the Specific Wildlife Conservation Plan for Deojhar Iron Ore Mines in village Deojhar in Keonjhar District of Keonjhar District has been approved by the Forest Officer, Keonjhar District, Odisha with financial sanction of Rs. 10,00,000 for the following activities:

1. The activities to be implemented in the Project Impact Area --- Rs. 10,00,000
2. The activities to be implemented by ODF, Keonjhar District in the Project Impact Area --- Rs. 10,00,000

Total Rs. 20,00,000

Under activity 1 & 2, specific activities for Rs. 10,00,000 in the Project Impact Area under the guidance of ODF, Keonjhar District & Rs. 10,00,000 may be deployed with ODF, Keonjhar District under condition, the activities to be executed by ODF in the area of 1000 ha.

Copy forwarded to the ODF, Keonjhar District for information & necessary action with reference to Memo No. 3222 dt. 2.10.19 of O.P., Panchajanya Circle.

Copy forwarded to O.P. Panchajanya Circle for information & necessary action with reference to the letter dated No. 3221 dt. 2.10.19.

Copy forwarded to the O.P. Keonjhar District for information & necessary action with reference to the letter dated 22.9.19.

Copy forwarded to the O.P. Keonjhar District for information & necessary action with reference to the letter dated 22.9.19.

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 : 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 Face/ Haulage road	Oct-20	Avg.	393.38
	Nov-20	Avg.	516.13
	Dec-20	Avg.	538.50
	Jan-21	Avg.	486.13
	Feb-21	Avg.	610.75
	Mar-21	Avg.	608.88
Screening Plant	Oct-20	Avg.	399.75
	Nov-20	Avg.	554.00
	Dec-20	Avg.	611.13
	Jan-21	Avg.	605.13
	Feb-21	Avg.	677.00
	Mar-21	Avg.	679.63
Loading & Unloading point	Oct-20	Avg.	300.50
	Nov-20	Avg.	520.75
	Dec-20	Avg.	532.38
	Jan-21	Avg.	452.50
	Feb-21	Avg.	636.63
	Mar-21	Avg.	537.38
Note: Analysis & report provided by B.S Envi Tech Pvt. Ltd., Secundrabad, Telangana an MOEFCC & NABL accredited lab.			

Reporting Period: October-2020 to March-2021

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: Ground Water Monitoring Report

Deojhar Iron Ore Mines						
M/s Tarini Minerals Pvt. Ltd.						
Ground Water Quality Report						
January-2021						
Location			Murgabeda Village	Daldir Village	Deojhar Village	Bileipada Village
Sl. No.	Test Parameter	Units	Result			
1	Odour	...	Agreeable	Agreeable	Agreeable	Agreeable
2	Colour	Hazen	<5	<5	<5	<5
3	pH	..	6.71	6.68	6.69	6.73
4	Turbidity	NTU	<1	<1	<1	<1
5	Total Hardness as CaCO ₃	mg/l	64	124	118	182
6	Iron as Fe	mg/l	0.09	0.08	0.1	0.13
7	Chlorides as Cl	mg/l	38	62	32	60
8	Total Dissolved solids	mg/l	136	394	314	338
9	Calcium as Ca	mg/l	20.0	36	36	44
10	Magnesium as Mg	mg/l	3.4	8.3	7	17
11	Sulphate as SO ₄	mg/l	15	39	29	35
12	Nitrate as NO ₃	mg/l	11	22	12	28
13	Flouride as F ⁻	mg/l	0.24	0.54	0.21	0.52
14	Total Alkalinity as CaCO ₃	mg/l	26	158	154	116
15	Boron as B	mg/l	< 0.10	< 0.10	< 0.10	<0.10
16	Aluminium as Al	mg/l	< 0.02	< 0.02	< 0.02	< 0.02
17	Copper as Cu	mg/l	< 0.02	< 0.02	< 0.02	< 0.02
18	Manganese as Mn	mg/l	<0.02	<0.02	<0.02	< 0.02
19	Selenium as Se	mg/l	< 0.01	< 0.01	< 0.01	< 0.01
20	Zinc as Zn	mg/l	<0.02	<0.02	<0.02	< 0.02
21	Cadmium as Cd	mg/l	< 0.003	< 0.003	< 0.003	< 0.003
22	Lead as Pb	mg/l	< 0.01	< 0.01	< 0.01	< 0.01
23	Mercury as Hg	mg/l	< 0.001	< 0.001	< 0.001	< 0.001
24	Arsenic as As	mg/l	< 0.01	< 0.01	< 0.01	< 0.01
25	Chromimum as Cr	mg/l	< 0.02	< 0.02	< 0.02	< 0.02
26	Total Coliforms	CFU/ 100 ml	Absent	Absent	Absent	Absent

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

Reporting Period: October-2020 to March-2021

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 : Surface Water Monitoring Report

Deojhar Iron Ore Mines							
M/s Tarini Minerals Pvt. Ltd.							
Surface Water Quality Report							
October-2020							
Location			Suna Nadi U/S	Suna Nadi D/S	Maha dev Nallah U/S	Maha dev Nallah D/S	Baitar ani River
Sl. No.	Test Parameter	Units	Result				
1	pH	...	6.72	6.82	6.75	6.85	6.72
2	Oil & Grease	mg/l	< 1	< 1	<1	< 1	<1
3	Total Suspended Solids	mg/l	75	93	96	112	75
4	Total Dissolved Solids @ 105°C	mg/l	165	210	187	225	242
5	BOD for 3 days at 27°C	mg/l	10	25	9	15	23
6	COD	mg/l	75	112	56	119	98
7	Chloride as Cl	mg/l	23	26	30	36	29
8	Phosphate as P	mg/l	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
9	Sulphide as S ²⁻	mg/l	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
10	Sulphates as SO ₄	mg/l	18	25	18	20	18
11	Total Volatile Suspended Solids (MLVSS)	mg/l	25	39	32	31	20
12	Colour	Hazen units	9	12	4	12	6
13	Odour	....	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
14	Iron as Fe	mg/l	0.25	0.28	0.31	0.35	0.26
15	Flouride as F ⁻	mg/l	0.3	0.26	0.35	0.36	0.29
16	Boron as B	mg/l	<0.10	<0.10	< 0.10	< 0.10	< 0.10
17	Percent Sodium	....	42.5	45.2	43.2	46.2	42.5
18	Residual Sodium Carbonate	mg/l	20	29	29	29	49
19	Copper as Cu	mg/l	<0.02	<0.02	< 0.02	< 0.02	< 0.02
20	Manganese as Mn	mg/l	<0.02	<0.02	< 0.02	< 0.02	< 0.02
21	Selenium as Se	mg/l	<0.01	< 0.01	< 0.01	< 0.01	< 0.01
22	Zinc as Zn	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
23	Cadmimum as Cd	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
24	Lead as Pb	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Reporting Period: October-2020 to March-2021

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

25	Mercury as Hg	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
26	Nickel as Ni	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
27	Total Arsenic as As	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
28	Total Chromium as Cr	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
29	Total Coliforms	CFU/100 ml	235	312	185	215	295

Deojhar Iron Ore Mines							
M/s Tarini Minerals Pvt. Ltd.							
Surface Water Quality Report							
January-2021							
Location			Suna Nadi U/S	Suna Nadi D/S	Maha dev Nallah U/S	Maha dev Nallah D/S	Baitarani River
Sl. No.	Test Parameter	Units	Result				
1	pH	...	6.62	6.71	6.58	6.69	6.65
2	Oil & Grease	mg/l	< 1	< 1	< 1	< 1	< 1
3	Total Suspended Solids	mg/l	40	64	50	66	50
4	Total Dissolved Solids @ 105°C	mg/l	138	182	132	170	162
5	BOD for 3 days at 27°C	mg/l	9	15	6	12	12
6	COD	mg/l	64	96	36	76	68
7	Chloride as Cl	mg/l	10	14	8.9	15	15
8	Phosphate as P	mg/l	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
9	Sulphide as S ²⁻	mg/l	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
10	Sulphates as SO ₄	mg/l	8.5	11	7	12	8.1
11	Total Volatile Suspended Solids (MLVSS)	mg/l	20	26	20	28	22
12	Colour	Hazen units	5	10	5	10	10
13	Odour	....	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
14	Iron as Fe	mg/l	0.23	0.27	0.18	0.21	0.19
15	Fluoride as F ⁻	mg/l	0.26	0.31	0.25	0.28	0.24
16	Boron as B	mg/l	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
17	Percent Sodium	....	40.5	44.2	40.8	43.9	40.8
18	Residual Sodium Carbonate	mg/l	27	42	27	37	26
19	Copper as Cu	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

Reporting Period: October-2020 to March-2021

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

20	Manganese as Mn	mg/l	<0.02	<0.02	< 0.02	< 0.02	< 0.02
21	Selenium as Se	mg/l	<0.01	< 0.01	< 0.01	< 0.01	< 0.01
22	Zinc as Zn	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
23	Cadmimum as Cd	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
24	Lead as Pb	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
25	Mercury as Hg	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
26	Nickel as Ni	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
27	Total Arsenic as As	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
28	Total Chromimum as Cr	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
29	Total Coliforms	CFU/10 0 ml	70	80	90	110	70

M/s Tarini Minerals Pvt. Ltd.							
Surface Water Quality Report							
March-2021							
Location			Suna Nadi U/S	Suna Nadi D/S	Maha dev Nallah U/S	Maha dev Nallah D/S	Baitar ani River
Sl. No.	Test Parameter	Units	Result				
1	pH	...	6.64	6.75	6.69	6.81	6.75
2	Oil & Grease	mg/l	< 1	< 1	<1	< 1	<1
3	Total Suspended Solids	mg/l	64	88	69	95	58
4	Total Dissolved Solids @ 105°C	mg/l	140	170	150	185	175
5	BOD for 3 days at 27°C	mg/l	13	21	12	26	17
6	COD	mg/l	64	92	60	104	68
7	Chloride as Cl	mg/l	11	17	12	19	19
8	Phosphate as P	mg/l	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
9	Sulphide as S ²⁻	mg/l	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
10	Sulphates as SO ₄	mg/l	8	10.5	11	18	8
11	Total Volatile Suspended Solids (MLVSS)	mg/l	25	35	28	39	23
12	Colour	Hazen units	5	10	5	10	10
13	Odour	.....	Agreeable	Agreeable	Agreea ble	Agreea ble	Agreea ble
14	Ironas Fe	mg/l	0.2	0.26	0.23	0.25	0.24
15	Flouride as F ⁻	mg/l	0.25	0.27	0.28	0.3	0.28

Reporting Period: October-2020 to March-2021

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

16	Boron as B	mg/l	<0.10	<0.10	< 0.10	< 0.10	< 0.10
17	Percent Sodium	....	41.1	43.1	40.8	44	41.6
18	Residual Sodium Carbonate	mg/l	28	29	17	21	24
19	Copper as Cu	mg/l	<0.02	<0.02	< 0.02	< 0.02	< 0.02
20	Manganese as Mn	mg/l	<0.02	<0.02	< 0.02	< 0.02	< 0.02
21	Selenium as Se	mg/l	<0.01	< 0.01	< 0.01	< 0.01	< 0.01
22	Zinc as Zn	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
23	Cadmium as Cd	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
24	Lead as Pb	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
25	Mercury as Hg	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
26	Nickel as Ni	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
27	Total Arsenic as As	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
28	Total Chromium as Cr	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
29	Total Coliforms	CFU/10 0 ml	70	90	120	150	50

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

Reporting Period: October-2020 to March-2021

PHOTOGRAPHS

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-1a &b: Mobile Water Tanker for dust suppression on mines haul



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



Reporting Period: October-2020 to March-2021

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-4: Plantation on Dump Slopes



Photo-5: Inter connecting village roads are made up of black top

Reporting Period: October-2020 to March-2021

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-6: 24 x7 Ambulance facilities



Photo-7: Safety Zone Plantation

Reporting Period: October-2020 to March-2021

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-8& 9: Settling cum water harvesting pit



Photo-10: Check Weir

Reporting Period: October-2020 to March-2021

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-11: STP for treatment of Domestic Waste Water (Ultra Filtration Unit) & its utilization in green belt development



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

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-13: Mineral dispatch truck with tarpaulin cover on top

ENVIRONMENT MONITORING REPORTS

DEOJHAR MINES

AAQ REPORT

JANUARY-2021



B.S. ENVI - TECH PVT. LTD.

Recognized by MoEF & CC, Gol: Valid upto August, 2022

TEST REPORT

REPORT NO: DIOM./ TM /ENV/2021/AAQ/2021-01				Issued to:	
Reporting Date	02.02.2021	Analysis Starting on	01.02.2021	Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.	
Sample Received on	01.02.2021	Analysis Completed on	02.02.2021		
Sample Description: Ambient Air Quality Location : Mines Office Month : January -2021 Sample Collected by: B.S. Envi-Tech (P) Ltd.,					

S.NO	DATE	PM ₁₀ [µg/m ³]	PM _{2.5} [µg/m ³]	SO ₂ [µg/m ³]	NO ₂ [µg/m ³]	CO [mg/m ³]
	Protocol	IS:5182 Part 23	IS:5182 Part 24	IS:5182 Part 2	IS:5182 Part 6	BSET SOP AA-09
1	04/01/2021	70	21	10	12.3	0.56
2	07/01/2021	63	16	10.3	11.6	0.42
3	11/01/2021	77	25	10.1	12.3	0.46
4	14/01/2021	66	18	9.6	10.8	0.13
5	18/01/2021	72	23	10	11.3	0.19
6	21/01/2021	60	18	9.6	10.4	0.53
7	25/01/2021	73	25	10.5	11.9	0.63
8	28/01/2021	64	20	11.1	12.6	0.43
NAAQ Standards (24 hourly standard)		100 [µg/m ³]	60 [µg/m ³]	80 [µg/m ³]	80 [µg/m ³]	02 [mg/m ³] (8 hourly)

Legend:PM₁₀-Particulate Matter(Size Less than 10µm)

PM_{2.5}-Particulate Matter(Size Less than 2.5µm)

SO₂-Sulphur Dioxide

NO₂- NitrogenDioxide


Authorized Signatory


*Complaints Register is available at Laboratory.

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CIN No. : U74210TG1999PTC032358



B.S. ENVI - TECH PVT. LTD.

Recognized by MoEF & CC, Gol: Valid upto August, 2022

TEST REPORT

REPORT NO: DIOM/TM /ENV/2021/AAQ/2021-01				Issued to:
Reporting Date	02.02.2021	Analysis Starting on	01.02.2021	Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt Ltd.
Sample Received on	01.02.2021	Analysis Completed on	02.02.2021	
Sample Description: Ambient Air Quality Location : Exit Gate Month : January -2021 Sample Collected by: B.S. Envi-Tech (P) Ltd.,				

S.NO	DATE	PM ₁₀ [µg/m ³]	PM _{2.5} [µg/m ³]	SO ₂ [µg/m ³]	NO ₂ [µg/m ³]	CO [mg/m ³]
	Protocol	IS:5182 Part 23	IS:5182 Part 24	IS:5182 Part 2	IS:5182 Part 6	BSET SOP AA-09
1	04/01/2021	75	26	10.1	11.3	0.48
2	07/01/2021	69	21	9.8	10.6	0.47
3	11/01/2021	78	23	12.2	13.2	0.57
4	14/01/2021	60	17	10.6	11.5	0.48
5	18/01/2021	76	24	9.9	10.4	0.28
6	21/01/2021	66	15	10.8	11.3	0.47
7	25/01/2021	68	20	11.3	13.6	0.48
8	28/01/2021	69	21	12.8	13.1	0.59
NAAQ Standards (24 hourly standard)		100 [µg/m ³]	60 [µg/m ³]	80 [µg/m ³]	80 [µg/m ³]	02 [mg/m ³] (8 hourly)

Legend: PM₁₀-Particulate Matter (Size Less than 10µm)
PM_{2.5}-Particulate Matter (Size Less than 2.5µm)
SO₂-Sulphur Dioxide
NO₂- Nitrogen Dioxide


Authorized Signatory


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B.S. ENVI - TECH PVT. LTD.

Recognized by MoEF & CC, Gol: Valid upto August, 2022

TEST REPORT

REPORT NO: DIOM / TM/ENV/2021/AAQ/2021-01				Issued to:	
Reporting Date	02.02.2021	Analysis Starting on	01.02.2021	Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.	
Sample Received on	01.02.2021	Analysis Completed on	02.02.2021		
Sample Description: Ambient Air Quality Location : Murgabeda Village Month : January-2021 Sample Collected by: B.S. Envi-Tech (P) Ltd.,					

S.NO	DATE	PM ₁₀ [µg/m ³]	PM _{2.5} [µg/m ³]	SO ₂ [µg/m ³]	NO ₂ [µg/m ³]	CO [mg/m ³]
	Protocol	IS:5182 Part 23	IS:5182 Part 24	IS:5182 Part 2	IS:5182 Part 6	BSET SOP AA-09
1	04/01/2021	59	13	10.1	12.2	0.26
2	07/01/2021	71	24	8.9	10.6	0.35
3	11/01/2021	69	19	9.6	10.3	0.49
4	14/01/2021	68	17	9.7	10.1	0.56
5	18/01/2021	73	22	9.9	11.6	0.4
6	21/01/2021	60	19	8.6	12.5	0.25
7	25/01/2021	68	20	9.6	11.7	0.12
8	28/01/2021	60	14	10.2	11.3	0.58
NAAQ Standards (24 hourly standard)		100 [µg/m ³]	60 [µg/m ³]	80 [µg/m ³]	80 [µg/m ³]	02 [mg/m ³] (8 hourly)

Legend: PM₁₀-Particulate Matter (Size Less than 10µm)

PM_{2.5}-Particulate Matter (Size Less than 2.5µm)

SO₂-Sulphur Dioxide

NO₂- Nitrogen Dioxide


Authorized Signatory



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B.S. ENVI - TECH PVT. LTD.

Recognized by MoEF & CC, Gol: Valid upto August, 2022

REPORT NO: DIOM / TM / ENV / 2021 / AAQ / 2021 - 01				Issued to:
Reporting Date	02.02.2021	Analysis Starting on	01.02.2021	Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.
Sample Received on	01.02.2021	Analysis Completed on	02.02.2021	
Sample Description: Ambient Air Quality				
Location	: Bileipada Village			
Month	: January -2021			
Sample Collected by: B.S. Envi-Tech (P) Ltd.,				

S.NO	DATE	PM ₁₀ [µg/m ³]	PM _{2.5} [µg/m ³]	SO ₂ [µg/m ³]	NO ₂ [µg/m ³]	CO [mg/m ³]
	Protocol	IS:5182 Part 23	IS:5182 Part 24	IS:5182 Part 2	IS:5182 Part 6	BSET SOP AA-09
1	04/01/2021	60	15	10.8	11.3	0.39
2	07/01/2021	73	24	10.9	11.4	0.48
3	11/01/2021	63	15	10.9	11.3	0.56
4	14/01/2021	70	22	8.9	10.5	0.42
5	18/01/2021	65	16	10.1	12.2	0.78
6	21/01/2021	62	14	10	11.3	0.49
7	25/01/2021	57	12	10.3	12.8	0.57
8	28/01/2021	63	17	10.8	12.6	0.49
NAAQ Standards (24 hourly standard)		100 [µg/m³]	60 [µg/m³]	80 [µg/m³]	80 [µg/m³]	02 [mg/m³] (8 hourly)

Legend: PM₁₀-Particulate Matter (Size Less than 10µm)
PM_{2.5}-Particulate Matter (Size Less than 2.5µm)
SO₂-Sulphur Dioxide
NO₂- Nitrogen Dioxide


Authorized Signatory


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DEOJHAR MINES

**FUGITIVE DUST
MONITORING
REPORT**

MARCH-2021



B.S. ENVI - TECH PVT. LTD.

Recognized by MoEF & CC, Gol: Valid upto August, 2022

TEST REPORT

REPORT NO: DIOM / TM / ENV / 2021 / AAQ / 2021 -03				Issued to:
Reporting Date	02.04.2021	Analysis Starting on	01.04.2021	Deojhar Iron Ore Mines,
Sample Received on	01.04.2021	Analysis Completed on	02.04.2021	
Sample Description: Fugitive Dust Monitoring				M/s Tarini Minerals Pvt. Ltd.
Location	: Mines Face/Haulage Road			
Month	: March -2021			
Sample Collected by: B.S. Envi-Tech (P) Ltd.,				

S.NO	DATE	SPM [$\mu\text{g}/\text{m}^3$]	STANDARD AS PER CFO
1	01/03/2021	584	1200 [$\mu\text{g}/\text{m}^3$]
2	04/03/2021	632	
3	08/03/2021	689	
4	11/03/2021	579	
5	15/03/2021	681	
6	18/03/2021	497	
7	22/03/2021	588	
8	25/03/2021	621	

Legend: SPM-Suspended Particulate Matter


Authorized Signatory


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B.S. ENVI - TECH PVT. LTD.

Recognized by MoEF & CC, Gol: Valid upto August, 2022

TEST REPORT

REPORT NO: DIOM / TM / ENV / 2021 / AAQ / 2021 -03				Issued to:
Reporting Date	02.04.2021	Analysis Starting on	01.04.2021	Deojhar Iron Ore Mines,
Sample Received on	01.04.2021	Analysis Completed on	02.04.2021	
Sample Description: Fugitive Dust Monitoring				M/s Tarini Minerals Pvt. Ltd.
Location	: Crusher Plant			
Month	: March -2021			
Sample Collected by: B.S. Envi-Tech (P) Ltd.,				

S.NO	DATE	SPM [$\mu\text{g}/\text{m}^3$]	STANDARD AS PER CFO
1	01/03/2021	714	1200 [$\mu\text{g}/\text{m}^3$]
2	04/03/2021	698	
3	08/03/2021	658	
4	11/03/2021	723	
5	15/03/2021	702	
6	18/03/2021	684	
7	22/03/2021	669	
8	25/03/2021	589	

Legend: SPM-Suspended Particulate Matter


Authorized Signatory


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B.S. ENVI - TECH PVT. LTD.

Recognized by MoEF & CC, Gol: Valid upto August, 2022

TEST REPORT

REPORT NO: DIOM / TM / ENV / 2021 / AAQ / 2021 -03				Issued to:
Reporting Date	02.04.2021	Analysis Starting on	01.04.2021	Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.
Sample Received on	01.04.2021	Analysis Completed on	02.04.2021	
Sample Description: Fugitive Dust Monitoring Location : Loading/Unloading Point Month : March -2021 Sample Collected by: B.S. Envi-Tech (P) Ltd.,				

S.NO	DATE	SPM [$\mu\text{g}/\text{m}^3$]	STANDARD AS PER CFO
1	01/03/2021	597	1200 [$\mu\text{g}/\text{m}^3$]
2	04/03/2021	436	
3	08/03/2021	572	
4	11/03/2021	590	
5	15/03/2021	473	
6	18/03/2021	482	
7	22/03/2021	561	
8	25/03/2021	588	

Legend: SPM-Suspended Particulate Matter

Authorized Signatory



*Complaints Register is available at Laboratory.

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DEOJHAR MINES

GROUND WATER QUALITY REPORT

JANUARY-2021



B.S. ENVI - TECH PVT. LTD.

Recognized by MoEF & CC, Gol: Valid upto August, 2022

TEST REPORT

Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.		Test Report No. : BSET/2021/WS-00066		
Sample Description: Ground Water Sample		Lab Code No : 211045401	Issue Date : 19.01.2021	
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology)		Your Ref : Letter Dated 07.01.2021	Date of Receipt : 07.01.2021	
Packing : Plastic Bottles& Pre-Sterilized Bottle	Date of Registration	07.01.2021	Date of commencement of testing	08.01.2021
Test Required : As given below	Date of completion of testing	18.01.2021	Sample condition at receipt	Found ok
		Sample tested as received		
Date of Sampling: 04.01.2021 Location of Sampling: Murgabeda Village		Sampling Details Sampling Method/Procedure: IS 3025 Part 1 General Environment conditions: Ok		

Page No: 1 of 2

TEST RESULTS

S. No.	Test Parameter	Units	Test Method	Result	Requirement as per IS 10500:2012	
					Acceptable limits	Permissible limits in absence of alternative source
1	Odour	--	IS:3025 -Part-5	Agreeable	Agreeable	Agreeable
2	Colour	Hazen Units	IS:3025 -Part-4	< 5	5	15
3	pH	--	IS:3025- Part-11	6.71	6.5-8.5	No Relaxation
4	Turbidity	NTU	IS:3025 -Part-10	< 1	1	5
5	Total Hardness as CaCO ₃	mg/l	IS:3025 -Part-21	64	200	600
6	Iron as Fe	mg/l	3111 B of APHA 23 rd Edition 2017	0.09	1.0	No Relaxation
7	Chlorides as Cl	mg/l	IS:3025 -Part-32	38	250	1000
8	Total Dissolved Solids @ 105°C, mg/l	mg/l	IS:3025 - Part-16	136	500	2000
9	Calcium as Ca	mg/l	IS:3025- Part-40	20	75	200
10	Magnesium as Mg	mg/l	IS:3025 -Part-46	3.4	30	100
11	Sulphate as SO ₄	mg/l	4500-SO ₄ E, Turbidity Method, APHA 23 rd Edition 2017	15	200	400
12	Nitrate as NO ₃	mg/l	4500-NO ₃ B Ultraviolet Spectrophotometric Screening Method	11	45	No Relaxation
13	Fluoride as F ⁻	mg/l	4500-F D, APHA 23 rd Edition 2017	0.24	1	1.5
14	Total Alkalinity as CaCO ₃	mg/l	IS:3025 -Part-23	26	200	600

Interpretation of results: Nil, Deviation from test method: Nil

Authorized Signatory
(G.Chandra Mouli)
Environmental Scientist

Note: This report is subject to the terms and conditions mentioned overleaf.

Doc No.: BSET/Cl.7.8/Form -01	Issue No / Date : 01 / 02.01.2020	Amend. No. / Date : 00 / --	Page 1 of 8
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Website : www.bsenvitech.com
CIN No. : U74210TG1999PTC032358



B.S. ENVI - TECH PVT. LTD.

Recognized by MoEF & CC, Gol: Valid upto August, 2022

TEST REPORT

Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.		Test Report No. : BSET/2021/WS-00066	
Sample Description: Ground Water Sample		Lab Code No : 211045401	Issue Date : 19.01.2021
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology)		Your Ref : Letter Dated 07.01.2021	Date of Receipt : 07.01.2021
Packing : Plastic Bottles& Pre-Sterilized Bottle		Date of Registration	07.01.2021
Test Required : As given below		Date of commencement of testing	08.01.2021
		Date of completion of testing	18.01.2021
		Sample condition at receipt	Found ok
		Sample tested as received	
Date of Sampling: 04.01.2021 Location of Sampling: Murgabeda Village		Sampling Details Sampling Method/Procedure: IS 3025 Part 1 General Environment conditions: Ok	

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TEST RESULTS

S. No.	Test Parameter	Units	Test Method	Result	Requirement as per IS 10500:2012	
					Acceptable limits	Permissible limits in absence of alternative source
15	Boron as B	mg/l	4500-B B. Curcumin Method, APHA 23 rd Edition 2017	< 0.10	0.5	1
16	Aluminium as Al	mg/l	3500 Al B – Eroochrome Cyanine R method	< 0.02	0.03	0.2
17	Copper as Cu	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	0.05	1.5
18	Manganese as Mn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	0.1	0.3
19	Selenium as Se	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.01	No Relaxation
20	Zinc as Zn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	5	15
21	Cadmium as Cd	mg/l	3111 C of APHA 23 rd Edition 2017	< 0.003	0.003	No Relaxation
22	Lead as Pb	mg/l	3111 C of APHA 23 rd Edition 2017	< 0.01	0.01	No Relaxation
23	Mercury as Hg	mg/l	3112 B of APHA 23 rd Edition 2017	< 0.001	0.001	No Relaxation
24	Total Arsenic as As	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.01	No Relaxation
25	Total Chromium as Cr	mg/l	3111 C of AOPHA 23 rd Edition 2017	< 0.02	0.05	No Relaxation
26	Total Coliforms	CFU/100ml	IS: 1622 – 1981	Absent		

Interpretation of results: Nil, Deviation from test method: Nil

Authorized Signatory
(G.Chandra Mouli)
Environmental Scientist

... End of the Report...

Note: This report is subject to the terms and conditions mentioned overleaf.

Doc No.: BSET/Cl.7.8/Form -01	Issue No / Date : 01 / 02.01.2020	Amend. No. / Date : 00 / --	Page 2 of 8
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CIN No. : U74210TG1999PTC032358



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TEST REPORT

Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.		Test Report No. : BSET/2021/WS-00067	
Sample Description: Ground Water Sample		Lab Code No : 211045301	Issue Date : 19.01.2021
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology)		Your Ref : Letter Dated 07.01.2021	Date of Receipt : 07.01.2021
Packing : Plastic Bottles& Pre-Sterilized Bottle	Date of Registration	07.01.2021	
Test Required : As given below	Date of commencement of testing	08.01.2021	
	Date of completion of testing	18.01.2021	
	Sample condition at receipt	Found ok	
	Sample tested as received		
Date of Sampling: 04.01.2021		Sampling Method/Procedure: IS 3025 Part 1	
Location of Sampling: Daldir Village		General Environment conditions: Ok	

Page No: 1 of 2

TEST RESULTS

S. No.	Test Parameter	Units	Test Method	Result	Requirement as per IS 10500:2012	
					Acceptable limits	Permissible limits in absence of alternative source
1	Odour	--	IS:3025 -Part-5	Agreeable	Agreeable	Agreeable
2	Colour	Hazen Units	IS:3025 -Part-4	< 5	5	15
3	pH	--	IS:3025- Part-11	6.68	6.5-8.5	No Relaxation
4	Turbidity	NTU	IS:3025 -Part-10	< 1	1	5
5	Total Hardness as CaCO ₃	mg/l	IS:3025 -Part-21	124	200	600
6	Iron as Fe	mg/l	3111 B of APHA 23 rd Edition 2017	0.08	1.0	No Relaxation
7	Chlorides as Cl	mg/l	IS:3025 -Part-32	62	250	1000
8	Total Dissolved Solids @ 105°C, mg/l	mg/l	IS:3025 - Part-16	394	500	2000
9	Calcium as Ca	mg/l	IS:3025- Part-40	36	75	200
10	Magnesium as Mg	mg/l	IS:3025 -Part-46	8.3	30	100
11	Sulphate as SO ₄	mg/l	4500-SO ₄ E, Turbidity Method, APHA 23 rd Edition 2017	39	200	400
12	Nitrate as NO ₃	mg/l	4500-NO ₃ B Ultraviolet Spectrophotometric Screening Method	22	45	No Relaxation
13	Fluoride as F ⁻	mg/l	4500-F D, APHA 23 rd Edition 2017	0.54	1	1.5
14	Total Alkalinity as CaCO ₃	mg/l	IS:3025 -Part-23	158	200	600

Interpretation of results: Nil, Deviation from test method: Nil


Authorized Signatory
(G.Chandra Mouli)
Environmental Scientist

Note: This report is subject to the terms and conditions mentioned overleaf.

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TEST REPORT



Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.		Test Report No. : BSET/2021/WS-00067		
Sample Description: Ground Water Sample		Lab Code No : 211045301	Issue Date : 19.01.2021	
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology)		Your Ref : Letter Dated 07.01.2021	Date of Receipt : 07.01.2021	
Packing : Plastic Bottles& Pre-Sterilized Bottle	Date of Registration	07.01.2021	Date of commencement of testing	08.01.2021
Test Required : As given below	Date of completion of testing	18.01.2021	Sample condition at receipt	Found ok
		Sample tested as received		
Date of Sampling: 04.01.2021 Location of Sampling: Daldir Village		Sampling Details Sampling Method/Procedure: IS 3025 Part 1 General Environment conditions: Ok		

Page No: 2 of 2

TEST RESULTS

S. No.	Test Parameter	Units	Test Method	Result	Requirement as per IS 10500:2012	
					Acceptable limits	Permissible limits in absence of alternative source
15	Boron as B	mg/l	4500-B B. Curcumin Method, APHA 23 rd Edition 2017	< 0.10	0.5	1
16	Aluminium as Al	mg/l	3500 Al B – Eroochrome Cyanine R method	< 0.02	0.03	0.2
17	Copper as Cu	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	0.05	1.5
18	Manganese as Mn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	0.1	0.3
19	Selenium as Se	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.01	No Relaxation
20	Zinc as Zn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	5	15
21	Cadmium as Cd	mg/l	3111 C of APHA 23 rd Edition 2017	< 0.003	0.003	No Relaxation
22	Lead as Pb	mg/l	3111 C of APHA 23 rd Edition 2017	< 0.01	0.01	No Relaxation
23	Mercury as Hg	mg/l	3112 B of APHA 23 rd Edition 2017	< 0.001	0.001	No Relaxation
24	Total Arsenic as As	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.01	No Relaxation
25	Total Chromium as Cr	mg/l	3111 C of AOPHA 23 rd Edition 2017	< 0.02	0.05	No Relaxation
26	Total Coliforms	CFU/100ml	IS: 1622 – 1981	Absent	-	-

Interpretation of results: Nil, Deviation from test method: Nil


Authorized Signatory
(G.Chandra Mauli)
Environmental Scientist


... End of the Report...

Note: This report is subject to the terms and conditions mentioned overleaf.

Doc No.: BSET/Cl.7.8/Form -01	Issue No / Date : 01 / 02.01.2020	Amend. No. / Date : 00 / --	Page 4 of 8
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TEST REPORT

Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.		Test Report No. : BSET/2021/WS-00068	
Sample Description: Ground Water Sample		Lab Code No : 211045201	Issue Date : 19.01.2021
		Your Ref : Letter Dated 07.01.2021	Date of Receipt : 07.01.2021
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology)		Date of Registration	07.01.2021
Packing : Plastic Bottles& Pre-Sterilized Bottle		Date of commencement of testing	08.01.2021
Test Required : As given below		Date of completion of testing	18.01.2021
		Sample condition at receipt	Found ok
		Sample tested as received	
Date of Sampling: 04.01.2021 Location of Sampling: Deojhar Village		Sampling Method/Procedure: IS 3025 Part 1 General Environment conditions: Ok	
		Page No: 1 of 2	

TEST RESULTS

S. No.	Test Parameter	Units	Test Method	Result	Requirement as per IS 10500:2012	
					Acceptable limits	Permissible limits in absence of alternative source
1	Odour	--	IS:3025 -Part-5	Agreeable	Agreeable	Agreeable
2	Colour	Hazen Units	IS:3025 -Part-4	< 5	5	15
3	pH	--	IS:3025- Part-11	6.69	6.5-8.5	No Relaxation
4	Turbidity	NTU	IS:3025 -Part-10	< 1	1	5
5	Total Hardness as CaCO ₃	mg/l	IS:3025 -Part-21	118	200	600
6	Iron as Fe	mg/l	3111 B of APHA 23 rd Edition 2017	0.10	1.0	No Relaxation
7	Chlorides as Cl	mg/l	IS:3025 -Part-32	32	250	1000
8	Total Dissolved Solids @ 105°C, mg/l	mg/l	IS:3025 - Part-16	314	500	2000
9	Calcium as Ca	mg/l	IS:3025- Part-40	36	75	200
10	Magnesium as Mg	mg/l	IS:3025 -Part-46	7	30	100
11	Sulphate as SO ₄	mg/l	4500-SO ₄ E, Turbidity Method, APHA 23 rd Edition 2017	29	200	400
12	Nitrate as NO ₃	mg/l	4500-NO ₃ B Ultraviolet Spectrophotometric Screening Method	12	45	No Relaxation
13	Fluoride as F ⁻	mg/l	4500-F D, APHA 23 rd Edition 2017	0.51	1	1.5
14	Total Alkalinity as CaCO ₃	mg/l	IS:3025 -Part-23	154	200	600

Interpretation of results: Nil, Deviation from test method: Nil

Authorized Signatory
(G.Chandra Mouli)
Environmental Scientist



Note: This report is subject to the terms and conditions mentioned overleaf.

Doc No.: BSET/Cl.7.8/Form -01	Issue No / Date : 01 / 02.01.2020	Amend. No. / Date : 00 / --	Page 5 of 8
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CIN No. : U74210TG1999PTC032358



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TEST REPORT


Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.		Test Report No. : BSET/2021/WS-00068	
Sample Description: Ground Water Sample		Lab Code No : 211045201	Issue Date : 19.01.2021
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology)		Your Ref : Letter Dated 07.01.2021	Date of Receipt : 07.01.2021
Packing : Plastic Bottles& Pre-Sterilized Bottle		Date of Registration	07.01.2021
Test Required : As given below		Date of commencement of testing	08.01.2021
		Date of completion of testing	18.01.2021
		Sample condition at receipt	Found ok
		Sample tested as received	
Date of Sampling: 04.01.2021 Location of Sampling: Deojhar Village		Sampling Details Sampling Method/Procedure: IS 3025 Part 1 General Environment conditions: Ok	


Page No: 2 of 2

TEST RESULTS

S. No.	Test Parameter	Units	Test Method	Result	Requirement as per IS 10500:2012	
					Acceptable limits	Permissible limits in absence of alternative source
15	Boron as B	mg/l	4500-B B. Curcumin Method, APHA 23 rd Edition 2017	< 0.10	0.5	1
16	Aluminium as Al	mg/l	3500 Al B – Eroochrome Cyanine R method	< 0.02	0.03	0.2
17	Copper as Cu	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	0.05	1.5
18	Manganese as Mn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	0.1	0.3
19	Selenium as Se	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.01	No Relaxation
20	Zinc as Zn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	5	15
21	Cadmium as Cd	mg/l	3111 C of APHA 23 rd Edition 2017	< 0.003	0.003	No Relaxation
22	Lead as Pb	mg/l	3111 C of APHA 23 rd Edition 2017	< 0.01	0.01	No Relaxation
23	Mercury as Hg	mg/l	3112 B of APHA 23 rd Edition 2017	< 0.001	0.001	No Relaxation
24	Total Arsenic as As	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.01	No Relaxation
25	Total Chromium as Cr	mg/l	3111 C of AOPHA 23 rd Edition 2017	< 0.02	0.05	No Relaxation
26	Total Coliforms	CFU/100ml	IS: 1622 – 1981	Absent	-	-

Interpretation of results: Nil, Deviation from test method: Nil


Authorized Signatory
(G.Chandra Mouli)
Environmental Scientist



... End of the Report...

Note: This report is subject to the terms and conditions mentioned overleaf.

Doc No.: BSET/Cl.7.8/Form -01

Issue No. / Date : 01 / 02.01.2020

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TEST REPORT

Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.	Test Report No. : BSET/2021/WS-00069	
Sample Description: Ground Water Sample	Lab Code No : 211045101	
	Issue Date : 19.01.2021	
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology)	Your Ref : Letter Dated 07.01.2021	
	Date of Receipt : 07.01.2021	
Packing : Plastic Bottles& Pre-Sterilized Bottle	Date of Registration	07.01.2021
	Date of commencement of testing	08.01.2021
Test Required : As given below	Date of completion of testing	18.01.2021
	Sample condition at receipt	Found ok
Sample tested as received		
Sampling Details		
Date of Sampling: 04.01.2021	Sampling Method/Procedure: IS 3025 Part 1	
Location of Sampling: Bileipada Village	General Environment conditions: Ok	
Page No: 1 of 2		

TEST RESULTS

S. No.	Test Parameter	Units	Test Method	Result	Requirement as per IS 10500:2012	
					Acceptable limits	Permissible limits in absence of alternative source
1	Odour	--	IS:3025 -Part-5	Agreeable	Agreeable	Agreeable
2	Colour	Hazen Units	IS:3025 -Part-4	< 5	5	15
3	pH	--	IS:3025- Part-11	6.73	6.5-8.5	No Relaxation
4	Turbidity	NTU	IS:3025 -Part-10	< 1	1	5
5	Total Hardness as CaCO ₃	mg/l	IS:3025 -Part-21	182	200	600
6	Iron as Fe	mg/l	3111 B of APHA 23 rd Edition 2017	0.13	1.0	No Relaxation
7	Chlorides as Cl	mg/l	IS:3025 -Part-32	60	250	1000
8	Total Dissolved Solids @ 105°C, mg/l	mg/l	IS:3025 - Part-16	338	500	2000
9	Calcium as Ca	mg/l	IS:3025- Part-40	44	75	200
10	Magnesium as Mg	mg/l	IS:3025 -Part-46	17	30	100
11	Sulphate as SO ₄	mg/l	4500-SO ₄ E, Turbidity Method, APHA 23 rd Edition 2017	35	200	400
12	Nitrate as NO ₃	mg/l	4500-NO ₃ B Ultraviolet Spectrophotometric Screening Method	28	45	No Relaxation
13	Fluoride as F ⁻	mg/l	4500-F D, APHA 23 rd Edition 2017	0.52	1	1.5
14	Total Alkalinity as CaCO ₃	mg/l	IS:3025 -Part-23	116	200	600

Interpretation of results: Nil, Deviation from test method: Nil

Authorized Signatory
(G.Chandra Mouli)
Environmental Scientist



Note: This report is subject to the terms and conditions mentioned overleaf.

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TEST REPORT


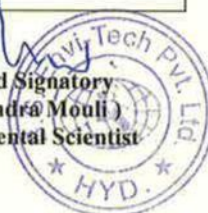
Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.		Test Report No. : BSET/2021/WS-00069	
Sample Description: Ground Water Sample		Lab Code No : 211045101	
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample (Metals) 1 No x 250 ml Sample (Microbiology)		Issue Date : 19.01.2021	
Packing : Plastic Bottles & Pre-Sterilized Bottle		Your Ref : Letter Dated 07.01.2021	
Test Required : As given below		Date of Receipt : 07.01.2021	
		Date of Registration	07.01.2021
		Date of commencement of testing	08.01.2021
		Date of completion of testing	18.01.2021
		Sample condition at receipt	Found ok
		Sample tested as received	
Date of Sampling: 04.01.2021 Location of Sampling: Bileipada Village		Sampling Details Sampling Method/Procedure: IS 3025 Part 1 General Environment conditions: Ok	

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TEST RESULTS

S. No.	Test Parameter	Units	Test Method	Result	Requirement as per IS 10500:2012	
					Acceptable limits	Permissible limits in absence of alternative source
15	Boron as B	mg/l	4500-B B. Curcumin Method, APHA 23 rd Edition 2017	< 0.10	0.5	1
16	Aluminium as Al	mg/l	3500 Al B -- Eroochrome Cyanine R method	< 0.02	0.03	0.2
17	Copper as Cu	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	0.05	1.5
18	Manganese as Mn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	0.1	0.3
19	Selenium as Se	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.01	No Relaxation
20	Zinc as Zn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	5	15
21	Cadmium as Cd	mg/l	3111 C of APHA 23 rd Edition 2017	< 0.003	0.003	No Relaxation
22	Lead as Pb	mg/l	3111 C of APHA 23 rd Edition 2017	< 0.01	0.01	No Relaxation
23	Mercury as Hg	mg/l	3112 B of APHA 23 rd Edition 2017	< 0.001	0.001	No Relaxation
24	Total Arsenic as As	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.01	No Relaxation
25	Total Chromium as Cr	mg/l	3111 C of AOPHA 23 rd Edition 2017	< 0.02	0.05	No Relaxation
26	Total Coliforms	CFU/100ml	IS: 1622 - 1981	Absent		

Interpretation of results: Nil, Deviation from test method: Nil


Authorized Signatory
(G.Chandra Mouli)
Environmental Scientist


... End of the Report ...

Note: This report is subject to the terms and conditions mentioned overleaf.

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*Complaints Register is available at Laboratory.

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CIN No. : U74210TG1999PTC032358

DEOJHAR MINES

**SURFACE WATER
QUALITY REPORT**

DECEMBER-2020



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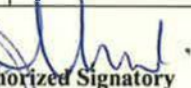
TEST REPORT


Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.	Test Report No. : BSET/2020/WS-08092 Lab Code No : 200240812 Issue Date : 23.12.2020 Your Ref : Letter Dated 14.12.2020 Date of Receipt : 14.12.2020
Sample Description: Surface Water Sample	Date of Registration : 14.12.2020 Date of commencement of testing : 14.12.2020 Date of completion of testing : 22.12.2020 Sample condition at receipt : Found ok Sample tested as received
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology) Packing : Plastic Bottles& Pre-Sterilized Bottle Test Required : As given below	
Sampling Details	
Date of Sampling: 10.12.2020 Location of Sampling: Suna river Upstream	Sampling Method/Procedure: IS 3025 Part 1 General Environment conditions: Ok
Page No: 1 of 2	

TEST RESULTS

S. No	Test Parameters	Units	Test Method	Result	General Standards for discharge of Environment pollutants G.S.R 422(E)-1993
1.	pH	---	IS:3025- Part-11	6.59	5.5 – 9.0
2.	Oil & Grease	mg/l	IS:3025- Part-39	< 1	10
3.	Total Suspended Solids	mg/l	IS:3025- Part-17	50	100
4.	Total Dissolved Solids @ 105°C, mg/l	mg/l	IS:3025 - Part-16	172	2100
5.	BOD for 3days at 27°C,	mg/l	IS:3025 - Part-44	10	30
6.	COD	mg/l	IS:3025 - Part-58	76	250
7.	Chloride as Cl,	mg/l	IS:3025 -Part-32	13	1000
8.	Phosphate as P	mg/l	4500 P, E APHA 23 rd Edition 2017	< 0.10	5.0
9.	Sulphide as S ²⁻	mg/l	4500 S ²⁻ , D APHA 23 rd Edition 2017	< 0.10	2.0
10.	Sulphates as SO ₄	mg/l	4500-SO ₄ E, Turbidity Method, 23 rd Edition 2017	9.4	1000
11.	Total Volatile Suspended Solids (MLVSS)	mg/l	IS:3025- Part-18	18	-
12.	Colour	Hazen Units	IS:3025 -Part-4	5	Not to have Colour and Unpleasant Odour
13.	Odour	---	IS:3025 -Part-5	Agreeable	
14.	Iron as Fe	mg/l	3111 B of APHA 23 rd Edition 2017	0.21	3
15.	Fluoride as F ⁻	mg/l	4500-F D, APHA 23 rd Edition 2017	0.25	2.0

Interpretation of results: Nil, Deviation from test method: Nil


Authorized Signatory
(G.Chandra Mouli)
Environmental Scientist



Note: This report is subject to the terms and conditions mentioned overleaf.

Doc No: BSET/2020/WS-08092 / R/02-13-127 / 17473 / Date: 23.12.2020 / Page No: 1 of 2

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TEST REPORT

Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.		Test Report No. : BSET/2020/WS-08092	
Sample Description: Surface Water Sample		Lab Code No : 200240812	Issue Date : 23.12.2020
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology)		Your Ref : Letter Dated 14.12.2020	Date of Receipt : 14.12.2020
Packing : Plastic Bottles& Pre-Sterilized Bottle		Date of Registration	14.12.2020
Test Required : As given below		Date of commencement of testing	14.12.2020
		Date of completion of testing	22.12.2020
		Sample condition at receipt	Found ok
		Sample tested as received	
Date of Sampling: 10.12.2020 Location of Sampling: Suna river Upstream		Sampling Details Sampling Method/Procedure: IS 3025 Part 1 General Environment conditions: Ok	

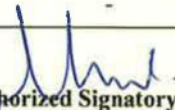
Page No: 2 of 2

TEST RESULTS

S. No.	Test Parameter	Units	Test Method	Result	General Standards for discharge of Environment pollutants G.S.R 422(E)-1993
16.	Boron as B	mg/l	4500 B, B APHA 23 rd Edition 2017	< 0.10	2.0
17.	Percent Sodium	-	BSET/SOP/W & WW-26	40.9	-
18.	Residual Sodium Carbonate	mg/l	BSET/SOP/W & WW-25	32	-
19.	Copper as Cu	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	3.0
20.	Manganese as Mn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	2.0
21.	Selenium as Se	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.05
22.	Zinc as Zn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	5.0
23.	Cadmium as Cd	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.003	2.0
24.	Lead as Pb	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.01	0.1
25.	Mercury as Hg	mg/l	3112 B of APHA 23 rd Edition 2017	< 0.001	0.01
26.	Nickel as Ni	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	3.0
27.	Total Arsenic as As	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.2
28.	Total Chromium as Cr	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	2.0
29.	Total Coliforms	CFU/100ml	APHA 23 rd Edition 2017	110	-

Interpretation of results: Nil, Deviation from test method: Nil

... End of the Report...


Authorized Signatory
(G. Chandra Mouli)
Environmental Scientist

Note: This report is subject to the terms and conditions mentioned overleaf.

Doc No: BSET/MCI/78/FORM-02-13-1270/173, Issue No / Date: 01/02/2020, Amend. No / Date: 06/01/2021, Page 2 of 02

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TEST REPORT

Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.		Test Report No. : BSET/2020/WS-08093	
Sample Description: Surface Water Sample		Lab Code No : 200240712	Issue Date : 23.12.2020
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology)		Your Ref : Letter Dated 14.12.2020	Date of Receipt : 14.12.2020
Packing : Plastic Bottles& Pre-Sterilized Bottle		Date of Registration	14.12.2020
Test Required : As given below		Date of commencement of testing	14.12.2020
		Date of completion of testing	22.12.2020
		Sample condition at receipt	Found ok
		Sample tested as received	
Date of Sampling: 10.12.2020 Location of Sampling: Suna river Downstream		Sampling Details Sampling Method/Procedure: IS 3025 Part 1 General Environment conditions: Ok	

Page No: 1 of 2

TEST RESULTS

S. No	Test Parameters	Units	Test Method	Result	General Standards for discharge of Environment pollutants G.S.R 422(E)-1993
1.	pH	---	IS:3025- Part-11	6.68	5.5 – 9.0
2.	Oil & Grease	mg/l	IS:3025- Part-39	< 1	10
3.	Total Suspended Solids	mg/l	IS:3025- Part-17	76	100
4.	Total Dissolved Solids @ 105°C, mg/l	mg/l	IS:3025 - Part-16	198	2100
5.	BOD for 3days at 27°C,	mg/l	IS:3025 - Part-44	13	30
6.	COD	mg/l	IS:3025 - Part-58	92	250
7.	Chloride as Cl,	mg/l	IS:3025 -Part-32	19	1000
8.	Phosphate as P	mg/l	4500 P, E APHA 23 rd Edition 2017	< 0.10	5.0
9.	Sulphide as S ²⁻	mg/l	4500 S ²⁻ , D APHA 23 rd Edition 2017	< 0.10	2.0
10.	Sulphates as SO ₄	mg/l	4500-SO ₄ E, Turbidity Method, 23 rd Edition 2017	12	1000
11.	Total Volatile Suspended Solids (MLVSS)	mg/l	IS:3025- Part-18	24	-
12.	Colour	Hazen Units	IS:3025 -Part-4	10	Not to have Colour and Unpleasant Odour
13.	Odour	---	IS:3025 -Part-5	Agreeable	
14.	Iron as Fe	mg/l	3111 B of APHA 23 rd Edition 2017	0.24	3
15.	Fluoride as F ⁻	mg/l	4500-F D, APHA 23 rd Edition 2017	0.29	2.0

Interpretation of results: Nil, Deviation from test method: Nil


Authorized Signatory
(G. Chandra Mouli)
Environmental Scientist

Note: This report is subject to the terms and conditions mentioned overleaf.

Doc No: BSET/2020/WS-08093 / Form - 02-13-1270/1173, Issue No / Date: 01 / 02.01.2020, Amend. No / Date: 00 / -31, Page 3 of 12

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CIN No. : U74210TG1999PTC032358



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TEST REPORT

Name & Address of the Customer : M/s D.R.Patnaik Murgabeda Iron Ore Mines.	Test Report No. : BSET/2020/WS-08093
Sample Description: Surface Water Sample	Lab Code No : 200240712
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology)	Issue Date : 23.12.2020
Packing : Plastic Bottles& Pre-Sterilized Bottle	Your Ref : Letter Dated 14.12.2020
Test Required : As given below	Date of Receipt : 14.12.2020
	Date of Registration 14.12.2020
	Date of commencement of testing 14.12.2020
	Date of completion of testing 22.12.2020
	Sample condition at receipt Found ok
	Sample tested as received
Date of Sampling: 10.12.2020 Location of Sampling: Suna river Downstream	Sampling Method/Procedure: IS 3025 Part 1 General Environment conditions: Ok

Page No: 2 of 2

TEST RESULTS

S. No.	Test Parameter	Units	Test Method	Result	General Standards for discharge of Environment pollutants G.S.R 422(E)-1993
16.	Boron as B	mg/l	4500 B, B APHA 23 rd Edition 2017	< 0.10	2.0
17.	Percent Sodium	-	BSET/SOP/W & WW-26	43.6	-
18.	Residual Sodium Carbonate	mg/l	BSET/SOP/W & WW-25	37	-
19.	Copper as Cu	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	3.0
20.	Manganese as Mn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	2.0
21.	Selenium as Se	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.05
22.	Zinc as Zn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	5.0
23.	Cadmium as Cd	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.003	2.0
24.	Lead as Pb	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.01	0.1
25.	Mercury as Hg	mg/l	3112 B of APHA 23 rd Edition 2017	< 0.001	0.01
26.	Nickel as Ni	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	3.0
27.	Total Arsenic as As	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.2
28.	Total Chromium as Cr	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	2.0
29.	Total Coliforms	CFU/100ml	APHA 23 rd Edition 2017	140	-

Interpretation of results: Nil, Deviation from test method: Nil

... End of the Report...



Authorized Signatory
(G.Chandra Mouli)
Environmental Scientist

Note: This report is subject to the terms and conditions mentioned overleaf.

Doc No: BSET/2020/WS-08093 / Issue No: 02-13-1270 / Date: 01/02/2020 / Amend No: 270 / Date: 01/02/2020 / Page No: 2 of 2

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CIN No. : U74210TG1999PTC032358



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TEST REPORT

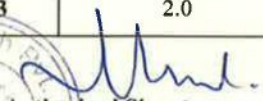
Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.	Test Report No. : BSET/2020/WS-08094 Lab Code No : 200240612 Issue Date : 23.12.2020 Your Ref : Letter Dated 14.12.2020 Date of Receipt : 14.12.2020
Sample Description: Surface Water Sample	Date of Registration : 14.12.2020 Date of commencement of testing : 14.12.2020 Date of completion of testing : 22.12.2020 Sample condition at receipt : Found ok Sample tested as received
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology) Packing : Plastic Bottles& Pre-Sterilized Bottle Test Required : As given below	
Sampling Details	
Date of Sampling: 10.12.2020 Location of Sampling: Mahadev Nala Upstream	Sampling Method/Procedure: IS 3025 Part 1 General Environment conditions: Ok

Page No: 1 of 2

TEST RESULTS

S. No	Test Parameters	Units	Test Method	Result	General Standards for discharge of Environment pollutants G.S.R 422(E)-1993
1.	pH	---	IS:3025- Part-11	6.63	5.5 – 9.0
2.	Oil & Grease	mg/l	IS:3025- Part-39	< 1	10
3.	Total Suspended Solids	mg/l	IS:3025- Part-17	54	100
4.	Total Dissolved Solids @ 105°C, mg/l	mg/l	IS:3025 - Part-16	138	2100
5.	BOD for 3days at 27°C,	mg/l	IS:3025 - Part-44	7	30
6.	COD	mg/l	IS:3025 - Part-58	40	250
7.	Chloride as Cl,	mg/l	IS:3025 -Part-32	9.5	1000
8.	Phosphate as P	mg/l	4500 P, E APHA 23 rd Edition 2017	< 0.10	5.0
9.	Sulphide as S ²⁻	mg/l	4500 S ²⁻ , D APHA 23 rd Edition 2017	< 0.10	2.0
10.	Sulphates as SO ₄	mg/l	4500-SO ₄ E, Turbidity Method, 23 rd Edition 2017	7.3	1000
11.	Total Volatile Suspended Solids (MLVSS)	mg/l	IS:3025- Part-18	14	-
12.	Colour	Hazen Units	IS:3025 -Part-4	5	Not to have Colour and Unpleasant Odour
13.	Odour	---	IS:3025 -Part-5	Agreeable	
14.	Iron as Fe	mg/l	3111 B of APHA 23 rd Edition 2017	0.16	3
15.	Fluoride as F ⁻	mg/l	4500-F D, APHA 23 rd Edition 2017	0.23	2.0

Interpretation of results: Nil, Deviation from test method: Nil


Authorized Signatory
(G.Chandra Mouli)
Environmental Scientist

Note: This report is subject to the terms and conditions mentioned overleaf.

Doc No: BSET/2020/WS-08094 / Form-01 / 12-13-127D/173 / Issue No / Date: 01 / 02.01.2020 / Amend No / Date: 00 / - / 91 / 49763063

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B.S. ENVI - TECH PVT. LTD.

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TEST REPORT

Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.		Test Report No. : BSET/2020/WS-08094	
Sample Description: Surface Water Sample		Lab Code No : 200240612	Issue Date : 23.12.2020
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology)		Your Ref : Letter Dated 14.12.2020	Date of Receipt : 14.12.2020
Packing : Plastic Bottles& Pre-Sterilized Bottle	Date of Registration	14.12.2020	
Test Required : As given below	Date of commencement of testing	14.12.2020	
	Date of completion of testing	22.12.2020	
	Sample condition at receipt	Found ok	
	Sample tested as received		
Sampling Details			
Date of Sampling: 10.12.2020		Sampling Method/Procedure: IS 3025 Part 1	
Location of Sampling: Mahadev Nala Upstream		General Environment conditions: Ok	
Page No: 2 of 2			

TEST RESULTS

S. No.	Test Parameter	Units	Test Method	Result	General Standards for discharge of Environment pollutants G.S.R 422(E)-1993
16.	Boron as B	mg/l	4500 B, B APHA 23 rd Edition 2017	< 0.10	2.0
17.	Percent Sodium	-	BSET/SOP/W &WW-26	40.2	-
18.	Residual Sodium Carbonate	mg/l	BSET/SOP/W &WW-25	32	-
19.	Copper as Cu	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	3.0
20.	Manganese as Mn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	2.0
21.	Selenium as Se	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.05
22.	Zinc as Zn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	5.0
23.	Cadmium as Cd	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.003	2.0
24.	Lead as Pb	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.01	0.1
25.	Mercury as Hg	mg/l	3112 B of APHA 23 rd Edition 2017	< 0.001	0.01
26.	Nickel as Ni	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	3.0
27.	Total Arsenic as As	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.2
28.	Total Chromium as Cr	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	2.0
29.	Total Coliforms	CFU/100ml	APHA 23 rd Edition 2017	110	-

Interpretation of results: Nil, Deviation from test method: Nil


 Authorized Signatory
 (G.Chandra Mouli)
 Environmental Scientist

... End of the Report...

Note: This report is subject to the terms and conditions mentioned overleaf.

Doc. No. : BSET/CI-78/FORM-Q1-13-127D/173, Issue No / Date : 01 / 02.01.2020, Amend. No. / Date : 00 / -01, Page 6 of 12

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TEST REPORT

Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.		Test Report No. : BSET/2020/WS-08095	
Sample Description: Surface Water Sample		Lab Code No : 200240512	
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample (Metals) 1 No x 250 ml Sample (Microbiology)		Issue Date : 23.12.2020	
Packing : Plastic Bottles & Pre-Sterilized Bottle		Your Ref : Letter Dated 14.12.2020	
Test Required : As given below		Date of Receipt : 14.12.2020	
		Date of Registration	14.12.2020
		Date of commencement of testing	14.12.2020
		Date of completion of testing	22.12.2020
		Sample condition at receipt	Found ok
		Sample tested as received	
Date of Sampling: 10.12.2020 Location of Sampling: Mahadev Nala Downstream		Sampling Details Sampling Method/Procedure: IS 3025 Part 1 General Environment conditions: Ok	

Page No: 1 of 2

TEST RESULTS

S. No	Test Parameters	Units	Test Method	Result	General Standards for discharge of Environment pollutants G.S.R 422(E)-1993
1.	pH	---	IS:3025- Part-11	6.76	5.5 - 9.0
2.	Oil & Grease	mg/l	IS:3025- Part-39	< 1	10
3.	Total Suspended Solids	mg/l	IS:3025- Part-17	72	100
4.	Total Dissolved Solids @ 105°C, mg/l	mg/l	IS:3025 - Part-16	184	2100
5.	BOD for 3days at 27°C,	mg/l	IS:3025 - Part-44	11	30
6.	COD	mg/l	IS:3025 - Part-58	68	250
7.	Chloride as Cl ₁ ,	mg/l	IS:3025 -Part-32	15	1000
8.	Phosphate as P	mg/l	4500 P, E APHA 23 rd Edition 2017	< 0.10	5.0
9.	Sulphide as S ²⁻	mg/l	4500 S ²⁻ , D APHA 23 rd Edition 2017	< 0.10	2.0
10.	Sulphates as SO ₄	mg/l	4500-SO ₄ E, Turbidity Method, 23 rd Edition 2017	11	1000
11.	Total Volatile Suspended Solids (MLVSS)	mg/l	IS:3025- Part-18	18	-
12.	Colour	Hazen Units	IS:3025 -Part-4	10	Not to have Colour and Unpleasant Odour
13.	Odour	---	IS:3025 -Part-5	Agreeable	
14.	Iron as Fe	mg/l	3111 B of APHA 23 rd Edition 2017	0.19	3
15.	Fluoride as F ⁻	mg/l	4500-F D, APHA 23 rd Edition 2017	0.25	2.0

Interpretation of results: Nil, Deviation from test method: Nil

Authorized Signatory
(G.Chandra Mouli)
Environmental Scientist

Note: This report is subject to the terms and conditions mentioned overleaf.



B.S. ENVI - TECH PVT. LTD.

Recognized by MoEF & CC, Govt: Valid upto August, 2022

TEST REPORT


Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.	Test Report No. : BSET/2020/WS-08095 Lab Code No : 200240512 Issue Date : 23.12.2020 Your Ref : Letter Dated 14.12.2020 Date of Receipt : 14.12.2020
Sample Description: Surface Water Sample	Date of Registration : 14.12.2020 Date of commencement of testing : 14.12.2020 Date of completion of testing : 22.12.2020 Sample condition at receipt : Found ok Sample tested as received
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology)	
Packing : Plastic Bottles& Pre-Sterilized Bottle	
Test Required : As given below	
Sampling Details	
Date of Sampling: 10.12.2020 Location of Sampling: Mahadev Nala Downstream	Sampling Method/Procedure: IS 3025 Part 1 General Environment conditions: Ok

Page No: 2 of 2

TEST RESULTS

S. No.	Test Parameter	Units	Test Method	Result	General Standards for discharge of Environment pollutants G.S.R 422(E)-1993
16.	Boron as B	mg/l	4500 B, B APHA 23 rd Edition 2017	< 0.10	2.0
17.	Percent Sodium	-	BSET/SOP/W & WW-26	44.6	-
18.	Residual Sodium Carbonate	mg/l	BSET/SOP/W & WW-25	37	-
19.	Copper as Cu	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	3.0
20.	Manganese as Mn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	2.0
21.	Selenium as Se	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.05
22.	Zinc as Zn	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	5.0
23.	Cadmium as Cd	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.003	2.0
24.	Lead as Pb	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.01	0.1
25.	Mercury as Hg	mg/l	3112 B of APHA 23 rd Edition 2017	< 0.001	0.01
26.	Nickel as Ni	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	3.0
27.	Total Arsenic as As	mg/l	3114 C of APHA 23 rd Edition 2017	< 0.01	0.2
28.	Total Chromium as Cr	mg/l	3111 B of APHA 23 rd Edition 2017	< 0.02	2.0
29.	Total Coliforms	CFU/100ml	APHA 23 rd Edition 2017	140	

Interpretation of results: Nil, Deviation from test method: Nil


Authorized Signatory
(G. Chandra Mouli)
Environmental Scientist

... End of the Report...

Note: This report is subject to the terms and conditions mentioned overleaf.

Doc No: BSET/CH/78/FORM-02-13-127/ISSUE 3 / Date: 01/02/2020 / Amend. No: 7 / Date: 06/01/2021 / Page 8 of 10

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DEOJHAR MINES

**ETP WATER
REPORT**

MARCH - 2021



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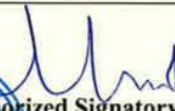
TEST REPORT

Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.		Test Report No. : BSET/2021/WW-00906	
Sample Description: Waste Water Sample		Lab Code No : 210959403	Issue Date : 30.03.2021
		Your Ref : Letter Dated 22.03.2021	Date of Receipt : 22.03.2021
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology) Packing : Plastic Bottles& Pre-Sterilized Bottle Test Required : As given below	Date of Registration		22.03.2021
	Date of commencement of testing		23.03.2021
	Date of completion of testing		29.03.2021
	Sample condition at receipt		Found ok
	Sample tested as received		
Sampling Details			
Date of Sampling: 20.03.2021		Sampling Method/Procedure: IS 3025 Part 1	
Location of Sampling: ETP Water inside ML Area		General Environment conditions: Ok	
Page No: 1 of 1			

TEST RESULTS

S. No	Test Parameters	Units	Test Method	Result	General Standards for discharge of Environment pollutants G.S.R 422(E)-1993
1	pH	---	IS:3025- Part-11	6.85	5.5 – 9.0
2	Total Suspended Solids	mg/l	IS:3025- Part-17	95	100
3	Total Dissolved Solids@105°C	mg/l	IS:3025 - Part-16	910	2100
4	Oil & Grease	mg/l	IS:3025- Part-39	4	10
5	COD	mg/l	IS:3025 - Part-58	120	250
6	BOD for 3days at 27°C,	mg/l	IS:3025 - Part-44	21	30
7	Chloride as Cl,	mg/l	IS:3025 -Part-32	85	1000
8	Iron as Fe	mg/l	3111 B of APHA 23 rd Edition 2017	0.52	3
9	Manganese as Mn	mg/l	3111 B of APHA 23 rd Edition 2017	0.27	2.0

Interpretation of results: Nil, Deviation from test method: Nil


Authorized Signatory
(G. Chandra Mouli)
Environmental Scientist

*** End of the Report ***

*Complaints Register is available at Laboratory.

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DEOJHAR MINES

STP WATER
REPORT

MARCH-2021



B.S. ENVI - TECH PVT. LTD.

Recognized by MoEF & CC, Gol: Valid upto August, 2022

TEST REPORT

Name & Address of the Customer : Deojhar Iron Ore Mines, M/s Tarini Minerals Pvt. Ltd.	Test Report No. : BSET/2021/WW-00907	
Sample Description: Waste Water Sample	Lab Code No : 210959303	
	Issue Date : 30.03.2021	
Quantity : 1 No. x 2.0 Ltrs Sample 1 No. x 500 ml Sample(Metals) 1 No x 250 ml Sample (Microbiology)	Your Ref : Letter Dated 22.03.2021	
	Date of Receipt : 22.03.2021	
Packing : Plastic Bottles& Pre-Sterilized Bottle	Date of Registration	22.03.2021
	Date of commencement of testing	23.03.2021
Test Required : As given below	Date of completion of testing	29.03.2021
	Sample condition at receipt	Found ok
Sample tested as received		
Sampling Details		
Date of Sampling: 20.03.2021	Sampling Method/Procedure: IS 3025 Part 1	
Location of Sampling: STP Water At Camp	General Environment conditions: Ok	
Page No: 1 of 1		

TEST RESULTS

S. No	Test Parameters	Units	Test Method	Result	General Standards for discharge of Environment pollutants G.S.R 422(E)-1993
1	pH	---	IS:3025- Part-11	6.75	5.5 – 9.0
2	Oil & Grease	mg/l	IS:3025- Part-39	7	10
3	Total Suspended Solids	mg/l	IS:3025- Part-17	102	100
4	Total Dissolved Solids@105°C	mg/l	IS:3025 - Part-16	1020	2100
5	COD	mg/l	IS:3025 - Part-58	112	250
6	BOD for 3days at 27°C,	mg/l	IS:3025 - Part-44	21	30
7	Iron as Fe	mg/l	3111 B of APHA 23 rd Edition 2017	1.01	3
8	Fecal Coliform	MPN/100ml	APHA 23 rd Edition	230	230

Interpretation of results: Nil, Deviation from test method: Nil

*** End of the Report ***



Authorized Signatory
(G.Chandra Mouli)
Environmental Scientist

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