

### DPCL/ENV/MOEFCC/2021-096

23.11.2021

To

The Deputy Director General of Forests (C),
Ministry of Environment, Forest and Climate Change,
Regional Office Eastern Zone (EZ),
A/3, Chandrasekharpur,
Bhubaneswar- 751023
E-mail: roez.bsr-mef@nic.in

Sub : Half yearly Compliance report of Environment & CRZ clearance for expansion of Dhamra Port at Dhamra, Bhadrak, Odisha for the period Apr'21 to Sep'21.

Ref: Environment & CR2 clearance for Revised Master Plan Development at Dhamra Port dated 15th November 2019 bearing F.No.11-104/2009-IA.III.

Dear Sir,

With reference to the above-mentioned letter for the said subject matter, please find enclosed herewith the compliance to the conditions stipulated in the letter for the period Apr'21 to Sep'21 in soft copy for your kind reference. The said period compliance report is also being e-mailed on roez.bsr-mer@nic.in.

Thanking you,

Yours Sincerely,

Krishna Kumar

Head - Environment

### Encl: As above Copy to:

- The Director (Monitoring -IA-III Division), Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 110003
- Zonal Office, Central Pollution Control Board, Southern Conclave, Block 502, 5th & 6th Floors, 1582.
   Rajdanga Main Road, Kolkata 700 107 (W. 8.)
- The Member Secretary, State Pollution Control Board, Odisha, Parivesh Bhawan, A/118, Unit 8, Nilakantha Nagar, Nayapalli, Bhubneswar-751012
- The Regional Officer, State Pollution Control Board, Odisha, Plot no. 1602, Ganeshwarpur, Januganj, Balasore – 756019
- Member Secretary OCZMA & Director , Env-cum-Spl. Secretary to Govt., Forest & Environment Dept., Govt. of Odisha, Plot No 108, Surya Nagar, Unit-VII, Bhubaneswar - 751003.

The Dhamra Port Company Ltd (A Wholly Owned Subsidiary of APSEZL) At: Dosinga, PO Dhamra Bhastals 756 171 Octaha, India LIN U452050R199EPLC005448 Tel +91 674 230 4500 Fax +91 674 230 3828 Info@edani.com www.edaniports.com

5. No.	Conditions	Compliance Status
A	Specific Conditions:	
1	Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	Construction activities are being carried out in line to the approvals accorded and in compliance to the provisions of CRZ notification 2011, as amended till date.
11.	All the recommendations and conditions specified by the Odisha State Coastal Zone Management Authority vide letter No. 163/OCZMA dated 10.05.2019 shall be complied with.	All the recommendations and conditions specified by the Odisha State Coastal Zone Management Authority vide letter No. 163/OCZMA dated 10.05.2019 are compiled.
	Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974	Complied. Consent to Establish has been obtained from State Pollution Control Board, Odisha vide letter no. 1874 IND-II-CTE-6289 dated: 17.02,2020. The copy is enclosed as Annexure-I. Consent to Operate has been obtained from State Pollution Control Board, Odisha vide letter no. 4218-IND-I-CON-6348 dated: 24.04,2020 and is valid till 31.03,2025. The copy is enclosed as Annexure-III.
12	The project proponent shall comply with the air pollution mitigation measures as submitted.	Complied.  As a part of existing operation, following air pollution control and mitigation measures are being adopted.  Use of dust suppression system in hopper, conveyor belt and transfer points.  Pre wetting of cargo before tippling in wagon tippler.  Wagon cargo loading by closed silo system  Covering of outgoing loaded rail wagon at "Wagon covering station".  Regular water sprinkling by tankers are also carried out.  Rain guns are fixed all around the stack yard for suppression of dust during stacking, reclaiming and during high wind period.  Dust suppression system at wagon tippler area Mobile dust buster is also used in stack yard and other areas for controlling the fugitive emission.  Use of dust suppression system in conveyor line  Tarpaulin covering of minerals stored in stack yard.  Use of water mist canon for suppression of fugitive dust emission.  Road cleaning by mechanized and manual means are carried out on regular basis.

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		Use of leak proof transporting vehicles for intratransportation of materials.  Limiting the vehicle speed to 20 km/hr for controlling the fugitive dust emission.  Maximum mechanized handling (Loading and unloading) of targo from ship.  Greenbelt development along the periphery of storage yard /stack yard.  Regular monitoring of Ambient Air Quality at 6 locations and DG stack monitoring at 6 locations are being carried out by NABL accredited laboratory following the prescribed guidelines. All the results were within the prescribed limit (Annexure-III).  Periodic awareness and training programmes are being conducted regularly among employees and workers.
V	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.	Complied.  Drainage pattern as approved under RMP will be maintained. As a part of existing operation drainage pattern is being maintained. Creeks are maintained for ensuring free flow of water from both putside and inside.
VI	Dredging shall not be carried out during the fish breeding season.	Noted and the same is being complied.
VII	Dredging, etc. shall be carried out in the confined manner to reduce the impacts on marine environment including turbidity and turbidly should be monitored (preferably monthly) near Kanika island during the dredging.	Being complied.  Dredging is being carried out in the areas identified and approved as a part of Revised Master plan.  As a part of existing operation, periodic marine water quality monitoring including turbidity is carried out near Kanika Island by engaging MOEF&CC approved laboratory. The details of marine water quality monitoring reports for the period from Apr'21 to Sep'21 is enclosed as Annexure III.
VIII	No underwater blasting is permitted.	No underwater blasting is carried out.
IX	Dredged material shall be disposed safely in the designated areas and also to be utilized for beach nourishment. With the enhanced quantities, the impact of dumping on the coastal environment should be studied and necessary measures shall be taken on priority basis if any adverse impact is observed.	Noted and is being compiled.  As a part of existing operation, capital and maintenance dredging has been carried out. During the period of Apr'21 to Sep'21, total maintenance dredging was 6.2 MCM. As stipulated in EIA report and discussed in the EAC, dredged materials are disposed inside sea at MOEFCC approved designated location with (-) 20 m depth. The marine water quality monitoring is being carried out by NABL & MOEFCC accredited laboratory on periodical basis. The results conclude that there is no significant impact observed on marine water quality.

5. No.	Conditions	Compliance Status
X	Shoreline should not be disturbed due to dumping. Periodical study on shoreline changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring report	Noted. Shoreline monitoring study was carried out as part of Environment Impact Assessment study fo Revised Master plan and further, the same will be carried out at regular intervals to check the impact and if required mitigation measures will be carried out.
XI	While carrying out dredging, an independent monitoring shall be carried out by Government Agency/Institute to check the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.	Noted and will be complied.
XII	The freshwater requirement of 40 MLD will be met by Desalination plant of 40 MLD which will be developed on modular basis	Noted.  Desalination plant of 40 MLD will be developed when required. Existing operational requirement are being fulfilled through Mantal river. Permission for drawal of 2.05 cused is obtained from Water Resource Department.
xm	The domestic and industrial wastewater will be treated in STP and ETP and treated water will be reused / recycled for horticulture and other purposes	Noted.  As a part of existing operation, four STP of capacity 150 KLD, 140 KLD, 25 KLD and 15 KLD are functioning for treatment of sewage from Port and township area. 3 nos. of Settling ponds have been constructed for treatment of runoff water. The treated water is being used for dust suppression of internal roads. Periodic testing of water quality is being done by MOEFCC approved laboratory and the results are being submitted to SPCB/MOEFCC. All results are well within the prescribed standards. The treated water is being used for horticulture purpose.  The monitoring reports is enclosed as Annexure-III.
XIV	Marine ecological studies and its mitigation measures for protection of phytoplankton, zooplanktons, benthic macrofauna, etc. prepared by Centre of Envotech and Management Consultancy Private Limited (CEMC) as given in the EIA-EMP Report shall be complied with in letter and spirit.	Is being complied.  As part of existing operations, Periodic monitoring program covering all seasons on various aspects of the coastal environs is being carried out by NABL & MoEF&CC accredited laboratory. The monitoring results for the period Apr'21 to Sep'21 is enclosed as Annexure - III.
×v.	A copy of the Marine and riparian biodiversity management plan duly validated by the State Biodiversity Board shall be obtained and implement in letter and spirit	Noted.  As a part of EIA for RMP Dhamra, detailed Biodiversity Impact study and Management plan has been prepared and developed by M/s Berhampur University. Same shall be updated for submission to the State Biodiversity Board for validation.
(CV)	A periodic monitoring programme covering all the seasons on various aspects of the coastal environs need to be undertaken by NABL accredited	Complied.  As a part of existing operations, periodic monitoring program covering all seasons on various

5. No.	Conditions	Compliance Status
	laboratories during construction and operation phase of the project. The monitoring should cover various physico-chemical parameters coupled with biological indices such as microbes, plankton, benthos and fishes. Deviations in the parameters shall be addressed with suitable measures to conserve the marine environment and its resources.	aspects of the coastal environs is carried out by NABL & MoEF&CC accredited laboratory. The monitoring results for the period Apr'21 to Sep'21 is enclosed as Annexure - (ii).
XVII	Continuous online monitoring of air and water quality covering the project area shall be carried out and the compliance report shall be submitted to the regional office of MoEF&CC.	Noted.  As a part of existing operations, periodic monitoring of air and water quality is carried out through MoEF&CC and NABL approved laboratory.
*VIII	Effective and efficient pollution control measures like covered conveyors/stacks (coal, iron ore and other bulk cargo) with fogging/back filters and water sprinkling commencing from ship unloading to stacking to evacuation shall be undertaken. Coal and Iron ore stack yards shall be bounded by thick two tier green belt with proper drains and wind barriers wherever necessary. Coal should be handled properly at port limits so that the coal dust will not reach the surrounding areas. Sprinklers shall be used at coal storage regularly and to monitor the coal dust in the air.	Noted.  As a part of existing operation, following pollution control measures are being implemented at site  Transportation of Coal/Iron ore is done in covered conveyor belt system.  Water sprinkling is being carried out on road on regular basis  Dust suppression system has been installed in dust prone area to mitigate the fugitive emission.  Dust buster & rain gun system has been deployed in stack yard to mitigate the fugitive emission from the stack yards.  Wagon covering system is being used for covering of all loaded wagons going out of Port premises.  Rain guns and dust buster are being used to sprinkle water on the coal storage regularly to suppress the coal fugitive dust.
XIX	Sediment concentration should be monitored fortnightly at source and disposal location of dredging while dredging. Online monitoring system should be installed for assessing turbidly during dredging.	Is being Compiled.  As a part of existing operation fortnightly monitoring of sediment quality is done through MOEF&CC and NARL approved laboratory.  However, the possibility of installing Online Turbidity Monitoring will be explored.
xx	Marine ecology shall be monitored regularly in terms of water quality (Salinity, temperature, DO, BOD, PHc, nutrients), sediment quality (Metals, PHc, Organic carbon etc) and biological characteristics (phytoplankton, zooplankton, benthic macrofauna and other marine biodiversity components) as part of the environment management plan specified in the report. Any deviations from the baseline should be reported to the OCZMA/OSPCB	Being complied.  As a part of existing operation periodic monitoring program covering all seasons on various aspects of the marine ecology monitoring is carried out by NABL & MoEF&CC accredited laboratory. The monitoring results for the period Apr'21 to Sep'21 is enclosed as Annexure - III.
XXI	Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life, particularly benthos. This	Noted. Utmost care is being taken to avoid spillage of fuel/engine oil and lubricants from the construction

5. No.	Conditions	Compliance Status
	shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.	site. In case of any accidental spillage, saw dust or sand is being used along with absorbent to arrest the spillage. Used oil/waste oll/waste containing oils are handed over to SPCB approved authorized recyclers.
XXII	Necessary arrangements for the treatment of the effluents and solid wastes/ facilitation of reception facilities under MARPOL must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986. The provisions of Solid Waste Management Rules, 2016. E-Waste Management Rules, 2016, and Plastic Waste Management Rules, 2016 shall be complied with.	As a part of existing operation, four STP of capacity 150 KLD, 140 KLD, 25 KLD and 15 KLD are functioning for treatment of sewage from Port and township area.  Waste management are being done as per the prescribed guideline. Color coded waste bins have been provided for collection and segregation of different types of waste. Generated wastes are being handled as per the 5R concept of waste management and as per the vision of APSEZ to become "A Zero Waste to landfill Company".  Waste reception facility is provided for visiting vessel. Reception facilities as per DG Shipping guidelines have been provided for visiting vessels to dispose ship generated waste. The collected wastes are being handled and disposed as per the prescribed guideline.  Plastic wastes are sent to the Cement Plant for energy recovery through co-processing. Management of plastic waste are being done as per the Plastic Waste Management Rules, 2016.  The E-Waste are sent to an authorized recycler for proper disposal as per the E-Waste Management Rules, 2016.
XXIII	Compliance to Energy Conservation Building (ECBC-2017) shall be ensured for all the building complexes. Solar/wind or other renewable energy shall be installed to meet energy demand of 1% equivalent	Noted & is being complied.  The following initiatives are being taken for conservation of electrical energy:  1. Use of LED lights in place of conventional lighting system in our Port and Township common areas.  2. Use of automatic on/off timers switch in street lightings  3. Use of solar light fitted with LED bulbs  4. Use of translucent sheets in bigger shed for natural lightings during day hours  5. Use of bigger sized glass windows in offices and MCC building for natural lights in day hours.  6. Use of central ACs system instead of individual ACs in bigger offices and buildings.  7. Use of VFD (variable frequency drive) in operational area for power savings.  8. Installation of roof top solar power plant is under progress.

5. No.	Conditions	Compliance Status
		<ol> <li>We are also purchasing renewable energy from open market.</li> </ol>
XXIV	All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.	Noted & will be complied.  At present no hazardous or petroleum products are being handled at shore and details RA recommendation will be complied as and when applicable. However, as a part of present operation following measures are being adopted.  Disaster Management Plan has been prepared and approved by District Administration. Periodic mock drills are being carried out. Prescribed Safety guidelines are followed at workplaces. Dedicated team lead by dedicated site safety team along with team of the Corporate are ensuring best safety practices at Port premises.
XXV	Measures should be taken to contain, control and recover the accidental spills of fuel and cargo. Tier 1 should be made available with the port for attending the large oil spills. The company should inform the coast guard for availing tier 2 facility.	Necessary action has been taken to contain, control and recover the accidental spills of fuel and cargo. Oil spill contingency plan has been prepared for Dhamra Port and submitted to District Administration and Coast guard. Any accidental discharge of oil / lubricants will be handled as per the plan. Port is equipped with oil spill contingency facility and required dispersant chemicals. Twelve persons have been undergone IMO Tire 1 training and four persons have undergone IMO Tire 2 training at Port. Last drill was conducted on 27.07,2021.
XVI	Necessary arrangement for general safety and occupational health of people should be done in letter and spirit.	Complied.  We have a strict safety regimen with the motto "Safety First".  Safety observations are mandatory from every department of the Port and immediate measures are undertaken to rectify the shortcoming.  OHSAS Guidelines and MSIHC Guidelines are followed for handling of Hazardous materials. First aid center facilities have been provided for employees and workers. Inline to this a wellness center is also operated outside the port premises for providing medical facilities for villagers. Vaccination programme is being carried out regularly for our waste management teams. Our Port is ISO 45001-2018 certified Port.
	All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to the RO, MoEE&CC along with half yearly compliance report.	Noted. Environment Management Plan is enclosed as Annexure-IV. Expenses towards Environment management for the period of Apr'21 to Sep'21 is enclosed as Annexure - V.

S. No.	Conditions	Compliance Status
XVIII	The effluent generated by desalination plant and FSRU should be released at designated sites as	Noted  At present, no FSRU & desalination plant has been
	suggested in the EIA report.	developed.
XIX	The company shall draw up and implement Corporate Social Responsibility plan as per the Company's Act of 2013.	Noted The details work carried out under Corporate Social Responsibility plan for the period of Apr-2021 to Sep-2021 and the details expenses breakup totaling to Rs. 2-58 Cr. is enclosed as Annexure-VI.
XXX	As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 1st May 2018, project proponent has proposed an amount of Rs. 21.4998 Crores (0.125% of the project cost) under Corporate Environment Responsibility (CER) Plan for the activities such as Biodiversity Conservation, Turtle and Marine life Research Centre, Water Conservation and Water Recharge, Fishermen Alternate Livelihood Development, Agriculture and Horticulture Promotion, Community Infrastructure and Women Empowerment Promote Entrepreneurship. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector, it should be posted on the website of the project proponent.	Noted.  Annual CER plan will be prepared inline to actual budget planned for the financial year and the same will be implemented. The status will be periodically submitted to the regulatory authorities as a part of Half yearly compliance report.
3. Sta	andard Conditions:	
. Sta	stutory compliance:	
t	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule I species in the study area).	Noted. Preparation of a site-specific Conservation Plan & Wildlife Management plan is in process. The delay is due to Covid-19 pandemic. However, DPCL has taken all-out effort for conservation of Wildlife in consultation with Forest department, particularly for the migration and nesting of Olive Ridley marine turtle.
11	Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	Construction activities are being carried out in line to the approvals accorded and in compliance to the provisions of CRZ notification 2011, as amended till date.
	The project proponent shall obtain the necessary permission from the Central Ground Water	Noted.

5. No	Conditions	Compliance Status
	Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.	We have received permission for 6 nos. of bore wells from CGWA for drawl of ground water.
JA.	All excavation related dewatering shall be as duly authorized by the CGWA. A NOC from the CGWA shall be obtained for all dewatering and ground water abstraction	Noted.
V	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.	Noted 20,000 KVA power is being sourced from NESCO Odisha. The agreement copy was submitted along with last half yearly compliance report vide our letter no. DPCL/ENV/MOEFCC/2020-113 dated 23.11.2020.
W	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.  II. Air quality monitoring and preservation:	Noted, License for storage of diesel from Chief Controller of Explosives and NOC from fire department were submitted along with last half yearly compliance report vide our letter no. DPCL/ENV/MOEFCC/2020-113 dated 23.11.2020.
	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM <sub>10</sub> and PM <sub>1,2</sub> in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the project area at least at four locations (one within and three outside the plant area at an angle of 120'each), covering upwind and downwind directions.	Noted.  Ambient Air Quality Monitoring (twice a week) is carried out by NABL & MoEF&CC accredited agency, All emissions are well within the prescribed standards.  Air monitoring is being carried out at 6 locations (3 inside & 3 outside). The locations are selected as per the EIA and at an angle of 120 each covering both upwind & down wind.  Air monitoring location map was submitted along with half yearly compliance report vide our letter no. DPCL/ENV/MOEFCC/2020-113 dated 23.11.2020.
W .	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards	Noted, As a part of existing operation, transportation of Coal/Iron ore is done in covered conveyor belt system. Water Sprinkling is carried out on road on regular basis through water tanker. Dust suppression system has been installed in dust prone areas to mitigate the fugitive emission. Dust buster & rain gun system has been depleyed in stack yard to mitigate the fugitive emission from the stack yards.
	Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations,	As a part of existing operation, following pollution control measures are being implemented at site  Road cleaning by mechanized and manual means are carried out on regular basis.  Regular water sprinkling by tankers are also carried out.

5. No.	Conditions	Compliance Status
	preventing waste dispersion, improving working conditions through provision of shade for the workers.	The second secon
10	Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion.	Noted No such activity has been carried out during Apr'21 to Sep'21.
٧	The vessels shall comply the emission norms prescribed from time to time.	MARPOL and Ballast Water Convention guidelines are enforced by DPCL for visiting ships.
VI -	Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel, The location of the DG sets may be decided with in consultation with State Pollution Control Board.	Noted As a part of existing operation 6 nos. of standby DG Sets of capacity ranging from 160 KVA to 200 KVA are in position for emergency backups & uninterrupted power supply to the water supply system and firefighting system
	A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./competent authority for road augmentation and	Noted.  DPCL has an exclusive rail connectivity for the project and has proposal for future expansion of rail-road connectivity.  Besides, DPCL has participated with PWD for maintenance and improvement of the main service road to Dhamra and has shared the cost of development.  As a part of RMP EIA studies, Traffic study was conducted for assessment & evaluation of feasibility of Four Lane Road (which is already approved as a part of Phase –II clearance) with future provision of Two lane, to be developed as a

S. No.	Conditions	Compliance Status
	shall also have their consent to the implementation of components of the plan which involve the participation of these departments.	part of Revised Master Plan to connect Bhadrah & Dhamra Port. Based on this –  1. Both normal traffic + generated traffic (due to proposed expansion) considered for the study.  2. Four lane (which is already approved as a part of Phase –II clearance) with future provision of 2 lane road, to be developed as a part of Revised Master Plan is proposed, which shall be sufficient to meet the Port Requirement as per the IRC guidelines.  Existing approach road from Jamujhadi to Dhamra will be utilized during construction phase (apart from proposed NW-5) which is being widened by GoD which will improve the traffic conditions. Proposed road link will induce local traffic movement on either side and boost the travel characteristics of the people residing in nearby villages. In addition, for easy evacuation of cargo, a new Rail/Road/Utility Corridor (12 km x 125 m wide) is also proposed from Northern side of Dhamra Port.
	III. Water quality monitoring and preservation	
1	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.	Drainage pattern of the area is maintained. Creeks are periodically cleaned to ensure free flow of water from both outside and inside. Further inline to Revised Master Plan proper drainage facility will be developed as per the drainage plan.
11-	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.	Noted.  DPCL ensuring dredging through TSHD and further regular marine monitoring is carried out to check the level of turbidity.  Silt curtain shall be used, when working near sensitive areas.
111.	No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary/ channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site.	Complied.  Vessels are not allowed to discharge the onboard wastewater in estuary/channel. The vessels have their own STP where sewage water is being treated. However, DPCL will explore the possibility of treating wastewater generated from ships.
IV.	Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.	Noted. Oil spill control equipment such as booms / barriers are in readiness for oil containment and skimmers for recovery. Depending upon the type of oil spill, containment measures will be carried out in cooperation of the Coast-Guard. Twelve persons have been undergone IMO Tire 1 training and four persons have undergone IMO Tire 2 training at Port. Oil Spill drills are conducted on a regular basis and the last drill was conducted on

S. No.	Conditions	Compliance Status
		27.07.2021
V	The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.	Noted. As of existing operation facility, there is no intoke or discharge.
VI	Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.	Utmost care is being taken to avoid spillage of fuel/engine oil and lubricants from the construction site. In case of any accidental spillage, saw dust of sand is being used along with absorbent to arrest the spillage. Used oil/waste oil/waste containing oils are handed over to SPCB approved authorized recyclers.  Marine water quality & productivity is monitored by MoEF&CC accredited laboratory. There is no adverse impact on water quality and marine productivity in the vicinity.
VII	Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.	Noted.  As a part of existing operation, required fresh water is sourced with the permission from Water Resource department, Government of Odisha.
VIII	Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.	Noted.  As a part of existing operation, four numbers of STP of capacity 140 KLD, 150 KLD, 25 KLD and 15 KLD are used for treatment of sewage from Port and township area. Periodic testing of water quality is being done by MOEFCC approved laboratory and the results are being submitted to SPCB/MOEFCC. All results are well within the prescribed standards. The treated water is being used for horticulture purpose.
IX	A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.	205,62.572 KL of wastewater generated during Apr-21 to Sep-21 and has been treated in STP /ETP before reusing for Horticulture/dust suppression purpose.
X	No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.	No such diversion is required / proposed for the project.
	All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.	Noted and will be complied.
- 1	V. Noise monitoring and prevention	
	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report	Noted.  As a part of existing operation Noise monitoring is carried out on monthly basis by engaging accredited NABL & MOEFCC laboratory. The Monitoring results are also submitted to the

S. No.	Conditions	Compliance Status
		regional office on regular basis. The copy is enclosed as Annexure - III.
	Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipment.	Noted As a part of existing operations,  Noise attenuation is being practiced for noisy equipment by employing suitable techniques such as acoustic controls, insulation, and vibration dampers  Personnel exposed to noise levels beyond threshold limits have been provided with protective gear like earplugs, earmuffs, etc.  DPCL have a strict maintenance regimen for all plant machinery and equipment which is reviewed by the management every day.  Noise Monitoring is being carried out by a NABL & MOEFCC accredited laboratory.
111	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.	Noted.  DG set used in existing operation is equipped with acoustic enclosure and noise barrier.
TV .	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.	Noted.  As part of Existing operation, noise monitoring is carried out at 6 (six) locations, on monthly basis by engaging NABL & MOEFCC accredited laboratory. All results are within the prescribed limits. The result is enclosed as Annexure – III.
1	V. Energy Conservation measures	
10	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.	Noted.  DPCL had already installed solar lights along the roads and common areas. Solar power generation activity will be continued in other areas.  Installation of roof top Solar Panel is under progress.
	Provide LED lights in their offices and residential areas.	Noted.  LED lights are fitted in township and Port common area. Lighting of many operational areas are also replaced with LED lights wherever possible. DPCL will further explore the possibility of using more LED light in their offices and residential area.
1	/I. Waste management	
	Dredged material shall be disposed safely in the designated areas.	Complied.  As a part of existing operation, maintenance dredging has been carried out during the period of Apr'21 to Sep'21. As stipulated in EIA report and discussed in the EAC, dredged materials are disposed inside sea at MOEFCC approved designated location. The marine water quality monitoring is being carried out by NABL & MOEFCC accredited laboratory on periodical basis. The

5. No.	Conditions	Compliance Status
		results conclude that there is no significant impact observed on marine water quality.
U	Shoreline should not be disturbed due to dumping. Periodical study on shoreline changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring report	Noted and will be complied.
	Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986	As a part of existing operation 3 nos, of settling pond has also been constructed with addition of chemical dosing for treatment of wastewater generated from the port.  Hazardous waste is being handled as per the Hazardous waste Management Rule. We have color coded waste bins for segregating different category of solid waste. Waste generated is being handled in line to 5R concept of waste management, as per the vision of APSEZ to become "A Zero Waste to landfill Company".
ΙÝ	The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016	Noted  DPCL has developed a vision for making itself - "A Zero Waste to Landfill Port" by adoption of 58 principle of waste management i.e., Reduce, Reuse, Reprocess, Recycle & Recover.  During the period Apr'21 to Sep'21, a total quantity of 115.006 MT of solid waste has been handled in line to 58 concept.  Color coded bins have been provided for segregation of different category of solid waste. Biodegradable wastes are used for compost preparation. Recyclable wastes are handed over to authorized recyclers.
٧	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.	Construction and demolition activities related waste are handled as per Construction and Demolition Waste Management Rules, 2016 and used for filling low lying area within our port premises.
VI	A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project	Noted.  DPCL has undertaken the management of solid waste with a vision for achieving — "A Zero Waste to landfill Port" by adopting 'Sfi principle of waste management i.e., Reduce, Reuse, Reprocess, Recycle & Recover'.  During the period Apr'21 to Sep'21, a total quantity of 115.006 MT of solid waste has been handled in line to 5R concept.  We have color coded bins for segregating different category of solid waste, Biodegradable wastes are

5. No.	Conditions	Compliance Status			
		used for compost preparation. Recyclable wastes are handed over to authorized recyclers.			
VII	Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination				
VIII	Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminals oil contingency plan with the overall area contingency plan under the co-ordination of Coast should be covered.	d Oil spill contingency plan has been prepared for Dhamra. Port and submitted to District Administration and Coast guard. List of equipment is enclosed as Annexure-VII. Any accident discharge of oil / lubricants will be handled as property the plan. Port is equipped with oil spill contingent.			
	VII. Green Belt:				
1	Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.	Around 58700 nos. of native trees have been planted in degraded village forest land during Apr'21 to Sep'21.  Earlier plantation has been done along both edges of the 62.5 km rall corridor, in adjacent villages and inside the port premises. Photographs are enclosed as Annexure-VIII.  As a part of existing operation, a large nursery of multi species has been established for greenbelt development. The nursery constructed in an area of 1.5 acres with modern poly house & green house for effective plant production. More than 70 thousand saplings were developed from the nursery during last year having local plant species, forest species, seasonal plants, ornamental shrubs, Indoor plants, medicinal plants, etc. Forest species and local species like Casuriana, Terminalla, Bahunia, Pongamia, Tecoma, Peltophoroum, Delonis, Neem, Calliandra, Bakul, Plumeria, Conocarpous etc are produced.			
11	Top soil shall be separately stored and used in the development of green belt	Complied.			
- 1	/III. Marine Ecology:				
1	Dredging shall not be carried out during the fish breeding and spawning seasons.	Noted and is being complied.			
11	Dredging, etc. shall be carried out in the confined manner to reduce the impacts on marine environment	Noted Dredging is being carried out in the areas identified and approved as a part of Revised Master plan.			

5. No.	Conditions	Compliance Status
		As a part of existing operation, Periodic marine water quality monitoring including turbidity is carried out near Kanika island by engaging MOEFCC approved laboratory. The details of Marine Water quality monitoring reports for the period Apr'21 to Sep'21 is enclosed as Annexure III.
- 111	The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.	Noted & is being complied.
IV	While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/Institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.	Noted and will be complied.  Dredging is being carried but in the areas identified and approved as a part of Revised Master plan.
V	A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, mollusts, sea grasses, sea weeds, sub-tidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turties, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods and include underwater photography	Noted & will be complied: As a part of EIA for RMP Dhamra, detailed Biodiversity Impact study and Management plan has been prepared and developed by M/s Berhampur University. Same shall be updated for submission to the State Biodiversity Board / CRZ authority for validation.
VI	Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves, and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine biodiversity	As a part of existing operation periodic monitoring program covering all seasons on various aspects of the marine ecology monitoring is being carried out by NABL & MoEF&CC accredited laboratory.
	X. Public hearing and Human health Issues:	
	The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs	Noted & Complied.  As a part of existing operation periodic VOCs monitoring is being carried out by NABL & MoEF&CC accredited laboratory. Report is enclosed as Annexure - III.
	Workers shall be strictly enforced to wear personal protective equipments like dust mask, ear muffs or ear plugs, whenever and wherever necessary/ required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.	Complied  Workers are strictly enforced to wear PPE equipment's like dust mask, ear-muffs, ear plugs whenever & wherever required as per the DPCL PPE policy.

S. No.	Conditions	Compliance Status
		As a part of existing operation periodic Work Zone noise monitoring is being carried out by NABL 8 MoEF&CC accredited laboratory. Report is enclosed as Annexure - III.
311.	In case of repair of any old vessels, excessive care shall be taken while handling Asbestos & Freon gas. Besides, fully enclosed covering should be provided for the temporary storage of asbestos materials at site before disposal to CTSDF.	Not Applicable.
IV	Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/ accidents.	Complied.  The employees, workers of DPCL have been trained on safety guidelines. Regular Fire training, Mock Drills are conducted as per the Crisis Management Plan. The details of drills, Safety training, Fire training conducted towards dock safety for the period Apr'21 to Sep'21 is enclosed as Annexure IX.
V	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented	Complied. As a part of existing operation, DPCL have Disaster Management Plan and Emergency Response Plan, that are implemented as and when required. Copy was submitted along with last half yearly compliance report vide our letter no. DPCL/ENV/MOEFCC/2020-50 dated 23.05.2020.
VI	Provision shall be made for the housing of construction labour 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.	Noted.  Maximum construction labor engaged at construction site are from nearby village areas and are staying at their own house. Construction labors coming from outside area are residing in our workers colony specially built for non-local labors. All basic facilities such as clean water, electricity, toilet, bathroom, health care, STP, safe drinking water etc. are provided in this colony.  Photographs attached as Annexure X.
VII	Occupational health surveillance of the workers shall be done on a regular basis	Complied Occupational Health Surveillance of the workers is being carried out on half yearly basis at the time of gate pass renewal.
,	K. Corporate Environment Responsibility:	
1	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions	Noted. Copy of APSEZ Environment policy was submitted along with half yearly compliance report vide our letter no. DPCL/ENV/MOEFCC/2020-113 dated 23.11.2020.

Revised Master Plan - Half yearly Compliance report of the conditions stipulated in Environmental and CRZ Clearance of Revised Master Plan Development of Dhamra Port project vide letter dated 15th November 2019 Ref. No. F.No.11-104/2009-1A-III. 5. No. Conditions Compliance Status and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six monthly report. ш A separate Environmental Cell both at the project well-structured Environmental and company head quarter level, with qualified Management Cell, staffed with qualified manpower personnel shall be set up under the control of senior at site supported by team at Head Office in Executive, who will directly report to the head of the Ahmedabad. organization. 111 Action plan for implementing Noted & will be complied. environmental conditions along with responsibility As a part of existing operation EMP has been matrix of the company shall be prepared and shall prepared. Environment Management Plan is be duly approved by competent authority. The year enclosed as Annexure IV. wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report. Self-environmental audit shall be conducted (V annually. Every three years third Internal and external IMS audit (Integrated environmental audit shall be carried out. Management System) is being carried out by internal auditor (half yearly) / external agency (annually) as per ISO 14001:2015 (Environment Management System). Same will be continued for Revised Master Plan development of the Port. KI. Miscellaneous: The project proponent shall make public the Complied environmental clearance granted for their project The Paper clippings of the Advertisement was vide along with the environmental conditions and our letter no submitted safeguards at their cost by prominently advertising DPCL/ENV/OSPCB/2020-20 dated 01.02.2020. it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently. The copies of the environmental clearance shall be Complied. submitted by the project proponents to the Heads The receipt of the said letters was already of local bodies, Panchavats and Municipal Bodies in submitted vide: our addition to the relevant offices of the Government DPCL/ENV/OSPCB/2020-20 dated 01.02.2020. who in turn has to display the same for 30 days from the date of receipt. The project proponent shall upload the status of Complied. compliance of the stipulated environment Status of Compliance of the stipulated environment clearance conditions, including results of monitored clearance conditions for Revised Master Plan. data on their website and update the same on halfincluding results of monitory data will be updated yearly basis. on half yearly basis.

Complied.

The project proponent shall submit six-monthly

reports on the status of the compliance of the

S. No.	Conditions	Compliance Status
	stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	Last Half Yearly compliance report was submitted vide letter no. DPCL/ENV/MOEFCC/2021-036 dated 27.05.2021.
V	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company	Compiled  Environmental Statement for FY 2020-21 was submitted to SPCB Odisha vide our letter no DPCL/ENV/OSPCB/2021-075 dated 14.09.2021 Copy is attached as Annexure-XI.
VI	The criteria pollutant levels namely; PM <sub>2.6</sub> , PM <sub>10</sub> , SO <sub>2</sub> , NOx (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Complied  As a part of Existing operation Ambient Level is being monitored with a frequency (weekly twice) by a NABL & MOEFCC accredited laboratory. The Monitoring data is being displayed at DPCL main gate for public view.
VII	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project	Noted,
VIII	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Complied.  Consent to Establish obtained from State Pollution Control Board, Odisha vide letter no. 1874 IND-II-CTE-6289 dated: 17,02,2020. The copy is enclosed as Annexure – I.  Consent to operate for Phase-I & Phase-II has been renewed from State Pollution Control Board vide letter no.4218-IND-I-CON-6348 dated 24,04,2020 valid till 31.03,2025. The copy is enclosed as Annexure-II.
IX	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee	Noted. Environment Management Plan is enclosed as Annexure IV. Commitments made during Public hearing are being complied.
×	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Noted Port layout is enclosed as Annexure-XII.
XI	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Nated
	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory	Noted

5. No.	Conditions	Compliance Status
XIII	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted
XIV	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Noted and is complied with full cooperation during the inspection.
XV	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.	Noted
ΧVI	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted

# List of Annexures

SI.No	Annexure Number	Details	
01	Annexure-I	Consent to Establish	
02	Annexure-II	Consent to Operate	
03	Annexure-III	Environment Monitoring Report	
04	Annexure-IV	Environment Management Plan	
05	Annexure-V	Environment Management Expenses	
06	Annexure-VI	CSR Plan & Expenditure details	_
07	Annexure-VII	List of Oil Spill Control Equipment	
08	Annexure-VIII	Greenbelt Photograph	
09	Annexure-IX	Fire Training and Mock drill	
10	Annexure-X	Labor colony photograph	
11	Annexure-XI	Environment Statement	
12	Annexure-XII	Port Layout Map	





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### STATE POLLUTION CONTROL BOARD, ODISHA

Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar - 751 012

Ely Speed Post / Through Online

No. 1874 /

IND-II-CTE- 6289

Date 17 02-2020 /

### CONSENT TO ESTABLISH ORDER

In consideration of the online application no. 2231670 for obtaining Consent to Establish of M/s Dhamra Port Company Ltd. the State Pollution Control Board is pleased to convey its Consent to Establish Under Section 25 of Water (Prevention & Control of Pollution) Act, 1974 and Under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 for Revised Master Plan Development (5 years) of Dhamra Port for enhancement of Cargo Handling capacity of the port (bulk cargo, LNG / POL / Crude oil / Container / Multipurpose Cargo, Liquid / Cryogenic / Gas Cargo, Barges along with port backup facility / Infrastructure / Port Construction Equipment Facility) from 96.3 MMTPA & 1 Million TEU containers to 169.5 MMTPA along with installation of DG set of capacity 1x12000 KVA with additional cost of < 17,518 Crore over a total area of 2013.4 Ha, At/Po - Dosinga, Via- Dhamra (plot nos. & khata nos. as mentioned in application form) in the district of Bhadrak with the following conditions.

### GENERAL CONDITIONS

- 1. This Consent to Establish is valid for the Port activity as mentioned in the application form. This order is valid for five years. The proponent shall commence construction of the project within a period of five years from the date of issue of this order. If the proponent fails to do substantial physical progress of the project within five years then a renewal of this Consent to Establish shall be sought by the proponent.
- 2. The industry shall comply to the provisions of Environment Protection Act, 1986 and the rules made there under with their amendments from time to time such as the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 as amended from time to time, Hazardous Chemical Rules, / Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 etc. and amendments there under. The industry shall also comply to the provisions of Public Liability Insurance Act, 1991, if applicable.
- The Industry is to apply for grant of Consent to Operate under Section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 at least 3 (three) months before the commercial production and obtain Consent to Operate from this Board.
- This Consent to Establish is subject to statutory and other clearances from Govt. of Odisha and/or Govt. of India, as and when applicable.

### SPECIAL CONDITIONS:

### GENERAL:

 The proponent shall obtain CRZ and Environmental Clearance from MoEF&CC, Govt of India for Revised Master Plan Development (5 years) for enhancement of



cargo handling capacity from 96,3 MMTPA & 1 Million TEU containers to 189.5 MMTPA.

- The proponent shall obtain forest clearance if forest land is involved in the project area.
- 3. This Consent to Establish is granted for the capacity as mentioned above and any expansion in the capacity, change or modification in the process, addition, alternation any nature has to be undertaken with prior approval of the Board. For any change in the site or area, fresh Consent to Establish has to be obtained from the Board. The proponent shall carry out construction activity as per approved revised lay out map (enclosed). If the proponent wants to change the approved plant layout map, they can submit a modified plant layout map with adequate justification for such modification.
- The proponent shall implement the pollution control measures and safeguards as proposed in the Environment Management Plan (EMP).
- The proponent shall obtain permission from concerned authorities for drawal of surface water.
- The construction and demolition wastes to be generated from the proposed project shall be disposed of in accordance with the provision under "Construction & Demolition Wastes Management Rules 2016".
- The proponent shall comply to the provisions of E-Waste (Management) Rules, 2016 and shall handover e-waste to authorized collection centers/ register dismantlers/ recyclers for proper disposal of e-waste.
- All the plastic waste generated from industry during construction and commissioning shall be collected and sent for co-processed in a cement kiln.
- Sector wise follow up of some 'DO & DONTS' by the ground workers shall be made mandatory for better maintenance of material and machines to ensure prevention of hazards / accidents to some extent.
- 10. Temporary colonies of work force shall be established sufficiently away from the High Tide Line and proper sanitation including toilets and bathrooms shall be provided to the inhabitants to prevent abuse of the inter tidal area. Sewage and other wastes generated in these settlements shall not be released to the creek. Work force shall be provided with adequate fuel to discourage them from cutting nearby tree for firewood.
- 11. 'Good House Keeping' is the most important area of concern and it shall be attained by developing available human resources through conducting routine in house workshops on different activities for the betterment of the environment and welfare of the workers and organization.
- Comprehensive structure of "Environmental Management Cell" and the infrastructure facilities shall be developed etc. shall be detailed.
- Present & post project land use pattern of acquired land shall be prepared and submitted to the Board for reference.
- 14. The impact on marine ecology during the construction phase shall be largely confined to the duration over which the activities are spread. Hence, the key factor in minimizing the adverse impacts shall be the reduction in the construction period at the site.



- 15. The socio-economic especially related to fishing, infrastructure development etc. shall be studied as large scale infrastructure like road network, railways, power lines etc. shall develop in the vicinity of area due to this project.
- 16. Monitoring of the marine environment shall be conducted regularly during dredging and post-dredging and necessary corrective measures shall be carried out to conserve the marine environment.
- 17. The inter tidal and near shore areas shall be restored to their original contours once the construction activities are completed. General clean – up along the corridor used for construction related activities, adjacent inter tidal areas, creeks etc. shall be undertaken and all the discarded materials must be removed from the site and aesthetic quality of the surroundings restored, once the construction operations are completed.
  - Detailed construction activities taken up in the CRZ area shall be submitted to the Board at the time of grant of Consent to Operate.
  - 19 Details of transportation and its impact during transportation of the stones and other construction material for the construction of the groynes breakwaters and other Port facilities shall be submitted to the Board.
  - Road connectivity shall be developed by the Port Authority. Fly ash shall be used for road development. Agreement with power plants shall be made for lifting of ash from power plant.
  - 21. A green belt of adequate width and density preferably with local species along the periphery of the Port shall be raised so as to provide protection against particulates and noise. It must be ensured that at least 33% of the total land area shall be under permanent green cover, in such a manner that, atteast plantation shall be taken up at least in 20% of the total green belt area and progressively achieve 100% in a span of five years and under no circumstances this land earmarked for green belt shall be used for any other purpose.
  - Open storage yards for dust prone materials shall be surrounded with green belt.
     Plantation and development of lawns shall be undertaken to minimize the effect of dust and noise.
  - The Port authority shall take up adequate measure for routine health checkup of its employees / workers and the people residing in the neighborhood of the plant free of cost.
- 24. The civil construction shall be carried out with the fly ash bricks. If the fly ash bricks are not available locally the civil construction may carried out with other bricks with prior intimation to the concerned Regional Office of SPC Board. A quarterly statement indicating the use of fly ash bricks during civil construction shall be submitted to the Board for record.
- 25. Vehicle hired for bringing construction material at site should be in good condition and shall have valid Pollution Under Check (PUC) Certificate and to confirm to applicable air and noise emission standards and shall be operated only during nonpeaking hours.
- 26. The Board may impose further conditions or modify the conditions stipulated in this order during installation and /or at the time of obtaining consent to operate and may



revoke this clearance in case the stipulated conditions are not implemented and for any information suppressed in the application form

### WATER POLLUTION:

27. The domestic wastewater generated from the industry shall be treated in sewage treatment plant of adequate capacity to meet the following standards as notified by the MoEF&CC, Govt. of India vide G.S.R. 1265 (E), dated 13.10.2017. The treated water shall be reused for dust suppression, irrigating greenbelt etc. Under no circumstances there shall be any discharge of treated waste water to outside the factory premises.

SI. No.	Parameters	Standards	
1.	pH	6.5-9.0	
2.	BOD (mg/l)	30	
3.	TSS (mg/l)	<100	
4.	Fecal Coliform (MPN/100ml)	< 1000	

- The proponent shall adopt Zero Liquid Discharge (ZLD) concept and under no circumstances the waste water shall be discharged to outside the premises.
- 29. The proponent shall construct dedicated drainage system of runoff water in the whole Port area and the runoff water shall be treated properly and collected for use in the purpose of sprinkling at transfer points of conveyor belts and roads and the surplus water shall be discharged to outside of the Port premises.
- The proponent shall not discharge untreated runoff water from the berths including other Port areas to the sea harbor under any circumstances.
- 31. The spillage of bulk items shall be minimized as these materials reach the dock waters, which sometimes accumulate in the sediments. These pollutants and metals may mobilized by microbes or bottom disturbances and get back into the dock waters and ultimately reach water body.
- 32. Strict prohibition shall be practiced against the discharge of ballast water and sediment in the dock water, estuarine / near shore waters to prevent introduction of exotic microorganisms including pathogens in the local waters.
- The monitoring of the marine environment during dredging and post dredging over a period shall be carried out and the corrective measures shall be taken to conserve the marine environment.
- 34. Steps shall be taken towards the maintenance of health of the study area, critical locations shall be carefully selected and designed as monitoring sites for periodic monitoring with respect to water quality, sediment quality and flora and fauna.
- The proponent shall install Effluent Treatment Plant (ETP) of capacity 3 MLD to treat
  the waste water generated in the berth, stack yard and other areas of the Port.
- Details of drainage system in the berth and stack yard and the Effluent Treatment Plant shall be provided in order to treat the discharge/runoff form the stack yard.
- The surface run off from open stack yards and mineral handling area shall be collected and adequately treated to meet prescribed standard for inland surface water before discharge to river.



- 38 Adequate firefighting system shall be adopted at the coal stock yard to control fire hazard if any.
  - 39. Leachate from storage of chemicals and other materials having toxic content if any shall be collected and treated properly. Care shall be taken to prevent the ground water contamination.
  - 40. An effective oil spillage containment and management plan shall be evolved with the involvement of various agencies like Port, Pollution Control Board, Indian Coast Guard Oil Companies etc.
  - 41. On site living rooms of workers and the gas storage shall be well apart to minimize the risk of accidents. Adequate safety measures including provision of gas mask and ear plugs during cutting operation and medical treatment facilities for workers in case of accidents shall be ensured. The working place shall be provided with better sanitation facilities.
  - 42 The sea water in the harbor area shall meet the water quality criteria for SW-IV class of sea water as given below;

a) pH

6.5 - 9.0

b) Dissolved oxygen

3.0 mg/l or 40% of saturation value

whichever is high.

c) Colour and odour

No visible colour or offensive adour

 Floating matter, Oil & grease and scum including petroleum 10 mg/l

product

e) Fecal coliform

500 MPN/100 ml

f) BOD (3 days) at 27°C

5 ma/l

- Maximum precaution shall be taken to minimize spreading of sediments to the surrounding area which will otherwise increase turbidity in the river.
- 44. Rain water harvesting shall be followed by utilizing the rain water collected from the roof of the administrative buildings for recharging of ground water within the premises as per the concept and practices prescribed by CPCB.

### AIR POLLUTION:

- 45. Necessary preventive measures shall be taken during construction phase so that the ambient air quality including noise shall conform to National ambient air quality standards and standards for noise in industrial area as per Annexure-I & II. Ambient air quality at the boundary of the Port premises shall meet the prescribed standards of the Board as per Annexure I. The ambient air quality monitoring report shall be submitted to the Board every month.
- 46. The ambient air quality including noise shall be within the prescribed norms of Environment Protection Act, 1986 for industrial area and at least 04 continuous ambient air quality monitoring stations around the Port premises shall be set up to monitor Suspended Particular Matter, SO<sub>2</sub>, NOx, CO and other important parameters within at least to the distance in down wind direction and where maximum ground level concentration is anticipated. The exact location of the monitoring stations shall be finalized in consultation with the State Pollution Control Board.
- 47. The height of the stack attached to the D.G sets shall confirm to the following:



H = h + 0.2VKVA (Where, h = Height of the building where it is installed in meter KVA = Capacity of D.G Set and H = Height of the stack in meter above ground level)

- 48. Wire mesh screen of height 9 meter shall be provided all along the boundary of the Port premises to avoid fugitive dust emission to the sufroundings.
- 49 To minimize noise and vibration, heavy machinery shall be properly installed and maintained. Personal protection in the form of earplugs shall be made available to the workers, who are exposed to the high noise areas like workshop, dumper house, crane operation, tipper shop etc.
- The noise level during pilling, transport and erection of structures etc. shall be kept to a minimum through proper lubrication, mulfing and modernization of equipments.
- Air compressor and DG set shall be acoustically designed and shall be housed in appropriate acoustic enclosures so that the noise level outside it shall conform to the prescribed norms.
- 52. Water sprinkling, use of wind barriers and covered conveyer at various stages of coal handing shall be practiced. Other exhaust arrangement and bag filter may be included to minimize SPM content. While loading and unloading coal and other bulk materials through grab and conveyers, the dropping height shall be minimized.
- 53. The pollution caused by coal / iron ore is aggravated by its dispersal with winds. Since the wind in the area is strong it is recommended that the coal / iron ore shall be sprinkled with water so as to reduce the chances of the dust dispersed over a large area including the sea/river.
- Adequate dust suppression and or extraction system shall be installed at all potential dust generating points in ore/mineral handling system to minimize fugitive emission.
- The collection and handling of raw materials shall be carried out in closed conveyor so that fugitive emission will be minimum.
- 56. The ballast shall be scientifically disposed.

### SOLID AND HAZARDOUS WASTE:

- Dedicated temporary storage facility of used / waste oil, grease etc. shall be provided inside the Port premises for final disposal.
- 58. Mechanisms shall be evolved for proper monitoring, effective handling and transportation of hazardous chemicals. The mechanism for import of hazardous wastes may be strengthened with involvement of the State Pollution Control Boards.
- 59. An effective wastes collection, treatment and disposal mechanism shall be evolved for incoming ships as well as waste generated within the Port that include ballast and bilge water, solid waste, cargo waste, kitchen waste, tollet effluent, packing materials, floating debris, construction left over materials etc. A detail management plan to this effect shall be submitted to the Board.
- 50. Effective monitoring system shall be evolved to check the release of spillage of oil into the dock waters, estuary and near shore water by ship and also during transportation. Proper collection and treatment facilities shall be provided for proper treatment and disposal after achieving the standards.



- 61. A comprehensive Disaster Management Plan shall be formulated involving concerned agencies considering various aspects like containment of large scale oil spillage, accidental hazards arising from handling of dangerous / inflammable cargoes as well as natural calamities.
- 62 The industry shall obtain authorization for management of Hazardous Waste as per previsions of Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 as amended from time to time.
- Municipal Solid Waste generated from the Port shall be disposed off as per the Solid Waste Management Rules, 2016 and amendment thereafter.
- 64 The proponent shall establish Mechanized Waste Convertor having polycrack method and other similar method for processing of Municipal Solid Waste generated from the Port, under covered shed to produce valuable products like oil, water, gas, carbon, metal, glass etc.
- Spoils generated from dredging activity shall be cautiously disposed off in a proper manner to avoid contamination as recommended in the EIA.
- 66. The solid waste generated as ETP sludge and from other sources shall be suitably disposed off without causing any public nuisance or environmental contamination.
- 67. All compliance shall be made with respect to manufacture, storage and import of Hazardous Chemical Rule, 1989 & amended thereafter and other provisions of the Environment Protection Act, 1986.

Encl: (i) Annexure – I & II (ii) Approved layout map

MEMBER SECRETARY

To.

Cdr. Anil Kumar Kar, M/s. Dhamra Port Company Ltd., Fortune Towers, 2<sup>nd</sup> Floor, Chandrasekharpur, Bhubaneswar-751023, Odisha

Memo No. 1875 /Date 17:02:2020 /

Copy forwarded to:

- The Director (Env.)-cum-Special Secretary to Govt., F & E Deptt., Govt. of Odisha.
- 2. The District Magistrate & Collector, Bhadrak
- 3. District Industries Centre, Bhadrak
- 4. The Director, Factories & Boiler, Bhubaneswar
- 5. HSM Cell, SPC Board, Bhubaneswar
  - 6. DFO, Bhadrak
  - 7. Consent to Operate Section, SPC Board, Bhubaneswar
  - B. Regional Officer, SPC Board, Balasore
  - 9. Copy to Guard file

CHIEF ENV. ENGINEER

Ole

िक्या : : जब कर्णा और अर्थ के विश्वेष अपने-अपने कार्य के लिये के अधिक प्रशेषन कियो पर पारित कृष्य, अन्य विनिर्देश सीवा से अधिक से तो इसे निर्द्धाना या निर्दार प्रशेषन तथा अभिनिक्या अर्थकन करकने के दिन्दों प्रयोग्त कारण समझ आरोग्य ।"।

[फा. सं. क्यू-(50)7/43/2007-सी.पी.डब्स्यू.] रजनीश दुवे, संयुक्त समिन

टिक्का : मूल नियम : भारत के राजपत्र में असायारण सं.का.आ.644 (अ), तारीख 19 सकनर 1956 द्वारा प्रकारित किये गये के और परवातवर्ती संसोधन सं.का.आ.433 (अ), तारीख 18 अप्रैल 1967, सा.का.नि. 176 (अ), तारीख 2 अप्रैल 1966 और हात में ही सा.का.नि. 97 (अ), तारीख 18 करवरी 2008; सा.का.नि. 186 (अ), तारीख 4 मार्च, 2008; सा.का.नि. 512 (अ), तारीख 9 जुलाई, 2008; सा.का.नि. 543 (अ), तारीख 22 जुलाई, 2008; सा.का.नि. 565 (अ), तारीख 21 अवस्त, 2008; और सा.का.नि. 974 (अ) तारीख, 04 नवम्बर 2009 द्वारा प्रकारित किए गए।

### MINISTRY OF ENVIRONMENT AND FORESTS

### NOTIFICATION

New Delhi, the 16th November, 2009

- G.S.R. 826(E).— In exercise of the powers conferred by section 6 and section 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:—
- I. (1) These rules may be called the Environment (Protection) Seventh Amendment Rules, 2009.
  - (2) They shall come into force on the date of their publication in the Official Gazette.
- 2. In the Environment (Protection) Rules, 1986 (hereinafter referred to as the said rules), in rule 3, in sub-rule (3B), for the words, brackets, figures and letters, "in columns (3) to (5) of Schedule VII", the words, brackets, figures and letters "in columns (4) and (5) of Schedule VII" shall be substituted.
- 3. For Schedule VII to the said rules and entries relating thereto, the following Schedule and entries shall be substituted, namely:—

# "(SCHEDULE VII) [Set rule 3(38)] NATIONAL AMBIENT AIR QUALITY STANDARDS

S.	Petitos	Poliston: Time Weighted	Cancastration in Ambient Air		
		Awrep	Industrial, Residential, Repair and Other Arms	Ecologically Sauditive Area (notified by Contral Government)	Methods of Memoreuset
(1)	(2)	(3)	+ (4)	(5)	(6)
1	Sulphur Dickide (SO <sub>2</sub> ), parter	Attend <sup>4</sup>	50	20	- Improved West and Geeke
	The Table	24 kmm**	30	80	-Citurviolet fluorescence
2	Nitrogen Dioxide (NO <sub>2</sub> ), parm*	Almai*	40	30	- Modified Jacob &
		3Chours**	20	80	Hochhelser (Na- Aramite) - Chonilaminoscence
3	Particulate Macter (size less than	Amai*	60	50	- Containte - TOEM
	lique) or 714 pg/m²	24 hours**	100	100	- Bets eternation
	Panicoline Maner (size loss than	Assess!	40	40	- Graviascuic - TOEM
9	2.5jum) or PM <sub>2</sub> , jugan <sup>2</sup>	24 hours**	60	60	- Beassmooth

(1)	(2)	(3)	(4)	(5)	(6)
1	Ozone (O <sub>3</sub> )  µg/m²	8 hours**	100	100	- UV photometric
	-	1 hours	ENG	180	- Chanical Method
6	Lend (Pb) parts	Annual*	0.50	0.50	- AAS /ICP method after sampling on EPM 2000
		24 hours**	1.0	1.0	or equivalent filter pape - ED-XRF using Yeston filter
7	Certron Mosorckie(CO)	1 hours**	02	02	- Non Dispersive Infra Red (NDIR)
	ma'm'	I houses	04	04	аристичностру
	Ammonin(NH <sub>4</sub> )	Annual*	100	100	-Chemiluminacesor
3	s.p/m	24 hours**	400	400	-Indepleted blue marked
	Benzene (CaHa) pyte <sup>2</sup>	Annual*	65	es	Ges chrimatography     head continuous     analyzer     Adsorption and     Desorption followed by     GC analysis
50	Barzo(c)Pyranu (BaP) - puriculate place only, ag/m²	Annual*	01	01	Solvent extraction followed by HPLC/GC analysis
11	Aremic (As).	Annual*	06	06	AAS /ICP metrod after sampling on EPM 2000 or equivalent filter paper
12	Nicial (Ni), ng/m²	Annual*	20	20	AAS ACP method after sampling on EPM 2000 or equivalent filter paper

- Annual arithmetic mose of minimum 104 measurements in a year at a perticular site taken twice a week 24 hourly at uniform intervals.
- 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be compiled with 96% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Note.— Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to lastinus regular or continuous monitoring and further investigation.".

F. No. Q-15017/43/2007-CPW] RAINEESH DUBE, JL 50cy.

Note.— The principal rules were published in the Gazette of India, Extraordinary vide number S.O.844(E), dated the 19th November, 1986; and subsequently amended vide numbers S.O. 433(E), dated the 18th April, 1987; G.S.R. 176 (E), dated the 2th April 1996; and were recently amended vide numbers G.S.R. 97(E), dated the 18th February, 2009; G.S.R. 149(E), dated the 4th March, 2009; G.S.R. 512(E), dated the 9th July, 2009; G.S.R. 543(E), dated the 22th July, 2009; G.S.R. 595(E), dated the 21th Anguse, 2009; and G.S.R. 794(E), deted the 4th November, 2009.

### The Environment (Protection) Rules, 1986

# (See rule 3)

## AMBIENT AIR QUALITY STANDARDS IN RESPECT OF NOISE

Area Code	Category of Area	Limits in dB(A) Leq.		
		Day Time	Night Time	
(A)	Industrial area	75	70	
(B)	Commercial area	65	55	
(C)	Residential area	55	45	
(D)	Silence Zone	50	40	

### Note

- 1. Day time is reckoned in between 6 a.m. and 9 p.m.
- 2. Night time is reckoned in between 9 p.m. and 6 a.m.
- Silence zone is defined as areas upto 100 meters around such premises as hospitals, educational institutions and courts. The Silence Zones are to be declared by the Competent Authority.
  - Use of vehicular horns, loudspeakers and bursting of crackers shall be banned in these zones.
- Mixed categories of areas should be declared as one of the four above mentioned categories by the Competent Authority and the corresponding standards shall apply.



Annexiume-II

Page 1

BY REGD, POST WITH AD

# STATE POLLUTION CONTROL BOARD, ODISHA

A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012 Phone-2551909, Fax: 2562822, 2560955

			CONSENT ORDER			
No.	4218		IND-I-CON-6348	DLS	4.04.2020	j
CONS	SENT ORDER NO	2749	4			
Sub:	Consent for dis Water (PCP) A 1981 for operati	ct, 1974	of sewage and trade eff and emission under S e port.	fluent un Section 2	der Section 25/26 of 21 of Air (PCP) Ac	1
Ref :	Your online appl	cation _	ID No. 2857727, Dtd.23-	-03-2020		
Act, 19 Name	of Pollution) Act, 81 and rules frame of the Industry;	1974 and d thereun M/s Th	eby granted under section under section 21 of Air (F der to: e Dhamra Port Compan n: Shri Subrat Tripathy	Prevention	& Control of Pollution	
Addres	s: At/Po-D	osinga.	Via-Dhamra, Dist-Bhad	rak-7561	71, Odisha	
Details	s of Products Ma	nufactu	red :			
SI. No	6.		Product		Quantity	1
1.			ty of the Port (Dry Bulk neral Cargo, Liquid Carg		71.84 Metric Tons/Annum	
2	Containerized	Cargo (ir	TEU)		10,00,000 Numbers / Annum	ĺ

This consent order is valid for the period upto 31.03.2025

This consent order is valid for the specified outlets, discharge quantity and quality of effluents (ii) quantity of emission and its quality, specified chimney / stack (iii) quantity of solid waste and its disposal as specified below.

This consent is granted subject to the General and Special Conditions stipulated below:



## A. Discharge permitted through the following outlet subject to the standard

Outlet No.	Description of outlet	Point of discharge	Quantity of discharge KLD or KL/hr	Pre-scribed Standard							
				рΗ	(mg/l)	(mg/l)			N-total (mg/l)	Fecal Coliform (MFN/ml)	O & G (mg/l)
1	Domestic effluent at the Outlet of STP	Used for Gardening	140 KLD	5.5-9.0	10	50	20	Б	10	<1000	70
2	Wastewater from Port Area	No discharge to Outside	1		-					~	-
Ä	Wastewater from vehicle washing at the outlet of ETP	No discharge to Outside	3 KL/hr			0	3			1.	-

# Emission permitted through the following stack subject to the prescribed standard

Chimney Stack No.	Description of Stack	Stack height (m)		Prescribed Standard					
o do diction	attached to	Above DG set		PM (mg/Nm³)	HC (mg/Nm <sup>3</sup> )	NO <sub>x</sub> (ppm(v))	CO (mg/Nm³)		
1	DG Set: 200 KVA	3.5	- T	~ .	~	-	-		
2	DG Set: 180 KVA	3.4		~ .	- X -	~	-		
3	DG Set, 160 KVA	3.4			- 2	- %			
4	DG Set. 160 KVA	3.0	100				-		
5	DG Set: 160 KVA	3.5	4		- A	- 7	-		
- 6	DG Set: 63 KVA	4.0	- 4			4			

### C. Disposal of solid waste permitted in the following manner

SI. No.	Type of Solid waste	Quantity generated		Quantity to be reused off site	and the second second	Description of disposa site.
1.	Biodegrad able food waste	200 Tonne / Month		-	1	Composting and used for horticulture
2	Plastic or fibri waste	100 Tonne / Month		1+4	-	Co-Incineration in ACC Cement Plant, Bargarh
3.	Mettalic waste	800 Tonne / Month	3	14/	100	Supplied to scrap vendor
4.	Paper & packaging material	30 Tonne / Month				Supplied to outside parties for recycling
5.	STP	10 Tonne / Month				Used as manure in horticulture work



#### D. GENERAL CONDITIONS FOR ALL UNITS

- The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation
  made in actual practice from the particulars furnished in the application will also be the ground for liable to
  review/variation/revocation of the consent order under section 27 of the Water (Prevention & Control of Pollution) Act, 1974 and
  section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations as deemed fit for the purpose of the Acts.
- The industry would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material / products / manufacturing process or quantity /quality of the effluent rate of emission / air pollution control equipment / system etc.
- The applicant shall not change or after either the quality or quantity or the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
- 4. The application shall comply with and carry out the directives/orders issued by the Board in this consent order without any negligence on his/her part. In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law.
- 5. The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
- The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
- This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
- The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
- 9. An inspection book shall be opened and made available to Board's Officers during the visit to the factory.
- The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
- 11. The applicant shall display suitable caution board at the place where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/bathing.
- Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.
- 13. The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
- The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities
  or systems install or used by him to achieve with the term(s) and conditions of the consent.
- 15. Care should be taken to keep the anaerobic tagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic tagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed impervious.
- 16. The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
- The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
- 18. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
- 19. The sludge from treatment units shall be dried in sludge drying bads and the drained liquid shall be taken to equalization tank.
- 20. The effluent treatment units and disposal measures shall become operative at the time of commencement of production.
- 21. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Acts or Rules made therein.
- The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / inspection.



- 23. The applicant shall not change or after either the quality or quantity or rate of emission or install, replace or after the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.
- No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.
- 25. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner so as to meet the standards prescribed by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).
- 26. The stack monitoring system employed by the applicant shall be opened for inspection to this Board at any time.
- There shall not be any fugitive or episodal discharge from the premises.
- 28. In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board and stop the operation of the plant if required. Report of such accidental discharge /emission shall be brought to the notice of the Board within 24 hours of occurrence.
- The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
- Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and / or result in violation of the standards mentioned shall be reported to the Headquarters and Regional Office of the Board by E-mail within 2 hours of its occurrence.
- 31. The industry has to ensure that minimum three varieties of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
- The solid waste such as sweeping, wastage packages, empty containers residues, studge including that from air pollution control
  equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board.
- 33. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by :
  - Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may perceinte into cround water or carried away with storm pure-off.
  - percolate into ground water or carried away with storm run-off.

    ii) Controlled incineration, wherever possible in case of combustible organic material.
  - Composting, in case of bio-degradable material.
- 34. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
- 35. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
- The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this
  consent after the expiry period of this consent.
- The Board reserves the right to review, impose additional conditions or condition, revoke change or after the terms and conditions of this consent.
- 38. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
- The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control
  of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.
- 40. In case the consent fee is revised during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.
- The industry shall comply to the conditions stipulated in CTE order issued by Odisha State Pollution Control Board and conditions stipulated in Environmental Clearances issued by MoEF&CC, Govt. of India.
- 42. The industry shall abide by E(P) Act, 1986 and Rules framed there-under.
- 43. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify! stipulate additional conditions as deemed appropriate.



### GENERAL CONDITIONS FOR UNITS WITH INVESTMENT OF MORE THAN Rs.50 CRORES, AND 17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES (RED A)

- The applicant shall analyse the effluent / emissions and Ambient Air Quality every month through approved laboratory for the parameters indicated in TABLE- 'B', 'C' & Part -'B' as mentioned in this order and shall furnish the report thereof to the Board on monthly basis.
- The following information shall be forwarded to the Member Secretary on or before 10<sup>th</sup> of every month.
  - a) Performance / progress of the treatment plant.
  - b) Monthly statement of daily discharge of domestic and/or trade effluent.
- 3. Non-compliance with effluent limitations
  - a) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of such notification.
    - i) Causes of non-compliance
    - ii) A description of the non-compliance discharge including its impact on the receiving waters.
    - Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of non-compliance.
    - iv) Steps taken by the applicant to reduce and eliminate the non-complying discharge and
    - v) Steps to be taken by the applicant too prevent the condition of non-compliance.
  - b) The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this consent including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.
  - c) Nothing in this consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his control, such as break-down, electric failure, accident or natural disaster.
- Proper housekeeping shall be maintained inside the factory premises including process areas by a dedicated team.
- 5. The industry must constitute a team of responsible and technically qualified personnel who will ensure continuous operation of all pollution control devices round the clock (including night hours) and should be in a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these persons with their contact telephone numbers shall be intimated to the concerned Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the Board immediately.
- 6. The industry shall engage dedicated qualified manpower to ensure continuous and effective operation of online stack / Ambient Air Quality / Effluent monitoring stations for maintenance of database, real time data transfer to SPCB server, data analysis and co-ordination with concerned personnel of process units for taking corrective measures in case of non-compliances and to respond to the instructions of SPCB in this matter.



#### E. SPECIAL CONDITIONS:

The Port Authority shall obtain Environmental Clearance (EC) from the Competent Authority for any enhancement in cargo handling capacity or change in the configuration of Master Plan or installation of any additional facilities. The Port Authority shall then obtain Consent to Establish of the Board before commissioning any of these activities.

 Adequate dust suppression and / or extraction system shall be installed at potential dust generating points in ore / mineral handling system to minimize fugitive emission. Material transfer where possibility of dust nuisance is

expected shall be done in covered state.

 All the haulage road, transportation road, transfer, loading and unloading points and stock pipe lines of minerals shall be provided with water sprinklers

arrangements to suppress the fugitive dust emissions.

4) The major solid wastes like fines of coal, iron ore, bauxite etc. shall be collected and dumped in such a manner that there shall not be any dust nuisance due to wind. The Port Authority shall make efforts to safe sale these materials for other productive use.

- 5) The ambient air quality inside the port premises shall conform to the standards prescribed under E(P) Rule, 1986. The Port Authority shall install and operate at least 3 nos. of permanent Ambient Air Quality monitoring stations in consultation with State Pollution Control Board and the results should be furnished to the Board on a monthly basis.
- To meet with any emergency situation, adequate foam containers should be kept ready with supporting firefighting system and water pipeline.
- Necessary leakage detection devices with early warning system shall be provided at strategic locations.
- 8) The unit shall provide adequate stack height to the DG sets as per the following formula:

Where H = h+0.2VKVA

H = Height of stack attached to the DG in meter h = Height of the DG room in meter where DG set is housed KVA = capacity of DG Set

- All the internal roads of the port shall be black topped or concreted and care shall be taken to avoid ruts and potholes.
- 10) Proper housekeeping shall be maintained by a dedicated team.
- An effective waste water collection, treatment and disposal mechanism shall be implemented for berth, stack yard, ballast area, mineral handling area, floor washing, ship board, boiler engine room and bilge water and it shall be treated in an adequately designed Effluent Treatment Plant (ETP). The treated water shall be used for dust suppression, water sprinkling at all potential dust generating points. Port shall submit the proposal for installation of ETP with time bound action plan. Till installation of ETP there shall not any discharge of wastewater from port premises to outside.

- 12) The wastewater generated from vehicle washing shall be treated in the existing ETP and the treated water shall be entirely recycled and reused. In no case this wastewater shall be discharged to outside the port premises.
- 13) The spillage of bulk items shall be minimized so that its passage to nearby water bodies shall be restricted to avoid turbidity of nearby water bodies.
- 14) Effective monitoring system shall be enforced to check the release of spiliage of oil into the dock waters, estuary and near shore water by ship and also during transportation. Proper collection and treatment facilities should be provided for proper treatment and disposal after meeting the prescribed norm.
- 15) The monitoring of the marine environment during dredging and post-dredging over a period shall be carried out and the corrective measures shall be taken to conserve the marine environment.
- (6) In order to safeguard the health of the marine ecology of port area, critical locations are to be carefully selected and periodic monitoring with respect to water quality, sediment quality and fauna shall be carried out.
- 17) Domestic effluent generated from colony and port area shall be treated in the existing Sewage Treatment Plant (STP) and treated waste water shall meet prescribed standard mentioned in Section-A of this order and used for gardening.
- 18) The surface run off from open stack yards and mineral handling area shall be collected through dedicated drainage network with settling tanks at all mineral stack ward areas and adequately treated to meet prescribed standard for inland surface water before discharge to outside during monsoon or heavy rains only.
- The sea water in the harbour area shall meet the water quality criteria for SW-IV class of sea water as given below:

a)	pH	-	6.5-9.0
b)	Dissolved oxygen	-	3.0 mg/l or 40% of saturation value whichever is high.
C)	Colour and odour	5	No visible colour or offensive odour
d)	Floating matter, oil and grease and scum including petroleum product	÷	10 mg/l
e)	Fecal coliform	E	500 MPN/100 ml
f)	BOD (3 days) at 28°C		5 mg/l

- The waste oil collected from the ships shall be properly stored so that, no spillage occurs.
- 21) Utmost care shall be taken during operational period so that there shall be no threat to Bhittarkanika and Gahirmatha sanctuary which are otherwise ecologically highly sensitive.
- 22) Rain water harvesting shall be followed by utilizing the rain water collecting from the roof top of the administrative buildings for recharging of ground water within the premises as per the concept and practices prescribed by CPCB.



- The port shall obtain authorization for disposal of all hazardous wastes under The Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016.
- 24) All compliance shall be made with respect to Manufacture, Storage and Import of Hazardous Chemical Rule, 1989 and amended thereafter and other provisions of the Environment Protection Act, 1986.
- The unit shall abide the provisions of Environment (Protection) Act, 1986 and Rules framed thereunder.
- 26) In case the consent fees is revised upward during this period, the industry shall pay the differential fees to the Board (for the period & remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.
- 27) The port authority shall apply for consent to establish and environmental clearance for any expansion / enhancement of capacity of export and import etc.
- 28) The Board may impose further conditions or modify the conditions stipulated in this order during installation and / or at the time of renewal of consent to operate and may revoke this clearance in case the stipulated conditions are not implemented and / or any information suppressed in the application form.

To

The Chief Executive Officer, The Dhamra Port Company Limited, At/Po-Dosinga, Via- Dhamra-756171, Dist-Bhadrak, Odisha

SR. ENV. ENGINEER (L-I)

STATE POLLUTION CONTROL BOARD, ODISHA

24.04.2020

Memo No. 42 Copy forwarded to:

i) Regional Officer, SPC Board, Balasore

ii) District Collector, Bhadrak

iii) D.F.O., Bhadrak

(v) SES, Central Laboratory, SPC Board, Bhubaneswar

v) H.W.M. Cell, (Head Office)

SR. ENV. ENGINEER (L-I) STATE POLLUTION CONTROL BOARD, ODISHA



### GENERAL STANDARDS FOR DISCHARGE OF ENVIRONMENT POLLUTANTS

Annexure-1

#### GENERAL STANDARDS FOR DISCHARGE OF ENVIRONMENTAL POLLUTANTS PART -A: EFFLUENTS

SI.No.	Parameters		19	Standards		
		Inland surface	Public sewers	Land for Irrigation	Marine Costal Areas	
		(a)	(b)	(c)	(d)	
1	Colour & adour	Colourless/Odou riess as far as practible		See 5 of Annex-1	See 6 of Annex-1	
2	Suspended Solids (mg/l)	100	600	200	For process     wastewater – 100     For cooling water     effluent 10% above     total suspended     matter of influent.	
3.	Particular size of SS	Shall pass 850	-	- 2		
5	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	
6.	Temperature	Shall not exceed 5°C above the receiving water temperature			Shall not exceed 5°C above the receiving wat temperature	
.7.	Oil & Grease mg/l max.	10	20	10	20	
8.	Total residual chlorine	1.0	-	-	1.0	
9,	Ammonical hitrogen (as N) mg/l max.	50	50		50	
10	Total Kajeldahl nitrogen (as NH <sub>3</sub> ) mg/l max.	100	*	7	100	
11:	Free ammoniá (ás NH <sub>3</sub> ) mg/l max.	5.0	,	-	5,0	
12	Biochemical Oxygen Demand (5 days at (20°C) mg/l max.	30	350	100	100	
13.	Chemical Oxygen Demand, mg/l max.	250	241	- 6	250	
14.	Arsenic (as As) mg/l max.	0.2	0,2	0.2	0.2	
15.	Mercury (as Hg) mg/l max.	0.01	0.01	1.5	0,001	



SI.No.	Parameters			Standards	
		Inland surface	Public sewers	Land for irrigation	Marine Costal Areas
		(a)	(b)	(c)	(d)
16.	Lead (as pb) mg/l max.	01.	1.0	-	2.0
17.	Cardmium (as Cd) mg/l max.	2.0	1.0	==1	2.0
18.	Hexavalent Chromium (as Cr + 6) mg/l max.	0.1	2.0	-	1.0.
19.	Total Chromium (as Cr) mg/l max.	2.0	2.0		2.0.
20	Copper (as Cu) mg/l max.	3,0	3.0	-	3.0
21.	Zinc (as Zn) mg/l max.	5.0	15	-	15
22	Selenium (as Sc) mg/l max.	0.05	0.05	- 5-	0.05
23.	Nickel (as Nil) mg/l max.	3.0	3.0	-	5.0
24	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0,02
25	Fluoride (as F) mg/l max.	2.0	15	- 5	15
26	Dissolved Phosphates (as P) mg/l max.	5,0	150		-3
27	Sulphide (as S) mg/l max.	2.0	-	~	5,0
28.	Phennolic compounds as (C <sub>s</sub> H <sub>s</sub> OH) mg/l max	1.0	5.0	-	5.0
29.	Radioactive materials a. Alpha emitter micro curle/ml.	102	107	10°	107
	Beta emitter micro curle/ml.	10"	10"	107	105
30.	Bio-nssay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 95 hours in 100% effluent	90% survival of fish after 96 hours in 100% affluent	90% survival of fish afte 96 hours in 100% effluer
31	Manganese (as Mn)	2 mg/l	2 mg/l		2 mg/l
32.	Iron (Fe)	3 mg/l	3 mg/l	- ~	3 mg/l
33.	Vanadium (as V)	0,2 mg/l	0,2 mg/l	-	0.2 mg/l
34.	Nitrate Nitrogen	10 mg/l		940	20 mg/l



Annexure-II

#### NATIONAL AMBIENT AIR QUALITY STANDARDS

SL	Pollutants	Time	Concentrate of Ambient Air							
No.		Weightd Average	Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement					
(1)	(2)	(3)	(4)	(5)	(6)					
1.	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Annual *	50. 80	30 80	-Improved west and Gacke - Ultraviolet fluorescence					
2	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Annual *	40.	30	Modified Jacob & Hochieser (Na-Assente)					
	140000000000000000000000000000000000000	24 Hours **	80	80	- Chemilommescence					
3.	Particulate Matter (size less than 10 jum) or	Annual *	60	60	-Guvimente - TOEM					
	PM <sub>th</sub> µg/m <sup>3</sup>	24 Hours ***	100	100	- Beta Attenuation					
4	Particulate Matter (size less than 2.5µm) or	Annual *	40	40	-Gravimeno: - TOPM					
	PMrs µg/m <sup>3</sup>	24 Hours **	60	60	- Beta Attenuation					
5.	Dzone (O <sub>1</sub> ) µg/m <sup>3</sup>	8 Hours **	100	100	- UV Photomenic - Chemiluminescence					
		1 Hours **	180	081	- Chemical Method					
6.	Lead (Pb) µg/m³	Annual *  24 Henry **	1.0	0.50	-AAS/ICP method after sampling on EMP 2000 or equivalent filter paper. - ED-XRF using Teflon filter					
75	Carbon Monoxide (CO) mg/m <sup>1</sup>	8 Hours **	02	02	- Non Dispersive Infra Red (NDIR)					
77		1 Hours *4	04	.04	Spectroscopy					
8.	Ammoeia (NHs) µg/m³	Annual* 24 Hours**	100	100	Chemiluminescence Indophenol Blue Method					
9.	December 10 TV Lock X	Annal *	400	400	Can Phonous prove a horker 1					
	Benzene (C <sub>4</sub> H <sub>6</sub> ) µg/m <sup>3</sup>		1.2	Ud .	-Gas Chromatography based continuous smalyzer - Adsorption and Desorption followed by GC analysis					
10.	Benzo (a) Pyrene (Bal <sup>a</sup> )- Particulate phase only, mg/m <sup>3</sup>	Annusl*	01	01	Solvent extraction followed by HPLC/GC analysis					
11/	Americ (As), ing/m <sup>3</sup>	Annual*	06	06	-AA5/ICP enethod after sampling on EPM 2000 or equivalent filter paper					
12	Nickel (Ni), mg/m <sup>5</sup>	Annul*	20	20	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper					

Annual arithmetic mean of minimum 104 measurements in a year at a particular are raken twice a week 24 isourly at uniform intervals.

<sup>24</sup> hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in 2 year, 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN-U51909WB1956PTC023037]

T : (0674) 2362916, 2360917 F : (0674) 2362918

Report No: BBS/700A

Date: 01.05.2021

#### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/001921
Type of Sample	Ambient Air Sample
Sampling Location	Colony Area
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24lirs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

		PARAMETERS											
Date	PM <sub>m</sub> (µg/m²)	PNLs (rg/m²)	50; 00/m²)	NOs (pg/m²)	(mg/m²)	NH <sub>3</sub> (14g/m <sup>2</sup> )	O <sub>3</sub> (pg/m <sup>3</sup> )	Ph (µg/m²)	Ni (ng/m²)	As (ng/m²)	Celle (ng/m²)	(mp'm*)	
01.04.2021	47.30	25,10	631	21.55	0.57	18.45	<20.0	<0.01	<5.0	<1.0	<4.2	-01.5	
64.04.2021	46.29	24,30	6.52	23,34	0.61	23.05	<20.0	<0.01	<5.0	<1.0	<4.2	-0.5	
07/04/2021	45.00	25,20	6.45	20.21	0.48	16.52	<20.0	< 0.01	<5.0	<1.0	-4.2	-0.5	
11.04,2021	46,50	22.30	7.44	27.68	0.71	25.49	<20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5	
14.04.2021	43.40	27.60	6.98	24.22	0.64	22.51	<20.0	-00.01	<5.0	<1.0	<4.2	< 0.5	
18.04.2021	46.80	25.10	7.38	26.85	0.79	24.22	<20.0	<0.01	<5.0	<1.0	-4.2	-0.5	
21.04.2021	44,10	24.60	6.74	23,80	0.66	19.56	<20.0	<0.01	<5.0	<1.0	~4.2	<0.5	
25.04.2021	46.00	23.00	6.48	18.61	0.51	15.40	<20.0	<0.01	-15.0	<1.0	c4.2	< 0.5	
28.04.2021	43.20	22.70	6.39	19.48	0.45	18.09	<20,0	<0.01	35.0	=1.0	=4.2	<0.5	
Monthly Average	45.39	24.43	6.74	22.86	0,60	20.36	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5	
CPCB, New Dethi AAQ Standard	100	60	80	80	4	100	180	1	20	ò	5	1)	
Time Weighted Average (hes.)	24	24	24	24	1	24	1.	24	Anunal	Annual	Annual	Annua	
TEST METHOD	IS 5182: Part 23:20 0% (Reaff , 20)2	ES 5182: Part 24:261 9	18 5182 ; Part 2 :2001 (Reaff, 2012	1S 5182 : Part 6 :2006 (Reaft, 2012)	IS 5182 : Part 10 :1999 (Reaff,20 14)	15 5182: Part 25:201 8	15 5182: Part 09:197	EPA- 103.41 nnc.19 99	EPA- 103.4Ju nc.1999	EPA - 103.4Ju nc,1999	IS:5182/ Part- 11):2006 Reaff,20 12	18:5182 Part- 12);200- Reaff,: 2014	

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

Prepared By - A



Checked By-





N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN\_U51909WB1956PTC023037]

T (0674) 2362916, 2360917 F : (0674) 2362918

Report No: BBS/700B

Date: 01.05,2021

#### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/001921
Type of Sample	Ambient Air Sample
Sampling Location	Kanak Prasad Village
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Manitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

	VARAMETERS											
Date	PMa (ng/m²)	(Mg/m²)	SO <sub>1</sub> (µg/w <sup>2</sup> )	NOx (up/m²)	(mg/m²)	NH <sub>2</sub> (µg/m <sup>2</sup> )	O; (eg/m²)	(Ag/m²)	NI (ng/m²)	As (ng/m²)	Cell, (ug/m²)	Bar (ngras)
01.04.2021	52.10	28.20	6.22	19.80	0.49	.16.81	<20.0	<0.01	<5.0	<1.0	-01.2	-0.5
04.04.2021	50,10	25,10	7.21	25.74	0.71	22.54	<20.0	<0.01	<5.0	<1.0	-4.2	~0.5
07.04.2021	47.80	26.40	6.19	16.45	0.45	14.69	<20.0	< 0.01	<5.0	<1.0	-04.2	< 0.5
11.04.2021	49.20	27.00	6.38	22.35	0.58	18.52	<20.0	< 0.01	<5.0	<1.0	-04.2	<0.5
14.04.2021	45.60	25.00	5.41	21.30	0.51	17.45	<20.0	< 0.01	<5.0	<1.0	-01.2	<0.5
18.04,2021	49.30	23.80	6.28	17.32	0.57	15.18	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
21.04,2021	46.20	24.70	6.87	24.38	0.71	20.63	<20.0	< 0.01	45.0	<1.0	-01.2	< 0.5
25.04.2021	44.00	23.60	7.54	28.21	0.80	25.07	-20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5
28.04.2021	43,20	22.50	6.17	18.79	0.47	14.84	<29.0	<0.01	<5.0	<1.0	<4.2	< 0.5
Monthly Average	47.50	25.14	6.58	21.59	0.58	18.41	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
CPCB, Non Delbi AAO Standard	100	60	80	80	4	400	180	1	20	6	5	0
Time Weighted Average (hrs.)	24	24	24	24	p	24	ı	24	Annual	Annual	Anausi	Annual
TEST METHOD	18 5182: Part 23:20 06 (Reat) , 2012	1S 5182: Part 24:201 9	ES 5182 : Part 2 :2001 (Reaff, 2012	15 5182 : Part 6 :2006 (Reaff, 2012)	18 5182 : Part 10 :1999 (Renff.20 14)	15 5182: Puri 25:201 8	18 5182: Part 09:197 4	EPA - 103.4J unc,19 99	EPA - 103.4Ju ne,1999	EPA - 103,4Ju ne,1999	18:5182( Part- 11):2006 Reaff,20 12	15:5182; Part- 12):2004 Restf.: 2014

N.H-\*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gest. Notification.

Prepared By - V



Checked By- While

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

(CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362918

Report Nor BBS/700C

Date: 01.05.2021

## AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/001921
Type of Sample	Ambient Air Sample
Sampling Location	Near BMH
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

	PARAMETERS											
Dute	PNI <sub>II</sub> (pa/m²)	PM <sub>23</sub> (µg/m²)	SO <sub>1</sub> (pg/m <sup>3</sup> )	NOs (ng/m²)	CO (mg/m²)	NHL (re/m²)	O <sub>4</sub> (sq/m²)	(pp/m²)	Ni. (ng/m²)	As (ng/m²)	CaHa (aug/m²)	flatt (ag/m²)
01,04,2021	60.00	28.00	7.51	27.71	0.84	24.74	<20.0	< 0.01	<5.0	<1.0	<4.2	-0.5
04.04.2021	57.60	27.60	6.31	18.54	0.58	15.37	-26.0	< 0.01	< 5.0	<1.0	<4.2	<0.5
07.04.2021	55,60	28.20	6.98	20.80	0.62	17.60	<20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5
11.04.2021	56.90	25.30	7.10	28.36	0.81	2531	<20.0	< 0.01	<5.0	<1.0	<4.2	-0.5
14.04.2021	57.00	27.60	6.58	23.13	0.63	19.28	<20.0	< 0.01	<5.0	<1.0	<4.2	-0.5
18.04.2021	55.00	25.30	6.27	22.45	0.57	18.03	<20.0	< 0.01	<5.0	<1.0	<4.7	<0.5
21.04.2021	58.30	24.00	6.54	25.12	0.68	20,28	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
25,04,2021	55.10	26.10	6.43	26.44	0.67	22.52	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
28.04.2021	\$4.00	23.20	7.21	27.71	0.71	26,24	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
Monthly	56,61	26.14	6.78	24,47	9.67	21.04	<20.0	<0.01	<5.0	<1.0	<4.2	×0.5
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	-1	20	6	5	1
Time Weighted Average (hrs.)	24	24	24	24	1	24	4	24	Annual	Annual	Annual	Annual
TEST METROD	15 5182: Part 23:20 06 (Reaf f. 2012	18 5182: Part 24:20 19	IS 5182 : Part 2 :2001 (Reaff -2012	18 5182 : Part 6 :2006 (Realf .2012)	IS 5182 : Part 10 :1999 (Resff.2 014)	18 5182: Part 25:20 18	IS 5182: Fart 09:19 74	EPA - 103.4 June, 1999	EPA - 103,4Ju ne,1999	EPA - 103.4Ju ne,1999	IS:5182 (Part- II):200 6 Reaff,2 012	(Part- 12):200 4 Reaff,: 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th New 2009 Gett. Multifaction

Prepared By - V



Checked Hy-



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

ICIN U51909WB1956PTC023037]

T (0674) 2362916, 2360917

F (0674) 2362918

Report No: BBS/700D

Date: 01.05.2021

## AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Fort Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/001921
Type of Sample	Ambient Air Sample
Sampling Location	Near Jetty
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

		PARAMETERS											
Date	PM <sub>11</sub> (102/107)	(May (agran)	50; (#8/6 <sup>3</sup> )	NOs (ug/m²)	CO (mgm²)	NH <sub>3</sub> (sig/m²)	O <sub>3</sub> (ag/m <sup>3</sup> )	Pb (sig/m²)	Ni (seg/m <sup>2</sup> )	A1 (ug/m²)	Calla (agm)	Half (mg/m²)	
01.04.2021	64.30	36.00	7.41	26.80	0.71	23.68	<20.0	10,0>	<5,0	<1,0	<4.2	<0.5	
04.04.2021	65.20	33.10	7.00	25,12	0.62	20.65	<20.0	<0.01	<5.0	<1.0	<4.7	40,5	
07.04.2021	64.30	34.00	7.74	29,39	0.88	27.35	<20.0	< 0.01	<5.0	<1.0	~4.2	<0.5	
11.04.2021	65,00	33.10	6.94	24.22	0.77	21.25	<20.0	<0.01	<5.0	<1.0	<4.2	<0,5	
14.04 2021	63.20	30.20	7,78	30.12	0.87	27.39	<20.0	< 0.01	<5.0	<1.0	42	< 0.5	
18.04.2021	62.00	29.70	6.84	21.32	0.59	18,55	<20.0	< 0.01	<5.0	<1.0	-42	<0,5	
21.04.2021	61.50	31.00	6,61	19.49	0.48	16.73	<20.0	< 0.01	45.0	<1.0	<4.2	<0.5	
25.04.2021	62.40	28.00	7.21	25.23	0.71	23,77	<20.0	< 0.01	<5.0	<1.0	<4.2	Q1.5	
28.04.2021	60.20	30.00	6.92	24.84	0.65	22.78	<20.0	< 0.01	<5.0	<1.0	-<4.Z	< 0.5	
Manthly Average	63.12	31.68	7.16	25.17	0.69	22.46	<20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5	
CPCB, Nen Delhi AAQ Standard	100	.60	80	80	.4	400	180	i	20	6	.5	1.	
Time Weighted Average (hrs.)	24	24	24	24	1	24	1	24	Annual	Annual	Annual	Annual	
TEST METHOD	15 5182: Part 23:20 06 (Reaf £ 2012	1S 5182; Part 24:20 19	18 5182 : Part 2 :2001 (Reaff ,2012	18 5182 : Part 6 :2006 (Reaff .2012)	IS 5182 : Part 10 :1999 (Reaft2 014)	1S 5182: Part 25:20 18	18 5182: Part 09:19 74	EPA - 103.4 June, 1999	EPA- 103.4Ju ne,1999	EPA - 103-4Ju nc,1999	18:5182 (Part- 11):200 6 Reaff,2 012	IS:5182 (Part- 12):200 4 Reaff,: 2014	

N.B. \*NAAQ- National Ambient Air Quality Standard us per 18th Nov. 2009 Gatt. Notification

Prepared By - V



Checked By- BAD



N-5/100, Ground Floor IRC Vitage, Nayapell Brubaneswar -751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362916

Report No: BBS/700E

Date: 01.05,2021

### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/001921
Type of Sample	Ambient Air Sample
Sampling Location	Dosinga Village
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

-				-		PAR	RAMETER	S				
Date	PM <sub>pm</sub> (pm/m <sup>2</sup> )	PAI <sub>LE</sub> (seg/m <sup>2</sup> )	SO <sub>2</sub> (pg/m²)	NOs (m/m²)	(m/m²)	NH <sub>3</sub> (Ag/m <sup>2</sup> )	O <sub>1</sub> (ag/or)	P5. (xg/m²)	Ni (ng/m²)	As (ag/m²)	Calle (pg/m²)	flaft (ng/m²)
01.04.2021	48.00	28.20	6.54	20.13	0.40	17.28	<20.0	<0.01	<5.0	<1.0	<4.2	∹0.5
04.04.2021	47.20	27,00	6.93	23.49	11.52	18.14	<20.0	<0.01	<5.0	<1.0	<4.2	40.5
07.04.2021	46.30	27.00	7.40	29.53	0.76	24.39	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
11.04.2021	45.00	25.40	7.84	31.71	0.81	28.31	<20.0	< 0.01	<5.II.	<1.0	<12	-0.5
14.04.2021	44.70	24.30	6.45	-26.45	0.72	24.60	<20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5
18.04.2021	42.10	25.00	6.28	19.78	0.45	13:21	<20.0	<0.01	<5.0	<1.0	=1,2	-0.5
21,04,2021	40.20	22.30	6.15	17.70	0.49	13,40	<20.0	<0.01	<5.0	<1.0	<4.2	-0.5
25.04.2021	43,00	21,60	6.92	28.10	0.72	23.80	<20,0	< 0.01	<5.0	<1.0	<4.2	<0.5
28.04.2021	42.10	22:00	6.23	21.63	0.47	16.98	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
Monthly Average	44.29	24.75	6.74	24.28	0.59	20,23	<20.0	<0,01	<5.0	<1.0	<4.2	<9.5
CPCR, New Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	.5	ī
Time Weighted Average (hrs.)	24	24	24	34	į.	24	Ē	24	Annual	Annual	Annual	Annual
TEST METROD	IS 5182: Part 23:20 06 (Reaf £ 2012	15 5182: Part 24:20 19	18 5182 : Part 2 :2001 (Reaff .2012	18 5182 : Part 6 :2006 (Reaff .2012)	1S 5182 ; Part 10 :1999 (Reaff.2 014)	18 5182: Pari 25:20 18	18 5182: Part 09:19 74	EPA- 103.4 June, 1999	EPA - 103,4Ju nc,1999	EPA - 103,4Ju nc,1999	IS:5182 (Part- 11):200 6 Reaff,2 012	IS:5182 (Part- 12):200 4 Reaff;: 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Cntr. Notification

Prepared By - V



Checked By- Radu



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T : (0674) 2362916, 2360917 F : (0674) 2362918

Report No: RBS/700F

Date: 01.05.2021

#### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/001921
Type of Sample	Ambient Air Sample
Sampling Location	Near Bhitarkanika
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

	-					PAI	CAME TER	5	99			
Date	PM <sub>in</sub> (pg/w <sup>2</sup> )	PM <sub>L!</sub> (µg/m²)	50; (µg/m²)	(og/m²)	CO (ag'm')	NH <sub>1</sub> (µg/m²)	(pg/m²)	Ph (pg/m²)	Ni (ng/m²).	(vg/m²)	Calle (ng/m²)	HaP (ug/m²)
01.04.2021	48,20	26,30	6.10	18.63	0.47	14.44	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
04.04.2021	46,20	25,00	6.22	20.09	0.42	17.27	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
07,04.2021	45,00	24.30	6.39	21.17	0.51	18.12	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
11.04.2021	49,20	25.10	7.01	29.76	0.71	27.29	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
14.04.2021	44.10	22.10	6.41	26.42	0.60	24.50	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
18.04.2021	43.00	23,00	6.64	27.44	0.69	22.42	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
21.04.2021	42.40	21.10	6.31	22.70	0.56	20,48	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
25/04/2021	41.00	20.00	6.19	2131	0.62	19.33	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
28.04.2021	40.70	21.40	6:02	16.63	0.40	12.64	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
Monthly Average	44.42	23,14	6.36	22.68	0.55	19.61	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	1
Time Weighted Average (hrs.)	24	24	24	24	1	24	ı	24	Annual	Annual	Annual	Annual
TEST METHOD	IS 5182: Part 23:20 06 (Real f. 2012	18 5182: Part 24:20 19	IS 5182 ; Part 2 :2001 (Reaff _2012	1S 5182 : Part 6 :2006 (Reaff :2012)	IS 5182 † Part 10 :1999 (Reaff.2 014)	15 5182: Part 25:20 18	18 5182: Part 09:19 74	EPA - 103.4 June, 1999	EPA - 103.4Ju ne,1999	EPA - 103,4Ju nc,1999	1S:5182 (Puri- 11):200 6 Reaff,2 012	1S:5182 (Part- 12):200 4 HeafL; 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 13th New. 2009 Gatt. Notification

Prepared By - V



Checked By- Whali

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T, (0674) 2362916, 2360917

F (0674) 2362918

# TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/701 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00508 Sample Description: EFFLUENT WATER

Sampling Location: STP 15 KLD Date of sampling: 03.04.2021

### ANALYSIS RESULT

SL.	SL. Test Parameters		41.4	95 - 15 - 15 - ct	Rest	dt
No.	Test Parameters	Units	Limit	Test Specification	Inlet	Outlet
1.	Colour	Hazen	-	APHA (23rd Edition) 2120B 2017	Blackish	Clear
2.	Odour			APHA (23rd Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C		6.5 - 9.0	APHA (23td Edition) 4500 H-B	7.68	7.59
4.	Appearance	in a	-	Lab Method	Turbid	Clear
5.	TSS	mg/l	<20.0	APHA (23 <sup>ed</sup> Edition) 2540D	262.0	<2.5
6.	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	52.0	6.0
7.	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	200.0	25.0
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	7.0	<1.4
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	64.0	2.4
10.	Total Nitrogen (as N)	mg/1	<10.0	IS 14684 (1999); Rffm:2014	72.0	3.6
Ĥ.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	1200.0	100.0

Report Prepared by:

S.K. SPER

For Mitra S. K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362918

### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

6DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/702 Date: 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00510 Sample Description: EFFLUENT WATER

Sampling Location: STP 140KLD Date of sampling: 03.04.2021

### ANALYSIS RESULT

SI.	SL. Test Parameters			Total Canadi Canadian	Resu	ilt
No.	Test Parameters	Units	Limit	Test Specification	Inlet	Outlet
1.	Colour	Hazen	200	APHA (23th Edition) 2120B 2017	Blackish	Clear
2,	Odour	-	+ 1	APHA (23td Edition) 2150B	Disagrecable	Agreeable
3.	pH value at 26°C	-	6.5 - 9.0	APHA (23 <sup>rd</sup> Edition) 4500 H-B	7.54	7.41
4.	Арреагипсе	-	-	Lab Method	Turbid	Clear
5.	TSS	mg/I	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	121.0	2,5
6.	BOD	mg/t	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	60.0	7.2
7.	COD	mg/I	<50,0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	180.0	34.0
8.	Oil & Grease	mg/l	<10.0	APHA (23rd Edition) 5220B 2017	3.0	<1.4
9.	Ammonical Nitrogen	mg/I	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	14.0	1.2
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	18,0	2.0
11.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23rd Edition) 9221 E	630.0	78.0

Report Prepared by:

S.K. ARE

For Mitra S. K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T : (0674) 2362916, 2360917 F : (0674) 2362918

# TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No. : BBS/703 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00694 Sample Description: EFFLUENT WATER

Sampling Location: STP 15 KLD Date of sampling: 18.04.2021

### ANALYSIS RESULT

SL. Test Parameters			94.50	m of contraction	Resu	it
No.	Test Parameters	Units	Limit	Test Specification	Inlet	Outlet
1.	Colour	Hazen	-	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear
2.	Odour	***		APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C	anen.	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7.15	7.80
4.	Appearance		-	Lab Method	Turbid	Clear
5.	TSS	mg/l	<20.0	APHA (23rd Edition) 2540D	214.0	<2.5
6.	BOD	mg/L	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	75.0	7.4
7.	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	244,0	26.0
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	11.0	<1.4
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	47.0	3.0
10.	Total Nitrogen (as N)	mg/I	<10.0	IS 14684 (1999); Rffm:2014	78.0	4.5
11.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23rd Edition) 9221 E	1400.0	85.0

Report Prepared by:

For Mitra S. K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapaili Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362918

### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/704 Date: 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00696 Sample Description: EFFLUENT WATER

Sampling Location: STP 140KLD Date of sampling: 18.04.2021

#### ANALYSIS RESULT

SL.			Limit	Test Specification	Rest	alt
No.	Test Parameters	Units	Limits	Test operation	Inlet	Outlet
1.	Colour	Hazen	(4)	APHA (23th Edition) 2120B 2017	Blackish	Clear
2,	Odour		-	APHA (23rd Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C		6.5 - 9.0	APHA (23rd Edition) 4500 H-B	6.68	7.81
4.	Appearance	-		Lab Method	Turbid	Clear
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	145.0	6.0
6.	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	81.0	8.0
7.	COD	mg/I	<50.0	APHA (23rd Edition) 5220B 2017	245.0	38.0
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	4,2	<1,4
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	17.0	2,4
10.	Total Nitrogen (as N)	mg/I	<10.0	1S 14684 (1999); Rffm:2014	28.0	3.6
11.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	700,0	85.0

Report Prepared by:

\_

P. S.K. POR

For Mitra S. K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapelli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917 F (0674) 2362918

### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

Report No.: BBS/705 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00810

Sample Description: Ambient Noise

#### Noise Level Monitoring Data

SL No	Location	Sampling Date	Standard Day Time (Leq) in dB(A)	Day Time (Leq) in dB(A)	Standard Night Time (Leq) in dB(A)	Night Time (Leq) in dB(A)
I.	Colony Area (R)	03.04.2021	55.0	45.9	45.0	36.1
2.	Kanak Prasad Village (R)	05.04.2021	55.0	46.2	45.0	37.0
3,	Near BMH (I)	06.04.2021	75.0	60.0	70.0	56.0
4.	Near Jetty (I)	10.04.2021	75.0	64.2	70.0	60.1
5.	Dosinga Village (R)	12.04.2021	55.0	45.2	45,0	35,4
6,	Near Bhitarkanika ( Eco Sensitive Zone)	13.04.2021	50.0	40.5	40.0	32.6

Report Prepared by:

PRIVATE LA

For Mitra S. K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362918

TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/706 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00890 Sample Description: Noise (Work Zone)

#### Noise Level Monitoring Data

SL No	Sampling Date	Sampling Location	MAX	MIN	Results in Avg Leq dB(A)
L	01.04,2021	Stack Yard	84.0	46.8	66.0
2.	04.04.2021	Wagon Tippler	87.4	63.2	66.8
3.	07.04.2021	Near Silo	86.1	76.3	84.0
4.	08.04.2021	Near Stacker & Reclaimer	85.4	44.8	63.6
5.	11.04,2021	Project Area	83.7	38.2	54.9
6.	14.04.2021	Transfer Point	85.0	44.8	69.7
7.	15.04.2021	Workshop	87.9	57.3	71.5
8.	17.04.2021	Steel Yard	84.6	54.4	67.1
9.	18.04.2021	FCC Shed	87,0	39.8	54,3
10.	19.04.2021	Near Port Canteen	83.1	52.8	69.2

OSHA'S Permissible N	loise Exposure Limits
Noise Level	Exposure Limit
90 dBA	8.0 hours

Report Prepared by:

4-

PRIVATE LANGE

For Mitra S.K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917 F: (0674) 2362918

Ref: MSKGL/FD/2020-21/001900

Date: 01.05.2021

### GROUND WATER LEVEL MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/FD/2020-21/000128
Type of Sample	Piezometric Well
Sampling Done by	Mr. Kunja Bihari Nayak

Sl. No.	Location Name	Date of Monitoring	Water Level in feet
Piezometric	Well	-	
	Township Pump House	16.04.2021	17.97
2	Near WTP	16.04,2021	15.71

Report Prepared by:

Y. PRIV

For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 75 (015

(CIN: U51909WB1958PT0023037]

T (0674) 2362916, 2360917 F (0674) 2362918



### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA DIST : BHADRAK, 756171 ODISHA Report No. : BBS/707 Date : 01.05.2021

Sample No.: MSKGL/FD/2020-21/04/00235

Date of sampling : 16.04.2021

Sampling Description: Ground Water (Piezometric)
Sampling Location: Township Pump House
Sampling Done By: Mr. Kunja Bihari Nayak

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	St. No Test Parameters		Limit	Test Method / Specification	Result	
1.	E. Coli	/I00ml	Not Detectable	IS: 15185 ; 2016	Not Detected	
2,	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected	

CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL No.	Test Parameter	Units	(Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH (at 26°C)	and the same of	6.5 - 8.5	No Relaxation	IS 3025 (Part 11)-1984 Rffin: 2012	7.24
2	Sulphate (as SO <sub>0</sub> )	mg/l	200	400	1S 3025 (Part 24)- 1986 Rffm: 2014	12.00
3.	Calcium (as Ca)	mg/l	75	200	IS 3025 (Part 40)- 1991 Rffm: 2014	30,00
4.	Arsenic (ns As)	me/l	0.01	0.05	1S 3025 (Part 2) 2004 RA 2014	BDL (DL-0.005)
5.	Lend (as Ph)	magel	0.01.	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (as Zn)	mg/i	5.0	15.0	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as-Cir)	mg/l	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
õ.	Mercury (as Hg)	mg/l	0.001	No Relaxation	IS 3025 (Part 48)-1994 Rffm: 2014	BDL(DL-0.0002)
9.	Cadmium (as Cd)	mg/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/l	0.5	No Relaxation	15 3025 (Part 39)-1991 Refin: 2014	BOL(DL:0.5)
11.	Fluoride (as F)	mg/l	1.0	1.5	1S 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0.2)
17.	Colour	Hagen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1.0)
13.	Odour	_	Agreenble	Agreeable.	IS 3025 (Part 5)-1983 Rffm:2012	Agreeable
14.	Turbidity	N.T.U	1	5	IS 3025 (Part 10)-1984 Rffm: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/l	0.2	1.0	1S 3025 (Part 26)- 1986 Rffm:2014	BDL(DL:0.1)
16.	Iron (as Fc)	mg/I	0.3	No Refassition	1S 3025 (Part 53)-1988 Rffm: 2014	BDL(DL:0.05)
17.	Chluride (as CI)	mg/l	250	1000	1S 3025 (Part 32)-1988 Rffin: 2014	68.00
18.	Total Dissolved Solids	mg/I	500	2000	IS 3025 (Part 16)-1984; Rffm:2012	278,00
619.	Alkalinity (as CaCO <sub>3</sub> )	mg/l	200	600	IS 3025 (Part 23)- 1986 Rffm: 2009	184.0
20.	Aluminium (as Al)	mg/l	0.03	0.2	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (in Mg)	ma/l	30	100	15 3025 (Part 46)-1994 Rffm: 2014	24.00
22	Total Hardness (as CaCO <sub>1</sub> )	mgd	200	600	IS 3025 (Part 21)-2013	187.00
23.	Boron (as B)	mg/L	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	mg/l	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrae (as NO <sub>3</sub> )	mg/l	45	No Relaxation	IS 3025 (Part 34)-1988 Rffm: 2014	HDL(DL:0.4)
26.	Phenolic Compounds (as C <sub>0</sub> H <sub>2</sub> OH)	mg/t	0.001	0,002	15/3025 (Part 43)- 1992; Rffin: 2014	BDL(DL:0,001)
27.	Sclenium (as Se)	mg/I	0.01	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chromium (as Cr)	mg/I	0.05	No Relacation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( as Ag)	mg/l	0.1	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barium (as Ba)	mg/l	0.7	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31	Salinity	mg/l		_	IS 3025 (Part 14)- 2013	154,00



Ref. No. BBS/707

Date- 01.05,2021

32.	Sulphide ( as H2S)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
33	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	.15 3025 (Part 34)- 1988; Rffm: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	1S 3025 (Part 26)- 1986; Riffin: 2014	BDL(DL:0.1)
35.	Nickel ( as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/I	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Riffm: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38:	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	0,0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edtn.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Bipbenyls (PCB)	mg/l	0,0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

PRIL

For Mitra S. K. Private Limited.

MSK

N-5/100, Ground Floor IRC Village, Nayspall Bhubaneswar -751015

[CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917 F : (0674) 2362918

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

### TEST REPORT

Report No. : BBS/708 Date : 01.05.2021

Sample No.: MSKGL/FD/2020-21/04/00236.

Date of sampling : 16.04,2021

Sampling Description: Ground Water (Piezometric)

Sampling Location: Pump House WTP Sampling Done By: Mr. Kunja Bihari Nayak

### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

Test Parameters	Units	Limit	Test Method / Specification	Result
E. Coli	/100ml	Not Detectable		Not Detected
Total Coliform Organism	/100ml	Not Detectable		Not Detected
	E. Coli	E. Coli /100ml	E. Coli /100ml Not Detectable	E. Coli /100ml Not Detectable IS: 15185 : 2016

CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL Nu.	Nu. Test Parameter		Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH ( at 26° C)	-	6.5 - 8.5	No Relaxation	1S 3025 (Part 11)-1984 Rffin: 2012	7,74
2,	Sulphate (as SO <sub>4</sub> )	mg/l	200	400	IS 3025 (Part 24)- 1986 Riffin: 2014	8.00
3.	Calcium (as Ca)	mg/l	75	200	IS 3025 (Part 40)- 1991 Rffm: 2014	31.00
4.	Arsenic (as As)	mg/l	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lead (as Pb)	mg/i	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zine (as Zn)	neg/l	5.0	15.0	15 3025 (Part 2) 2004 RA 2014	BDL(DL30.02)
7.	Copper (as Cu)	Figur	0.03	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Ha)	mg/l	0.001	No Relaxation	18 3025 (Part 48)-1994 Rffm: 2014	BDL(DL:0.0002)
9.	Cadmium (as Cd)	mg/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/l	0.5	No Relacation	IS 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11.	Fluoride (as F)	mg/l	1.0	1.5	15 3025 (Part 60)- 2008 Rffin: 2013	BDL(DL:0.2)
12	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1/0)
13.	Odour	-	Agrecable	Agreeable	IS 3025 (Part 5)-1983 Rffm:2012	Agreeable
14.	Turbidity	N.T.U	1	5	IS 3025 (Part 10)-1984 Rifin: 2012	BDL(DL:1.0)
15,	Residual free Chlorine	mg/l	0.2	LO	IS 3025 (Part 26)- 1986 Rffm: 2014	BDL(DL:0,1)
16.	Iron (as Fe)	mg/l	0.3	No Retrection	1S 3025 (Part 53)-1988 Rffm: 2014	BDL(DL:0.05)
17.	Chloride (as C1)	mg/l	250	1000	IS 3025 (Pan 32)-1988 Rffin: 2014	78.00
18.	Total Dissolved Solids	mg/I	500	2000	IS 3025 (Part 16)-1984; Riffm: 2012	302.00
19.	Alkalinity (as CaCO <sub>2</sub> )	mg/l	200	600	IS 3025 (Part 23)- 1986 Riffin: 2009	176.00
20	Aluminium (as A1)	mg/T	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/I	30	100	IS 3025 (Part 46)-1994 Riffn: 2014	22.00
22	Total Hardriess (as CaCO <sub>1</sub> )	ing/I	200	600	IS 3025 (Part 21)-2013	179.00
23.	Bornn (as B)	mg/L	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	mg/I	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>1</sub> )	mic/T	45	No Relaxation	IS 3025 (Part 34)-1988 Rffm: 2014	BDL(DL:0.4)
26.	Phenofic Compounds (as C <sub>c</sub> H <sub>4</sub> OH)	mg/E	0.001	0.002	18 3025 (Part 43)- 1992; # [lin: 2014	BDL(DL:0.001)
27.	Selenium (as Se)	nsg/i	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	and the same of th
28	Total Chromium ( as Cr )	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
29	Silver (as Ag)	ms/L	0.1	Nu Reluxation	IS 3025 (Part 2) 2004 RA 2014	BOL(DL:0.01)
30.	Barium (as Ba)	mg/L	0.7	No Relaxation	JS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
31.	Satinity	ma/l	9.1	(40 thinking)	1S 3025 (Part 14)-2013	BDL(DL:0.1)
					45 2023 [Fait 14]: 2015	173.00



### Ref. No. BBS/708

### Date- 01.05.2021

32.	Sulphide (as H2S)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
33.	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffm: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
35.	Nickel (as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36,	Cymride (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffin: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23rd Edin.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Reluxation	US FPA 8082	BDL(DL:0.0005)

Report Prepared by:

PRIVA

For Mitra S. K. Private Limited.

MSK

N-5/100, Ground Floor IRC Village; Nayapalli Bhubaneswar - 751015

(CIN: U51909WB1956PTC023037)

T: (0674) 2362916, 2360917 F: (0674) 2362918

### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DUAMRA

DIST: BHADRAK, PIN:756171 ODISHA

Report No. 2 BBS/709 Date : 01.05.2021

Sample No.: MSKGL/FD/2020-21/04/00237

Date of sampling 7 16.04.2021

Sampling Description: Ground Water (Piezometric)

Sampling Location: Running Room Sampling Done By: Mr. Kunja Bihari Nayak

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Units	Limit	Test Method / Specification	Result
1	E. Celi	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2.	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 ; 2016	Not Detected

CHEMICAL ANALYSIS RESULT AS PER 15: 10500 - 2012 Requirement Permissible limit SL Test Parameter Units (Acceptable in the absence of Test Method / Specification Result No. Limit) alternate Source 1 pH ( m 26" () 6.5 - 8.5 No Relaxation IS 3025 (Part 11)-1984 Rffin: 2012 7.48 2 Sulphate (as SO<sub>4</sub>) mg/L 200 400 IS 3025 (Part 24)- 1986 Riffm: 2014 7.00 3. Calcium (as Ca) 75 mg/i 200 IS 3025 (Part 40)- 1991 Rffm: 2014 10.00 Arsenic (as As) 4. 0.01 0.05 mg/L IS 3025 (Part 2) 2004 RA 2014 IIDL/DL:0.005) 5 Load (as Pb) 0.01 mg/l Nu Relaxation IS 3025 (Part 2) 2004 RA 2014 RDL(DL:0.005) ß, Zinc (as Zn) 5.0 mg/I 15.0 BDL(DL:0.02) IS 3025 (Part 2) 2004 RA 2014 7 Copper (as Cu) 0.05 15 mig/I IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.02) B, Mercury (as He) mg/l 0.001 No Relaxation IS 3025 (Part 48)-1994 Rffin: 2014 BDL(DL:0.0002) g. Cadmium (as Cd) mg/I 0.003 No Reheation 15 3025 (Part 2) 2004 RA 2014 BDL(DL:0.001) 0.5 10. Mineral Oil mg/l No Relaxation IS 3025 (Part 39)-1991 Rffm: 2014 BDL(DL:0.5) Fluoride (as F) 11. 1.0 mg/i 1.5 IS 3025 (Part 60)- 2008 Rffin: 2013 BDL(DL:0.2) 12 Colour Hayen 5 15 3025 (Part 4)-1983; Rffm:2012 BDL(DL:1.0) 13. Odour Agrecable Agreeable 1S 3025 (Part 5)-1983 Rffm:2012 Agromble 14 Turbidity NEU 5 IS 3025 (Part 10)-1984 Rffm: 2012 BDL(DL:1.0) 15 Residual free Chlorine mg/I 0.2 130 15 3025 (Part 26)- 1986 Rffin:2014 BDL(DL:0.1) 16. Iron (as Fe) mg/L 0.3 No Relocation IS 3025 (Part 53)-1988 Rifm; 2014 BDL(DL:0.05) 17 Chloride (as Cl) map/l 250 1000 15:3025 (Purt 32)-1988 Rffm: 2014 72.00 18 Total Dissolved Soluls mg/t 500 2000 IS 3025 (Part 16)-1984; Riffin:2012 297.00 19 200 Alkalinity (as CaCO<sub>1</sub>) mg/L 600 IS 3025 (Pan 23)- 1986 Rffin: 2009 161.00 20. Aluminium (as Al) mg/I 0.03 0.2 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.01) 21 Magaresium (as Mg) 30 mg/l 100 18.00 IS 3025 (Part 46)-1994 Rffin: 2014 Total Hardness 22 200 600 maz/I IS 3025 (Part 21)-2013. 180.00 (as CaCO.) 23 Baron (as H) 0.5 1.0 mjaT IS 3025 (Pan 2) 2004 RA 2014 BDL(DL:0.3) 24. Mattamese (as Mn) 0.10.3 mg/l IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.02) 25 Nitrate (as NO<sub>2</sub>) mg/L 45 No Relaxation IS 3025 (Part 34)-1988 Rifm: 2014 BDL(DL:0.4) Phenolic Compounds 263 0.001 0.002 (\$ 3025 (Part 43)- 1992; Rffin: 2014 BDL/DL:0.0015 mg/I (ISS C., H, OH) 27 Sclerium (as Se) 0.01 mg/1 No Relaxation IS 3025 (Part 2) 2004 RA 2014 BDL/DL:0.005) 28. Total Chromium (as Cr) 0:05 15 3025 (Part 2) 2004 RA 2014 mail No Relaxation BDL(D1:0.01) 20 Silver (as Ag) mic/l 0.1 No Religation IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.005) 30 Barium (as Ba) mg/l 0.7 No Relaxation BDL(D1:0.1) IS 3025 (Part 2) 2004 RA 2014 Salimity 31 mg/l IS 3025 (Part 14)- 2013 197.00



#### Ref. No. BBS/709

### Date- 01.05.2021

32.	Sulphide ( as H2S)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rffin: 2014	BDL(DL:0.02)
33.	Aminonia ( as total aminonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffns: 2014	BDL(DL:0.1)
35.	Nickel (as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01) -
36.	Cyunide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffin: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	1S 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/I	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edtn.) 6440C	BDL(DL:0,0001)
39.	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

PRIVATOR E

For Mitra S. K. Private Limited.



N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917 F (0674) 2362918

# TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/710 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00900 Sample Description: VOC Monitoring

### ANALYSIS

SL No	Date of Monitoring	Sampling Location	Method of Analysis	<u>Parameter</u>	Result
1.	03.04.2021	Jetty	Jetty		<0.008
2.	03.04.2021	Wagon Tippler			<0.008
3.	04.04.2021	Near Silo	NIOSH-1501	Volatile Organic	<0.008
4.	04.04.2021	Transfer Point		Compound (VOC in mg/m³)	<0.008
5.	10.04.2021	BMH Workshop			<0.008
6.	10.04,2021	Steel Yard			<0.008
7,	11.04.2021	FCC Shed			<0.008
8.	11.04.2021	SS 6 Office			< 0.008

Report Prepared by:

PRIVATE OF THE PRIVAT

For Mitra S. K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 75/1015 [CIN] U51909WB1956PTC023037]

T : (0674) 2362916, 2360917 F : (0674) 2362918

TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/711 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00520 Sample Description: Indoor Air Quality

Date of sampling : 14.04.2021

Sampling Location : SS-6 Building 2nd Floor

#### ANALYSIS RESULT

SL. No	POLLUTANT	UNIT	RESULT	LIMIT AS PER OSHA	METHOD OF TEST REFERENCE
1.	Particulate Matter (<10µm)	mg/m3	0.021	15	IS: 5182 (Part-23)
2.	Particulate Matter (<2.5µm)	mg/m <sup>3</sup>	0.011	5	TPM/MSK/ENV(AP)/01/03
3.	Temperature	Deg C	28-32	_	IS: 3025 (Part-9)
4.	Humidity	%	69-72	See	By Calculation
5.	VOC	mg/m3	< 0.008		NIOSH-1501
6.	Carbon monoxide (CO)	ppm	0.62	50	IS: 5182 (Part-10)
7.	Oxygen (O <sub>2</sub> )	%	17.5		IS: 13270:1992
8.	Carbon-Dioxide (CO <sub>2</sub> )	ppm	522.0	5000	IS: 5182 (Part-10)
9.	HCHO	ppm	0.24	0.75	NIOSH-2016

Air Exposure Plates for Microbial Count (Bacteria)

Media used:- Plate Count Agar (Total Bacterial Count)

Exposure time:- 30 mins.

Incubation temp/time: - 30°C/72 hrs

Expressed in Colony Forming Units (CFU)

Location	Corner 1	Corner 2	Corner 3	Corner 4	Middle
Exposure (30 mins)	36	28	40	39	32
Total count	36	28	40	39	22

Air Exposure Plates Count for Fungi

Media used: Chloramphenicol Yeast (Glucose) (Yeast & Mould Count)

Exposure time: 30 mins

Incubation temp/time:- 25°C/5 days

Expressed in Colony Forming Units (CFU)

Location	Corner 1	Corner 2	Corner 3	Corner 4	Middle
Exposure (30 mins)	Yeast - 0 Mould - 11	Yeast -0 Mould - 8	Yeast - 0 Mould - 12	Yeast - 0 Mould - 9	Yeast - 0 Mould -6
Total count	11	8	12	9	6

Report Prepared by:

A-



For Mitra S.K. Private Limited



T: (0674) 2362916, 2360917

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/712 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00521 Sample Description: Indoor Air Quality

Date of sampling : 14.04.2021

Sampling Location : SS-6 Building 3rd Floor

#### ANALYSIS RESULT

SI. No	POLLUTANT	UNIT	RESULT	LIMIT AS PER OSHA	METHOD OF TEST REFERENCE
1.	Particulate Matter (<10μm)	mg/m3	0.031	15	IS: 5182 (Part-23)
2.	Particulate Matter (<2.5µm)	mg/m3	0.015	5	TPM/MSK/ENV(AP)/01/03
3.	Temperature	Deg C	26-30	-	IS: 3025 (Part-9)
4.	Humidity	%	62-69		By Calculation
5.	VOC	mg/m	<0.008	140	NIOSH-1501
6.	Carbon monoxide (CO)	ppm	0.51	50	1S: 5182 (Part-10)
7.	Oxygen (O <sub>2</sub> )	%	19.2	1999	IS: 13270:1992
8.	Carbon-Dioxide (CO <sub>2</sub> )	ppm	531.0	5000	1S: 5182 (Part-10)
9.	HCHO	ppm	0.24	0.75	NIOSH-2016

Air Exposure Plates for Microbial Count (Bacteria)

Media used:- Plate Count Agar (Total Bacterial Count)

Exposure time: 30 mins

Incubation temp/time:- 30°C/72 hrs.

Expressed in Colony Forming Units (CFU)

Location	Corner 1	Corner 2	Corner 3	Corner 4	Middle
Exposure (30 mins)	41	44	39	43	45
Total count	41	44	39	43	45

#### Air Exposure Plates Count for Fungi

Media used:- Chloramphenicol Yeast (Glucose) (Yeast & Mould Count)

Exposure time:- 30 mins

Incubation temp/time:- 25°C/5 days

Expressed in Colony Forming Units (CFU)

Location	Corner 1	Corner 2	Corner 3	Corner 4	Middle
Exposure (30 mins)	Yeast - 0 Mould - 10	Yeast -0 Mould -	Yeast - 0 Mould - 7	Yeast - 0 Mould - 12	Yeast - 0 Mould - 14
Total count	10	5	7	12	14

Report Prepared by:





For Mitra S.K. Private Limited

Authorized Signatory

H O.: Shrachi Centre (5th Floor), 748, Acharya Jagadish Chandra Bose Road, Kolksta - 700 016, West Bengal, India T: 91 33 4014 3000 / 2265 0006 / 2265 0007, F: 91 33 2265 0008, E: info@mitrask.com, W: www.mitrask.com

N-5/100, Ground Floor IRC Village, Neyapali Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T : (0674) 2362916, 2360917 F : (0674) 2362918



Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/713 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00522

Sample Description: Indoor Air Quality
Date of sampling : 18.04.2021

Sampling Location : Site Office

#### ANALYSIS RESULT

SL No	POLLUTANT	UNIT	RESULT	LIMIT AS PER OSHA	METHOD OF TEST REFERENCE
1.	Particulate Matter (<10µm)	mg/m	0.029	15	1S: 5182 (Part-23)
2.	Particulate Matter (<2.5µm)	mg/m	0.017	5	TPM/MSK/ENV(AP)/01/03
3.	Temperature	Deg C	30-35	~	IS: 3025 (Part-9)
4.	Humidity	%	68-73	-	By Calculation
5.	VOC	mg/m³	< 0.008		NIOSH-1501
6.	Carbon monoxide (CO)	ppm	0.66	50	15: 5182 (Part-10)
7.	Oxygen (O <sub>2</sub> )	%	18.7	~	IS: 13270:1992
8.	Carbon-Dioxide (CO <sub>2</sub> )	ppm	562.0	5000	IS: 5182 (Part-10)
9.	HCHO	ppm	0.24	0.75	NIOSH-2016

#### Air Exposure Plates for Microbial Count (Bacteria)

Media used:- Plate Count Agar (Total Bacterial Count)

Exposure time:- 30 mins

Incubation temp/time:- 30°C/72 hrs

Expressed in Colony Forming Units (CFU)

Location	Corner 1	Corner 2	Corner 3	Corner 4	Middle
Exposure (30 mins)	42	38	46	43	35
Total count	42	38	46	43	35

#### Air Exposure Plates Count for Fungi

Media used:- Chloramphenicol Yeast (Glucose) (Yeast & Mould Count)

Exposure time:- 30 mins

Incubation temp/time:- 25°C/5 days

Expressed in Colony Forming Units (CFU)

Location	Corner 1	Corner 2	Corner 3	Corner 4	Middle
Exposure (30 mins)	Yeast - 0 Mould - 11	Yeast -0 Mould - 8	Yeast - 0 Mould - 13	Yeast - 0 Mould - 6	Yeast - 0 Mould - 4
Total count	11	8	13	3	4

Report Prepared by:





For Mitra S.K. Private Limited

Authorized Signatory

H.O.: Shrachi Centre (5th Floor), 74B, Acharya Jagadish Chandra Bose Road, Kolkata - 700 016, West Bengal, India T: 91 33 4014 3000 / 2265 0006 / 2265 0007, F: 91 33 2265 0008, E: info@mitrask.com, W: www.mitrask.com



N-5/100, Ground Floor IRC Village, Nayapall Bhubaneswar - 75/1015

(CIN: U51909WB1956PTC023037)

T: (0674) 2362916, 2360917

F: (0674) 2362918

TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/714 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00523 Sample Description: Indoor Air Quality

Date of sampling : 18.04.2021 Sampling Location : MCC-1

#### ANALYSIS RESULT

St. No	POLLUTANT	UNIT	RESULT	LIMIT AS PER OSHA	METHOD OF TEST REFERENCE
1.	Particulate Matter (<10µm)	mg/m	0.023	15	IS: 5182 (Part-23)
2,	Particulate Matter (<2.5µm)	mg/m²	0.014	5	TPM/MSK/ENV(AP)/01/03
3.	Temperature	Deg C	25-29		IS: 3025 (Part-9)
4.	Humidity	%	63-68	-	By Calculation
5.	VOC	mg/m <sup>3</sup>	< 0.008		NIOSH-1501
6.	Carbon monoxide (CO)	ppm	0.59	50	IS: 5182 (Part-10)
7.	Oxygen (O <sub>7</sub> )	%	18.8		IS: 13270:1992
8.	Carbon-Dioxide (CO <sub>2</sub> )	ppm	527.0	5000	1S: 5182 (Part-10)
9.	HCHO	ppm	0.24	0.75	NIOSH-2016

Air Exposure Plates for Microbial Count (Bacteria)

Media used:- Plate Count Agar (Total Bacterial Count)

Exposure time: 30 mins

Incubation temp/time: - 30°C/72 hrs

Expressed in Colony Forming Units (CFU)

Location	Corner 1	Corner 2	Corner 3	Corner 4	Middle
Exposure (30 mins)	33	49	30	47	31
Total count	33	49	30	47	31

#### Air Exposure Plates Count for Fungi

Media used:- Chloramphenicol Yeast (Glucose) (Yeast & Mould Count)

Exposure time: - 30 mins

Incubation temp/time:- 25°C/5 days

Expressed in Colony Forming Units (CFU)

Location	Corner 1	Corner 2	Corner 3	Corner 4	Middle
Exposure (30 mins)	Yeast - 0 Mould - 5	Yeast -0 Mould - 8	Yeast - 0 Mould - 14	Yeast - 0 Mould - 12	Yeast - 0 Mould - 11
Total count	5	8	14	12	- 11

Report Prepared by:



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For Mitra S.K. Private Limited

Authorized Signatory

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N-5/100, Ground Floor IRC VIllage, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/715 Date : 01.05.2021

Sample No. : MSKGL/ED/2020-21/01/00524 Sample Description: Indoor Air Quality

Date of sampling : 13.04.2021

Sampling Location : PSS

#### ANALYSIS RESULT

SL No	POLLUTANT	UNIT	RESULT	LIMIT AS PER OSHA	METHOD OF TEST REFERENCE
1.	Particulate Matter (<10µm)	mg/m	0.038	15	1S: 5182 (Part-23)
2,	Particulate Matter (<2.5µm)	mg/m	0.023	5	TPM/MSK/ENV(AP)/01/03
3.	Temperature	Deg C	28-34		IS: 3025 (Part-9)
4.	Humidity	%	65-70	-	By Calculation
5.	VOC	mg/m <sup>3</sup>	< 0.008	New .	NIOSH-1501
6.	Carbon monoxide (CO)	ppm	0.61	50	IS: 5182 (Part-10)
7.	Oxygen (O <sub>2</sub> )	%	18.2	240	IS: 13270:1992
8,	Carbon-Dioxide (CO <sub>2</sub> )	ppm	530.0	5000	IS: 5182 (Part-10)
9.	НСНО	ppm	0.24	0.75	NIOSH-2016

#### Air Exposure Plates for Microbial Count (Bacteria)

Media used:- Plate Count Agar (Total Bacterial Count)

Exposure time: - 30 mins

Incubation temp/time:- 30"C/72 hrs

Expressed in Colony Forming Units (CFU)

Location	Corner 1	Corner 2	Corner 3	Corner 4	Middle
Exposure (30 mins)	42	48	33	40	37
Total count	42	48	33	40	37

#### Air Exposure Plates Count for Fungi

Media used:- Chloramphenicol Yeast (Glucose) (Yeast & Mould Count)

Exposure time: - 30 mins

Incubation temp/time:- 25°C/5 days

Expressed in Colony Forming Units (CFU)

Location	Corner 1	Corner 2	Corner 3	Corner 4	Middle
Exposure (30 mins)	Yeast - 0 Mould - 14	Yeast -0 Mould - 11	Yeast - 0 Mould - 10	Yeast - 0 Mould - 13	Yeast - 0 Mould - 7
Total count	14	-11	10	13	7

Report Prepared by:



For Mitra S.K. Private Limited

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TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

6DIST: BHADRAK, PIN:756171 ODISHA

Report No. : BBS/712 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00512 Sample Description: EFFLUENT WATER.

Sampling Location: STP 150KLD Date of sampling: 03.04.2021

#### ANALYSIS RESULT

SL. T	Test Parameters	Units	Limit	Test Specification	Result		
	TEST I MINIMETERS			Test opecineation	Inlet	Outlet	
I.	Colour	Hazen	-	APHA (23rd Edition) 2120B 2017	Blackish	Clear	
2.	Odour		+	APHA (23rd Edition) 2150B	Disagreeable	Agrecable	
3.,	pH value at 26°C	-	6.5 - 9.0	APHA (23 <sup>rd</sup> Edition) 4500 H-B	7.51	7.81	
4.	Appearance		+	Lab Method	Turbid	Clear	
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	140.0	6.2	
6.	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	80.0	5.0	
7.	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	230,0	24.0	
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	4.0	<1.4	
9,	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	38.0	1.8	
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	44.0	2.6	
11:	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	600.0	80.0	

Report Prepared by:

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For Mitra S. K. Private Limited

N-5/100, Ground Floor IRC Village, Neyapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T. (0674) 2362916, 2360917

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

Report No.: BBS/150 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00698 Sample Description: EFFLUENT WATER

Sampling Location : STP 150KLD Date of sampling : 18.04.2021

#### ANALYSIS RESULT

SL. No.	Test Parameters	Units	Limit	Test Specification	Result		
	Test Farameters			Test Specification	Inlet	Outlet	
7.	Colour	Hazen	-	APHA (23 <sup>nl</sup> Edition) 2120B 2017	Blackish	Clear	
2.	Odour	-	-	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agrecable	
3.	pH value at 26°C	-	6.5 - 9.0	APHA (23 <sup>rd</sup> Edition) 4500 H-B	7.55	7.75	
4.	Appearance		*	Lab Method	Turbid	Clear	
5,	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	215.0	5.2	
6.	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	71.0	7.0	
7.	COD	mg/I	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	210.0	30,0	
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	8.0	<1.4	
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	41.0	0.88	
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	52.0	1.6	
11.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	700.0	75,0	

Report Prepared by:

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For Mitra S. K. Private Limited

MSK TESTING OINSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/720 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00539

Sample Description : Sea Sediment

Sampling Location: Dredging Disposal Site

Date of sampling : 03.04.2021

#### ANALYSIS RESULT

Sl. No.	<u>Parameters</u>	Unit	Test Method	Result
1.	pH value	None	1S 2720 (Part 26)-1987;Rffm:2011	7.52
2.	Electrical Conductivity	us/cm	1S 3025 (Part 14)-1984;Rffin:2006	1439.0
3,	Organic Matter	2/6	IS 2720 (Part 22)-1972; Rffm:2015	1.6
4.	Moisture content	%	Lab Method	42.0
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	1641.0
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	326.0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	<3.0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	5.4
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	21.1
11:	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1400.0
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	416.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	17.9
14.	Nickel (as Ni)	mg/kg	EPA 6010D	15.2
15.	Zinc (as Zn)	mg/kg	EPA 6010D	46.2
16.	Manganese (as Mn)	mg/kg	EPA 6010D	294.0



### Ref. No. BBS/720

### Date- 01.05.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	7.1
18.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	<5.0
19.	Aluminium ( as Al )	mg/kg	EPA 6010D	2456.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	14.3
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	419,0
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	386,0
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25,	Sand	%	TPM/MSK/P&E/1/36A	32.0
26.	Silt	%	TPM/MSK/P&E/1/36A	25.0
27.	Texture	None	TPM/MSK/P&E/1/36A	Clay
28.	Clay	%	TPM/MSK/P&E/1/36A	43.0

### **Biological Result**

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1475
2.	Total count (Phytobenthos)	50 mg wet sediment	288
3.	No of species (Phytobenthos)	Nos.	2
4.	Diversity index (Phytobenthos)		1.69
5,	Major Species (phytobenthos)		Biddulphia mobilensis, Navicula closterium
6.	Name of Phylum (Fauna)	- makes	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	-	Plychaeta-52,Bivalvia-34
8.	Total no. of species encountered (Fauna)	Nos.	28
9.	Total fauna (Fauna)	per m³	221

Report Prepared by:

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For Mitra S.K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapatli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/721 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/01/00540

Sample Description : Sea Sediment

Sampling Location : Dredging Source Area

Date of sampling ± 03.04,2021

#### ANALYSIS RESULT

Sl. No.	Parameters	Unit	Test Method	Result
1.	pH value	None	1S 2720 (Part 26)-1987;Rffm:2011	7,61
2.	Electrical Conductivity	us/cm	1S 3025 (Part 14)-1984;Rffin:2006	2142.0
3.	Organic Matter	96	IS 2720 (Part 22)-1972; Rffm:2015	1,3
4.	Moisture content	%	Lab Method	39.0
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	1600.0
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	86.0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	<3.0
9	Phospharus	mg/kg	TPM/MSK/P&E/1/12	4.4
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	17.1
IL.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1429.0
12,	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	414.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	11.8
14.	Nickel (as Ni)	mg/kg	EPA 6010D	9.0
15.	Zinc (as Zn)	mg/kg	EPA 6010D	39.4
16.	Manganese (as Mn)	mg/kg	EPA 6010D	214.0



#### Ref. No. BBS/721

Date-01.05,2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	7.8	
18,	Boron (as B)	Boron (as B) mg		1S 13428- 2005,Annex H	<5.0
19.	Aluminium ( as Al )	mg/kg	EPA 6010D	3214.0	
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	20.1	
21.	Total Nitrogen (as N)	mg/kg	1S 14684 (1999); Rffm:2014	341.0	
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	298.0	
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05	
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5	
25.	Sand	%	TPM/MSK/P&E/1/36A	38.0	
26.	Silt	96	TPM/MSK/P&E/1/36A	21.0	
27.	Texture	None	TPM/MSK/P&E/1/36A	Clay	
28.	Clay	%	TPM/MSK/P&E/1/36A	41.0	

### **Biological Result**

Sl No.	Parameters	Unit	Results
To	Fungus (Phytobenthos)	CFU/g dry wt.	1394
2.	Total count (Phytobenthos)	50 mg wet sediment	278
3.	No of species (Phytobenthos)	Nos.	4
4.	Diversity index (Phytobenthos)	-	1.97
5.	Major Species (phytobenthos)		Gyrosigma sp., Navicula closterium, Coscinodiscus sp
6.	Name of Phylum (Fauna)		Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	_	Plychaeta-42,Bivalvia-08
8.	Total no. of species encountered (Fauna)	Nos.	24
9.	Total fauna (Fauna)	per m <sup>3</sup>	171

Report Prepared by:

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For Mitra S.K. Private Limited

Authorized Signatory

MSK TESTING \*INSPECTION

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/722 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/05/00541

Sample Description: Sea Sediment

Sampling Location: Dredging Disposal Site

Date of sampling : 17.04.2021

#### ANALYSIS RESULT

Sl. No.	Parameters	Unit	Test Method	Result
L.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7.78
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	1501.0
3.	Organic Matter	94	IS 2720 (Part 22)-1972; Rffm:2015	1.4
4.	Moisture content	96	Lab Method	32.0
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	1566.0
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	362.0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5,0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	<3.0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	6.4
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	29.0
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1412.0
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	385.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	19.0
14.	Nickel (as Ni)	mg/kg	EPA 6010D	14.3
15.	Zinc (as Zn)	mg/kg	EPA 6010D	27.0
16.	Manganese (as Mn)	mg/kg	EPA 6010D	273.0



#### Ref. No. BBS/722

### Date- 01.05.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	12,0
18.	8. Boron (as B)		IS 13428- 2005, Annex H	<5.0
19.	Aluminium (as Al)	mg/kg	EPA 6010D	2249.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	13.1
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	442.0
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	391.0
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<1.0
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25,	Sand	96	TPM/MSK/P&E/1/36A	38.0
26.	Silt	%	TPM/MSK/P&E/1/36A	29.0
27. Texture		None	TPM/MSK/P&E/1/36A	Clay
28.	Clay	%	TPM/MSK/P&E/1/36A	33.0

## **Biological Result**

SI No.	Parameters	Unit	Results
I.	Fungus (Phytobenthos)	CFU/g dry wt.	1420
2.	Total count (Phytobenthos)	50 mg wet sediment	197
3.	No of species (Phytobenthos)	Nos.	4
4.	Diversity index (Phytobenthos)		1.39
5.	Major Species (phytobenthos)		Biddulphia mobilensis, Gyrosigma sp
6.	Name of Phylum (Fauna)	1	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)		Plychaeta-62,Bivalvia-29
8.	Total no. of species encountered (Fauna)	Nos.	20
9.	Total fauna (Fauna)	per m <sup>3</sup>	233

Report Prepared by:





For Mitra S.K. Private Limited

Authorizad Simutore

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapatii Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/723 Date : 01.05.2021

Sample No.: MSKGL/ED/2020-21/04/00542

Sample Description : Sea Sediment

Sampling Location: Dredging Source Site

Date of sampling : 17.04.2021

#### ANALYSIS RESULT

Sl. No.	Parameters	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	8.21
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	1989.0
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	1.7
4.	Moisture content	-9%	Lab Method	34.0
5,	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	1396.0
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	(01.0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	<3.0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	4.9
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	14.6
III.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1623.0
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	330.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	10.0
14.	Nickel (as Ni)	mg/kg	EPA 6010D	7.4
15.	Zinc (as Zn)	mg/kg	EPA 6010D	35.0
16.	Manganese (as Mn)	mg/kg	EPA 6010D	202.0



#### Ref. No. BBS/723

Date-01.05.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	7.0
18.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	<5.0
19.	Aluminium ( as Al )	mg/kg	EPA 6010D	2986.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	19.0
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	315.0
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	273.0
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	< 0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	37.0
26.	Silt	96	TPM/MSK/P&E/1/36A	28.0
27. Texture		None	TPM/MSK/P&E/1/36A	Clay Loam
28.	Clay	96	TPM/MSK/P&E/1/36A	35.0

### Biological Result

SI No.	Parameters	Unit	Results
1,	Fungus (Phytobenthos)	CFU/g dry wt.	1297
2.	Total count (Phytobenthos)	50 mg wet sediment	324
3.	No of species (Phytobenthos)	Nos.	4
4.	Diversity index (Phytobenthos)		1.9
5.	Major Species (phytobenthos)		Gyrosigma sp., Nizschia distans, Coscinodiscus sp
6.	Name of Phylum (Fauna)		Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	444	Plychaeta-52,Bivalvia-19
8.	Total no. of species encountered (Fauna)	Nos.	22
9,	Total fauna (Fauna)	per m	187

Report Prepared by:

4-



For Mitra S.K. Private Limited

Authorized Signatory



### Ref: MSKGL/ED/BHU-2021/00448

Date: 01.05.2021

## Site Specific Monitored Meteorological Data

For: The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha

Sr. No.	Para	meters	April.21
		Minimum	24.3
1.	Temperature ( °C)	Maximum	41.6
	200	Average	30.5
		Minimum	19.0
2.	Relative Humidity (%)	Maximum	97.1
	73.00	Average	66.5
	LETTER THE SECOND STATE OF	Minimum	0.0
3.	Wind Speed (m/s)	Maximum	14.7
		Average	3.5
4.	Wind Direction (%)	N	1.22
		NNE	1.64
		NE	6.58
		ENE	5.42
		E	3.8
		ESE	4.52
		SE	6.42
		SSE	5.6
		S	4.3
		SSW	3.4
		SW	22.21
		WSW	17.46
		W	9.2
		WNW	6.7
		CALM	1.53
	A 1 A 1 A 1	Total	22.6
5.	Rainfall (mm)	Minimum Day Wise	0.0
	and and	Maximum Day Wise	20,8
		Average	0.03
		Minimum	748.0
6.	Ambient Pressure (mm Hg)	Maximum	758.7
		Average	751.9

(Source - Site Specific Data)

Prepared By

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QUAS.K. OPPLATO

Verified By





N-5/100, Ground Floor IRC Village, Neyapali Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T. (0674) 2362916, 2360917

F (0674) 2362918 Report No: BBS/900A

Date: 01.06,2021

### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/001771
Type of Sample	Ambient Air Sample
Sampling Location	Colony Area
Sampling Done by	Mr. Kunja Bihuri Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

		PARAMETERS												
Date	$PM_{16}$ $(\mu g/m^3)$	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	50 <sub>3</sub> (sg/m²)	SOs (ug/m²)	(33) (mg/m²)	NH <sub>2</sub> (µg/m²)	(jug/m²)	Pb (μg/m²)	(ng/m²)	(ng/m²)	C <sub>e</sub> H <sub>e</sub> (pg/m <sup>2</sup> )	Half (mg/m²)		
02:05:2021	48,00	26.20	6.55	23,20	0.55	20.31	<20.0	< 0.01	<5.0	<1.0	<4.2	-00.5		
05.05,2021	44,60	25.10	7.28	27.18	0.69	24.25	<20.0	<0.01	<5.0	<1.0	<4.2	-40.5		
09.05.2021	47.00	24.60	7.50	29.41	0.78	27.50	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5		
12,05,2021	42.00	21.50	6.38	24.18	0.60	18.59	<20.0	-<0.01	<5.0	<1.0	<4.2	-30.5		
16.05.2021	45.00	25.10	6.92	26.20	0.72	24,20	<20.0	<0.01	<5.0	<1.0	4.2	00.5		
19.05.2021	42.00	26.00	6.17	19.85	0.48	16.48	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5		
22.05.2021	44,60	23.50	6.84	25.10	0.62	22.36	< 20.0	<0.01	<5.0	<1.0	<4.2	90.5		
28.05.2021	43.20	22.00	6.09	20.63	0.45	15.20	<20.0	< 0.01	<5.0	<1.0	<1.2	-0.5		
30.05.2021	42.00	22.80	6.22	17.69	0.41	14.78	<20.0	<0.01	<5.0	<1.0	<4.2	40.5		
Monthly Average	44.27	24.09	6.66	23,71	0.59	20.41	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5		
CPCB, New Della AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	1		
Time Weighted Average (hrs.)	24	24	24	24	i	24	t	24	Ausual	Annual	Annual	Ameal		
TEST METHOD	1S 5182: Part 23:20 06 (Reaff - 2012	18 5182; Part 24;20)	IS 5182 : Part 2 :2001 (Reaff, 2012	1S :5182 : Part 6 :2006 (Reaff, 2012)	IS 5182 ; Port 10 :1589 (Reaff 20 14)	18 5182: Part 25:201	18 5182: Part 09:197	EPA - 103.4J 98c.19 99	EPA - 103.4Ju ne,1999	EPA - 103.44a sc.1999	IS:5182( Part- 11):2006 Restf.20 12	IS:5182i Part- 17):2004 RentLi 2014		

N.B. \*NAAQ-National Ambiera Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

Prepared By -

SK. PRIZE

P. Prad hange Checked By-



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN- U51909WB1956PTC023037]

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Report No: BBS/900B

Date: 01.06,2021

#### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha			
Work Order No. 4800058096				
Reference No. MSKGL/ED/2020-21/001771				
Type of Sample	Ambient Air Sample			
Sampling Location	Kanak Prasad Village			
Sampling Done by	Mr. Kunja Bihari Nayak			
Sampling Duration	24hrs			
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler			

D						PAR	RAMETER	5				
Date	PMin (µg/m²)	PM <sub>2.5</sub> (μg/m <sup>2</sup> )	SO <sub>1</sub> (µg/m³)	NOs (pg/m²)	CO (mg/m²)	NH <sub>2</sub> (µg/m²)	O <sub>2</sub> (ag/m²)	Ph (ng/m²)	Ni (ng/m²)	As (ng/m²)	Calla (septor)	Bar (ng/m²)
02.05.2021	50.00	27.60	7.14	27.49	0.79	24.32	<20.0	<0.01	<5.0	<1.0	-01.2	-0.5
05.05.2021	49.60	26.00	6.48	22.26	0.55	19.46	<20.0	<0.01	<5.0	<1.0	+4.2	< 0.5
09,05.2021	46,30	25,40	6.74	25.30	0.64	21.69	<20.0	< 0.01	<5.0	<1.0	<4.2	-0.5
12,05,2021	47.80	23.80	6.37	20.59	0.47	17.50	<20.0	<0.01	<5.0	<1.0	<4.2	-0.5
16.05,2021	46,00	22,60	6.41	23.12	0.59	18.61	<20.0	< 0.01	<5.0	<1.0	C4.2	=0.5
19.05,2021	45.20	22:00	6.27	19.88	0.48	15.46	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
22.05.2021	46.50	21.00	6.51	21.33	0.52	16.68	<20.0	<0.01	<5.0	<1.0	42	< 0.5
30.05.2021	44.00	24.10	6.07	12.59	0.43	13.R1	<20.0	<0.01	<5.0	<1.0	44.2	=0.5
Monthly Average	46,93	24.31	6.50	22.32	0.56	18.44	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
CPCB, New Delhi AAQ Standard	100	Ø	80	no	4	400	180	1	20	6	5	1
Time Weighted Average (hrs.)	24	24	24	24	1	24	-1	24	Annual	Annual	Annual	Annual
TEST	15 5182: Part 23:20 06 (Reaff . 2012	15 5182: Part 24:201	IS 5182 : Part 2 :2001 (Reatt. 2012	tS 5182 : Part 6 :2006 (Reaff, 2012)	15.5182 : Part 10 :1999 (Reaff.20 14)	15 \$182: Part 25:201 8	15 5192: Part 09:197	EPA - 103.43 unz,19 19	EFA - (03.4Ja nc.1999	EPA - 103.40s se,1999	15:5182/ Part- 15):2006 Reaff,20 12	18:5182( Pari- 12):2004 Reaff;- 2014

N.B. \*NAAQ- National Ambient Air Quality Standard us per 18th Nov. 2009 Gan, Notification

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A C3 III

P. PRadhann.



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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Report Not BBS/900C

Date: 01.06.2021

### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dotinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/001771
Type of Sample	Ambient Air Sample
Sampling Location	Near BMH
Sampling Done by	Mr. Kunja Bibari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

	-					PAS	LAMETER	5				
Date	PM <sub>10</sub> (µg/m <sup>2</sup> )	PMzz (µg/m²)	50s (µg/m²)	NOs (sg/m²)	(mg/m²)	NIII (HE/H <sup>2</sup> )	O, (µg/m²)	Pθ (μg/m²)	Ni (mg/m²)	(ng/m²)	Calla (ng/m²)	Bat (eg/m²)
02,05,2021	60.30	27.90	6.62	25.41	0.66	22.14	<20.0	< 0.01	<5.0	<1.0	<12	< 0.5
05.05.2021	56.80	26,00	6.41	22.84	0.58	17.41	<20.0	<0.01	<5.0	<1.0	<42	<0.5
09.05.2021	55.00	25.80	6.97	27,20	0.71	24,30	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
12.05.2021	58.10	27.00	6.18	20,36	0.48	16.22	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
16.05.2021	55,00	25.60	7.04	26,33	0,69	23,28	<20.0	< 0.01	<5.0	<1.0	<42	< 0.5
19.05.2021	53.60	25.00	6.88	24.45	0.66	20,17	<20.0	< 0.01	<5.0	<1.0	42	< 0.5
22.05.2021	59,00	26.00	6,07	21.12	0.44	18,20	<20.0	<0.01	<5.0	<1.0	<42	< 0,5
28.05.2021	5430	25,10	6.37	23.44	0,63	19.42	<20.0	<0.01	<5.0	≤1.0	42	< 0.5
30.05.2021	52.00	24.10	7.22	29.25	0.82	27.22	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
Monthly Average	56.01	25.83	6,64	24,49	0.63	20.93	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
CPCB, New Delhi AAQ Standard	100	69	80	80	+	400	180	1	20		3	1
Time Weighted Average (hrs.)	24	24	24	24	1	24	1	24	Annual	Annual	Annual	Annual
TEST METROD	18 5182: Part 23:20 06 (Reaf E. 2012	15 5182: Part 24:20 19	18 5182 : Part 2 :2001 (Reaff .2012	1S 5182 : Part 6 :2006 (Reaff :2012)	IS 5182 ; Part 10 ;1999 (Reaff.2 014)	IS 5182: Part 25:20 IS	15 5182: Part 09:19 74	EPA - 103.4 June, 1999	EPA - 103,4Ju ne,1999	EPA - 103.4Ju ns.1999	IS:5182 (Part- 11):200 6 RealT,2 012	18:5187 (Part- 12):200 4 Restfi: 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

Prepared By -



D. Pradhane.

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[CIN: U51909WB1956PTC023037]

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Report No: BBS/900D



Date: 01.06.2021

## AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Wurk Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/001771
Type of Sample	Ambient Air Sample
Sampling Location	Near Jetty
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

				_		PAS	AMETER	9				
Date	PM <sub>in</sub> (pg/m²)	Philip (pg/m²)	SO <sub>1</sub> (μg/m <sup>2</sup> )	NOs (agm²)	(mg/m²)	NII <sub>3</sub> (ag/m²)	O). ((ag/m²)	Ph (mg/m <sup>2</sup> )	Ni (leg/m²)	As (ng/m²)	Calls (pg/m²)	DaP (ng/m²)
02-05.2021	63.10	35.00	7.68	31.47	0.81	27.68	<20.0	<0.01	<5.0	<1.0	<4.2	=0.5
05.05.2021	62.20	34.00	6,77	28.24	0.78	25.45	<20.0	<0.01	<5.0	<1.0	<4.2	=0.5
09.05.2021	65.00	33,40	6.78	25.49	0.74	22.21	<20.0	< 0.01	<5.0	<1.0	<4.2	=0.5
12.05.2021	62,10	31.00	6.81	26.51	0.76	24.15	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
16.05.2021	60.00	29,80	7.84	32.55	- 0.68	30.19	<20.0	<0.01	<5.0	<1.0	<4.2	=0.5
19.05.2021	63.40	30.20	6.97	29.62	0.66	26.25	<20.0	< 0.01	<5.0	<1.0	<4.2	40.5
22.05.2021	65.20	32.00	6.54	26.50	0.62	21.68	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
28.05,2021	59.80	28.60	7.94	34.20	0.85	32.17	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
30.05.2021	59.00	28.00	6.55	25.47	0.57	20.48	<20.0	< 0.01	<5.0	<1.0	≠4.2	<0.5
Monthly	62.20	3133	7.10	28.90	0.72	25.58	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	4	20	6	5	1
Time Weighted Average (hrs.)	24	24	24	24	ĭ	24	Ţ	24	Annual	Annual	Annual	Annua
TEST METHOD	18 5182: Part 23:20 06 (Real E 2012	18 5182: Part 24:20 19	18 5182 : Part 2 :2001 (Reaff ,2012	18 5182 : Part 6 :2006 (Reaff .20(2)	IS 5182 : Part 10 :1999 (Realf.2 014)	IS 5182: Part 25:20 18	IS 5182: Part 09:19 74	EPA - 103.4 June, 1999	EPA - 103,4Ju nr,1999	EPA - 103.4.Ju ne,1999	18:5182 (Part- 11):200 6 Reaft/2 012	IS:518; (Part- 12):200 4 Reaff; 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification.

Prepared By

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N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T : (0674) 2362916, 2360917

F (0674) 2362918

Report No: BBS/900E.

Date: 01.06.2021

### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/001921
Type of Sample	Ambient Air Sample
Sampling Location	Dosinga Village
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

						PAG	AMETER	F				
Date	PM <sub>(m)</sub> (pg/m <sup>2</sup> )	PATAL (HE/M <sup>2</sup> )	50; (m/m²)	NO <sub>4</sub> (μg/m <sup>3</sup> )	CO (mg/m²)	NII <sub>1</sub> (jigte <sup>1</sup> )	O <sub>1</sub> (Hg/m <sup>3</sup> )	(9d/m²)	Ni (ng/m²)	(ng/m²)	(140/10 <sup>3</sup> )	BaP (ng/m²)
02.05,2021	46.10	27.00	6.74	24.33	0.54	20.18	<20.0	<0.01	<5.0	<1.0	<42	< 0,5
05.05.2021	46.00	26.40	7.01	27.49	0.68	25.14	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
09.05.2021	45.20	26.00	7.33	30,53	0.80	28.49	<20.0	< 0.01	<5.0	<1.0	<4.2	-0.5
12.05.2021	44.20	22.30	6.42	26.31	0.66	22.42	<20,0	< 0.01	<5.0	<1.0	<4.2	< 0.5
16.05.2021	44.00	21.80	6.37	23.15	0.59	19.60	<20.0	< 0.01	<5.0	<1.0	<4.2	-40.5
19,05,2021	43.10	24.00	6.57	25.78	0.52	21.41	<20,0	<0.01	<5.0	<1.0	<4.2	40.5
22.05,2021	41.50	23.10	6.21	21.70	0.48	17.80	<20.0	<0.01	<5.0	<1.0	<4.1	< 0.5
30,05,2021	40.90	22.50	7.47	35.90	0.77	30.49	<20.0	< 0.01	<5.0	<1.0	<4.2	~0.5
Monthly Average	43.88	24.14	6.76	26,90	0.63	23,19	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
Delhi AAQ Standard	100	60	80	80	4	-600	180	1	20	6	5	1
Time Weighted Average (hrs.)	24	24	24	24	x	24	1	24	Annual	Annual	Aunual	Amoun
TEST METHOD	18 5182: Part 23:20 96 (Reaf f. 2012	JS 5182: Part 24:20 19	IS 5182 : Part 2 :2001 (Réaff 2012	1S 5182 : Part 6 :2006 (Reaff -2012)	1S 5182 : Part 10 :1999 (Reaff.2 @14)	15 5182: Part 25:20 18	18 5182: Part 09:19 74	EPA - 103.4 June, 1999	EPA - 103.4Ju ne,1999	EPA - 103,4Ju ne,1999	15:5182 (Part- 11):200 6 Reaff,2 012	18:5185 (Part- 12):200 4 Reaff,: 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th New. 2009 Galf. Natification

Prepared By -

SK. PRIVATE

D. Pras hange.



N-5/100, Ground Floor IRC Village, Nayapalii Bhubuneswar - 751015 [CIN: U51909WB1956PTC023037]

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F: (0674) 2362918

Report No: BBS/900F

Date: 01.06.2021

## AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/001771
Type of Sample	Ambient Air Sample
Sampling Location	Near Bhitarkanika
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

43						PAI	SAMETER	5				
Date	PMm (sq/ar)	PM <sub>2.5</sub> (pg/m <sup>2</sup> ).	50; (mg/m²)	NOx (right <sup>1</sup> )	CO (mg/m²)	NH <sub>1</sub> (µg/m²)	()(g/m²)	Pb (pg/m²)	Ni (mp/m²)	(ng/m²)	C <sub>i</sub> H <sub>i</sub> (rg/m <sup>2</sup> )	BaP (mg/m²)
02.05.2021	46.00.	25.00	6.20	19.63	0.47	15,64	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
05,05,2021	44.20	24.10	0.18	17.09	0.52	14,77	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
09.05.2021	43.80	23.80	6.39	22.27	0.61	19.32	<20.0	10.0>	<5.0	<1.0	<4.2	-0.5
12,05,2021	47.00	24.00	6,98	27.56	0.70	24.19	<20.0	-0.01	<3.0	<1.0	<4.2	<0.5
16.05.2021	48.10	21.00	6.62	26.12	0.67	23.88	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
19.05.2021	42.60	22.80	7.17	27,44	0.76	25.63	<20.0	⊲0.01	<5.0	<1.0	<4.2	< 0.5
22.05,2021	41.00	20.50	6.74	21.20	0.54	17.48	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
30.05.2021	38.60	23.10	6.42	20.31	0.50	16.33	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
Monthly Average	43.91	23.04	6.59	22.70	0.60	19.65	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
Dellii AAQ Stanlara	100	60	80	80	4	400	180	1	20	6	5	i
Time Weighted Average (hrs.)	24	24	24	24		24	ï	24	Annual	Annual	Annual	Annual
TEST METHOD	18 5182: Part 23:20 06 (Reaf f. 2012	18 5182: Part 24:20 19	(S 5182 : Part 2 :2001 (Reall ,2012	18 5182   Part 6 :2006 (Reaft .2012)	1S 5182 † Part 10 :1999 (Reaft.2 014)	18 5182: Part 25:20 18	15 5162: Part 09:19 74	EPA - 103.4 June, 1999	EPA - 103.4Ju ne,1999	EPA = 103.4Ju ne,1999	(S:5182 (Part- 11);200 6 Realf,2 012	IS:5182 (Part- 12):200 4 Reall;: 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th New 2009 Gatt. Notificatio

Prepared By



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[CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/901 Date : 01.06.2021

Sample No.: MSKGL/ED/2020-21/05/00516 Sample Description: EFFLUENT WATER

Sampling Location: STP 15 KLD Date of sampling: 03.05.2021

### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result		
No.				223322000000000000000000000000000000000	Inlet	Outlet	
1.	Colour	Hazen		APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear	
2.	Odour	-	- 3	APHA (23rd Edition) 2150B	Disagreeable	Agreeable	
3.	pH value at 26°C	-	6.5 - 9.0	APHA (23 <sup>rd</sup> Edition) 4500 H-B	7,03	7.38	
4.	Appearance	-	99	Lab Method	Turbid	Clear	
5.	TSS	mg/l	<20.0	APHA (23rd Edition) 2540D	85.0	6.0	
6.	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	39.0	5.0	
7.	COD	mg/l	<50.0	APHA (23rd Edition) 5220B 2017	152.0	31.0	
8.	Oil & Grease	mg/I	<10.0	APHA (23rd Edition) 5220B 2017	6.1	<1.4	
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	31.0	2,0	
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	40.0	3.1	
II:	Faccal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	1100.0	90.0	

Report Prepared by:



For Mitra S. K. Private Limited

P. P. Rad hang

Authorized Signatory

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

6DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/902 Date : 01.06.2021

Sample No.: MSKGL/ED/2020-21/05/00518 Sample Description: EFFLUENT WATER

Sampling Location: STP 140KLD Date of sampling: 03.05.2021

#### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Rese	lt
No.	1est Farameters	Units	Tamu	Test Specincation	Inlet	Outlet
1,	Colour	Hazen	9	APHA (23rd Edition) 2120B 2017	Blackish	Clear
2,	Odour	****	H	APHA (23 <sup>rd</sup> Edition) 2150B	Disagrecable	Agreeable
3.	pH value at 26°C		6.5-9.0	APHA (23 <sup>rd</sup> Edition) 4500 H-B	7.02	7.23
4.	Appearance	****	-	Lab Method	Turbid	Clear
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	66.0	4.2
6.	BOD	BOD mg/l <10.		APHA (23rd Edition) 5210B 2017	40.0	6,2
7.	COD	mg/l	<50.0	APHA (23 <sup>ed</sup> Edition) 5220B 2017	240.0	23.0
8	Oil & Grease	mg/l	<10.0	APHA (23 <sup>16</sup> Edition) 5220B 2017	6.0	<1.4
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition).4500-NH3-F 2017	16.0	1.0
10.	Total Nitrogen (as N) mg/l <10.0		IS 14684 (1999); Rffm:2014	22.0	1.6	
11.	Faecal Coliform	MPN/ 100ml	<1000,0	APHA (23 <sup>rd</sup> Edition) 9221 E	800.0	85.0

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## TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

6DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/907 Date : 01.06.2021

Sample No.: MSKGL/ED/2020-21/05/00519 Sample Description: EFFLUENT WATER

Sampling Location: STP 150KLD Date of sampling: 03.05.2021

#### ANALYSIS RESULT

SL.	Total Boston	Tinite	Limit	Test Specification	Rest	ılt
No.	Test Parameters	Units	Lunn	Test Speciacation	Inlet	Outlet
1.	Colour	Hazen		APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear
2.	Odour	-	<ul> <li>APHA (23<sup>rd</sup> Edition) 2150B</li> </ul>		Disagreeable	Agreeable
3.	pH value at 26°C	-17	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7.32	7,52
4.	Appearance		++	Lab Method	Turbid	Clear
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	84.0	3.2
6.	BOD	OD mg/l <10.0 APHA (23 <sup>rd</sup> Edition) 5210B 2017		APHA (23 <sup>rd</sup> Edition) 5210B 2017	54.0	5.0
7.	COD	mg/l	<50.0	APHA (23rd Edition) 5220B 2017	216.0	20,0
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	5.0	<1,4
9.	Ammonical Nitrogen	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F		and the second	29,0	0.48
10.	Total Nitrogen (as N)	mg/l	<10.0	1S 14684 (1999); Rffm:2014	37.0	1,4
11.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E.	800.0	85,0

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For Mitra S. K. Private Limited

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No.: BBS/903 Date: 01.06.2021

Sample No.: MSKGL/ED/2020-21/05/00524 Sample Description: EFFLUENT WATER

Sampling Location: STP 15 KLD Date of sampling: 19,05,2021

#### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result		
No.	-	-	2000	Xest Specification	Inlet	Outlet	
l.	Colour	Hazen	**	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear	
2.	Odour	-		APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agrecable	
3.	pH value at 26°C	-	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7.21	7.71	
4.	Appearance	les :	**	Lab Method Turb		Clear	
5.	TSS	mg/I	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	108,0	<2.5	
6.	BOD	mg/l	<10.0	APHA (23 <sup>nl</sup> Edition) 5210B 2017	70.0	6.2	
7,	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	280.0	33.6	
8.	Oil & Grease	mg/l	<10.0	APHA (23td Edition) 5220B 2017	12.0	<1.4	
9,	Ammonical Nitrogen	mg/t	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	42.0	2.4	
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	68.0	3.8	
1):	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23rd Edition) 9221 E	1300.0	80.0	

Report Prepared by:



For Mitra S. K. Private Limited

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No. : BBS/904 Date : 01.06.2021

Sample No.: MSKGL/ED/2020-21/05/00525 Sample Description: EFFLUENT WATER

Sampling Location : STP 140KLD Date of sampling : 19.05.2021

### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result		
No.		2 Hits	Zames	161 specification	Inlet	Outlet	
T.	Colour	Hazen	77	APHA (23rd Edition) 2120B 2017	Blackish	Clear	
2.	Odour	-		APHA (23 <sup>rd</sup> Edition) 2150B	Disagrecable	Agreeable	
3.	pH value at 26°C		6.5-9.0	APHA (23rd Edition) 4500 H-B	7.10	7,88	
4.	Appearance		**	Lab Method	Turbid	Clear	
5.	TSS	mg/I	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	94.0	8.0	
6.	BOD	mg/l	0.01≥	APHA (23 <sup>et</sup> Edition) 5210B 2017	61.0	7,5	
7.	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	254.0	28.0	
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	6.1	<1.4	
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	24.0	1.5	
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	32.0	2.1	
11.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	1000.0	90.0	

Report Prepared by:



For Mitra S. K. Private Limited

W. PRadhang

MSK

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## TEST REPORT

Name & Address of the Customer :

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/908 Date : 01.06.2021

Sample No.: MSKGL/ED/2020-21/05/00526 Sample Description: EFFLUENT WATER

Sampling Location : STP 150KLD Date of sampling : 19.05.2021

#### ANALYSIS RESULT

SI.	100 X 4 T T A			T. 49-15-15-1	Result		
SL.	Test Parameters	Units	Limit	Test Specification	Inlet	Outlet	
1.	Colour	Hazen	- 4	APHA (23 <sup>nt</sup> Edition) 2120B 2017	Blackish	Clear	
2.	Odour	-	6-0.1	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable	
3.	pH value at 26°C	-	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7.30	7.80	
4.	Appearance	jumi	-	Lab Method	Turbid	Clear	
5.	TSS	mg/l	<20.0	APHA (23rd Edition) 2540D	204.0	4.0	
6.	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	78.0	6.2	
7.	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	312.0	24.8	
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	12.0	<1.4	
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	47.0	0.94	
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	50,0	1.9	
11.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	900.0	100,0	

Report Prepared by:



For Mitra S. K. Private Limited

P. Pradhane

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/905 Date : 01.06.2021

Sample No. : MSKGL/ED/2020-21/05/00688

Sample Description : Ambient Noise

#### Noise Level Monitoring Data

SI.	Sampling		Day L Time dB(A)				Night Time L dB(A)			
No	Date	Sampling Location	MAX	MIN	AVG.	Limit	MAX	MIN	AVG.	Limit
I.	01.05.2021	Colony Area (R)	47.20	41.00	45,30	55	40.80	35.00	37.00	45
2,	04.05.2021	Kanak Prasad Village (R)	48.30	40.20	45,70	55	40.00	35.30	36.80	45
3.	08.05.2021	Near BMH (I)	63.70	56.20	59,20	75	60.00	52,10	55.00	70
4.	11.05.2021	Near Jetty (I)	66.30	60.40	63,10	75	61.80	56.40	58.60	70
5.	15.05.2021	Dosinga Village (R)	47.30	42.00	44.70	55	38.50	35.60	37,20	45
6.	20.05.2021	Near Bhitarkanika (Eco Sensitive Zone)	43,20	37.50	39.30	50	39.80	35.70	36.10	40

Report Prepared by:



For Mitra S. K. Private Limited

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/906 Date : 01.06.2021

Sample No.: MSKGL/ED/2020-21/05/00774 Sample Description: Noise (Work Zone)

#### Noise Level Monitoring Data

SL No	Sampling Date	Sampling Location	MAX	MIN	Results in Avg Leq dB(A)
1.	02.05.2021	Stack Yard	87.2	64.2	74.0
2.	03.05.2021	Wagon Tippler	84.0	49,4	60.7
3.	05.05.2021	Near Silo	86.1	30,4	77.2
4.	06.05.2021	Near Stacker & Reclaimer	88.1	45.9	63.4
5.	09.05,2021	Project Area	80.1	47.8	65.8
6.	10.05,2021	Transfer Point	86.4	37.7	63.6
7.	12.05.2021	Workshop	82.1	59.4	72.5
8.	13.05,2021	Steel Yard	85.0	41.1	61.0
9.	16.05.2021	FCC Shed	83.4	40.5	57.8
10.	18.05.2021	Near Port Canteen	86.4	43.7	60.7

OSHA'S Permissible N	loise Exposure Limits
Noise Level	Exposure Limit
90 dBA	8.0 hours

Report Prepared by:



For Mitra S.K. Private Limited

P. Pradhana.
Authorized Signatory

MSK

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## TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/910 Date : 01.06.2021

Sample No.: MSKGL/ED/2020-21/05/00610 Sample Description: VOC Monitoring

#### ANALYSIS

SL No	<u>Date of</u> <u>Monitoring</u>	Sampling Location	Method of Analysis	Parameter	Result
01.05.2021		Jetty			<0.008
2,	02.05.2021	Wagon Tippler			<0.008
3,	04.05,2021	Near Silo	NIOSH-1501	Volatile Organie	<0.008
4.	04.05.2021	Transfer Point		Compound (VOC in mg/m³)	
5.	06,05,2021	BMH Workshop			
6.	06.05,2021	Steel Yard			<0.008
7.	08.05.2021	FCC Shed			<0.008
8.	08.05.2021	SS 6 Office			< 0.008

Report Prepared by:

For Mitra S. K. Private Limited

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N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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Ref: MSKGL/FD/2020-21/001700

Date: 01.06.2021

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/FD/2020-21/00270
Type of Sample	Piezometric Well
Sampling Done by	Mr. Kunja Bihari Nayak

## GROUND WATER LEVEL MONITORING REPORT

St. No.	Location Name	Date of Monitoring	Water Level in feet
Piezometric	Well		
1	Township Pump House	15.05.2021	16.76
2	Near WTP	15.05.2021	15.09

Report Prepared by:

For Mitra S. K. Private Limited.

P. Pradvanz.
Authorized Signatory

MSK

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### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA DIST : BHADRAK, 756171 ODISHA Report No. : BBS/911 Date : 01.06.2021

Sample No.: MSKGL/FD/2020-21/05/00300

Date of sampling : 15.05.2021

Sampling Description : Ground Water (Piezometric) Sampling Location : Township Pump House Sampling Done By : Mr. Kunja Bihari Nayak

### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL No	Test Parameters	Units	Limit	Test Method / Specification	Result
Te-	E. Celi	/100ml	Not Detectable	IS: 15185 ; 2016	Not Detected
2.	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

51. No.	Test Parameter	Units	(Acceptable Limit)	S RESULT AS PER Permissible limit in the absence of alternate Source	Test Method / Specification	Result
4.	pH ( at 26° C)	440	6,5 - 8.5	No Relaxation	15 3025 (Part 11)-1984 Riffm: 2012	7.47
2.	Sulphare (as SO <sub>4</sub> )	mg/I	200.0	-400.0	1S 3025 (Part 24)- 1986 Rfilm: 2014	10.00
3.	Caleium (as Ca)	mg/l	75,0	200.0	1S 3025 (Part 40)- 1991 Rffm: 2014	24.00
4.	Arsenic (au As)	mg/l	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5	Lead (as Pb)	mg/l	0.01	No Relaxation	IS 3925 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (N/Zn)	mg/1	5.0	15.0	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
72.	Copper (as Cu)	mg/l	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (25 He)	mg/l	0.001	No Relaxation	TS 3025 (Part 48)-1994 Rffm: 2014	BDL(DL:0.0002)
0.	Cadmium (as Cd)	mg/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/l	0.5	No Relaxation	IS 3025 (Past 39)-1991 Rifin: 2014	BDL(DL:0.5)
11.	Fluoride (as F)	mu/l	1.0	1.5	IS 3025 (Purt 60)- 2008 Rffin: 2013	BDL(DL:0.2)
12	Colour	Hazen	5	15.0	3025 (Part 4)-1983; Riffm:2012	BDL(DL:1.0)
13,	Odour	-	Agreeable	Agreeable	JS 3025 (Part 5)-1983 Rffm:2012	Agrerable
14.	Turbidity	N.T.U	1.0	5.0	18 3025 (Part 10)-1984 Rffm; 2012	BDL(DL:1.0)
15	Residual free Chlorine	mg/l	0.2	1.0	IS 3025 (Part 26)- 1986 Rffm:2014	BDL(D1:0:1)
16.	fron (as Fe)	mg/I	0.3	No Rehaution	IS 3025 (Part 53)-1988 Rffm: 2014	BDL(DL:0.05)
17.	Chloride (as CI)	mg/I	250.0	1000,0	IS 3025 (Part 32)-1988 Rffm: 2014	57.00
18	Total Dissolved Solids	mg/t	500.0	2000.0	IS 3025 (Part 16)-1984; Rffm:2012	261,00
019.	Alkalinity (as CaCO <sub>3</sub> )	mg/I	200.0	600.0	15 3025 (Part 23)- 1986 Rffm: 2009	174.0
20.	Alominium (as-Al)	mg/l	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL-0.01)
21.	Magnesium (as Mir)	mig/l	30.0	100,0	15 3025 (Part 46)-1994 Rffm: 2014	21,00
22.	Total Hardness (zs CaCO <sub>1</sub> )	mg/l	200.0	600.0	IS 3025 (Part 21)-2013	180,00
23.	Boron (us B)	Jugar.	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Managenese (us Mirl	ma/l	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>2</sub> )	mu/l	45.0	No Relaxation	IS 3025 (Part 34)-1988 Rffin: 2014	EDI.(DL:0.4)
26.	Phenolic Compounds (as C <sub>4</sub> H <sub>4</sub> OH)	mg/L	9,001	0.002	IS 3025 (Part 43): 1992; Rffm: 2014	BDL(Df. 0.001)
27.	Selenium (as Se)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chrumium ( as Cr )	mo/l	0.05	No Relaxation	18 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29	Silver (us Ag)	mg/l	0.1	No Retionation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0:005)
30.	Barium (as Ba)	mg/l	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31.	Salinity	me/l	-		19 3025 (Part 14)- 2013	132.00



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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Ref. No. BBS/911

Date- 01.06.2021

32.	Sulphide ( as H2S)	mg/l	0.05	No Relaxation	1S 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
33.	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	1S 3025 (Part 34)- 1988; Rillin: 2014	BDL(DL:(),1)
34.	Chloramines	mg/l	4.0	No Relaxation	1S 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
35.	Nickel (as Ni)	mg/I	0.02	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0,2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edtn.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

For Mitra S. K. Private Limited.

P. PRadvaviz.

Authorized Signatory



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

(CIN: U51909WB1956PTC023037)

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TEST REPORT

Report No. : BBS/912 2 01.06.2021

Sample No.; MSKGL/FD/2020-21/05/00301

Date of sampling ± 15.05.2021 Sampling Description : Ground Water (Piezometric)

Sampling Location: Pump House WTP Sampling Done By : Mr. Kunja Bihari Nayak

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

Sl. No	Test Parameters	Units	Limit	Test Method / Specification	Result
1.	E. Coli	/100ml	Not Detectable	IS: 15185 ; 2016	Not Detected
2.	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 ; 2016	Not Detected

#### CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL No.	Test Parameter	Units	(Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH (at 26°C)	Over 1	6.5-8.5	No Relaxation	IS 3025 (Part 11)-1984 Riffnr: 2012	7.58
2.	Sulphate (as SO <sub>4</sub> )	mg/I	200.0	400,0	IS 3025 (Part 24)- 1986 Riffm: 2014	6.00
3.	Calcium (as Ca)	mg/T	75.0	200.0	IS 3025 (Part 40)- 1991 Rffm: 2014	21.00
4.	Atsunic (us As)	mg/l	10,0	0.05	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lead (as Ph)	my/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6,	Zinc (m Zn)	mg/I	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Oa)	mg/I	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercary (as Hg)	mg/I	0.001	No Relaxation	IS 3025 (Part 48)-1994 RITm: 2014	BDL(DL:0.0002
9.	Cadmium (as Cd)	mg/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/L	0.5	No Relaxation	1S 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0,5)
11.	Fluoride (us F)	rigil	0.1	1,5	1S 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0.2)
12.	Colour	Hazon	5	15.0	3025 (Part 4)-1983; Rffin;2012	BDL(DL:1.0)
13.	Odour	_	Agreeable -	Agreeable	1S 3025 (Part 5)-1983 Rffin:2012	Agrecable
14.	Turbidity	N.T.U	1.0	5.0	1S 3025 (Part 10)-1984 Rifm: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/t	0.2	1,0	18 3025 (Part 26)- 1986 Rffin:2014	BDL(DL:(0.1)
16.	Iron (as Fe)	mg/I	0.3	No Relaxation	IS 3025 (Part 53)-1988 Rffm: 2014	BDL(DL:0.05)
17.	Chloride (as Cl)	mg/l	250.0	1000.0	1S 3025 (Part 32)-1988 Rffm: 2014	70.00
18.	Total Dissulved Solids	mg/l	500.0	2000,0	IS 3025 (Part 16)-1984; Rffm:2012	277.00
19.	Alkalinity (as CaCO <sub>2</sub> )	mg/l;	200.0	600.0	1S 3025 (Part 23)- 1986 Rffm: 2009	160.00
20.	Alominium (as Al)	mg/l	0.03	0.2	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/l	30.0	100.0	15 3025 (Part 46)-1994 Riffer: 2014	16.00
22.	Total Hardness (its CaCO <sub>1</sub> )	mg/l	200,0	600.0	IS 3025 (Part 21)-2013	170.00
23.	Boron (as B)	mg/l	0.5	1.0	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Marganese (as Mn)	mg/L	0.1	0.3	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrair (as NO <sub>1</sub> )	mg/l	45.0	No Relaximon	IS 3025 (Part 34)-1988 Rffm: 2014	BDL(DL:0.4)
26.	Phenolic Compounds (us C <sub>b</sub> (I <sub>b</sub> OH)	mg/L	0.001	0,002	15-3025 (Pari 43)- 1992; Riffm: 2014	BDL(DL:0.001)
27.	Selensum (as Se)	mg/f	0.03	No Relevation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chromium ( as Cr)	mg/l	0.05	Ne Religation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29	Silver (as Ag)	mg/l	0.1	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barium (as Ba)	me/l	0.7	No Religation	JS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,1)
31.	Salinity	mg/l	-	Name .	IS 3025 (Part 14)- 2013	152.00

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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#### Ref. No. BBS/912

Date- 01.06.2021

32.	Sulphide ( as H2S)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rillin: 2014	
33.	Ammonia ( as total ammonia-N)	mg/I	0.5	No Relaxation	1S 3025 (Part 34)- 1988; Rffm: 2014	
34.	Chloramines	mg/I	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffin: 2014	BDL(DL:0.1)
35.	Nickel ( as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
36.	Cyanide (as CN)	mg/L	0.05	No Relaxation	1S 3025 (Part 27)- 1986 Rffin: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/t	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polymuclear Aromanic Hydrocarbons (as PAH)	mg/I	0,000)	No Relaxation	APHA ( 23 <sup>rd</sup> Edm.) 6440C	BDL(DL;0,0001)
39.	Polychlerinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

For Mitra S. K. Private Limited.

P. Pradhanz.



N-5/100, Ground Floor IRC Village, Nayapali Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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Name & Address of the Customer :

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/913 Date : 01.06.2021

Sample No.: MSKGL/FD/2020-21/05/00302

Date of sampling : 15.05.2021

Sampling Description: Ground Water (Piezometric)

Sampling Location : Running Room

Sampling Done By 2 Mr. Kunja Bihari Nayak

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Units	Limit	Test Method / Specification	Result
1.	E, Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

SL Test Parameter Units (Acceptable in the absence of Test Method

No.	Test Parameter	Units	(Acceptable Limit)	in the absence of alternate Source	Test Method / Specification	Resutt
1.	pH ( at 26" C)	-	6.5 - 8.5	No Reluxation	IS 3025 (Part 11)-1984 R/fm: 2012	7.68
2	Sulplinte (as SO <sub>4</sub> )	mg/l	200.0	400.0	1S 3025 (Part 24)- 1986 Rffin: 2014	8.00
3.	Calcisum (no Ca)	mg/I	75.0	200.0	IS 3025 (Part 40)- 1991 Riffin: 2014	33.00
4.	Arsente (as As)	me/l	0.01	0.05	18 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lead (as Ph)	mg/L	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL/0,005)
6.	Zinc (as Zb)	mg/L	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Ca)	mg/l	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Hg)	mg/I	0.001	No Relaxation	1S 3025 (Part 48)-1994 Rffin: 2014	BDL(DL:0.0002)
9.	Cadmium (as Cd)	rous/T	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral-Oil	mg/l	0.5	No Relaxation	IS 3025 (Part 39)-1991 Riffm: 2014	BDL(DL:0.5)
$\mathbf{D}_{c}$	Fluoride (as F)	mg/T	1.0	1.5	IS 3025 (Part 60)- 2008 JUliu: 2013	BDL(DL:0.2)
12	Colour	Hounn	5	15.0	3025 (Part 4)-1983; Rfffig:2012	BDL(DL:1.0)
13.	Odour		Agreeable	Agreeable	IS 3025 (Part 5)-1983 Rifm:2012	Agrocable
14.	Turtsidity	NTU	1.0	5.0	IS 3025 (Part 10)-1984 R0fm; 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/l	0.2	1.0	3S 3025 (Part 26)- 1986 Rffm:2014	HDL(DL:0.1)
16.	Iron (as Fe)	mg/I	0.3	No Relaxation	IS 3025 (Part 53)-1988 Rffm: 2014	BDL(DL:0.05)
17.	Chloride (us CI)	mg/I	250.0	1000.0	IS 3025 (Part 32)-1988 Rffm; 2014	66.00
18.	Total Dissolved Solids	mg/t	500,0	2000.0	1S 3025 (Part 16)-1984; Riffm:2012	280.00
19.	Alkalinity (as CaCO <sub>1</sub> )	mg/l	200.0	600.0	IS 3025 (Part 23)- 1986 Riffm: 2009	148.00
20.	Aluminum (as Al)	mg/l	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21	Magnesium (as Mg)	mg/I	30.0	100.0	1S 3025 (Part 46)-1994 Rffm: 2014	14,00
22	Total Hardness (as CatCO <sub>1</sub> )	mg/f	200.0	600.0	IS 3025 (Part 21)-2013	166.00
23:	Boron (as B)	mg/L	0.5	1.0	IS-3025 (Part 2) 2004 RA-2014	BDL(DL:0.3)
24.	Manumese (as Mn)	mg/l	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nimue (us NO <sub>3</sub> )	mg/I	45.0	No Relaxation	IS 3025 (Part 34)-1988 Riffin: 2014	BDL(DL:0.4)
26.	Phenolic Compounds (as C <sub>p</sub> H <sub>2</sub> OH)	me/t-	0.001	9.002	18 3025 (Part 43)- 1992; Rffin: 2014	BDL(DL:0,001)
27.	Selenium (us Se)	trug/I	0.01	No Relixation	IS 3025 (Part 2) 2004 KA 2014	BDL(DL:0.005)
28.	Total Chromian ( as Cr)	mg/l	0.05	No Relagation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29	Silver (as Ag)	mg/t	0.1	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barium (us Ba)	ma/l	0.7	No Relaxation	IS 3025 (Part 2) 2004 BA 2014	BDL(DL:0.1)
31.	Salinity	mg/f		_	15 3025 (Part 14)- 2013	141.00

MSK

N-5/100, Ground Floor IRC Village, Nayapathi Bhubaneswar - 751015 (CIN: U51909WB1956PTC023037)

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#### Ref. No. BBS/913

Date- 01.06.2021

32.	Sulphide ( as H2S)	mg/I	0.05	No Relaxation	1S 3025 (Part 29)- 1991; Rffm: 2014	BDL(D1::0.02)
33.	Ammonia ( as total ammonia-N)	mg/I	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffm: 2014	BDL(DL:0.1)
34.	Chloramines	mg/L	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffm; 2014	BDL(DL:0.1)
35,	Nickel (as Ni)	mg/I	0.02	No Relocation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL-0.01)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	1S 3025 (Part 27)- 1986 Rffm; 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0,2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0,05)
38	Polymiclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edm.) 6440C	BDL(DL:0.0001)
39	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

For Mitra S. K. Private Limited.

P. Pradhanz



N-5/100, Ground Floor IRC Village, Nayapatli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/930 Date : 01.06,2021

Sample No. : MSKGL/ED/2020-21/05/00574

Sample Description: Sca Sediment

Sampling Location: Dredging Disposal Site

Date of sampling : 03.05.2021

### ANALYSIS RESULT

St. No.	Parameters	Unit	Test Method	Result
L	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7.54
2.	Electrical Conductivity	us/em	IS 3025 (Part 14)-1984;Rffm:2006	1621.0
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	LI
4.	Moisture content	%	Lab Method	36.0
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	1602.0
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	396,0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	<3.0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	8.1
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	25.5
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1508.0
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	406,0
13.	Copper (as Cu)	mg/kg	EPA 6010D	15.0
14.	Nickel (as Ni)	mg/kg	EPA 6010D	11.0
15.	Zinc (as Zn)	mg/kg	EPA 6010D	36.0
16.	Manganese (as Mn)	mg/kg	EPA 6010D	208.0



#### Ref. No. BBS/930

### Date-01.06.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	10.0
18.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	<5,0
19.	Aluminium (as Al)	mg/kg	EPA 6010D	1936.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	12.0
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	459.0
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	442.0
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	96	TPM/MSK/P&E/1/36A	40.0
26.	Silt	%	TPM/MSK/P&E/I/36A	24.0
27.	Texture	None	TPM/MSK/P&E/1/36A	Clay Loam
28.	Clay	%	TPM/MSK/P&E/1/36A	36.0

#### Biological Result

SI No.	Parameters	Unit	Results
t.	Fungus (Phytobenthos)	CFU/g dry wt.	1398
2,	Total count (Phytobenthos)	50 mg wet sediment	257
3.	No of species (Phytobenthos)	Nos.	2
4.	Diversity index (Phytobenthos)	1000	1.84
5.	Major Species (phytobenthos)		Gyrosigma sp., Navicula closterium
6.	Name of Phylum (Fauna)		Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	-	Plychaeta-64,Bivalvia-29
8.	Total no. of species encountered (Fauna)	Nos.	24
9.	Total fauna (Fauna)	per m <sup>3</sup>	189

Report Prepared by:

-



For Mitra S.K. Private Limited
P. Prad Nany
Authorized Signatory



# TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/931 Date : 01.06.2021

Sample No. : MSKGL/ED/2020-21/05/00575

Sample Description : Sea Sediment

Sampling Location: Dredging Source Area

Date of sampling ± 03.05.2021

### ANALYSIS RESULT

SL No.	Parameters	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7.35
2.	Electrical Conductivity	us/cm	1S 3025 (Part 14)-1984;Rffm:2006	1801.0
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	1.3
4.	Moisture content	9%	Lab Method	40.0
5.	Chloride (as CI)	mg/kg	TPM/MSK/P&E/1/10	1458.0
ò.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	98.0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	<3.0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	6.0
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	13.8
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1800.0
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	387.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	8.6
14.	Nickel (as Ni)	mg/kg	EPA 6010D	6.7
15.	Zinc (as Zn)	mg/kg	EPA 6010D	
16.	Manganese (as Mn)	mg/kg	EPA 6010D	172,0



#### Ref. No. BBS/931

Date- 01.06.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	
18.	Boron (as B)	mg/kg		6.5
19.	Aluminium ( as Al )		IS 13428-2005,Annex FI	<5.0
		mg/kg	EPA 6010D	2814.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	17.0
21,	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffin:2014	296.0
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	258,0
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb, 2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25,	Sand	%	TPM/MSK/P&E/1/36A	33.0
26.	Silt	%	TPM/MSK/P&E/1/36A	21.0
27.	Texture	None	TPM/MSK/P&E/1/36A	
28.	Clay	96		Clay
		1.0	TPM/MSK/P&E/1/36A	46.0

### Biological Result

SI No.	Parameters	Unit	
1.	Fungus (Phytobenthos)	CFU/g dry wt.	Results 1312
2.	Total count (Phytobenthos)	50 mg wet sediment	245
3.	No of species (Phytobenthos)	Nos.	6
4.	Diversity index (Phytobenthos)	1100	1,77
5.	Major Species (phytobenthos)		Gyrosigma sp., Coscinodiscus sp
6.	Name of Phylum (Fauna)		Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	-	Plychaeta-49,Bivalvia-12
8.	Total no. of species encountered (Fauna)	Nos.	18
9.	Total fauna (Fauna)	per m <sup>3</sup>	180

Report Prepared by:

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For Mitra S.K. Private Limited
P. Drad Many'
Authorized Signatory



## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/932 Date : 01.06.2021

Sample No.: MSKGL/ED/2020-21/05/00580

Sample Description : Sea Sediment

Sampling Location: Dredging Disposal Site

Date of sampling : 18.05.2021

## ANALYSIS RESULT

SL No.	Parameters	Unit	Test Method	Result
L.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7.64
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	1583.0
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	1.8
4.	Moisture content	%	Lab Method	30,0
5.	Chloride (as C1)	mg/kg	TPM/MSK/P&E/1/10	1455.0
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	341.0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	4.0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	7.5
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	22.0
The last	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1524.0
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	370.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	17.0
14.	Nickel (as Ni)	mg/kg	EPA 6010D	12.0
15.	Zinc (as Zn)	mg/kg	EPA 6010D	29.0
16.	Manganese (as Mn)	mg/kg	EPA 6010D	183,0



Ref. No. BBS/932

		1	Date	-01.06.2021
17.	Lead (as Pb)	mg/kg	EPA 6010D	8.5
18.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	<5.0
19.	Aluminium ( as Al )	mg/kg	EPA 6010D	2058.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	14.6
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	423.0
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	387,0
23.	Total Petroleum Hydrocarbon	ing/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<1,0
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	34.0
26.	Sílt	%	TPM/MSK/P&E/1/36A	26.0
27.	Texture	None	TPM/MSK/P&E/1/36A	Clay
28.	Clay	%	TPM/MSK/P&E/1/36A	40.0

### **Biological Result**

Sl No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1521
2,	Total count (Phytobenthos)	50 mg wet sediment	204
3,	No of species (Phytobenthos)	Nos.	5
4.	Diversity index (Phytobenthos)	-	1.44
5.	Major Species (phytobenthos)	1	Biddulphia mobilensis, Gyrosigma sp "Coscinodiscus s
6.	Name of Phylum (Fauna)		Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	-	Plychaeta-74,Bivalvia-40
8.	Total no. of species encountered (Fauna)	Nos.	28
9.	Total fauna (Fauna)	per m <sup>3</sup>	266

Report Prepared by:



For Mitra S.K. Private Limited

P. Drad Worn?

Authorized Signatory



# TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/933 Date : 01.06.2021

Sample No. : MSKGL/ED/2020-21/05/00581

Sample Description : Sea Sediment

Sampling Location: Dredging Source Site

Date of sampling : 18.05.2021

### ANALYSIS RESULT

Sl. No.	Parameters	Unit	Test Method	Result
1,	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7,88
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	1869.0
3,	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	1.4
4.	Moisture content	%	Lab Method	30.0
5,	Chloride (as CI)	mg/kg	TPM/MSK/P&E/1/10	1146.0
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	114.0
7,	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	<3.0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	4.8
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	12,8
li.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1588.0
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	309.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	12.0
14.	Nickel (as Ni)	mg/kg	EPA 6010D	9,4
15.	Zinc (as Zn)	mg/kg	EPA 6010D	31.0
16.	Manganese (as Mn)	mg/kg	EPA 6010D	197.0



Ref. No. BBS/933

Date-01.06,2021

		-	5.00	
17.	Lead (as Pb)	ing/kg	EPA 6010D	9.0
18.	Boron (as B)	mg/kg	IS 13428- 2005, Annex FI	<5.0
19.	Aluminium ( as Al )	mg/kg	EPA 6010D	2740.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	18.0
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	314.0
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	224,0
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	39.0
26.	Silt	96	TPM/MSK/P&E/1/36A	26.0
27.	Texture	None	TPM/MSK/P&E/1/36A	Clay Loam
28.	Clay	%	TPM/MSK/P&E/1/36A	35.0

### Biological Result

SI No.	Parameters	Unit	Results
T	Fungus (Phytobenthos)	CFU/g dry wt.	1312
2,	Total count (Phytobenthos)	50 mg wet sediment	298
3.	No of species (Phytobenthos)	Nos.	5
4.	Diversity index (Phytobenthos)	-	1.81
5.			Biddulphiq mobilensis, Gyrosigma sp., Nizschi distans, Coscinodiscus sp
6.	Name of Phylum (Fauna)	-	Annelida, Mollusca
7.			Plychaeta-78,Bivalvia-39
8.	Total no. of species encountered (Fauna)	Nos.	28
9,	Total fauna (Fauna)	per m <sup>3</sup>	169

Report Prepared by: \



For Mitra S.K. Private Limited

Authorized Signatory

#### Date: 01.06.2021

# Site Specific Monitored Meteorological Data

For: The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha

Sr. No.	Par	ameters	May.21
		Minimum	22.1
1.	Temperature ( °C)	Maximum	39.1
		Average	30.5
	August W. St. Tourist Process	Minimum	11.2
2.	Relative Humidity (%)	Maximum	100.0
		Average	70.2
5	Law Was Street	Minimum	0.0
3.	Wind Speed (m/s)	Maximum	32.5
		Average	4.0
4.	Wind Direction (%)	N	3.47
		NNE	5.44
		NE	8.12
		ENE	5.21
		E	2.8
		ESE	3.61
		SE	5.8
		SSE	3.7
		S	4.8
		SSW	3.6
		SW	19.16
		WSW	16.5
		W	8.4
		WNW	6.57
		CALM	2.82
		Total	592.5
5.	Rainfall (mm)	Minimum Day Wise	0.0
		Maximum Day Wise	44.1
		Average	0.80
	404	Minimum	748.0
6.	Ambient Pressure (mm Hg)	Maximum	758.6
	Site Specific Data)	Average	752.2

Prepared By

4-



P Pradvanz



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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Report No: BBS/800A

Date: 01.07.2021

# AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/00533
Type of Sample	Ambient Air Sample
Sampling Location	Colony Area
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs CO Analyses & VOC Sampler
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

		_				PAK	AMETERS	5		-		
Dave	PMa	PM <sub>2</sub> , (μg/ω <sup>2</sup> )	50; (µg/m²)	NOx. (µg/m²)	(mg/m²)	Nills (up/m²)	(jug/et²)	(ag/m²)	Ni (ng/m²)	(ng/m²)	(Hg/m²)	(eg/m²)
	(ug/m²)	25.60	6.45	21.25	0.56	17.66	<20.0	<0.01	<5.0	<1.0	<4.2	40.5
02,06:2021	44.10		6.34	19.10	0.61	15.60	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
06.06.2021	44.60	24.10	7.12	26.47	0.75	22.49	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
09.06,2021	45.20	22.50		18.27	0.59	14.85	<20.0	<0.01	<5.0	<1.0	<4.2	-0.5
13.06,2021	45,00	23,00	6.15	17.50	0,62	13.51	<20.0	<0.01	<5.0	<1.0	<4.7	<0.5
16.06.2021	42.40	22.10	632	20.48	0.74	18.80	<20.0	<0.01	<5.0	<1.0	=4,2	=0.5
20.06,2021	44.30	25.40	6.54		0.51	12.32	<20.0	< 0.01	<5.0	<1.0	<0.2	< 0.5
23.06.2021	43,10	24.30	6.08	16.71	The second second second	16.57	<20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5
27.06.2021	44.80	23.10	6.24	19.43	0.50		<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
30.06.2021	43.00	22.00	7.32	27,41	0.79	25,63	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
Average	44.05	23.57	6.51	20.73	0.63	17,49	-2mm	-9.03	die	-	-	
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	1
Time Weighted Average (hrs.)	24	24	24	24	1	24	1	24	Anoual	Annual	Annual	Annes
TEST METILOD	15 5182: Part 23:20 06 (Reaff , 2012	18 5182: Part 24:201	1S 5182 : Part 2 :2001 (Restf: 2012	1S 5182 : Part 6 :2006 (RenfL 2012)	1S 5182 : Part 10 :1999 (Reaft20 14)	1S 5182: Part 25:201 8	18 5182: Part 09/197	EPA - 103.4J ang,19	EPA - 103,43u nc,1999	EFA - 103-Uu ne,1999	18:5182( Part- 11):2006 Reaff,20 12	18:5182 Pari- 12):200 Reaff.: 2014

N.B-\*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

Prepared By - V



Checked By-



N-5/100, Ground Floor IRC Village, Nayapaili Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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Report No: BBS/800B

Date: 01.07,2021

### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/00533
Type of Sample	Ambient Air Sample
Sampling Location	Kanakprasad Village
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24brs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

						TAR	LAMETER	,				
Date	PM <sub>m</sub> (µg/m²)	PM <sub>14</sub>	SO; (right)	NOx (µg/m²)	CO (mg/m²)	NIL (ag/ar)	O <sub>3</sub> (reg/m <sup>2</sup> )	(he/m²)	Ni (eg/m²)	As (ng/m²)	CAL (pg/m²)	(ugm <sup>1</sup> )
02.06.2021	48.20	25.00	7.23	24.70	0.78	20.42	<20.0	⊲0:01	<5.0	<1.0	<4,2	<0.5
06.06.2021	47.00	27.10	6.98	22.62	0.66	19.21	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
09.06.2021	50,00	24,80	6.54	17.18	0.59	15.45	<20.9	<0.01	<5.0	<1.0	<4.2	< 0.5
13.06.2021	45.60	26.30	7.64	27.63	0.81	25.62	<20.0	<0.01	<5.0	<1.0	<42	< 0.5
16.06.2021	44.00	21.50	6.42	21.60	0.74	18.30	<20.0	< 0.01	<5.0	<1.0	<4.2	-:0.5
20.06.2021	47.20	24.70	6.24	18.74	0.46	14.56	<20.0	<0.01	<5.0	<1.0	<4.2	~0.5
23.06.2021	45.10	22.90	6.69	23.57	0.69	21.33	<20.0	< 0.01	<5.0	<1.0	~4.2	< 0.5
27.06.2021	43.90	20.10	6.34	20.62	0.58	16.38	<20.0	<0.01	<5.0	<1.0	-64.2	< 0.5
30.06.2021	45.00	23,40	6.44	19.88	0.55	13.33	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
Monthly	46,22	23.98	5.72	21.84	0.65	18.29	<20.0	<0.01	<5.0	<1.0	c4.2	<0.5
CPCB, New Dellal AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	t
Time Weighted Average (hrs.)	24	24	24	24	1	24	1	24	Angual	Assuil	Annual	Annual
TEST METHOD	15 5182: Part 23:20 06 (Reaff - 2012	15 5182: Part 24:201 9	IS . S182 t Fart 2 :2001 (Reaft. 2012	18 5182 : Part 6 ;2006 (Reaff, 2012)	IS-5182 : Part 10 :1999 (Resfi.20 14)	1S 5182; Part 25:201 8	15 5182; Part 09:197	EPA- 103.4J unc,19 00	EPA . 103,43u un.1999	EPA - 103.43a no.1999	18:5192/ Part- 11):2006 Reaff,20 12	15:5182( Part- 12):2004 Renff;: 2014

N.B-\*NAAQ-National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

Prepared By - V



Checked by-



N-5/100, Ground Floor IRC Viriage, Nayapalli Bhubiineswar - 751015 [CIN: U51909WB1956PTC023037]

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Report No: BBS/800C

Date: 01.07.2021

#### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/00533
Type of Sample	Ambient Air Sample
Sampling Location	Near BMH
Sampling Door by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

			7			PAR	CAMETER	8				
Dave	PMu (reg/m²)	PM:A (ag/m²)	50; (µg/m²)	NOs (sg/m²)	( og/m²)	NII <sub>2</sub> (segrin <sup>2</sup> )	O <sub>2</sub> (ag/m²)	Pb (pg/m²).	Ni (ng/m²)	As (ng/m²)	Calla (sig/in <sup>2</sup> )	Halt (ugin')
02.06.2021	59.00	26.00	6.87	24.33	0.69	21.29	<20.0	<0.01	<5,0	<1.0	<4.2	<0.5
06.06.2021	57.60	25.40	7.22	25,77	0.55	22.36	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
09.06.2021	56.30	27.90	6.38	21.86	0.66	17.36	<20.0	<0.01	<5.0	<1,0	<4.2	< 0.5
13:06.2021	55.00	26,00	7.64	28.16	0.87	19.52	<20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5
16.06.2021	54,60	24.20	7,44	26.23	0.75	23.02	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
20.06.2021	52.80	26.80	6.59	20,78	0.56	16.39	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
23.06.2021	57.00	25.10	6.28	19,49	0.46	15.77	<20.0	<0.01	<5.0	-(1.0)	<4.2	< 0.5
27.06.2021	51.90	24.70	7,38	27,51	0.79	24.88	<20.0	< 0.01	<5.0	<1.0	<4.2	≠0.5
30.06.2021	53.20	23,40	6.19	18.71	0.44	13.06	<20.0	<0.01	<50	<1.01	<4.2	< 0.5
Monthly Average	55.27	25,50	6.89	23.65	0.64	19.29	<20.0	<0.01	<5.0	<1.0	<4.2	<0,5
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	.5	i
Time Weighted Average (hrs.)	24	24	24	24	1	24	ī	24	Annal	Annual	Annual	Annoal
TEST METHOD	18 5182: Part 23:20 06 (Reaf L 2012	18 5182: Pert 24:20 19	IS 5182   Part 2 :2001 (Realf -2012	IS 5182   Part 6 :2006 (Reaff .2012)	15 5182   Part   10   1999 (Reaff.2   014)	IS 5182; Part 25:20 18	IS 5182: Part 09:19 74	EPA - 103.4 June, 1999	EPA - 103.4Ju ne,1999	EPA - 103:4Ju ne,1999	IS:5182 (Part- 11):200 6 Reaff,2 012	18:5182 (Part- 12):200 4 Reaff.: 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Natification

Prepared By - V







N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015

(CIN: U51909WB1956PTC0Z3037)

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Report No: BBS/800D

Date: 01.07.2021

## AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Wark Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/000533
Type of Sample	Ambient Air Sumple
Sampling Location	Near Jetty
Sampling Done by	Mr. Kunja Ilihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirolech, CO Analyzer & VOC Sampler

						PAR	AMETER	9				-
Date	PM <sub>m</sub> (µg/m²)	PMan (pg/m²)	SO <sub>2</sub> (µg/m²)	NOs (pg/m²)	CO (mg/m²)	NIL (ug/m²)	O <sub>3</sub> (µg/m <sup>2</sup> )	(no'es')	Ni (eg/m²)	As (ng/m²)	Calla (pg/m²)	(mg/m <sup>-1</sup> )
02.06.2021	60.00	34,00	7.98	27.62	0.78	24.78	<20.0	<0.01	<5.0	<1,0	<4.2	<0.5
06.06.7021	58.50	32.40	8.01	29.57	0.89	27.54	<20.0	<0.01	<5.0	<1.0	<42	<0.5
09.06.2021	63,40	31.80	7.69	25.41	0.72	22.85	<20,0	< 0.01	<5.0	<1.0	<4.2	<0.5
13.06.2021	59.70	32.10	7.58	24.52	0.78	21.97	<20.0	< 0.01	<5.0	<1.0	~4.2	<0.5
16.06.2021	60.80	28.60	7.24	28.33	0.87	25.12	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
20.06:2021	61.80	30.00	7.18	26.62	0.80	23.68	<20.0	< 0.01	<5.0	<1.0	-44.2	< 0.5
23.06.2021	63.20	31.40	6.97	20.32	0.49	18.27	<20.0	<0.01	<5.0	<1.0	64.2	-0.5
27,06.2021	59,00	29,40	6.77	22.97	0.47	19.64	<20.0	<0.01	<5.0	<1.0	42	<0.5
30.06.2021	62.00	27.00	6.32	18,56	0.40	14.78	<20.0	<0.01	<5.0	<1.0	42	-0.5
Mostley	60.93	30,74	7.30	24.88	0.69	22,07	<20.0	<0.01	<5.0	<1.0	<4.2	10.5
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	1
Time Weighted Average (brs.)	24	24	24	24	1	24	1	24	Annual	Annual	Annual	Annual
TEST METHOD	1S 5182: Part 23:20 06 (Reaf £ 2012	18 5182: Part 24:20 19	IS 5182 : Part 2 :2001 (Reaff .2012	IS 5182 : Part 6 :2006 (Reaff .2012)	15 5182 2 Part 10 11999 (Reaff.2 014)	IS 5182: Part 25:20 18	IS 5182: Part 99:19 74	EPA - 103,4 June, 1999	EPA - 103.4Ju nc,1999	EPA - 103.4Ju ne,1999	18:5182 (Part- 11):200 6 Renff,2 012	18:5183 (Part- 12):200 4 Reaff,: 2014

N.B. NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gast. Notilication

Prepared By - V



Checkled By-



N-5/100, Ground Floor IRC VIllage, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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Report No: BBS/800E

Date: 01.07,2021

## AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Wark Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/000533
Type of Sample	Ambient Air Sample
Sampling Location	Dosinga Village
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24brs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

						PAR	AMETER	9		-	-	100
Erute	PMag (again)	PM <sub>21</sub> (point)	50 <sub>1</sub> (pg/m²)	NOs (sig/se <sup>2</sup> )	(sq/m²)	(pg/m²)	O <sub>3</sub> (pg/m <sup>2</sup> )	Ph (pg/m²)	(ng/m²)	(ng/m²)	(ug/m²)	Flat' (mg/m²)
02.06.2021	46.00	26.00	6.49	19.78	0.45	24.78	<20.0	< 0.01	<5.0	<1.0	<12	< 0.5
06.06.2021	45.60	25.40	6.31	17.56	0.56	27.54	<20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5
09.06.2021	44.20	23.70	7.04	25.33	0.70	22.85	<20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5
The second second	45.00	21.00	6.28	15,62	0.41	21.97	<20.0	< 0.01	<5.0	<1.0	<4.2	-0.5
13.06.2021	43,50	22.00	6.78	22.36	0.62	25.12	<20.0	< 0.01	<5.0	<1.0	<4.2	<0,5
16.06.2021	42,00	25.00	7.34	28.42	0.75	23.68	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
20.06.2021	44,50	24.10	7.66	29.52	0.85	18.27	<20.0	< 0.01	< 5.0	<1.0	<4.2	40.5
23,06,2021	40.10	22.00	6.19	16.62	0.45	19.64	<20.0	<0.01	<5.0	<1.0	<4.7	< 0.5
27:06.2021	A STATE OF THE PARTY.	23,50	7,42	27.22	0.63	14.75	<20.0	<0.01	<5.0	<1.0	<4.7	<0.5
Monthly Average	43.57	23.63	6,83	22.49	0.60	22,07	<20.0	<0.01	<5,0	<1.0	<4.2	<0.5
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	1
Time Weighted Average (hrs.)	24	24	24	24	ı	24	1	24	Anneal	Annual	Annual	Annual
TEST METHOD	1S 5182: Part 23:20 06 (Reaf f, 2012	1S 5182: Part 24:20 19	15 5182 : Part 2 :2001 (Reaff .2012	18 5182 : Part 6 :2006 (Reaff _2012)	1S 5182 : Part 10 :1999 (Reaff.2 014)	18 5182t Part 25:20 18	(S 5182: Part 09:19 74	EPA - 103,4 June, 1999	EPA - 103.4Ju ne,1999	EPA - 103,4Ju nc,1999	1S:5182 (Part- 11):200 6 Reaff(2 012	18:5183 (Part- 12):200 4 Reaff, 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

Prepared By





N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0E74) 2362916, 2360917

F: (0674) 2352918

Report No: BBS/800F

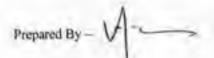
Date: 01.07.2021

## AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	M5KG1/ED/2020-21/00533
Type of Sample	Ambient Air Sample
Sampling Location	Near Bhitackanika
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24lirs
Munitaring Instrument	RDS (APM 860), FPS (APM 154) Lam Envirotech, CO Analyzer & VOC Sampler

						PAR	AMETER	5				
Date	PM(n (µg/m²)	PMz( (pg/m²)	50 <sub>2</sub> (µg/m <sup>1</sup> )	NOx (ag/m²)	(mg/m²)	NHA (up/m²)	Ο <sub>2</sub> (μg/m²)	PG (mp/m²)	Ni (ng/m²).	As (ng/m²)	(Hg/m <sup>2</sup> )	(ag/m <sup>b</sup> )
02.06.2021	44.00	23,40	6.37	19.85	D:48	15.51	<20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5
06.06.2021	45.10	25.00	6.54	21.10	0.59	16.73	<20.0	<0.01	×5.0	<1.0	-4.2	<0,5
09.06.2021	42.00	22.00	6.97	24.31	0.65	21.37	<20.0	< 0.01	<5.0	<1.0	<4.2	<0,5
13.06.2021	38.70	26.10	7.45	28.52	0.72	26.41	<20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5
16.06.2021	39.10	22.50	6.75	22.71	0.56	18.32	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
20.06.2021	41.00	23.40	6.88	23.11	0.63	19.12	<20.0	< 0:01	<5.0	<1.0	<1.7	< 0.5
23,06.2021	39.80	21.00	6.47	17.88	0,52	14.93	<20.0	<0.01	<5.0	<1.0	<42	-0.5
27.06.2021	42.10	20,90	7.21	25.63	0.66	22.31	<20.0	< 0.01	<5.0	<1.0	<4.2	+0.5
30.06.2021	37.00	22.00	6.24	18.66	0.47	14.56	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
Monthly Average	40.98	22,92	6.76	22.41	0.59	08.81	<20.0	<0.01	<5.0	<1.0	<4.2	×0.5
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	1
Time Weighted Average (hrs.)	(24)	24	24	24	b	24	1	24	Annual	Annual	Annual	Annua
1EST METHOD	18 5182: Part 23:20 06 (Reaf f. 2012	IS 5182: Part 24:20 19	IS 5182 : Part 2 :2001 (Reaff -2012	IS 5182 ; Part 6 ;2006 (Reaff ,2012)	(S 5182 ; Part 10 ;1999 (Reaff.2 014)	18 5182: Part 25:20 18	15 5182: Part 69:19 74	EPA - 103,4 June, 1999	EPA - 103.4Ju nc,1999	EPA - 103.43u ne,1999	IS:5182 (Part- 11):200 6 Reaff,2 012	IS:518: (Part- 12):200 4 Reaff, 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gutt. Natification







MSK TESTING DINSPECTION

N-5/100, Ground Floor IRC VIIIage, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T : (0674) 2362916, 2360917 F : (0674) 2362918

### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN : 756171 ODISHA

Report No. ; BBS/390 Date : 01.07.2021

Sample No. : MSKGL/ED/2020-21/06/00628

Sample Description: DG Noise

## DG Noise Level Monitoring Data

SL No	Sampling Date	Sampling Location	MAX	MIN	Results in Avg Leq dB(A)
1,	23.06.2021	General Substation DG 200 KvA	75.6	73,8	74.4
2,	24.06.2021	DPCL Intake Pump House DG 160 KvA (Big)	72.8	70.3	71.6
3.	24.06.2021	DPCL Intake Pump House DG 160 KvA (Small)	70.2	68.4	69,5
4.	21.06.2021	Kalibhanja Guest House DG 160 KvA (Big)	73.8	70.6	72.4
5.	21,06,2021	Kalibhanja Guest House DG 62.5 KvA (Small)	71.6	69,4	70.5
6.	23.06.2021	SS-6 DG 125 KvA	75.2	71.3	73.5
7.	24.06.2021	MCC-4 DG 160 KvA	74.3	69.8	72.1
8.	24.06.2021	SS-8 DG 50 KvA	72.8	67.5	70.7
9.	24.06,2021	SS-7 DG 125 KvA	73.7	71.6	72.3
10.	23.06.2021	SS-9 DG 50 KvA	71.0	66.8	68.9
11	23.06.2021	PSS DG 160 KvA	75.4	73.1	74.3
12.	23.06.2021	Township DG 180 KvA	72,1	70.6	71.2
13,	23,06,2021	MCC-1 DG 160 KvA	73,2	69.1	71.6



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F: (0674) 2362918

Report No.: BBS/390

Date: 01.07.2021

Nois	Limit
At 1meter from	the Enclosure Surface
DG Limit	75 dB

Report Prepared by:

AN DE LANGE OF THE PARTY OF THE

For Mitra S.K. Private Limited

MSK TESTING DINSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F ((0674) 2362918

### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/391

Date ± 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00964

Sample Description: Flue Gas Monitoring

Date of Sampling 24.06,2021 Time of Sampling : 03:05 PM

#### ANALYSIS RESULT

۸.	General information about stack :					
1.	Stack connected to	Intake Pump House DG-1(Big)				
2.	Emission due to	High Sp	High Speed Diesel (HSD)			
3.	Material of construction of stack	M.S				
4.	Shape of stack	Circular				
5.	Generation Capacity	160 Kv/	( 0.5 HP Load)			
B.	Physical characteristics of stack :					
1.	Height of the stack from ground level	3.31 m				
2	Diameter of the stack at sampling point	0.0652 m				
3.	Height of the sampling point from GL	3.31 m				
4.	Area of Stack	0:00334	m <sup>2</sup>			
C.	Analysis/Characteristic of stack:					
1.	Fuel used HSD					
2	Fuel Consumption NA					
D.	Results of sampling & analysis of gaseous emission	Result	Standard as per Moef & CC	METHOD		
1.	Temperature of emission (°C)	136		IS 11255 (Part III)		
2	Barometric pressure (mm of Hg)	750.2	Garage 1	USEPA Part 2		
3.	Velocity of gas (m/sec.)	12.38		IS 11255 (Part III)		
4.	Quantity of gas flow (Nni <sup>3</sup> /hr.)	95.52		IS 11255 (Part III)		
5.	Concentration of Carbon monoxide (g/kw-hr)	0.040	$\leq$ 3.5 (g/Kw/hr)	IS 5182 ( Part X)		
6.	Concentration of Sulphur Dioxide (mg/Nm3)	6.5		IS 11255 (Part II)		
7.	Concentration of Nitrogen Dioxide (g/kw-hr)	0.043	-	1S 11255 (Part VII)		
8.	Concentration of Particulate Matters ((g/kw-hr))	0.014	$\leq 0.2  (g/\text{Kw/hr})$	IS 11255 (Part I)		
9.	Concentration of Hydrocarbon (g/kw-hr)	0.035	plaine"	USEPA Part 18		
10.	NOx + HC (g/kw-hr)	0,078	≤4.0 (g/Kw/hr)	USEPA Part 18		

Report Prepared by:



For Mitra S.K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubsineswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F: (0674) 2362918

## TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/392

Date : 01.07.2021

Sample No. : MSKGL/ED/2020-21/06/00965

Sample Description : Flue Gas Monitoring
Date of Sampling : 24 06 2021

Date of Sampling : 24.06.2021 Time of Sampling : 01:55 PM

### ANALYSIS RESULT

Α.	General information about stack :	I was to be	House DV2 1/Res	orth)	
1.	Stack connected to	Intake Pump House DG-1(Small)			
2.	Emission due to		eed Diesel (HSD).		
3.	Material of construction of stack	M.S			
4.	Shape of stack	Circular			
5.	Generation Capacity	160 Ky	A ( 0.5 HP Load)		
B.	Physical characteristics of stack:				
1.	Height of the stack from ground level	2.2 m			
2.	Diameter of the stack at sampling point	0.11 m			
3.	Height of the sampling point from GL	2.2 m			
4.	Area of Stack	0.0095	m)*		
C.	Analysis/Characteristic of stack:				
1.	Fuel used HSD				
2.	Fuel Consumption NA	-	Two A Washington		
D.	Results of sampling & analysis of gaseous emission	Result	Standard as per Moef & CC	METHOD	
1.	Temperature of emission (°C)	119		IS 11255 (Part III)	
2	Barometric pressure (mm of Hg)	750.2		USEPA Part 2	
3.	Velocity of gas (m/sec.)	16.08	177	IS 11255 (Part III)	
4.	Quantity of gas flow (Nm³/hr.)	392.5	444	IS 11255 (Part III)	
5.	Concentration of Carbon monoxide (g/kw-hr)	0.209	$\leq 3.5 \left( g/\text{Kw/hr} \right)$	IS 5182 ( Part X)	
6.	Concentration of Sulphur Dioxide (mg/Nm³)	9.0		IS 11255 (Part II)	
7.	Concentration of Nitrogen Dioxide (g/kw-hr)	0.155	-	15 11255 (Part VII)	
8.	Concentration of Particulate Matters ((g/kw-hr))	0.123	≤0.2 (g/Kw/hr)	IS 11255 (Part I)	
9.	Concentration of Hydrocarbon (g/kw-hr)	0.028		USEPA Part 18	
10.		0.183	≤4.0 (g/K.w/hr)	USEPA Part 18	

Report Prepared by:



For Mitra S.K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubarieswar - 751015 ICIN: U51909WB1956PTC0230371

T: (0674) 2362916, 2360917

F: (0674) 2362918

### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN : 756171 ODISHA

Report No. : BBS/393 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00970

Sample Description : Flue Gas Monitoring

Date of Sampling : 23.06.2021 Time of Sampling : 03:00 PM

### ANALYSIS RESULT

A.	General information about stack :	L nen mo				
	Stack connected to	PSS DG				
	Emission due to	High Speed Diesel (HSD)				
3.	Material of construction of stack	M.S				
1.	Shape of stack	Circular				
5.	Generation Capacity	160 KvA	( No Load)			
В.	Physical characteristics of stack :					
	Height of the stack from ground level	3,33 m				
2.	Diameter of the stack at sampling point	0.09 m				
3	Height of the sampling point from GL	3.3 m				
1.	Area of Stack	0.00636 m <sup>2</sup>				
C.	Analysis/Characteristic of stack:					
1.	Fuel used HSD					
2.	2. Fuel Consumption NA					
D.	Results of sampling & analysis of gaseous emission	Result	Standard as per Moef & CC	METHOD		
L.	Temperature of emission (°C)	105	HH	IS 11255 (Part III)		
2.	Barometric pressure (mm of Hg)	751.7	1441	USEPA Part 2		
3.	Velocity of gas (m/sec.)	17.22		IS 11255 (Part III)		
4.	Quantity of gas flow (Nm³/hr.)	286.68	page .	1S 11255 (Part III)		
5.	Concentration of Carbon monoxide (g/kw-hr)	0.137	≤3.5 (g/Kw/hr)	IS 5182 ( Part X)		
-	Concentration of Sulphur Dioxide (mg/Nm³)	7.4	-	IS 11255 (Part II)		
6.	Concentration of Nitrogen Dioxide (g/kw-hr)	0.120		IS 11255 (Part VII)		
7.	Concentration of Particulate Matters ((g/kw-hr))	0.082	≤0.2 (g/Kw/hr)	IS 11255 (Part I)		
8.	Concentration of Particulate Matters ((g/kw/hr))	0.024		USEPA Part 18		
9.	Concentration of Hydrocarbon (g/kw-hr) NOx + HC (g/kw-hr)	0.144	≤ 4.0 (g/Kw/hr)	USEPA Part 18		

Report Prepared by:



For Mitra S.K. Private Limited

MSK TESTING UNSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F : (0674) 2362918

## TEST REPORT

Name & Address of the Customer :

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN : 756171 ODISHA

Report No.: BBS/394

Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00969

Sample Description: Flue Gas Monitoring

Date of Sampling : 23.06.2021 Time of Sampling : 04:15 PM

#### ANALYSIS RESULT

۸.	General information about stack :	-1-00-00			
1.	Stack connected to	SS-9 DG			
2.	Emission due to	High Spe	ed Diesel (HSD)		
3.	Material of construction of stack	M.S			
4.	Shape of stack	Circular			
5.	Generation Capacity	50 KvA	(0.5 HP Load)		
B.	Physical characteristics of stack :				
1,	Height of the stack from ground level	2,04 m			
2.	Diameter of the stack at sampling point	0.07 m			
3.	Height of the sampling point from GL	2.04 m			
4.	Area of Stack	0.00385 m <sup>2</sup>			
C.	Analysis/Characteristic of stack;				
1.	Foel used HSD				
2.	Fuel Consumption NA				
D.	Results of sampling & analysis of gaseous emission	Result	Standard as per Moef & CC	METHOD	
1.	Temperature of emission (°C)	116	See	IS 11255 (Part III)	
2.	Barometric pressure (mm of Hg)	751.7		USEPA Part 2	
3.	Velocity of gas (m/sec.)	20.8	1404	IS 11255 (Part III)	
4.	Quantity of gas flow (Nm <sup>4</sup> /hr.)	209.4	-	IS 11255 (Part III)	
5.	Concentration of Carbon monoxide (g/kw-hr)	0,222	$\leq$ 3.5 (g/Kw/hr)	IS 5182 ( Part X)	
6.	Concentration of Sulphur Dioxide (mg/Nm³)	<5.0		IS 11255 (Part II)	
7.	Concentration of Nitrogen Dioxide (g/kw-hr)	0,233	-	IS 11255 (Part VII)	
8.	Concentration of Particulate Matters ((g/kw-hr))	0.162	≤0.3 (g/Kw/hr)	IS 11255 (Part I)	
9.	Concentration of Hydrocarbon (g/kw-hr)	0.039		USEPA Part 18	
10.	The state of the s	0.272	$\leq 4.7 \left( g/\text{Kw/hr} \right)$	USEPA Part 18	

Report Prepared by: V



For Mitra S.K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F: (0674) 2362918

#### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. 1 BBS/395

Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00967

Sample Description: Flue Gas Monitoring

Date of Sampling : 24,06,2021 Time of Sampling : 10:20 AM

### ANALYSIS RESULT

A.	General information about stack :	1 20 2 2				
	Stack connected to	SS-7 DG				
2.	Emission due to	High Sp	High Speed Diesel (HSD)			
3.	Material of construction of stack	M.S				
4.	Shape of stack	Circular				
5.	Generation Capacity	125 Kv	A (On Load 0.5 HP			
B.	Physical characteristics of stack :					
1	Height of the stack from ground level	2.41 m				
2.	Diameter of the stack at sampling point	0.11 m				
3.	Height of the sampling point from GL	2.41 m				
4.	Area of Stack	0.0095 m <sup>2</sup>				
C.	Analysis/Characteristic of stack:					
1.	Fuel used HSD					
2.	Fuel Consumption NA					
D.	Results of sampling & analysis of gaseous emission	Result	Standard as per Moef & CC	METHOD		
i.	Temperature of emission (°C)	132		IS 11255 (Part III)		
2,	Barometric pressure (mm of Hg)	751.7		USEPA Part 2		
3.	Velocity of gas (m/sec.)	13.68		IS 11255 (Part III)		
4.	Quantity of gas flow (Nm³/hr.)	321.3		1S 11255 (Part III)		
5.	Concentration of Carbon monoxide (g/kw-hr)	0.179	≤3.5 (g/Kw/hr)	IS 5182 ( Part X)		
6.	Concentration of Sulphur Dioxide (mg/Nm³)	7.2	(major	IS 11255 (Part II)		
7.	Concentration of Nitrogen Dioxide (g/kw-hr)	0.253	7117	IS 11255 (Part VII)		
8.	Concentration of Particulate Matters ((g/kw-hr))	0.127	≤ 0.2 (g/Kw/hr)	IS 11255 (Part I)		
9.	Concentration of Hydrocarbon (g/kw-hr)	0.027	and the same of	USEPA Part 18		
10.	NOx + HC (g/kw-hr)	0.280	≤ 4.0 (g/Kw/hr)	USEPA Part 18		

Report Prepared by:



For Mitra S.K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F. (0674) 2362918

#### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/396

Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00966

Sample Description: Flue Gas Monitoring

Date of Sampling : 24.06.2021 Time of Sampling : 10:40 AM

#### ANALYSIS RESULT

Λ.	General information about stack :				
1.	Stack connected to	SS-8 DG			
2.	Emission due to	High Sp	High Speed Diesel (HSD)		
3.	Material of construction of stack	M.S			
4.	Shape of stack	Circular			
5.	Generation Capacity	50 KvA	(0.5 HP Load)		
B.	Physical characteristics of stack:				
1.	Height of the stack from ground level	2.36 m			
2.	Diameter of the stack at sampling point	0.07 m			
3.	Height of the sampling point from GL	2.36 m			
4.	Area of Stack	0.00385 m <sup>2</sup>			
C.	Analysis/Characteristic of stack:				
1.	Fuel used HSD	-10			
2.	Fuel Consumption NA				
D.	Results of sampling & analysis of gaseous emission	Result	Standard as per Moef & CC	METHOD	
1.	Temperature of emission (°C)	105		IS 11255 (Part III)	
2.	Barometric pressure (mm of Hg)	751.7	-	USEPA Part 2	
3.	Velocity of gas (m/sec.)	17.49	****	IS 11255 (Part III)	
4.	Quantity of gas flow (Nm <sup>3</sup> /hr.)	177.9		IS 11255 (Part III)	
5.	Concentration of Carbon monoxide (g/kw-ltr)	0.196	$\leq$ 3.5 (g/Kw/hr)	1S 5182 ( Part X)	
6.	Concentration of Sulphur Dioxide (mg/Nm³)	<5.0	****	IS 11255 (Part II)	
7.	Concentration of Nitrogen Dioxide (g/kw-hr)	0.192	-	IS 11255 (Part VII)	
8.	Concentration of Particulate Matters ((g/kw-hr))	0.066	≤0.3 (g/Kw/hr)	IS 11255 (Part I)	
9.	Concentration of Hydrocarbon (g/kw-hr)	0.039	_	USEPA Part 18	
10,	NOx + HC (g/kw-hr)	0.231	≤4.7 (g/Kw/hr)	USEPA Part 18	

Report Prepared by:



For Mitra S.K. Private Limited

MSK TESTING CINEPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F: (0674) 2362918

### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT - DOSINGA, PO : DHAMRA

DIST.: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/397 Date : 01.07.2021

Sample No. : MSKGL/ED/2020-21/06/00971

Sample Description: Flue Gas Monitoring

Date of Sampling : 24.06.2021 Time of Sampling : 09:00 AM

### ANALYSIS RESULT

۸.	General information about stack :				
1.	Stack connected to	MCC-4 DG			
2.	Emission due to	High Spe	eed Diesel (HSD)		
3.	Material of construction of stack	M.S			
4.	Shape of stack	Circular			
5.	Generation Capacity	160 KvA	(No Load)		
B.	Physical characteristics of stack:				
1.	Height of the stack from ground level	3.54 m			
2.	Diameter of the stack at sampling point	0.125 m			
3.	Height of the sampling point from GL	3.54 m			
4.	Area of Stack	0.0122 m <sup>2</sup>			
C.	Analysis/Characteristic of stack:	1/1/2			
1,	Fuel used HSD				
2.	Fuel Consumption NA		The state of the s		
D.	Results of sampling & analysis of gaseous emission	Result	Standard as per Moef & CC	METHOD	
1.	Temperature of emission (°C)	130	-	IS 11255 (Part III)	
2	Barometric pressure (mm of Hg)	751.0	****	USEPA Part 2	
3.	Velocity of gas (m/sec.)	15.34	-	IS 11255 (Part III)	
4.	Quantity of gas flow (Nm³/hr.)	460.39		IS 11255 (Part III)	
5.	Concentration of Carbon monoxide (g/kw-hr)	0.180	≤3.5 (g/Kw/hr)	1S 5182 ( Part X)	
6.	Concentration of Sulphur Dioxide (mg/Nm3)	8.0	-	IS 11255 (Part II)	
7.	Concentration of Nitrogen Dioxide (g/kw-hr)	0.189	-	IS 11255 (Part VII)	
8.	Concentration of Particulate Matters ((g/kw-hr))	0.064	≤ 0.2 (g/Kw/hr)	IS 11255 (Part I)	
9.	Concentration of Hydrocarbon (g/kw-hr)	0.025	****	USEPA Part 18	
10.	NOx + HC (g/kw-fir)	0.214	≤4.0 (g/Kw/hr)	USEPA Part 18	

Report Prepared by:

S.K. PRINDIE

For Mitra S.K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917

F: (0674) 2362918

## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN : 756171 ODISHA

Report No. : BBS/398 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00968

Sample Description : Flue Gas Monitoring

Date of Sampling : 23,06,2021 Time of Sampling : 05:10 PM

### ANALYSIS RESULT

۸.	General information about stack :	SS-6 DO	2		
	Stack connected to	High Speed Diesel (HSD)			
2.	Emission due to	and the same of th	eed Diesel (11517)		
3.	Material of construction of stack	M,S			
1.	Shape of stack	Circular			
5.	Generation Capacity	125 Kv/	A (0.5 HP Load)		
В.	Physical characteristics of stack :				
1.	Height of the stack from ground level	2.30 m			
2.	Diameter of the stack at sampling point	0.109 m			
3.	Height of the sampling point from GL	2.30 m			
4.	Area of Stack	0.00933	m.		
C.	Analysis/Characteristic of stack:				
1.	Fuel used HSD				
2.	Fuel Consumption NA		Transport of the form		
D.	Results of sampling & analysis of gaseous emission	Result	Standard as per Moef & CC	METHOD	
100	Temperature of emission (°C)	161	2044	IS 11255 (Part III)	
1.	Barometric pressure (mm of Hg)	751.7		USEPA Part 2	
2.	Velocity of gas (m/sec.)	15.6		1S 11255 (Part III)	
3.	Quantity of gas flow (Nm³/hr.)	328.0		IS 11255 (Part III)	
4.	Concentration of Carbon monoxide (g/kw-hr)	0.156	≤3,5 (g/Kw/hr)	IS 5182 ( Part X)	
5.	Concentration of Sulphur Dioxide (mg/Nm³)	7.7	-	IS 11255 (Part II)	
6.	Concentration of Sulphur Dioxide (g/kw-hr)  Concentration of Nitrogen Dioxide (g/kw-hr)	0.236	-	IS 11255 (Part VII)	
7.	Concentration of Particulate Matters ((g/kw-hr))	0.081	≤0.2 (g/Kw/hr)	IS 11255 (Part I)	
8.	Concentration of Particulate Waters (19/15/16/17)	0.042	****	USEPA Part 18	
9.	Concentration of Hydrocarbon (g/kw-hr) NOx + HC (g/kw-hr)	0,278	$\leq 4.0  (g/Kw/hr)$	USEPA Part 18	

Report Prepared by:

CAN DELLA

For Mitra S.K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/399

± 01.07.2021

Sample No.: MSKGL/ED/2020-21/12/00974 Sample Description: Flue Gas Monitoring

Date of Sampling : 21.06.2021

Time of Sampling ± 12:05 PM

#### ANALYSIS RESULT

۸.	General information about stack ;			on This	
1.	Stack connected to	Kalibhanja Guest House DG (Small)			
2:	Emission due to	High Speed Diesel (HSD)			
3.	Material of construction of stack	M.S			
4.	Shape of stack	Circular			
5.	Generation Capacity	62.5 Kv	A (Full Load)		
B.	Physical characteristics of stack :				
1.	Height of the stack from ground level	2.39 m			
2.	Diameter of the stack at sampling point	0.08 m			
3.	Height of the sampling point from GL	2.39 m			
4.	Area of Stack	0.00503	m <sup>2</sup>		
C.	Analysis/Characteristic of stack:				
1.	Fuel used HSD				
2.	Fuel Consumption NA				
D.	Results of sampling & analysis of gaseous emission	Result	Standard as per Moef & CC	METHOD	
1.	Temperature of emission (°C)	113.		IS 11255 (Part III)	
2.	Barometric pressure (mm of Hg)	753.1	-	USEPA Part 2	
3.	Velocity of gas (m/sec.)	15.82	-	IS 11255 (Part III)	
4.	Quantity of gas flow (Nm³/hr.)	207.4	++++	IS 11255 (Part III)	
5.	Concentration of Carbon monoxide (g/kw-hr)	0.231	$\leq$ 3.5 (g/Kw/hr)	IS 5182 ( Part X)	
6.	Concentration of Sulphur Dioxide (mg/Nm³)	<5.0		IS 11255 (Part II)	
7.	Concentration of Nitrogen Dioxide (g/kw-hr)	0,222		IS 11255 (Part VII)	
8.	Concentration of Particulate Matters ((g/kw-hr))	0.053	≤0.3 (g/Kw/hr)	IS 11255 (Part I)	
9.	Concentration of Hydrocarbon (g/kw-hr)	0.037		USEPA Part 18	
10.	NOx = HC (g/kw-hr)	0.259	≤ 4.7 (g/Kw/hr).	USEPA Part 18	

Report Prepared by:



For Mitra S.K. Private Limited

Authorized Signatory

H.O., Shrachi Centre (5th Floor), 74B, Acharya Jagadish Chandra Bose Road, Kolkata - 700 016, West Bengal, India T: 91 33 4014 3000 / 2265 0006 / 2265 0007, F: 91 33 2265 0008, E: info@mitrask.com, W: www.mitrask.com

N-5/100, Ground Floor IRC VIIlage, Nayapalli Bhubanaswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360017

F. (0674) 2362918

#### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/400

: 01.01.2021 Date

Sample No. ; MSKGL/ED/2020-21/12/00975 Sample Description: Flue Gas Monitoring

Date of Sampling : 21.06.2021

Time of Sampling ± 01:10 PM

#### ANALYSIS RESULT

A.	General information about stack :	C.C.	2230.00		
I.	Stack connected to	Kalibha	mja Guest House DG	(Big)	
2.	Emission due to	High Sp	peed Diesel (HSD)		
3.	Material of construction of stack	M.S			
4.	Shape of stack	Circular			
5.	Generation Capacity	160 Kv	A ( Eull Load )		
В.	Physical characteristics of stack :				
1.	Height of the stack from ground level	3.1 m			
2.	Diameter of the stack at sampling point	0.11 m			
3.	Height of the sampling point from GL	3.1 m	A		
4.	Area of Stack	0.0095 m <sup>2</sup>			
C.	Analysis/Characteristic of stack:				
1.	Fuel used HSD				
2.	Fuel Consumption NA				
D.	Results of sampling & analysis of gaseous emission	Result	Standard as per Moef & CC	METHOD	
1.	Temperature of emission (°C)	128		IS 11255 (Part III)	
2.	Barometric pressure (mm of Hg)	753.1	-	USEPA Part 2	
3.	Velocity of gas (m/sec.)	19.20		IS 11255 (Part III)	
4.	Quantity of gas flow (Nm³/hr.)	368.7		IS 11255 (Part III)	
5.	Concentration of Carbon monoxide (g/kw-hr)	0.184	$\leq 3.5  (g/Kw/hr)$	IS 5182 ( Part X)	
6.	Concentration of Sulphur Dioxide (mg/Nm³)	11.6	(Appel)	IS 11255 (Part II)	
7.	Concentration of Nitrogen Dioxide (g/kw-hr)	0.197	Person	1S 11255 (Part VII)	
8.	Concentration of Particulate Matters ((g/kw-hr))	0.052	$\leq 0.2 (g/Kw/hr)$	IS 11255 (Part I)	
9.	Concentration of Hydrocarbon (g/kw-hr)	0.040		USEPA Part 18	
10.	NOx + HC (g/kw-hr)	0.249	≤4.0 (g/Kw/hr)	USEPA Part 18	

Report Prepared by:

For Mitra S.K. Private Limited



N-5/100, Ground Floor IRC VIllage, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED,

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN : 756171 ODISHA

Report No. : BBS/401

: 01.07,2021 Date

Sample No.: MSKGL/ED/2020-21/06/00973 Sample Description: Flue Gas Monitoring

Date of Sampling : 23,06.2021

Time of Sampling : 11:20 AM

### ANALYSIS RESULT

۸.	General information about stack :	1 Township	a DV2 5			
1.	Stack connected to	Township DG-5 High Speed Diesel (HSD)				
2.	Emission due to	The second secon	eed Diesel (HSD)			
3.	Material of construction of stack	M.S				
4.	Shape of stack	Circular				
5.	Generation Capacity	180 Kv	( No Load )			
B.	Physical characteristics of stack :					
1.	Height of the stack from ground level	3.52 m				
2.	Diameter of the stack at sampling point	he stack at sampling point 0.125 m				
3.	Height of the sampling point from GL	3.52 m	-			
4.	Area of Stack	0.01227	m*			
C.	Analysis/Characteristic of stack:	T Account				
I.	Fuel used HSD	_				
2.	Fuel Consumption NA		David Co.	- F		
D.	Results of sampling & analysis of gaseous emission	Result	Standard as per Moef & CC	METHOD		
1	Temperature of emission (°C)	121		IS 11255 (Part III)		
2.	Barometric pressure (mm of Hg)	751.6	) week	USEPA Part 2		
3.	Velocity of gas (m/sec.)	13.83	-	1S 11255 (Part III)		
4.	Quantity of gas flow (Nm³/hr.)	430.9		IS 11255 (Part III)		
5.	Concentration of Carbon monoxide (g/kw-hr)	0.207	$\leq$ 3.5 (g/Kw/hr)	1S 5182 ( Part X)		
_	Concentration of Sulphur Dioxide (mg/Nm³)	10.5		IS 11255 (Part II)		
ó.	Concentration of Nitrogen Dioxide (g/kw-hr)	0.202	177	IS 11255 (Part VII)		
7.	Concentration of Particulate Matters ((g/kw-hr))	0,063	≤0.2 (g/Kw/hr)	IS 11255 (Part I)		
8.	Concentration of Particulate Matters ((g/kw-hr))  Concentration of Hydrocarbon (g/kw-hr)	0.024		USEPA Part 18		
9.		0.226	≤4.0 (g/Kw/hr)	USEPA Part 18		

Report Prepared by:



For Mitra S.K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/402 : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00972 Sample Description: Flue Gas Monitoring

Date of Sampling : 23.06.2021 Time of Sampling : 02:10 PM

### ANALYSIS RESULT

۸.	General information about stack :	1 100 1	nc	
14	Stack connected to	MCC-1		
2	Emission due to		eed Diesel (HSD)	
3.	Material of construction of stack	M.S		
4.	Shape of stack	Circular		
5.	Generation Capacity	160 Kv	(No Load)	
B.	Physical characteristics of stack :			
1.	Height of the stack from ground level	3.21 m		
2.	Diameter of the stack at sampling point	0,08 m		
3.	Height of the sampling point from GL	3.21 m	1	
4.	Area of Stack	0.00503	m"	
C.	Analysis/Characteristic of stack:			
1.	Fuel used HSD			
2.	Fuel Consumption NA		Dec. d. n.t. income	
D.	Results of sampling & analysis of gaseous emission	Result	Standard as per Moef & CC	METHOD
1.	Temperature of emission (°C)	119		IS 11255 (Part III)
2.	Barometric pressure (mm of Hg)	751.6	- Land	USEPA Part 2
3.	Velocity of gas (m/sec.)	11.21	-	IS 11255 (Part III)
4.	Quantity of gas flow (Nm³/hr.)	143.6	-	IS 11255 (Part III)
5.	Concentration of Carbon monoxide (g/kw-hr)	0.066	$\leq$ 3.5 (g/Kw/hr)	IS 5182 ( Part X)
6.	Concentration of Sulphur Dioxide (mg/Nm³)	7.1	-	IS 11255 (Part II)
_	Concentration of Nitrogen Dioxide (g/kw-hr)	0.073	-	IS 11255 (Part VII)
7.	Concentration of Particulate Matters ((g/kw-hr))	0.044	≤0.2 (g/Kw/hr)	IS 11255 (Part I)
8.	Concentration of Hydrocarbon (g/kw-hr)	0.012		USEPA Part 18
9.		0.085	≤ 4.0 (g/Kw/hr)	USEPA Part 18

Report Prepared by:

For Mitra S.K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapelli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T | (0674) 2362916, 2360917

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### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/403 Date : 01.01.2021

Sample No. : MSKGL/ED/2020-21/06/00974 Sample Description : Flue Gas Monitoring

Date of Sampling : 23.06,2021 Time of Sampling : 10:13 AM

### ANALYSIS RESULT

۸.	General information about stack :						
1.	Stack connected to	General :	Substation (DG-6 GSS	5)			
2	Emission due to	High Spe	High Speed Diesel (HSD)				
3.	Material of construction of stack	M.S					
4.	Shape of stack	Circular					
5.	Generation Capacity	200 KyA ( No Load )					
B.	Physical characteristics of stack :						
1.	Height of the stack from ground level	2.3 m					
2.	Diameter of the stack at sampling point	0.0652 m	1				
3.	Height of the sampling point from GL	2.3 m					
4.	Area of Stack	0.00334 m <sup>2</sup>					
C.	Analysis/Characteristic of stack;						
1.	Fuel used HSD						
2.	Fuel Consumption NA						
D.	Results of sampling & analysis of gaseous emission	Result	Standard as per Moef & CC	METHOD			
1.	Temperature of emission (°C)	116		IS 11255 (Part III)			
2.	Barometric pressure (nim of Hg)	760	-	USEPA Part 2			
3.	Velocity of gas (m/sec.)	9.0	_	IS 11255 (Part III)			
4.	Quantity of gas flow (Nm <sup>3</sup> /hr.)	79.8		1S 11255 (Part III)			
5.	Concentration of Carbon monoxide (g/kw-hr)	0.037	≤3.5 (g/Kw/hr)	IS 5182 ( Part X)			
6.	Concentration of Sulphur Dioxide (mg/Nm³)	10.5	-5444	IS 11255 (Part II)			
7.	Concentration of Nitrogen Dioxide (g/kw-hr)	0.036		IS 11255 (Part VII)			
8.	Concentration of Particulate Matters ((g/kw-hr))	0.007	≤0.2 (g/Kw/hr)	IS 11255 (Part I)			
9.	Concentration of Hydrocarbon (g/kw-hr)	0.008	***	USEPA Part 18			
10.		0.044	$\leq 4.0  (g/Kw/hr)$	USEPA Part 18			

Report Prepared by:

PRIVATE CHAPTER

For Mitra S.K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037|

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/402 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00409 Sample Description: EFFLUENT WATER

Sampling Location: STP 15 KLD Date of sampling: 03.06.2021

### ANALYSIS RESULT

er	W. Provide	200	0.50	Carrier Mention	Rest	dr
SL. No.	Test Parameters	Units	Limit	Test Specification	Inlet	Outlet
1,	Colour	Hazen	120	APHA (23rd Edition) 2120B 2017	Blackish	Clear
2.	Odour			APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C		6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7.42	7,56
4.	Appearance		++	Lab Method	Turbid	Clear
5.	TSS	mg/l	20.0	APHA (23rd Edition) 2540D	79.00	<2.5
6.	BOD	mg/l	10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	23.00	3.30
7.	COD	mg/l	50.0	APHA (23rd Edition) 5220B 2017	88.00	14,00
8.	Oil & Grease	mg/l	10,0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	4.00	<1.4
9.	Ammonical Nitrogen	mg/l	5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	16.40	1.20
10.	Total Nitrogen (as N)	mg/1	10.0	IS 14684 (1999); Rffm:2014	27.10	1,58
11,	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	2200.00	95.00

Report Prepared by: V



For Mitra S. K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

6DIST : BHADRAK, PIN :756171 ODISHA

Report No.: BBS/403 Date: 01,07,2021

Sample No.: MSKGL/ED/2020-21/06/00411 Sample Description: EFFLUENT WATER

Sampling Location : STP 140KLD Date of sampling : 03.06.2021

#### ANALYSIS RESULT

SL.	3-7-7-03-7	200	Geno.	man and described	Rest	lt
No.	Test Parameters	Units	Limit	Test Specification	Inlet	Outlet
1.	Colour	Hazen	-	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear
2.	Odour	-		APHA (23rd Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C	444	6.5-9.0	APHA (23rd Edition) 4500 H-B	7.26	7.44
4.	Appearance			Lab Method	Turbid	Clear
5.	TSS	mg/l	20.0	APHA (23rd Edition) 2540D	63.00	<2.5
6.	BOD	mg/l	10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	32.00	8.40
7.	COD	mg/l	50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	120.00	32.00
8.	Oil & Grease	mg/l	10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	4.00	<1.4
9.	Ammonical Nitrogen	mg/l	5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	16.00	1.40
10.	Total Nitrogen (as N)	mg/l	10.0	15 14684 (1999); Rffm:2014	18.00	2.31
11:	Faecal Coliform	MPN/ 100ml	<1000,0	APHA (23 <sup>rd</sup> Edition) 9221 E	1100.00	80.00

Report Prepared by:



For Mitra S. K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/404 Date: 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/01005 Sample Description: EFFLUENT WATER

Sampling Location : STP 15 KLD Date of sampling : 21.06.2021

#### ANALYSIS RESULT

SL.	Land State of the Land	20.00	20.00	Track of Continu	Resu	ilt	
No.	Test Parameters	Units	Limit	Test Specification	Inlet	Outlet	
1.	Colour	Hazen	-	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear	
2.	Odour		+	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable	
3.	pH value at 26°C	44	6.5-9.0	APHA (23rd Edition) 4500 H-B	7.34	7.62	
4.	Appearance		-	Lab Method	Turbid	Clear	
5.	TSS	mg/l	20.0	APHA (23rd Edition) 2540D	94.00	<2.5	
6.	BOD	mg/I	10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	45.00	4.20	
7.	COD	mg/I	50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	122.0	15.60	
8.	Oil & Grease	mg/l	10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	6.00	<1.4	
9.	Ammonical Nitrogen	mg/l	5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	20.00	1.30	
10.	Total Nitrogen (as N)	mg/I	10.0	IS 14684 (1999); Rffm:2014	32.00	2.20	
(I)	Faecal Coliform	MPN/ 100ml	<1000:0	APHA (23 <sup>rd</sup> Edition) 9221 E	900.00	80.00	

Report Prepared by:



For Mitra S. K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/405 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/01007 Sample Description: EFFLUENT WATER

Sampling Location : STP 140KLD Date of sampling : 19.06.2021

#### ANALYSIS RESULT

et	15-3-1-17	-	0500		Resu	dt
SL.	Test Parameters	Units	Limit	Test Specification	Inlet	Outlet
L	Colour	Hazen	-	APHA (23rd Edition) 2120B 2017	Blackish	Clear
2	Odour	Line	-	APHA (23rd Edition) 2150B	Disagreeable	Agreeable
3	pH value at 26°C	_	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7.22	7.62
4.	Appearance	-	-	Lab Method	Turbid	Clear
5.	TSS	nig/l	20.0	APHA (23rd Edition) 2540D	64.00	<2.5
6.	BOD	mg/l	10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	45.00	5.40
7.	COD	mg/l	50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	224.00	22.00
8.	Oil & Grease	mg/l	10.0	APHA (23rd Edition) 5220B 2017	6.00	<1.4
9.	Ammonical Nitrogen	mg/l	5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	15.20	1.24
10.	Total Nitrogen (as N)	mg/l	10.0	IS 14684 (1999); Rffm:2014	26.00	1.86
11.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	880.00	85,00

Report Prepared by:

4-

PRIVATE LIMING

For Mitra S. K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0E74) 2362916, 2360917

F (0674) 2382918

### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No. : BBS/406

Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00854

Sample Description: Ambient Noise

#### Noise Level Monitoring Data

64	Complian	Campling	ampling Day L Time dB(A)				Night Time L dB(A)			(A)
SL No	Sampling Date	Sampling Location	MAX	MIN	AVG.	LIMIT	MAX	MIN	AVG.	LIMIT
l.	01.06.2021	Colony Area (R)	48.2	41.4	43.2	55	38.9	35.0	36.7	45
2.	03.06.2021	Kanak Prasad Village (R)	47.5	41.1	43.8	55	38.7	35.5	36.0	45
3.	26.06.2021	Near BMH (i)	61.2	57.0	58.3	75	57.9	53.4	56.0	70
4.	07.06.2021	Near Jetty (I)	65.0	58.1	61.7	75	60.4	55.2	57.3	70
5.	08.06.2021	Dosinga Village (R)	48.4	42.5	43.6	55	36.1	35.0	35.0	45
6.	10.06.2021	Near Bhitarkanika (Eco Sensitive Zone)	41.5	36.0	38.7	50	36.2	35.1	36.2	40

		Noise Limit as per CP	CB
Category of Area/Zone	Leq dB(A) Day Time	Leq dB(A) Night Time	NOTE:
Industrial Area	75	70	Day Time: 06.00 Hr22.00 Hr.
Commercial Area	65	55	Night Time:22.00 Hr06.00 Hr.
Residential Area	55	45	
Silence Zone	50	40	

Report Prepared by:



For Mitra S. K. Private Limited

MSK MSKECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/407 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00666 Sample Description: Noise (Work Zone)

#### Noise Level Monitoring Data

SL No	Sampling Date	Sampling Location	MAX	MIN	Results in Avg Leq dB(A)
Ţ.	12.06.2021	Stack Yard	82.1	42.6	62.1
2;	13.06.2021	Wagon Tippler	78.6	37.2	60.6
3.	14.06.2021	Near Silo	80.8	59.6	73.5
4.	15.06.2021	Near Stacker & Reclaimer	76.1	57.0	66.4
5,	16.06,2021	Project Area	82.2	50.5	61,3
6.	17.06.2021	Transfer Point	88.6	35.2	62.8
7.	19.06.2021	Workshop	86,5	62.4	70.6
8.	20.06.2021	Steel Yard	76.5	54.2	62,1
9.	21.06.2021	FCC Shed	80.4	58.2	71.8
10.	22.06.2021	Near Port Canteen	85.6	44,2	69.6

OSHA'S Permissible !	Noise Exposure Limits
Noise Level	Exposure Limit
90 dBA	8.0 hours

Report Prepared by:

4-



For Mitra S.K. Private Limited

Authoriald Signatory

MSK TESTING INSECTION

N-5/100. Ground Floor IRC Village, Nayapatli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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#### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA DIST : BHADRAK, 756171 ODIBHA Report No. : BBS/408 Date : 01.07.2021

Sample No.: MSKGL/FD/2020-21/06/00633

Date of sampling | 15.06.2021

Sampling Description: Ground Water (Piezometric)
Sampling Location: Township Pump House
Sampling Done By: Mr. Kunja Bihari Nayak

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Units	Limit	Test Method / Specification	Result
1.	E Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL No.	Test Parameter	Units	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH (at 26 C)	- No.	65-85	No Responsion	IS 3025 (Part 11)-1984 Rilin: 2012	7.22
2.	- Sulphate (as SO <sub>4</sub> )	mg/I	200	400	1S 3025 (Part 24)- 1986 Rffin: 2014	4.21
3.	Calcium (as Ca)	mg/I	75	200	IS 3025 (Part 40)- 1991 Rffm: 2014	46.00
14.	Arsenic (as As)	mg/I	0.01	0,05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lend (ns Pb)	ma/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
fi.	Zinc (as Zn)	mg/l	5.0	15.0	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	mg/l	0.05	1,5	IS 3025 (Part 2) 2004 RA 2014	BDL(D1::0.02)
K.	Mercury (as Hg)	mg/L	0.001	No Relaxation	IS 3025 (Part 48)-1994 Rffm: 2014	BDL(DL:0,0002)
9.	Cudmium (as Cd)	mg/I	0,003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
III.	Mineral Oil	mg/l	0.5	No Relaxation	1S 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11.	Fluoride (as F)	mg/l	1.0	1.5	IS 3025 (Part 60)- 2008 Rffm: 2013	BDE(DL:0.2)
12	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:3.0)
13.	Odout	****	Agrecable	Agreeable	18-3025 (Part 5)-1983 R/fm:2012	Agrecable
14.	Turbidity	N.T.U	1	5	IS 3025 (Part 10)-1984 Riffin: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/l	0.2	1.0	IS 3025 (Part 26)- 1986 Rffm: 2014	BDL(DL:0.1)
16,	Iron (as Fe)	rog/I	0,1	No Relaxation	IS 3025 (Part 53)+1988 Rffm: 2014	BDL(DL:0.05)
17.	Chloride (as Cl)	mg/I	250	1000	IS 3025 (Part 32)-1988 Rffin: 2014	80.40
18.	Total Dissolved Solids	mg/I	500	2000	1S 3025 (Part 16)-1984; Rifm:2012	289,00
19.	Alkalinity (as CaCO <sub>1</sub> )	mg/I	200	600	IS 3025 (Part 23)- 1986 Riffm: 2009	157.80
20,	Aluminium (as Al)	mg/T	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/l	30	100	15 3025 (Part 46)-1994 Rffm: 2014	17,59
22.	Total Hardness (as CaCO <sub>2</sub> )	mg/I	200	600	15 3025 (Part 21)-2013	188.00
21.	Boron (as B)	mg/l	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (ns Mn)	mg/l	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>3</sub> )	mg/l	45	No Relaxation	TS 3025 (Part 34)-1988 Riffin: 2014	BDL(DL:0:4)
26.	Phenolic Compounds (as C <sub>4</sub> H <sub>5</sub> OH)	l'yar	0.001	0.002	IS 3025 (Part 43)- 1992; Rff(a: 2014	BDL(DL:0.001)
27.	Selenium (as Se)	mg/l	0.01	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chromium ( as Cr.)	mg/I	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29:	Silver (as Ag)	mg/l	0.1	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barium (tes Ba)	mg/I	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31.	Sulinity	mg/I	1111	_	1S 3025 (Part 14)- 2013	130.00



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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Ref. No. BBS/408

Date-01.07.2021

32.	Salphide (as H2S)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Riffin: 2014	BDL(DL:0.02)
33	Ammonia ( as total	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.1)
34.	ammonia-N) Chloramines	mg/l	4.0	No Relaxation	TS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
35.	Nickel ( as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyunide (as CN)	mg/l	0.05	No Relaxation	1S 3025 (Part 27)- 1986 Riffm; 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1,0	(S 13428(Annex K)- 2005	BDL(DL;0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edm.) 6440C	BDL(DL:0.0001)
39.	Polychlorinatest Biphenyls (PCB)	mg/1	0.0005	No Relaxation	US EPA 8082	BDL(DL.0.0005)

Report Prepared by:

PRIVATE CHANGE

For Mitra S. K. Private Limited.



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN (75617) ODISHA

Report No. : BBS/409 Date : 01.07,2021

Sample No. : MSKGL/FD/2020-21/06/00634

Date of sampling : 15.06.2021

Sampling Description: Ground Water (Piezometric)

Sampling Location: Pump House WTP Sampling Done By; Mr. Kunja Bihari Nayak

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

et No	Test Parameters	Units	Limit	Test Method / Specification	Result
St. No.	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2	Total Coliform Organism		Not Detectable	IS; 15185 : 2016	Not Detected

#### CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

<u>SL</u> No.	Test Parameter	Units	(Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
L	pH ( ur 26° C)	- Indian	6.5 - 8.5	No Relaxation	15 3025 (Part 11)-1984 Rffin: 2012	7.34
2	Sulphate (as SO <sub>4</sub> )	mg/I	200	400	IS 3025 (Part 24)- 1986 Rffm: 2014	3.68
3.	Calcium (us Ca)	mg/l	75	200	1S 3025 (Part 40)- 1991 Rffm: 2014	30.80
4.	Arsenic (as As)	ntg/l	-0.01:	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lead (as Pb)	mg/l	0.01	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
	Zinc (isi Zn)	hypri lypri	5.0	15.0	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
6.	Copper (as Cu)	mg/l	0.05	1.5	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Mercury (as Hg)	mg/l	100.0	No Relaxation	1S 3025 (Part 48)-1994 Riffm: 2014	BDL(DL:0.0002)
9.	Cadmium (es Cd)	mg/I	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
_	Mineral Oil	mg/I	0.5	No Relaxation	1S 3025 (Part 39)-1991 Rffin; 2014	BDL(DL:0.5)
10.	Flooride (as F)	mg/I	1.0	1,5	IS 3025 (Part 60)- 2008 Rffm; 2013	BDL(DL:0.2)
11.	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1.0)
12.	Odour	Thursen	Agresable	Agreeable	18 3025 (Part 5)-1981 Rffm:2012	Agrecable
13.	Turbidity	N.T.U	1	8	1S 3025 (Part 10)-1984 Riffm: 2012	BDL(DL:1.0)
14.	Residual free Chlorine	mg/l	0.2	1.0	1S 3025 (Part 26)- 1986 Rffin: 2014	BDL(DL:0.1)
15		mg/I	0.3	No Relaxation	ES 3025 (Pari 53)-1988 Rffin: 2014	BDL(DL:0.05)
16.	Iron (as Fe) Chloride (as CD)	mg/I	250	1000	1S 3025 (Part 32)-1988 Rillin: 2014	78.60
17.	THE STATE OF THE PARTY OF THE P	mg/l	500	2000	IS 3025 (Part 16)-1984; Rffm:2012	246,00
18.	Total Dissolved Solids	mg/I	200	600	15 3025 (Part 23)- 1986 Rifm: 2009	144.70
19	Alkalinity (as CaCO <sub>1</sub> )	-	0.03	0.2	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
20.	Aliuninium (as Al)	mg/I	30	100	1S 3025 (Part 46)-1994 Rffm: 2014	16.23
21.	Magnesium (as Mg) Total Hardness (as CaCO <sub>3</sub> )	har/I mg/I	200	600	IS 3025 (Part 21)-2013	178.00
23	Boron (as H)	mg/l	0.5	1.0	15 3025 (Part 2) 2004 RA 2014	BDL(DL:03)
	Manganese (as Ma)	mg/l	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
24.	Nitrae (as NO <sub>y</sub> )	mg/l	45	No Relaxation	IS 3025 (Part 34)-1988 Rffm: 2014	BDL(DL:0.4)
26.	Phenolic Compounds (as C <sub>2</sub> H <sub>2</sub> OH)	mg/l	0.001	0.002	15 3025 (Part 43)- 1992; Riffm: 2014	BDL(DL:0.001)
27.	Selenium (as Se)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chromium ( as Cr )	mg/i	0.05	No Reheastion	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29	Silver (as Ag)	THIS/I	0,1	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005
30.	Barium (its Ba)	mg/l	0.7	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31.	Salinity	mg/l	246	_	1S 3025 (Part 14)- 2013	166,0



N-5/100), Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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#### Ref. No. BBS/409

Date- 01.07.2021

32.	Sulphide (as H2S)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
33.	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	1S 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffin: 2014	BDL(DL:0,1)
35.	Nickel (as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38,	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edin.) 6440C	BDL(DL:0,0001)
.39,	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

PRIVA OF A For Mitra S. K. Private Limited.



N-5/100. Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037

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## TEST REPORT

Name & Address of the Customer ;

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN:756171 ODISHA

Report No. : BBS/410 Date : 01.07.2021

Sample No. : MSKGL/FD/2020-21/06/00635

Date of sampling 2 15.06.2021

Sampling Description: Ground Water (Piezometric)

Sampling Location: Running Room

Sampling Done By ; Mr. Kunja Bihari Nayak

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Units	Limit	Test Method / Specification	Result
1.	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2.	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL No.	SL. Test Parameter		Requirement (Acceptable Limit)	Permissible limit in the absonce of alternate Source	Test Method / Specification	Result
L	pH (at 26°C).	-	6,5 - 8,5	No Relocation	IS 3025 (Part 11)-1984 Riffin: 2012	7.48
2	Sulphute (as SO <sub>4</sub> )	mg/t	200	400	15: 3025 (Purt 24)- 1986 Rffm: 2014	3.24
3.	Calcium (as Ca)	mg/l	75	200	1S 3025 (Part 40)- 1991 Rffm: 2014	42.00
4	Americ (cs. As)	mg/l	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lend (as Pb)	me/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (as Zn)	mg/l	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Ca)	mg/L	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Hg)	mg/l	0.001	No Relaxation	18-3025 (Part 48)-1994 Rffm: 2014	BDL(D1::0.0002)
9.	Cadmium (us Cd)	mg/t	0.003	No Relesation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL;0.001)
10.	Mineral Oil	my/L	0.5	No Refusations	1S 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11.	Fluoride (us F)	mg/I	1.0	1.5	IS 3025 (Part 60)- 2008 Rffm; 2013	BDL(DL:0.2)
12	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1.0)
13.	Odoer	-	Agreeable	Agreeable	18 3025 (Part 5]-1983 Rffm:2012	Agreeable
14.	Turbidity	N.T.U	1	5	IS 3025 (Part 10)-1984 Rffin: 2012	DDL(DL:1.0)
15	Residual free Chlorine	meft	0.2	1.0	1S 3025 (Part 26)- 1986 Rifm:2014	BDL(DL:0.1)
16.	Iron (us Fe)	mg/l	0.3	No Rehesation	1S 3025 (Part 53)-1988 Rffm: 2014	BDL(D1:0.05)
17.	Chloride (as Cl)	mg/I	250	1000	IS 3025 (Part 32)-1988 Rffm: 2014	52.40
18.	Total Dissolved Solids	mig/f	500	2000	IS 3025 (Part 16)-1984, Rifm: 2012	274,00
19.	Alkalinity (as CaCO <sub>4</sub> )	mæ/I	200	600	IS 3025 (Part 23)- 1986 Riffits; 2009	161.00
20.	Aluminium (as Al)	me/l	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(D1:0.01)
21.	Magnesium (as Mg)	mg/l	30	100	15 3025 (Part 46)-1994 Rffm: 2014	13.60
22	Total (farthers (as CaCO <sub>t</sub> )	mg/I	200	600.	IS 3025 (Part 21)-2013	185 (6)
23.	Boron (as B)	mg/l	0.5	1.0	18 3025 (Part 2) 2004 RA 2014	BDE(DL:0.3)
24.	Manganese (as Mn)	mg/l	0.1	0.3	15 3025 (Part 2) 2004 RA 2014	BDL(D1.;0.02)
25	Nimite (as NO <sub>1</sub> )	mg/l	45	No Relaxation	IS 3025 (Part 34)-1988 Refin: 2014	BDL(DL:0.4)
26	Phenolic Compounds (ns C <sub>0</sub> H <sub>3</sub> OH).	mg/J	0.001	0.002	IS 3025 (Part 43)- 1992; Rffm: 2014	BDL(DL:0.001)
27_	Selenium (us Se)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chromium ( as Cr )	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver (as Ag)	1/201	0,1	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL-0.005)
30.	Barium (as Ba)	mg/l	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31	Salinity	mu/I	(Market)	-	18-3025 (Part 14)- 2013	196.0



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Ref. No. BBS/410

Date- 01.07,2021

32.	Sulphide (as H2S)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rffm; 2014	BDL(DL:0.02)
33.	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
35.	Nickel (ns Ni)	mg/I	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/i	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edtn.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

PRIVA PRIVA

For Mitra S. K. Private Limited.



N-5/100, Ground Floor IRC Viltage, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

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## TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No. : BBS/411

Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00200 Sample Description: VOC Monitoring

#### ANALYSIS

SL No	Date of Monitoring	Jetty Wagon Tippler Near Silo Transfer Point BMH Workshop Steel Yard	Method of Analysis	Parameter	Result
l.	01.06.2021	Jetty			<0.008
2.	02.06.2021	Wagon Tippler			<0.008
3.	03.06.2021	Near Silo	NIOSH-1501	Volatile Organic	<0.008
4.	07.06.2021	Transfer Point		Compound (VOC in mg/m³)	<0.008
5.	08.06,2021	BMH Workshop		30.410.031.40.0	<0.008
6.	09.06.2021	Steel Yard			<0.008
7.	10.06.2021	FCC Shed			<0.008
8.	12.06.2021	SS 6 Office			< 0.008

Report Prepared by:

PRIVE LA

For Mitra S. K. Private Limited

MSK TESTING TIMEPECTION

N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADICAK, PIN:756171 ODISHA

TEST REPORT

Report No. : BBS/412

Date : 01,07,2021

Sample No.: MSKGL/FD/2020-21/06/00380

Date of sampling : 05,06,2021 Sampling Description : Drinking Water Sampling Location : Township E Block Area Sampling Done By t Mr. Kunja Bihari Nayak

### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

Sl. No	Test Parameters	Units	Limit	Test Method / Specification	Result
1	E Coli	/100ml	Not Detectable	IS: 15185 ( 2016	Not Detected
2	Total Coliform Organism		Not Detectable	IS: 15185 : 2016	Not Detected

#### CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL No.	Test Parameter	Units	(Acceptable Limit)	Permissible limit in the absence of atternate Source	Test Method / Specification	Result
L	pH (at 26°C)	-	6.5-8.5	No Relaxation	15 3025 (Part 11)-1984 Rffm; 2012	8.15
2.	Sulphate (no SO <sub>4</sub> )	mg/l	200	100	1S 3025 (Part 24)- 1986 Rffin: 2014	11.00
3.	Calcium (as Ca)	mg/l	75	200	1S 3025 (Part 40)- 1991 Rffm. 2014	44.00
4.	Arsenie (as As)	mg/I	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005)
5.	Lead (as Pb)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (as Zn)	mg/l	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	mig/1	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Hg)	mg/l	0.001	No Relaxation	1S 1025 (Part 48)-1994 Rffm; 2014	BDL(DL:0.0002)
9.	Cadmium (as Cd)	mg/l	0.003	No Relevation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/l	0.5	No Relaxation	4S 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11.	Fluoride (25 F)	mg/L	1.0	1.5	1S 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0.2)
12	Colour	Hazen	5	15	3025 (Part 4)-1983; Rifin:2012	BDL(DL:1.0)
13.	Odour	Triples.	Agrerable	Agrocable	IS 3025 (Part 5)-1983 Rffm:2012	Agrecable
14.	Turbidity	N.T.U	1	5	TS 3025 (Part 10)-1984 Riffer: 2012	BDL(DL:1.0)
13.	Residual free Chiorine	mg/L	0.2	1.0	IS 3025 (Part 26)- 1986 Rffin:2014	BDL(DL:0,1)
16.	Iron (as I/c)	mg/I	0.3	Nu Relaxation	1S 3025 (Part 53)-1988 Riffn: 2014	BDL(DL:0.05)
17,	Chloride (as Cl)	mg/l	250	1000	IS 3025 (Part 32)-1988 Rffm: 2014	70.50
18.	Total Dissolved Solids	mg/l	500	2000	- (5 3025 (Part 16)-1984; Riffm:2012	442.00
19.	Alkalinity (as CaCO <sub>1</sub> )	mg/l	200	600	IS 3025 (Part 23)- 1986 Rftm: 2009	165.00
20.	Aluminium (as At)	mg/i	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21	Magnesium (as Mg)	mg/l	30	100	IS 3025 (Part 46)-1994 Rffin: 2014	21.40
22	Total Hardness (as CaCO <sub>1</sub> )	nrg/L	200	600	1S 3025 (Part 21)-2013	183,00
23.	Burnu (as B)	mg/I	0.5	1,0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manumiese (as Mn)	mg/l	0.1	0.3	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>1</sub> )	mg/l	45	No Relexation	15 3025 (Part 34)-1988 Rffm: 2014	BDL(DL:0.5)
26.	Phenolic Compounds (as C <sub>4</sub> H <sub>1</sub> OH)	mu/I	0,001	0.002	15 3025 (Part 43)- 1992; Rffm: 2014	BDL(DL:0.001)
27.	Selenium (as Se)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28	Total Chromium (as Cr)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( as Ag)	mg/l	0,1	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
	Barium (as Ba)	mg/I	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
30.	Salinity	mg/l	-		18 3025 (Part 14)-2013	38.00



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#### Ref. No. BBS/412

Dute- 01.07.2021

		T	0.05	No Relaxation	1S 3025 (Part 29)- 1991; Rffin: 2014	BDL(DL:0,02)
32.	Sulphide (as H2S)	mg/l	Wate	140 recimentor		BDL(DL:0/1)
33.	Ammonia ( as total	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffm: 2014	BULIDIANI
33-	ansmonia-N)		1.0	No Relaxation	IS 3025 (Part 26)+ 1986; Rffm; 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	The second secon	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
35.	Nickel (as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/T	0.05	No Relaxation		
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	rag/l	0.0001	No Relaxation	APHA ( 23rd Edtn.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:



For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Nayapelli Bhubaneswer - 751015

[CIN: U51909WB1956PTC023037]

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Name & Address of the Customer; THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

# TEST REPORT

Report No. : BBS/413

Date ±01.07.2021

Sample No.: MSKGL/FD/2020-21/06/00381 Date of sampling ± 05.06.2021

Sampling ± 05.06.2021 Sampling Description : Drinking Water Sampling Location : Prefab Area

Sampling Done By : Mr. Kunja Biliari Nayai

### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL No	Test Parameters	Units	Limit	Test Method / Specificating	Result
1.	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2,	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

SI. No.	Test Parameter	Units	(Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH ( at 26° C)	200	6.5 - 8.5	No Religeation	IS 3025 (Part 11)-1984 Rfflm: 2012	7.81
2	Sulphate (as SO <sub>4</sub> )	mg/l	200	400	15 3025 (Part 24)- 1986 Rffm; 2014	18,00
3.	Calcium (as Ca)	mg/l	75	200	IS 3025 (Part 40)- 1991 Rffin: 2014	46.00
4.	Arsenic (as As)	mg/l	10.0	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Leud (as Pb)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005)
6.	Zinc (as Zn)	mg/l	5.0	15.0	1S 3025 (Part 2) 2004 RA 2014	BDL(DL 0.02)
7	Copper (as Cu)	mg/l	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,02)
8	Mercury (as Hg)	mg/l	0.001	No Relaxation	IS 3025 (Part 48)-1994 Rifm: 2014	BDL(DL:0.0002)
9.	Cadmium (as Cd)	mg/l	0,003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/l	0.5	No Relaxation	IS 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11,	Flooride (as F)	mg/l	1.0	1.5	1S 3025 (Part 60)- 2008 Rffm; 2013	BDL(DL:0.2)
12,	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffin:2012	BDL(DL:1,0)
13.	Odenr	-	Agreenble	Agrocable	1S 3025 (Part 5)-1983 Rffm:2012	Agrecable
14.	Turbidity	N.T.U	10	5	15 3025 (Part 10)-1984 Rffm: 2012	BDL(DL:L0)
15.	Residual free Chlorine	T/gm	0.2	1.0	IS 3025 (Part 26)- 1986 Riffer: 2014	BDL(DL:0:1)
16.	Iron (as Fe)	nsg/I	0.3	No Relaxation	IS 3025 (Pari 53)-1988 Rffm; 2014	BDL(DL:0.05)
17.	Chloride (as CI)	mg/l	230	1000	IS 3025 (Part 32)-1988 Rffin: 2014	77,80
18.	Total Disselved Solids	mg/l	500	2000	IS 3025 (Part 16)-1984; Riffm:2012	364.00
19.	Alkalimity (as CaCO <sub>3</sub> )	nig/I	200	600	IS 3025 (Part 23)- 1986 Riffin: 2009	184.00
20.	Aluminium (as Al)	tog/T	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magneshen (as Mg)	ma/T	30	100	1S 3025 (Part 46)-1994 Rifm: 2014	26.20
22.	Total Hardness (as- CaCO <sub>3</sub> )	mg/l	200	600	IS 3025 (Part 21)-2013	168:00
23.	Bosso (as B)	mg/L	0.5	1.0	JS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	mg/l	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>4</sub> )	mg/I	45	No Relaxation	1S 3025 (Part 34)-1988 Rffm: 2014	BDL(DL:0.5)
26.	Phenolic Compounds (as CallaDH)	mg/I	0.001	0.002	IS 3025 (Part 43)- 1992; Riffin: 2014	BDL(DL:0.001)
27.	Salenium (as Se)	mg/I	0.01	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chromium ( as Cr)	mg/l	0.05	No Reliposion	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( as Aa)	mg/t	0.1	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30:	Barium (es Ba)	mg/I	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31.	Salimity	trig/[	_	- Common	IS 3025 (Part 14)- 2013	34.00



N-5/100, Ground Floor IRC Village, Nayapelli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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Ref. No. BBS/413

Date- 01.07.2021

32	Sulphide ( as H2S)	mg/l	0,05	No Relaxation	1S 3025 (Part 29)- 1991; Rifm: 2014	BDL(DL:0.02)
33,	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	1S 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0,1)
35.	Nickel (as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 27)- 1986 R/lm: 2014	BDL(DL:0.01)
37.	Animic Detergents (as MBAS)	mg/I	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocartions (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edtn.) 6440C	BDL(DL:0.9001)
39.	Polychlorinated Biphenyls (PCB)	mg/I	0.0005	No Relaxation	US EPA ROR2	BDL(DL:0.0005)

Report Prepared by:

For Mitra S. K. Private Limited.

MSK TESTING THE PECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhublineswar ~751015

(CIN: U51909WB1956PTC023037)

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Name & Address of the Customer :

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST BHADRAK, PIN :756171 ODISHA

TEST REPORT

Report No. : BBS/414

Date : 01.07,2021

Sample No.: MSKGL/FD/2020-21/06/00382

Date of sampling : 05.06.2021 Sampling Description : Drinking Water Sampling Location : Jetty Area

Sampling Done By : Mr. Kunja Bihari Nayak

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL No	Test Parameters	Units	Limit	Test Method / Specification	Result
T.	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2.	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

SL No.	Test Parameter	Unity	(Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Resutt
1.	pH (at 26°C)	1000	6.5 - 8.5	No Relaxation	15 3025 (Part 11)-1984 Rffm: 2012	7,75
2.	Sulphnie (ier SO <sub>4</sub> )	mg/i	200	400	IS 3025 (Part 24)- 1986 Rffm: 2014	19.0
3.	Calcium (as Ca)	mg/l	75	200	IS 3025 (Part 40)- 1991 Rifm; 2014	48.8
4.	Ansmic (as As)	mg/I	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lend (us Ph)	mig/l	- 0.01	No Relassion	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (as Zn)	mg/l	3.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	eng/I	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Hg)	mg/I	0.001	No Relaxation	1S 3025 (Part 48)-1994 Rffm: 2014	BDL(DL:0.0002
9.	Cadmium (as Cd)	mg/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL/DL:0.001)
10.	Mineral Oil	mg/l	0,5	No Relaxation	IS 3025 (Part 39)-1991 Riffin: 2014	BDL(DL:0.5)
11.	Fluoride (as F)	mu/I	1.0	1.5	15 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0.2)
12:	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL;1.0)
13.	Odour		Agreeable	Agresible	IS 3025 (Part 5)-1983 Rffm:2012	Agrecable
14.	Turbidity	NEED	1	5	IS 3025 (Part 10)-1984 l(ffm: 2012	BDL(DL(1.0)
15:	Residual free Chlorine	mg/1	0.2	1.0	18 3025 (Part 26)- 1986 Rffm:2014	BDL(DL:0.1)
16.	Iron (as Fe)	mg/l	0.3	No Religation	IS 3025 (Part 53)-1988 Riffin: 2014	BDL(DL-0.03)
17.	Chloride (as CI)	mg/l	250	1000	IS 3025 (Part 32)-1988 Rffm: 2014	78.00
18.	Total Dissolved Solids	mg/i	500	3000	1S 3025 (Part 16)-1984; Rffin:2012	355.00
19.	Alkalinity (as CaCO <sub>3</sub> )	mg/l	200	600	1S 3025 (Part 23)- 1986 Rffm: 2009	189.00
20.	Aluminium (as Al)	mg/l	0.03	0.2	1S 3025 (Part 2) 2004 RA 2014	BDL(DE:0.01)
21.	Magnesium (as Mg)	mg/l	30	100	IS 3025 (Part 46)-1994 Rffm: 2014	27.00
22.	Total Hardness (gs CaCO <sub>1</sub> )	mg/I	200	600	IS 3025 (Part 21)-2013	162.00
23.	Boron (as B)	mg/I	0.5	1.0	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Mangariese (as Mn)	nsg/I	0.1	0.3	JS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25,	Nitrate (as NO <sub>3</sub> )	mg/L	45	No Relaxation	IS 3025 (Part 34)-1988 Rffm: 2014	BDL(DL:0.4)
26,	Phenofic Compounds (as C <sub>4</sub> H <sub>4</sub> OH)	mg/l	0.001	0.002	IS 3025 (Part 43)- 1992; Rifin: 2014	BDL(DL:0,00))
27.	Solenium (as Sc)	mg/l	10.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28	Total Chromium (as Cr)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver (as Ag)	mg/l	0.1	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barrum (as Ba)	mg/l	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,1)
31,	Salinity	mg/l			IS 3025 (Part 14)- 2013	38.00



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#### Ref. No. BBS/414

Date- 01.07.2021

32.	Sulphide ( as H2S)	mg/l	0.05	No Relaxation	1S 3025 (Part 29)- 1991; Rffm; 2014	BDL(Df::0.02)
33.	Ammonia ( as total ammonia-N)	mg/t	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rtfin: 2014	BDL(DL:0.1)
34.	Chlorumines	mg/I	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
35.	Nickel (as Ni)	mg/I	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 27)- 1986 R0m: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	1S 13428(Annex K)- 2005	BDL(D).:0.05)
38	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23rd Edtm.) 6440C	BDL(DL:0.0001)
39,	Polychlorimated Bipbenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

PRIVATE LIMIT

For Mitra S. K. Private Limited.



N-5/100. Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 (CIN U51909WB1956PTC023037)

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Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT DOSHINGA, PO : DHAMRA

DIST BHADRAK, PIN :756171 ODISHA

TEST REPORT

Report No. : BBS/415

Date : 01.07,2021

Sample No. : MSKGL/FD/2020-21/06/00383

Date of sampling : 05.06.2021 Sampling Description : Drinking Water Sampling Location : Port Conteen

Sampling Done By T.Mr. Kunja Biliari Nayak

## BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL No	Test Parameters	Units	Limit	Test Method / Specification	Result
1.	E. Coll	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
7	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

SL No.	Test Parameter	Units	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
J.	pH (at 26°C)	-	6.5 - 8.5	No Relaxation	1S 3025 (Part 11)-1984 Rffm: 2012	7.90
2.	Salphate (as SO <sub>4</sub> )	mg/l	200	400	IS 3025 (Part 24)- 1986 RIfm: 2014	12.00
3.	Culcium (us Ca)	mg/l	75	200	IS 3025 (Part 40)- 1991 Riffin: 2014	45.00
4.	Arsenic (as As)	mg/l	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005)
5.	Lead (us Pb)	ngd	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (as Zn)	mg/l	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	mg/l	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
X.	Mercury (as Hg)	mig/l	0.001	No Relaxation	IS 3025 (Part 48)-1994 Rffm: 2014	BDL(DL:0.0002)
9.	Cudmium (as Cd)	mg/l	0.003	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	my/l	0.5	No Relaxation	IS 3025 (Part 39)-1991 Rffm; 2014	BDL(DL:0.5)
11.	Fluoride (as F)	mg/l	1.0	1.5	1S 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0.2)
12	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1,0)
13.	Odour	-	Agrecable	Agreeable	IS 3025 (Part 5)-1983 Rffm:2012	Agreeable
14.	Turbidity	N.T.U	1	5	IS 3025 (Part 10)-1984 Rffin: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/I	0.2	1.0	TS 3025 (Part 26)- 1986 Rffm:2014	BDL(DL:0.1)
16.	Iron (as Fe)	mg/I	0.3	No Relaxation	IS 3025 (Part 53)-1988 Rffm: 2014	BDL(DL:0.05)
17.	Chloride (as Cl)	mg/l	250	1000	1S 3025 (Part 32)-1988 Riffin: 2014	85.00
18.	Tatal Dissolved Solids	mg/l	500	2000	1S 3025 (Part 16)-1984; Riffin:2012	370.00
19.	Alkalinity (as CaCO <sub>1</sub> )	mg/L	200	600	IS 3025 (Part 23)- 1986 Rffm: 2009	174.00
20.	Aluminium (as Al)	mg/I	0.03	0.2	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/l	30	100	1S 3025 (Part 46)-1994 Rifm: 2014	22.50
22.	Total Hardness (as CaCO <sub>1</sub> )	mg/l	200	600	IS 3025 (Part 21)-2013	162,60
23.	Boron (as-B)	mg/l	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	mg/l	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>1</sub> )	mg/l	45	No Relaxation	LS 3025 (Part 34)-1988 Rffm: 2014	BDL(DL:0.4)
26.	Phensilic Compounds (as C <sub>2</sub> H <sub>2</sub> OH)	mg/l	100.0	0,002	(S. 3025 (Pan 43)- 1992; Riffin: 2014	BDL(DL:0,001)
27.	Scienium (as Se)	mg/l	10.01	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005)
28.	Total Chromium ( as Cr )	mg/l	0.05	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( as Ag)	mg/l	0.1	No Relacation	IS 3025 (Part 2) 2004 RA 2014	BDL(D1:0.005)
30.	Barium (as Ba)	mg/l	0.7	No Relacution	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31.	Salinity	mg/l	~~	-	15 3025 (Part 14)- 2013	32.00

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapali Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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F: (0674) 2362918

#### Ref. No. BBS/415

Date- 01.07.2021

32	Sulphide (as H2S)	mg/ī	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rffin: 2014	BDL(DL:0.02)
33.	Ammonia ( as total ammonia-N)	mg/1	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.02)
34.	Chloramines	mg/I	4.0	No Relaxation	1S 3025 (Part 26)- 1986; Rffin: 2014	BDL(DL:0.1)
35.	Nickel ( as Ni)	mg/I	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/I	0.05	No Relaxation	1S 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1,0	1S 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polynucleur Aromatic Hydrocarbons (as PAH)	mg/I	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edm.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

PRIVATE COM

For Mitra S. K. Private Limited.

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0E74) 2362916, 2360917 F: (0074) 2362918

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

TEST REPORT

Report No. ; BBS/416

Date : 01:07.2021

Sample No.: MSKGL/FD/2020-21/06/00384

Date of sampling : 05.06.2021 Sampling Description : Drinking Water Sampling Location : DAV Public School

(Kuamara)

Sampling Done By : Mr. Kunja Bihari Nayak

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Units	Limit	Test Method / Specification	Result
1.	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2.	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

SL No.	Test Parameter	Units	(Acceptable (Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH (at 26°C)	-	63-85	No Relaxation	15 3025 (Part 11)-1984 Rffm: 2012	7.92
2	Sniphate (av SO <sub>3</sub> )	mg/I	200	400	1S 3025 (Part 24)- 1986 Rifm: 2014	9.00
3	Calcium (as Ca)	mg/I	75	200	IS 3025 (Part 40)- 1991 Rffm: 2014	18.00
4.	Arsenic (as As)	mg/l	0.01	0.05	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5	Lead (as Pb)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005)
6.	Zinc (as Zn)	mg/l	5.0	15.0	15 3025 (Part 2) 2004 RA 2014	BDL(D1:0.02)
7.	Copper (its Cir)	mg/l	0,05	1.5	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0,02)
8.	Mercary (as Hg)	nug/l	0.001	No Relaxation	IS 3025 (Part 48)-1994 Rffm: 2014	BDL(DL:0.0002)
9.	Cadmium (as Cd)	rng/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/l	0.5	No Relaxation	IS 3025 (Part 39)-1991 Riffin: 2014	BDL(DL:0.5)
11	Fluoride (as F)	rog/1	1.0	1.5	IS 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0.2)
12	Colour	Hiczen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1.0)
13.	Odour	191000-11	Agreeable	Agreeable	1S 3025 (Part 5)-1983 Rffin:2012	Agreeable
14.	Turbidity	N.T.U	T.	3	IS 3025 (Part 10)-1984 Rffm: 2012	Bi7L(DL:L0)
15.	Residual free Chlorine	mg/l	0,2	1.0	IS 3025 (Part 26)- 1986 RIlin:2014	BDL(DL:0.1)
16.	fron (us Fe)	mg/l	0.3	No Relaxation	IS 3025 (Part 53)-1988 Rffm: 2014	BDL(DL:0.05)
17	Chloride (as Cl)	mg/L	250	1000	15 3025 (Part 32)-1988 Rffin: 2014	88,00
18.	Total Dissolved Solids	mg/l	500	2000	IS 3025 (Part 16)-1984; Rffm:2012	341,00
19.	Aikalinity (as CaCO <sub>3</sub> )	mg/L	200	600	IS 3025 (Part 23)- 1986 Rffm; 2009	180.00
20.	Aluminium (as Al)	mg/l	0.03	0.2	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/L	30	100	IS 3025 (Part 46)-1994 R.ffm: 2014	4,80
22:	Total Hardness (as CaCO <sub>3</sub> )	mg/l	200	600	IS 3025 (Part 21)-2013	65.00
23.	Boron (as B)	mg/l	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:03)
24.	Manganese (as Mn)	mg/l	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>1</sub> )	tng/I	45	No Relaxation	15 3025 (Part 34)-1988 Rffm: 2014	BDL(DL:0.4)
26.	Phenulic Compounds (as C <sub>n</sub> H <sub>4</sub> OH)	mg/L	0.001	0,002	18 3025 (Part 43)- 1992; Riffer; 2014.	BDL(DL:0.001)
27.	Selenium (as Se)	mg/l	10.0	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chromium (as Cr)	mg/l	0.05	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver (as Ag)	- mg/I	0.1	No Relasation	1S 3025 (Purt 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barium (as Ba)	mg/l	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,1)
31.	Salinity	mg/l	-	-	IS 3025 (Part 14)-2013	36.00



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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#### Ref. No. BBS/416

Date- 01.07.2021

32	Sulphide ( as H2S)	mig/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
33.	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	1S 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL;0,1)
34.	Chloramines	mg/l	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffm; 2014	BDL(DL:0.1)
35.	Nickel ( ns Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
37.	Anionic Detergents (28 MBAS)	mg/l	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polymuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edm.) 6440C	BDL(DL;0.0001)
39,	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

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For Mitra S. K. Private Limited.

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC0230371

T. (0E74) 2362916, 2360917

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Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

TEST REPORT

Report No. 1 BBS/417

Date : 01.07.2021

Sample No.: MSKGL/FD/2020-21/06/00385

Date of sampling : 05.06.2021 Sampling Description : Drinking Water Sampling Location : Birupa Colony

Sampling Done By : Mr. Konja Bibari Nayak

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SI, No	Test Parameters	Units	Limit	Test Method / Specification	Result
I.	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

<u>\$1</u> No.	Test Parameter	Units	Requirement (Acceptable Limit)	Permissible fimit in the absence of alternate Source	Test Method / Sperification	Result
1.	pH ( at 26°C)	trees.	6.5 - 8.5	No Relaxation	IS 3025 (Part 11)-1984 Rffm; 2012	7.81
2.	Sulphate (as SO <sub>4</sub> )	mg/l	200	400	IS 3025 (Part 24)- 1986 Rffm: 2014	13.00
3.	Calcium (as Ca)	mg/I	75	200	IS 3025 (Part 40)- 1991 Riffin: 2014	38.00
4,	Arsenic (as As)	mg/l	0.01	12.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005)
3,	Lead (ns Pb)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6	Zinc (us Zn).	mg/I	5.0	15.0	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	mg/I	0.05	1.5	IS 3025 (Part 2) 2004 RA:2014	BDL(DL:0.02)
8	Mercury (as Hg)	mg/I	0.001:	No Relaxation	IS 3025 (Part 48)-1994 Rffm: 2014	BDL(DL:0.0002)
9.	Cadmium (as Cd)	mg/l	0.003	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/l	0,5	No Relaxation	15 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11,	Flueride (ns F)	mg/l	1.0	1.5	1S 3025 (Part 60)-2008 Riffer: 2013	BDL(DL:0,2)
12.	Colour	Hagen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1.0)
13	Odour	-	Agreeable	Agreeable	1S 3025 (Part 5)-1983 Rffm:2012	Agreeable
14.	Turbidity	N.EU	1	5	IS 3025 (Part 10)-1984 R(fins: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/l	0.2	1.0	IS 3025 (Part 26)- 1986 Rffm:2014	BDL(D1::0.1)
16.	Iron (as Fe)	mg/l	0.3	No Relaxation	IS 3025 (Part 53)-1988 Rifm: 2014	BDL(DL:0.05)
17,	Chloride (as Cl)	mg/l	250	1000	1S 3025 (Part 32)-1988 Riffn; 2014	68.000
18.	Total Dissolved Solids	mg/t	590	2000	IS 3025 (Part 16)-1984; RDin:2012	358.00
19.	Afkalinity (as CaCO <sub>1</sub> )	rng/t	200	600	IS 3025 (Part 23)- 1986 Rffni: 2009	165.00
20,	Aluminium (as Al)	mg/l	0.03	0.2	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/i	30	100	1S 3025 (Part 46)-1994 Rffm: 2014	21.00
22.	Total Hardness (as CaCO <sub>2</sub> )	mg/l	200	600	IS 3025 (Part 21)-2013	153.00
23	Baron (as B)	mg/l	0.5	1.0	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24	Manganese (as Mn)	mg/l	0.1	0.3	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25	Nitrate (as NO <sub>2</sub> )	mg/l	45	No Relaxation	IS 3025 (Part 34)-1988 Rffm: 2014	BDL(D1,:0.4)
26.	Phenolic Compounds (Its C <sub>0</sub> H <sub>1</sub> OH)	mg/l	0.001:	0.002	IS 3025 (Part 43)- 1992; Kiffar: 2014	BDL(DL:0.001)
27.	Selenium (ns Se)	mg/l	0.91	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005)
28.	Total Chromium ( as Cr)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29,	Silver ( as Ag)	. mg/I	D.1	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:005)
30.	Borium (as Ba)	mg/l	0.7	No Relocation	IS 3025 (Part 2) 2004 RA 2014	BDL(D1::0.1)
31.	Salinity	mg/L	4000	-	IS 3025 (Part 14)-2013	28.00



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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#### Ref. No. BBS/417

Date- 01.07.2021

32.	Sulphide (as H2S)	mg/l	0.05	No Relaxation	15 3025 (Part 29)- 1991; Rffm; 2014	BDL(DL:0.02)
33,	Ammonia ( as total ammonia-N)	mg/i	0.5	No Relaxation	1S 3025 (Part 34)- 1988, Rffm: 2014	BDL(DL:0.1)
34.	Chloramines	ma/l	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL-0.1)
35.	Nickel (as Ni)	mg/I	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/I	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/t	0.2	1.0	1S 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polymuclear Aromatic Hydrocarbons (as PAH)	mg/I	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edin.) 6440C	BDL(DL:0.0001)
39.	Polychlorizated Biphenyls (PCB)	mg/I	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:



For Mitra S. K. Private Limited.



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

ICIN: U51909WB1956PTC023037)

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Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

TEST REPORT

Report No. : BBS/418

Date ±01.07.2021

Sample No.: MSKGL/FD/2020-21/06/00386

Date of sampling : 05.06,2021 Sampling Description : Drinking Water Sampling Location : Health Centre

Sampling Done By : Mr. Kanja Bihari Nayak

## BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Units	Limit	Test Method / Specification	Result
1	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
3	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

SL No.	Test Parameter	Units	Requirement (Acceptable Limit)	Permissible fimit in the absence of alternate Source	Test Method / Specification	Result
1.	plf ( at 26° C)	-	6.5-X.5	No Relaxation	IS 3025 (Part 11)-1984 Rffm: 2012	8,05
2.	Sulphate (as SO <sub>4</sub> )	mg/f	200	400	1S 3025 (Part 24)- 1986 Rffm: 2014	12.00
3.	Calcium (as-Ca)	mss/T	75	200	1S 3025 (Part 40)- 1991 Rffm; 2014	39.00
4.	Amenic (25 As)	mg/l	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005)
5.	Lend (ns. Pb)	mg/I	10.0	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (as Zn)	me/i	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (its Cu)	mg/I	0.05	1.5	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0,02)
8:	Mercury (as Hg)	mg/l	0.001	No Relaxation	1S 3025 (Part 48)-1994 Riffer: 2014	BDL(DL:0.0002)
9.	Cadmium (as Cd)	mg/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/l	0.5	No Relaxation	1S 3025 (Part 39)-1991 Rffin: 2014	BDL(DL:0,5)
11.	Fluoride (us F)	mg/I	1.0	1.5	1S 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0.2)
12.	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1.0)
13.	Odour	- Familia	Agreeable	Agreeable	1S 3025 (Part 5)-1983 Rffm:2012	Agreeable
14.	Turbidity	N.T.U	1	5	IS 3025 (Part 10)-1984 Rffm: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/l	0.2	1.0	IS 3025 (Part 26)- 1986 Riffm:2014	BDL(DL:0.T)
16.	Iron (as Fe)	mg/I	0.3	No Relaxation	IS 3025 (Part 53)-1988 Rffm: 2014	BDL(DL:0.05)
17.	Chloride (as Cl)	Pgm	250	1000	1S 3025 (Part 32)-1988 Rffin: 2014	64.00
18.	Total Dissolved Solids	mg/I	500	2000	1S 3025 (Part 16)-1984; Rffm:2012	390.00
19.	Alkalinity (as CaCO <sub>2</sub> )	mg/l	200	600	IS 3025 (Part 23)- 1986 Rffm: 2009	174.00
20.	Aluminium (as Al)	nue/L	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/l	30	100	IS 3025 (Part 46)-1994 Rffm: 2014	28.40
22.	Total Hardness (as CarCO <sub>1</sub> )	mg/l	200	600	IS 3025 (Part 21)-2013	146,00
27.	Boron (as B)	mg/l	0.5	0.1	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,3)
24.	Manganese (its Mn)	mg/l	0.1	0.3	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>4</sub> )	mg/I	45	No Relaxation	IS 3025 (Part 34)-1988 Riffin: 2014	BDL(DL:0.4)
26.	Phenolic Compounds (as CallaOH)	mg/L	0.001	0.002	IS 3025 (Part 43)- 1992; Rffm: 2014	BDL(DL:0.001)
27.	Selenium (as Se)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005)
28.	Total Chromium (as Cr)	rigin	0.05	No Relaxation	IS 3025 (Part 2) 2004 JLA 2014	BDL(D1:0.01)
29.	Silver ( as Ag)	mg/l	0.1	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30	Barium (as Ba)	mµ/I	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31.	Salinity.	mg/l	-		(S 3025 (Part 14)-2013	40.00



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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#### Ref. No. BBS/418

Date- 01.07.2021

32.	Sulphide ( as H2S)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
33.	Ammonia ( as total	mg/l	0.5	No Relaxation	1S 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.1)
34.	ammonia-N) Chloramines	mg/l	4.0	No Relaxation	1S 3025 (Part 26)- 1986; Riffm: 2014	BDL(DL:0.1)
35.	Nickel (as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	1S 3025 (Part 27)- 1986 Rffin: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/1	0.2	1.0	IS 13428(Annex K)-2005	BDL(DL:0,05)
38.	Polytucicar Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edts.) 6440C	BDL(DL:0,0001)
39.	Polychlorinated Biphenyls (PCB)	mg/I	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

PRIVATE LI

For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Nayapelli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

Village, Nayapalli

T (0674) 2362916, 2360917 F (0674) 2362918

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

## TEST REPORT

Report No. : BBS/419 Date : 01.07.2021

Sample No.: MSKGL/FD/2020-21/06/00387

Date of sampling (05.06.2021 Sampling Description : Drinking Water

Sampling Location: Security Barrack (North Gate)
Sampling Done By: Mr. Kunja Bihari Nayak

## BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Total Department	47.76					
-31. 1918		Units	Limit	Test Method / Specification	Result		
- L	E. Coli	/100ml	Not Detectable	JS: 15185 : 2016	Not Detected		
2	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected		
			the second	13. 13143 : 2010	Not Detects		

SI. No.	Test Parameter	Units	Requirement (Acceptable Limit)	Perasissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH ( as 26° C)	_	63-83	No Relaxation	IS 3025 (Part 11)-1984 Rfm: 2012	8.04
2	Sulphate (as SO <sub>4</sub> )	mg/I	200	400	IS 3025 (Part 24)- 1986 Rffm: 2014	10.10
3	Calcium (as Ca)	me/l	75	200	IS 3025 (Part 40)- 1991 Riffm: 2014	42.00
16.	Arsenic (as As)	mg/l	0.01	0.05	JS 3025 (Part 2) 2004 RA 2014	BDL(DL-0.005)
5.	Lend (as Pb)	mg/L	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
0	Zinc (as Zn)	mg/t	5,0	15.0	15 3025 (Part 2) 2004 RA 2014	
7,	Copper (as Cu)	Tejm -	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL 0.02)
8.	Mercury (as Hg)	mg/l	0.001	No Relaxation	IS 3025 (Part 48)-1994 Rffin: 2014	BDL(DL:0.02)
0	Cadmium (ns Cd)	mu/l -	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.0002
10.	Mineral Oil	mg/l	0.5	No Relaxation	1S 3025 (Part 39)-1991 Rifm: 2014	BDL(DL:0.001)
11	Fluoride (ns F)	mg/l	1.0	1.5	IS 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0,5)
12.	Colour	Hozen	5	15	3025 (Part 4)-1983; Rffm:2012	RDL(D1,:0,2)
13.	Odour	-	Agrecable	Agrecable	18 3025 (Part 5)-1983 Rtfm:2012	BDL(DL:1.0)
14	Turbidity	N.T.U	1	5	15 3025 (Part 10)-1984 Rffin: 2012	Agreeable
15.	Residual free Chiorme	mg/l	0.2	1.0	15 3025 (Part 26)- 1986 Rffm-2014	BDL(DL: U0)
16.	Iron (as Fe)	mg/I	0.3	No Relaxation	IS 2025 (Part 53)-1988 Rffm: 2014	BDL(DL:0.1)
17.	Chloride (as Cl)	mg/l	250	1000	1S 3025 (Part 32)-1988 Rffm: 2014	BDL(DL:0.05)
18.	Total Dissolved Solids	rng/l	500	2000	IS 3025 (Part 16)-1984; Rfm; 2012	70,00
19.	Alkalinity (as CaCO <sub>2</sub> )	mg/t	200	600	IS 3025 (Part 23)- 1986 Rffin: 2009	370.00
20	Aluminium (as Al)	mg/l	0.03	0.2	15.3025 (Part 2) 2004 RA 2014	189.00
21.	Mugnesium (as Mg)	mu/l	30	100	IS 3025 (Part 46)-1994 Rffm: 2014	BDL(DL:0.011
22,	Total Hardness (as CaCO <sub>1</sub> )	mg/l	200	600	18 3025 (Part 21)-2013	22.60 173.00
23.	Boren (as B)	mg/l	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	1000
24,	Manganese (as Mn)	mg/I	0.1	0.3	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
25.	Nitrate (as NO <sub>1</sub> )	mg/I	45	No Relaxation	IS 3025 (Part 34)-1988 Rffm: 2014	HDL(DL-0.02)
26.	Phenolic Compounds (as C <sub>4</sub> H <sub>4</sub> OH)	mg/l	0.001	0.002	1S 3025 (Part 43)- 1992; Rffm: 2014	BDL(DL:0.001)
27.	Selenium (na Se)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	
28.	Total Chromium ( as Cr )	mg/I	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
29.	Silver ( m Ag)	mig/L	0.1	No Relaxation		BDL(DL:0.01)
30.	Barium (as Ba)	mg/l	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
31.	Salinity	mg/T	417	- W. Beneviion	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
		- Ingr			IS 3025 (Part 14)- 2013	34.00



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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Ref. No. BBS/419

Date- 01.07.2021

32	Sulphide (as H2S)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
33.	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; RElin: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffin: 2014	BDL(DL:0,1)
35.	Nickel ( as Ni)	mg/I	0.02	No Relexation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23°4 Edm.) 6440C	BDL(DI.;0,0001)
39.	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

AB THE PROPERTY OF THE PROPERT

For Mitra S. K. Private Limited.



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 (CIN: U51909WB1956PTC023037)

T: (0674) 2362916, 2360917

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Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

TEST REPORT

Report No. : BBS/420

Date : 01.07.2021

Sample No.: MSKGL/FD/2020-21/06/00388

Date of sampling # 05.06.2021 Sampling Description : Drinking Water Sampling Location : SS-6 Office

Sampling Done By ; Mr. Kunja Bihari Nayak

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Units	Limit	Test Method / Specification	Result
1.	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

SL No.	Test Parameter	Units	(Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1:	pH (at 26°C)	-	6.5 - 8.5	No Relaxation	IS 3025 (Part 11)-1984 Riffin: 2012	1.75
2	Sulphate (as SO <sub>4</sub> )	mg/I	200	400	IS 3025 (Part 24)- 1986 Rffm: 2014	18.00
3.	Calcium (us Ca)	mg/I	75	200	1S 3025 (Part 40)- 1991 Rtfm: 2014	46.00
4.	Arsenic (as As)	me/I	0.01	0.05	JS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lead (as Pb)	my/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (as Zn)	ma/l	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	mg/l	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Hg)	mg/l	0.001	Na Relaxation	IS 3025 (Part 48)-1994 Rifm: 2014	BDL(DL:0.0002)
9,	Cadmium (as Cd)	mg/l	0,003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,001)
10.	Mineral Oil	mg/l	0.5	No Relocation	3S 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11.	Fluoride (as F)	mg/l	1.0	1.5	1S 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0.2)
12.	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffin:2012	BDL(DL:1.0)
13.	Odour	-	Agrecable	Agrecable	IS 3025 (Part 5)-1983 Rifm:2012	Agreeable
14.	Turbidity	N.T.U	1	5	18-3025 (Part 10)-1984 Rifm: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	rus/!	0.2	0,1	IS 3025 (Part 26)- 1986 Rffm:2014	BDL(D(::0.1)
16.	Irun (us Fc)	mg/l	0.3	No Belaxation	IS 3025 (Part 53)-1988 Rifm: 2014	BDL(DL:0.05)
17.	Chloride (as Cl)	mg/l	250	1000	IS 3025 (Part 32)-1988 RIlm: 2014	72.00
18.	Total Dissolved Solids	mg/l	500	2000	IS 3025 (Part 16)-1984; Rffin:2012	412.00
19.	Alkalinity (as CaCO <sub>1</sub> )	mg/I	200	600	IS 3025 (Part 23)- 1986 Rffm: 2009	172.00
20.	Aleminium (as Al)	mg/l	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/I	30	100	1S 3025 (Part 46)-1994 Rifin: 2014	23.20
22.	Total Hardness (as CaCO <sub>3</sub> )	mg/i	200	600	1S 3025 (Part 21)-2013	220.00
23.	Boron (as B)	mg/l	0,5	1.0	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	mg/L	1.0	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25	Nitrate (as NO <sub>2</sub> )	me/l	45	No Relaxation	IS 3025 (Part 34)-1988 Rffm: 2014	BDL(DL:9.4)
26	Phenolic Compounds (as C <sub>0</sub> H <sub>2</sub> OH)	mg/l	9,001	0.002	1S 3025 (Part 43)- 1992; Rffm: 2014	BDL(DL:0.001)
27.	Selenium (as Sc)	mg/l	0.01	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chromium (as Cr)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( as Ag)	mg/I	0.1	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barium (as Ba)	mg/L	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31.	Salinity	mg/l	Trees.		1S 3025 (Part 14)-2013	35,00



N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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Ref. No. BBS/420

Date-01.07.2021

32:	Sulphide (as 1125)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rffin: 2014	BDL(DL:0.02)
33.	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffin: 2014	BDL(DL:0.1)
35.	Nickel ( as Ni)	mg/L	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0,2	1.0	tS 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edin.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	mg/I	0,0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

S. V. PRILLE

For Mitra S. K. Private Limited.



N-5r100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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TEST REPORT

Report No. : BB5/421 Date : 01.07.2021

Sample No.: MSKGL/FD/2020-21/06/00421

Date of sampling : 06.06 2021 Sampling Description : Ground Water Sampling Location : Kanak Prasad

Sampling Done By: Mr. Kunja Bihari Nayak

## Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Units	Limit	Test Method / Specification	Result
1.	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

SL No.	Test l'arameter	Unity	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH (at 26°C)		6.5 - 8.5	No Relocation	15 3025 (Part 11)-1984 Riffin: 2012	7.84
2.	Sulphate (as SU <sub>4</sub> )	mg/I	200	400	1S 3025 (Part 24)- 1986 Riffin: 2014	-49.00
3.	Calcium (as Ca)	mg/I	75	200	IS 3025 (Part 40)-1991 Rffm: 2014	30.00
4	Arsenic (es As)	mg/l	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lend (as Pb)	mg/l	0.01	No Relaxation	15 3025 (Part 2) 2004 RA 2014	DDL(DL:0.005)
6	Zinc (as Zn)	mg/l -	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	mg/I	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Hg)	mg/l	0.001	No Relevation	1S 3025 (Part 48)-1994 Rffm; 2014	BDL(DL:0.0002)
9.	Cadmium (as Cd)	mg/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/l	0.5	No Relaxation	IS 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11	Fluoride (# F)	mg/t	1.0	1.5	1S 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0.2)
12	Calour	Hazen	5	15	3025 (Part 4)-1983; Rffin:2012	BDL(DL:1.0)
13.	Odour		Agreeable	Agreeable	IS 3025 (Part 5)-1983 Rifm:2012	Agrecable
14.	Turbidity	N.T.U	1	- 5	IS 3025 (Part 10)-1984 Rffm: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/l	- 0.2	1.0	IS 3025 (Part 26)- 1986 Rffm:2014	BDL(DL:0.1)
16.	Iran (as Fe)	mg/l	0.3	No Relaxation	1S 3025 (Part 53)-1988 Rffm: 2014	BDL(DU:0.05)
17.	Chloride (us Cl)	mg/l	250	1000	IS 3025 (Part 32)-1988 Rffm: 2014	00,0K
18.	Total Desselved Solids		500	2000	1S 3025 (Part 16)-1984; Rffm:2012	434.00
19.	Alkalinity (as CaCO <sub>1</sub> )	mig/l	200	600	IS 3025 (Part 23)- 1986 Rffm: 2009	178.00
20.	Ahiminium (as Al)	mg/l	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/l	30	100	IS 3025 (Part 46)-1994 Rffin: 2014	22,00
22	Total Hardness (as CaCO <sub>1</sub> )	mg/l	200	600	IS 3025 (Part 21)-2013	167.00
23.	Boron (as B)	mu/l	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(D1:0,3)
24.	Mangapese (us Mn)	mg/l	0,1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>1</sub> )	mg/l	45	No Relaxation	IS 3025 (Part 34)-1988 Riffm: 2014	BDL(DL:0.4)
26.	Phensific Compounds (as C <sub>4</sub> H <sub>4</sub> OH)	mg/L	0.001	0.002	15 3025 (Part 43)- 1992; Rffm: 2014	BDL(DL:0.001)
27.	Selenium (as Se)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chromium ( as Cr.)	mg/T	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29	Silver ( as Ag)	mg/i	0.1	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barium (us Ba)	mg/l	0.7	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL;0.1)
31	Salinity	rog/T			15 3025 (Part 14)- 2013	48.00



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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#### Ref. No. BBS/421

Date-01.07.2021

32	Sulphide ( as H2S)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Riffm: 2014	BDL(DL:0.02)
33.	Ammonia ( as tetal ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffm: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
35.	Nickel (as Ni)	mg/I	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	1S 3025 (Part 27)- 1986 Rffin: 2014	BDL(D1:0.01)
37.	Anionic Detergents (as MBAS)	mg/I	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarlsons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edm.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Biphenyis (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0,0005)

Report Prepared by:

SIK. PRIZE

For Mitra S. K. Private Limited.



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC020037]

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Name & Address of the Customer ;

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN : 756171 ODIBHA

TEST REPORT

Report No. : BB8/422

Date : 01.07.2021

Sample No.: MSKGL/FD/2020-21/06/00422 Date of sampling : 06.06.2021 Sampling Description: Ground Water

Sampling Location : Ballsahi

Sampling Done By : Mr. Kunja Bihari Nayak

## BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

				The state of the desident	Result
CI No	Tast Barameters	Units	Limit	Test Method / Specification	
	Test Parameters	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
1.	E. Coli			IS: 15185 : 2016	Not Detected
2.	Total Coliform Organism	/100mJ	Not Detectable	13. 15165 . 5616	1 100

SL No.	Ten Parameter	Units	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
	- 12 Cot 26 CO		6.5 - K.5	No Relaxation	IS 3025 (Part 11)-1984 Rffin: 2012	7.86
1.	pN ( at 26° C)	mg/l	200	400	IS 3025 (Part 24)- 1986 Rffm: 2014	48,00
2.	Sulphate (to SO <sub>4</sub> )	mg/i	75	200	IS 3025 (Part 40)- 1991 Rffm: 2014	28,00
3.	Calcum (as Ca)	mg/l	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0:005)
4.	Arsenic (as As)	mg/I	0.01	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5	Lead (as Pb)	mg/l	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(D1::0:02)
6.	Zinc (m Zn)	mg/l	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)		0.001	No Relaxation	1S 3025 (Part 48)-1994 Rffm; 2014	BDL(DL:0.0002)
8.	Mercury (as Hg)	mg/l	0.003	No Relexation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
9.	Cadmium (as Cd)	rng/l	0.5	No Relaxation	1S 3025 (Part 39)-1991 Rffm: 2014	HDL(DL:0.5)
10.	Mineral Oil	mg/l	1.0	1.5	IS 3025 (Part 60)- 2008 Rffm: 2013	HDL(DL:0.2)
11.	Fluoride (as F)	mg/l	1.0	15	3025 (Part 4)-1983; Rifm:2012	BDL(DL:1.0)
12.	Colour	Hazen	Agrecable	Agrecable	1S 3025 (Part 5)-1983 Rffm:2012	Agrecable
13.	Didour	1000	Villacetore	5	IS 3025 (Part 10)-1984 Rffm: 2012	BDL(DL.1,0)
14	Turbidity	N.T.U	0.2	1.0	1S 3025 (Part 26)- 1986 Rffm:2014	BDL(DL:0:1)
15.	Residual free Chlorine	mg/l	0.2	Ne Relacation	1S 3025 (Part 53)-1988 Riffm: 2014	BDL(DL:0.05)
16.	(ron (as Fe)	mg/I	250	1000	IS 3025 (Part 32)-1988 Rffm: 2014	77.00
17.	Chloride (as Cl)	mg/l		2000	JS 3025 (Part 16)-1984; Rifm:2012	456.00
18.	Total Dissolved Solids	mg/I	500	600	15 3025 (Part 23)- 1986 Rifm: 2009	162.00
19.	Alkalinity (as CaCO <sub>2</sub> )	mg/L	200	0.2	IS 3025 (Part 2) 2004 RA 2014	HDL(DL:0,01)
20.	Afomimum (as Al)	mg/l	0.03	100	IS 3025 (Part 46)-1994 Rffin: 2014	22.0
21.	Magnesium (ns Mg)	mg/I	30	600	IS 3025 (Part 21)-2013	162.0
22	Total Hardness (as CaCO <sub>1</sub> )	mg/l	200	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DI:0.3)
23.	Born (as B)	mg/I	0,5	0.3	IS 3025 (Part 2) 2004 FLA 2014	BDL(DL:0.02)
24	Manganese (as Mn)	mg/l	0.1		IS 3025 (Part 34)-1988 Rffm: 2014	BDL(DL:0.4)
25	Nitrate (as NO <sub>3</sub> )	mg/l	45	No Relaxation		-
26.	Phenolic Compounds (as C <sub>s</sub> H <sub>3</sub> OH)	mgri	0.001	0.002	IS 3025 (Part 43)- 1992; Riffin: 2014	BDL(DL:0.001
27.	Selensum (as Se)	mg/l	0.01	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	
28.	Total Chromium ( as Cr)	mg/l	0.05	No Relavation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,01)
29	Silver (≈Ag)	mg/i	0.1	No Relexation	IS 3025 (Part 2) 2004 RA 2014	HDL(DL:0.005
30.	Barium (as Ba)	ma/L	0.7	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(D1::0.1)
31.	Salinity	mg/l	-	1 204	15 3025 (Part 14)- 2013	20.00



N-5/100. Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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#### Ref. No. BBS/422

Date- 01.07.2021

32.	Sulphide (as H2S)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
33	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relexation	IS 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
35.	Nickel ( as Ni)	mg/I	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/I	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffm; 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	ing/l	0.0001	No Relaxation	APHA (23 <sup>rd</sup> Edtr.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Bipbenyls (PCB)	nsg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:(0.0005)

Report Prepared by:

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For Mitra S. K. Private Limited.



N-5/100, Ground Floor IRC VIllage, Nayapalli Bhubaneswar - 751015 (CIN: U51909WB1956PTC023037)

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TEST REPORT

Report No. : BBS/423 : 01.07.2021 Date

Sample No.: MSKGL/FD/2020-21/06/00425

Date of sampling : 06.06.2021 Sampling Description : Ground Water Sampling Location : Desinga

Sampling Done By: Mr. Kunja Bihari Nayak

F (0674) 2352918

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

Name & Address of the Customer :

DIST: BHADRAK, PIN: 756171 ODISHA

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SI. N	o Test Parameters	Units	Limit	Test Method / Specification	Result
1.	E. Cofi	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2.	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

SL No.	Test Parameter	Units	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH (at 26°C)	-	6.5-8.5	No Relaxation	1S 3025 (Part 11)-1984 Rffm; 2012	7.78
2	Sulphote (as SO <sub>4</sub> )	mg/I	200	400	IS 3025 (Part 24)- 1986 Rffm: 2014	11.00
3.	Calcium (as Ca)	mg/l	75	200	IS 3025 (Part 40)- 1991 ltffm: 2014	40.00
41	Arsenic (as As)	mg/l	0.01	0.05	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lead (as Pb)	mg/I	0.01	No Relaxation	18 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (as Zn)	mg/l	1.0	15.0	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	mg/I	0.05	1.5	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercusy (as Hg)	mg/l	0.001	No Relaxations	18 3025 (Part 48)-1994 Riffus; 2014	BDL(DL:0.0002)
9.	Cadmium (ds Cd)	mg/t	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/l	0.5	No Relaxation	1S 3025 (Part 39)-1991 Riffm: 2014	BDL(DL:0.5)
11.	Fluoride (ps F)	mg/l	1.0	1.5	IS 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0.2)
12:	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1:0)
13.	Odour	-	Agrecable	Agraeable	15 3025 (Part 5)-1983 Rffm;2012	Agrecable
14	Turbidity.	N.T.U	1	5	IS 3025 (Part 10)-1984 Rffm: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/I	0.2	1.0	1S 3025 (Part 36)- 1986 Riffm:2014	BDL(DL:0.1)
16:	Iron (as Fe)	mg/l	0,3	No Relaxation	1S 3025 (Part 53)-1988 Rffin; 2014	BDL(DL:0.05)
17.	Chloride (ay CI)	mg/l	250	1000	1S 3025 (Part 32)-1988 Rffm: 2014	70.00
18.	Total Dissolved Solids	mg/l	500	2000	15 3025 (Part 16)-1984; Rffm:2012	478.00
19.	Alkalinity (as CaCO <sub>1</sub> )	mg/I	200	600	15-3025 (Part 23)- 1986 Rffm: 2009	172.00
20.	Aluminiann (as Al)	mg/l	0.03	0.2	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/)	30	100	1S 3025 (Part 46)-1994 Rifm: 2014	32.00
22.	Total Hardness (as CaCO <sub>3</sub> )	mg/l	200	600	1S 3025 (Part 21)-2013	190,00
23.	Boron (as B)	mg/l	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	mg/l	0.1	0.3	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>1</sub> )	mg/l	45	No Relaxation	15 3025 (Part 34)-1988 Rffm: 2014	BDL(Df.:0.4)
26.	Phenolic Compounds (as C <sub>0</sub> H <sub>2</sub> O(I)	mg/I	0.001	0,002	1S 3025 (Part 43)- 1992; Riffin: 2014	BDL(DL;0.001)
27.	Selenium (as Se)	mg/l	0.01	No Relayation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chromium ( as Cr )	mg/I	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	HDL(DL:0.01)
29.	Silver (20 Ag)	mg/l	0.1	No Relayation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barium (as Bu)	mjs/T	0.7	No Relexation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31.	Salinity	mg/I		_	IS 3025 (Part 14)- 2013	62.00



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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Ref. No. BBS/423

Date-01.07.2021

			2.44	No Relaxation	1S 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
32.	Solphide ( as H2S)	mg/l	0.05	NO SCHOOL		BDL(DL:0.1)
	Ammonia ( as total	mg/l	0.5	No Relaxation	1S 3025 (Part 34)- 1988; Rffm: 2014	
33	ammonia-N)		110	No Relaxation	IS 3025 (Part 26)- 1986; Rffin: 2014	BDL(DL:0.1)
34.	Chloramines	Pigm	4.0	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
35	Nickel ( as Ni)	mg/l	0.02	And the second s	1S 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
35.	Cyanide (as CN)	mg/l	0.05	No Relaxation		BDL(DL:0.05)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	IS 13428(Annex K)- 2005	
38.	Polynuclear Aromatic Hydrocarbons (us PAH)	mg/I	1000.0	No Relaxation	APHA ( 23 <sup>rd</sup> Edtn.) 6440C	BDL(DL:0.0001)
39.	Potychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005

Report Prepared by:

5.K. AP. 2

For Mitra S. K. Private Limited.

MSK TESTING INSPECTION

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## TEST REPORT

Name & Address of the Customer 1

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/424 Date : 01.07.2021

Sample No. ; MSKGL/ED/2020-21/06/00415

Sample Description : Surface Water

Sampling Location : Matai River Near DPCL

Intake Point

Date of Sampling : 05.06.2021

#### ANALYSIS RESULT

St. No.	Test Parameters	Units	Standards as per IS 2296	Test Method / Specification	Result
E	Calour	Harro	300	APHA 23rd Edition,2120B 2017	BDL(DL:1.0)
2.	Odour	****	- Long	APHA 23rd Edition, 2150B	Agrecable
3.	pH at 25°C	1	6,5 - 8,5	APHA 23rd Edition, 4500-H-B	6.95
4.	Copper as Cu	mg/l	1.5	APHA (23rd Edition)3129B 2017 (ICP OES)	BDL(DL:0.02)
5.	Flooride as F	rng/1	1.5	APHA (23rd Edition)4500 - F C/D, 2017	0.14
6.	Iron as Fe	mg/l	50,0	APHA 23rd Edition 3500 Fe B 2017	3.00
7.	7. Manganese as Mrr		****	APHA (23rd Edition)3120B 2017 (ICP OES)	BUL(DL:0.02)
8:	S. Phonolic Compound as CaH <sub>2</sub> OH		0.005	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(DL:0.001
9.	Selenium as Sc	mg/l	0.05	APHA (23rd Edition) 3120B 2017	BDL(DL:0.005
10.	Cudmium as Cd	mg/l	0.01	APHA (23rd Edition)3120B 2017	BDL(DL:0.001
11.	Cyanide as CN	mg/L	0.05	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.01)
12	Lead as Pb	- mg/I	0.1	APHA (23rd Edition)3120B 2017	BDL(DL:9.005
13,	Mercury as Hg	ing/l	-	IS 3025(Part 48)-1994; Rffim:2014	BDL(DL:0.001
14.	Nickel as Ni	ing/1	499	APHA (23rd Edition)3120B 2017	BDL(Dt.:0.02
15	Arsenic as As	mg/l	0.2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.005
16.	Total Chromium as Cr	mg/l	_	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.01)
17.	Zinc as Zn	1100/1	15,0	APHA (23rd Edition)3120B 2017	BDL(DL:0.02
18.	Hexavalent Chromium as Cr	mg/l	0.05	APHA 22nd Edition, 3500 Cr.B	BDL(DL:0.01
19.	Vanadium as V	mg/l	-	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.2)
20.	Total Suspended solids	img/l	-	APHA 23rd Edition, 2540D	38,00
21.	Temperature	Deg C	100	APHA 23rd Edin,2550 B	25.00
22	BOD (3days at 25°C)	mg/l	3.0	APHA (23rd Edition)5210B 2017	BDL(DL:2.0)
23,	COD	туЛ	-	APHA 23rd Edition, 5220B 2017	BDL(DL:4.0)
24.	Oil & Grease	mg/l	0,1	APHA 23rd Edition, 5520B 2017	BDL(DL:1.4)
25.	Ammonical. Nitrogen as N	mg/l		APHA (23rd Edition) 4500-NH3-F 2017	BDL(DL:0.1)
26.	Total Kjeldal Nitrugen as N	mg/I	-	APHA (23rd Edition) 4500- Norg-B,2017	BDL(DL:0,3)
27.	Sulphide as S	mg/l		APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.01)
28.	Total Residual Chlorine	mg/l	-	IS 3025(Part-26)-1986 Rffm:2009	BDL(DL:0.1)
29.	Dissulved Phosphate as P	mg/l		APHA 23rd Edition.4500P, B -D 2017	BDL(DL:0.05)
30.	Ammonia as NH,	mg/l		APHA 23rd Edn 4500NH3-F 2017	BDL(DL:0.1)
31.	Nitrate Nitragen as NO <sub>3</sub>	mg/l		APHA (23rd Edition) 4500- NO3-E, 2017	BDL(DL:0,1)
32.	Bio-assay Test	-	90% survival of fish after 96 hours in 100% effluent	IS 6582(Part 2)2001, Ed.2.1 (2002-12)	All Fishes are survived in 100% effluent after 96 hrs
33.	Purticle Size of Suspended Solids		850 µ 18 sieve	TPM/MSK/P&E/3/55	Pass through 850µm IS sieve
34.	Dissolved Oxygen	mg/l	ACCORDED TO SERVICE	APHA 23rd-2012.4500-O-C	6.10

Report Prepared by:

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Mitra S. K.-Private Limited Authorited Signatory

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MSK TESTINGUING FECTION

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## TEST REPORT

Name & Address of the Customer :

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/425 Date : 01.07.2021

Sample No. : MSKGL/ED/2020-21/06/00416

Sample Description : Surface Water

Sampling Location: Raw Water Reservoir
Date of Sampling: 05.06.2021

ANALYSIS RESULT

St. No.	Test Parameters	Units	Standards as per IS 2296	Test Method / Specification	Result
J.	Colour	Haren	300	APHA 23rd Edition,2120B 2017	BDL(DL:1.0)
2.	Odour	-		APHA 23rd Edition,2150B	Agreeable
3.	pH at 25°C		6.58.5	APHA 23rd Edition, 4500-IL-B	6,97
4.	Copper as Cu	mg/l	1.5	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02)
5.	Pluoride as F	mg/f	1.5	APHA (23rd Edition)4500 - F C/D, 2017	0.22
6.	Iron us Fe	mg/l	50.0	APHA 23rd Edition.3500 Fe B 2017	2.10
7.				APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0,02)
K	Distriction Commission Law		0.005	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(DL:0.001)
9.	Selenium as Se	ing/I	0.05	APHA (23rd Edition) 3120B 2017	BDL(DL:0.005)
10.	Cadmium as Cd	Pager	0.01	APHA (23rd Edition)3120B 2017	BDL(DL:0.001)
11.	Cyanide as CN	mg/l	0.05	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.01)
12	Lead as Pb	mg/I	0.1	APHA (23rd Edition)3120B 2017	BDL(DL:0.005)
13	Mercury as Hp	rng/I		IS 3025(Part 48)-1994; Rffm;2014	BDL(DL:0.001)
14.	Nickel as Ni	mg/T	-	APHA (23rd Edition)3120B 2017	BDL(DL:0.02)
15.	Arsenic as As	hts/T	0.2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.005)
16.	Total Chromium as Cr.	mg/l		APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.01)
17.	Zinc as Zn	mg/L	15.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.02)
.81	Hexavaleni Chromium as Cr	mg/l	0.05	APHA 22nd Edition, 3500 Cr.B	BDL(DL:0.01)
19	Vanadium as V	rog/I	.4994	APHA (23rd Edition)3120H 2017 (ICP OES)	BDL(DL:0.2)
26.	Total Suspended solids	mg/l	-	APHA 23rd Edition, 2540D	26.00
21	Temperature	Deg C	-	APHA 23rd Edin,2550 B	25.00
22	BOD (Idays at 25°C)	ntg/I	5,0	APHA (23rd Edition)5210B 2017	BDL(DL:2.0)
23.	COD	mg/l	-	APHA 23rd Edition, 5220B 2017	7.90
24,	Oil & Grease	mg/l	0.1	APHA 23rd Edition, 5520B 2017	BDL(DL:1.4)
25.	Ammunical, Nitrogen as N	mg/l	_	APHA (23rd Edition) 4500-NH3-F 2017	BDL(DL:0.1)
26.	Total Kjeldal Nitrogen as N	mg/I	-	APHA (23rd Edition) 4500- Norg-B,2017	BDL(DL:0.3)
27.	Sulphide as S	mg/l		APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.01)
28,	Total Residual Chlorine	mg/l	-	IS 3025(Part-26)-1986 Rffm.2009	BDL(DL:0.1)
29.	Dissolved Plusphate as P	mg/f		APHA 23rd Edition.4500P, B -D 2017	BDL(DL:0.05)
30.	Ammonia as NH <sub>1</sub>	mg/l		APHA 23rd Edn 4500NH3-F 2017	BDL(DL:0.1)
31/	Nitrate Nitrogen as NO <sub>1</sub>	me/I	-	APRA (23rd Edition) 4500- NO3-E, 2017	BDL(DL:0.1)
32.	Bio-assay Test	-	90% servival of fish after 96 hours in 100% effluent	IS 6382(Part 2)2001, Ed.2.1 (2002-12)	All Fishes are survived in 100% effluent after 96 hrs
33.	Particle Size of Suspended Solids	-	850 µ IS sleve	TPM/MSK/PA/E/3/55	Pass through \$50µm IS sieve
34.	Dissolved Oxygen	mg/l	(max)	APHA 23rd-2012,4500-O-C	6.30

Report Prepared by:

Mitra S. K. Private Limited

Authorizan Signatory

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[CIN: U51909WB1956PTC023037]

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TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No. : BBS/426 : 01.07.2021 Date

Sample No. ± MSKGL/ED/2020-21/06/00405

Sample Description: Waste Water Sampling Location: Near SS-6 Date of Sampling ± 05.06.2021

#### ANALYSIS RESULT

Sl. No.	Test Parameters	Units	Standard as per Sch.Vl of EP Rules, 1986	Test Method / Specification	Result
1.	Colour	Hazen		APHA 23rd Edition,2120B 2017	BDL(DE:1.0)
2	Odour	-		APHA 23rd Edition,2150B	Agrecable
3.	pH at 25°C	-	3,5 - 9.0	APHA 23rd Edition, 4500-H-B	7.93
4.	Copper as Cu	mg/l	3.0	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(D1:0,02)
5.	Flumide as F	mg/l	2.0	APHA (23rd Edition)4500 - F C/D, 2017	0.41
6.	Iron as Fe	mg/l	3.0	APHA 23rd Edition 3500 Fe B 2017	0.79
7.	Manganese ns Mn	mg/I	2.0	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02)
8	PhenolicCompnun as C <sub>8</sub> H <sub>4</sub> OH	mig/I	1,0	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(Dt:0.001)
9.	Selenium as Se	me/t	-5.0	APHA (23rd Edition) 3120B 2017	BDL(DL:0.005)
10,	Cadmium as Cd	mg/I	2.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.001)
H.	Cyanide as CN	may/I	0.2	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.01)
12.	Lead as Pb	mg/l	0.1	APHA (23rd Edition)3120B 2017	BDL(DL:0.005)
13.	Mercury as Hg	mg/l	0.01	1S 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.001)
14.	Nickel as NI	mg/L	3.0	APHA (23rd Edition)3129B 2017	BDL(DL:0.02)
15.	Arsenic as As	mg/I	0.2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.005)
16.	Total Chromium as Cr	mg/l	2.0	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.01)
17.	Zind as Zn	mg/l	5.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.02)
18.	Hexavalent Chromium as Cr <sup>10</sup>	mg/l	0:1	APHA 22nd Edition, 3500 Cr.B	BDL(DL:0.01)
19	Vanadium as V	mg/l	0.2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.2)
20.	Total Suspended solids	mg/l	100.0	APHA 23rd Edition, 2540D	68.00
21.	Temperature	Deg.C	Shall not exceed 5° C above the naciving water Temp.	APHA 23rd Edm,2550 B	25.00
22.	BOD (3days at 25°C)	mg/I	30.0	APHA (23rd Edition)5210B 2017.	25 (0)
23.	COD	mg/l	.250.0	APHA 23rd Edition, 5220B 2017	130,00
24.	Oil & Grease	mg/l	10.0	APHA 23rd Edition, 5520B 2017	RDL(DL:1.4)
25.	Ammonical, Nitrogen as N	mg/l	50.0	APHA (23rd Edition) 4500-NH3-F 2017	BDL(DL:0.1)
26.	Total Kjeldal Nitrogen as N	mg/l	100.0	APHA (23rd Edition) 4500- Norg-B,2017	3,40
27.	Salphide as S	mg/l	2.0	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.1)
28.	Total Residual Chlorine	mg/l	1,0	IS 3025(Part-26)-1986 Rffm:2009	BDL(DL:0.1)
29.	Dissolved Phosphate as P	mg/l	5.0	APHA 23rd Edition 4500P, B -D 2017	BDL(DL:0.05)
30.	Amounts as NH;	.mg/l	5.0	APHA 23rd Edn 4500NH3-F 2017	BDL(DL:0.1)
31.	Nitrate Nitrogen as NO <sub>3</sub>	mg/l	10,0	APHA (23rd Edition) 4500- NO3-E, 2017	BDL(DL:0.1)
32.	Bio-assay Test	****	90% survival of fish after 96 lets in 100% effluent	IS 6582(f'art 2)200), Ed.2.1 (2002-12)	All Fishes are survived in 100% effluent after 96 hrs
33.	Particle Size of Suspended Solids	-	Shall pies 850jum 15 sieve	TPM/MSK/PAE/3/55	Pass through #50µm I5 sieve

Report Prepared by:

Mitra S. K. Private Limited AuthorizarSignatory

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TESTING INSPEC

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## TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK DHAMRA 756171 ODISHA

Report No. : BBS/427

Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00406

Sample Description: Waste Water Sampling Location: Settling Pond Date of Sampling: 05.06.2021

ANALYSIS RESULT

SI. No.	Test Parameters	Units	Standard as per Sch.VI of EP Rules, 1986	Test Method / Specification	Result
.1.	Colour	Haten		APHA 23rd Edition,2120B 2017	BDL(DL:1.0)
2	Offour	-	ment	APHA 23rd Edition,2150B	Agreeshie
3.	pH at 25°C	-	5.5 - 9.0	APHA 23rd Edition, 4500-H-B	7.32
4.	Copper as Cu.	Tham	3.0	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0:02)
5.	Fluoride as F	mg/L	2.0	APHA (23rd Edition)4500 - F C/D, 2017	0.45
6.	Iron as Fe	mg/L	3,0	APHA 23rd Edition 3500 Fe B 2017	0.49
7.	Manganese as Mn	mg/l	2.0	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(D(::0:02)
В,	PhenolicCompound as C <sub>c</sub> H <sub>c</sub> OH	mgcT	1.0	APHA (23rd Edition)3530C 2017 (Chloroform: Extraction)	BDL(DL:0.001)
-9.	Selenium as Se	mg/l	5.0	APHA (23rd Edition) 3120B 2017	BDL(DL:0.005)
10.	Cadmiera as Cd	mg/I	2.0	APHA (23rd Edition)3120B 2017	BDL(DL:0,001)
11_	Cyanide as CN	mg/I	0.2	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.01)
12.	Lend as Ph	mg/l	0.1:	APHA (23rd Edition)3120B 2017	BDL(DL:0.005)
13.	Mercury as Hg	mg/l	0.01	IS 3025(Part 48)-1994; Rffm;2014	BDL(DL:0.001)
14.	Nicket as Ni	mg/I	3,0	APHA (23rd Edition)3120B 2017	BDL(DL:0.02)
15.	Atsenic as As	mg/L	0.2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.005)
16.	Total Chromium as Cr	mg/l	2.0	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.01)
17.	Zinc as Zn	mg/l	5.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.02)
18.	Hexavalent Chromium as Cr46	mg/L	0.1	APHA 22nd Edition, 3500 Cr.B	BDL(DL:0.01)
19_	Variadism as V	mg/l	0.2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0,2)
20.	Total Suspended solids	mg/l	100.0	APHA 23rd Edition, 2540D	9.30
21	Temperature	Deg C	Shall not exceed 50 C above the receiving water Temp.	APHA 23rd Edun,2550 B	25.00
22	BOD (3days at 25°C)	mg/l	30.0	APHA (23rd Edition)5210B 2017	:8:10
23.	COD	mg/l	250.0	APHA 23rd Edition, 5220B 2017	32.00
24.	Olf & Grease	mg/f	10,0	APHA 23rd Edition, 5520B 2017	BDL(DL:1.4)
25.	Ammonicai, Nitrogen as N	mg/l	50.0	APHA (23rd Edition) 4500-NH3-F 2017	BDL(DL:0.1)
26.	Total Kjeldal Nitrogen as N	mg/I	100.0	APHA (23rd Edition) 4500- Norg-B,2017	3.80
27.	Sulphide as S	mg/T	2.0	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.1)
28.	Total Residual Chlorine	mg/I	1,0	1S 3025(Part-26)-1986 Rffim:2009	BDL(DL:0.1)
29.	Dissolved Phosphate as P	mg/l	5,0	APHA 23rd Edition.4500P, H -D 2017	0.57
30.	Ammonia as NH <sub>3</sub>	mg/l	5.0	APHA 23rd Edn 4500NH3-F 2017	BDL(D1:0.1)
3).	Nitrate Nitrogen as NO <sub>T</sub>	mg/l	10.0	APHA (23rd Edition) 4500- NO3-E, 2017	BDL(DL:0.1)
32.	Bio-assay Test	-	90% survival of fish after 96 hrs in 100% effluent	IS 6582(Part 2)2001, Ed.2.1 (2002-12)	All Fishes are survived in 100% effluent after 96 hr
33.	Particle Size of Suspended Solids	-	Shall pess 850µm IS sieve	TPM/MSK/P&E/3/55	Pass through 850µm 1S sieve

Report Prepared by:

Mitra S. K. Private Limited Authorized Signatory

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THE DHAMRA PORT COMPANY LIMITED.

DIST: BHADRAK, PIN: 756171 ODISHA



N-5/100, Ground Floor IRC Village, Nayapalli Bhubanuswar = 751015 ICIN: U51909WB1956PTC0230371

T (0674) 2362916, 2360917

Name & Address of the Customer:

AT : DOSINGA, PO : DHAMRA

F (0674) 2362918

TEST REPORT

Report No. : BBS/428 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00407

Sample Description: Waste Water Sampling Location: DRDO South Gate

Date of Sampling : 05.06.2021

#### ANALYSIS RESULT

St. No.	Test Parameters	Units	Standard as per Sch.VI of EP Rules, 1986	Test Method / Specification	Result
L	Colour	Hazen		APHA 23rd Edition,2120B 2017	BDL(DL:1.0)
2	Odour	-	-	APHA 23rd Edition,2150B	Agrecable
3.	pH at 25°C	Name .	5,5-9.0	APHA 23rd Edition, 4500-H-B	7.36
4.	Copper as Cu	mg/l	3,0	APHA (23rd Edition)3120B 2017 (ICP OE5)	BDL(DL:0.02)
5.	Fluoride as F	mg/l	2.0	APHA (23rd Edition)4500 - F C/D, 2017	0.28
6.	Iron as Fe	vuu/L	3,0	APHA 23rd Edition.3500 Fe B 2017	0.67
7.	Maneanese as Mn	Figin	2.0	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02)
8.	PhenoticCompoun as C <sub>4</sub> H <sub>5</sub> OH	ma/l	1.0	APHA (23rd Edition)5530C 2017 (Chleroform Extraction)	BDL(DL:0.001)
9,	Scienium as Se	mye/f	5,0	APHA (23rd Edition) 3120B 2017	BDL(DL:0,005)
10.	Cadmium as Cd	mg/1	2.0	APHA (23rd Edition)3120H 2017	BDL(DL:0.001)
11.	Cymride as CN	mg/l	0.2	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.01)
12.	Lead as Ph	mg/l	0.1	APHA (23rd Edition)3120B 2017	BDL(DL:0.005)
13.	Mercury as Hg	mg/L	0.01	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.001)
14.	Nickel us Ni	mg/l	3.0	APHA (23rd Edition)3120B 2017	BDL(D1:0.02)
15.	Arsenic as As	mg/l	0.2	APILA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.005)
16.	Total Chromium as Cr	mg/I	2.0	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.01)
17.	Zinc as Zn	mg/l	5,0	APHA (23nt Edition)3120B 2017	BDL(DL:0,02)
18.	Hexavalent Chromium as Cr*	mg/l	0.1	APHA 22nd Edition, 3500 Cr.B	BDL(DL:0.01)
19.	Vanadium as V	mg/l	0.2	APHA (23rd Edition)3120B 2017 (JCP OES)	BDL(DL:0.2)
20.	Total Suspended solids	mg/t	100.0	APHA 23rd Edition, 2540D	62.00
21.	Temperature	Deg C	Shall not exceed 5" C above the receiving water Temp.	APHA 23rd Edin, 2550 B	25,00
22.	BOD (3days at 25°C)	mg/l	30.0	APHA (23rd Edition)5210B 2017	12.00
23,	COD	mg/l_	250.0	APHA 23rd Edition, 5220B 2017	44,00
24.	Oil & Grease	mg/l	10.0	APHA 23rd Edition, 5520B 2017	BDL(DL:1.4)
25.	Ammonical, Nitrogen as N.	mg/I	50.0	APILA (23rd Edition) 4500-NH3-F 2017	0.21
26.	Total Kjeldal Nitrogen as N	mg/l	100.0	APHA (23rd Edition) 4500- Norg-B,2017	BDL(DL:0,3)
27.	Sulphide as S	mµ/I	2.0	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0,1)
28.	Total Residual Chlorine	mg/l	1,0	IS 3025(Part-26)-1986 Rffm:2009	BDL(DL:0.1)
29	Dissolved Phosphate as P	mg/l	5,0	APHA 23rd Edition.4500P, B -D 2017	0.42
30.	Ammonia as NII <sub>3</sub>	mg/l	5.0	APHA 23rd Edn 4500NH3-F 2017	BDL(DL:0.1)
31.	Nitrate Nitrogen as NO <sub>3</sub>	mg/l	10.0	APHA (23rd Edition) 4500- NO3-E, 2017	BDL(DL:0.1)
32	Bio-assay Fest		90% survival of fish after 96 les in 100% efform	(5 6582(Part 2)2001, Ed.2.1 (2002-12)	All Fishes are survived in 100% effluent after 96 hrs
33	Particle Size of Suspended Solids		Shall pass 850µm 15 sieve	TPM/MSK/P&E/3/55	Pass through 850µm 15 sieve

Report Prepared by:

4-

Mitra S. K. Private Limited

Authorized Signatory

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N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

ICIN: U51909WB1956PTC023037[

T: (0674) 2352916, 2360917 F: (0674) 2362918 TEST REPORT

Name & Address of the Customer :

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/429 Date : 01.07.2021

Sample No. : MSKGL/ED/2020-21/06/00408

Sample Description : Waste Water Sampling Location : DRDO North Gate

Date of Sampling : 05.06.2021

#### ANALYSIS RESULT

St. No.	Test Parameters	Units	Standard as per Sch VI of EP Rules, 1986	Test Method / Specification	Result
L	Culour	Hazen	witten .	APHA 23rd Edition,2120B 2017	BDL(DL:L0)
2.	Odour	-	-	APHA 23rd Edition,2150B	Agrecable
7,	pll at 25°C	-	5,5-9,0	APHA 23rd Edition, 4500-H-B	7.41
4.	Copper to Cu	mg/l	3.0	APHA (23rd Edition)3120B 2017 (ICP ()ES)	BDL(DL:0.02)
5.	Fluoride as F	mg/l	2,0	APHA (23rd Edition)4500 - F C/D, 2017	0.15
6.	Iron as Fe	mg/l	3,0	APHA 23rd Edition.3500 Fe B 2017	0.41
7.	Marumiese as Mn	mg/f	2.0	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02)
8	Phenolic Compound as CaHaOH	mg/l	1.0	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BOL(DL:0.001)
9.	Selenium as Se	mg/l	5.0	APHA (23rd Edition) 3120B 2017	BDL(DL:0.005)
10.	Cadmium as Cd	mg/I	2.0	APHA (23rd Edition)3120B 2017	BDL(DL:0,001)
11.	Cyanide as CN	mg/I	0.2	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.01)
12	Lead as Ph	mg/l	0.1	APHA (23rd Edition)3120B 2017	BOL(DL:0,005)
13.	Mercury as Hg	mp/i	0.01	1S 3025(Part 48)-1994; Riffin:2014	BDL(DL:0.001)
14.	Nickel as Ni	mg/l	3.0	APHA (23rd Edition)3120B 2017	BDL(D1::0.02)
15.	Arsenic as As	mg/l	0.2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.005)
16.	Total Chromium as Cr	mg/l	2.0	APHA (23rd Edition)3111 D 2017 (AAS Flume)	BDL(DL:0,01)
17.	Zinc as Zn	mg/l	5.0	APHA (23rd Edition)3120B 2017	BDL(Df.:0.02)
18.	Hexavalent Chromium as Crist	fignt.	0.1	APHA 22nd Edition, 3500 Cr.B	BDL(DL:0.01)
19.	Vanadium as V	mg/l	0.2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.2)
20.	Total Suspended solids	mg/l	100,0	APHA 23rd Edition, 2540D	56,00
21	Temperature	Deg C	Shall not exceed 5° C above the neceiving water Temp.	APHA 23rd Edm,2550 B	25.00
22.	BOD (3days at 25°C)	mg/l	30,0	APHA (23rd Edition)5210B 2017	20.00
23:	COD	mg/1	250.0	APHA 23rd Edition, 5220B 2017	112.00
24.	Oil & Grease	mg/l	10.0	APHA 23rd Edition, 5520B 2017	BDL(DL:0.1)
25.	Ammonical Nitrogen as N	mg/l	50.0	APHA (23rd Edition) 4500-NH3-F 2017	BDL(DL:0.1)
26.	Total Kjeldal Nitrogen as N	mu/l	100.0	APHA (23rd Edition) 4500- Norg-B,2017	3.50
27.	Sulphide as S	mg/l	2.0	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.1)
28.	Total Residual Chlorine	mg/l	1.0	1S 3025(Part-26)-1986 Rffin:2009	BDL(DL:0.1)
29.	Dissolved Phosphate as P	reg/l	5.0	APHA 23rd Edition.4500P, B-D 2017	0.13
30.	Antmonia as NH <sub>3</sub>	mg/l	5.0	APHA 23rd Edo 4500NH3-F 2017	BDL(DL:0.1)
3L	Nitrate Nitrogen as NO <sub>1</sub>	mg/l	10:0	APHA (23rd Edition) 4500- NO3-E, 2017	BDL(DL:0.1)
32.	Bio-ussay Test	=	90% survival of fish atter 96 hrs in 100% effluent	IS 6582(Part 2)2001, Ed.2.1 (2002-12)	All Fishes are survived in 100% effluent after 96 hrs.
33.	Particle Size of Suspended Solids	( temp	Shall pass 850µm IS sieve	TPM/MSK/P&E/3/55	Pass through 850µm 15 sieve

Report Prepared by:

Mitra S. K. Private Limited

Authorized Signatory

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MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

6DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/430 Date: 01.07.2021

Sample No. : MSKGL/ED/2020-21/06/00413 Sample Description : EFFLUENT WATER

Sampling Location : STP 150KLD Date of sampling : 03.06.2021

### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result	
No.	200.730.000.000	2.1113	2000	1 sa Specification	Inlet	Outlet
1	Colour	Hazen	- 2	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear
2.	Odour			APHA (23rd Edition) 2150B	Disagrecable	Agreeable
3.	pH value at 26°C		6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7.38	7,48
4.	Appearance	Name .	-	Lab Method	Turbid	Clear
5.	TSS	mg/l	<20.0	APHA (23rd Edition) 2540D	140,00	<2.5
6.	BOD	mg/t	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	101.00	6.50
7.	COD	mg/I	<50.0	APHA (23rd Edition) 5220B 2017	404,00	24.00
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	12.00	<1.4
9,	Ammonical Nitrogen	mg/I	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	28.00	0.49
10.	Total Nitrogen (as N)	mg/l	<10.0	1S 14684 (1999); Rffm:2014	38.00	3.70
11.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	700.00	93.00

Report Prepared by:

A-

S. K. S. P. S. P.

For Mitra S. K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalti Bhubaneswar - 751015

(CIN: U51909WB1956PTC023037)

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/431 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/01009 Sample Description: EFFLUENT WATER

Sampling Location : STP 150KLD Date of sampling : 19.06,2021

### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result	
No.		-		zen epeemeanou	Inlet	Outlet
1.	Colour	Hazen	-	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear
2.	Odour		3-6	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C		6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7.48	7.96
4.	Appearance		1000	Lab Method	Turbid	Clear
5.	TSS	mg/f	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	128.00	10.00
6.	BOD	mg/l	<10,0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	90,00	7.40
7.	COD	mg/I	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	328.00	26.80
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	8.00	<1.4
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	34.00	1.70
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	48.00	2,40
11,	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	520.00	79.00

Report Prepared by:

For Mitra S. K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/500 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00636

Sample Description : Hazardous Wastes

Sampling Location: Used Oil Date of sampling: 07.06.2021

### ANALYSIS RESULT

Sl. No.	Parameters	Uait	Limit as per Schedule –V (Part – A) of Hazardous Waste Rule,2016	Test Method	Result
-t.	Lead (as Pb)	mg/l	100.0	USEPA 3031	<2.0
2,	Arsenic (as As)	mg/l	5.0	USEPA 3031	<0.25
3.	Cadmium + Chromium + Nickel (Cd + Cr + Ni)	mg/l	500.0	USEPA 3031	<2.0
4.	Cadmium (as Cd)	mg/l	Table .	USEPA 3031	<2.0
5.	Chromium (as Cr)	mg/l		USEPA 3031	<2.0
6,	Nickel (as Ni)	mg/l	_	USEPA 3031	<2.0
7.	Polychlorinated Biphenyls (as PCB)	mg/l	<2,0	ASTM D 6160 -98 (Reapproved 2011)	<1.0
8.	Polynuclear Aromatic Hydrocarbons (as PAH)	%	6.0	ASTM D 5412 -93 (Reapproved 2011)	<0.01
9.	Specific Gravity	None		IS 15573	0.88 at 25° C
10.	Density	gm/cc	_	ASTM D 1298-12b	0.86 at 40° C

Report Prepared by:

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al SIN TO

For Mitra S. K. Private Limited.



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/501 Date : 01.07.2021

Sample No. : MSKGL/ED/2020-21/06/00637

Sample Description: Hazardous Wastes

Sampling Location: Waste Oil Date of sampling: 08.06.2021

#### ANALYSIS RESULT

Sl. No.	Parameters	Unit	Limit as per Schedule –V (Part – B) of Hazardous Waste Rule, 2016	Test Method	Result
1.	Lead (as Pb)	mg/l	100.0	USEPA 3031	<2.0
2.	Arsenic (as As)	mg/l	5.0	USEPA 3031	<0.25
3.	Cadmium + Chromium + Nickel (Cd + Cr + Ni)	mg/l	500.0	USEPA 3031	<2.0
4.	Cadmium (as Cd)	mg/I	-	USEPA 3031	<2.0
5.	Chromium (as Cr)	mg/l	-	USEPA 3031	<2.0
6.	Nickel (as Ni)	mg/l	-	USEPA 3031	<2.0
7.	Polychlorinated Biphenyls (as PCB)	mg/l	<2.0	ASTM D 6160 -98 (Reapproved 2011)	<1.0
8.	Polynoclear Aromatic Hydrocarbons (as PAH)	%	6.0	ASTM D 5412 -93 (Reapproved 2011)	<0.01
9.	Specific Gravity	None	-	IS 15573	0.94 at 25° C
10.	Density	gm/cc	-	ASTM D 1298-12b	0.92 at 40" C

Report Prepared by:

RAS A PRIVATE AND THE PRIVATE

For Mitra S. K. Private Limited:

N-5/100, Ground Floor IRC Village, Nayapall Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362918



## TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/502 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00638 Sample Description: Hazardous Wastes Sampling Location: Wastes Containing Oil

Date of sampling : 07.06.2021

### ANALYSIS RESULT

Sl. No.	Parameters	Unit	Test Method	Result
t.	Lead (as Pb)	mg/l	EPA 1311	<0.1
2,	Arsenic (as As)	mg/l	EPA 1311	< 0.02
3.	Cadmium (as Cd)	mg/l	EPA 1311	<0.1
4.	Chromium (as Cr)	mg/l	EPA 1311	<0.1
5.	Nickel (as Ni)	mg/l	EPA 1311	<0.1
6.	Polychlorinated Biphenyls (as PCB)	mg/l	ASTM D 6160 -98 (Reapproved 2011)	<1.0
7,	Polynuclear Aromatic Hydrocarbons (as PAH)	%	ASTM D 5412 -93 (Reapproved 2011)	<0.01

Report Prepared by:

PAS. A. PRINCES

For Mitra S. K. Private Limited.

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/503 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00639 Sample Description: Hazardous Wastes

Sampling Location : Filter Date of sampling : 07.06.2021

### ANALYSIS RESULT

SI. No.	Parameters	Unit	Test Method	Result
1,	Cadmium (as Cd)	mg/kg	USEPA 3031	20.0
2.	Lead (as Pb)	mg/kg	USEPA 3031	41.0
3.	Nickel (as Ni)	mg/kg	USEPA 3031	12.0
4.	Polychlorinated Biphenyls (as PCB)	mg/kg	ASTM D 6160 -98 (Reapproved 2011)	<1,0
5.	Polynuclear Aromatic Hydrocarbons (as PAH)	%	ASTM D 5412 -93 (Reapproved 2011)	<0.01
6.	Arsenic (as As)	mg/kg	USEPA 3031	<0.25
7.	Total Chromium (as Cr)	mg/kg	USEPA 3031	21.0

Report Prepared by:

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For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. ; BBS/504 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00640 Sample Description: Hazardous Wastes Sampling Location: Incininerator Ash

Date of sampling : 19.06.2021

### ANALYSIS RESULT

SI. No.	Parameters	Unit	Test Method	Result
),	Cadmium (as Cd)	mg/kg	USEPA 3031	<2.0
2,	Lead (as Pb)	mg/kg	USEPA 3031	45.0
3.	Nickel (as Ni)	mg/kg	USEPA 3031	287.0
4.	Polychlorinated Biphenyls (as PCB)	mg/kg	ASTM D 6160 -98 (Reapproved 2011)	<1.0
5.	Polynuclear Aromatic Hydrocarbons (as PAH)	%	ASTM D 5412 -93 (Reapproved 2011)	<0.01
6,	Arsenic (as As)	mg/kg	USEPA 3031	<0.25
7-	Total Chromium (as Cr)	mg/kg	USEPA 3031	131.0

Report Prepared by:



For Mitra S. K. Private Limited.

MSK

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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# TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/505 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00641 Sample Description: Hazardous Wastes

Sampling Location: Chimney Exhaust Carbon

Dust

Date of sampling ± 19.06.2021

#### ANALYSIS RESULT

SL No.	Parameters	Unit	Test Method	Result
1.	Cadmium (as Cd)	mg/kg	USEPA 3031	3,6
2.	Lead (as Pb)	mg/kg	USEPA 3031	41.0
3,	Nickel (as Ni)	mg/kg	USEPA 3031	1354.0
4.	Polychlorinated Biphenyls (as PCB)	mg/kg	ASTM D 6160 -98 (Reapproved 2011)	<1.0
5.	Polynuclear Aromatic Hydrocarbons (as PAH)	96	ASTM D 5412 -93 (Reapproved 2011)	<0.01
6.	Arsenic (as As)	mg/kg	USEPA 3031	<0.25
7.	Total Chromium (as Cr)	mg/kg	USEPA 3031	30.0

Report Prepared by: 1



For Mitra S. K. Private Limited.



N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917 F (0674) 2362918 Date: 01.07,2021

# MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/000592
Type of Sample	Marine Water
Sampling Location	Dhamra River Mouth
Date of Sampling	18.06.2021
Date of Analysis	19.06.2021 to 30.06.2021
Sampling Done by	Mr. Kunja Bihari Nayak

SL.	Name of the Parameters	Unit	Test Method	Anafysis Result		
No.	The state of the s	y w	Surface Water	Buttom water		
1	Coloar	Huzen	APBA (23 <sup>rd</sup> Edition) 21208 2017	<1.0	<1.0	
7	Odour	-	APHA (23th Edition) 2150B	Agreeable	Agrecable	
3	Temperature	Deg C	APHA (23td Edition) 2550 B	25.00	25.00	
4	Turbidity	N.T.U	APHA (23 <sup>st</sup> Edition) 2130B	78.00	82.0	
3	160	-	APHA (23rd Edition) 4500-H-B	7,620	7,66	
6	Electrical Conductivity	us/cm	APHA (23 <sup>rd</sup> Edition) 2510 B	39900.00	40000.00	
7	Salinity	mg/I	APHA (23rd Edition) 2520B,2017	17254.00	19078.00	
8	Total Suspended Solids	mg/t	APHA (23 <sup>rd</sup> Edition) 2540 D	164.00	162.00	
9	Total dissolved solids	mg/I	APHA (23 <sup>rd</sup> Edition) 2540C	28180.00	29012.00	
10	Total Hardness	mg/l	APHA (23 <sup>rd</sup> Edition) 2340B 2017	5292.00	5684.00	
11	Calcium Hardness	mg/I	APHA (23 <sup>rd</sup> Edition) 3500-Ca B	882.00	980.00	
12	Magnesium Hardness	mg/l	APHA (23 <sup>rd</sup> Edition) 3500-Mg B	4410.00	4704,00	
13	Chloride (ns Cl)	mg/t	APHA (23 <sup>rt</sup> Edition) 4500-CLB	15539.00	15639.00	
14	Dissolved Oxygen	mg/l	APHA (23rd Edition)-4500-O-C/G	5.90	6.10	
15	Biochemical Oxygen Demand (3- days at 27°C)	mg/l	APHA (23rd Edition) 5210B,2017	<2.0	<2.0	
16	Chemical Oxygen Demand (COD)	mg/t	APHA (23rd Edition) 5220B,2017	<4.0	<4.0	
17	Oil & Grease	mg/T.	APHA (23rd Edition) 5220B,2017	<1.4	<1.4	
18	Dissolved phosphates (as PO <sub>4</sub> )	mg/l	APHA (23th Edition) 4500-P D	<0.15	< 0.15	
19	Sulphate (as SO <sub>4</sub> )	mg/l	APHA (23rd Edition)4500-SQ4-E	325.00	317:00	
20	Nitrite (as NO <sub>2</sub> )	mig/l	APHA (23rd Edition)4500-NO2B	<0.01	<0.01	
21	Nitrate (as NO <sub>3</sub> )	mg/l	APHA (23rd Edition)4500-NO3-E	<0.5	<0.5	
22	Ammonical Nitrogen (as NH=N)	mg/l	APHA (23rd Edition)4500-NH3F	-97.1	<0.1	
23	Total Nitrogen	mg/l	APHA (23rl Edition) 4500N C	<0.3	0.96	
24	Total Chromium	Img/I	APRA (23 <sup>rd</sup> Edition) 3111 D	<0.01	<0.01	
25	Phenolic Compounds (ges C <sub>6</sub> H <sub>5</sub> OH)	Tugar	APHA (23 <sup>rd</sup> Edition) 5530C	<0.001	<0.001	
26	Hexavalent chromium (as Cr "")	mg/l	APHA (23rd Edition) 3500 Cr B	<0.01	< 0.01	
27	Copper	mg/l	APHA (23st Edition) 3120B	<0.02	<0.02	
ZN	Cadmium	mg/L	APHA (23rd Edition) 3120B	<0.001	<0.001	
29	Mercary	ng/i	IS 3025(Part 48)-1994;Rifm;2014	<0.001	<0.001	
30	Floating material	mg/f	APHA (23 <sup>rd</sup> Edition) 2530B	-25	<25	
31	Petroleum Hydrocarbon	mg/L	IS 3025(Part 39)-1994;Rffire:2014	<0.5	-00.5	

Premared By

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N-5/100, Ground Floor IRC Village, Nayapali Bhubaneswar - 751015

(CIN: U51909WB1958PTC023037)

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#### MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/000592
Type of Sample	Marine Water
Sampling Location	Dry Bulk Cargo Berth Face
Date of Sampling	18.06.2021
Date of Analysis	19.06,2021 to 30.06,2021
Sampling Done by	Mr. Kunja Bihari Nayak

SL.	Name of the Parameters	me of the Parameters Unit Test Method	Test Method	Analysis Result	
No.	Traine of the Carametrics		Surface Water	Bottom water	
1	Colour	Hazen	APHA (23th Edition) 2120B 2017	<1.0	<1.0
2	Odour	-	APHA (23 <sup>rd</sup> Edition) 2150B	Agrecable	Agreeable
3	Temperature	Drg.C	APHA (23rd Edition) 2550 B	25.00	25.00
4	Turbidity	N.T.U	APHA (23rd Edition) 2130B	38.00	76,00
5	pH	_	APHA (23 <sup>rd</sup> Edition) 4500-H-B	7.64	7.67
6	Electrical Conductivity	us/om	APRA (23 <sup>rd</sup> Edition) 2510 B	41300.00	39800.00
7	Solinity	mg/T	APHA (23rd Edition) 2520B,2017	21320.00	23015.00
8	Total Suspended Solids	nig/L	APHA (23rd Edition) 2540 D	99.00	58.00
9	Total dissolved solids	mg/l	APHA (23rd Edition) 2540C	29828.00	29024,00
10	Total Hardness	mg/l	APHA (23rd Edition) 2340B 2017	5488.00	5096.00
11	Calcium Hardness	mg/I	APHA (23rd Edition) 3500-Ca B	882,00	784.00
12:	Magnesium Hardness	mg/l	APHA (23rd Edition) 3500-Mg B	4606,00	4312.00
13	Chloride (as Cl)	mg/l	APHA (23 <sup>rd</sup> Edition) 4500-Cl B	16040,00	15693.00
14	Dissolved Oxygen	mg/l	APHA (23rd Edition)-4500-O-C/G	5.90	6.20
15	Biochemical Oxygen Demand (3 days at 27°C)	ing/l	APHA (23 <sup>st</sup> Edition) 5210B,2017	<2.0	<2.0
16	Chemical Oxygen Denumi (COD)	ing/i	APHA (23 <sup>st</sup> Edition) 5220B,2017	<4.0	<4.0
17	Oil & Grease	Tym	APHA (23th Edition) 5220B,2017	<1.4	<1.4
18	Dissolved phosphates (as PO <sub>4</sub> )	mg/L	APHA (23th Edition) 4500-P D	<0.15	<0.15
19	Sulphate (as SO <sub>4</sub> )	mg/T	APHA (23th Edition)4500-SO4-E	345.00	297.00
20	Nitrite (as NO <sub>2</sub> )	mg/l	APHA (23 <sup>rd</sup> Edition)4500-NO2B	<0.01	<0.01
21	Nitrate (as NO <sub>3</sub> )	mg/f	APHA (23 <sup>rt</sup> Edition)4500-NO3-E	<0.5	<0.5
22	Amenonical Nitrogen (as NH <sub>2</sub> -N)	mg/f	APHA (23 <sup>rd</sup> Edition)4500-NH3F	<0.1	<0.1
23	Total Nitrogan	mg/L	APHA (23rd Edition) 4500N C	<0.3	<0.3
24	Total Chromium	mg/l	APHA (23 <sup>st</sup> Edition) 3111 D	<0.01	≈0.01
25	Phenolic Compounds (as C <sub>8</sub> H <sub>2</sub> OH)	mg/l	APHA (23 <sup>rd</sup> Edition) 5530C	≺0.001	⇒0.001
26	Hexavalent chronium (as Cr **)	mg/l	APHA (23rd Edition) ,3500 Cr B	<0.01	⊲0.01
27	Copper	reg/1	APHA (23rd Edition) 3120D	<0.02	<0.02
28	Cadenium	mg/L	APHA (23rd Edition) 31208	<0.001	<0.001
29	Mercury	mg/l	1S 3025(Part 48)-1994;Rffin;2014	-0.001	< 0.001
30	Floating material	nig/l	APHA (23 <sup>rd</sup> Edition) 25308	-25	-2.5
31	Petroloum Hydrouarbon	mg/l	IS 3025(Part 39)-1994;Rffin:2014	<0.5	-0.5

Prepared By

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N-5/100, Ground Floot IRC Village, Nayapalli Bhubaneswar - 751015 [CIN, U51909WB1956PTC023037]

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#### Date: 01.01.2021

# MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/000592
Type of Sample	Marine Water
Sampling Location	Liquid/Gas/Cyrogenic Berth Face
Date of Sampling	18.06.2021
Date of Analysis	19.06.2021 to 30.06.2021
Sampling Done by	Mr. Kunja Bihari Nayak

St.	Manager & Grant Commercial	Unit Test Method	Test Method	Analysis Result	
No.	Name of the Parameters		Surface Water	Bottom water	
1	Colour	Hazen	APHA (23th Edition) 2120B 2017	<1.0	<1.0
2	Odour	_	APHA (23th Edition) 2150B	Agrecable	Agreeable
3	Temperature	Deg C	APHA (23 <sup>rd</sup> Edition) 2550 B	25,00	25.00
4	Turbidity	N.T.U	APRA (23# Edition) 2130B	30.00	28.00
5	pH		APHA (23rd Edition) 4500-H-B	7.52	7.54
6	Electrical Conductivity	us/cm	APHA (23rd Edition) 2510 B	42700.00	42000,00
7	Salinity	mg/l	APHA (23th Edition) 2520B,2017	20254.00	21547.00
8	Total Suspended Solids	mgl	APHA (23rd Edition) 2540 D	50,00	64,00
9	Total dissolved solids	Tugm	APHA (23 <sup>rd</sup> Edition) 2540C	30286,00	30570,00
10.	Total Flandness	mg/l	APHA (23 <sup>rd</sup> Edition) 2340H 2017	5586.00	5488.00
11	Calcium Hardness	Toger	APILA (23rd Edition) 3500-Cn B	882.00	980,00
12	Magnesium Hardness	mg/l	APHA (23rd Edition) 3500-Mg IS	4704.00	4508.00
13	Chioride (as CI)	mg/l	APHA (23th Edition) 4500-CFB	16141.00	16542.00
14	Dissolved Oxygen	mg/I	APHA (23rd Edition)-4500-O-C/G	6.00	5,60
15	Biochemical Oxygen Demand (3 days at 27°C)	mg/I	APHA (23th Edition) \$210B,2017	<2.0	<2.0
16	Chemical Osygen Demand (COD)	mg/I	APHA (23 <sup>rd</sup> Edition) 5220B.2017	<4.0	<4.0
17	Oil & Grosse	mg/l	APHA (23rd Edition) 5220B,2017	<1.4	<1.4
18	Dissolved phosphates (as PO <sub>4</sub> )	mig/I	APILA (25 <sup>st</sup> Edition) 4500-P D	<0.15	<0.15
19	Salphate (as SO <sub>4</sub> )	mg/I	APHA (23 <sup>el</sup> Edition)4500-SO4-E	374.00	2724.0
20	Nitrite (as NO <sub>2</sub> )	mg/I	APHA (23rd Edition)4500-NO2B	<0.01	<0.01
21	Nitrate (us NO <sub>3</sub> )	mg/T	APHA (23th Edition)4500-NO3-E	<0.5	<0.5
22	Ammonical Nitrogen (as NH <sub>3</sub> -N)	mg/l	APHA (23th Edition)4500-NH3E	<0.1	<0.1:
23	Total Nitrogen	mg/l	APHA (23rd Edition) 4500N C	£t.	0.80
24	Total Chromium	mg/l	APHA (23 <sup>rd</sup> Edition) 3111 D	< 0.01	<0.01
25	Phenolic Compounds (as CaHaOH)	mg/l	APHA (23 <sup>rd</sup> Edition) 5530C	100.0>	<0.001
26	Hexavalent chronium (as Cr +15)	mg/I	APHA (23rd Edition) ,3500 Cr B	<0.01	<0.01
27	Copper	mg/l	APHA (23 <sup>rd</sup> Edition) 3120B	<0.02	< 0.02
28	Cadmium	mgf	APHA (23 <sup>rd</sup> Edition) 3120B	<0,001	<0.001
29	Mercury	mg/l	1S 3025(Part 48)-1994;Riffin:2014	<0.001	<0.001
30	Floating material	mg/i	APHA (23 <sup>rd</sup> Edition) 2530B	<2.5	<2.5
31	Petroleum Hydrocarbon	ng/l	1S 3025(Part 39)-1994;Riffin:2014	<0.5	<0.5

Prepared By

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N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1958PTC023037]

Date: 01.07.2021

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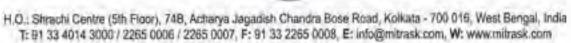
# MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odishi
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/000592
Type of Sample	Marine Water
Sampling Location	Along Channel at 1Km
Date of Sampling	18.06.2021
Date of Analysis	19.06.2021 to 30.06.2021
Sampling Done by	Mr. Kunja Bihari Nayak

SL.	Name of the Parameters	ame of the Parameters Unit T	Test Method	Analysis Result	
No.	30 5511 10 557 10 55151515151	S.M.	TEST STEERING	Surface Water	Bottom water
1	Colour	Hazes	APHA (23rd Edition) 2120B 2017	<1.0	<1.0
2	Odojir	-	APHA (23 <sup>rd</sup> Edition) 2150B	Agreeable	Agreeable
3	Temperature	Deg C	APHA (23 <sup>rd</sup> Edition) 2550 B	25.00	25.00
4	Turbidity	N.T.U	APHA (23rd Edition) 2130B	24.00	32.00
5	pH	-	APHA (23 <sup>rd</sup> Edition) 4500-H-B	7.51	7.74
6	Electrical Conductivity	ns/cm	APHA (23rd Edition) 2510 B	41000.00	41200.00
7	Salinity	mg/I	APRA (23th Edition) 2520B,2017	19784.00	21254.00
8	Total Suspended Salids	mg/l	APRA (23rd Edition) 2540 D	35.00	57.00
y	Total disnolved solids	mg/l	APHA (23 <sup>rd</sup> Edition) 2540C	29930.00	30066.00
10	Total Hardness	rng/l	APHA (23 <sup>rd</sup> Edition) 2340B 2017	5292.00	5488.00
11	Calcium Hardness	mg/l	APFIA (23th Edition) 3500-Ca B	765.00	980,00
12	Magnesium Hardness	mg/l	APHA (23rd Edition) 3500-Mg B	4410.00	4508.00
13	Chloride (as Cl)	mg/l	APHA (23rd Edition) 4500-CLB	16341.00	16241.00
14	Dissolved Oxygen	mg/l	APHA (23 <sup>rd</sup> Edition)-4500-O-C/G	6.20	6.50
15	Biochemical Oxygen Demand (3 days at 27°C)	mg/l	APHA (23 <sup>rd</sup> Edition) 5210B,2017	<2.0	<2,0
16	Chemical Oxygen Demand (COD)	mg/l	APRA (23rd Edition) 5220B,2017	<4.0	<4.0
17	Oil & Grease	mg/l	APRA (23th Edition) 5220B,2017	<1.4	<1.4
18	Dissalved phosphates (as PO <sub>4</sub> )	mg/l	APHA (23rd Edition) 4500-P D	<0.15	<0.15
19	Sulphase (as SO <sub>4</sub> )	mg/l	APHA (23 <sup>rd</sup> Edition)4500-SO4-E	365.00	307.00
20	Nitrite (as NO <sub>2</sub> )	mg/l	APHA (23rd Edition)4500-NO2B	<0.01	-0.01
21	Nitrate (as NO <sub>1</sub> )	mg/l	APHA (23th Edition)4500-NO3-E	<0.5	<0.5
22	Ammonical Nitrogen (as NH <sub>3</sub> -N)	mg/l	APHA (23 <sup>rd</sup> Edition)4500-NH3F	<0.1	<0.1
23	Total Nitrous	mg/i	APHA (23 <sup>rd</sup> Edition) 4500N C	<0.5	1,80
24	Total Chromium	mg/l	APHA (23rd Edition) 3111 D	<0.01	<0.01
25	Phenolic Compounds (as C <sub>6</sub> H <sub>2</sub> OH)	mg/l	APHA (23 <sup>st</sup> Edition) 5530C	-0.001	<0.001
26	Hexavalent chromium (as Cr **)	mg/l	APHA (23 <sup>rd</sup> Edition) ,3500 Cr B	<0.01	<0.01
27	Copper	mg/l	APIIA (23rd Edition) 3120B	<0.02	-0.02
28	Càdmium	mg/I	APHA (23 <sup>rd</sup> Edition) 3120B	<0.001	<0.001
29	Mercury	mig/l	IS 3025(Part 48)-1994;Rffm:2014	<0.001	<0.001
JO	Floating material	mg/l	APHA (23rd Edition) 2530B	-25	25
31.	Petrolesm Hydrocurbon	Tygm.	IS 3025(Part 39)-1994;Rffm:2014	<0.5	<0.5

Prepared By -

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N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

(CIN: U61909WB1958PTC023037)

Date: 01.07.2021

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#### MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/000592
Type of Sample	Marine Water
Sampling Location	Along Channel at 5Km
Date of Sampling	18.06.2021
Date of Analysis	19.06.2021 in 30.06.2021
Sampling Done by	Mr. Kunja Bihari Nayak

SL.	Name of the Parameters	me of the Parameters Unit Test N	Test Method	Analysis Result	
No.	Name of the Parameters	Contr	Test stemod	Surface Water	Bottom water
1	Colour	Hagen	APHA (23rd Edition) 2120B 2017	<5.0	<1,0
2	Odour	-	APHA (23 <sup>rd</sup> Edition) 2150B	Agrecable	Agrecable
3	Temperature	Deg C	APHA (23th Edition) 2550 B	25.00	25.00
4	Turbidity	N.T.U	APHA (23 <sup>rd</sup> Edition) 2130B	28.00	34.00
5	PR	-	APHA (23rd Edition) 4500-H-B	7.90	7,87
6	Electrical Conductivity	ив/ст	APHA (23rd Edition) 2510 B	35500,00	42300:00
7	Salinity	mg/l	APHA (23rd Edition) 2520B,2017	10154.00	12560:00
g	Total Suspended Solids	mµ/l	APHA (23rd Edition) 2540 D	124.00	30.00
9	Total dissolved solids	mg/l	APHA (23rd Edition) 2540C	24602.00	29854.00
10	Total Hardness	mg/t	APHA (23th Edition) 2340B 2017	5194.00	5586,00
11	Calcium Hardness	figm	APHA (23th Edition) 3500-Ca H	686.00	784,00
12	Magnesium Hardness	Pager	APRA (23rd Edition) 3500-Mg B	4508.00	4704.00
13	Chloride (as CI)	mg/l	APRA (23rd Edition) 4500-Ct B	13233.00	16040.00
14	Dissolved Oxygen	mg/l	APHA (23rd Edition)-4500-O-C/G	5.80	6,50
15	Biochemical Oxygen Demand (3 days at 27°C)	mg/l	APHA (23 <sup>rd</sup> Edition) 5210B,2017	<2.0	~2.0
16	Chemical Oxygen Demand (COD)	mg/l	APHA (23 <sup>st</sup> Edition) 5220B,2017	<4.0	64.0
17	Oil & Grease	mg/l	APHA (23th Edition) 5220B,2017	<1.4	<1.4
18	Dissolved physphates (as PO <sub>4</sub> )	mg/l	APHA (23rd Edition) 4500-P D	<0.15	<0.15
19	Sulphate (as SO <sub>4</sub> )	mg/I	APHA (23 <sup>st</sup> Edition)4500-SQ4-E	421.00	364.00
20	Nitrite (as NO <sub>3</sub> )	mg/i	APHA (23rt Edition)4500-NO2B	<0.01	<0.01
21	Nitrate (as NO <sub>1</sub> )	mg/I	APHA (23rd Edition)4500-NO3-E	⊲0.5	<0.5
22	Ammonical Nitrogen (as NHy-N)	mg/l	APHA (23rd Edition)4500-NH3F	<0.1	<0.1
23	Total Nitrogen	mg/l	APHA (23 <sup>rd</sup> Edition) 4500N C	0.52	<0.3
24	Total Chromium	mg/l	APHA (23rd Edition) 3111 D	< 0.01	<0.01
25	Phenolic Contpounds (as C <sub>0</sub> H <sub>2</sub> OH)	mg/l	APHA (23 <sup>rd</sup> Edition) 5530C	<0.001	-<0.001
26	Hexavalest chromium (as Cr *1)	mg/I	APHA (23rd Edition) ,3500 Cr B	<0.01	<0.01
27	Copper	mg/I	APHA (23 <sup>rd</sup> Edition) 3120B	<0.02	< 0.02
28	Cadmium	mg/l	APHA (23 <sup>rd</sup> Edition) 31208	<0.001	-0.001
29	Mercury	mg/l	18 3025(Part 48)-1994;Rffin:2014	<0.001	< 0.001
30	Floating material	nq/l	APHA (23 <sup>rd</sup> Edition) 2530B	<2.5	<2.5
31	Petraleum Hydracarbon	mg/l	1S 3025(Part 39)-1994;Rffm:2014	<0.5	<0.5

Prepared By-









N-5/100, Ground Floor IRC Village, Nayapali Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037[

Date: 01.07.2021

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# MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/000592
Type of Sample	Marine Water
Sampling Location	Along Channel at 10Km
Date of Sampling	18.06.2021
Date of Analysis	19.06,2021 to 30.06,2021
Sampling Done by	Mr. Kunja Bihari Nayak

SL.	Name of the Parameters	Unit	Test Method	Analysi	s Result
No.	Name of the Parameters	t) int	1 est Atetaini	Surface Water	Battam water
1	Celear	Hazen	APHA (23 <sup>el</sup> Edition) 2120B 2017	<1.0	<1.0
2	Odour	-	APHA (23th Edition) 2150B	Agrecable	Agreeable
3	Temperature	Deg C	APHA (23rd Edition) 2550 fb	25.00	25.00
4	Turbidity	N.T.U	APHA (23 <sup>rd</sup> Edition) 2130B	36,00	49.00
5	pH	-	APHA (23rd Edition) 4500-H-B	7.75	7.83
6	Electrical Conductivity	us/cm	APHA (23 <sup>rd</sup> Edition) 2510 B	41600,00	40400,00
7	Salinity	mg/t	APHA (23rd Edition) 2520B,2017	8754,00	6877,00
8	Total Suspended Solids	mg/t	APHA (23 <sup>rd</sup> Edition) 2540 D	52.00	71,00
9	Total dissolved solids	mg/l	APHA (23td Edition) 2540C	29962,00	28954,00
10	Total Hardness	nsg/l	APHA (23rd Edition) 2340B 2017	5390.00	5390.00
11	Calcium Hardness	//gen	APHA (23rd Edition) 3500-Ca B	784.00	644.00
12	Magnerium Hardness	mg/l	APHA (23rd Edition) 3500-Mg B	4606,00	4508,00
13	Chloride (as CI)	mg/I	APHA (23 <sup>rd</sup> Edition) 4500-Cl B	15940.00	16040,00
14	Dissolved Oxygen	mp/l	APHA (23td Edition)-4500-O-C/G	6,00	6.20
15	Biochemical Oxygen Demand (3 days at 27°C)	mg/l	APHA (23 <sup>rd</sup> Edition) 52108,2017	<2.0	<2,0
16	Chemical Oxygen Demand (COD)	mg/l	APRA (23 <sup>rd</sup> Edition) 5220B,2017	≤4.0	~4.0
17	Oil & Grease	mg/I	APHA (23 <sup>rd</sup> Edition) 5220B,2017	<1.4	41.4
18	Dissolved phruphmes (as PO <sub>4</sub> )	mg/1	APHA (25th Edition) 4500-P D	<0.15	<0.15
19	Sulphate (as SO <sub>4</sub> )	mig/l	APILA (25th Edition)4500-SO4-E.	407.00	394.00
20	Nitrite (as NO <sub>2</sub> )	mg/l	APHA (23rd Edition)4500-NO2B	<0.01	-0.01
21	Nitrate (as NO <sub>i</sub> )	mg/i	APHA (23rd Edition)4500-NO3-E	< 0.5	⊲0.5
22	Ammonical Nitrogen (as NH <sub>2</sub> -N)	mg/i	APHA (23 <sup>rd</sup> Edition)4500-NH3F	1.02	<0.1
23	Total Nitrogen	mg/l	APHA (23 <sup>rd</sup> Edition) 4500N C	0.64	< 0.3
24	Total Chromium	Togen	APHA (23th Edition) 3111 D	<0.01	< 0.01
25	Phenolic Compounds (as C <sub>4</sub> H <sub>5</sub> OH)	ng/t	APHA (23" Edition) 5530C	⊲0,001	<0,001
26	Hexavalent chromisan (as Cr + 4)	mg/l	APHA (23rd Edition) ,3500 Cr B	<0.01	<0.01
27	Copper	mg/l	APHA (23 <sup>rd</sup> Edition) 3129B	<0.02	<0,02.
28	Cadmium	ng/l	APHA (23rd Edition) 3129B	<0.001	~0.001
29	Mercury	mg/l	IS 3025(Part 48)-1994;Rffm:2014	< 0.001	<0.001
30	Floating material	mg/l	APHA (23 <sup>rd</sup> Edition) 2530B	<2.5	25
31	Petroleum Hydrocarbon	ing/l	1S 3025(Part 39)-1994;Rffn::2014	<0,5	<0,5

Prepared By -







N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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#### MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/000592
Type of Sample	Marine Water
Sampling Location	Near Kanika Island
Date of Sampling	18.06.2021
Date of Analysis	19.06,2021 to 30.06.2021
Sampling Done by	Mr. Kunja Bihari Nayak

SL.	Name of the Parameters	Unit	Test Method	Analysis Result		
		- Comme	770703000	Surface Water	Betteen water	
1	Colour	Hazen	APHA (23 <sup>st</sup> Edition) 2120B 2017	<1.0	<1.0	
1	Odour	Sec.	APHA (23rd Edition) 2150B	Agreeable	Agreeable	
3	Тетречине	Deg C	APHA (23rd Edition) 2550 B	25.00	25.00	
4	Turbidity	N.T.U	APHA (23rd Edition) 2130B	37.00	84.00	
3	pH		APHA (23rd Edition) 4500-H-B	7.85	7,73	
6	Electrical Conductivity	us/cm	APHA (23 <sup>rd</sup> Edition) 2510 B	42870.00	42280.00	
7	Salinity	mg/I	APRIA (23th Edition) 2520B,2017	11452.00	10223.00	
8	Total Suspended Solids	Jug/I	APHA (23 <sup>rd</sup> Edition) 2540 D	144.00	218.00	
9	Total dissolved solids	ing/l	APHA (23rd Edition) 2540C	30586.00	30484.00	
10	Total Hardness	Pard	APHA (23 <sup>rd</sup> Edition) 2340B 2017	4802.00	5782,00	
11	Calcium Hardness	mg/T	APHA (23 <sup>rd</sup> Edition) 3500-Ca B	766.00	980.00	
12	Magnessum Hardness	mg/l	APHA (23" Edition) 3500-Mg B	4018.00	4802.00	
13	Chloride (as Cl)	mg/L	APHA (23rd Edition) 4500-CLB	16642.00	16441.00	
14	Dissolved Oxygen	mg/l	APEA (23rd Edition)-4500-D-C/G	6.40	6.30	
15	Biochemical Oxygen Demand (3 days at 27°C)	mg/l	APHA (23rd Edition) 5210B,2017	<0.0	<2.0	
16	Chemical Oxygen Densard (COD)	mg/l	APHA (23 <sup>rg</sup> Edition) 5220B,2017	<4.0	<4.0	
17	Oil & Grease	mg/l	APHA (23rd Edition) 5220B 2017	<1.4	- 314 	
18	Dissolved phosphates (as PO <sub>4</sub> )	mg/i	APHA (23th Edition) 4500-P D	<0.15	<0.15	
19	Sulphate (as SO <sub>4</sub> )	mg/l	APHA (23 <sup>rd</sup> Edition)4500-SO4-E	531.00	199.0	
20	Nitrito (as NO <sub>2</sub> )	mg/l	APHA (23rd Edition)4500-NO2B	<0.01	< 0.01	
21	Nitrate (as NO <sub>3</sub> )	mg/l	APHA (23rd Edition)4500-NO3-E	<0.5	< 0.5	
22	Ammonical Nitrogen (at NII <sub>1</sub> -N)	mg/l	APHA (23rd Edition)4500-NH3F	<0.1	<0.1	
23	Total Nitrogen	mg/l	APHA (23rd Edition) 4500N C	0.90	<0.3	
24	Total Chromium	mg/l	APHA (23rd Edition) 3111 D	<0.01	<0.01	
25	Phenolic Compounds (as C <sub>4</sub> H <sub>6</sub> OH)	mg/l	APIIA (23 <sup>rd</sup> Edition) 3330C	<0.001	<0.001	
26	Hexavulent chromium (as Cr +4)	mg/l	APHA (23 <sup>rd</sup> Edition) ,3500 Cr B	<0.01	<0.01	
27	Copper	mg/l	APRA (23rd Edition) 3120B	<0.02	0.02	
28	Cadmium	mg/l	APITA (23 <sup>rd</sup> Edition) 3120B	100.0>	<0.001	
29	Mercury	mg/I	IS 3025(Part 48)-1994;Rffm:2014	<0.001	< 0.001	
30	Floating material	mg/l	APHA (23rd Edition) 2530B	₹5	<2.5	
31	Petroleum Hydrocarbon	mg/t	IS 3025(Part 39)-1994;Rffm:2014	<0.5	<0.5	

Prepared By







N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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Date: 01.07.2021

# PHYTOPLANKTONMONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company	Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096	The state of the s
Reference No.	MSKGL/ED/2020-21/000592	
Type of Sample	Marine Sample (Phytoplankton	)
Sampling Location	S1:Dhamra River Mouth S2:Dry Bulk Cargo Berth Face S5:Along Chanel at 5Km S7:Near Kanika Island	S3:Liquid/Gas/Cyrogenic Berth Face S4:Along Channel at 1Km S6: Along Channel at 10Km
Date of Sampling	18.06.2021	
Date of Analysis	19.06.2021 to 30.06.2021	
Sampling Done by	Mr. Kunja Bihari Nayak	

Name of the Parameters		Total count	No of species	Chlorophyll-a	Major Species
Unit		nit Units/L		mg/l	-
Testi	ng Method	APHA 10200	APHA 10200	APHA 10200H	APHA (23th Edition) 10200
			A	analysis Result	
S-1	Surface Water	18000	4	0.84	Phormidium, Zostera
	Bottom	19000	4	0.82	Tabellaria, Synedra
5-2	Surface Water	26000	4	1.11	Enteromorpha, Nereocystis
Botto	Bottom	18000	.3	0.82	Fragilaria, Enteromorpha
S-3	Surface Water	28000	3	1.01	Desmium, Vallisneria
3-3	Bottom water	15000	+	0,54	Oedogonium, Phormidium
8-4	Surface Water	18000	2	1,08	Moueotia, Calothrix
,	Bottom- water	23000	5	0,84	Enteromorpha, Oscillatoria
8-5	Surface Water	14000	4	0.75	Vallisneria, Nereocystis
5-3	Bottom water	19000	3	0.66	Fragilaria, Vallisneria
5-6	Surface Water	21000	4	0.45	Vallisneria, Desmium
-6	Bottom water	18000	2	0.62	Zostera, Calothrix
5-7	Surface Water	16000	.5	0.71	Cyclotella, Enteromorpha
-1	Battom	22000	4	0.54	Vallismeria, Calothrix

Prepared By-

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S.K. PP





N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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Date: 01.07,2021

# PHYTOPLANKTONMONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company	Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096	
Reference No.	MSKGL/ED/2020-21/000592	
Type of Sample	Marine Sample (Phytoplankton	)
Sampling Location	S1:Dhamra River Mouth S2:Dry Bulk Cargo Berth Face S5:Along Chanel at 5Km S7:Near Kanika Island	S3:Liquid/Gas/Cyrogenic Berth Face
Date of Sampling	18.06.2021	
Date of Analysis	19.06.2021 to 30.06.2021	
Sampling Done by	Mr. Kunja Bihari Nayak	

Name of the Parameters		Total count	No of species	Chlorophyll-a	Major Species
Unit		Units/L	Nos.	mg/l	
Testin	ng Method	APHA 10200	APHA 10200	APHA 10200H	APHA (23 <sup>rd</sup> Edition) 10200
			1	Analysis Result	
S-1	Surface Water	18000	4	0.84	Phormidium, Zostera
3-1	Bottom water	19000	4.	0.82	Tabellaria, Synedra
S-2	Surface Water	.26000	4	131	Enteromorpha, Nereocystis
3-4	Botium water	18000	3	0.82	Fragilaria, Enteromorpha
S-3	Surface Water	28000	3	1,01	Desmium, Vallisneria
	Bottom water	15000	4.	0,54	Oedogonium, Phormidium
84	Surface Water	18000	2	1.08	Moueotia, Calothrix
9-4	Bottom water	23000	5-	0.84	Enteromorpha, Oscillatoria
8-5	Surface Water	14000	4	0.75	Vallisneria, Nereocystis
9-3	Bottom	19000	3	0.66	Fragilaria, Vallisneria
	Surface Water	21000	4	0.45	Vallisneria, Desmium
5-6	Bottom water	18000	2	0.62	Zostera, Calothrix
	Surface Water	16000	5	0.71	Cyclotella, Enteromorpha
5-7	Bottom	22000	4	0.54	Vallisneria, Calothrix

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N-5/100, Ground Floor IRC Village, Nayapall Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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Date: 01.07.2021

# MICROBIOLOGICAL MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/000592
Type of Sample	Marine Sample (Microbiological)
Sampling Location	S1:Dhamra River Month S3:Liquid/Gus/Cyrogenic Berth Face S2:Dry Bulk Cargo Berth Face S4:Along Channel at 1Km S5:Along Channel at 5Km S6: Along Channel at 10Km S7:Near Kanika Island
Date of Sampling	18.96.2021
Date of Analysis	19.06.2021 to 30.06.2021
Sampling Done by	Mr. Kunja Bihari Nayak

	ne of the ameters	Total Bacteria count	Total Coliform	Faecal Coliform	E, coli	Enterococciss	Salmonella	Shigella	Vibrin
	Unit	CFU/ml	MPN/100ml	MPN/100ml	MPN/100ml	CFU/mi	/100ml	/100ml	/100ml
1	esting lethod	APTIA 5 <sup>th</sup> Edn	APHA 922) B	APHA 9221 E	APHA 9221 F	15 5887(Pan-II)	IS 5887(Part- III)	IS 5887(Part- VII)	1S 5887(Pari- V)
-				At	alysis Result				
8-	Surface Water	70.0	<1.8	<1.8	≥1,8	<1.0	Absent	Absent	Absent
1	Bottom	43.0	≤1.8	<1.8	<1.8	≥1.0	Absent	Absent	Absent
8-	Surface Water	125,0	6.8	<1.8	<1.8	<1.0	Absent	Absent	Absent
2	Bottom	55,0	Absent	<1.8	<1.8	<1.0	Absent	Absent	Absent
9-	Surface Water	140.0	11.0	<1.8	<1.8	<1.0	Absent	Absent	Absent
3	Bottom	50.0	<1.8	<1.8	<1.8	<1.0	Absent	Ahsent	Absent
5.	Surface Water	46.0	<1.8	<1,8	≺1.8	<1.0	Absent	Absent	Absent
4	Bottom	117.0	15.0	<1.8	<1.8	<1.0	Absent	Absent	Absent
8-	Surface	80.0	6.8	<1.8	<1.8	<1.0	Absent	Absent	Absent
5	Bottom	40.0	<1,8	<1.8	<1.8	<1.0	Absent	Absent	Absent
s.	Surface	67.0	<1.8	<1.8	<1.8	<1.0	Absent	Absent	Absent
6	Bettem	76.0	<1.8	<1.8	<1.8	<1.0	Absent	Absent	Absent
S-	Surface Water	70.0	<1.8	<1.8	<1.8	<1.0	Absent	Absent	Absent
7	Bottom	82.0	<1.8	<1.8	<1.8	<1.0	Absent	Absent	Absent

Prepared By -

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N-5/100, Ground Floor IRC Village, Nayapatti Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037]

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Date: 01.01.2021

#### PRIMARY PRODUCTIVITYMONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/000592
Type of Sample	Marine Sample (Productivity)
Date of Sampling	18.06,2021
Date of Analysis	19.06.2021 to 30.06.2021
Sampling Done by	Mr. Kunja Bihari Nayak

St. No.	Monitoring Location		Gross Primary productivity (O2mg/L/day)	Net Primary productivity (O2mg/L/day)
1	S1: Dhamra River Mouth	Surface Water	2.3	1.3
4	S1:Duamra River Mouth	Bottom water	2.5	1.2
2 S2:Dry Bulk Cargo Berth F	Ch.Der Bull, Cases Booth Fare	Surface Water	2.2	1.1
	Saidly Bank Cargo berth race	Bottom water	2.2	1.2
	Children I Conference to Breat Page	Surface Water	1.9	0.9
3	S3:Liquid/Gas/Cyrogenic Berth Face	Bottom water	2.2	1.0
	Philips Phinadat IPm	Surface Water	LS	1.0
4	S4:Along Channel at 1Km	Bottom water	2.0	0.9
	CO. II Chandles By	Surface Water	2.1	1.0
2	S5:Along Chanel at 5Km	Bottom water	1.7	0.8
	S6: Along Channel at 10Km	Surface Water	2.2	1.1
6	So: Along Channel at 10Km	Bottom water	2.4	1.4
-	S7:Near Kanika Island	Surface Water	2.2	1.4
-1	STOCKE KARING ISIANO	Bottom water	2.1	1.2

Prepared By -





N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037]

Date: 01.07,2021

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#### PHYTO BENTHOSMONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/000592
Type of Sample	Marine Sample
Sampling Location	S1:Dhamra River Mouth S3:Liquid/Gas/Cyrogenic Berth Face S2:Dry Bulk Cargo Berth Face S4:Along Channel at 1Km S5:Along Channel at 5Km S6: Along Channel at 10Km S7:Near Kanika Island
Date of Sampling	18.06,2021
Date of Analysis	19.06.2021 to 30.06.2021
Sampling Done by	Mr. Kunja Bihari Nayak

	me of the	Fungus	Total Count	No of species	Diversity Index	Major species
	Unit	CFU/g dry wt.	50 mg wet sediment	Nos.		0
Testi	ng Method	APHA 9610 B	АРНА 9215 В,С	APHA 10500 B	By Calculation (Shanon's Index)	APHA 10500 B
			4	Analysis Result	and because of the same of	
S-1	Surface Water	2900	224	15	0.6452	Ditylum, N.longsigma
3-1	Hettom water	1480	234	18	0.7285	N.longsigma
S-2	Surface Water	2100	219	14	0.6412	Copepods
3-4	Bottom water	1620	197	8	0.5175	Podasira,
s-3	Surface Water	2300	250	12	0.6521	Ctenophora, Copepods
33	Bottom	1100	197	9	0.4867	Ditylum,
A T	Surface Water	2500	274	31	D.8549	Ditylum, Copepods
8-4	Bottom	1900	212	17	0.6882	N.longsigma, Echinodermata
S-5	Surface Water	2600	324	42	1,7216	Podesira, Copepods
3-3	Bottom	2000	201	9	0.6402	Ditylum, Echinodermut
	Surface Water	2400	256	18	0,8100	Podasira, Ditylum
S-6	Bottom	2100	324	21	0.9064	Echinodermata, Copepods
S-7	Surface Water	1800	:275	6	0.6224	N.longsigma, Podasira
3+1	Bottom water	1520	166	8	0,4217	Ctenophora

Prepared By -

9.K. PRIZ





N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362918

Date: 01.07,2021

#### TOTAL FAUNA MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/001552
Type of Sample	Marine Sample
Sampling Location	S1:Dhamra River Mouth S3:Liquid/Gas/Cyrogenic Berth Face S2:Dry Bulk Cargo Berth Face S4:Along Channel at 1Km S5:Along Channel at 5Km S6: Along Channel at 10Km S7:Near Kanika Island
Date of Sampling	18.06.2021
Date of Analysis	19.06.2021 to 30.06.2021
Sampling Done by	Mr. Kunja Bihari Nayak

	me of the rameters	Name of phylum	Class & No. of individuals encountered	Total no of species encountered	Total fauna per m <sup>3</sup>
Test	ing Method	APHA 10700	APHA 10700	APHA 10700	APHA 10700
			Analysis Result		
S-1	Surface Water	Annelida, Mollusca	Plychaeta-58,Bivalvia-17	75	(18
.5-3	Bottom	Annelida, Mollusca	Plychaeta-24,Blvalvia-14	64	164
S-2	Surface Water	Annelida, Mollusca	Plychaeta-32,Blvalvia-22	90	208
314	Bottom water	Annelida, Mollusca	Plychaeta-27, Bivalvia-16	60	147
8-3	Surface Water	Anthropoda, Annelida	Plychseta-33,Bivalvin-19	92.	225
3-3	Bottom	Annelida, Mollusca	Plychneta-41,Bivalvia-18	102	715
S-4	Surface Water	Annelida, Mollusca	Plychaeta-50,Bivalvia-24	78	368
3-4	Bottom	Annelida, Mollusca	Plychaeta-42,Bivulvia-16	120	941
8-5	Surface Water	Annelida, Mollusca	Plychaeta-62,Bivalvia-21	80	424
5-5	Bottom	Annelida, Mollusca	Plychaeta-57,Bivalvia-18	91	528
	Surface Water	Anthropoda, Annelida	Malagostraca-33,Pelecypoda-47	124	870
5-6	Bottom	Annelida, Mollitsca	Plychaeta-62,Gastropoda-20	61	221
8	Surface Water	Anthropoda, Annelida	Malagostraca-22,Pelecypoda-14	115	743
S-7	Bottom	Anthropoda, Annelida	Plychaeta-52,Gastropoda-20	36	330

Prepared By -

4-

POPING PAIN





N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T : (0674) 2362916, 2360917 F : (0674) 2362918

#### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/431 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00780

Sample Description : Sea Sediment

Sampling Location: Dredging Disposal Site

Date of sampling : 03.06.2021

Sl. No.	Parameters	Unit	Test Method	Result
10	pH value	None	1S 2720 (Part 26)-1987;Rffm:2011	8.08
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	12134,00
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm;2015	1,60
4.	Moisture content	96	Lab Method	33.00
5.	Chloride (as Cl.)	mg/kg	TPM/MSK/P&E/1/10	7800.00
6.	Sulphate (as SO4)	mg/kg	1S 2720 (Part 27) 1977,RA 2015	1240.00
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	16.00
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	254.00
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	588.00
II.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	4970.00
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	308.00
13.	Copper (as Cu)	mg/kg	EPA 6010D	23.00
14:	Nickel (as Ni)	mg/kg	EPA 6010D	62.00
15.	Zinc (as Zn)	mg/kg	EPA 6010D	36.00
16.	Manganese (as Mn)	mg/kg	EPA 6010D	378,00





Date- 01.07.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	16.00
18.	Boron (as B)	mg/kg	IS 13428-2005, Annex H	<5,0
19.	Aluminium ( as AI )	mg/kg	EPA 6010D	5870.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	24.00
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	722.00
22:	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	661.0 0
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	33.00
26.	Silt	%	TPM/MSK/P&E/1/36A	23.00
27,	Clay	None	TPM/MSK/P&E/1/36A	44.00
28.	Texture	%	TPM/MSK/P&E/1/36A	Clay Loam

#### Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1577
2.	Total count (Phytobenthos)	50 mg wet sediment	302
3.	No of species (Phytobenthos)	Nos.	5
4.	Diversity index (Phytobenthos)	- ine	1.88
5.	Major Species (phytobenthos)	- Year	Coscinodiscus sp., Biddulphia mobilensis
6.	Name of Phylum (Fauna)	****	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)		Plychaeta-40,Bivalvia-20
8.	Total no. of species encountered (Fauna)	Nos.	24
9,	Total fauna (Fauna)	per m	198

Report Prepared by:

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For Mitra S.K. Private Limited

Authorized Signatory



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F: (0674) 2362918

TEST REPORT

Report No. : BBS/432 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00781

Sample Description: Sea Sediment Sampling Location: Dredging Area Date of sampling: 03.06.2021

### Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

SI, No.	Parameters	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	8.13
2.	Electrical Conductivity	us/cm	1S 3025 (Part 14)-1984;Rffm:2006	13470.00
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffin:2015	0.96
4.	Moisture content	%	Lab Method	.28,00
5,	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	7800.00
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	1180,00
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	18.00
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	266.00
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	612,00
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	5400.00
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	162.00
13.	Copper (as Cu)	mg/kg	EPA 6010D	27.00
14.	Nickel (as Ni)	mg/kg	EPA 6010D	60.00
15,	Zinc (as Zn)	mg/kg	EPA 6010D	26.00
16.	Manganese (as Mn)	mg/kg	EPA 6010D	325.00



#### Date- 01,07.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	14.00
18.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	<5.0
19.	Aluminium (as AI)	mg/kg	EPA 6010D	7650,00
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	126.00
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	597.00
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	512.00
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0,05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	45.00
26.	Silt	%	TPM/MSK/P&E/1/36A	31.00
27.	Clay	None	TPM/MSK/P&E/1/36A	24.00
28.	Texture	%	TPM/MSK/P&E/1/36A	Loam

# Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1620
2.	Total count (Phytobenthos)	50 mg wet sediment	324
3.	No of species (Phytobenthos)	Nos.	6
4.	Diversity index (Phytobenthos)	***	1.78
5,	Major Species (phytobenthos)	-	Biddulphia mobilensis,
6.	Name of Phylum (Fauna)	-	Annelida, Mollusca
7,	Class & Number of individuals encountered (Fauna)	244	Plychaeta-55,Bivalvia-11
8.	Total no. of species encountered (Fauna)	Nos.	29
9.	Total fauna (Fauna)	per m <sup>3</sup>	178

Report Prepared by:

A DE TANK

For Mitra S.K. Private Limited

Author Signatory

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapelli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362918

# TEST REPORT

Name & Address of the Customer :

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/433 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00800

Sample Description : Sea Sediment

Sampling Location: Dredging Disposal Site

Date of sampling : 18,06.2021

SI. No.	<u>Parameters</u>	Unit	Test Method	Result
L	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7,67
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffin:2006	1701.00
3.	Organic Matter	1/6	IS 2720 (Part 22)-1972; Rffin:2015	0.88
4.	Moisture content	%	Lab Method	32.00
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	1215,00
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	279.00
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	16.00
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	21.00
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	17.40
11:	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1674.00
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	157.00
13.	Copper (as Cu)	mg/kg	EPA 6010D	25,00
14.	Nickel (as Ni)	mg/kg	EPA 6010D	10.60
15.	Zinc (as Zn)	mg/kg	EPA 6010D	28.00
16.	Manganese (as Mn)	mg/kg	EPA 6010D	184,00



Ref. No. BBS/433 Date-01.07.2021

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17.	Lead (as Pb)	mg/kg	EPA 6010D	10.00
18,	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	<5.0
19,	Aluminium ( as Al )	mg/kg	EPA 6010D	2019.00
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	15.10
21,	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	387.00
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	287.00
23,	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	30.00
26.	Silt	%	TPM/MSK/P&E/1/36A	28.00
27.	Clay	None	TPM/MSK/P&E/1/36A	42.00
28.	Texture	%	TPM/MSK/P&E/1/36A	Clay Loam

#### **Biological Result**

SI No.	Parameters	Unit	Results
D.	Fungus (Phytobenthos)	CFU/g dry wt.	1548
2.	Total count (Phytobenthos)	50 mg wet sediment	322
3.	No of species (Phytobenthos)	Nos.	6
4.	Diversity index (Phytobenthos)	-	1.77
5.	Major Species (phytobenthos)	_	Biddulphia mobilensis, Spirulina aeruginea
6.	Name of Phylum (Fauna)	_	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	_	Plychaeta-64,Bivalvia-17
8.	Total no. of species encountered (Fauna)	Nos.	21
9,	Total fauna (Fauna)	per m <sup>3</sup>	249

Report Prepared by:

S.K. P.S. A.

For Mitra S.K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapali Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362918

### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/434 Date : 01.07.2021

Sample No. : MSKGL/ED/2020-21/06/00801

Sample Description: Sea Sediment Sampling Location: Dredging Area Date of sampling: 18.06,2021

Sl. No.	<b>Parameters</b>	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	8.01
2.	Electrical Conductivity	us/em	IS 3025 (Part 14)-1984;Rffm:2006	13470.00
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	0.92
4.	Moisture content	%	Lab Method	29.00
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	6457.00
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	107.00
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	<3.0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	4,60
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	9.30
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1932.00
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	166.00
13.	Copper (as Cu)	mg/kg	EPA 6010D	16.80
14.	Nickel (as Ni)	mg/kg	EPA 6010D	7.60
15.	Zinc (as Zn)	mg/kg	EPA 6010D	25.00
16.	Manganese (as Mn)	mg/kg	EPA 6010D	161.00



#### Date- 01.07.2021

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17.	Lead (as Pb)	mg/kg	EPA 6010D	7.30
18.	Boron (as B)	mg/kg	IS 13428- 2005, Annex Fl	<5.0
19.	Aluminium ( as Al )	mg/kg	EPA 6010D	6452.00
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	45.00
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm;2014	279.00
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	246.00
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0,05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	40.00
26.	Silt	%	TPM/MSK/P&E/1/36A	24.00
27.	Clay	None	TPM/MSK/P&E/1/36A	26.00
28.	Texture	%	TPM/MSK/P&E/1/36A	Clay

#### Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1174
2.	Total count (Phytobenthos)	50 mg wet sediment	331
3.	No of species (Phytobenthos)	Nos.	6
4.	Diversity index (Phytobenthos)		2.45
5.	Major Species (phytobenthos)	-	Biddulphia mobilensis, Nizschia distans
6.	Name of Phylum (Fauna)		Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)		Plychaeta-75,Bivalvia-30
8.	Total no. of species encountered (Fauna)	Nos.	27
9.	Total fauna (Fauna)	per m <sup>3</sup>	190

Report Prepared by:

4-



For Mitra S.K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

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# TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/435 Date : 01.07.2021

Sample No. : MSKGL/ED/2020-21/06/00979

Sample Description: Sea Sediment

Sampling Location: Dhamra River Mouth

Date of sampling : 18.06.2021

SI. No.	Parameters .	Unit	Test Method	Result
1.	pH value	None	1S 2720 (Part 26)-1987;Rffm:2011	7.96
2	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	4012.00
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	1.80
4.	Moisture content	%	Lab Method	35.00
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	1815,00
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	612.00
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	BDL
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	6.00
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	6.80
D.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	2571.00
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	569.00
13.	Copper (as Cu)	tng/kg	EPA 6010D	4.30
14.	Nickel (as Ni)	mg/kg	EPA 6010D	1.70
15.	Zinc (as Zn)	mg/kg	EPA 6010D	7.90
16.	Manganese (as Mn)	mg/kg	EPA 6010D	BDL



#### Date- 01.07.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	5.70
18.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	4.30
19.	Aluminium (as Al)	mg/kg	EPA 6010D	BDL
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	3.80
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	10.30
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	8.60
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0,05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25,	Sand	%	TPM/MSK/P&E/1/36A	38,00
26.	Sift	%	TPM/MSK/P&E/1/36A	22.00
27.	Clay	None	TPM/MSK/P&E/1/36A	40.0
28.	Texture	96	TPM/MSK/P&E/1/36A	Clay Loam

#### Biological Result

Sl No.	Parameters	Unit	Results
1,	Fungus (Phytobenthos)	CFU/g dry wt.	1844
2.	Total count (Phytobenthos)	50 mg wet sediment	154
3.	No of species (Phytobenthos)	Nos.	4
4.	Diversity index (Phytobenthos)	-	0.9122
5.	Major Species (phytobenthos)	_	Coscinodiscuss, Pleurosigma
6.	Name of Phylum (Fauna)		Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	46	Plychaeta-31,Bivalvia-14
8.	Total no. of species encountered (Fauna)	Nos.	34
9.	Total fauna (Fauna)	per m <sup>3</sup>	164

Report Prepared by:

4-



For Mitra S.K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

# TEST REPORT

T: (0674) 2362916, 2360917

F (0674) 2362918

Name & Address of the Customer :

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/436 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00980

Sample Description: Sen Sediment

Sampling Location : Dry Bulk Cargo Berth Face

Date of sampling : 18.06.2021

Sl. No.	Parameters	Unit	Test Method	Result
L.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	8.20
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	4251.00
3.	Organic Matter	26	IS 2720 (Part 22)-1972; Rffm;2015	(,50
4.	Moisture content	%	Lab Method	36.00
5.	Chloride (as Cl.)	mg/kg	TPM/MSK/P&E/1/10	2145.00
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	316,00
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8,	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	9.60
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	12.40
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	4.30
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	2311.00
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	376.00
13.	Copper (as Cu)	mg/kg	EPA 6010D	2.20
14.	Nickel (as Ni)	mg/kg	EPA 6010D	1.80
15.	Zinc (as Zn)	mg/kg	EPA 6010D	7.00
16.	Manganese (as Mn)	mg/kg	EPA 6010D	BDL



#### Date- 01.07.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	2.60
18.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	5.00
19.	Aluminium (as Al)	mg/kg	EPA 6010D	BDL
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	1.14
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	12.00
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	8.20
23,	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	9%	TPM/MSK/P&E/1/36A	41.00
26.	Silt	%	TPM/MSK/P&E/1/36A	22.00
27.	Clay	None	TPM/MSK/P&E/1/36A	37.00
28.	Texture	%	TPM/MSK/P&E/1/36A	Clay Loam

#### **Biological Result**

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	2177
2.	Total count (Phytobenthos)	50 mg wet sediment	202
3.	No of species (Phytobenthos)	Nos.	4
4.	Diversity index (Phytobenthos)	,,,,,,,	0.8766
5.	Major Species (phytobenthos)	1440	Navicula, Coscinodiscuss,
6.	Name of Phylum (Fauna)	1000	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)		Plychaeta-51,Biyalvin-17
8.	Total no. of species encountered (Fauna)	Nos.	47
9.	Total fauna (Fauna)	per m <sup>3</sup>	274

Report Prepared by:

E.K. P.

For Mitra S.K. Private Limited

Author Signatory



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917

F: (0674) 2362918

TEST REPORT

Report No. : BBS/437 Date : 01.07,2021

Sample No. : MSKGL/ED/2020-21/06/00981

Sample Description: Sea Sediment

Sampling Location: Liquid/Gas/Cyrogenic Berth

Face

Date of sampling : 18.06.2021

#### Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

SL No.	Parameters	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7.95
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffin:2006	4260,00
3.	Organic Matter	96	IS 2720 (Part 22)-1972; Rffin:2015	1:60
4.	Moisture content	%	Lab Method	42.00
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	1145,00
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	921.00
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
Š.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	BDL
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	BDL
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	3,60
11:	Sodium (as Na)	mg/kg	TPM/MSK/P&E/I/4	2019.00
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	274.00
13	Copper (as Cu)	mg/kg	EPA 6010D	2.60
14.	Nickel (as Ni)	mg/kg	EPA 6010D	1,50
15.	Zinc (as Zn)	mg/kg	EPA 6010D	7.30
16.	Manganese (as Mn)	mg/kg	EPA 6010D	BDL



#### Date- 01.07.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	7.00
18.	Boron (as B)	/ng/kg	IS 13428- 2005,Annex H	2.90
19.	Aluminium ( as AI )	mg/kg	EPA 6010D	BDL
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	2.10
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	8.40
22,	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	3.70
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	33.00
26.	Silt	%	TPM/MSK/P&E/1/36A	24.00
27.	Clay	None	TPM/MSK/P&E/1/36A	43.00
28.	Texture	%	TPM/MSK/P&E/1/36A	Clay

#### **Biological Result**

Sl No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1254
2.	Total count (Phytobenthos)	50 mg wet sediment	197
3.	No of species (Phytobenthos)	Nos.	6
4.	Diversity index (Phytobenthos)	-	0.8247
5.	Major Species (phytobenthos)		Bidulphia, Pleurosigma,
6.	Name of Phylum (Fauna)	1994	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	_	Plychaeta-40,Bivalvia-15
8.	Total no. of species encountered (Fauna)	Nos.	30
9.	Total fauna (Fauna)	per m <sup>3</sup>	223

Report Prepared by: V

PS.K. PRIVATE

For Mitra S.K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037[

# TEST REPORT

T: (0674) 2362916, 2360917

F: (0674) 2362918

Name & Address of the Customer :

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/438

Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00982

Sample Description: Sea Sediment

Sampling Location: Along Channel at 1 km

Date of sampling ; 18.06.2021

Sl. No.	Parameters	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffin:2011	7.93
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	7823.00
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	1.80
4.	Moisture content	%	Lab Method	40.00
5.	Chloride (as Cl.)	mg/kg	TPM/MSK/P&E/1/10	1108.00
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	738.00
7_	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8,	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	11.00
0	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	5.70
10	fron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	21.00
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	3013.00
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	294.00
13.	Copper (as Cu)	mg/kg	EPA 6010D	1.90
14,	Nickel (as Ni)	mg/kg	EPA 6010D	1.40
15.	Zinc (as Zn)	mg/kg	EPA 6010D	7.30
16.	Manganese (as Mn)	mg/kg	EPA 6010D	BDL

# MSK TESTING DINSPECTION

Ref. No. BBS/438

Date- 01.07.2021

17	Lead (as Pb)	mg/kg	EPA 6010D	1.70
18.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	2.60
19.	Aluminium (as Al)	mg/kg	EPA 6010D	BDL
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	1.10
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	11.30
22.	Organic Nitrogen	ing/kg	TPM/MSK/P&E/3/68	7.20
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	28.00
26.	Silt	%	TPM/MSK/P&E/1/36A	26.00
27.	Clay	None	TPM/MSK/P&E/1/36A	46,00
28.	Texture	%	TPM/MSK/P&E/1/36A	Clay

#### Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1745
2.	Total count (Phytobenthos)	50 mg wet sediment	187
3.	No of species (Phytobenthos)	Nos.	5
4.	Diversity index (Phytobenthos)	-10-	0.6781
5.	Major Species (phytobenthos)		Bidulphia, Gyrosigma
6.	Name of Phylum (Fauna)	_	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)		Plychaeta-44,Bivalvia-14
8.	Total no. of species encountered (Fauna)	Nos.	28
9.	Total fauna (Fauna)	per m³	234

Report Prepared by:



For Mitra S.K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

TEST REPORT

T (0674) 2362916, 2360917

F. (0674) 2362918

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/439 Date: 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00983

Sample Description: Sea Sediment

Sampling Location: Along Channel at 5 km

Date of sampling : 18.06.2021

Sl. No.	<u>Parameters</u>	Unit	Test Method	Result
1.	pH value	None	1S 2720 (Part 26)-1987;Rffm;2011	7,98
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	6541.00
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	1.80
4.	Moisture content	%	Lab Method	32.00
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	812.00
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	607.00
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	BDL
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	2.10
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	18.20
tt.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	2963.00
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	307.00
13.	Copper (as Cu)	mg/kg	EPA 6010D	1.60
14.	Nickel (as Ni)	mg/kg	EPA 6010D	1.10
15.	Zinc (as Zn)	mg/kg	EPA 6010D	8.60
16.	Manganese (as Mn)	mg/kg	EPA 6010D	BDL

# MSK TESTING INSPECTION

Ref. No. BBS/439

Date	W.	MI	27	71	121

17.	Lead (as Pb)	mg/kg	EPA 6010D	1.30
18.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	1.60
19.	Aluminium ( as Al )	mg/kg	EPA 6010D	BDL
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	2.50
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	9.20
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	6.10
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	96	TPM/MSK/P&E/1/36A	30.00
26.	Silt	9%	TPM/MSK/P&E/1/36A	22.00
27.	Clay	None	TPM/MSK/P&E/1/36A	48.00
28.	Texture	%	TPM/MSK/P&E/1/36A	Clay

# Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1652
2,	Total count (Phytobenthos)	50 mg wet sediment	230
3,	No of species (Phytobenthos)	Nos.	8
4.	Diversity index (Phytobenthos)	-	1.3645
5.	Major Species (phytobenthos)	_	Navicula, Gyrosigma
6.	Name of Phylum (Fauna)	-	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	-	Plychaeta-72,Bivalvia-31
8,	Total no. of species encountered (Fauna)	Nos.	66
9.	Total fauna (Fauna)	per m3	228

Report Prepared by:

MITRA

For Mitra S.K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

# TEST REPORT

T : (0874) 2362916, 2360917

F: (0674) 2362918

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/440 Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00984

Sample Description: Sea Sediment

Sampling Location: Along Channel at 10 km

Date of sampling : 18.06,2021

Sl. No.	<u>Parameters</u>	Unit	Test Method	Result
1.	pH value	None	1S 2720 (Part 26)-1987;Rffm:2011	8.03
2,	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	6321.00
3,	Organic Matter	96	1S 2720 (Part 22)-1972; Rffin:2015	1.90
4.	Moisture content	9%	Lab Method	39,00
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	1124.00
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	529.00
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	BDL
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	BDL
10	fron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	23.10
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	2413.00
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	1102.00
13,	Copper (as Cu)	mg/kg	EPA 6010D	1.30
14.	Nickel (as Ni)	mg/kg	EPA 6010D	1.20
15.	Zíne (as Zn)	mg/kg	EPA 6010D	8,10
16.	Manganese (as Mn)	mg/kg	EPA 6010D	BDL



Date-01.07.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	130
18,	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	1.10
19.	Aluminium ( as AI )	mg/kg	EPA 6010D	BDL
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	2.20
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffin:2014	8.30
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	4.60
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb.2007	<0,05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25,	Sand	%	TPM/MSK/P&E/1/36A	33,00
26.	Silt	%	TPM/MSK/P&E/1/36A	20.00
27.	Clay	None	TPM/MSK/P&E/1/36A	47.00
28.	Texture	%	TPM/MSK/P&E/1/36A	Clay

#### Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1134
2.	Total count (Phytobenthos)	50 mg wet sediment	248
3.	No of species (Phytobenthos)	Nos.	10
4.	Diversity index (Phytobenthos)	-	1,1389
5.	Major Species (phytobenthos)	_	Synedra, Coscinodiscuss sp.,
6.	Name of Phylum (Fauna)		Anthropoda, Annelida
7.	Class & Number of individuals encountered (Fauna)	. Service	Plychaeta-52,Bivalvia-19
8.	Total no. of species encountered (Fauna)	Nos.	32
9.	Total fauna (Fauna)	per m <sup>3</sup>	262

Report Prepared by:

4-



For Mitra S.K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]



# TEST REPORT

T: (0674) 2362916, 2360917

F: (0674) 2362918 Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/441

Date : 01.07.2021

Sample No.: MSKGL/ED/2020-21/06/00985

Sample Description: Sea Sediment

Sampling Location: Near Kanika Island

Date of sampling : 18.06.2021

Sl. No.	Parameters	Unit	Test Method	Result
de	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	8.15
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	6214.00
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	1.70
4.	Moisture content	%	Lab Method	29.00
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	716.00
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	1935.00
72	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8,	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	BDL
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	BDL
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	4.30
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	3014.00
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	333.00
13.	Copper (as Cu)	mg/kg	EPA 6010D	1.60
14.	Nickel (as Ni)	mg/kg	EPA 6010D	1.31
15.	Zinc (as Zn)	mg/kg	EPA 6010D	5.60
16.	Manganese (as Mn)	mg/kg	EPA 6010D	BDL



#### Date- 01,07,2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	1.70
18.	Boron (as B)	mg/kg	IS 13428- 2005,Annex H	2.50
19.	Aluminium (as Al.)	mg/kg	EPA 6010D	BDL
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	1.80
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	7.60
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	4.80
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb.2007	< 0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	35,00
26.	Sitt	96	TPM/MSK/P&E/1/36A	24.00
27.	Clay	None	TPM/MSK/P&E/1/36A	41.00
28.	Texture	%	TPM/MSK/P&E/1/36A	Clay

#### Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1654
2.	Total count (Phytobenthos)	50 mg wet sediment	247
3.	No of species (Phytobenthos)	Nos.	11
4,	Diversity index (Phytobenthos)		1.3245
5.	Major Species (phytobenthos)		Bidulphia, Navicula
6.	Name of Phylum (Fauna)	-	Anthropoda, Annelida
7.	Class & Number of individuals encountered (Fauna)		Malagostraca-28,Pelecypoda-02
8.	Total no. of species encountered (Fauna)	Nos.	31
9.	Total fauna (Fauna)	per m3	386

Report Prepared by:



For Mitra S.K. Private Limited

Author Signatory

# Analysis of Bathymetric Surveys to Identify Coastal Vulnerabilities at Dharma Port Area

# JUNE- 2021

### Directed by

### THE DHAMRA PORT COMPANY LIMITED



AT : DOSINGA, PO : DHAMRA DIST- BHADRAK, PIN : 756171 ODISHA

Conducted by

M/s. Mitra S. K. Private Limited



Shrachi Centre (5th Floor)

74B, Acharya Jagadish Chandra Bose Road

Kolkata - 700016 (West Bengal)

# TABLE OF CONTENT

S.N	Particular	Pages
1.	INTRODUCTION	1
2.	DESCRIPTION ON THE STUDY AREA	1-2
2.1	Bases of Selection of the Site	2
2.2	Climatic Condition of the area	2-3
3.	METHODOLOGY OF THE STUDY	3
4.	RESULTS AND DISCUSSION	4
4.1	Bathymetry Model Predictions with Digital elevation model	4
5.	CONCLUSION	6

#### 1.0 INTRODUCTION

Coastal environments are particularly vulnerable to the effects of disasters; partly due to denser urbanization and human populations and related economic activities such as agriculture, aquaculture, tourism, industries, trades and transportation in these locations. Coastal areas tend to be relatively highly urbanized with higher concentrations of human populations. Approximately 40% of the global human population lives within 60 km of the coast and more than 25% of the human population in India lies within 50 km of the coast.

Odisha has a rich maritime heritage with a coastline of 480 km and with historic trade links to Southeast Asian islands, Sri Lonka, Burma, etc. The coastal state had a number of ancient ports and Dhamra port is only a part of that legacy. While many of the ancient ports were lorgotten with the time, this port was vibrant even during the British Raj and was an important link for trade and commerce between Bengal, Odisha and the South East Asia. Dhamra is one of the deep draft ports of India which can accommodate super cape-size vessels. It is an all-weather, multi-user, multi-cargo port poised to become the largest and most efficient port in the east coast of India. Situated between Haldia and Paradeep, Dhamra Port is in close proximity to the mineral belt of Orissa, Jharkhand and West Bengal offers deepened hinterland connectivity and operational efficiency. Exports and imports of mineral, sands, raw materials, finished goods, fertilizers, and petroleum products, by the large industrial houses located in the hinterland offer long term potential for cargo.

#### 2.0 DESCRIPTION ON THE STUDY AREA

Dhamra Port is geographically located north of Dhamra River mouth between Latitude 20° 48'N to 20° 56' N and Longitude 86° 55' E to 87° 16' E on the East Coast of India in Chandbali Tehsil. Bhadrak District of Odisha State (Fig. 1.1). Dhamra port is located at a distance of 85 km by road from Bhadrak, which is the nearest major town on the Chennai-Kolkata highway NH 5, the nearest major railway station also is Bhadrak situated at a distance of 62 km from Dhamra on the Cuttack—Khargapur section. The nearest airport is Bhubaneswar located approximately 220 km southwest of the project site.



Figure 1.1 Geographical location of Study Area

#### 2.1 Bases of Selection of the Site

The bases of selection of the proposed site for the proposed facility are as per the criteria discussed below. There are certain key advantages of Dhamra and they are as given below.

- Strategic location
- Availability of deep draft
- Gateway for dedicated maritime facilities to land locked states
- Multi-modal connectivity through Rail & Road network
- Availability of reliable power
- No rehabilitation & relocation of existing settlements
- No archaeological / historical / cultural place

The geographical area has great ecological and economic importance due to presence of India's second largest mainland mangrove patch of Bhitarkanika forest. Considering its ecological and social values the Bhitarkanika area has been identified as a Ramsar site. The estuary area is interspersed with numerous small rivulets, creeks, and channels which are under continuous tidal influence. It is badly affected by tropical cyclone originating in Bay of Bengal, Indian Ocean. The average elevation of the area is about 5 m.

#### 2.2 Climatic Condition of the area

The maximum and minimum temperatures observed are 39.7° C and 14.2° C respectively. Occurrence of storms and depressions is very high during October and

November and negligible during January-March. It is also high during southwest monsoon. The monsoon depressions formed in the head of Bay move towards west / northwest and reach the Odisha coast at times. The initial movement of the cyclones is towards north westerly/westerly direction, but occasionally they change their direction and move in a north easterly direction. The predominant wind directions observed were from South and South West; Calm conditions prevailed for 8.06% of the total time. The wind speed varied between 0.5 to 2.1 m/s for most of the time during this period. The average wind speed was observed to be 1.82 m/s.

#### 3.0 METHODOLOGY OF THE STUDY

Bathymetry is relevant for a wide range of research topics and for a variety of societal needs. Examples, where knowing the exact water depth or the morphology of the scafloor is vital include marine geology, physical oceanography, the propagation of tsunamis and documenting marine habitats. Decisions made at administrative level based on bathymetric data include safety of maritime navigation, spatial planning along the coast, environmental protection and the exploration of the marine resources. For the marine survey shallow water zone and other oceanographic data has been collected using traditional survey methods. The Optical satellite imagery is proving to be a useful tool in predicting water depth in coastal zones, particularly in conjunction with other standard datasets, though its quality and accuracy remains largely unconstraine. For this purpose, CARTOSAT-1 satellite image has been developed of the project area and classified using Arc GIS version 10.0. Evaluate the overall suitability of Rapid Eye satellite data for deriving coastal bathymetry in a representative C-shaped bay environment, through application of a blue/green band ratio and statistical models using ground calibration points.

To investigate the navigation channel are dependent the environmental conditions (winds, currents and waves) and the channel bottom conditions. For the flow and depth estimation, Universal Water Current MeterRK04 velocities 0.025m/s up to 20 meters per second were used in this study. The free ends of the proximity magnetic switch cable are connected to a Water Velocity Indicator. The ground truthing water depth (WD) data used in this study was acquired. Data was collected using differential GPS and tidal corrections were applied in the post-processing. Depths were reduced to LAT (Lowest Astronomical Tide) and deemed suitable for hydrographic charts. The complete system was capable of measuring water depths between 0 and 15 m with a vertical accuracy of less than 10 cm RMS and a horizontal positioning accuracy of less than 1 m. These data are used as the response variable in our study models.

#### 4. RESULTS AND DISCUSSION

The establishment and alteration of any coastal feature is largely dependent upon complex hydrological and geomorphologic processes. Therefore, understanding hazard factors and threat risk level is crucial for mitigating risk in coastal zones. This study examines coastal vulnerability factors and their influence along the Coastalregion. The study has been exposed to frequent hydrological and meteorological hazards due to variations in the geographical, geological, and bathymetric characteristics.

### 4.1 Bathymetry Model Predictions with Digital elevation model

Geographic Information System (GIS) handles spatial information by linking location with its attribute information. GIS has functions and tools required to efficiently capture, store, analyze, and display the information about places and things. Water depth can be measured either directly or with remote sensing methods in several ways. Historically, soundings where carried out with lead lines, but for almost a century, echo sounders have been used. In this study, Digital elevation map was generated from CARTOSAT-I image and the total area was delineated with regular interval of 0.5 m increase in elevation i.e. below mean sea level (MSL) to >12 m elevation (Fig. 1.2). To assess the inundation vulnerability due to potential sea level rise (SLR), study area was classified into two sensitive classes. Lowest elevation area up-to 0.0 m was classified as very high sensitive class. The area with >0.5 m elevation were classified as low sensitive area. To perform ordinary kriging of residuals, semivariogram model parameters fitted in Arc GIS 10 (ESRI, 2011) was used for kriging implementation. Depth of stratum (0-30 m), minimum search of radius (3.3 km), maximum search of radium (2.0 km) and search ellipsoid 64°. Depth predictions ranged from 0 m at the shore to around 30 m on the shelf slope. The migration & transport of sediment in the shoreline area was very least and does not show any shore deposition pattern or changing topography over the short timescale.

#### 4.1.1. Relative Sea Level Change Rate

Sea level rise shifts the wave action zone to higher elevations due to recession of coast to inland. This recession of shoreline will be greater in mild slope regions. The direct effect of such recession is submergence of coastal land and aggravated events of flooding.

#### 4.1.2. Shoreline Change Rate

The shoreline change rate is one of the most common measurements used to indicate the dynamics and the hazards of the coast. Coastal shorelines are always subjected to changes due to coastal processes, which are controlled by wave characteristics and the resultant near-shore circulation, sediment characteristics, beach form, and so forth. From the coastal vulnerability point of view, coasts subjected to accretion are considered as less vulnerable areas as they move towards the ocean and result in the addition of land areas, whereas areas of coastal erosion are considered to be more vulnerable because of the resultant loss of individual and public property as well as important natural habitats. It also trims down the distance between coastal population and ocean, thereby increasing the risk of exposure of population to coastal hazard. Risk ratings were below the risk Hazard.

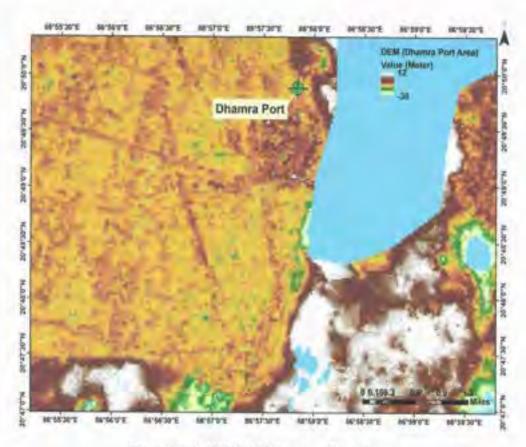


Figure 1.2. DEM of Dharma Port Area

It is evident from various studies of existing port that current velocity in the existing navigation channel in front of berth is very high and is in tune of 1.5 to 1.9 m/s. Studies also show that current velocity under and behind the berth are very less as compare to that in front of the berth during both flood and ebb tides. The tides near Dhamra region are of the semi-diurnal type and has occurrence of two high and two low waters every day. It is observed that offshore wave heights are higher during the SW and NW monsoon. During the months of June, July and August, more than 95% of waves are higher than 1.0 m, 35 % of the waves are higher than 2.0m and 5% of waves are greater than 3.0m. While the wave heights during the months of November,

December & January are in the range of 0.5 m to 2.0 m which accounts to 90 % of the total occurrences. The predominant deep water wave directions during the pre-monsoon (Mar-May) are wind generated waves from South West (S-W), SSW (South-South-West) and swells from south (S). During the NE-monsoon (Jun-Aug) water waves are from North-North-East) and NE (North-East) and swells from S and SSE, during the transition (Feb, Oct) are swells from S and SSE.

#### 1,4,3, Coastal Slope

The coastal slope is change in altitude for a unit horizontal distance between any two points on the coast. The degree of steepness or flamess of a coastal region determines the susceptibility of the coast to inundation by flooding. Determination of regional coastal slope identifies the relative vulnerability of inundation and potential rapidity of shoreline retreat because low sloping coastal regions are thought to retreat faster than steeper regions. General Bathymetric Chart of the Oceans revealed that coastal areas having gentle slope were considered as highly vulnerable areas and areas of steep slope as areas of low vulnerability.

#### 1.4.4. Regional Elevation

It is important to study the coastal regional elevation detail in the study area to identify and estimate the extent of land area threatened by future sea level rise. These coastal elevation data are also used to estimate the land potentially available for wetland migration in response to sea level rise and the sea level rise impacts on the human built environment. From the coastal vulnerability point of view, coastal regions having high elevation will be considered as less vulnerable areas because they provide more resistance for inundation against the rising sea level, tsunami run-up, and storm surge. The study area having moderate elevation and considered for low vulnerable areas.

#### 5. CONCLUSION

Bathymetric surveys allow us to measure the depth of a water body as well as map the underwater features of a water body. Bathymetric surveys allow us to measure the depth of a water body as well as map the underwater features of a water body. We use bathymetric surveys for many different types of research including immdation, DEM of streams and topography. For our purposes, we applied a survey data associated with satellite images which indicates that approximately, about 80% of the study area was digitized from paper charts. The depth of the study area were found maximum 12 m with 1.5 to 1.9 m/s current velocity. The migration of sand ridges or sediment transport was not found in the study area. In the vicinity of the Dhama port shape and migration of the sediment was very least in the area nearest the shoreline, and eroding offshore. This study does not show any near shore deposition pattern or changing topography over the short timescale.



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917 F (0674) 2362918

Report No: BBS/600A

Date: 01.08.2021

#### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/00988
Type of Sample	Ambient Air Sample
Sampling Location	Calony Area
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

		PARAMETERS												
Date	PM <sub>10</sub> (µg/m <sup>2</sup> )	PML5 (ug/m²)	50 <sub>1</sub> ()(g/m <sup>3</sup> )	NOx (pg/m²)	(mb,m <sub>2</sub> )	NH <sub>3</sub> (mg/m <sup>2</sup> )	O <sub>2</sub> ((@/m²)	(pg/m²)	N) (ng/m²)	As (ng/m²)	Cella (pg/m²)	(ng/m²)		
04.07.202.1	43.10.	25.50	6.87	18.49	0.56	17.66	<20.0	<0.01	<5.0	<1.0	<4.7	<0.5		
07.07.2021	44.00	2434	6.04	19.10	0.61	15,60	<20,0	<0.01	< 9,0	<1.0	<4.2	<0.5		
11.07.2021	44.30	22.50	6.75	22.66	0.67	18.90	<20.0	⊲0.01	<5.0	<1.0	<4.2	<0.5		
14,07,2021	41.00	22.00	6.88	17.55	0.40	14.00	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5		
18.07.2021	42.10	22.10	6.12	17.78	0.64	13.51	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5		
21,07,2021	44.10	24.10	6.27	20,62	0,44	18,80	<20.0	⊲0.01	<5.0	<1.0	<4.2	-40.5		
25,07.2021	43,00	24.30	6.33	16.54	0.54	12.32	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5		
28.07.2021	44,60	23.10	6.08	19.00	0.51	16.57	<20,0	<0.01	<5.0	<1.0	~1.2	<0.5		
Monthly Average	45.27	23.49	6.41	18.97	9.55	15.92	<20.0	<9.01	<5.0	<1.0	<4.2	<0.5		
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	9	20	6	5	t		
Time Weighted Average (brs.)	24	24	24	24	. )	24	t	24	Anneal	Anoual	Annual	Anna		
TEST METHOD	15 5182: Part 23:20 06 (Reaff - 2012	1S 5182: Part 24:201 9	18 5182 : Part 2 :2001 (ReafE 2012	18 5182 : Part 6 :2006 (Reaff, 2012)	IS 5182 : Part 10 :1999 (Reaff20 14)	18 5182: Part 25:201 8	15 5182: Part 09:197	EPA - 103.43 unr.19 99	EPA- 103.4Ju nr,1999	EPA - 103.4Ju ne,1999	IS:5182( Part- 11):2006 Reaff,20 12	tS:51826 Fart- 12):3000 Reuff.; 2014		

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gent. Netification

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N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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Report No: BBS/600B



Date: 01.08,2021

#### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bladcak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/00988
Type of Sample	Ambient Air Sample
Sampling Location	Kanak Prasad Village
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Munituring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

Date						PAI	RAMETER	8				
Date	PM <sub>II</sub> (rg/m²)	PMLs (eg/m²)	SO <sub>2</sub> (µg/m <sup>2</sup> )	NOx (sg/m²)	(mg/m²)	N11, (µg/m²)	O <sub>2</sub> (sq/m²)	Pb (ng/m²)	Ni (ng/m²)	As (ng/m²)	C <sub>4</sub> H <sub>4</sub> (pg/w <sup>2</sup> )	llair (ng/m²)
04.07.2021	48.00	25.10	6.29	19.92	0.44	16.55	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
97.07.2021	47.00	26.80	7.11	22.45	0.69	19.10	<20.0	<0.01	<5.0	<1.0	-04.2	<0.5
11.07.2021	49.10	23.60	6.32	20.91	0.60	15.70	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
14.07.2021	45.00	23.10	6.46	18.54	0.49	15.77	<20.0	< 0.01	<5.0	<1.0	-0.2	<0.5
18.07.2021	44.00	21.50	6.03	16.27	0.54	12.33	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
21.07.2021	47.10	24.70	0.67	18,56	0.62	14.40	<20.0	<0.01	<5,0	<1.0	<4.2	<9.5
25.07.2021	44.90	22.90	6.28	14,87	0.40	19.13	<20.0	<0.01	<5.0	<1.0	<4.2	-48.5
28.67.2021	45.80	21,20	7.42	20.50	0.87	16.30	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
Monthly Average	46.11	23.61	6.57	19.00	0.58	16.16	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
CPCII, New Delhi AAQ Standard	100	60	80	80	4	400	180	3	-26	-6	5	1
Time Weighted Average (hrs.)	24	24	24	24	_1	24	1	24	Annual	Annual	Ainsul	Annal
TEST METHÓD	15 5182: Part 23:20 06 (Reatt . 2012	IS 5182: Part 24:201	18 5182 1 Part 2 :2001 (RealL 2012	(S 5182 : Part 6 :2006 (Reall, 2012)	1S 5182 : Part 10 :1999 (Reaff.20 14)	15 6182: Part 25:201 8	18 5182: Part 69:197 4	EPA - 103.43 nne.19 99	EPA - 103.43a nc,1999	EPA - 103.4Ju ne,1999	15:5182( Part- 11):2906 Reaff,20 12	IS:5182/ Part- 12):2004 Reaff,: 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

S. Karryo Prepared By





N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037]

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Report No: HBS/600C

Date: 01.08.2021

#### AMBIENT AIR QUALITY MONTTORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhudrak, Odisha
Work Order No.	4800058096
Reference Na.	MSKGL/ED/2020-21/00988
Type of Sample	Ambient Air Sample
Sampling Location	Near BMH
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

					_	PAR	RAMETER	5				
Date	PM <sub>D</sub> (rg/m²)	PMas (jug/m²)	SO <sub>1</sub> (µg/m²)	NOs (µg/m²)	(mg/m²)	NH <sub>3</sub> (sig/se <sup>2</sup> ).	Oy (us/m²)	Ph (ag/m²)	Ni (ng/m²)	As (ng/m²)	Calle (up/m²)	Haf' (ng/m²)
01.07,2021	58.00	25.80	6.21	18.49	0.56	16.2%	<20.0	<0.01	<4.0	<1.0	<1.2	40.5
07.07.2024	.57.00	25.50	7.28	25.63	0.61	21.45	<20,0	< 0.01	<5.0	<1.0	<4.2	<0.5
11.07,2021	56.20	27.10	6.54	22.66	0.56	18,10	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
14,07,2021	53.00	24,00	6,11	17.55	0.44	14,38	<20,0	<0.01	<5.0	<1.0	<4.2	-0.5
18.07,2021	54.60	24.10	6.97	23.89	0.65	20.47	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
21.07.2021	.52.70	26.90	6.30	20.62	0.57	15.28	<20,0	<0.01	<5.0	<1.0	<4.2	-0.5
25.07,2021	57.00	25.20	6.58	21.67	0.71	18.39	<20.0	<0.01	<.00	<1.0	<4.2	-41.5
28.07.2021	51.60	24.80	7.02	24.44	0.67	19.42	<20.0	<0.01	<3.0	<1.0	<4.2	10.5
Monthly Average	55,01	25,42	6.63	21.87	0.60	17.97	<20.0	<0.01	<5.0	<1.0	c4.2	<0.5
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	1
Time Weighted Average (hrs.)	24	24	24	24	1	24	1	24	Annual	Annual	Annual	Anna
TUST METHOD	1S 5182: Part 23:20 06 (Reaf £ 2012	18 5182: Part 24:20 19	15 5182 : Part 2 :2001 (Reaff ,2012	IS 5182 : Part 6 :2006 (Reaff .2012)	IS 5182 : Part 10 :1999 (Reaff.2 014)	18 5182: Part 25:20 18	18 5182: Part 09:19 74	EPA- 103.4 June, 1999	EPA - 103,4Ju ne,1999	EPA - 103.4Ju ne,1999	(S:5182 (Part- 11):200 6 Res0,2 912	1S:5187 (Part- 12):206 4 Reaff,: 2014

N.B. \*NAAQ: National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Natification

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N-5/100, Ground Floor IRC Village, Nayapalii Bhutianeswar - 751015 [CIN: U51909WB1956PTC023037]

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Report No: BBS/600D

Date: 01.08.2021

#### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Cempany Limited, Dosiega, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/00988
Type of Sample	Ambient Air Sample
Sampling Location	Near Jetty
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

		PARAMETERS												
Uste	PMm (He/m²).	(pole)	50; (mg/m²)	NOx (no/m²)	(mg/m²)	NH <sub>3</sub> (ag/ar <sup>3</sup> )	(rg/m³)	Ph (µg/m²)	Ni (ng/m²)	(ng/w <sup>3</sup> )	Celle (pg/m²)	Bar (ag/m²)		
04.07.2021	59.00	33.40	6.98	26.63	0.67	24.63	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5		
67.67.2021	58.50	32.26	7.6k	29,45	0.72	27.31	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5		
11.07.2021	63.40	31.90	7.84	25.34	0.69	28.10	<30.0	-0.01	<5.0	×1.0	~4.2	<0.5		
14.07.2021	57.00	30.00	6.81	24,00	0.65	19.40	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5		
18.07.2021	60.60	28.50	6.75	24.51	0.64	20.15	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5		
21.07.2021	61.50	29.40	7,41	25.32	0.81	27.24	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5		
25.07.2021	63.00	31.19	7.36	20.10	0.29	26.45	<20.0	<0.01	<5.0	<1.0	<4.2	-0.5		
28.07.2021	59.00	28.90	7,42	22.89	0.69	22.41	<20.0	≠0.01	<5.0	<1.0	<4.2	<0.5		
Alunthly Average	60.25	30.69	7.28	24,78	0,70	24.46	<20,0	<0,01	<5.0	<1,0	<4.2	<0.5		
CPCB, New Dethi AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	1		
Time Weighted Average (hrs.)	. 24	24	24	24	1	24	1	24	Annual	Annual	Annual	Annual		
TEST METHOD	IS 5182: Part 23:20 06 (Reaf £ 2012	18 5182: Part 24:20 19	18 5182 : Part 2 :2001 (Reulf :2012	18 5182 : Part 6 :2006 (RealT .2012)	IS 5182 : Part 10 :1999 (Reaff.2 014)	1S 51K2: Part 25:20 18	IS 5182: Part 09:19 74	EPA - 103.4 June, 1999	EPA - 103.4Ju pr,1999	EPA - 103,4Ju ne,1999	IS:5182 (Part- 11):200 6 Reaff,2 012	(S:5182 (Vart- 12):200 4 Renff;: 2014		

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

S. Karrigo Prepared By - J



TESTING INSPECT

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917 F: (0674) 2362918

Report No: BBS/600E

Date: 61.08.2021

#### AMBIENT AIR QUALITY MONITORING REPORT

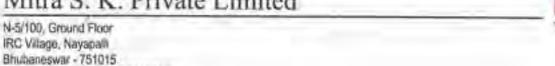
Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/00988
Type of Sample	Ambient Air Sample
Sampling Location	Dosinga Village
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

	-	PARAMETERS												
Date	PMm (pg/m²)	PM <sub>15</sub> (µg/m <sup>2</sup> )	50 <sub>2</sub> (sg/m²)	NOx (#E/m²)	(mg/m²)	NII <sub>2</sub> (sq/sr <sup>2</sup> )	(ug/m²)	Ph. (sq/m²)	Ni (ng/m²)	As (ng/m²)	Calla (seg/m²)	(ng/o <sup>2</sup> )		
04.07.2021	45.70	26,00	6.54	19.67	0,66	16.23	<20.0	<0.01	<5.0	<1.0	<4.2	-0.5		
07,07,2021	45,00	25,40	6.42	17.50	0.57	16.30	<20.0	<0.01	-5.0	<1.0	<4.2	-0.5		
11,07,2021	44.10	23.70	6.22	21.69	0.65	1731	<20.0	<0.01	<5.0	<1.0	-44.2	<0.5		
14.07.2021	42.00	20.60	6.56	15.54	0.70	12.00	<20.0	<0.01	<5.0	≤1.0	<4.2	<0.5		
18.07,2021	43.20	22.00	6.37	22.13	9.60	19.35	<20.0	<0.01	<5.0	<1.0	- <4.2	<0.5		
21,07,2021	42.10	25.00	6.22	20.23	0.47	15.41	<20.0	<0.01	<5.0	<1.0	<4.2	⊲0.5		
25.07.2021	44.60	24.10	6.19	18,70	0.46	14.82	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5		
28.07.2021	40.00	22.00	7.23	17.13	0.74	17.10	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5		
Monthly Average	43.34	23.60	6.51	19.0.7	0.61	16.06	<20.0	< 0.01	<5.0	<1.0	<4.2	-0,5		
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	ń	20	6	5	1		
Time Weighted Average (hrs.)	24	24	24	24	£	24	ā	24	Annual	Annual	Annual	Annua		
TEST METHOD	15 5182: Part 23:20 06 (Reaf f, 2012	18 5182: Part 24:20 19	18 5182 : Part 2 :2001 (Reaff _2012	1S 5182 : Part 6 :2006 (Reaff :2012)	18 5182 : Part 10 :1999 (Reaff.2 #14)	15 5182; Part 25:20 18	IS 5182: Part 09:19 74	EPA - 103.4 June, 1999	EPA - 103.4Ju ne,1999	EPA - 103.4Ju ne,1999	IS:5182 (Part- 11):200 6 Realf;2 012	(S:5182 (Part- 12):200 4 Reaff,: 2014		

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th New. 2009 Gutt. Natification

S. Kango Prepared By - F







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[CIN: U51909WB1956PTC023037]

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Report No: BBS/600F

Date: 01.08.2021

#### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4800058096
Reference No.	MSKGL/ED/2020-21/00988
Type of Sample	Ambient Air Sample
Sampling Location	Near Bhitarkanika
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

	-					PAR	AMETER	8				
Date	PM <sub>IA</sub> (µg/m <sup>2</sup> )	PM <sub>L1</sub> (ug/or <sup>2</sup> )	SO <sub>2</sub> (pg/m²)	NOs (µg/ar²)	(mgw')	NI6 (m/m²)	(Ap/m²)	Ph (hg/m²)	NI (eg/m²)	As (ng/m²)	C <sub>4</sub> D <sub>4</sub> (ag/m <sup>2</sup> ).	flair (mg/m²)
04.07.2621	43.30	23.40	6.47	19.85	0.64	15.20	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
07.07.2021	43.90	23.00	6.26	19.21	0.58	16.37	<20,0	<0.01	<5.0	<1.0	<4.2	-0.5
11.07.2021	41.00	22.00	6.39	20,34	0.42	14.59	<20,0	<0.01	<5.0	<1.0	<4.2	<0.5
14.07.2021	37.90	24.80	6.56	24.22	0.64	14.00	<20.0	<0.01	<5.0	<1.0	<4.7	<0.5
18.07.2021	39,10	22.50	6.62	22.15	0.67	15.23	<20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5
21.07.2021	40.40	23.40	6.28	23.00	0.72	16.67	<26.0	<0.01	<5.0	<1.0	<4.2	<0.5
25.07.2021	39.60	21.00	6.61	17.56	0.66	17.39	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
28.07.2021	41.20	20.90	6.33	20.12	0.65	17.31	<20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5
Monthly Average	40.30	22.72	6.44	20.50	0.62	15.84	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
Delhi AAQ Stantard	100	60	80	80	41	400	180	1	20	6	:5	1
Time Weighted Average (hrs.)	24	24	24	24	ì	24	Ü	24	Annual	Annual	Annual	Anna
TEST	IS 5182: Part 23:20 06 (Reaf L 2012	18 5182: Part 24:20 19	18 5182 : Pari 2 :2001 (Reaff ,2012	18 5182 : Part 6 :2006 (Reaff :2012)	IS 5182 ; Part 10 ;1999 (Reaff.2 014)	18 5182: Part 25:20 18	15 5182: Part 09:19 74	EPA - 103,4 June, 1999	EPA = 103,4Ju ne,1999	EPA - 103.4Ju ne,1999	IS:5182 (Part- 11):200 6 Rraff,2 012	1S:5182 (Part- 12):206 4 Reaff; 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

J. Kanner



MSK TESTING THE STEETION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No.: BBS/601 Date: 01.08.2021

Sample No.: MSKGL/ED/2020-21/07/00960 Sample Description: EFFLUENT WATER

Sampling Location : STP 15 KLD Date of sampling : 03.07,2021

#### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result		
No.		-	2000	zest specification	Inlet	Ontlet	
1.	Colour	Hazen	77	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear	
2.	Odour		14	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable	
3.	pH value at 26°C	-	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7,05	7.38	
4.	Appearance	-	-	Lab Method	Turbid	Clear	
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	360.0	<2,5	
6.	BOD	mg/l	<10.0	APHA (23rd Edition) 5210B 2017	40.0	<2.0	
7.	COD	mg/l	<50.0	APHA (23rd Edition) 5220B 2017	136.0	4.0	
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	5.1	<1.4	
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23rd Edition) 4500-NH3-F 2017	31.0	<0,1	
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	40.0	2.7	
11.	Faccal Coliform	MPN/ 100ml	<1000.0	APHA (23rd Edition) 9221 E	170.0	68.0	

Report Prepared by:



For Mitra S. K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1958PTC023037]

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

6DIST : BHADRAK, PIN :756171 ODISHA

Report No. : BBS/602 Date : 01,08,2021

Sample No.: MSKGL/ED/2020-21/07/00962 Sample Description: EFFLUENT WATER

Sampling Location: STP 140KLD Date of sampling: 03,07,2021

### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result		
					Inlet	Outlet	
1.	Colour	Hazen	- 2	APHA (23rd Edition) 2120B 2017	Blackish	Clear	
2.	Odour	-	-	APHA (23rd Edition) 2150B	Disagrecable	Agreeable	
3:	pH value at 26°C	-	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	6.97	7:32	
4.	Appearance	-		Lab Method	Turbid	Clear	
5.	TSS	mg/l	<20.0	APHA (23rd Edition) 2540D	71.0	<2.5	
6,	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	52.0	3.2	
7.	COD	mg/I	<50.0	APHA (23td Edition) 5220B 2017	210.0	17.0	
8.	Oil & Grease	mg/I	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	18.0	<1.4	
9,	Ammonical Nitrogen	mg/I	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	25.0	1.3	
10.	Total Nitrogen (as N)	mg/I	<10.0	IS 14684 (1999); Rffm:2014	34.0	2.31	
(Le	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	1200.0	120.0	

Report Prepared W:

OF LINE

For Mitra S. K. Private Limited

TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/603 Date : 01,08,2021

Sample No.: MSKGL/ED/2020-21/07/00970 Sample Description: EFFLUENT WATER

Sampling Location: STP 15 KLD Date of sampling: 18.07.2021

#### ANALYSIS RESULT

SL. No.	Test Parameters	Units	Limit	Test Specification	Result		
		1			Inlet	Outlet	
1.	Colour	Hazen	-	APHA (23rd Edition) 2120B 2017	Blackish	Clear	
2.	Odour		-	APHA (23rd Edition) 2150B	Disagreeable	Agreeable	
3.	pH value at 26°C	-	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	6.88	7.48	
4.	Appearance	-		Lab Method	Turbid	Clear	
5.	TSS	mg/l	<20,0	APHA (23 <sup>rd</sup> Edition) 2540D	256.0	<2.5	
6.	BOD	nig/I	<10.0	APHA (23rd Edition) 5210B 2017	55.0	3.2	
7.	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	198.0	14.2	
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	8.0	<1.4	
9,	Ammonical Nitrogen	mg/I	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	36.0	<0.1	
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	42.0	2.9	
11.	Faccal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	2200.0	80.0	

S. Karrigo Report Prepared by:



For Mitra S. K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/604 Date : 01.08.2021

Sample No.: MSKGL/ED/2020-21/07/00981 Sample Description: EFFLUENT WATER

Sampling Location: STP 140KLD Date of sampling: 18.07.2021

### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result		
				Zeas 2 Jestinemina	Inlet	Outlet	
1.	Colour	Hazen	-	APHA (23rd Edition) 2120B 2017	Blackish	Clear	
2.	Odour	-	*	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable	
3.	pH value at 26°C		6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7,22	7.69	
4.	Appearance	-	-	Lab Method	Turbid	Clear	
5.	TSS	mg/l	<20.0	APHA (23td Edition) 2540D	69.0	<2.5	
6.	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	45,0	3.0	
7.	COD	mg/I	<50,0	APHA (23rd Edition) 5220B 2017	187.0	16.0	
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	13.0	<1.4	
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	20.0	1.3	
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	28.0	2.1	
H.	Faccal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	920.0	95.0	

S'Kamje Report Prepared by:



For Mitra S. K. Private Limited

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Bhubaneswar - 751015

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[CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No.: BBS/605 Date : 01.08.2021

Sample No.: MSKGL/ED/2020-21/07/00721

Sample Description: Ambient Noise

#### Noise Level Monitoring Data

SL.	Sampling	Sampling		Day L T	ime dB(.	A)		Night Ti	me L dB	(A)
No	Date	Location	MAX	MIN	AVG.	LIMIT	MAX	MIN	AVG.	LIMIT
1.	03.07.2021	Colony Area (R)	47.2	40.4	41.6	55	37.1	35.8	36.2	45
2.	05.07.2021	Kanak Prasad Village (R)	43.5	39.1	40.8	55	36.7	35.5	36.3	45
3,	06.07.2021	Near BMH (I)	63.8	54.0	56,3	75	54.9	49.4	53.2	70
4.	10.07.2021	Near Jetty (I)	67.2	59,5	63.8	75	61.2	56.8	59.2	70
5.	12,07,2021	Dosinga Village (R)	49.2	41.8	42.5	55	37.4	35,2	36.1	45
6.	13.07.2021	Near Bhitarkanika ( Eco Sensitive Zone)	40.5	37.6	37.4	50	38.4	35.1	35.8	40

		Noise Limit as per CP	PCB
Category of Area/Zone	Leq dB(A) Day Time	Leq dB(A) Night Time	NOTE:
Industrial Area	75	70	Day Time: 06.00 Hr22.00 Hr.
Commercial Area	65	55	Night Time:22.00 Hr06.00 Hr.
Residential Area	55	45	
Silence Zone	50	-40	

Report Propared by:

S.K. PRIZE

For Mitra S. K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/606 Date : 01.08.2021

Sample No.: MSKGL/ED/2020-21/07/00728 Sample Description: Noise (Work Zone)

### Noise Level Monitoring Data

SL No	Sampling Date	Sampling Location	MAX	MIN	Results in Avg Leq dB(A)
b	01.07.2021	Stack Yard	83.4	46.8	64.1
2.	04.07.2021	Wagon Tippler	86.5	37.0	66.0
3.	07.07.2021	Near Silo	85.9	70.3	73.7
4.	08,07.2021	Near Stacker & Reclaimer	75.3	54.5	64,9
5.	11.07.2021	Project Area	83.7	47.4	61.0
6.	14.07.2021	Transfer Point	85.0	44.8	63.7
7,	15.07,2021	Workshop	88.7	57.3	71.5
8.	17.07.2021	Steel Yard	74.0	54.4	63.1
9.	18.07.2021	FCC Shed	81.8	49.8	54,3
10.	19.07,2021	Near Port Canteen	84.8	42.8	69.2

OSHA'S Permissible N	Noise Exposure Limits
Noise Level	Exposure Limit
90 dBA	8.0 hours

Report Prepared by:



For Mitra S.K. Private Limited

Authorized Signatory

H.O.: Shrachi Centre (5th Floor), 74B, Acharya Jagadish Chandra Bose Road, Kolkata - 700 016, West Bengai, India T; 91 33 4014 3000 / 2265 0006 / 2265 0007, F; 91 33 2265 0008, E; info@mitrask.com. W: www.mitrask.com

TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

6DIST: BHADRAK, PIN:756171 ODISHA

Report No.: BBS/607 Date : 01.08,2021

Sample No.: MSKGL/ED/2020-21/07/00964 Sample Description: EFFLUENT WATER

Sampling Location : STP 150KLD Date of sampling : 03.07.2021

#### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result		
					Inlet	Outlet	
1.	Colour	Hazen	*	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear	
2	Odour	-	-	APHA (23 <sup>rd</sup> Edition) 2150B	Disagrecable	Agreeable	
3.	pH value at 26°C	Addin.	6.5 - 9.0	APHA (23 <sup>rd</sup> Edition) 4500 H-B	7.30	7.35	
4.	Appearance	-	-	Lab Method	Turbid	Clear	
5.	TSS	mg/l	<20.0	APHA (23rd Edition) 2540D	116.0	8.0	
6.	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	58.0	6.4	
7.	COD	mg/l	<50.0	APHA (23rd Edition) 5220B 2017	215.0	30.0	
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>nt</sup> Edition) 5220B 2017	9.4	<1.4	
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	28.0	1.7	
10.	Total Nitrogen (as N)	mg/I	<10.0	IS 14684 (1999); Rffm:2014	37.0	4.7	
И.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23rd Edition) 9221 E	2200.0	140.0	

Report Prepared by:



For Mitra S. K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

Report No.: BBS/608 Date : 01.08.2021

Sample No.: MSKGL/ED/2020-21/07/00982 Sample Description: EFFLUENT WATER

Sampling Location: STP 150KLD Date of sampling: 18.07.2021

#### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result		
No.				22002/2000/00/00/00	Inlet	Outlet	
1.	Colour	Hazen	~	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear	
2.	Odour	-	-	APHA (23rd Edition) 2150B	Disagreeable	Agreeable	
3.	pH value at 26°C	-	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	6.97	7.44	
4.	Appearance		les (	Lab Method			
5.	TSS	mg/l	<20.0	APHA (23rd Edition) 2540D	134.0	6.8	
6.	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	80.0	7.1	
7.	COD	mg/l	<50,0	APHA (23rd Edition) 5220B 2017	358.0	27.8	
8.	Oil & Grease	mg/l	<10.0	APHA (23rd Edition) 5220B 2017	12.0	<1.4	
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23rd Edition) 4500-NH3-F 2017	42.0	1.4	
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	45.0	2.2	
11.	Faccal Coliforn	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	2000.0	130.0	

Report Prepared by:



For Mitra S. K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC0230371

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### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

Report No. : BBS/609 Date : 01.08.2021

Sample No.: MSKGL/ED/2020-21/07/00800

Sample Description: VOC Monitoring

#### ANALYSIS

SI. No	Date of Monitoring	Sampling Location	Method of Analysis	Parameter	Result
i.	06.07.2021	Jetty			<0.008
2.	06.07.2021	Wagon Tippler			<0.008
3.	07.07.2021	Near Silo	Wagon Tippler  Near Silo  NIOSH-1501  (ransfer Point	Volatile Organic Compound ( VOC in mg/m³)	<0.008
4	07.07.2021	Transfer Point			<0.008
5.	08.07,2021	BMH Workshop			<0.008
6.	08.07.2021	Steel Yard			<0.008
7.	10.07.2021	FCC Shed			<0.008
8.	10.07.2021	10.07.2021 SS 6 Office			<0.008

Report Prepared by:



For Mitra S. K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapelli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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F (0674) 2362918

### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA DIST : BHADRAK, 756171 ODISHA Report No. : BBS/610 Date : 01.08,2021

Sample No.: MSKGL/FD/2020-21/07/00966

Date of sampling : 17.07.2021

Sampling Description: Ground Water (Plezometric) Sampling Location: Township Pump House Sampling Done By: Mr. Kunja Bihari Nayak

### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

DL No	Test Parameters	Units	P.L. De		
			Limit	Test Method / Specification	Result
A.	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	2.000.000
2	Total Coliforn Organism	/100ml	Not Detectable		Not Detected
		CTOOLL	Not Detectable	IS; 15185 : 2016	Not Detected

CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012 Requirement Permissible limit 51. Test Parameter Unity (Acceptable No. in the absence of Test Method / Specification Ausult Limit) alternate Source pH ( at 26° C) No Relaxation 6.5 - 8.5 IS 3025 (Part 11)-1984 Rffm; 2012. 7.4% 2. Sulphate (ns SO<sub>4</sub>) mg/l 200 400 18 3025 (Part 24)= 1986 Rifin; 2014 3: 4.50 Calcium (as Ca) mg/I75 200 IS 3025 (Part 40)- 1991 Rifm: 2014 42,00 4. Amenic (as As). mg/L 0.01 0.05 IS 3025 (Part 2) 2004 RA 2014 BDL(DL/0.005) 5 Lead (as Ph)  $m_B/I$ 0.01 No Relexation 1S 3025 (Part 2) 2004 RA 2014 BDL(DL:0.005) 6. Zinc (as Zn) mg/l 5.0 15.0 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.02) 7. Copper (as Cu) mg/l 0.05 1.5 LS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.02) 8. Mercury (as Hg) mg/l 0.001 No Relaxation IS 3025 (Part 48)-1994 Riffin: 2014 BDL(DL:0.0002) 9 Cadmium (as Cd) mg/l No Relaxation 0.003IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.001) 10. Mineral Oil mg/l 0,5 No Relecation IS 3025 (Part 39)-1991 Rffm: 2014 11. Fluoride (as F) BDL(DL:0.5) mg/I 1.0 1.5 1S 3025 (Part 60)- 2008 Rffm: 2013 12 Colour BDL(DL:0.2) Hazen 5 15 3025 (Part 4)-1983; Rffm:2012 BDL(DL:1.0) 13, Odeur Agreeable Agreeable IS 3025 (Part 5)-1983 Rffm:2012 14. Agrecable **Furbidity** N.J.U T IS 3025 (Part 10)-1984 Rffm: 2012 BDL(DL:1.0) 15 Residual free Chlorine me/l 0.2 1.0 IS 3025 (Part 26)- 1986 Rffnr:2014 16. BDL(DL:0.1) Iron (as Fe) migs/l. 0.3 No Relaxation IS 3025 (Part 53)-1988 Rffin: 2014 BDL(D1:0.05) 17 Chloride (as CI) mg/I 250 1000 1S 3025 (Part 32)-1988 Rffin: 2014 Total Dissalved Solids 70.00 18 mg/i 500 2000 1S 3025 (Part 16)-1984; Rffm:2012 19 301.00 Alkalimity (as CaCO)1 mg/l 200 500 18 3025 (Part 23)- 1986 Rffin: 2009 20. Aluminium (as:Al) 189.00 mg/I 0.03 0.2 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.01) 21 Magnesium (as Mg) mg/l 50 100 IS 3025 (Part 46)-1994 Rffin: 2014 18.00 Total Dantness 22: my/I 200 600 (in CaCO.) IS 3025 (Part 21)-2013 177.00 27 Boron (as B) mg/L 0.5 1.0 IS 3025 (Part 2) 2004 RA 2014 24 Manganese (as Mn) BDL(DL:0.3) mig/i 0.1 0.3 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.02) 25 Nitrale (as NO<sub>3</sub>) mg/145 No Relaxation IS 3025 (Part 34)-1988 Rffm: 2014 BDL(DL:0.4) Phenolic Compounds 26 0.001 0.002 IS 3025 (Part 43)- 1992; RIffer: 2014 (as C.H.OH) mg/L DDL(DL:0.001) 27. Selenium (as Se) mg/l 0.01 No Relaxation IS 3025 (Part 2) 2004 RA 2014 HDL(DL:0.005) 28. Total Chromium ( as Cr) mg/I 0.05 No Relaxation IS 3025 (Part 2) 2004 RA 2014 29. BDL(DL:0.01) Silver ( as Ag) mg/10.1 No Relaxation IS 3025 (Part 2) 2004 RA 2014 30. BDL(DL:0.005) Barisma (its Ha) 0.7 mas/F No Relaxation 1S 3025 (Part 2) 2004 RA 2014 BDL(DL:0.1) 31. Salinity me/L IS 3025 (Part 14)- 2013 118,00



Ref. No. BBS/601

Date- 01.08.2021

32.	Sulphide ( as H2S)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rffm: 2014	TIPLE ONL DOM
33)	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffm: 2014	BDL(DL:0.02)
34.	Chloramines	mg/t	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Riffin: 2014	
35.	Nickel ( as Ni)	mg/I	0.02	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
36.	Cyanide (as CN)	mg/I	0.05	No Relaxation	1S 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0,01)
37,	Anionic Detergents (as MBAS)	mg/)	0.2	1.0	IS-13428(Annex K)-2005	BDL(DL:0.01) BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relexation	APHA ( 23 <sup>rd</sup> Edtn.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005

S. Karnge\_ Report Prepared by:

STAND THE LIME OF

For Mitra S. K. Private Limited.

TESTING WINKPEGTIC

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN - US1000WB1056077

[CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917 F (0674) 2362918

Name & Address of the Customer:
THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN (75617) ODISHA

TEST REPORT

Report No. : BBS/611 Date : 01.08,2021

Sample No.: MSKGL/FD/2020-21/07/00967

Date of sampling : 17.07.2021

Sampling Description : Ground Water (Piezometric)

Sampling Location: Pump House WTP Sampling Done By: Mr. Kunja Bihari Nayak

### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

Sl. No	Test Parameters	Units	Limit	Test Method / Specification	Result
L	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2.	Total Coliform Organism	/100m1	Not Detectable	IS: 15185 ; 2016	Not Derected

#### CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL No.	Test Parameter	Units	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1	pH (at 26°C)	-	6.5 - 8.5	No Relaxation	1S 3025 (Part 11)-1984 Rffm: 2012	7.62
2	Sulphate (as SO <sub>4</sub> )	rog/I	200	400	IS 3025 (Part 24)- 1986 Rffin: 2014	4,50
3.	Calcium (as Ca)	mg/I	75	200	1S 3025 (Part 40)- 1991 Rffin; 2014	47.00
4.	Arsenic (as As)	mg/l	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5	Lead (as Pb)	mg/i	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6,	Zinc (as Zn)	mg/l	5.0	15.0	JS 3025 (Part 2) 2004 RA 2014	RDL(DL:0.02)
7.	Copper (as Cu)	mg/I	0.05	3.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (no fig)	mg/l	0.001	No Relaxation	1S 3025 (Part 48)-1994 Rffm: 2014	BDL(DL:0.0002)
9.	Cadmium (as Cd)	mg/I	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Miseral Oil	mg/t	0,5	No Relaxation	1S 3025 (Part 39)-1991 Riffin: 2014	BDL(DL:0.5)
11.	Fluoride (as F)	mg/l	1,0	1.5	IS 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL-0.2)
12	Colour	Hazen	3	15	3025 (Part 4)-1983; Rffin:2012	HDL(DL:1.0)
U.	Odour	-	Agrecuble	Agreeable	1S 3025 (Part 5)-1983 Rffm:2012	Agreeable
14.	Turbidity	N.T.U	1	5	IS 3025 (Part 10)-1984 Riffer: 2012	BDL(DL:1.0)
15	Residual free Chloring	ing/t	0.2	1.0	IS 3025 (Part 26)- 1986 Rffim:2014	BDL(DL:9.1)
16.	Ima (as Fe)	mg/I	0.3	No Relaxation	1S 3025 (Part 53)-1988 Rffire 2014	BDL(DL:0.05)
17.	Chluride (as CI)	mg/7	250	1000	IS 3025 (Part 32)-1988 Riffin: 2014	64.00
18.	Total Dissolved Solids	mg/l	500	2000	1S 3025 (Part 16)-1984; Rillin:2012	281.00
19.	Affalinity (as CaCO <sub>3</sub> )	mj/l	200	600	18 3025 (Part 23)- 1986 Rffin: 2009	158.00
20.	Aluminium (as Al)	mg/l	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(D1:0.01)
21.	Magnesium (as Mg)	mg/l	30	100	IS 3025 (Part 46)-1994 Rffm: 2014	12.00
22,	Total Hardness (as CaCO <sub>3</sub> )	mg/l	200	000	IS 3025 (Part 21)-2013	171.00
23.	Boron (as B)	mg/i	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (es Mn)	imie/l	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>3</sub> )	ing/T	45	No Relaxation	1S 3025 (Part 34)-1988 Rffin: 2014	BDL(DL:0.4)
26.	Phenotic Compounds (as C <sub>s</sub> H <sub>4</sub> OH)	ing/l	0.001	0.002	IS 3025 (Part 43)- 1992; Riffin: 2014	BDL(DL:0.001)
27.	Selenium (as Se)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDD(DL:0.005)
28.	Total Chromium ( as Cr)	nig/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( as Ag)	mg/I	0.1	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Hursum (as Ba)	mg/l	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31	Salinity	mg/l		- CO INCHINATION	IS 3025 (Part 14)-2013	131.0



### Ref. No. BBS/611

### Date- 01.08,2021

32	Sulphide (as H2S)	mg/T	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Rffin: 2014	BDL(DL:0.02)
33.	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
35.	Nickel ( us Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	1S 3025 (Part 27)- 1986 Rffim: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	ntg/t	0.2	1.0	18 13428(Annex K)-2005	BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edm.) 6440C	BDL(DL:0,0001)
39	Polychlarinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:



For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Navapalli Bhubaneswar - 751015

(CIN: U51909WB1956PTC023037)

T: (0674) 2362916, 2360917

F., (0674) 2362918

### TEST REPORT

Name & Address of the Customer :

THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST | BHADRAK, PIN :756171 ODISHA

Report No. : BBS/612 Date : 04.08,2021

Sample No.: MSKGL/FD/2020-21/07/00968

Date of sampling : 17,07,2021 Sampling Description : Ground Water (Piezometric)

Sampling Location : Running Room

Sampling Done By ; Mr. Kunja Bihari Nayak

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No.	Test Parameters	Units	Limit	Test Method / Specification	Result
1.	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2.	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No.	Test Parameter	Units	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH (at 26"C)	-	6.5 - 8.5	No Relaxation	IS 3025 (Part 11)-1984 Rffin: 2012	7,70
2	Sulphate (ns SO <sub>4</sub> )	mg/l	200	400	1S 3025 (Part 24)- 1986 Jtfin: 2014	4.30
3.	Calcium (as Ca)	mg/I	75	200	IS 3025 (Part 40)- 1991 Rffin: 2014	37.00
14	Amenic (as As)	10)0/1	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lead (as Pb)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (as Zn)	mg/t	5.0	15.0	18 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (us Cu)	mg/l	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
S.	Merciary (as Hg)	mg/l	0.001	No Relaxation	IS 3025 (Part 48)-1994 Rifm: 2014	BDL(DL-0.0002
9.	Cadmium (as Cd)	mg/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/L	0.5	No Relaxation	IS 3025 (Part 39)-1991 Rfflm: 2014	BDL(DL:0.5)
11	Fluoride (ms F)	mg/l	1.0	1.5	JS 3025 (Part 60)- 2008 Riffin: 2013	BDL(DL:0.2)
12.	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffin:2012	BDL(DL:1.0)
13.	Odour	-	Agrecable	Agreemble	IS 3025 (Part 5)-1983 Riffm:2012	Agreeable
14	Turbidity	N.T.D	1	5	15 3025 (Part 10)-1984 Riffin: 2012	BDL(DL:1,0)
15.	Residual free Chlerine	0397-	0.2	1.0	1S 3025 (Part 26)- 1986 RIfm:2014	BDL(DL(0.1)
16.	Iron (as Fe)	mj/I	0.5	No Relaxation	IS 3025 (Part 53)-1988 Hffm: 2014	BDL(DL:0.05)
17.	Chloride (as Cl)	mg/T	250.	1000	1S 3025 (Part 32)-1988 Rffm: 2014	75.00
18:	Total Dissulved Salids	mg/I	500	2600	IS 3025 (Part 16)-1984; Rffm: 2012	285.00
19	Alkalinity (as CaCO <sub>1</sub> )	mg/I	200	600	1S 5025 (Part 23)- 1986 Rffin: 2009	170.00
20.	Alaminium (as Al)	:mg/1	0.03	0.2	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mp/l	30	100	IS 3025 (Part 46)-1994 Rifm: 2014	18.00
22	Total Hardness (as CaCO-)	mg/f	200	600	18 3025 (Part 21)-2013	170,00
23.	Doron (as B)	mg/l	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	mg/L	0.1	0.5	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>3</sub> )	mu/L	45	No Relaxation	1S 3025 (Part 34)-1988 Rffin: 2014	BDL(DL:0.4)
26.	Phenolic Compounds (es C_HoH)	mg/l	0.001	0,002	IS 3025 (Part 43)- 1992; Riffin: 2014	BDL(DL:0.001)
27	Selenium (as Se)	mo/f	10.0	No Religation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28	Total Chromium (as Cr)	mg/i	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29	Silver (as Ag)	mg/l	0.1	No Relaxation	TS 3025 (Purt 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barium (as Ba)	mgri	0.7	No Relocation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31	Salinity	mg/1	_	remain .	15/3025 (Part 14)- 2013	128.00



### Ref. No. BBS/612

### Date- 01.08,2021

32.	Sulphide ( as H2S)	mg/l	0.05	No Relaxation	I III allog day a hora a series a	
33.	Ammonia ( as total	1000			IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(D1:0.02)
Section 1	ammoniu-N)	reig/1	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation		
35.	Nickel ( as Ni)	mg/I	0.02	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
37.	Anionic Detergents	mg/I		THE ENGLISHMENT	IS 3025 (Part 27)- 1986 Rffin: 2014	BDL(DL:0.01)
571	(IIS MBAS)		0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
70	Polymelear Aromatic				22.72	the references?
38.	Hydrocarbons (as PAH)	Paget	1000.0	No Relaxation	APHA ( 23rd Edtn.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated	Transition 1	0.000	1000 750		
	Biphenyls (PCB)	mg/l	0.0005	No Relexation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

ARITA STATE

For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC0230371 TESTING INSPECTION

T: (0674) 2362918, 2360917

F: (0674) 2362918

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

### TEST REPORT

Report No. : BBS/647

Date : 01.08.2021

Sample No. : MSKGL/ED/2020-21/07/00929

Sample Description : Sea Sediment

Sampling Location: Dredging Disposal Site

Date of sampling : 05.07,2021

#### ANALYSIS RESULT

SL No.	Parameters	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7.92
2	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	1634.0
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm;2015	0.88
4.	Moisture content	%	Lab Method	33.0
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	1342.0
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	281.0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	-5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	8.2
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	5.4
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	11.2
U,	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1732.0
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	196.0
13:	Copper (as Cu)	mg/kg	EPA 6010D	23.0
14.	Nickel (as Ni)	mg/kg	EPA 6010D	10.9
15.	Zinc (as Zn)	mg/kg	EPA 6010D	23.0
16.	Manganese (as Mn)	mg/kg	EPA 6010D	164,0



#### Ref. No. BBS/647

### Date- 01.08.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	5.1
18.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	<5.0
19.	Aluminium ( as Al )	mg/kg	EPA 6010D	2013.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	12.9
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	375.0
22,	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	297.0
23.	Total Petroleum Hydrocarbon	nig/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	45.0
26.	Silt	%	TPM/MSK/P&E/J/36A	29.0
27.	Texture	None	IPM/MSK/P&E/1/36A	Loam
28.	Clay	%	TPM/MSK/P&E/1/36A	26.0

### Biological Result

SI No.	Parameters	Unit	Results
L	Fungus (Phytobenthos)	CFU/g dry wt.	1323
2.	Total count (Phytobenthos)	50 mg wet sediment	266
3.	No of species (Phytobenthos)	Nos.	2
4.	Diversity index (Phytobenthos)		1.74
5.	Major Species (phytobenthos)		Gyrosigma sp., Navicula closterium "Biddulphia mobilensis
6.	Name of Phylum (Fauna)	-	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	-	Plychaeta-55,Bivalvia-21
8.	Total no. of species encountered (Fauna)	Nos.	22
9.	Total fauna (Fauna)	per m³	180

Report Prepared by:



For Mitra S.K. Private Limited
Authorized Signatory

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362918



Name & Address of the Customer; THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/648 Date : 01.08.2021

Sample No. : MSKGL/ED/2020-21/05/00930

Sample Description: Sea Sediment Sampling Location: Dredging Area Date of sampling : 05.07.2021

#### ANALYSIS RESULT

Sl. No.	<u>Parameters</u>	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7.78
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	2013.0
3.	Organic Matter	96	IS 2720 (Part 22)-1972; Rffin;2015	1.1
4.	Moisture content	1%	Lab Method	39.0
5.	Chloride (as C1)	mg/kg	TPM/MSK/P&E/1/10	1437.0
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	124,0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	<3.0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	5,2
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	10.4
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1976.0
12,	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	166.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	20.0
14.	Nickel (as Ni)	mg/kg	EPA 6010D	8.1
15.	Zinc (as Zn)	mg/kg	EPA 6010D	24.0
16.	Manganese (as Mn)	mg/kg	EPA 6010D	166.0



#### Ref. No. BBS/648

### Date- 01.08.2021

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17.	Lead (as Pb)	mg/kg	EPA 6010D	5.0
18.	Boron (as B)	mg/kg	IS 13428-2005, Annex H	<5,0
19.	Aluminium ( as AI )	mg/kg	EPA 6010D	2410.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	15.0
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	293.0
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	260.0
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	41.0
26.	Silt	%	TPM/MSK/P&E/1/36A	22.0
27.	Texture	None	TPM/MSK/P&E/1/36A	Clay Loam
28.	Clay	%	TPM/MSK/P&E/1/36A	37.0

### Biological Result

Si No.	Parameters	Unit	Results
1,	Fungus (Phytobenthos)	CFU/g dry wt.	1422
2.	Total count (Phytobenthos)	50 mg wet sediment	287
3.	No of species (Phytobenthos)	Nos.	6
4.	Diversity index (Phytobenthos)	-	1,97
5,	Major Species (phytobenthos)		Gyrosigma sp., Biddulphia mobilensis
6.	Name of Phylum (Fauna)		Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	_	Plychaeta-56,Bivalvia-19
8.	Total no. of species encountered (Fauna)	Nos.	17
9.	Total fauna (Fauna)	per m <sup>3</sup>	191

Report Prepared by:



For Mitra S.K., Private Limited

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917 F: (0674) 2362918



### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/649 : 01.08.2021 Date

Sample No. : MSKGL/ED/2020-21/07/00976

Sample Description: Sea Sediment

Sampling Location: Dredging Disposal Site

Date of sampling : 18.07.2021

#### ANALYSIS RESULT

Sl. No.	<u>Parameters</u>	Unit	Test Method	Result
I.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7.95
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	1675,0
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	0.87
4.	Moisture content	%	Lab Method	39.0
5.	Chloride (as C1)	mg/kg	TPM/MSK/P&E/1/10	600.0
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	267.0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	(1.0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	6.1
10	iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	17.0
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1654.0
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	154.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	17.0
14.	Nickel (as Ni)	mg/kg	EPA 6010D	10.4
15.	Zinc (as Zn)	mg/kg	EPA 6010D	37.0
16.	Manganese (as Mn)	mg/kg	EPA 6010D	183.0

# MSK TESTING INSPECTION

### Ref. No. BBS/649

Date-01.08.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	10.0
18.	Boron (as B)	ing/kg	IS 13428- 2005, Annex H	<5.0
19.	Aluminium ( as Al )	mg/kg	EPA 6010D	2008.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	14.6
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	386.0
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	286.0
23,	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<1,0
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	45.0
26.	Silt	%	TPM/MSK/P&E/1/36A	21.0
27,	Texture	None	TPM/MSK/P&E/1/36A	Clay Loam
28.	Clay	%	TPM/MSK/P&E/1/36A	36.0

### Biological Result

SI No.	Parameters	Unit	Results
L	Fungus (Phytobenthos)	CFU/g dry wt.	1428
2.	Total count (Phytobenthos)	50 mg wet sediment	212
3.	No of species (Phytobenthos)	Nos.	3
4.	Diversity index (Phytobenthos)	_	1.52
5.	Major Species (phytobenthos)		Gyrosigma sp ,Coscinodiscus sp
6.	Name of Phylum (Fauna)		Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	-	Plychaeta-84,Bivalvia-51
8.	Total no, of species encountered (Fauna)	Nos.	24
9,	Total fauna (Fauna)	per m <sup>3</sup>	241

Report Prepared by:



For Mitra S.K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapatii Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T; (0674) 2362916, 2360917

F: (0674) 2362918



Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/650 Date : 01.08.2021

Sample No. : MSKGL/ED/2020-21/07/00977

Sample Description: Sea Sediment Sampling Location: Dredging Area Date of sampling: 18.07.2021

#### ANALYSIS RESULT

Sl. No.	Parameters	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7.85
2,	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm;2006	1980.0
3,	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	0.93
41	Moisture content	%	Lab Method	42.0
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	1427.0
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	112.0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	<3.0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	5.0
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	9.5
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1954.0
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	166.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	17.0
14.	Nickel (as Ni)	mg/kg	EPA 6010D	7.3
15.	Zinc (as Zn)	mg/kg	EPA 6010D	25.0
16.	Manganese (as Mn)	mg/kg	EPA 6010D	158.0



Ref. No. BBS/650

F 2		 Sept. 4	Ni Ph	~ .
Dat	Dec 1	 100	711	7.1

11.				AL DEIDOLEDES
17.	Lead (as Pb)	ing/kg	EPA 6010D	5.1
18,	Boron (as B)	mg/kg	IS 13428-2005,Annex H	<5.0
19.	Aluminium ( as Al )	mg/kg	EPA 6010D	2356.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	12.3
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	270.0
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	247.0
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	9%	TPM/MSK/P&E/1/36A	40,0
26.	Silt	%	TPM/MSK/P&E/1/36A	23.0
27.	Texture	None	TPM/MSK/P&E/1/36A	Clay Loam
28.	Clay	%	TPM/MSK/P&E/1/36A	37.0
		-		77.00

## Biological Result

SINo.	Parameters	Unit	Results
t,	Fungus (Phytobenthos)	CFU/g dry wt.	1241
2.	Total count (Phytobenthos)	50 mg wet sediment	276
3.	No of species (Phytobenthus)	Nos.	4
4.	Diversity index (Phytobenthos)	- Control	1.96
5.	Major Species (phytobenthos)		Biddulphia mobilensis, Nizschia distans, Coscinodiscus
6.	Name of Phylum (Fauna)	-	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	1	Plychaeta-66,Bivalvia-28
8.	Total no. of species encountered (Fauna)	Nos.	24
9.	Total fauna (Fauna)	per m <sup>3</sup>	155

Report Prepared by

PAIL PAIL

For Mitra S.K. Private Limited



### Ref: MSKGL/ED/BHU-2021/00280

Date: 01.08.2021

### Site Specific Monitored Meteorological Data

## For: The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha

Sr. No.	Par	ameters	July.21
ŦĨ	La constant de la con	Minimum	25.6
1.	Temperature ( °C)	Maximum	38.2
		Average	30.3
	CANTEN TO DO MAN	Minimum	43.4
2.	Relative Humidity (%)	Maximum	93.9
		Average	70.9
	Color White	Minimum	0.28
3.	Wind Speed (m/s)	Maximum	14.17
		Average	3.66
4.	Wind Direction (%)	N	3.4
		NNE	5.47
		NE	9.22
		ENE	6.2
		E	2.8
		ESE	2,41
		SE	3.7
		SSE	2.4
		S	7.6
		SSW	5.2
		SW	18.6
		WSW	19.66
		W	7.8
		WNW	5.0
		CALM	0.54
500	4.004.00	Total	87.3
5.	Rainfall (mm)	Minimum Day Wise	0.0
		Maximum Day Wise	15.2
		Average	0.12
2.1		Minimum	747.8
5.	Ambient Pressure (mm Hg)	Maximum	758.7
	- Site Specific Data)	Average	751.7

(Source - Site Specific Data)

Prepared By S. Kamgo



Verified By

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T.: (0674) 2362916, 2360917

F : (0674) 2362918

Report No: BBS/800A



Date: 01.09.2021

### AMBIENT AIR QUALITY MONITORING REPORT

M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
4802006186
MSKGL/ED/2020-21/001278
Ambient Air Sample
Colony Area
Mr. Kunja Bihaci Nayak
24hrs
RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

Book.	-		_			PA)	RAMETER	5				
Date	PM <sub>ss</sub> (eg/m <sup>2</sup> )	PM <sub>1,5</sub> (pg/m <sup>3</sup> )	SO <sub>1</sub> (ug/m <sup>2</sup> )	NOs (rg/m²)	(mg/m²)	NH <sub>3</sub> (µg/m <sup>3</sup> )	(0 <sub>1</sub> (μη/m²)	Ph (ag/m²)	N) (ag/m²)	As (ag/m²)	C <sub>0</sub> R <sub>0</sub> (pg/m <sup>2</sup> )	Hol
01.08.2021	41.26	20.35	6.69	16.35	0.63	13.99	<20.0	< 0.01	<5.0	<1.0		(ng/nr*)
E4,08.2021	43.22	21.22	6,50	16.38	0.49	15.54	<20.0	-:0.01	<5.0	<1.0	-42	< 0.5
08.08.2021	43.66	23.18	6.28	19.65	0.51	17,06	<20.0	-30.01	<5.0		<42	<0.4
11.08.2021	40.25	21,44	6.18	17.85	0.38	15.28	<20.0	<0.01	<5.0	<1.0	<4.2	40.4
15.08.2021	42.84	22.54	6.24	16:54	0.45	15.64	<20.0	<0.01	<5.0	<1.0	<4.2	<0).5
18.08.2021	41.24	24.88	6.08	23.52	0.58	16.86	<20.0	< 0.01		<1.0	<4.2	< 0.5
22:08:2021	41.12	22.19	6.41	15.88	0.56	13.66	<20.0	<0.01	<5.0	<1.0	<4.2	=0.5
25.08.2021	43.00	25.18	6.24	21.00	0.54	16.40	<20.0		<5.0	<1.0	<4.2	<0.5
28.08.2021	43.16	25.00	6.46	21.32	0.62	17.12		10.0>	<5.0	<1.0	4.2	< 0.5
Monthly Average	42.19	22.89	6.34	18,72	0.53	15.72	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
CPCII, New Delhi AAQ Studani	100	60	80	80	4	400	180	1	20	6	5	<0.5
Time Weighted Average (ltrs.)	24	24	24	24	1	24	1	24	Annual	Annual	Annual	Aunual
TEST METHOD	15 3182; Part 23:20 06 (Reaff , 2012	15 5182: Part 24:201	18 5182 : Purt 2 :2001 (Reaff, 2012	IS 5182 : Part 6 72000 (Reaff 2912)	(S 5192 : Part 10 :1999 (Reaft 20 14)	IS 5182: Part 25:201	18 5182: Pvri 09:197	EPA - 103,41 unc,19 99	EPA - 103.40u er,1999	EPA - 103,4J <sub>H</sub> 10,1029	IS:5182( Part- 11):2006 Reaff,20 12	(S:5183/ Part- 12):2004 Resff.: 2914

N.B. "NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

Prepared By - V



Checked By- 10-10M



N-5r100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362918 No: BBS/800B

Date: 01.09.2021

# AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhames Bord Community
Work Order No.	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Reference No.	MSKGL/ED/2020-21/001278
Type of Sample	Ambient Air Sample
Sampling Location	Kunak Prasad Village
Sampling Done by	Mr. Knoja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Surroller
	The Control of the Co

Date	200.0	1	1		-	PA	RAMETER	US				
	PM <sub>10</sub> (µg/m²)	PM <sub>14</sub> (up/m <sup>2</sup> )	SO <sub>2</sub> (µg/m²)	NOx (ag/m²)	(mg/m²)	NIII, (Ag/m²)	(ng/m²)	Po- (pp/m²)	NI NI	At.	Cille	SinP
01.08.2021	the second second second	21.33	6,66	17.58	0.32	17.61	<20.0	-	(mg/m²)	(ingles')	(ug/m²)	(agow)
04.08.2021	47.99	25.18	6.89	20.31	0.45	15:30		<0.01	< 5.0	<1.0	<4.2	< 0.5
08.08.2021	43,64	23.60	7.08	19.56	0.29	17.32	<20.0	< 0.01	<5.0	<1.0	<4.2	≤0.5
11.08.2021	46,00	24.12	6.56	22.46	0.41	18.00	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
15.08.2021	46.19	25.40	6.57	17.85	0.36	-	<20.0	<0.01	<5.0	<1.0	<4.2	₹0.5
18.08.2021	40,66	20.71	6.18	15.72	0.40	18.12	<20.0	=0.01	<5.0	<1.0	<4.2	<0.5
22.08,2021	42.52	22.61	633	12.30	0.44	12.87	<20.0	<0.01	<5.0	<1.0	<4.2	-0.5
25.08.2021	47.00	24.18	6.38	22.00	0.81	11.77	<20.0	<0.01	<5.0	<1.0	<4.2	-0.5
28,08,2021	47.12	25.10	6.24	21,46		18.12	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
Monthly	45.14	-			0.87	18,34	<20.0	< 0.01	<50	<1.0	-4.2	<0.5
Average	95.19	23.58	6.54	18.82	0.48	16:31	<20.0	⊲0.01	<5.0	<1.0	<4.2	
Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	<0.5
Time Wrighted Average (lurs.)	24	24	24	24		24	1	24	Annual	Annual	Annual	Annual
TEST SECTIOD	ES 5182: Part 23:20 06 (Realf -2012	IS 5182: Part 24:201 9	18 5182 ; Part 2 :2001 (Reaff, 2012	IS 5382 : Part 6 :2006 (Reaft, 2012)	IS 5182 : Part 10 :1999 (Reaff.20 -14)	18 5182: Pari 25:201 8	IS 5182: Part 19:197	EPA - 103.44 unr.19 99	EPA - 103.4Ju no.1799	EPA - 103.63a ne,1999	15:5182( Part- 11):2686 Reaff,20 12	IS:5182( Part- 12):2004 Reaff,: 2014

N.B. \*NAAQ- National Ambient Air Quality Standard at per 18th Nov. 2009 Gatt. Netffication

Prepared By = \

Checked By- Buck



TESTING INSPEC

N-5/100, Ground Floor IRC Village, Neyapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362918

Report No: BBS/800C

Date: 01.09.2021

## AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001278
Type of Sample	Ambient Air Sample
Sampling Location	Near BMH
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monituring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

	1			_		PAI	RAMETER	5				_
Dute	I'Ma (µg/m²)	(jug/m²)	SO <sub>2</sub> (ng/m <sup>2</sup> )	NOx (µg/m²)	CO (#g/m²)	NH <sub>2</sub> (µg/m²)	O <sub>2</sub> (µg/m²)	Ph (m/m²)	Ni (ng/m²)	(mg/m²)	Calle (ag/m²)	Bull- (upin
01.08.2021	51,22	24.56	6.59	21.48	0.56	16,34	<20.0	<0.01	<5.0	<1.0	-04.2	
04.08,2021	55.43	26.12	7.04	21.46	0.71	18.12	<20.0	<0.01	<5.0	<1.0		<0.5
08.08.2021	53.45	24.84	6.18	22.84	0.68	17.56	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
11.08,2021	50.78	26.14	6.37	19.72	0.49	17.32	<20.0	<0.01	<5.0	<1.0	=4.2	=0.5
15.08.2021	59.77	25.64	7.00	24.74	0.65	20,34	<20.0	<0.01	<5.0		<4.2	< 0.5
18.08.2021	52.70	26,00	6.36	20.62	0.57	15.28	<20.0	<0.01	<5.0	<1.0	≤4.2	<0.5
22.08.2021	57.00	25.20	6.58	21.67	0.58	18.39	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
25.08.2021	51.60	24.80	7.02	20,46	0.67	19.42	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
28.08.2021	56.37	25.40	6.42	22.16	0.45	18.42	<20.0	<0.01		<1.0	<4.2	< 0.5
Monthly Average	54.25	25,41	6.61	21.68	0.59	17.91	<20.0	<0.01	<5.0	<1.0	<4.2 <4.2	<0.5 +0.5
CPCH, New Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	1
Time Wrighted Average (hrs.)	24	24	24	24	1.	24	1	24	Annual	Annual	Annual	Annua
TEST METROD	18 5182: Part 23:20 06 (Reaf L. 2012	15 5182: Part 24:20 19	1S 5182 : Part 2 :2001 (Reaff .2012	18 5182 : Part 6 :2006 (Reaff ,2012)	15 5182 : Part 10 :1999 (Reaft2 014)	IS 5182: Part 25:20 18	1S 5182: Part 09:19 74	EPA - 103.4 June, 1999	EPA - 103.4.lu ne,1999	EPA - 103.4Ju ne,1999	IS:5182 (Part- 11):200 6 Reaff,2 012	IS:5182 (Part- 12):200 4 Reaff;: 2014

N.B- "NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gutt. Notification

Prepared By - A



Checked By-

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

7: (0674) 2362916, 2360917

F: (0674) 2362918 Report No: BBS/800D

Date: 01.09.2021

## AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001278
Type of Sample	Ambient Air Sample
Sampling Location	Near Jetty
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Suppler

Sec. 125.	100		1	-		PA	KAMETER	56				_
Date	(Agrica)	PM <sub>25</sub> (ag/or)	SO <sub>3</sub> (ag/m <sup>2</sup> ).	NOs (pgm²)	(ng/m)	N16 (pg/m²)	O <sub>3</sub> (µg/m <sup>4</sup> )	Ph (mg/m²)	Ni (ng/m²)	As (mg/m <sup>3</sup> )	Caffe (pg/m²)	Baf
01.08.2021	55.85	29.56	6.92	27.48	0.67.	22.54	<20.0	<0.01	<5.0	<1.0		- (mp/m²
04.08.2021	60.24	33.50	6.89	28.95	0.82	26.35	<20.0	<0.01	<5.0		<4.2	<0.5
08:08.2021	57.95	32.16	6.78	26.72	0.78	19.46	<20.0	<0.01	<5.0	<1.0	<4.2	49.5
11,08,2021	64.34	35.64	6,52	26.51	0.58	25.11	-(20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5
15.08.2021	61,32	33.50	6.54	22.34	0.64	24.58	<20.0	< 0.01		<1.0	<4.2	≥0.5
18.08.2021	68.50	31.64	7.87	30.32	0.89	27.24	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
22.08.2021	63.22	31,74	7.36	21,10	0.71	18.45	<20.0		₹5.0	<1.0	-4.2	<0.5
25.08.2021	51.20	24.22	6,48	18.89	0.55	15.41		<0.01	<5.0 ⋅	<1.0	<4.2	<0.5
28.08.2021	58.71	25.46	6.97	20.45	0.48		<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
Mouthly	-	-		-		16,75	<20.0	<0.01	<5.0	<1.0	<1.2	< 0.5
Average	60.14	30.82	6.92	24.75	0.68	21.76	<20.0	<6.01	<5.0	<1.0	<4.2	<0.5
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	1
Time Weighted Average (hrs.)	24	24	24	24	1	24	i	24	Annest	Annual	Annual	Annuni
TEST METUGD	IS 5182: Part 23:20 06 (Reaf E. 2012	IS 5182: Part 24:20 19	1S 5182 : Part 2 :2001 (Reaff 2012	IS 5182 : Part 6 :2006 (Reaff .2012)	IS 5182 : Part 10 :1999 (Reaff.2 014) Standard o	15 5182; Part 25:20 18	1S 5182: Part 09:19 74	EPA - 103.4 June, 1999	EPA - 103.4Ju ne,1999	EPA - 103.4Ju ne,1999	18:5182 (Part- 11):200 6 Reaff,2 012	IS:5182 (Part- 12):200 4 Reaff,: 2014

Prepared By

Checked By-

N-5/100, Ground Floor IRC Village, Nayapatil Bhubaneswar - 751015

[CIN: U51909W81956PTC023037]

T (0674) 2362916, 2360917

F (0674) 2362918

Report No: BBS/800E



Date: 01.09.2021

## AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhames Port Company I (-1): 1 P
Work Order No.	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha 4802006186
Reference No.	MSKGL/ED/2020-21/001278
Type of Sample	Ambient Air Sample
Sampling Location	Dosinga Village
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirolech, CO Analyzer & VOC Sampler

(6.2)	1000		-	-		PAI	RAMETER	186				_
Date	PM <sub>si</sub> (ag/m <sup>3</sup> )	(Ag/m²)	SO <sub>2</sub> (hg/m²)	NOs (pg/m²)	(mg/m²)	NH <sub>3</sub> (µg/m²)	Oy (ag/m²)	(Palm')	Ni (ng/m²)	As (ng/m²)	Calls (up/m²)	Bar
01.08.2021	41.23	22.50	0.52	16,49	0.73	14.15	<20.0	<0.01	<5.0	-		(mg/m²)
04.08.2021	44.35	25.46	6.21	17,00	0.57	17.85	<20.0	-00.01	<5.0	<1.0	<4.2	<0.5
08.08.2021	43,16	23.37	6.54	19.36	0.63	18.87	<20.0	-00.01	<5.0	<1.0	<4.2	<0.5
11.08.2021	40.88	22.16	6.74	21.50	0.66	14.73	<20.0	-0.01		<1.0	<4.2	40.5
15.0K.2021	42.62	23,44	6.48	20.73	0.65	15,46	<20.0	< 0.01	<5.0	<1.0	<4.2	< 0.5
18.08.2021	46.00	24.80	6.82	21.48	0.70	20.21	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
22,08.2021	44:60	24,10	6.19	18.70	0.46	14.82	<20.0		<5.0	<1.0	<4.2	< 0.5
25,08.2021	40.12	21.08	6.09	15.23	0.40	11.54	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
28.08.2021	46.12	24.56	6.62	23.42	80.0	19.71		<0.01	<5.0	<1.0	<4.2	<0.5
Monthly Average	43.23	23,49	6,46	19.32	0.61	16.37	<20.0	10.0>	<5.0	<1.0	<4.2	<0.5
CPCB, Nest Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	±4.2 5	×9.5
Time Weighted Average (hrs.)	24	24	24	24	1	24	1	24	Annual	Aunual	Annual	Annual
TEST METHOD	15 5182; Part 23:20 06 (Resf £, 2012	18 51X2: Part 24:20 19	IS 5182 : Part 2 :2001 (Reaff ,2012	1S 5182 : Part 6 :2006 (RealT .2012)	IS 5182 : Part 10 :1999 (Reaff,2 014)	18 5182: Part 25:20 18	IS 5182: Part 09:19 74	EPA - 103.4 June, 1999	EPA - 103,4,7u ne,1999	EPA - 103,4Ju ne,1999	IS:5182 (Part- 11):200 6 Reaff,2 012	15:5182 (Part- 12):200 4 Reaff;: 2014

N.B. \*NAAQ- National Ambiest Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

Prepured By -



Checked By- Wall

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037] MSK

T: (0674) 2362916, 2380917

F (0674) 2362918

Report No: BBS/800F

Date: 01,09,2021

# AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186 Company Limited, Dosinga, Bhadrak, Odisha
Reference No.	MSKGL/ED/2020-21/00988
Type of Sample	Ambient Air Sample
Sampling Location	Near Bhitarkanika
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

190.00	100	EL 8/2	-	1	_	PAI	RAMETER	is.				_
Date	PM <sub>16</sub> (hg/m <sup>3</sup> )	(ug/m <sup>1</sup> )	(agim <sup>4</sup> )	(Ap/m²)	(mg/m <sup>2</sup> )	NH, (npm²)	Or (reg/m²)	Ph (mg/m/)	Ni.	As (ing/nr)	Celle (agine)	Bar
01.08.2021	40.32	22.13	6.33	19.82	0.37	12.52	<20.0	-0.01	<5.0	<1.0	the second second	(hap'es'
04.08.2021	41.12	22.76	6.24	23.00	0.42	17.22	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
08.08.2021	40.28	21.94	6.48	20.38	0.51	13.67	<20.0	<0.01	<5.0		<4.2	<0.5
11.08.2021	40.26	23,42	6:15	15.17	0.28	14.37	<20.0	< 0.01		<1.0	0(2	<0.5
15.08.2021	41.74	22.52	6.24	18.44	0.43	14.56	<20.0	<0.01	<5.0	<1.0	<4.2	=0.5
18.08.2021	40.40	23,40	6.28	23.00	0.72	16.67	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
22.08.2021	40.86	23.56	6.32	22.12	0.62	17.56	<20.0	the second second second	<5.0	<1.0	14.2	=0.5
25.08.2021	42.00	22.00	6.46	20.86	0.74	17.00	<20.0	10.0>	<5.0	<1.0	<4.2	< 0.5
28.08.2021	40.46	22.12	6.92	21.54	0.89			<0.01	<5.0	<1.0	-64.2	<0.5
Mouthly Average	40.82	22,65	6.38	20,59	0.55	15.60	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
CPCB, New Delti AAQ Standard	100	60	86	80	4	400	180	1	20	6	<4.2 5	49.5
Time Weighted Average (hrs.)	24	24	24	24	x	24	1	24	Annual	Annual	Annual	Annual
TEST METHOD	IS 5182; Part 23:20 06 (Reaf £, 2012	IS 5182: Part 24:20 19	IS 5182 ; Part 2 :2001 (Reaff .2012	15 5182 : Part 6 :2006 (Reaff :2012)	18 5182 : Part 10 :1999 (Reaff.2 014)	18 5182; Part 25;20 18	18 5182: Part 09:19 74	EPA - 103,4 June, 1999	EPA - 103.4Ju ne,1999	EPA - 103,4Ju ne,1999	IS:5182 (Part- 11):200 6 Reaff,2 012	IS:5182 (Part- 12):200 4 RealT <sub>i</sub> : 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th New, 2009 Gast. Notification

Prepared By \_\_\_\_



Checked By- Kay JOL

N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

Report No.: BBS/801 Date: 01.09.2021

Sample No.: MSKGL/ED/2020-21/08/00307 Sample Description: EFFLUENT WATER

Sampling Location: STP 15 KLD Date of sampling: 05.08.2021

### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result		
		1			Inlet	Outlet	
1	Colour	Hazen	-	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear	
2.	Odour	Anna I	-	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable	
3.	pH value at 26°C	-	6.5 - 9.0	APHA (23 <sup>rd</sup> Edition) 4500 H-B	7.22	7.63	
4.	Appearance	-	+	Lab Method	Turbid	Clear	
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	73.0	<2.5	
6.	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	26.0	<2.0	
7.	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	105.0	4.0	
8.	Oil & Grease	mg/l	<10,0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	5.0		
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	34.0	<0.1	
0.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffim:2014	53.0	2.7	
1.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	1900.0	145.0	

Report Prepared by:



For Mitra S. K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T : (0674) 2362916, 2360917

F: (0674) 2362918

## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

6DIST : BHADRAK, PIN :756171 ODISHA

Report No.: BBS/802 Date: 01.09.2021

Sample No.: MSKGL/ED/2020-21/08/00311 Sample Description: EFFLUENT WATER

Sampling Location : STP 140KLD Date of sampling : 05.08.2021

### ANALYSIS RESULT

SL. No.	Test Parameters	Units	Limit	Test Specification	Result		
					Inlet	Outlet	
Ţ.	Colour	Hazen	~	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear	
2.	Odour		+	APHA (23rd Edition) 2150B	Disagreeable	Agrecable	
3,	pH value at 26°C	-	6.5 - 9.0	APHA (23 <sup>rd</sup> Edition) 4500 H-B	7.23	7.60	
4,	Appearance	1444	777	Lab Method	Turbid	Clear	
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	130.0	<2.5	
6.	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	40.0	<2.0	
7.	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	156.0	6.0	
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	4.8	<1.4	
9.	Ammonical Nitrogen	mg/I	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	33.0	<0.1	
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	52.0	2.6	
11.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23rd Edition) 9221 E	1700.0	123.0	

Report Prepared by:



For Mitra S. K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/803 Date: 01,09,2021

Sample No.: MSKGL/ED/2020-21/08/00852 Sample Description: EFFLUENT WATER

Sampling Location: STP 15 KLD Date of sampling: 17.08.2021

#### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result		
No.	-	2010	2000	TEN SPECIOLATION	Inlet	Outlet	
1.	Colour	Hazen	-	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear	
2.	Odour		-	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable	
3.	pH value at 26°C	****	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	6.93	7.48	
4.	Appearance		-	Lab Method	Turbid	Clear	
5.	TSS	mg/l	<20.0	APHA (23td Edition) 2540D	71.0	<2,5	
6.	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	32.0	<2.0	
7.	COD	mg/l	<50.0	APHA (23rd Edition) 5220B 2017	130.0	5.0	
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	8.0	<1.4	
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	18.0	<0.1	
10.	Total Nitrogen (as N)	mg/I	<10.0	IS 14684 (1999); Rffin:2014	26.0	2.5	
11.	Faccal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E.	2000.0	140.0	

Report Prepared by:



For Mitra S. K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T : (0674) 2362916, 2360917 F : (0674) 2362918

### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/804 Date : 01.09,2021

Sample No. : MSKGL/ED/2020-21/08/00856 Sample Description : EFFLUENT WATER

Sampling Location : STP 140KLD Date of sampling : 17.08,2021

### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result		
-				220.00000000000000000000000000000000000	Inlet	Outlet	
1.	Colour	Hazen	+	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear	
2.	Odour	i-a	100	APHA (23rd Edition) 2150B	Disagreeable	Agreeable	
3.	pH value at 26°C		6.5 - 9.0	APHA (23 <sup>rd</sup> Edition) 4500 H-B	7.01	7.46	
4.	Appearance		104	Lab Method	Turbid	Clear	
5	TSS	mg/l	<20.0	APHA (23td Edition) 2540D	121.0	<2.5	
6.	BOD	mg/l	<10,0	APHA (23rd Edition) 5210B 2017	52.0	<2.0	
7,	COD	mg/I	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	200.0	5.0	
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	9.0	<1.4	
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23rd Edition) 4500-NH3-F 2017	14.0	<0.1	
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	20.0	2.1	
11.	Faeçal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	130.0	110.0	

Report Prepared by:



For Mitra S. K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapalli Birubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No.: BBS/805 Date: 01.09.2021

Sample No. : MSKGL/ED/2020-21/08/00820

Sample Description: Ambient Noise

### Noise Level Monitoring Data

SI.	Sampling	Sampling	D	Day Leq. Time dB(A)				Night Time Leq. dB(A)			
No	Date	Location	MAX	MIN	AVG.	LIMIT	MAX	MIN	AVG.	LIMIT	
$f_{\lambda_{i}}$	24,08,2021	Colony Area (R)	59.2	39.4	44,5	55	52.5	35.8	40.6	45	
2.	03.08.2021	Kanak Prasad Village (R)	54.6	37.5	40.6	55	40.2	36.5	38,4	45	
3.	05.08.2021	Near BMH (I)	67.3	52.6	57.1	75	57.8	42.4	54.6	70	
4.	07.08.2021	Near Jetty (I)	70.2	60.1	68.4	75	64.2	58.8	61.7	70	
5.	09.08,2021	Dosinga Village (R)	46.7	36,8	41.5	55	39.7	35,7	37.2	45	
6.	10.08.2021	Near Bhitarkanika (Eco Sensitive Zone)	42.4	37.1	38,6	50	39.4	36.2	36,4	40	

		Noise Limit as per CP	CB
Category of Area/Zone	Leq dB(A) Day Time	Leq dB(A) Night Time	NOTE:
Industrial Area	75	70	Day Time : 06.00 Hr22.00 Hr.
Commercial Area	65	55	Night Time:22.00 Hr06.00 Hr.
Residential Area	55	45	
Silence Zone	50	40	

Report Prepared by:



For Mitra S. K. Private Limited

Authorized Signatory

H.O.: Shrachi Centre (5th Floor), 74B, Acharya Jagadish Chandra Bose Road, Kolkata - 700 015, West Bengal, India T; 91 33 4014 3000 / 2265 0006 / 2265 0007, F; 91 33 2265 0008, E; info@mitrask.com, W; www.mitrask.com

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F: (0674) 2362918.



Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/806 Date: 01.09.2021

Sample No.: MSKGL/ED/2020-21/08/00750 Sample Description: Noise (Work Zone)

#### Noise Level Monitoring Data

SL No	Sampling Date	Sampling Location	MAX	MIN	Results in Avg. dB(A)
Ţ.	12.08.2021	Stack Yard	88.3	37.5	64.4
2,	14.08.2021	Wagon Tippler	86,4	53.2	69.8
3.	15,08.2021	Near Silo	81.0	47.3	68.0
4	12.08.2021	Near Stacker & Reclaimer	80.1	60.4	68.1
5.	17.08.2021	Project Area	84.0	49.4	60.7
6.	18.08.2021	Transfer Point	80.8	59,3	77.2
7.	19.08.2021	Workshop	85.7	47.8	69.2
8.	21.08.2021	Steel Yard	79.7	37.6	60.7
9.	22,08,2021	FCC Shed	82.9	41.4	61.9
10.	23.08.2021	Near Port Canteen	77.8	47.8	64,3

OSHA'S Permissible Noise Exposure Limits					
Noise Level	Exposure Limit				
90 dBA	8.0 hours				

Report Prepared by:

-

BBSR C

For Mitra S.K. Private Limited

Authorized Signatory

H.O.: Shrachi Centre (5th Floor), 74B, Acharya Jagadish Chandra Bose Road, Kolkata - 700 016, West Bengal, India T: 91 33 4014 3000 / 2265 0006 / 2265 0007, F: 91 33 2265 0008, E: Info@mitrask.com, W: www.mitrask.com

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

6DIST: BHADRAK, PIN:756171 ODISHA

Report No.: BBS/807 Date: 01.09.2021

Sample No.: MSKGL/ED/2020-21/08/00313 Sample Description: EFFLUENT WATER

Sampling Location : STP 150KLD Date of sampling : 05,08,2021

#### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result	
No.					Inlet	Outlet
1.	Colour	Hazen	10-2	APHA (23td Edition) 2120B 2017	Blackish	Clear
2,	Odour	100		APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C	***	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7.23	7.36
4.	Appearance		-	Lab Method		
5.	TSS	mg/l	<20.0	APHA (23rd Edition) 2540D	113.0	Clear
6.	BOD	mg/l	<10.0	APHA (23rd Edition) 5210B 2017	54.0	<2.0
7.	COD	mg/l	<50,0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	177.0	7.0
8.	Oil & Grease	mg/I	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	6.0	<1,4
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	24.0	<0.1
10.	Total Nitrogen (as N)	mg/I	<10.0	IS 14684 (1999); Rffm:2014	38.0	2.3
I.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	3100.0	141.0

Report Prepared by:



For Mitra S. K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T.: (0674) 2362916, 2360917

F: (0674) 2362918



### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/808 Date : 01.09.2021

Sample No.: MSKGL/ED/2020-21/08/00858 Sample Description: EFFLUENT WATER

Sampling Location: STP 150KLD Date of sampling: 17,08,2021

### ANALYSIS RESULT

SL,	Test Parameters	Units	Limit	Test Specification	Result	
1.					Inlet	Outlet
	Colour	Hazen	-	APHA (23rd Edition) 2120B 2017	Blackish	Clear
2.	Odour	-	4	APHA (23td Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C	Person .	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	6.28	7.44
4.	Appearance	75		Lab Method	Turbid	Clear
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	The second secon	
6.	BOD	mg/l	<10.0	APHA (23rd Edition) 5210B 2017	47.0	<2.5
7.	COD	mg/I	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	165.0	6.0
8.	Oil & Grease	mg/I	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	10.0	<1.4
9,	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	23.0	<0.1
10.	Total Nitrogen (as N)	mg/I	<10.0	IS 14684 (1999); Rffm:2014	34.0	2.2
T.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>ed</sup> Edition) 9221 E	3200.0	130.0

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N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

Report No. : BBS/809 Date : 01.09.2021

Sample No. : MSKGL/ED/2020-21/08/00873

Sample Description: VOC Monitoring

### ANALYSIS

SL No	Date of Monitoring	Sampling Location	Method of Analysis	Parameter	Result
I.	12.08.2021	Jetty			<0.008
2.	14.08.2021				<0.008
3.	04.08.2021	Near Silo	Jetty  Wagon Tippler  Near Silo  Transfer Point  BMH Workshop  Steel Yard  FCC Shed	V-l-m o	<0.008
4.	05.08.2021	Transfer Point	NIOSH-1501 Volatile Organic Compound		<0.008
5:	07.08.2021	BMH Workshop		Compound (VOC in mg/m³)	
6.	08.08.2021	Steel Yard			<0.008
7.	09.08.2021	FCC Shed			<0.008
8.	10.08.2021	SS 6 Office			<0.008

Report Prepared by:

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BBSR + 03

For Mitra S. K. Private Limited

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA DIST: BHADRAK, 756171 ODISHA

Report No. : BBS/810 Date : 01.09.2021

Sample No.: MSKGL/FD/2020-21/08/00860

Date of sampling : 17.08.2021

Sampling Description: Ground Water (Piezametric) Sampling Location: Township Pump House Sampling Done By : Mr. Kunja Bihari Nayak

## BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Units	Limit		
1.	E. Coli	/100m1		Test Method / Specification	Result
2	Total Coliform Organism	FIROmit	Not Detectable	IS: 15185 : 2016	Not Detected
	Four Committee Organism	/100mi	Not Detectable	IS: 15185 : 2016	Not Detected

CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012 Requirement Permissible limit Test Parameter Units No. [Acceptable in the absence of **Fest Method** / Specification Result Limit) alternate Source pH ( at 26° C) 6.5 - 8.5 No Relaxation 15 3025 (Part 11)-1984 Rffm: 2012 Sulphate (as SO<sub>4</sub>) 7.61 mg/I 200 400 IS 3025 (Part 24)- 1986 Riffm: 2014 Calcium (as Ca) 4.50 mg/l 75 200 15 3025 (Part 40)- 1991 Rffm: 2014 4 Amenic (as As) eng/L 3.50 0.01 0.05 IS 3025 (Part 2) 2004 RA 2014 5. Lead (as Ph) BDL(DL:0.005) mg/L 10.0 No Relaxation 15:3025 (Part 2) 2004 RA 2014 6 Zinc (as Zn) BDL(DL:0.005) mjg/l 5.0 15.0 IS 3025 (Part 2) 2004 RA 2014 Copper (as Cu) BDL(DL:0.02) mgfi 0.05 13 IS 3025 (Part 2) 2004 RA 2014 2 Mercury (as Hg) BDL(DL:0.02) mg/I 0.001 No Reheation IS 3025 (Part 48)-1994 Riffin: 2014 Q Carbinium (as Cd) BDL(DL(0.0002) mg/l 0.003 No Relaxation IS 3025 (Part 2) 2004 RA 2014 10. Mineral Oil BDL(DL:0.001) mg/ī 0.5 No Relaxation IS 3025 (Part 39)-1991 Rffm: 2014 11 Fluoride (as F) HDL(DL:0.5) mg/l 1.0 1.5 IS 3025 (Part 60)- 2008 Rtfin: 2013 12. Colour BDL(DL:0.2) Hazen 5 15 3025 (Part 4)-1983, Riffn: 2012 13. Odour BDL(DL:1.0) Agreeable Agrecable IS 3025 (Part 5)-1983 Rffm:2012 14 Turbidity N:T.U Agreeable 1 15 3025 (Part 10)-1984 liftin: 2012 15 Residual free Chlorine BDL(DL:1.0) mg/I 0.2 1.0 15 3025 (Part 26)- 1986 Rffm: 2014 16 DDL(DL:0.1) fron (us Fe). 1159/1 0.3 No Relaxation 18 3025 (Part 53)-1988 Rffm: 2014 17 Chloride (as Cl) BDL(DL:0.05) mg/l 750 1000 IS 3025 (Part 32)-1988 Rffin: 2014 18 Total Disselved Solids 72,00 mic/I 500 2000 IS 3025 (Part 16)-1984; Riffin:2012 19. Alkalinity (as CaCO<sub>1</sub>) 279,00 mg/l 200 600 18 3025 (Part 23)- 1986 Rffin: 2009 20 Aluminium (as Al) 170.00my/10.03 0.2 IS 3025 (Part 2) 2004 RA 2014 21. Magnessum (as Mg) BDL(DL-0.01) me/l 30 100 1S 3025 (Part 46)-1994 Rffm: 2014 Total Hardness 18,00 22. mg/l 200 (its CaCO<sub>V</sub>) 600 1S 3025 (Part 21)-2013 173,00 23 Bame (us B) mg/l 0.5 1.0 IS 3025 (Part 2) 2004 RA 2014 24 Mangamese (as Mn) BDL(DL:0.3) mg/L 0:1 0.3 IS 3025 (Part 2) 2004 RA 2014 25 Nitrate (as NO<sub>3</sub>) BDL(DL:0:02) mu/145 No Relaxation 15 3025 (Part 34)-1988 Rffm: 2014 Phenolic Compounds BDL(DL:0.4) 26. 100.0 (as C<sub>c</sub>H<sub>c</sub>OH) 0.002 IS 3025 (Pan 43)- 1992; Riffin; 2014 mg/L BDL(DL:0.001) 27 Selenium (au Sc) mg/I 0.01 No Relevation IS 3025 (Part 2) 2004 JLA 2014 28 Total Chromium ( as Cr) RDE(DL:0.005) mg/L 0.05 No Relaxation 15 3025 (Part 2) 2004 RA 2014 20 Silver (as Ag) BDL(DL:0.01) mp/i 0.1 No Relaxation IS 3025 (Part 3) 2004 RA 2014 300 BDL(DL:0,005) Barium (as Ba) mg/t 0.7 No Relaxation IS 3025 (Part 2) 2004 RA 2014 31. Salinity DDL/DES0.D mg/L IS 3025 (Part 14)-2013 132.00

H.D.: Shrachi Centre (5th Floor), 74B, Acharya Jagadish Chandra Bose Road, Kolkats - 700 016, Wast Bengal, India T: 91 33 4014 3000 / 2265 0006 / 2265 0007, F: 91 33 2265 0008, E; info@mitrask.com. W: www.mitrask.com

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[CIN: U51909WB1956PTC023037]

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Ref. No. BBS/801

MSK TESTING INSPECTION

Date- 01.09.2021

32.	Sulphide ( as H2S)	mg/I	0.05	No Relaxation	19 2025 (Berr 20) 1001 P.	
33.	Ammonia ( as total ammonia-N)	mg/t	0.5	No Relaxation	IS 3025 (Part 29)- 1991; Rffm; 2014 IS 3025 (Part 34)- 1988; Rffm; 2014	-
34.	Chloramines	mg/l	4.0	No Relaxation	The state of the s	BDL(DL:0.1)
35.	Nickel ( as Ni)	rng/l	0.02	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
36.	Cyanide (as CN)	mg/I	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014 IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	1S 13428(Annex K)- 2005	BDL(DL:0.01) BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarlinns (as PAH)	ritg/I	0.0001	No Relaxation	APHA (23 <sup>rd</sup> Edtn.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	mg/I	0.0005	No Relaxation	US EPA 80K2	BDL(DL:0.0005)

Report Prepared by:

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For Mitra S. K. Private Limited.



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

(CIN: U51909WB1956PTC023037)

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Name & Address of the Customer : THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST BHADRAK, PIN :756171 ODISHA



### TEST REPORT

Report No. : BBS/811

: 01.09.2021

Sample No.: MSKGL/FD/2020-21/08/00861

Date of sampling : 17.08.2021 Sampling Description : Ground Water (Piezametric)

Sampling Location: Pump House WTP Sampling Done By 2 Mr. Kunja Bihari Nayak

## BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Units	Limit	Test Method / Specification	Donte
L	E. Coli	/100ml	Not Detectable		Result
2	Total Coliform Organism	/100ml	The state of the s	IS: 15185 : 2016	Not Detected
	Cook September Segundar	1 - 100mi	Not Detectable	IS: 15185 : 2016	Not Detected

CHEMICAL ANALYSIS RESILL T AS DED 19: + AFAA

SL No.	Test Parameter	Units	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
-L	pH ( at 26°C)	-	6.5 - 8.5	No Retaxation	IS 3025 (Part 11)-1984 Rffin: 2012	7.51
2	Sulphare (as SO <sub>4</sub> )	ing/l	200	400	1S 3025 (Part 24)- 1986 Rffin: 2014	4.60
3.	Calcium (as Ca)	rog/I	75	200	IS 3025 (Part 40)- 1991 Rffin: 2014	44.00
4.	Arsenic (as As)	mg/T	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	the commence of the commence o
5.	Lead (as Pb)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (us Zn)	mp/I	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
7.	Copper (as Cu)	rng/U	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Hg)	tng/T	0.001	No Relaxation	IS 3025 (Part 48)-1994 RA 2014	BDL(DL:0.02)
9.	Cadmium (as Cd)	mg/I	0.003	No Relaxation	15 1025 (Part 46) 1994 RIME 2014	BDL(DL:0.0002)
10.	Mineral Oil	mg/L	0.5	No Relaumon	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,001)
11.	Pluoride (as F)	mg/l	1.0	1.5	IS 3025 (Part 39)-1991 Riffin: 2014	BDL(DL:0.5)
12	Colour	Hazen	5.	15	IS 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0.2)
13.	Odour	-	Agreeable	Agroeable	3025 (Part 4)-1983; Rfflm 2012	BDL(DL:1.0)
14.	Turbidity	N.T.U.	1	5	IS 3025 (Part 5)-1983 Rffin:2012	Agreeable
13.	Residual free Chlorine	mg/l	0.2	1.0	IS 3025 (Part 10)-1984 Rffm: 2012	BDL(DL:1,0)
16.	Iron (as Fe)	nng/I	0.3	No Relaxation	IS 3025 (Pari 76)- 1986 Rffm:2014	BDL(DL:0.1)
17.	Chloride (as Cl)	Ing/I	250	1000	JS 3025 (Part 53)-1988 Rffm: 2014	BDL(DL:0.05)
18.	Total Dissolved Solids	mg/l	500	2000	15.3025 (Part 32):1988 Rffm: 2014	74.00
19.	Alkalinity (as CaCO <sub>1</sub> )	mg/l	200		1S 3025 (Part 16)-1984, Rffin:2012	274,00
20.	Alaminium (as Al)	tng/i	0.03	600	!S 3025 (Part 23)- 1986 R/fin: 2009	167.00
21.	Magnesium (us Mg)	me/I	30	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
22.	Total Hardness (as CaCO <sub>1</sub> )	mg/)	200	600	18 3025 (Part 46)-1994 Riffin: 2014 18 3025 (Part 21)-2017	17,00
23.	Horna (as B)	man.	0.0		The state of the s	163.00
24.	Manganese (as Mn)	mg/I	0.5	1.0	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
25.	Nitrate (as NO <sub>3</sub> )	mg/l	0.1	0.1	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
	Phenolic Conpounds	mg/i	45	No Relaxation	IS 3025 (Part 34)-1988 RIffn: 2014	BDL(DL:0.4)
26	(as C <sub>2</sub> H <sub>2</sub> OH)	mg/l	0.001	0,002	(\$ 3025 (Part 43)- 1992; Ritim) 2014	MDL(DL-02001)
27.	Selemum (as Se)	mg/I	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28_	Total Chromium ( as Cr)	mg/l	0.05	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( as Ag)	mg/I	0,1	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL-0.005)
30.	Barium (as B <sub>5</sub> )	mg/l	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	The second secon
31.	Salinity	mg/t			IS 3025 (Part 14)- 2013	BDL(DL:0.1) 128.00

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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#### Ref. No. BBS/811

Date- 01.09.2021

TESTING . INSPECTION

32	Sulphide (as H2S)	mg/l	0.05	No Relaxation	DC 3004 (B) 1 200 1801 200	
33.	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0,02)
34.	Chloramines	mg/l	4.0		IS 3025 (Part 34)- 1988; Rifm: 2014	BDL(DL:0.1)
35.	Nickel (as Ni)	mg/l	0.02	No Relaxation No Relaxation	1S 3025 (Part 26)- 1986; RIffn: 2014	BDL(DL:(L1)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014 IS 3025 (Part 27)- 1986 Rffin: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/t	0.2	1.0	IS 13428(Amex K)- 2005	BDL(DL:0.01) BDL(DL:0.05)
38,	Polynuclear Aromatic Hydrocarbons (28 PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edin.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relexation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:



For Mitra S. K. Private Limited,



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST BHADRAK, PIN:756171 ODISHA

Report No. : BBS/812 Date : 01.09,2021

Sample No.: MSKGL/FD/2020-21/08/00862

Date of sampling : 17.08.2021

Sampling Description : Ground Water (Piezometric)

Sampling Location: Running Ruom

Sampling Done By : Mr. Kunja Bihari Nayak

## BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No.	Tout Dississant Co.	Tax 31 Tr			
1 1942	Test Parameters	Units	Limit	Test Method / Specification	D
14	E. Coli	/100ml	Not Detectable		-
2	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
		- Control	- vot Lotectable	IS: 15185: 2016	Nor Distacted

CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012 Permissible fimit SL Requirement Test Parameter Units Acceptable No. in the absence of Test Method / Specification Result Limit) alternate Source ı.  $pH (= 26^{\circ} C)$ 6.5 - 8.5 No Relaxation IS 3025 (Part 11)-1984 Rffm: 2012 1 7.80 Sulphata (as SO<sub>4</sub>) mg/L 200 400 IS 3025 (Part 24)- 1986 Riffm: 2014. I. Calcium (as Ca) 4.70 mef 75 200 1S 3025 (Part 40)- 1991 Rffm: 2014 4 Assente (as As) 45.00 mg/L 0.01 0.05 IS 3025 (Part 2) 2004 RA 2014 5 Lead (as Pb) BDL(DL:0.005) mg/i 0.01 No Relaxation IS 3025 (Part 2) 2004 RA 2014 6 BDt.(DL:0.005) Zino (as Zn) mg/l 5.0 15.0 IS 3025 (Part 2) 2004 RA 2014 7. Copper (as Cu) BDL(DL:0.02) mg/l 0.05 15 IS 3025 (Part 2) 2004 RA 2014 8 BDL(DL:0.02) Mercury (as Hg) mg/L 0.001 No Relaxation IS 3025 (Part 48)-1994 Rffin: 2014 9, Cadmium (as Cd) BDL(DL:0.0002) 0.003 mg/ī No Relaxation IS 3025 (Part 2) 2004 RA 2014 10. BDL(DL:0.001) Mineral Oil mje/I 0.5 No Relaxation IS 3025 (Part 39)-1991 Rifm: 2014 11. BDL(DL:0.5) Fluoride (as F) mg/l 1:0 1.5 IS 3025 (Part 60)- 2008 R/fm: 2013 12 BDL(DL(0.2) Colour Hazen 5 15 3025 (Part 4)-1983; Ritin, 2012 13 BDL(DL:1.0) Odogr Agrecable IS 3025 (Part 5)-1983 Rffin:2012 Agreemble 14. Tarbidity Agrecable N.T.U IS 3025 (Part 10)-1984 Rffm: 2012 15: Residual free Chlorine BDL(DL:1.0) mg/l 0.21.0 18 3025 (Part 26)- 1986 Rffm;2014 16. HDL(DL:0.1) lost (as Fe) mg/l 0.3 No Belaxation IS 3025 (Part 53)-1988 Riffin: 2014 17, BDL(D1-0.05) Chloride (as Cl) ing/l 240 1000 1S 3025 (Part 32)-1988 Riffin: 2014 18. Total Dissolved Solids 68.00 mg/I 500 20(8) 18 3025 (Part 16)-1984; Rffm:2012 19. 270.0 Alkalinity (as CaCO<sub>1</sub>)  $m_{\rm H}/1$ 200 600 IS 3025 (Part 23)- 1986 Rffm: 2009 20 160.00 Aluminium (ies Al) mg/l 0.03 0.2 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.01) 21 Magnesium (as Mg) mg/l 30 100 IS 3025 (Part 46)-1994 Rffin: 2014 17:00 Total Hardness 22 mg/l 200 600 (as CaCO<sub>1</sub>) 1S 3025 (Part 21)-2013 165.00 23 Bonon (as B) mu/I 0.5 D.O. IS 3025 (Part 2) 2004 RA 2014 24 BDL(DL:0.3) Minganese (us Mn) mg/I 0.1 0.3 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.02) 25 Nitrate (m NO<sub>1</sub>) HINGERS. 45 No Relexation 1S 3025 (Pert 34)-1988 Rillin: 2014 BDL(DL:0.4) Phenolic Compounds 26. 0.001 0.002 (as CJLOH) IS 3025 (Part 43)- 1992; RIfm: 2014. mg/I BDL(DL:0.001) 27. Selenium (as Se) mg/I 0.01 No Relaxation IS 3025 (Part 2) 2004 RA 2014 BDL(13L:0.005) 28. Total Circumum ( as Cr ) mge/l 0.05 No Relaxation 15 3025 (Part 2) 2004 RA 2014 210 Silver ( ns Ag) BDL(DL:0.01) mg/I 0:4 No Retaxation IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.005) 34% Barium (as Ba) me/L 0.7 No Relaxation IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.1) 31 Salinity mg/i IS 3025 (Part 14)- 2013 128.00

H.O.: Shrachi Centre (5th Floor); 74B, Acharya Jagedish Chandra Bose Road, Kolkata - 700 016; West Bengal, India T: 91 33 4014 3000 / 2265 0006 / 2265 0007, F: 91 33 2265 0008. E: Info@miltrask.com, W: www.mitrask.com

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[CIN: U51909WB1956PTC023037]

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Ref. No. BBS/812

Date-01.09.2021

TESTING # INSPECTION

32	Sulphide ( as H2S)	mg/I	0.05	No Relaxation	SC 104F ID. AND	
33.	Attumonia ( as total				IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
	ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Riffn; 2014	HDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	the state of the s	
35.	Nickel (as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0:01)
37.	Anionic Detergents	mg/l		150 schooling	1S 3025 (Part 27)- 1986 Riffin: 2014	BDL(DL:0.01)
201	(as MBAS)		0.2	1.0	1S 13428(Annex K)- 2005	1000
73	Polymuclear Aromatic				and among the sings	BDL(DL:0.05)
38.	Hydrocarbons (as PAH)	rog/I	1000.0	No Relacation	APHA ( 23 <sup>rd</sup> Edm.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated		The same			
240	Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

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For Mitra S. K. Private Limited.



N-5/100, Ground Floor IRC Village, Navapalii Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362918

## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No. : BBS/811 Date : 01.09.2021

Sample No.: MSKGL/ED/2020-21/08/00309 Sample Description : EFFLUENT WATER

Sampling Location: STP 25KLD Date of sampling : 05.08.2021

#### ANALYSIS RESULT

SL.	Test Parameters	Test Parameters Units		Test Specification	Result	
					Inlet	Outlet
L	Colour	Hazen	100	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear
2,	Odour	-	54.	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C	-	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7.05	7.71
4.	Appearance	Tree		Lab Method	Turbid	Clear
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D 147.0		<2.5
6.	BOD	mg/l	<10,0	APHA (23 <sup>rd</sup> Edition) 5210B 2017		
7,	COD	mg/I	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	175.0	7.0
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>st</sup> Edition) 5220B 2017	12,3	<1.4
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23rd Edition) 4500-NH3-F 2017	17.0	<0.1
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	24.0	2.5
H.	Faccal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	940.0	130,0

Report Prepared by:



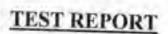
For Mitra S. K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapalil Bhubaneswar - 751015 ICIN: US 1000/09 105500

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F: (0674) 2362918



Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

Report No.: BBS/812 Date: 01.09.2021

Sample No.: MSKGL/ED/2020-21/08/00854 Sample Description: EFFLUENT WATER

TESTING INSPECTION

Sampling Location: STP 25KLD Date of sampling: 17.08.2021

### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Resi	ult
1.	Colonia				Inlet	Outlet
	Colour	Hazen	-	APHA (23rd Edition) 2120B 2017	Blackish	Clear
2.	Odour	-	-	APHA (23rd Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C	****	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7,01	7.86
4.	Appearance	***	-	Lab Method	Turbid	Clear
5.	TSS	mg/l	<20.0	APHA (23rd Edition) 2540D	134.0	<2.5
6.	BOD	mg/L	<10.0	APHA (23rd Edition) 5210B 2017	32.0	<2.0
7.	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	148.0	6.0
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	6.0	
9,	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	15.0	<0.1
0.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	22.0	2.1
1.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	1130.0	175.0

Report Prepared by:



For Mitra S. K. Private Limited

Authorized Signatory

H.O.: Shrachi Centre (5th Floor), 74B, Acharya Jagadish Chandra Bose Road, Kolkata - 700 016, West Bengal, India T: 91 33 4014 3000 / 2265 0006 / 2265 0007, F: 91 33 2265 0008, E: info@mitrask.com, W: www.mitrask.com

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswer - 751015

[CIN: U51909WB1956PTC023037]

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# TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/800 Date : 01.09,2021

Sample No. : MSKGL/ED/2020-21/08/00321

Sample Description : Sea Sediment

Sampling Location: Dredging Disposal Site

Date of sampling : 03.08,2021

#### ANALYSIS RESULT

Sl. No.	Parameters	Unit	Test Method	Result
I;	pH value	None	IS 2720 (Part 26)-1987;Rffin:2011	7.89
2,	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	1784.0
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	1.0
4.	Moisture content	96.	Lab Method	39.0
5.	Chloride (as C1)	mg/kg	TPM/MSK/P&E/1/10	1466.0
6:	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	294.0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	6.9
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	5,8
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	12.6
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1871.0
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	25.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	20.0
14.	Nickel (as Ni)	mg/kg	EPA 6010D	11.4
15.	Zinc (as Zn)	mg/kg	EPA 6010D	24.0
16.	Manganese (as Mn)	mg/kg	EPA 6010D	174,0



### Ref. No. BBS/800

Date- 01.09.2021

17.	Lead (as Pb)	mg/kg	Transfer of the same	
18.	Boron (as B)		EPA 6010D	6.4
19.		mg/kg	IS 13428- 2005, Annex H	<5.0
-	Aluminium ( as AI )	mg/kg	EPA 6010D	2114.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	
21.	Total Nitrogen (as N)	mg/kg		13,2
22,	Organic Nitrogen	1	IS 14684 (1999); Rffm:2014	388.0
23.		mg/kg	TPM/MSK/P&E/3/68	284.0
	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb, 2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	
25.	Sand	%		<0.5
26.	Silt	1	TPM/MSK/P&E/1/36A	42.0
27.		%	TPM/MSK/P&E/1/36A	25.0
-	Texture	None	TPM/MSK/P&E/1/36A	Clay Loam
28.	Clay	%	TPM/MSK/P&E/1/36A	33.0

## Biological Result

SI No.	Parameters	D.O.	
1-	Fungus (Phytobenthos)	CFU/g dry	
2.	Total count (Phytobenthos)	50 mg wet sediment	1421
3.	No of species (Phytobenthos)	Nos.	277
4.	Diversity index (Phytobenthos)		4
5.	( inytobelialos)		1.88
	Major Species (phytobenthos)	7474	Navioula electricism Bill 1 1
6.	Name of Phylum (Fauna)		Navicula closterium Biddulphia mobilensis
	Class & Number of individuals encountered (Fauna)		Annelida, Mollusca
S.	Total no. of species encountered (Fauna)	Nos.	Plychaeta-47,Bivalvia-19
).	Total fauna (Fauna)	per m <sup>3</sup>	177

Report Prepared by:

BBSR

For Mitra S.K. Private Limited

MSK TESTING-INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T.: (0674) 2362916, 2360917

F (0674) 2362918

# TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/801 Date : 01.09.2021

Sample No. : MSKGL/ED/2020-21/08/00322

Sample Description: Sea Sediment Sampling Location: Dredging Area Date of sampling: 03.08.2021

#### ANALYSIS RESULT

Sl. No.	<u>Parameters</u>	Unit	Test Method	Result
I.	pH value	None	IS 2720 (Part 26)-1987;Rffin:2011	7.96
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	2254.0
3.	Organic Matter	%	1S 2720 (Part 22)-1972; Rffm:2015	0.85
4.	Moisture content	%	Lab Method	34.0
5.	Chloride (as CI)	mg/kg	TPM/MSK/P&E/1/10	1634,0
6,	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977, RA 2015	130.0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5,0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	<3.0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	6.8
10	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	11.8
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1812.0
12,	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/S	177.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	23.0
14.	Nickel (as Ni)	mg/kg	EPA 6010D	9,2
15.	Zinc (as Zn)	mg/kg	EPA 6010D	26.0
16.	Manganese (as Mn)	mg/kg	EPA 6010D	181.0



#### Ref. No. BBS/801

Date-01.09.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	4.9
18.	Boron (as B)	mg/kg	IS 13428-2005, Annex H	<5.0
19.	Aluminium ( as Al )	mg/kg	EPA 6010D	2654.0
20.	Total Chromium (as Cr)	mg/kg	EPA 6010D	17.0
21.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	281.0
22.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	254.0
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
24.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
25.	Sand	%	TPM/MSK/P&E/1/36A	45.0
26.	Silt	%	TPM/MSK/P&E/1/36A	24.0
27.	Texture.	None	TPM/MSK/P&E/1/36A	
28.	Clay	%	TPM/MSK/P&E/1/36A	Clay Loam

### Biological Result

SI No.	Parameters	Unit	Donate
· Le	Fungus (Phytobenthos)	CFU/g dry wt.	Results 1387
2.	Total count (Phytobenthos)	50 mg wet sediment	280
3.	No of species (Phytobenthos)	Nos.	4
4.	Diversity index (Phytobenthos)	1403.	1.77
5.	2 Contracting	-	
	Major Species (phytobenthos)	7777	Gyrosigma sp., Biddulphia mobilensis, Biddulphia mobilensis
6.	Name of Phylum (Fauna)		Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)		Plychaeta-39,Bivalvia-16
8.	Total no. of species encountered (Faims)	Nos.	14
9.	Total fauna (Fauna)	per m <sup>3</sup>	181

Report Prepared by:



For Mitra S.K. Private Limited Authorized Signatory

TESTING-INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T : (0674) 2362916, 2360917 F : (0674) 2362918

### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/802 Date : 01.09.2021

Sample No. : MSKGL/ED/2020-21/08/00871

Sample Description: Sea Sediment

Sampling Location: Dredging Disposal Site

Date of sampling : 19.08,2021

#### ANALYSIS RESULT

SL No.	<u>Parameters</u>	<u>Uait</u>	Test Method	Result
L	pH value	None	IS 2720 (Part 26)-1987;Rffim:2011	8.12
2,	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	1589.0
3.	Organic Matter	%-	IS 2720 (Part 22)-1972; Rffm:2015	0.82
4.	Moisture content	94	Lah Method	34.0
5.	Chloride (as Cl)	mg/kg	TPM/MSK/P&E/1/10	688.0
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	296.0
7,	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	10.0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	7.4
10	Iron (as Fe)	.mg/kg	TPM/MSK/P&E/1/13	19,0
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1744.0
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	150.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	19.0
14,	Nickel (as Ni)	mg/kg	EPA 6010D	12.0
15.	Zinc (as Zn)	mg/kg	EPA 6010D	35.0
16.	Manganese (as Mn)	mg/kg	EPA 6010D	190,0



## Ref. No. BBS/802

Date-01.09.2021

17.	Lead (as Pb)	mg/kg	EPA 6010D	
18.	Boron (as B)	mg/kg		4.6
19,	Aluminium ( as Al )		IS 13428- 2005, Annex H	<5.0
20.	Total Chromium (as Cr)	ing/kg	EPA 6010D	2100.0
21.		mg/kg	EPA 6010D	15.4
	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	381.0
22,	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	290.0
23.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D -	
4.	Pesticide Residue	mg/kg	Feb,2007	<1.0
5.	Sand	%	USEPA 3540 C USEPA 8082	<0.5
6.	Silt		TPM/MSK/P&E/1/36A	42.0
7.		%	TPM/MSK/P&E/1/36A	28.0
-	Texture	None	TPM/MSK/P&E/1/36A	Clay Loam
8.	Clay	%	TPM/MSK/P&E/1/36A	30.0

# Biological Result

SI No.	Parameters	Unit	
L	Fungus (Phytobenthos)	CFU/g dry	Results 1521
2.	Total count (Phytobenthos)	50 mg wet sediment	235
3.	No of species (Phytobenthos)	Nos.	6
4.	Diversity index (Phytobenthos)	1100-	1.88
6.	Major Species (phytobenthos)	- Ante-	Coscinodiscus sp, Biddulphia mobilensis
7.	Name of Phylum (Fauna)	-244	Annelida, Mollusca
	Class & Number of individuals encountered (Fauna)		Plychaeta-74,Bivalvia-31
8.	Total no. of species encountered (Fauna)	Nos.	22
).	Total fauna (Fauna)	per m <sup>3</sup>	278

Report Prepared by:



For Mitra S.K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917 F (0674) 2362918



### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/803 Date : 01.09.2021

Sample No.: MSKGL/ED/2020-21/08/00872

Sample Description: Sea Sediment Sampling Location: Dredging Area Date of sampling: 19.08.2021

#### ANALYSIS RESULT

SL No.	Parameters	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	8.05
2,	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	1774.0
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffm:2015	0.98
4.	Moisture content	%	Lab Method	38.0
5.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	1245.0
6.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	124.0
7.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
8.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	<3,0
9	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	6.0
10.	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	1004,0
11.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	194.0
12.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	180.0
13.	Copper (as Cu)	mg/kg	EPA 6010D	18.0
14.	Nickel (as Ni)	mg/kg	EPA 6010D	8.2
15.	Zinc (as Zn)	mg/kg	EPA 6010D	28.0
16.	Manganese (as Mn)	mg/kg	EPA 6010D	160.0



Ref. No. BBS/803

Date-	01	00	202	. *

regn (us t.b)	Lead (as Pb) mg/ky The saves			
200	mg/kg	EPA 6010D	5.8	
Boron (as B)	mg/kg	IS 13428- 2005, Annex H	<5.0	
Aluminium ( as AI )	mg/kg		1000	
Total Chromium (as Cr)	mg/kg		2564.0	
Total Nitrogen (as N)	mg/kg		13.6	
Organic Nitrogen			246.0	
Total Petroleum Hydrocarbon	1		221.0	
	1	Feb,2007	<0.05	
		USEPA 3540 C USEPA 8082	<0.5	
	%	TPM/MSK/P&E/1/36A	40.0	
Silt	%	TPM/MSK/P&E/1/36A	23.0	
Texture	None	TPM/MSK/P&E/1/36A		
Clay	%		Clay Loam	
	Aluminium ( as AI ) Total Chromium (as Cr) Total Nitrogen (as N) Organic Nitrogen Total Petroleum Hydrocarbon Pesticide Residue Sand Silt Texture	Aluminium ( as AI ) mg/kg  Total Chromium (as Cr) mg/kg  Total Nitrogen (as N) mg/kg  Organic Nitrogen mg/kg  Total Petroleum Hydrocarbon mg/kg  Pesticide Residue mg/kg  Sand %  Silt %  Texture None	Aluminium ( as AI ) mg/kg EPA 6010D  Total Chromium (as Cr) mg/kg EPA 6010D  Total Nitrogen (as N) mg/kg IS 14684 (1999): Rffm:2014  Organic Nitrogen mg/kg TPM/MSK/P&E/3/68  Total Petroleum Hydrocarbon mg/kg USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007  Pesticide Residue mg/kg USEPA 3540 C USEPA 8082  Sand % TPM/MSK/P&E/1/36A  Silt % TPM/MSK/P&E/1/36A	

### Biological Result

SI No.	Parameters	Unit	
1,	Fungus (Phytobenthos)	CFU/g dry	Results
2.	Total count (Phytobenthos)	50 mg wet sediment	289
3.	No of species (Phytobenthos)	Nos.	5
4.	Diversity index (Phytobenthos)	71034	1.49
5,	Major Species (phytobenthos)	-	
6.	Name of Phylum (Fauna)		Nizschia distans, Coscinodiscus sp
7.	Class & Number of individuals encountered (Fauna)		Annelida, Mollusca
8.	Total no. of species encountered (Fauna)	Nos.	Plychaeta-56,Bivalvia-22
9.	Total fauna (Fauna)	per m³	148

Report Prepared by:

4-



For Mitra S.K. Private Limited



Ref: MSKGL/ED/BHU-2021/00480

Date: 01.09.2021

# Site Specific Monitored Meteorological Data

For: The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha

Sr. No.	Par	rameters	August.21 25.4		
3	2	Minimum			
I.	Temperature ( °C)	Maximum	37.4		
		Average	30,2		
	Z-17 10 10 10 10 10 10 10 10 10 10 10 10 10	Minimum	43.5		
2.	Relative Humidity (%)	Maximum	100.0		
		Average	72.2		
	Day was a second	Minimum	12.0		
3.	Wind Speed (m/s)	Maximum	13.6		
	-	Average	20.0		
4.	Wind Direction (%)	N	2.8		
		NNE	4.57		
		NE	9.14		
		ENE	7.8		
		E	3,4		
		ESE	2.41		
	ls .	SE	3.1		
		SSE	2,7		
		S	4.7		
		SSW	4.8		
		SW	18,4		
		WSW	21,7		
		W	8.4		
		WNW	4.2		
		CALM	1.88		
	Rainfall (mm)	Total	99.3		
. R		Minimum Day Wise	0.0		
		Maximum Day Wise	19.5		
		Average	0.13		
. 1		Minimum	748.0		
	Ambient Pressure (mm Hg)	Maximum	758.7		
	-Site Specific Data)	Average	751.9		

Prepared By

BBSR

Verified By



N-5/100, Ground Floor IRC Village, Nayapalli Bhiibaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F: (0674) 2362918

Report No: BBS/500A

Date: 01,10.2021

### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001300
Type of Sample	Ambient Air Sample
Sampling Location	Colony Area
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

Date	PARAMETERS											
	PM <sub>th</sub> (pg/m²).	PM <sub>D</sub> (m/m²)	SO <sub>3</sub> (µg/m <sup>4</sup> )	NOs (pg/m²)	CO (mg/m²)	NIt <sub>3</sub> (pg/m <sup>2</sup> )	O <sub>1</sub>	Ph (pth/m²)	(ng/m²)	As (rig/m²)	(jm/m²)	Ball' (mg/m²)
01:09.2021	43.86	21.45	6.46	17.42	0.58	13.66	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
05.09.2021	41.72	23.28	6.67	19.12	0.50	16,14	<20.0	< 0.01	<5.0	<1:0	<4.2	< 0.5
08.09.2021	41.26	25.18	6.88	21.65	0.61	20.63	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
12.09.2021	42.65	20.81	6.23	15.80	0.45	12.68	<20.0	< 0.01	<5.0	<1.0	<1.2	<0.5
15.09.2021	40.84	18.24	6.14	14.14	0.41	11.34	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
19.09.2021	42.24	27.18	7.08	20.22	0.71	22.16	<20.0	<0.01	<5.0	<1.0	<4.2	<0,5
22.09.2021	41.78	22.40	6.38	16.28	0.59	14.60	<20.0	< 0.01	<5.0	≤1,0	<4.2	<0.5
26.09.2021	41.50	21.28	6.34	19.46	0.50	15.47	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
29.09.2021	42.55	21.09	6.41	21,62	0.68	17.88	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
Monthly Average	42.04	22,32	6.51	18.41	0,56	16.06	<20.0	<0.01	<5.0	<1.0	<4.2	<0,5
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	Ĭ	-20	ń	5	1
Firmy Weighted Average (firs.)	24	24	24	24	i	24	1	24	Annual	Annual	Annual	Annual
TEST METHOD	1S 5182: Part 23:20 06 (Reaff , 2012	1S 5182: Part 24:201 9	18 5182 : Part 2 :2001 (Reaff, 2012	tS 5182 : Part 6 :2006 (Resff. 2012)	IS 5182 : Pari 10 :1999 (Reaff.20 14)	IS 5182: Part 25:201 8	tS 5182: Part 09:197	EPA - JO3.4J une,19 99	EFA - 103.43a ne,1999	EPA - 103,43a ar,1999	IS:5182( Part- 11):2006 Realf.20 (2	1S:5182; Part- 12):2004 Reaff,: 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

S. Kampo Prepared By -



Checked By-

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0874) 2362916, 2360917

F: (0574) 2362918

Report No: BBS/500B

Date: 01.10.2021

### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited; Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001300
Type of Sample	Ambient Air Sample
Sampling Location	Kanak Prasad Village
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24brs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

Date	PARAMETERS											
	Phla (µg/m²)	PMas (µg/m²)	50; (rg/in²)	NOx (µg/m²)	(mg/m³)	NH <sub>1</sub> (μη/m²)	(μg/m²)	(th (pg/m²)	Ni (regist)	As (ng/ns <sup>1</sup> )	C,II, (pg/m²)	(laP (leg/ar)
01.09.2021	42.44	28.30	6.42	19.08	0.66	16.01	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
05.09.2021	46.89	24,28	6.98	20.41	0.57	14.38	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
08.09.2021	42.36	20,61	6.64	18.50	0.47	14.52	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
12.09,2021	43.20	21.66	7.12	20.46	0.62	1533	<0.0	<0.01	<5.0	<1.0	<4.2	<0.5
15:09,2021	45.12	22.49	6.78	20.23	0.54	17.66	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
19.09.2021	46.93	23.81	6.88	21.76	0.62	14.47	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
22.09.2021	45.63	24.61	6.79	22.19	0.51	18.17	<20.0	< 0.01	<5.0	<1.0	<1.2	50.5
26.09.2021	45.10	21,39	6.68	20.88	0.69	16.66	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
29,09,2021	47.13	25.54	6.44	21.74	0.57	18.14	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
Monthly	44.98	23.63	6.74	20.58	0.58	16.15	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
CPCB, New Bellii AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	1
Time Weighted Average (hrs.)	24	24	24	24	1	24	1	24	Annual	Annual	Annual	Annual
TEST METRIOD	IS 5182: Part 23:20 06 (Reaff -2012	15 5182: Part 24:201 9	1S 5182 ; Part 2 :2001 (Realf, 2012	1S 5182 † Part 6 :2006 (Meaff, 2012)	IS 5182 ; Part 10 ;1999 (Reaff.20 [4]	15 5182: Part 25:201 8	1S 5182: Part 19:197	EPA - 103-4J 100-19 99	EPA - 103.4Ju ne.1999	EPA - 103.45u pr,1999	15:5182( Part- 11):2006 Renf(,20 12	IS:5182; Part- 12):2004 Reaff;; 2014

N.B. \*NAAQ- National Ambient Air Quality Standard to per 18th Nov. 2009 Gatt. Notification





Checked By- Polate



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F: (0674) 2352918

Report No: BBS/500C

Date: 01.10.2021

## AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001300
Type of Sample	Ambient Air Sample
Sampling Location	Near BMH
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

	-					PAI	MAMETER	S				
Date	PM <sub>in</sub> (µg/m²)	Phi <sub>25</sub> (µg/m²)	SO <sub>2</sub> (µg/m <sup>2</sup> )	NOs (pg/m²)	(mg/m³)	NII <sub>1</sub> (µg/m <sup>2</sup> )	Ο <sub>2</sub> (μg/m²)	Pb (µg/m²)	(ng/m³)	As (ng/m²)	C <sub>4</sub> H <sub>4</sub> (µg/m²)	BaP (ng/m²)
01,09.2021	54.75	31.26	6.87	22.12	0.62	18.24	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
05.09.2021	57,33	21,72	6.99	23.16	0.69	20.52	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
08.09,2021	54.45	27.84	7.45	27.63	0.78	25.16	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
12.09.2021	50.28	30.14	6.47	20.32	0.44	16.72	<20.0	<0.01	<5.0	<1.0	012	<0.5
15.09.2021	52.17	29.80	6.29	19.66	0.52	14.14	<20.0	<10.00	<5.0	<1.0	<4.2	<0.5
19.09.2021	58.70	27.30	6.87	21.42	0.62	19,48	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
22.09.2021	53.22	30.20	6.91	22.99	0.71	20.49	<0.0	<0.01	<5.0	<1.0	<4.2	<0.5
26.09.2021	51.25	28.80	6.09	14.46	0.40	11.62	<0.0	<0.01	<3.0	<1.0	<4.2	<0.5
29.09.2021	56.27	39.40	6.44	21.20	0.49	15.70	<20.0	< 0.01	<5.0	<1.0	<4.2	
Monthly Average	54,27	29.94	6.71	21.44	0.58	18.00	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	0
Time Weighted Average (hrs.)	24	24	24	24	.1	24	4	24	Annual	Annual	Anoust	Annual
TEST METHOD	1S 5182: Part 23:20 06 (Reaf f. 2012	IS 5182: Part 24:20 19	1S 5182 : Purt 2 :2001 (Reaff :20)2	IS 5182 : Part 6 :2006 (Reaff ,2012)	15 5182 2 Part 10 :1999 (Reaff.2 014)	1S 5182: Part 25:20 18	15 5182: Part 09:19 74	EPA - 103.4 June, 1999	EPA - 103,4Ju .ne,1999	EPA - 103.4Ju nc,1999	IS:5182 (Part- 11):200 6 Reaff,2 012	IS:5182 (Part- 12):200 4 Reaff,: 2014

N.B. \*NAAQ- National Amblent Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

S. Kampe Prepared By J



Checked By- Boyall

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917

F: (0674) 2362918

Report No: BBS/500D

Date: 01.10.2021

## AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001300
Type of Sample	Ambient Air Sample
Sampling Location	Near Jetty
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

						PAS	KAMETER	S				
Date	PM <sub>m</sub> (µg/m²)	PM <sub>2.6</sub> (μg/m²)	50; (µg/m²)	(ing/es²)	CO (mg/m²)	NH, (sig/m²)	O <sub>2</sub> (µg/m²)	Pb ()sg/m²)	Ni (ng/m²)	As (ng/m²)	(pg/m²)	Half (mg/m²)
01.09.2021	62.82	31.92	7.12	23.48	0.73	23.14	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
05.09.2021	58.24	34.50	6.97	25.90	0.69	21.35	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
08.09.2021	61.45	32.18	7.15	22.47	0,77	14.86	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
12.09.2021	52.34	28,74	6.22	20.11	0.44	17.61	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
15.09.2021	60,52	29.10	7.01	21.66	0.68	22.18	<20.0	⊲0.01	<5.0	<1.0	c4.2	<0.5
19.09.2021	65.40	30,64	7,47	23.32	0.71	26.24	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
22:09:2021	60.88	31.23	7.21	23.10	0.67	20.15	<20.0	<0.01	<5.0	<1.0	×4.2	<0.5
26.09.2021	56.10	27.42	6.21	19.59	0.60	17,19	<20.0	<0.01	<5.0	<1.0	<4.2	< 0.5
29.09.2021	61.41	31.46	7.10	23,45	0.74	20.85	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
Manthly Average	59.90	30.80	6.94	22.56	0.67	21.50	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
CPCB, New Delhi AAQ Standard	100	60	80	80	4	400	180	1	20	6	5	i
Time Weighted Average (hrs.)	24	24	24	24		24	4	24	Annual	Annual	Annual	Annoal
TEST METHOD	1S 5182: Part 23:20 06 (Reaf £ 2012	tS 5182; Part 24:20 19	IS 5182 : Part 2 :2001 (Reaft .2012	IS 5182 : Part 6 :2006 (Reaff .2012)	IS 5182 : Part 10 :1999 (Reaff.2 014)	IS 5182: Part 25:20 IS	15 5182: Pari 09:19 74	EPA - 103.4 June, 1999	EPA - 103.4Ju ne,1999	EPA - 1O3,4Ju nc,1999	IS:5182 (Part- 11):200 6 Reaft,2 012	IS:5182 (Part- 12):200 4 Reaff,: 2014

N.B. \*NAAC)- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification:

Prepared By - Je



Checked By- Body

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917

F (0674) 2362918

Report No: BBS/500E



Date: 01.10.2021

### AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001300
Type of Sample	Ambient Air Sample
Sampling Location	Dosinga Village
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

						PAI	LAMETER	5				
Date	PMm (µg/m²)	PM <sub>1.6</sub> (ng/m <sup>2</sup> )	SO <sub>1</sub> (pg/m <sup>2</sup> )	NOs (µg/m²)	(mg/m²)	NH <sub>2</sub> (pg/m <sup>5</sup> )	O <sub>5</sub> (ng/m <sup>3</sup> )	Pb (µg/m²)	NI (ng/m²)	(ng/m²)	Cally (pg/m²)	BaP (ng/m²)
01.09.2021	43.23	26.50	6,78	21,49	0.69	20.15	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
05.09.2021	40.35	24.46	6.37	21.88	0.57	18.45	<20.0	< 0.01	<0.0	<1.0	<4.2	<0.5
08.09.2021	42.33	25,37	7.11	22.36	0.74	24.17	<20.0	<0.01	-55.0	<1.0	<4.2	<0.5
12.09.2021	44.80	24.26	6.24	18.10	0.57	13.53	<20.0	< 0.01	≺5.0	<1.0	<4.2	<0.5
15,09.2021	41.23	25.41	6.55	22.13	0.60	19.36	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
19.09.2021	44,42	22.40	7.32	21.18	0.84	26.11	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
22,09,2021	46.10	23.10	6.89	21.20	0.71	17.82	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
26.09.2021	41,62	20,08	6.19	16.23	0.43	12.54	<20.0	< 0.01	<5.0	<1.0	c4.2	<0.5
29.09.2021	46.10	24.51	6.61	23.12	0.58	16.71	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
Monthly Average	43,53	24.01	6.67	20.85	0.63	18.76	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
CPCB, New Delhi AAQ Standard	100	60	80	80	-9	400	180	1	20	6	5	- 1
Time Weighted Average (hrs.)	24.	24	24	24	i	24	i	24	Annual	Annual	Annual	Annual
TEST METHOD	IS 5182; Part 23:20 06 (Reaf f. 2012	IS 5182; Part 24;20 19	15 5182 ; Part 2 ;2001 (Reaff _2012	1S 5182 : Part 6 :2006 (Reaff ,2012)	IS 5182 : Part IO :1999 (Resff.2 014)	15 5182: Part 25:20 18	15 5182: Part 09:19 74	EPA - 103.4 June, 1992	EPA - 103.4Ju ne,1999	EPA - 103,4Jq ne,1999	IS:5182 (Part- 11):200 6 Renft,2 012	IS:5182 (Part- 12):200 4 Realf,: 2014

N.B. \*NAAQ- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

Prepared By - F



Checked By- Pagall

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F : (0674) 2362918

Report Not BBS/500F



Date: 01.10.2021

## AMBIENT AIR QUALITY MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001300
Type of Sample	Ambient Air Sample
Sampling Location	Near Bhitarkanika
Sampling Done by	Mr. Kunja Bihari Nayak
Sampling Duration	24hrs
Monitoring Instrument	RDS (APM 860), FPS (APM 154) Lata Envirotech, CO Analyzer & VOC Sampler

	-					PAI	CAMETER	3				
Date	(ug/m²)	(pg/m²)	50 <sub>2</sub> (pg/m²)	NOs (µg/m²)	CO (mg/m²)	NIIs (ug/m²)	O <sub>3</sub> (µg/m²)	Ph (µg/as²)	Ni (ng/m²)	As (ng/m²)	Celle. (µg/m²)	Dair (ng/m²)
01,09,2021	12,72	25.84	6.78	21,82	0.44	21.52	<20.0	< 0.01	<5.0	<1.0	<4.2	<0.5
05.09.2021	31,36	21,76	7.29	23.10	0.57	20.22	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
08.09.2021	42.28	20.94	6.27	17.38	0.51	12.61	<20.0	10.0>	<5.0	<1.0	<4.2	<0.5
12.09.2021	40.26	23.42	7.01	22.17	0.77	23.37	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
15,09.2021	43.74	22.52	6.54	21.44	0.54	18.16	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
19.09.2021	40.58	21.87	6.29	20,32	0.42	17.57	<20.0	< 0.01	<5.0	<1.0	~1.2	<0.5
22.09.2021	43.16	23.56	6.47	22.42	0.68	19,56	<20.0	<0.01	<5.0	<1.0	=1.2	<0.5
26.09.2021	42.88	22.67	6.39	17.86	0.74	13.10	<20.0	< 0.01	<5.0	<1.0	<4.2	=0.5
29.09.2021	44.26	23.42	6.62	19.54	0.47	14.88	<20.0	<0.01	<5.0	<1.0	<4.2	=0.5
Montaly Average	43,47	23,00	6.63	20.67	0,57	17.89	<20.0	<0.01	<5.0	<1.0	<4.2	<0.5
CPCB, Neu Delhi AAQ Standard	100	60	80	80	4	400	180	T	20	6	5	- 1
Time Weighted Average (hrs.)	24	24	24	24	Ĭ	24	Ţ.	24	Annual	Annual	Anonal	Annual
TEST METHOD	1S 5182: Part 23:20 06 (Reaf f, 2012	15 5182; Part 24:20 19	1S 5182 : Part 2 :2001 (Renff .2012	IS 5182 : Part 6 :2006 (RealT ,2012)	1S 5182 2 Part 10 11999 (Realf.2 014)	1S 5182: Part 25:20 18	1S 5182: Part 09:19 74	EPA - 103.4 June, 1999	EPA - 103.4Ju ne,1999	EPA - 103.4Ju nc,1999	IS;5182 (Part- 11):200 G Reaff,2 012	IS:5182 (Part- 12):209 4 Reaff;; 2014

N.B. \*NAAQ: National Ambient Air Quality Standard as per 18th Nov. 2009 Gast. Notification

Prepared By - Je



Checked By- BOak

MSK TESTING\*INSPECTION

N-5/100, Ground Floor IRC Village, Nayapall Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T (0674) 2362916, 2360917

F (0674) 2362918

## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

Report No.: BBS/801 Date : 01.10.2021

Sample No. : MSKGL/ED/2020-21/09/00819 Sample Description : EFFLUENT WATER

Sampling Location: STP 15 KLD Date of sampling: 02.09.2021

#### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result		
No.					Inlet	Outlet	
L	Colour	Hazen '	-	APHA (23rd Edition) 2120B 2017	Blackish	Clear	
2.	Odour	770	**	APHA (23rd Edition) 2150B	Disagreeable	Agreeable	
3.	pH value at 26°C	-	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	6.78	7.08	
4.	Appearance		+	Lab Method	Turbid	Clear	
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	117.0	<2.5	
6.	BOD	mg/l	<10.0	APHA (23rd Edition) 5210B 2017	44.0	<2.0	
7.	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	156.0	11,0	
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	6.3	<1.4	
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	13.0	0.26	
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	17.0	2.2	
II.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>nd</sup> Edition) 9221 E	2800.0	142.0	

Report Prepared by:



For Mitra S. K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

F: (0674) 2362918

## TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

6DIST: BHADRAK, PIN:756171 ODISHA

Report No.: BBS/802 Date: 01.10.2021

Sample No.: MSKGL/ED/2020-21/09/00823 Sample Description: EFFLUENT WATER

Sampling Location: STP 140KLD Date of sampling: 02.09.2021

#### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Resi	alt
No.	The same of the same		-		Inlet	Outlet
J.S.	Colour	Hazen	- 4	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear
2.	Odour	2775	144	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C		6.5 - 9.0	APHA (23rd Edition) 4500 H-B	6.91	7.20
4.	Appearance	Dec.		Lab Method	Turbid	Clear
5.	TSS	mg/t	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	42.0	<2.5
6.	BOD	mg/I	<10.0	APHA (23rd Edition) 5210B 2017	31.0	<2.0
7.	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	122.0	8.0
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	4.8	<1.4
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	14.0	<0.1
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffin:2014	19.0	< 0.1
ſЪ	Faccal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	790.0	134.0

Report Prepared by:



For Mitra S. K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0674) 2362918

## TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA

Report No.: BBS/803 Date: 01.10.2021

Sample No.: MSKGL/ED/2020-21/09/00600 Sample Description: EFFLUENT WATER

Sampling Location : STP 15 KLD Date of sampling : 16.09.2021

#### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Resi	ilt
No.		100	1 6000		Inlet	Outlet
1.	Colour	Hazen	4	APHA (23rd Edition) 2120B 2017	Blackish	Clear
2.	Odour	****	++1	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C	100	6.5 - 9.0	APHA (23 <sup>rd</sup> Edition) 4500 H-B	6.77	7.22
4.	Appearance	1775	-	Lab Method	Turbid	Clear
5.	TSS	mg/I	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	68.0	<2.5
6.	BOD	mg/f	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	25.0	<2,0
7.	COD	mg/I	<50.0	APHA (23rd Edition) 5220B 2017	120.0	8.0
8.	Oil & Grease	mg/l	<10.0	APHA (23rd Edition) 5220B 2017	4.0	<1,4
9,	Ammonical Nitrogen	mg/I	<5.0	APHA (23 <sup>st</sup> Edition) 4500-NH3-F 2017	14.0	<0.1
10,	Total Nitrogen (as N)	mg/I	<10.0	IS 14684 (1999); Rffin:2014	21.0	2.8
n.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	2000.0	115.0

Report Propared ty:



For Mitra S. K. Private Limited

N-5/100, Ground Floor

IRC Village, Navapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No. : BBS/804 : 01,10,2021

Sample No.: MSKGL/ED/2020-21/09/00601 Sample Description: EFFLUENT WATER

Sampling Location : STP 140KLD Date of sampling : 16.09.2021

#### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result		
No.			-	222.27411111111111	Inlet	Outlet	
1,	Colour	Hazen -		APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear	
2.	Odour		-	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable	
3,	pH value at 26°C	****	6.5 - 9.0	APHA (23rd Edition) 4500 H-B	6.98	7.08	
4.	Appearance		-	Lab Method	Turbid	Clear	
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	110,0	<2.5	
6.	BOD	mg/t	<10.0	APHA (23rd Edition) 5210B 2017	40.0	3.6	
7.	COD	mg/l	<50.0	APHA (23rd Edition) 5220B 2017	160.0	14.2	
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	4.8	<1.4	
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	18.0	40,1	
10,	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	22.0	1.8	
He	Faccal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	1490.0	127.0	



For Mitra S. K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/805

Date : 01.10.2021

Sample No.: MSKGL/ED/2020-21/09/00700

Sample Description: Ambient Noise

### Noise Level Monitoring Data

SI. No	Sampling	Sampling	Day Leq. Time	e dB(A)	Night Time Le	q. dB(A)
	Date	Location	Results	LIMIT	Results	LIMIT
1.	02.09.2021	Colony Area (R)	44.6	55	42.3	45
2.	04.09.2021	Kanak Prasad Village (R)	43.2	55	40,5	45
3.	06.09.2021	Near BMH (I)	55.9	75	54.7	70
4.	07.09.2021	Near Jetty (I)	69.5	75	66.8	70
5.	11.09.2021	Dosinga Village (R)	47.6	55	40.8	45
6.	13.09.2021	Near Bhitarkanika (Eco Sensitive Zone)	44.7	50	37.5	40

		Noise Limit as per CP	CB
Category of Area/Zone	Leq dB(A) Day Time	Leq dB(A) Night Time	NOTE:
Industrial Area	75	70	Day Time: 06.00 Hr22.00 Hr.
Commercial Area	65	55	Night Time:22.00 Hr06.00 Hr.
Residential Area	55	45	
Silence Zone	50	40	

Report Prepared by:

BBSR ST

For Mitra S. K. Private Limited

Authorized Signatory

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TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/806 Date : 01.10.2021

Sample No.: MSKGL/ED/2020-21/09/00920 Sample Description: Noise (Work Zone)

## Noise Level Monitoring Data

SL No	Sampling Date	Sampling Location	MAX	MIN	Results in Avg. dB(A)
b	01.09.2021	Stack Yard	85.2	42.7	72.9
2.	05.09.2021	Wagon Tippler	91.1	41.5	71.8
3.	08.09.2021	Near Silo	111.6	77.0	86.2
á.	09.09,2021	Near Stacker & Reclaimer	80.5	36.6	68.4
5.	23.09.2021	Project Area	85,7	40.9	65.7
6.	14.09.2021	Transfer Point	80.4	58.6	67.0
7.	18.09.2021	Workshop	122.6	35,3	96.1
8.	19.09.2021	Steel Yard	88.3	53.9	73,3
9.	20.09.2021	FCC Shed	89.8	42.7	72.9
0.	21.09.2021	Near Port Canteen	79.6	57.5	68.2

OSHA'S Permissible N	loise Exposure Limits
Noise Level	Exposure Limit
90 dBA	8.0 hours

Report Prepared by:

BBSR)

For Mitra S.K. Private Limited

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[CIN: U51909WB1956PTC023037]

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Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

6DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/807 Date : 01.10.2021

Sample No.: MSKGL/ED/2020-21/08/00313 Sample Description: EFFLUENT WATER

Sampling Location : STP 150KLD Date of sampling : 02.09.2021

### ANALYSIS RESULT

SL.	Test Parameters	Units	Limit	Test Specification	Result	
No.			-	250.2[350](8110)	Inlet	Outlet
1.	Colour	Hazen	-	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear
2.	Odour		-	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C		6.5 - 9.0	APHA (23rd Edition) 4500 H-B	7,23	7.36
4.	Appearance	-	77	Lab Method	Turbid	Clear
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	113.0	<2.5
6.	BOD	mg/I	<10.0	APHA (23rd Edition) 5210B 2017	54.0	<2.0
7.	COD	mg/l	<50,0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	177.0	7.0
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	6.0	<1.4
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	24.0	<0.1
10.	Total Nitrogen (as N)	mg/f	<10.0	IS 14684 (1999); Rffm:2014	38.0	2.3
11.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	3100.0	141.0

Report Prepared by:

BESR

For Mitra S. K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No.: BBS/808 Date: 01.10.2021

Sample No.: MSKGL/ED/2020-21/09/00602 Sample Description: EFFLUENT WATER

Sampling Location : STP 150KLD Date of sampling : 16.09,2021

#### ANALYSIS RESULT

SL. No.	Test Parameters	Units	Limit	Test Specification	Resi	alt
			-90	1	Inlet	Outlet
L.	Colour	Hazen	(4+)	APHA (23rd Edition) 2120B 2017	Blackish	Clear
2.	Odour		-	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C		6.5 - 9.0	APHA (23rd Edition) 4500 H-B	6.67	7.78
4.	Appearance		77	Lab Method Turbid		Clear
5.	TSS	mg/l	<20.0	APHA (23rd Edition) 2540D	119.0	<2.5
б.	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	30.0	<2.0
7.	COD	mg/l	<50.0	APHA (23rd Edition) 5220B 2017	124.0	6.2
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	3.4	<1.4
9,	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	21.0	<0.1
10.	Total Nitrogen (as N)	mg/I	<10.0	IS 14684 (1999); Rffm:2014	36.0	2.7
11.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	7000.0	136.0

Report Prepared by:



For Mitra S. K. Private Limited

MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer; THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/809 Date : 01.10.2021

Sample No.: MSKGL/ED/2020-21/09/00955 Sample Description: VOC Monitoring

#### ANALYSIS

SI. No	Date of Monitoring	Sampling Location	Method of Analysis	Parameter	Result
1.	01.09,2021	Jetty	Jetty		<0.008
2.	06.09.2021	Wagon Tippler		1	<0.008
3.	07.09.2021	Near Silo	NIOSH-1501 Volatile Organic		<0.008
4.	08.09.2021	Transfer Point	0.510.501	Compound	
5.	09.09.2021	BMH Workshop	1	( VOC in mg/m³)	<0.008
6.	14.09.2021	Steel Yard			<0.008
7.	15.09,2021	FCC Shed			<0.008
8.	13.09.2021	SS 6 Office			<0.008

Report Prepared by:



For Mitra S. K. Private Limited

MSK TESTING INSPECTION

N-5/100. Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No.: BBS/811 Date : 01,10,2021

Sample No. : MSKGL/ED/2020-21/09/00821 Sample Description : EFFLUENT WATER

Sampling Location: STP 25KLD Date of sampling: 02.09.2021

## ANALYSIS RESULT

SL. No.	Test Parameters	Test Specification		Limit Test Specification		ult
					Inlet	Outlet
t.	Colour	Hazen		APHA (23rd Edition) 2120B 2017	Blackish	Clear
2,	Odour	-	To the same	APHA (23 <sup>rd</sup> Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C		6.5 - 9.0	APHA (23 <sup>rd</sup> Edition) 4500 H-B	6.80	7.16
4.	Appearance		-	Lab Method		
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	103.0	Clear <2.5
6,	BOD	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5210B 2017	54.0	3.8
7.	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	188.0	16.0
8.	Oil & Grease	mg/I	<10,0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	7.0	
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	15.0	<0.1
0.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	19.0	<0.1
1,	Faccal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rt</sup> Edition) 9221 E	3500.0	137.0

Report Prepared by:

BBSR

For Mitra S. K. Private Limited

N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

T : (0674) 2362916, 2360917

F: (0674) 2362918



## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No. : BBS/812 Date : 01.10.2021

Sample No.: MSKGL/ED/2020-21/09/00603 Sample Description: EFFLUENT WATER

Sampling Location: STP 25KLD Date of sampling: 16.09.2021

#### ANALYSIS RESULT

No.	Test Parameters	Units	Limit	Test Specification	Resi	ult
					Inlet	Outlet
I,	Colour	Hazen	++	APHA (23 <sup>rd</sup> Edition) 2120B 2017	Blackish	Clear
2.	Odour	-	- 45	APHA (23rd Edition) 2150B	Disagreeable	Agreeable
3.	pH value at 26°C	***	6.5 - 9.0	APHA (23 <sup>rd</sup> Edition) 4500 H-B	7.33	7.61
4.	Appearance	****	199	Lab Method Turbid		Clear
5.	TSS	mg/l	<20.0	APHA (23 <sup>rd</sup> Edition) 2540D	129.0	<2.5
6.	BOD	mg/l	<10.0	APHA (23rd Edition) 5210B 2017	20.0	2.6
7.	COD	mg/l	<50.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	96.0	10.0
8.	Oil & Grease	mg/l	<10.0	APHA (23 <sup>rd</sup> Edition) 5220B 2017	6.0	<1.4
9.	Ammonical Nitrogen	mg/l	<5.0	APHA (23 <sup>rd</sup> Edition) 4500-NH3-F 2017	19.0	<0.1
10.	Total Nitrogen (as N)	mg/l	<10.0	IS 14684 (1999); Rffm:2014	26,0	2.4
n.	Faecal Coliform	MPN/ 100ml	<1000.0	APHA (23 <sup>rd</sup> Edition) 9221 E	1390.0	119,0

Report Prepared by:



For Mitra S. K. Private Limited

N-5/100. Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037)

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Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST BHADRAK, PIN :756171 ODISHA

Report No. : BBS/813

Date 121.09.2021

Sample No. : MSKGL/ED/2020-21/08/00145

TESTING . INSPECTION

Sample Description: Waste Water Sampling Location: Lily Pond Date of Sampling: 28.08.2021

ANALYSIS RESULT

SL No.	Test Parameters	Units	Standard ns per Sch.VI of EP Rules, 1986	Test Method / Specification	Result
_b	Colour	Hazen		APHA 23rd Edition 2120B 2017	BDL(DL:1,0)
2	Odour	-	- esse	APEIA: 23rd Edition, 2150B	Agreeable
3.	pH at 25°C	-	5.5-9.0	APHA 23rd Edition, 4500-H-B	9.05
4,	Copper as Cu	mg/l	3.0	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02)
5	Fluoride as F	mg/l	2.0	APHA (23rd Edition)4500 - F C/D, 2017	0.18
6.	Iron as Fe	mg/l	3.0	APHA 23rd Edition.3500 Fe B 2017	5.40
7.	Manganese as Mn	mus/I	2.0	APHA (23rd Edition)3120B 2017 (JCP OES)	
			1.0		BDL(DL:0.02)
8.	PhenolicComputer as CaHaOH	big/l		APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(Df.:0.001)
9.	Selemum as 5e	mg/l	5.0	APHA (23rd Edition) 3120B 2017	BDL(DL:0.005)
10.	Cadmium as Cd	mg/l	2.0	APIIA (23rd Edition)3120B 2017	BDL(DL:0.001)
11.	Cyanide as CN	mg/1	0.2	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.01)
12.	Lead as Pb	mg/l	0.1	APHA (23rd Edition)3120B 2017	BDL(DL:0.005)
13.	Mirrory as Hg	mg/l	0.01	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.001)
14.	Nickel as Ni	mg/I	3.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.02)
15.	Arsenic as As	mg/l	0,2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.005)
16,	Total Chromium as Cr	mg/l	2.0	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(D1:0.01)
17.	Zinc as Zn	mg/l	5.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.02)
18.	Hexavalent Chromium as Cr	mg/l	0.1	APHA 22nd Edition, 3500 Cr.B.	BDL(DL:0.01)
19.	Vanadium as V	mg/l	0.2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.2)
20.	Total Suspended solids	mg/I	100.0	APHA 23rd Edition, 2540D	44,00
2).	Тепирегацие	Deg C	Shall not exceed 5° C above the receiving water Temp.	APHA 23/d Edin,2550 B	25.00
22.	BOD (3days at 25°C)	mg/I	30.0	APHA (23rd Edition)5210B 2017	28.00
23,	COD	mg/I	250.0	APHA 23rd Edition, 5220B 2017	104.00
24.	Oil & Grease	mp/l	10.0	APHA 23rd Edition, 5520B 2017	BDL(DL;1.4)
25.	Ammonical Nitrogen as N	mg/l	50.0	APHA (23rd Edition) 4500-NH3-F 2017	BDL(DL:0.1)
26.	Total Kjeldal Nitrogen as N	mg/L	100.0	APHA (23rd Edition) 4500- Norg-B,2017	27.00
27.	Sulphide as S	mig/l	20	APHA (23rd Edition)4500 S2- D,2017	DDL(DL.0.1)
28	Total Residual Chlorine	rag/l	1.0	IS 3025(Part-26)-1986 Rffm:2009	BDL(DL:0,1)
29.	Dissolved Phosphate as P	mg/l	5.0	APHA 23rd Edition.4500P, B -D 2017	0.83
30.	Anmonia as NII <sub>2</sub>	mg/I	5.0	APRA 23rd Edn 4500NH3-F 2017	BDL(DL:0.1)
31:	Nitrate Nitrogen as NO;	mg/l	10.0	APHA (23rd Edition) 4500- NO3-E, 2017	2.40
32.	Particle Size of Suspended Solids	***	Shall pass 850µm IS seve	TPM/MSK/P&E/3/55	Pass through 850µm IS sieve

Report Prepared ty

Mitra S. K. Private Limited

Authorized Signatory

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BBSR

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

(CIN: U51909WB1956PTC023037)

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Report No. : BBS/813 Date ± 01,10,2021

Sample No.: MSKGL/FD/2020-21/09/00810

Date of sampling : 04.09.2021 Sampling Description : Drinking Water Sampling Location: Township E Block Area Sampling Done By : Mr. Kunja Bibaci Nayak

THE DHAMRA PORT COMPANY LIMITED AT : DOSINGA, PO : DHAMRA

Name & Address of the Customer :

DIST : BHADRAK, PIN :756171 ODISHA

BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. Na	Test Parameters	Units	Limit	Test Method / Specification	Result
1-	E. Coli	/100ml	Not Detectable	1S: 15185 ; 2016	Not Detected
2.	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

SL. No.	Test Parameter	Units	(Acceptable (Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Hesult
1.	pH ( m 26° C)	100	6.5 - 8.5	No Relaxation	IS 3025 (Part 11)-1984 Rffm: 2012	7.61
2	Sulphate (as SO <sub>4</sub> )	mg/l	200	400	1S 3025 (Part 24)- 1986 Rffm: 2014	32.00
3	Calcium (as Ca)	rmg/l	75	200	IS 3025 (Part 40)- 1991 Rffm; 2014	34.00
4	Arsenic (as As)	mg/T	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BOL(DL:0.005)
5.	Lead (as Pb)	nug/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.003)
6.	Zinc (as Zn)	T/spm	5.0	15.0	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	mg/I	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(D1::0.02)
8.	Mercury (as Hg)	mg/l	0.001	No Relaxation	IS 3025 (Part 48)-1994 Riffm: 2014	BDL(DL-0.0002)
9.	Calmium (as Cd)	mg/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/I	0.5	No Relaxation	15 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11.	Fluoride (as F)	mg/I	1,0	1.5	IS 3025 (Part 60)- 2008 Juffin; 2013	BDL(DL:0.2)
12.	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1.0)
13.	Odour	time!	Agreeable	Agreeable	IS 3025 (Part 5)-1983 Rffm:2012	Agreeable
14.	Turbidity	N.T.U	1	5	15 3025 (Part 10)-1984 Rffm: 2012	EDL(DL:1.0)
15.	Residual free Chlorine	rog/F	0.2	1.0	IS 3025 (Part 26)- 1986 Rffm:2014	BDL(DL:I)(1)
16,	Iron (as Fe)	Paper.	0.3	No Relaxation	1S 3025 (Part 33)-1988 Riffin: 2014	0.42
17.	Chloride (as Cl)	ing/I	29)	1000	IS 3025 (Part 32)-1988 Riffin: 2014	87.00
18.	Total Dissolved Solids	mg/I	500	2000	1S 3025 (Part 16)-1984; Rfflm:2012	531.00
10.	Alkalinity (as CaCO <sub>1</sub> )	mg/t	200	600	15 3025 (Part 23)- 1986 Rffin: 2009	312.00
20.	Aluminium (us Al)	nag/I	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,01)
21.	Magnesium (as Mg)	mg/t	30	100	1S 3025 (Part 46)-1994 Rffm: 2014	26.00
22.	Total Hardness (as CaCO <sub>1</sub> )	ing/t	200	600	1S 3025 (Part 21)-2013	193.00
23.	Boron (as R)	mg/L	0.5	1,0	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	mp/l	0.1	0.3	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>3</sub> )	mg/l	45	No Relaxation	15 3025 (Part 34)-1988 Rffm; 2014	BDL(DL:0.5)
26.	Phenotic Compounds (as C <sub>2</sub> H <sub>3</sub> OH)	mg/l	0.001	0.002	IS 3025 (Part 43)- 1992; Riffin: 2014	BDL(DL:0.001)
27.	Sclenium (as Se)	rag/1	0.01	No Relaxation	JS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28	Total Chromium (as Cr.)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	DOL(DL:0,01)
29.	Silver (as Ag)	mg/l	0.1	No Retrontion	1S 3025 (Part 2) 2004 RA 2014	BDL(DL-0.005)
30.	Burium (as Ba)	mg/l	0.7	No Relaxation	15 5025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31.	Salinity	mg/1		2161	1S 3025 (Part 14)- 2013	47.00



#### Date- 01,10,2021

32.	Sulphide ( as H2S)	mg/l	0.05	No Relaxation	1S 3025 (Part 29)- 1991; Rffm: 2014	THE COLUMN
33.	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Riffin: 2014	BDL(DL:0.02) BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	1S 3025 (Part 26)- 1986; Rffin: 2014	
35.	Nickel ( as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	1\$ 13428(Annex K)- 2005	BDL(DL:0.01) BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edm.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Hipbenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Navapalli Bhubaneswar - 751015 CIN U51909WB1956PTC0230571

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#### TEST REPORT

Report No. ± BBS/814 Date :01.10.2021

Sample No.: MSKGL/FD/2020-21/09/00811

Date of sampling ± 04.09.2021 Sampling Description : Drinking Water Sampling Location: Prefab Area

Sampling Done By : Mr. Kuma Bihari Nayak

THE DHAMRA PORT COMPANY LIMITED AT : DOSINGA, PO : DHAMRA

Name & Address of the Customer:

DIST: BHADRAK, PIN .756171 ODISHA

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Units	Limit	Test Method / Specification	Result
-1	E Coli	7100mi	Not Detectable	IS: 15185 ; 2016	Not Detected
2.	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

SL No.	Test Parameter	Units	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH ( at 26° C)	1000	6.5 - 8.5	No Relaxation	IS 3025 (Part 11)-1984 Rffm; 2012	7.60
2.	Sulphate (as SO <sub>4</sub> )	mg/l	200	400	1S 3025 (Part 24)- 1986 Rffm: 2014	39.00
3.	Calcium (as Ca)	mg/l	75	300	15 3025 (Part 40)- 1991 Rifm; 2014	34.00
4.	Arsenic (as As)	mg/L	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lead (as Pb)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
fr.	Zinc (as Zn)	mge/l	50	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	mg/i	0,05	1.5	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Hg)	mg/l	.0.001	No Relaxation	45 3025 (Part 48)-1994 Rffm: 2014	BDL(DL:0,0002
9.	Cadmium (ns Cd)	mg/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mje/l	0.5	No Relaxation	1S 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11,	Fluoride (tis F)	mg/l	1,0	1.5	IS 3025 (Part 60)- 2008 R(fm: 2013	BDL(DL:0.2)
12	Colour	Huzen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1.0)
13.	Odour	-00	Agreeable	Agrecable	IS 3025 (Part 5)-1983 Rffm:2012	Agreeable
14.	Turbidity	N.T.U	1	- 3	1S 3025 (Part 10)-1984 Rffm: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/l	0.2	1,0	IS 3025 (Part 26)- 1986 Riffnt:2014	BDL(DL:0,1)
16:	Iron (as Fe)	mg/l	0.3	No Relixation	1S 3025 (Part 53)-1988 Riffin: 2014	0.18
17.	Chloride (as Cl)	mg/I	250	1000	1S 3025 (Part 32)-1988 Rffm: 2014	76.00
18.	Total Dissolved Solids	mg/l	300	2000	IS 3025 (Part 16)-1984; Rffm:2012	551.00
19	Alkalinity (as CaCO <sub>3</sub> )	mg/i	200	600	IS 3025 (Part 23)- 1986 Rillin: 2009	345.00
20.	Aluminium (as Al)	mg/l	0.03	0.2	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/l	30	100	IS 3025 (Part 46)-1994 Rffm: 2014	26.00
22.	Total Hardness (as CaCO <sub>3</sub> )	mg/l	200	600	IS 3025 (Part 21)-20(3	193.00
23,	Horon (ns B)	nsg/L	0.5	1.0	IS 3025 (Part 2) 2001 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	mu/I	0.1	0.3	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nisrate (as NO <sub>1</sub> )	mag/I	45	No Relaxation	15 3025 (Part 34)-1988 Rffm: 2014	BDL(D1:0.5)
20.	Phenolic Compounds (as C <sub>0</sub> H <sub>3</sub> OH)	megi	0.001	0.002	1S 3025 (Part 43)- 1992; Riffin; 2014	BDL(DL:0.001)
27	Selenium (as Se)	mg/I	0.01	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL/DL:0.005)
28.	Total Chromium ( ns Cr.)	mg/I	0,05	No Relaxation	(S 3025 (Part 2) 2004 RA 2014	BDL/DL:0.01)
79.	Silver ( as Ag)	mg/I	0.1	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barium (as Ba).	mg/T	0.7	No Refacution	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31.	Salinity	mg/L	-	_	1S 30/25 (Part 14)- 2013	52.00



## Date- 01.10.2021

32.	Sulphide (as H2S)	mg/l	0.05	Nie Datacrate		
1	Ammonia ( as total		0/05	No Relaxation	IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
33.	ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffm: 2014	1 2 2 2 2 2
34.	Chloramines	mg/l	4.0			the section sector in h
35.	Nickel ( as Ni)	mg/l		No Relaxation	1S 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
36.	Cyanide (as CN)		0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
	Anionic Detergents	mg/l	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	
37.	(as MBAS)	mg/l	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.01)
	Polynoclear Aromatic				15 15420(PAINIER K.)- 2005	BDL(DL:0.05)
38;	Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edtn.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated	200	The State of the S			- designation of
77.	Biphenyls (PCB)	mg/l	0.0003	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 (CIN: U51909WB 1956PTC023037)

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### TEST REPORT

Name & Address of the Customer.: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST BHADRAK, PIN:756171 ODISHA

Report No. 1 BBS/815 Date 101.10.2021

Sample No.: MSKGL/FD/2020-21/09/00812

Date of sampling 104.09.2021 Sampling Description: Drinking Water Sampling Location: Jetty Area

Sampling Done By : Mr. Kunja Bihari Nayak

### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

Sl. No	Test Parameters	Units	Limit	Test Method / Specification	Result
1.	E Coli	/100ml	Not Detectable	IS: 15185 ; 2016	Not Detected
2.	Total Coliform Organism	/100m1	Not Detectable	IS: 15185 ; 2016	Not Detected

SI. No.	Test Parameter	Units	(Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
I,	pf1 ( at 26° C)	and the same of	6.5 - 2.5	No Relaxation	15 3025 (Part 11)-1984 Rffm: 2012	7.69
2.	Sulphate (as SO <sub>4</sub> )	mg/l	200	400	IS 3025 (Part 24)- 1986 Rillin: 2014	43.00
3.	Calcium (as Ca)	mag/f	75	200	IS 3025 (Part 40)- 1991 Rffm: 2014	35.00
4.	Arsenic (as As)	mgil	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lead (as Ph)	mg/I	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005)
ħ.	Zinc (as Zn)	mg/I	3.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Ca)	mg/l	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Hg)	mg/l	0,001	No Relaxation	IS 3025 (Part 48)-1994 Riffin: 2014	BDL(DL:0.0002)
9.	Cadmium (as Cd)	mg/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/l	0.5	No Relaxation	IS 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11.	Fluoride (as F)	mg/I	1.0	1.5	IS 3025 (Part 60)- 2008 Rffin: 2013	BDL(DL:0.2)
12.	Colour	Hazen	5	15	3025 (Part 4)-1983; Rifin:2012	BDL(DL:1.0)
13.	Odour	-	Agreeable	Agrecable	IS 3025 (Part 5)-1983 Rffin:2012	Agreeable
14.	Turbidity	N.T.U		-5	1S 3025 (Part 10)-1934 Rffin: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mag/l	0.2	1.0	IS 3025 (Part 26)- 1986 Rffm:2014	BDL(DL:0.1)
16.	Iron (as Fe)	mg/l	0.3	No Relaxation	IS 3025 (Part 53)-1988 RITm: 2014	0.35
17.	Chloride (as Cl)	mg/I	250	1000	IS 3025 (Part 32)-1988 Riffer: 2014	77.00
18.	Total Dissolved Solids	mg/I	500	2000	JS 3025 (Part 16)-1984; Rffm:2012	546.00
19.	Alkalinity (as CaCO a	mg/l	200	600	1S 3025 (Part 23)- 1986 R/fm; 2009	349.00
20.	Alternition (as Al)	Ugm -	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	ma.1	30	100	IS 3025 (Part 46)-1994 Rffm: 2014	32.00
22.	Total Hardness (as CaCO <sub>V</sub> )	mg/l	300	600	IS 3025 (Part 21)-2013	321.00
23.	Boron (as B)	mg/t	0.5	1,0	IS 3025 (Part 2) 2004 RA 2014	BDL(D1:0.3)
24	Manganese (as Mu)	mg/I	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DI::0.02)
25.	Nitrate (as NO <sub>1</sub> )	mg/l	45	No Relocation	1S 3025 (Part 34)-1988 Rffin: 2014	BDL(DL:0.4)
26.	Phenolic Compounds (as C <sub>c</sub> H <sub>5</sub> OH)	mg/I	0.001	0.002	TS 3025 (Part 43)- 1992; Rfilm: 2014	BDL(DL:0.001)
27.	Selenium (as Se)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chromium ( as Cr )	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( as Ag)	mg/l	0.1	No Relaxation	JS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Harium (as Ba)	mg/l	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31.	Salinity	mg/i			IS 3025 (Part 14)- 2013	49.00



## Date- 01.10.2021

32.	Sulphide (as H2S)	mg/I	0.05	No Relaxation	10 202 1		
33.	Ammonia ( as total				IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)	
	ammonia-N)	troge/I	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffm: 2014	BDL(DL:0.1)	
34.	Chloramines	mg/l	4.0	No Relaxation			
35.	Nickel (as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	The second secon	
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,01)	
37:	7. Anionic Detergents		mg/l		THE PERMANENTAL	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
	(as MBAS)		0,2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)	
10	Polynuclear Aromatic					BUCINESUS)	
38.	Hydrocarbons (as PAH)	mg/I	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edtn.) 6440C	BDL(Dt.:0.0001)	
39.	Polychlorinated		40012			a che account	
-	Biphenyls (PCB)	mg/I	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)	

Report Prepared by:

For Mitra S. K. Private Limited.

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IRC Village, Nayapalli
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[GIN: U51909WB1956PTC023037]



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TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSHINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No. : BBS/816 Date : 01.10.2021

Sample No.: MSKGL/FD/2020-21/09/00813

Date of sampling : 04.09.2021 Sampling Description : Drinking Water Sampling Location : Port Canteen

Sampling Done By : Mr. Kunja Bihari Nayak

#### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Units	Limit	Test Method / Specification	Result
14	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2.	Total Coliform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

SL No.	Test Parameter	Units	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH ( at 26° C)	ren-	6.5 - 8.5	No Relaxation	1S 3025 (Part 11)-1984 Rffm: 2012	7.60
2.	Sulphate (as SO <sub>e</sub> )	mg/l	200	400	18 3025 (Part 24)- 1986 Rffm: 2014	41.00
3.	Calcinm (as Ca)	mg/L	75	200	IS 3025 (Part 40)- 1991 Rfflm: 2014	40,00
4.	Arsenic (as As)	irrgs/I	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lead (as Pb)	mg/i	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.003)
0.	Zinc (as Zn)	mg/l	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	mg/i	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Hg)	mg/l	0.001	No Relaxation	IS 3025 (Part 48)-1994 Rffm: 2014	BDL(DL:0.0002)
9	Cadmium (as Cd)	mg/t	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/I	0.5	No Relaxation	IS 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
D.	Fluoride (as F)	- mg/l	1.0	1.5	19 3025 (Part 60)- 2008 RHin: 2013	RDL(DL:0.2)
12.	Colour	Hazen	5	- 15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1.0)
13	Oduer	-	Agreeable	Agreeable	IS 3025 (Part 5)-1983 Riffm:2012	Agreeuble
340	Turbidity	N.T.U	1	5	IS 3025 (Part 10)-1984 Rffm: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/l	0,2	1.0	IS 3025 (Part 26)- 1986 Rffm:2014	BDL(DL:0.1)
16.	Iron (m Fe)	mg/I	0.1	No Relaxation	IS 3025 (Part 53)-1988 Rffm: 2014	0.23
17.	Chioride (as Cl)	mg/l	230	1000	IS 3025 (Part 32)-1988 Rffin: 2014	60.00
18.	Total Dissolved Solids	myz/i	500	2000	IS 3025 (Part 16)-1984; Rffm:2012	545.00
19:	Alkelinity (as CaCO <sub>1</sub> )	Tugen	200	600	IS 3025 (Part 23)- 1986 Rffin: 2009	366.00
20.	Aluminium (as Al)	mu/l	0,03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/l	30	160	4S 3025 (Part 46)-1994 Rffin: 2014	29.00
22.	Total Hardness (is CaCO <sub>t</sub> )	nig/I	200	600	IS 3025 (Part 21)-2013	221.00
23.	Boron (as B)	riig/I	0.5	1.0	15 3025 (Part 2) 2004 RA 2014	DDL(DL:0.3)
24.	Manganese (as Mn)	ing/l	0.1	0.3	IS 1025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>1</sub> )	nog/I	45	No Relaxation	15/3025 (Part 34)-1988 Rffm: 2014	BDL(DL:0.4)
26.	Phenolic Compounds (its C <sub>a</sub> H <sub>4</sub> OH)	mg/t	0.001	0,002	IS 3025 (Part 43)- 1992; Riffin; 2014	BDL(DL:0.001)
27.	Selenium (ns.Se)	rog/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28:	Total Chromium ( as Cr )	mg/l	0.05	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( its Ag)	mg/F	0.1	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barium (as Ba)	mg/l	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31.	Salinity	nig/T	2444	phone:	1S 3025 (Part 14)- 2013	46.00



## Date- 01.10.2021

nmonia ( as total ammonia-N) Chloramines Nickel ( as Ni)	mg/l mg/l mg/l	0.05 0.5 4.0	No Relaxation No Relaxation	18 3025 (Part 29)- 1991; Rffin: 2014 18 3025 (Part 34)- 1988; Rffin: 2014	1
Chloramines Nickel ( as Ni)	mg/l				1
Nickel ( as Ni)		4.0			
	10 A C 10 MB		No Relaxation		Can annion with
	mg/l	0.02	No Relaxation	IS 3025 (Part 26)- 1986; Rffin: 2014	BDL(DL:0.1)
yanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
	man/A	0.2		15.3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
	mg/1	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
lydrocarbons	ing/I	0.0001	No Relaxation		BDL(DL:0.0001)
olychlorinated	mg/1	0.0005	No Relaxation		BDL(DL:0.0005)
-	onic Detergents (as MBAS) nuclear Aromatic lydrocarbons (as PAH)	onic Detergents (as MBAS) mg/l nuclear Aromatic lydrocarbons mg/l (as PAH) slychlorinated	onic Detergents (as MBAS) mg/l nuclear Aromatic lydrocarbons (as PAH) nlychlorinated	onic Detergents (as MBAS) mg/l nuclear Aromatic lydrocarbons (as PAH) lychlorinated	18 3025 (Part 27)- 1986 Rffm: 2014   18 13428 (Annex K)- 2005   18 13428

Report Propared by:

For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC VIllage, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

Name & Address of the Customer :

AT : DOSINGA, PO : DHAMRA

THE DHAMRA PORT COMPANY LIMITED

DIST: BHADILAK, PIN:756171 ODISHA

T: (0674) 2362916, 2360917

F (0674) 2362918

TEST REPORT

Report No. + BBS/817 Date ± 01.10.2021

Sample No.: MSKGL/FD/2020-21/09/00814

TESTING #INSPECTION

Date of sampling 1 05.09.2021 Sampling Description : Drinking Water Sampling Location : DAV Public School

(Kuamara)

Sampling Done By : Mr. Kunja Bihari Nayak

BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

-	2012									
St. No	Test Parameters	Units	Limit	Test Method / Specification	Result					
1.	E Coli	/100ml	Not Detectable	IS: 15185 ; 2016	Not Detected					
2	Total Coliform Organism	/1.00ml	Not Detectable	IS: 15185 : 2016	Not Detected					

SL No.	Test Parameter	Units	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH ( at 26° C)	-	6.3 - 8.5	No Relaxation	IS 3025 (Part 11)-1984 Riffin: 2012	7.67
2	Sulphate (as SO <sub>4</sub> )	mg/l	200	400	4S 3025 (Part 24)- 1986 Rffm: 2014	11.00
3.	Calcium (as Ca)	mg/l	75	200	IS 3025 (Part 40)- 1991 Rffin: 2014	-11.00
4.	Arsenic (as As)	mg/l	0.01	0,05	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lend (as Pb)	mg/l	0.01	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(D1:0.005)
6.	Zinc (as Zn)	intg/1	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7,	Copper (as Ca)	ing/i	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(Dt.:0.02)
8	Mercusy (us Hg)	mg/l	0.001	No Relaxation	IS 3025 (Part 48)-1994 Rffm; 2014	BDL(DL:0.0002)
9.	Cadmium (as Cd)	mg/l	0.003	No Reluxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,001)
10.	Mineral Oil.	mg/l	0.5	No Relaxation	IS 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11.	Fluoride (as F)	mg/l	1.0	1.5	IS 3025 (Part 60)- 2008 RfTm: 2013	BDL(DL:0.2)
12.	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffm; 2012	BDL(DL:1.0)
13.	Odour	-	Agrecable	Agreeable	1S 3025 (Part 5)-1983 Rffm:2012	Agreeable
14.	Turbidity	N.T.U	1	3	IS 3025 (Part 10)-1984 Rffin: 2012	BDL(DL:1,0)
15.	Residual free Chlorine	mg/l	0.2	1:0	IS 3025 (Part 26)- 1986 Rffm:2014	BDL(DL:0.1)
16.	Iron (as Fe)	mg/l	0.3	No Relaxation	1S 3025 (Part 53)-1988 Rffm: 2014	0.14
17.	Chloride (as CI)	mg/L	250	1000	IS 3025 (Part 32)-1988 Rffm: 2014	89.00
18.	Total Dissalved Solids	may/	500	2000	IS 3025 (Part 16)-1984; Riffin:2012	470,00
19.	Alkalinity (as CaCO <sub>1</sub> )	ma/l-	200	600	IS 3025 (Part 23)- 1986 Rffm: 2009	257.00
20.	Aluminium (as Al)	mg/I	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	Tigit!	30	100	15 3025 (Part 46)-1994 Rffin: 2014	8.60
22.	Total Hardness (as CaCO <sub>1</sub> )	mg/l	200	600	IS 3025 (Part 21)-2013	63.00
23.	Boron (as B)	ing/l	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	mg/t	0.1	0,3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (us NO <sub>3</sub> )	mg/l	45	No Relaxation	1S 3025 (Part 34)-1988 Rffm: 2014	BDL(DL:0.4)
26.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/I	0.001	0.002	IS 3025 (Part 43)- 1992; RIfm: 2014	BDI(DL:0.001)
27.	Selenium (as Se)	mg/l	0.01	Ne Relaxation	IS 3025 (Part 2) 2004 RA 2014	BD((DL:0.005)
28.	Total Chromium ( as Cr )	mg/L	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver (as Ag)	mg/L	0.1	No Relavation	18 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Derium (as Ba)	ring/L	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,1)
31.	Salinity	my/l	1404		15 3025 (Part 14)- 2013	43.00



## Date- 01.10.2021

32.	Sulphide ( as R2S)	reg/T	0.05	No Relaxation	IE 1041 00	
33,	Ammonia ( as total	mg/l			1S 3025 (Part 29)- 1991; Rffm: 2014	
34.	chloramines	-	0.3	No Relaxation	IS 3025 (Part 34)- 1988; Rffm; 2014	BDL(DL:0.1)
35.	Nickel ( ns Ni)	mg/I	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffin: 2014	BDL(DL:0.1)
36.	Cyanide (as CN)	mg/l mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
37.	Anionic Detergents	mg.		No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
7.71	(as MBAS)	mg/l	0.2	1,0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38;	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edtn.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

Name & Address of the Customer:

AT : DOSINGA, PO : DHAMRA

THE DHAMRA PORT COMPANY LIMITED

DIST : BHADRAK, PIN 756171 ODISHA

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## TEST REPORT

Report No. : BBS/818 Date : 01.10.2021

Sample No.: MSKGL/FD/2020-21/09/00815

Date of sampling : 04.09.2021 Sampling Description: Drinking Water Sampling Location: Birupa Colony Sampling Done By: Mr. Konja Bilmri Nayak

### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Units	Limit	Test Method / Specification	Result
100	E. Coli	2100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2	Total Coliform Organism	2100ml	Not Detectable	IS: 15185 : 2016	Not Detected

SL No.	Test Parameter	Units	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH (at 26°C)	-	6.5 - 8.5	No Relaxation	15 3025 (Part (1)-1984 Rffm; 2012	7.35
2.	Sulphate (as SO <sub>4</sub> )	mg/I	200	400	IS 3025 (Part 24)- 1986 Rffm: 2014	46.00
3.	Calcium (as Ca)	mg/t	75	200	JS 3025 (Part 40)- 1991 Rffm: 2014	44.00
4.	Arsenic (as As)	mg/I	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	UDL(DL:0.005)
5.	Lead (as Pb)	mg/I	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (as Zn)	mg/L	5.0	15.0	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	mg/l	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Hg)	mg/1	0.001	No Relaxation	IS 3025 (Part 48)-1994 Rffm: 2014	BDL(DL:0.0002)
9.	Cadmium (as Cd)	me/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/L-	0.5	No Relaxation	1S 3025 (Part 39)-1991 Rffm; 2014	BDL(D1:0.5)
11.	Fluoride (as F)	mg/l	1,0	1.5	IS 3025 (Part 60)- 2008 R(fin: 2013	BDL(DL:0.2)
12.	Colour	Hahim	5	15	3025 (Part 4)-1983; H/fim:2012	BDL(DL:1.0)
13.	Odosa		Agrecable	Agreeable	18 3025 (Part 5)-1983 Rffm:2012	Agreeable
14.	Turbidity	NEG		5	IS 3025 (Part 10)-1984 Rffim: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/f	0.2	1.0	IS 3025 (Part 26)- 1986 RITH: 2014	BDL(DL:0.1)
16	fron (as Fe)	mg/L	0.1	No Religenien	IS 3025 (Part 53)-1988 Rffm; 2014	0.28
17.	Chloride (as Ci)	trig/l	250	1000	IS 3025 (Part 32)-1988 Rffm: 2014	62.00
18,	Total Dissolved Solids	rng/l	500	2000	IS 3025 (Part 16)-1984; Rffm:2012	542.00
19,	Alkalinity (as CaCO <sub>3</sub> )	mg/T	200	600	15 3025 (Part 23)- 1986 Rffm: 2009	368.00
20,	Aluminium (as AI)	mg/l	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL-0.01)
21	Magnesium (as Mg)	mg/l	30	100	15 3025 (Part 46)-1994 Rffm: 2014	28.00
22.	Total Hardness (as CaCO <sub>2</sub> )	my/I	200	600	IS 3025 (Part 21)-2013	227.00
23.	Borne (as B)	mg/l	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	mg/l	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (as NO <sub>1</sub> )	mg/T	45	No Relaxation	1S 3025 (Part 34)-1988 Rffm; 2014	BDL/DL30A)
26.	Phenolic Compounds (as C <sub>2</sub> H <sub>2</sub> OH)	mg/t	0.001	0.002	IS 3025 (Part 43)- 1992; Rffm: 2014	BDL(DL:0.001)
27.	Scienium (av Se)	mg/I	0.01	No Relexation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28	Total Chromium ( as Cr)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( as Ag)	mg/I	0.1	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barium (as Ha)	me/I	0.7	No Reluxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:3.1)
31.	Salinity	mg/L		****	1S 3025 (Part 14)+ 2013	47:G0



## Date- 01.10.2021

32	Sulphide (as H2S)	ing/l	0.03	No Relaxation	IS 3025 (Part 29)- 1991; Rffin: 2014	DIM (DI -0 (S)
33.	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.02) BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffin: 2014	37.1.2
35.	Nickel ( as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
36.	Cyanide (as CN)	mg/I	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.01) BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/f	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edm.) 6440C	BDL(DL;0.0001)
39.	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Navagalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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TEST REPORT

Report No. : BBS/819 Date :01.10.2021

Sample No.: MSKGL/FD/2020-21/09/00816

TESTING MINSPECTION

Date of sampling : 04.09.2021 Sampling Description : Drinking Water Sampling Location: Health Centre

Sampling Done By : Mr. Kunja Bihari Nayak

AT DOSINGA, PO DHAMRA

Name & Address of the Customer:

DIST : BHADRAK, PIN :756171 ODISHA

THE DHAMRA PORT COMPANY LIMITED

BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL No	Test Parameters	Units	Limit	Test Method / Specification	Result
1.	E. Coll	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2	Total Coliform Organism	#100m)	Not Detectable	IS: 15185; 2016	Not Detected

SL No.	Test Parameter	Units	Requirement (Acceptable (Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
Ji.	pH ( nt 26° C)		6.3 - 8.5	No Relaxation	IS 3025 (Part 11)-1984 Rffm: 2012	7.56
2.	Sulphate (as SO <sub>4</sub> )	mg/I	200	400	15 3025 (Part 24)- 1986 Rffm; 2014	37.00
3.	Calcium (as Ca)	mg/l	75	200	1S 3025 (Part 40)- 1991 Rifm: 2014	37,00
4.	Arsenic (as As)	rog/I	0,01	0.03	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Land (as Pb)	mg/T	0,01	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zine (is Zn)	mg/l	3.0	15.0	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7	Copper (as Cu)	mg/I	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Hg)	mg/I	0:001	No Relaxation	15 3025 (Part 48)-1994 Rifm: 2014	BDL(DL:0.0002)
9.	Cadmium (as Cd)	mg/I	1,00.0	No Relaxation	ES 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/l	0.5	No Relaxation	IS 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11.	Flooride (as F)	mg/T	1.0	1.5	1S 3025 (Part 60)- 2008 Riffm; 2013	BDL(DL:0.2)
12	Colour	Hazen	5	15	3025 (Part 4)-1983; Rffin:2012	BDL(DL:1.0)
II.	Odeur	person .	Agreenble:	Agreeable	IS 3025 (Part 5)-1983 Rffm:2012	Agreeable
14.	Turbidity	N.T.U		5	1S 3025 (Part 10)-1984 Rffm: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/I	0.2	1.0	1S 3025 (Part 26)- 1986 Mffm: 2014	BDL(BL:0.1)
16	fron (as Fe)	mg/l	0.3	No Relaxation	IS 3025 (Part 53)-1988 Rifm: 2014	0.16
17.	Chloride (as C1).	/mg/l	250	1000	IS 3025 (Part 32)-1988 Rffin; 2014	77.00
3.1	Total Dissolved Solids	mg/l	500	2000	IS 3025 (Part 16)-1084; RIffs:2012	540.00
19.	Alkalinity (as CaCO <sub>3</sub> )	rogeri	200	600	18 3025 (Part 23)- 1986 Rffm: 2009	340.00
20.	Aleminium (as Al)	mg/l	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21	Magnesium (as Mg)	mg/l	30	100	IS 3025 (Part 46)-1994 Riffer: 2014	25.00
.22	Total Hardness (as CaCO <sub>1</sub> )	mgit	200	:600	IS 3025 (Part 21)-2013	197.00
23.	Boron (as B)	rng/I	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	ing/l	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25.	Nitrate (us NO <sub>1</sub> )	mg/l	45	No Relaxation	1S 3025 (Part 34)-1988 Riffm: 2014	BDL(DL:0.4)
26	Phenolic Compounds (as CelliOH)	mg/t.	0.001	0.002	1S 3025 (Part 43): 1992; Kffm: 2014	BDL(DL:0.001)
27.	Sclenium (as Se)	mu/l	10,0	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005)
28.	Fotal Chronium ( ns Cr )	mg/l	0.05	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( us Ag)	mg/l	0.1	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BOL(DL:0.005)
30,	Dorium (as Ba)	mg/f	0.7	No Relaxation	15 3925 (Part 2) 2004 RA 2014	IIDL(DL;0.1)
31.	Salinity	mg/l		7000	IS 3025 (Part 14)- 2013	44.00



### Date- 01.10.2021

32.	Sulphide (as H2S)	mg/l	0.05	No Relaxation	10 2005 10 100		
33.	Ammonia ( as total			T.A. SALES	1S 3025 (Part 29)- 1991; Rffm: 2014		
	ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffm: 2014	BDL(DL:0.1)	
34.	Chloramines	mg/l	4.0	No Relaxation			
35.	Nickel ( as Ni)	mg/l	0.02	No Relaxation	1S 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)	
36.	Cyanide (as CN)	mg/I	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)	
37.	<ol> <li>Anionic Detergents</li> </ol>		and a		No recasation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
-0.	(as MBAS)	mg/l	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)	
200	Polynuclear Aromatic					BDL(DL:0.05)	
38.	Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23rd Edtn.) 6440C	BDL(DL:0.0001)	
39.	Polychlorinated Biphenyls (PCB)	mg/I	0.0005	No Relaxation	District Lines		
	soquenty (PCB)		777	ris iscatation	US EPA 8082	BDL(DL:0.0005	

Report Prepared by:

For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Navapalli Bhubaneswar - 751015

(CIN: U51909WB1956PTC023037)

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Report No. : BBS/R20 Dale : 01,10,2021

Sample No.: MSKGL/FD/2020-21/09/00817

Date of sampling : 04.09.2021 Sampling Description : Drinking Water

Sampling Location : Security Barrack (North Gate) Sampling Done By : Mr. Kunin Bihari Nayak

AT / DOSINGA, PO : DHAMRA DIST : BHADRAK, PIN :756171 ODISHA

THE DHAMRA PORT COMPANY LIMITED

Name & Address of the Customer:

BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Trans.	** **	1 4-1111	
24. 140	Lest Farameters	Units	Limit	Test Method / Specification	Result
	E. Coli	/100mI	Not Detectable	IS: 15185 : 2016	Not Detected
2	Total Colitorni Organism	/100ml	Not Detectable	IS: 15185   2016	Not Detected

<u>St.</u> <u>No.</u>	Test Parameter	Units	(Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Mothad / Specification	Result
1.	pH (at 26°C)	-	6.5 - 11.5	No Relocation	IS 3025 (Part 11)-1984 Rffm: 2012	7.29
2	Sulphate (as SO <sub>4</sub> )	mg/l	200	400	IS 3025 (Part 24)- 1986 Riffm: 2014	30.00
3.	Calcium (as Ca)	mg/t	75	200	JS 3025 (Part 40)- 1991 Rffni: 2014	37,00
4.	Atsenic (as Ax)	ring/I	10.0	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5	Lead (as Pb)	mg/i	- 10.0	No Relayation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
b.	Zinc (as Zn)	mg/l	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	mu/l	0.05	1.5	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8.	Mercury (as Hg)	ntg/l	0.001	No Relaxation	1S 3025 (Part 48)-1994 Rffm: 2014	BDL(D1.:0.0002)
9,	Chilmiam (ns Cd)	mg/l	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
U.	Mineral Oil	mg/l	0.5	Na Relaxation	IS 3025 (Part 39)-1991 Rffm; 2014	BDL(DL:0.5)
13.	Fluoride (as F)	mg/l	130	1.5	IS 3025 (Part 60)- 2003 Riffm: 2013	BDL(DL:0.2)
12	Colom	Hazen	5	15	3025 (Part 4)-1983; Rffin:2012	BDL(DL:1.0)
13.	Odour		Agreeable	Agrecable	IS 3025 (Part 5)-1983 Rffm:2012	Agreeable
14.	Turbidity	N.T.U	1	. 5	IS 3025 (Part 10)-1984 Rffin: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/I	0,2	1.0	JS 3025 (Part 26)- 1986 Rffm:2014	BDL(DL:0.1)
16.	fron (as Fe)	rng/I	0.3	No Relaxation	IS 3025 (Part 53)-1988 Rffin: 2014	0.25
17	Chloride (as C1)	mg/L	250	1000	IS 3025 (Part 32)-1988 Rffm: 2014	73.00
18,	Total Disselved Solids	me/t	500	2000	IS 3025 (Part 16)-1984; Rffm:2012	545.00
19.	Afkalinity (as CaCO <sub>2</sub> )	-03g/1	200	600	IS 3025 (Part 23)- 1986 Rffin: 2009	374.00
20	A(uminium (as Al)	mg/l	0.03	0.2	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
2).	Magnesium (as Mg)	orgi/L-	30	100	IS 3025 (Part 46)-1994 Rifm: 2014	25.00
22.	Total Hardness (as- CaCO <sub>1</sub> )	rng/l	200	600	15 3025 (Part 21)-2013	196.00
23.	Burim (as B)	mg/4	0.5	1.0	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Ma)	mg/L	D,t	0.3	IS 3025 (Part 2) 2001 RA 2014	BDL(DL:0.02)
25	Nitrate (as NO <sub>1</sub> )	mg/l	45	No Relaxation	TS 3025 (Part 34)-1988 Rffm: 2014	BDL(DL:0.4)
26.	Phenolic Compounds (as C <sub>6</sub> H <sub>6</sub> OH)	mg/l	0.001	0.002	IS 3025 (Part 43)- 1992; RIIm: 2014	BDL(DL:0.00;)
27.	Selenium (as Se)	mg/l	0.01	No Relexation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chromium ( > Cr )	mg/l	0.05	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( na Ag)	mg/l	0.1	No Relaxation	(\$ 3025 (Part 2) 2004 RA 2014	BDL(DL:31.005)
30.	Barium (us Ba)	mg/I	0,7	No Relaxation	1S 3025 (Part 2) 2001 RA 2014	BDL(DL:0,1)
31.	Salinity	mg/L	-	-	IS 3025 (Part 14)- 2013	41.00



### Date- 01.10.2021

32.	Sulphide ( as H2S)	mg/l	0.05	No Relaxation	1S 3025 (Part 29)- 1991; Rffin: 2014	BDL(DL:0.02)
33,	Ammonia ( as total ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
35.	Nickel ( as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
36.	Cyunide (as CN)	mg/I	0.05	No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38,	Polynaclear Aromatic Hydrocarbons (as PAH)	mg/i	1000.0	No Relaxation	APHA ( 23 <sup>rd</sup> Edtn.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	mg/f	0.000\$	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswur - 751015

[CIN: U51909WB1956PTC023037].

T: (0674) 2362916, 2360917

F: (0674) 2362918

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN:756171 ODISHA



### TEST REPORT

Report No. 2 BBS/821 Date ± 01.10.2021

Sample No.: MSKGL/FD/2020-21/09/00818

Date of sampling : 04.09.2021 Sampling Description : Drinking Water Sampling Location : SS-6 Office

Sampling Done By : Mr. Kunja Bihari Nayak

## BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	Linits	Limit	Test Method / Specification	Result
- le	E Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2	Total Collform Organism	/100ml	Not Detectable	1S: 15185 : 2016	Not Detected

SL No.	Test Parameter	Units	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate Source	Test Method / Specification	Result
1.	pH (at 26°C)		65-85	No Relaxation	IS 3025 (Part 11)-1984 R!fm: 2012	7.93
2.	Sulphate (as SO <sub>4</sub> )	mg/I	200	400	1S 3025 (Part 24)- 1986 Rillm: 2014	31.00
3.	Calcium (as Ca)	mg/l	75	200	1S 3025 (Part 40)- 1991 Rillin: 2014	40.00
1.	Arsenic (as As)	mg/I	10,0	0.05	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lead (as Pb)	mg/I	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6,	Zinc (ns Zn)	mg/I	5.0	15,0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7.	Copper (as Cu)	mg/l	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8	Moreury (as Hg)	mg/I	0,001	No Relaxation	15 3025 (Part 48)-1994 Rifin: 2014	BDL(DL:0.0002)
9,	Cadmium (as Cd)	ring/L	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.021)
10.	Mineral Oil	mg/l	0.5	No Relaxation	IS 3025 (Part 39)-1991 Rifm; 2014	BDL(DL:0.5)
11.	Fluoride (ni.F)	mg/F	1.0	1.5	1S 3025 (Part 60)- 2008 Rffm; 2013	BDL(DL:0.2)
12.	Colour	Hazen	3	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1.0)
13	Odour	Messel	Agreeable	Agreeable	15 3025 (Part 5)-1983 Rffm:2012	Agrecubic
14.	Turnsidity.	N.T.U	1	5	IS 3025 (Part 10)-1984 Rffm; 2012	8DL(DL:7.6)
15	Residual free Chlorine	med	0.2	1.0	15 3025 (Part 26)- 1986 Rffm:2014	BDL(DL:0.1)
16.	Iron (as Fe)	mgell	0.3	No Relaxation	1S 3025 (Part 53)-1988 Riffer: 2014	0.25
17.	Chloride (as Cl)	mel	250	1000	1S 3025 (Part 32)-1988 Rffm; 2014	81,00
18.	Total Dissolved Solids	rog/i	500	2000	1S 3025 (Part 16)-1984; Rfffar 2012	548.00
19.	Alkaliniiy (as CaCO <sub>4</sub> )	mg/i	200	600	JS 3025 (Part 23)- 1986 Rffin: 2009	347.00
20.	Aluminium (as Al)	mg/l	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/I	30	100	15 3025 (Part 46)-1994 Rffin: 2014	30.00
22.	Total Hardness (as CaCO <sub>3</sub> )	mg/l	200	600	IS 3025 (Part 21)-2013	225.00
23.	Boron (as B)	mg/l	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	mg/l	0.1	0.3	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
25,	Nitrate (as NO <sub>2</sub> )	mu/l	45	No Relaxation	-1S 3025 (Part 34)-1988 Rffin: 2014	BDL(DL:0.4)
26,	Phenalic Compounds (as C <sub>4</sub> H <sub>3</sub> OH)	mg/l	0,001	0.002	IS 3025 (Part 43)- 1992; Rfflm: 2014	BDL(DL:0,001)
27.	Selenium (as Se)	mg/l	0.01	No Relaxation	IS 3025 (Part 3) 2004 RA 2014	BDL(DL:0,005)
28.	Total Chromium ( as Cr)	mg/L	0.05	No Relaxation	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( us Ag)	mg/I	0.1	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005)
30.	Bartum (ax Ba)	mg/l	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	DDL(DL:0.1)
34.	Salinity	mg/I	- make		IS 3025 (Part 14)- 2013	40.00



## Date- 01.10.2021

32	Sulphide ( as H2S)	mg/l	0.05	No Relaxation	T to send on	
33.	Ammonia ( as total				IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
200	ammonia-N)	mg/l	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffm: 2014	BDL(DL:0.1)
34.	Chloramines	mg/I	4.0	No Relaxation		the advantage of
35.	Nickel ( as Ni)	mg/I	0.02	No Relaxation	15 3025 (Part 26)- 1986; Rflm: 2014	BDL(DL:0.1)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	15 3023 (Part 2) 2004 RA 2014	BDL(DL:0.01)
37.	Anionic Detergents			Tro (osmantion)	15 3025 (Part 27)- 1986 Rifm: 2014	BDL(DL:0,01)
5.45	(as MBAS)	mg/l	0.2	1.0	IS 3025 (Part 26)- 1986; Rffm: 2014 IS 3025 (Part 2) 2004 RA 2014 IS 3025 (Part 27)- 1986 Rffm: 2014 IS 13428(Annex K)- 2005 APHA ( 23 <sup>rd</sup> Edtn.) 6440C	BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/l	1000.0	No Relaxation		BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(D1.:0,0005)

BBSR

Report Propared by:

For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Nayapativ Bhubaneswar - 751015 [CIN. U51909W81956PTC023037]

T : (0674) 2362916, 2360917 F : (0674) 2362918

Name & Address of the Customer:

AT : DOSINGA, PO : DHAMRA

THE DHAMRA PORT COMPANY LIMITED

DIST : BHADRAK, PIN : 756171 ODISHA

MSK TESTING INSPECTION

### TEST REPORT

Report No. : BBS/822 Date : 01.10.2021

Sample No.: MSKGL/FD/2020-21/09/00x02

Date of sampling ± 04.09,2021 Sampling Description: Ground Water Sampling Location: Kanak Presad Sampling Done By: Mr. Kunja Bihari Nayak

## BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

C1 A1-		1					
SI. No	Test Parameters	Units	Limit	Test Method / Specification	Result		
Te.	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	2132311		
1.	Total Coliform Organism	/100ml	Not Detectable		Not Detected		
			The section of	IS: 15185 : 2016	Not Detected		

CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. Test Parameter Units (Acceptable in the absence of Test Method Limit) observed Sources

No.	Test Parameter	Linits	(Acceptable	in the absence of alternate Source	Test Method / Specification	Result
1,	pH ( at 26° C)	-	6.5 - 8.5	No Relaxation	18 3025 (Part 11)-1984 Refin: 2012	7.22
2.	Sulphate (as SO <sub>4</sub> )	mg/l	200	400	IS 3025 (Part 24)- 1986 Riffnt: 2014	17.00
3,	Calcium (as Ca)	mg/l	75	200	1S 3025 (Part 40)- 1991 Rffm: 2014	34.00
4.	Arsenic (as As)	mg/l	0.01	0.05	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lend (as Pb)	mg/I	0.01	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (as Zn)	mg/l	5.0	15.0	IS 3025 (Part 2) 2004 RA 2014	
7.	Cupper (as Cu)	rug/T	0.05	15	IS 3025 (Part 2) 2004 RA 2014	HDL(DL:0.02)
8.	Mercury (as Hg)	mg/I	0.001	No Relaxation	1S 3025 (Part 48)-1994 Rffm: 2014	BDL(DL:0.02)
9	Cadmium (as Cd)	mg/L	0.003	No Refaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.0002)
10.	Mineral Oil	mg/l	0.5	No Relaxation	IS 3025 (Part 39)-1991 Rffm: 2014	BDL(D1:0.001)
11.	Pluoride (as F)	mg/l	1.0	1.5	IS 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0.5)
12	Colour	Hazen	5	15		BDL(DL:0.2)
III.	Odour		Agrecable	Agrecable	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1,0)
14.	Turbidity	N.T.U	- I	3	IS 3025 (Part 5)-1983 Rtfm:2012	Agrecable
15.	Residual free Chlorine	imp/l	0.2	1.0	IS 3025 (Part 10)-1984 Rffm: 2012	BDL(DL:1.0)
16.	Iron (as Fe)	mg/l	0.3	No Relaxation	IS 3025 (Part 26)- 1986 Rflin:2014	BDL(DL:0.1)
17.	Chloride (4: Cl)	mg/l	250	1000	IS 3025 (Part 23)-1988 Riffin: 2014	BDL(DL:0.05)
18	Total Dissolved Solids	má/l	500	2000	IS 3025 (Part 32)-1988 Rffm; 2014	75,00
19	Alkalinity (ns CaCO <sub>3</sub> )	mg/t	200	600	IS 3025 (Part 16)-1984; Rfflm:2012	327,00
20,	Aluminium (as Al)	mg/I	0.03		IS 3025 (Part 23)- 1986 Rffm: 2009	156.00
21.	Magnesium (as Ma)	my/l	30	0.2	IS 3025 (Pari 2) 2004 RA 2014	BDL(DL:0.01)
22.	Total Hardness (as CaCO <sub>1</sub> )	mg/l	200	100	IS 3025 (Part 46)-1994 Rffm: 2014	24.00
23.	Boron (as B)		The second secon	600	IS 3025 (Part 21)-2013	184.00
24.	Manganese (as Mn)	mg/l	0,5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
25.	Nitrate (es NO <sub>1</sub> )	my/l	0,1	0,3	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
77	Phenolic Compounds	nigit	45	No Relaxation	IS 3025 (Part 34)-1988 Rffm: 2014	BDL(DL:0.4)
26.	(ns C <sub>0</sub> H <sub>0</sub> O(t)	mg/t	0.001	0.002.	1S 3025 (Port 43)- 1992; Rffm: 2014	BDL(DL:0.001)
27.	Selenium (as Se)	mg/I	0.01	No Relocation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005)
28.	Total Chromium (as Ct.)	mg/L	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
29.	Silver ( as Ag)	mg/l	0.1	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	HDL(DL:0.005)
30.	Barium (as Ba)	mg/l	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31	Salinity	mg/l	-		1S 3025 (Part 14)- 2013	47.00



## Date-01.10.2021

32	Sulphide ( as 142S)	mg/L	0.05	No Relaxation	1 to pend in	
33.	Ammonia ( as total	1000			IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
	ammonia-N)	mg/l	0.5	No Relaxation	No Relaxation 1S 3025 (Part 34)- 1988; RIfm: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxation		Comment
35.	Nickel ( as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014 IS 3025 (Part 27)- 1986 Rffin: 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/l	0.2	1.0		BDL(DL:0.01)
-	Polynuclear Aromatic		7.0	1,0	1S 13428(Annex K)- 2005	BDL(DL:0.05)
38,	Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edin.) 6440C	BDL(DL:0.0001)
39,	Polychlorimated Biphenyls (PCB)	ing/I	0.0005	No Relaxation	TIP PID 6 stoke	2.2.01
-	individual LCB1		- 5 T- 4-5-1	140 COURTMENT	US EPA 8082	BDL(DL:0.0005)

Report Arepared by:

For Mitra S. K. Private Limited.

THE DHAMRA PORT COMPANY LIMITED

DIST BHADRAK, PIN: 756171 ODISHA

N-5/100, Ground Floor IRC Villago, Nayapalli Bhubaneswar - 751015

(CIN: U51909WB1956PTC023037)

AT : DOSINGA, PO : DHAMRA

T: (0674) 2362916, 2360917

F: (0674) 2362918

TEST REPORT

Report No. : BBS/823 Date : 01.10.2021

Sample No.: MSKGL/FD/2020-21/09/00803

TESTING WINSPECTION

Date of sampling : 04.09.2021 Sampling Description : Ground Water Sampling Location : Balisahi

Sampling Done By : Mr. Kunja Bihari Nayak

Name & Address of the Customer :

BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

Ot At				The state of the s	
SL No	Test Parameters	Units	Limit	Test Method / Specification	Result
1.	E. Coll	/100ml	Not Detectable	IS: 15185 : 2016	-
2.	Total Coliform Organism	/100mt	Not Detectable		Not Detected
	The state of the s	1 to mile	TAUCTECHOOLE	IS: 15185 : 2016	Not Detected

CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012 Requirement Permissible limit SL Test Parameter Units (Acceptable in the absence of No. Test Method / Specification Result Limity alternate Source pH (at 26°C) 6.5 - 8.5 No Relaxation IS 3025 (Part 11)-1984 Riffin: 2012 7.21 Sulphate (av SO<sub>4</sub>) 200 mg/I 400 IS 3025 (Part 24)- 1986 Rffm: 2014 8.10 Calcium (as Ca) mg/T 200 18 3025 (Part 40)- 1991 Rffm: 2014 38,00 4 Atsenic (as As) mg/L 0.61 0.05 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.005) 5 Lend (as Pb) ing/I 0.01 No Relaxation IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.005) 8. Zinc (as Zii) my/I 5.0 13.0 15 3025 (Part 2) 2004 RA 2014 BDL(DL:0.02) Copper (as Cu) meti 0:05 1,5 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.02) ă. Mercury (as Hu) 0.000 mg/l No Relaxation 18 3025 (Part 48)-1994 Rffm: 2014 BDL(DL:0.0002) ö Catalmium (as Cal) mg/( 0.003 No Relaxation IS 3025 (Part 2) 3004 RA 2014 HDL(DL:0.001) 10. Mineral Oil mg/L 11.5 No Relaxation IS 3025 (Part 39)-1991 Rffin: 2014 BDL(DL:0.5) H Flooride (as F) mg/l 1.0 15 3025 (Part 60)- 2008 Rffm: 2013 15 RDL(D1:0.2) 12 Calour Hazen 3 15 3025 (Part 4)-1983; Riffm:2012 BDL(DL:1.0) 13 Odem Agreeable Agreeable IS J025 (Pari 5)-1983 Rffm:2012 Agreeable 14 Turbidity N.T.U IS 3025 (Part 10)-1984 Rffm: 2012 BDL(UL:1.0) 15. Residual free Chlorine rngs/T. 0.2 1.0 15 3025 (Part 26)- 1986 Rffm:2014 BDL(DL:0.1) 16 from (as Fe) mg/T 0.3 No Relaxation 1S 3025 (Part 53)-1988 Rffm: 2014 BDL(DL:0.05) 17. Chloride (as Cl) mg/l 7541 1000 IS 3025 (Part 32)-1988 Rffm: 2014 67,00 18. **Total Dissolved Solids** mg/I 500 2000 IS 3025 (Part 16)-1984; Rffm:2012 375.00 19 Alkalinity (as CaCO<sub>3</sub>) mu/I 200 600 IS 3025 (Part 23)- 1986 Rffm: 2009 163.00 20. Aluminium (as Al) mg/T 0.03 0.2 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0,01) 21 Magnesium (as Mg) my/110 100 IS 3025 (Part 46)-1994 Rffm: 2014 23.00 22 Total Hardness (us CaCO<sub>1</sub>) mg/l 200 600 IS 3025 (Part 21)-2013 152.00 23 Boron (as H) mg/l 0.3 1.0 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:03) 24. Manganese (as Ma) mg/I 0.1 0.3 IS 3025 (Part 2) 2004 RA 2014 DDL(DL:0.02) 25 Nitrate (as NO<sub>4</sub>) 45 mg/l No Relaxation IS 3025 (Part 34)-1988 Riffin: 2014 BDL(DL:0.4) Phennlic Compounds 26 0.001 0.002 15 3025 (Part 43)- 1992; Riffin: 2014 BDL(DL:0.001) (as CallaOH) ring/f Selemini (as Se) 0.01 mg/l No Relaxation IS 3025 (Part 2) 2004 RA 2014 BDL/DL:0.005) 28. Tesal Climmium ( us Cr ) me/L 0.05 No Relaxation IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.01) 29 Silver (as Ag) mg/L 0.1 No Relaxation IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.005) 30 Barium (as Ba) 0.7 mg/ No Relaxation IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.1) 31 Salinity mg/l IS 3025 (Part 14)- 2013 52.00

H.O.: Shrachi Centre (5th Floor), 748, Acharya Jagadish Chandra Bose Road, Kolkata - 700 016, West Bengal, India T: 91 33 4014 3000 / 2265 0006 / 2265 0007, F: 91 33 2265 0008, E; Info@mitrask.com, W: www.mitrask.com



### Ref. No. BBS/823

## Date- 01.10.2021

32.	Sulphide ( as FI2S)	mg/l	0.05	No Relaxation	T 16 2/25 ch . 68	
33.	Ammonia ( as total		10.7	140 Kelakanon	IS 3025 (Part 29)- 1991; Rffin: 2014	BDL(DL:0.02)
	ammonia-N)	mg/I	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.1)
34.	Chloramines	mg/l	4.0	No Relaxmion		- systematry
35.	Nickel (as Ni)	mg/I	0.02	No Relaxation	IS 3025 (Part 26)- 1986; Rffin: 2014	BDL(DL:0.1)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
37.	Anionic Detergents	mg/l	11-152	NO RESEASION	15 3025 (Part 27)- 1986 Rffin: 2014	BDL(DL:0.01)
3/.	(as MBAS)		0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
	Polynuclear Aromatic					DESCRIPTION OF
38.	Hydrocarbons (25 PAH)	ing/l	0.0001	No Relaxation	APHA ( 23rd Edtn.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated	- Section	W 100.00	The second		
950	Biphenyls (PCB)	mg/I	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by:

For Mitra S. K. Private Limited.

N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015

[CIN: U51909WB1958PTC023037]

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F: (0674) 2362918

TEST REPORT

Report No. : BBS/824 Date : 01.10.2021

Sample No.: MSKGL/FD/2020-21/09/00/004

Date of sampling : 04.09.2021 Sampling Description : Ground Water Sampling Location : Dosinga

Sampling Done By : Mr. Kunja Bihari Nayak

Name & Address of the Customer |
THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST BHADRAK, PIN: 756171 ODISHA

BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

CI Man	The Day of the	The state of the s						
St No	Test Parameters	Units	Limit	Test Method / Specification	Result			
- 1,	E, Coli	/100ml	Not Detectable	IS: 15185 : 2016	-			
2.	Total Coliform Organism	/100ml	Not Detectable		Not Detected			
			THE DESCRIPTION	IS: 15185 : 2016	Not Detected			

CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012 Requirement SL Permissible limit Test Parameter Units (Acceptable in the absence of No. Test Method / Specification Result Limit) aliecnate Source pH (at 26° C) 6.5 - 8.5 No Relocation 18 3025 (Part 11)-1984 R/fin: 2012 7.36 Sulphate (as 50a) 200 ing/i 400 IS 3025 (Part 24)- 1986 Rffm: 2014 19.00 3 Colcium (as Ca) mag/i 75 200 15 3025 (Part 40)- 1991 Rffm: 2014 26,00 4 Arsenic (as As) mg/l 0.01 0.05 1S 3025 (Part 2) 2004 RA 2014 BDL(DL:0.005) 5 Lend (as Pp)  $m_{\rm E}/1$ 0.01 No Relaxation IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.005) 6. Zinc (as Zn). mg/I 5,0 IS 3025 (Part 2) 2004 RA 2014 15.0 BDL(DL:0.02) 7 Copper (as Ca) mu/I 0.05 1.5 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.02) 8 Mercury (as Hig) mg/I 0.001 No Relamition IS 3025 (Part 48)-1994 Rffin: 2014 BDL(DL:0.0002) 9. Cadmium (as Cd) mg/I 0.603No Elelacation IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.001) 10. Mineral Oil mg/l 0.5 No Relaxation IS 3025 (Part 39)-1991 Rffin; 2014 BDL(DL 0.5) H. Fluoride (as F) mg/L 1.0 1.5 IS 3025 (Part 60)- 2008 Rffm: 2013 BDL/DL/0.21 12 Colour Hazen 5 15 3025 (Part 4)-1983; Riffin:2012 BDL(DL:1.0) 13. Odour Agremble IS 3025 (Part 5)-1983 Rffm:2012 Agreeable Agrecable 14 Turbidity N.T.U IS 3025 (Part 10)-1984 Rffm; 2012 BDL(DL:1.0) 13: Residual free Chlorine 0.2 mg/T 1.0 IS 3025 (Part 26)- 1986 Rffm:2014 BDL(DL:0.1) 16. fron (us Fe). mg/l 0.3 No Relaxation IS 3025 (Part 53)-1988 Rffin: 2014 BDL(DL:0.05) 17 Chlaride (as Cl) mg/I 250 1000 IS 3025 (Part 32)-1988 Rffm: 2014 \$1.00 18 Total Disselved Solids mg/l 500 2000 IS 3025 (Part 16)-1984; Rffm: 2012 179.00 19 Alkalinity (as CaCO<sub>1</sub>) mg/t 200 600 IS 3025 (Part 23)- 1986 Rffm: 2009 156.00 20. Aluminium (as Al) mg/l 0.03 0.2 15 3025 (Part 2) 2004 RA 2014 BDL(DL:0.01) 21 Magnesium (as Mg) mg/l 30 100 IS 3025 (Part 46)-1994 Rffm: 2014 23.00 22 Total Hurdwess (as CaCO<sub>1</sub>) mis/T 2410 600 IS 3025 (Part 21)-2013 161.00 23 Boron (as B) mg/l 0.5 1.0 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.3) 24 Manganese (as Mn) mu/t 0.1 0.3 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.02) 25 Nitrate (as NO<sub>1</sub>) may/I 45 No Relaxmion IS 3025 (Part 34)-1988 Htm: 2014 BDL(DL:0.4) Phenolic Compounds 26. 0.001 0.002 (as CaHaOH) 15 3025 (Part 43)- 1992; Riffin: 2014 mg/f BDL(DL:0.001) 27 Selenium (as Se) 0.01 mg/tNo Relassition IS 3025 (Part 2) 2004 RA 2014 28 BDL(DL-0.005) Total Chromium ( as Cr) 0.05 mg/I No Relaxation IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.01) 29. Silver (as Ag) 0.1 mg/l No Relaxation IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0.005) 30 Harium (as Ba) rings/1 0.7 IS 3025 (Part 2) 2004 RA 2014 No Relaxation BDL(DL:0.1) 31 Salmity mus/L IS 3025 (Part 14)- 2013 49,00



### Ref. No. BBS/824

### Date- 01.10.2021

32.	Sulphide ( as H2S)	mg/l	0.05	No Relaxation	No some in	
33.	Ammonia ( as total	100		NO RETAXABION	IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02)
-	ammonia-N)	rng/I	0.5	No Relaxation	IS 3025 (Part 34)- 1988; Rifm; 2014	BDL(DL:0.1)
34.	Chloramines	mg/k	4.0	No Relaxation		Target Country
35.	Nickel ( as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 26)- 1986; Rffin: 2014	BDL(DL:0.1)
36.	Cyanide (as CN)	mg/l	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
37.	Anionic Detergents	mg/l			IS 3025 (Part 27)- 1986 Riffm; 2014	BDL(DL:0,01)
7.1	(as MBAS)		0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polynuclear Aromatic Hydrocarbons	mg/l	0.0001	No Relaxation	APHA ( 23 <sup>rd</sup> Edtn.) 6440C	2 2 2 2 2 2
	(as PAH)			A. 104 21 22	THE PARTY 23 PARTY DAVIDE	BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	rng/I	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

Report Prepared by

For Mitra S. K. Private Limited.



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## TEST REPORT

Name & Address of the Customer;

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/825 Date : 01,10,2021

Sample No.: MSKGL/ED/2020-21/09/00805

Sample Description : Surface Water

Sampling Location : Matai River Neur DPCL

Intake Point

Date of Sampling 2 05,09,2021

#### ANALYSIS RESULT

SL.Ne.		Units	Standards us per 1S 2296	Test Method / Specification	Result
L	Colour	Hazen	300	APHA 23rd Edition, 2120B 2017	BOL(DL:1.0)
2.	Odour	-	-	APHA 23rd Edition 2150B	Agreeable
1	pH at 25°C	-	65-85	APHA 23rd Edition, 4500-H-B	7,40
4.	Copper as Cu	rng/l	15	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02
5.	Fluoride & F mg/1 1.5		1,5	APHA (23rd Edition)4500 - F C/D, 2017	0.51
6.	Iron ar Fe	mg/I	50,0	APHA 23td Edition,3500 Fe B 2017	2.17
7.	Manganese as Ma	mg/I	1	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02
8.	Phenolic Compound as C4H <sub>2</sub> OH	mg/l	0.005	APRA (23rd Edition)\$530C 2017 (Chloroform Extraction)	BDL(DL-0.00)
9	Sejenium as Se	T\gm	0.05	APHA (23rd Edition) 3120B 2017	BDL(DL-0.005
10.	Cadmium as Cd	mu/l	0.01	AFHA (23rd Edition)3120B-2017	BDL(DL:0.001
П.	Cyanide as CN	trog/i	0.05	APHA (23rd Edition M500 CN- F 2017	BDL(DL:0.01)
12	Lead as Pb	mg/i	0.1	APHA (23rd Edition)3120B 2017	BDL(DL:0.005
13.	Mercury as Hg.	mg/l	-	IS 3025(Part 48)-1994; Rffin: 2014	BDL(DL:0.001
14.	Nickel es Ni	mg/L	-	APHA (23rd Edition)3120B 2017	BDL(DL:0,02
15.	Arsenic as As	mg/l	0.2	APHA (23rd Editine)3120B 2017 (1CP OES)	BDL(DL:0.005
16.	Total Chromium as C	mg/T	-	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.01
17.	Zinc as Zu	mg/l	15.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.02
18.	Hexavalent Chromium as Cr	mg/l	0.05	APHA 22rd Edition, 3500 Cr. B	BDL(DL±0,01)
19.	Vacadium as V	mg/l		APHA (21rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.2)
20.	Total Suspended solids	mg/i		APHA 23rd Edition, 2540D	29.00
21.	Temperature	Deg C	-	APHA 23rd Edin, 2550 B	25.00
22	BOD (3days at 25 °C)	mg/l	3.0	APHA (23rd Edition)5210B 2017	BDL(DL:2.0)
23.	COD	mg/i	_	APILA 23rd Edition, 5220B 2017	16.00
24	Oil & Grense	mg/l	0.1	APHA 23rd Edition, 5520B 2017	BDL(DL:1,4)
25.	Ammonical Nitrogen as N	mg/L	-	APHA (23rd Edition) 4500-MH3-F 2017	BDL(DL:0.1)
26.	Total Kjeldel Nitrogen as N	mg/l	_	APHA (23rd Edition) 4500- Norg-B,2017	HDL(DL:03)
27.	Sulphide as S	mg/l	-	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.01)
28.	Total Residual Chlorine	mg/l	_	IS 3025(Part-26)-1986 Rffm-2009	BDL(DL:0.1)
29.	Dissolved Phosphate as P	Topm -		APHA 23rd Edition.4500P, B -D 2017	BDL(DL:0.05)
30.	Ammonta as NH	my/I		APHA 23rd Edn 4500NH3-F 2017	BDL(DL-9.1)
31.	Nitrate Nitrogen as NO <sub>3</sub>	may1	The new	APHA (23rd Edition) 4500-NO3-E, 2017	BDL(DL;0.1)
32	Bio-assay Test	Ξ	90% survival of Fish after 95 hours to 100% efflored	(S 6582(Part 2)2001, Ed.2.1 (2002-12)	All Fisher are starvived in 100% effluent after 96 hrs
11	Particle Size of Suspended Solids	-	850 µ 15 sieve	TPM/MSK/P&E/3/55	Pass through 850µm 15 sieve
34.	Dissolved Oxygen	mjs/i		APHA 23td-2012,4500-O-C	6.46

Report Prepared by: Vary

BESR

Mitra S. K. Private Limited

Authorized Signatery

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## TEST REPORT

Name & Address of the Customer :

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/826 Date : 01,10,2021

Sample No. : MSKGL/ED/2020-21/09/00806

Sample Description : Surface Water

Sampling Location: Raw Water Reservoir.

Date of Sampling : 05.09.2021

#### ANALYSIS RESULT

St. No.	Test Parameters	Units	Standards as per 1S 2296	Test Method / Sperification	Result
1.	Coloar	Hazen	300	APHA 23rd Edition,2120B 2017	BDL(DL:1.0)
2.	Odoor	and the same	-	APHA 23nl Edition, 2150B	Agrecable
3,	pH at 25°C	-	45-85	APHA 23rd Edition, 4500-H-B	7.16
4.	Copper es Cu	mg/l	1.5	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02
3.	Fluuride as F	mg/I	1.5	APHA (23rd Edition)4500 - F C/D, 2017	0.56
6,	from as Fe	me/l	50.0	APHA 23rd Edition 3500 Fe B 2017	1.20
7.	Manganese as Mn	mg/l		APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02
8.	Phenolic Compound its C <sub>4</sub> H <sub>3</sub> OH	ng/l	0.005	APHA (23rd Edition)3530C 2017 (Chloroform Extraction)	BDL(DL:0.001
9	Sclenium as Se	mg/i	0.05	APHA (23rd Edition) 3120B 2017	BDL(DL:0.005
10.	Cadmium as Cd	mg/L	0.01	APHA (23rd Edition)3120B 2017	BDL/DL:0.001
D.	Cyenide as CN	mg/l	0.03	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.01)
12	Land as Po	Tuem	0.1	APHA (23rd Edition)3120B 2017	BDL(DL:0.005
13.	Mercury as Ho	mg/l	-	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.001
14.	Nickel as Ni	tnji/i		APHA (23rd Edition)3120B 2017	BDL(DL:0.02)
15.	Arsenic as As	rogy/	0.2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.003
16.	Total Chromium 25 Cr	mg/i	-	APHA (Z5rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.01)
17.	Zinc as Zu	mg/l	15.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.02)
18.	Hesavalent Chromium as Cr <sup>es</sup>	mg/i	0.05	APHA 22nd Edition, 3800 Cr.B	BDL(DL:0.01)
19.	Vacadium as V	mg/l	100	APRIA (23rd Edition)3120B 2017 (JCP OES)	BDL(DL:0.2)
20.	Total Suspended solids	mg/l	page 1	APILA 23rd Edition, 2540D	21.00
21.	Temperature:	Deg.C	nime	APHA 23rd Edm, 2550 B	25.00
22	BOD (3days at 25°C)	mg/l	3.0	APHA (23rd Edition)5210B 2017	BDL(DL:2.0)
23.	COD	mu/l	· vene	APHA 23rd Edition, 5230B 2017	16.00
24.	Oil & Grease	-mg/I	0.1	APHA 23td Edition, \$520B 2017	EDL(DL:1.4)
25.	Ammunical, Nitrogen as N	mg/l	beign:	APRA (23rd Edition) 4500-NU3-F 2017	DDL(DL:0.1)
26.	Total Kieldal Nitrogen as N	mg/T	-	APHA (23rd Edition) 4500- Norg-B,2017	BDL(DL:0.3)
27.	Sulphide as 5	rng/l	_	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.01)
28	Total Residual Chlorine	mg/l	_	IS 3025(Part-26)-1986 Rffm:2009	BDL(DL:0.1)
29.	Dissalved Phosphate as I*	mg/l	test .	APHA 23rd Edition.4500P, B-D 2017	BDL(DL:0.05)
30.	Ammonia as NH <sub>2</sub>	me/I		APRA 23rd Edn 4500NH3-F 2017	BDL(DL:0.1)
31:	Nitrate Nitrogen as NO <sub>3</sub>	mg/l	Total Control	APHA (23rd Edition) 4500- NO3-E, 2017	BDL(DL:0.1)
32.	Bio-assay Test	-	90% survival of fish after 96 hours in 100% effluent	IS 6582(Part 2)2001, Ed.2.1 (2002-12)	All Fishes are survived in 100% effluent after 96 hrs
33.	Particle Size of Suspended Solids	-	850 µ IS sieve	TPM/MSK/PAE/3/55	Pass through 850µm 15 sieve
34. I	Dissolved Oxygen	mg/l	-	APHA 23rd-2012,4500-O-C	6,50

Report Prepared by: J. Konngo

BBSRT

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Authorized Signatory

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## TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMILA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/827 Date : 01.10.2021

Sample No. + MSKGL/ED/2020-21/09/00792

Sample Description: Waste Water Sampling Location : Near SS -6 Date of Sampling : 04.09.2021

#### ANALYSIS RESULT

SI. No.			Standard as per Sch.VI of EP Rules, 1986	Test Method / Specification	Result
1	Colour	Hazen		APHA 23rd Edition,2120B 2017 BDU	
7	Odour	-	1	APELA 23rd Edition, 2150B	BDL(DL:1.0) Automble
3.	pH at 25°C	-	5.5 - 9.0	APHA Zird Edition, 4500-H-B	7.46
4,	Copper as Cu	Copper as Cu mg/l 3.0		APBA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02
5.	Fluoride as F	mg/l	2.0	APHA (23rd Edition)4500 - F C/D, 2017	0.78
6.	Iron as Fe	mg/l	3.0	APHA 23rd Edition 3500 Fe B 2017	0.60
7	Manusness: as Mn	mg/l	2,0	APHA (23rd Edition)3120B-2017 (ICP OES)	BDL(DL:0.02)
8.	PhenolioCompuum as C <sub>6</sub> H <sub>5</sub> OH	mg/l	1.0	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(DL:0.001
9.	Selenium es Se	mg/I	5.0	APHA (23rd Edition) 3120B 2017	BDL(DL:0.005
10.	Codmium as Cd	mg/I	2.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.001
11	Cyanide as CN	mg/l	0.2	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.01)
12	Lead as Pb	mg/I	0.1	APHA (23rd Edition)3120B 2017	BDL(DL:0.005
113.	Meroury as He	mg/l	0,01	15 3025(Part 48)-1994; Riffin:2014	BDL(DL:0.001
14.	Nickel as Ni	mg/l	3.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.02)
15.	Arsenic as As	my/	0.2		BDE(DL:0,005
16.	Total Chromium as Cr	me/l	2.0	APHA (23rd Edition)3111 D 2017 (AAS Flame)	HDL(DE:0.01)
17.	Zincus Zn	mg/l	5.0	APHA (23rd Edition)3120B 2017	HDL(DL:0.02)
18.	Hexavalent Chromium as Cr	mg/I	0.1	APHA 22nd Edition, 3500 Cr.B	BDL(DL:0.01)
19.	Vanatium as V	mg/l	0,2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.2)
20.	Tara! Suspended solids	mg/I	100.0	APIIA 23rd Edition, 2540D	
21.	Temperature	Dog C	Shall not exceed 5° C above the receiving water Temp.	APIIA 23rd Edm,2550 B	120.00
22	BOD (3days at 25°C)	mg/l-	30.0	APHA (23ni Edition)5210B 2017.	18.00
23.	COD	mg/I	250.0	APHA 23rd Edition, 5220B 2017	100.00
24,	Oil & Grease:	mg/l	10,0	APRIA 23rd Edition, 5520B 2017	BDL(DL:1.4)
25.	Ammonical. Nitrogen as N	mg/I	50.0	APIIA (23rd Edition) 4500-NH3-F 2017	BDL(DL:0.1)
26.	Total Kjeldal Nitrogen as N	ing/i	100,0	APHA (23rd Edition) 4500- Norg-B,2017	BDL(DL-0.3)
27.	Sulphide as S	mg/l	2.0	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.1)
28.	Total Residual Chlorine	mg/l	1.0	IS 3025(Part-26)-1986 R/fm-2009	BDL(DL:0.1)
29.	Dissolved Phosphate as P	mg/l	5.0	APHA 23rd Edition 4500P, B-D 2017	0.17
30.	Ammonia es NH <sub>1</sub>	mg/l	5.0	APHA 23rd Edn 4500NH3-F 2017	BDL(DL:0.1)
31.	Nitrate Nitrogen as NO <sub>2</sub>	mg/l	10.0	APHA (23rd Edition) 4500- NO3-E, 2017	1.1
		90% survival of fish after 96 hrs in 100% effluent	IS 6582(Part 2)2001, Ed.2.1 (2002-12)	All Fishes are survived in 100% effluent after 96 hrs	
33.	Particle Size of Suspended Solids	-	Shall pass &Sugan IS sieve	TPM/MSR/P&E/3/35	Pasa through 850µm IS sieve

Report Prepared by: Q. Kon-St

Mitra S. K. Private Limited

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## TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DEIAMRA

DIST: BHADRAK DHAMRA 756171 ODISHA

Report No. 2 BBS/828 Date : 01.10.2021

Sample No.: MSKGL/ED/2020-21/09/00793

Sample Description: Waste Water Sampling Location: Settling Fond Date of Sampling: : 04.09.2021

#### ANALYSIS RESULT

SI, No,	Test Parameters	EP Rules, 1986		Result	
1.	Colour	Hagen		APHA 23rd Edition,2120B 2017	BDL(DL:L0)
2	Odour	-		APHA 23rd Edition,2150B	Aerceable
3.	pH at 25°C	-	5.5-9.0	APHA 23rd Edition, 4500-H-B	7.72
4.	Copper as Cu	ma/l	3.0	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL-0.02)
5.	Fluoride as F	mg/I	2.0	APHA (23rd Edition)4500 - F C/D, 2017	0.38
6.	Imm as Fe	mg/l	3.0	APHA 23rd Edition 3500 Fe B 2017	0.28
7.	Manganese as Mn	mg/l	2.0	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02)
S.	PhenolicCompound as CeHsOH	mg/l	1.0	APHA (23rd Edition)3530C 2017 (Chloreform Extraction)	BDL(DL:0.001)
9	Selenium as Se	mg/l	5,0	APHA (23rd Edition) 3120B 2017	HDL(DL:0.005)
10	Cadmium as Cd	mg/l	2.0	APHA (23rd Edition)3120B 2017	BDL(DL-0.001)
H.	Cyanide as CN	mg/l	0.2	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.01)
12.	Lend as Pb	mg/l	0.1	APHA (23rd Edition)3120B 2017	BDL/DL:0.005)
13.	Mercury as Hg.	mg/l	0.01	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.001)
14.	Nickel as Ni	mg/l	3.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.02)
15	Arsenia as As	Ing/I	0.2	APHA (23rd Edition)3120B 2017 (JCP OES)	BDL(DL:0.005)
16.	Total Chromium as Cr	mg/l	2.0	AFHA (23rd Edition)3111 D 2017 (AAS Flanc)	BDL(DL:0.01)
17.	Zinc as Zn	mg/L	5.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.02)
18.	Hexavalent Chromium as Cr	mg/l	0.1	APHA 22nd Edition, 3500 Cr.B	BDL(DL:0.01)
19.	Vanadium as V	mg/l	0.2	APRA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL;0.2)
20.	Total Suspended solids	mg/l	100.0	APHA 23rd Edition, 2540D	27.00
21.	Temperaturo	Deg C	Shall not exceed 5° C above the receiving water Temp.	APHA 23rd Edm;2550 B	25,00
22	BOD (3days at 25°C)	mg/l ~	30.0	APHA (23rd Edition)5210B 2017	4.60
23.	COD	mg/l	250.0	APHA 23rd Edition, 5220B 2017	24.00
24.	Oil & Grease	mig/i	10.0	APHA 23rd Edition, 5520B 2017	BDL(DL:1,4)
25.	Ammonical, Nitroger as N	चारुम	50.0	APHA (23rd Edition) 4500-NH3-F 2017	BDL(DL:0.1)
26.	Total Kjeldal Nitrogen as N	mg/l	100.0	APHA (23rd Edition) 4500- Norg-B,2017	BDL(DL40.3)
27.	Sulphide as 5	nag/I	2.0	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.1)
28.	Total Residual Chloriae	mg/l	1.0	LS 3025(Part-26)-1986 Rffm:2009	BDU/DL:0.1)
29:	Dissolved Phosphate as P	mg/I	5,0	APHA 23rd Edition.4500P, B -D 2017	BDL(DL:0.15)
30.	Ammonia in NH;	mg/T	5.0	APHA 23rd Edn 4500NH3-F 2017	BDL(DL:0.1)
31	Nitrate Natrojem at NO <sub>3</sub>	mg/l	10.0	APILA (23rd Edition) 4500- NG3-E, 2017	BDL(DL:0.1)
32.	Bio-assay Test	-	90% survival of fish after 96 hrs in 100% offluent	IS 6582(Part 2)2001, Ed.2.1 (2002-12)	All Fishes are gurvived in 100% offluent after 95 in
33.	Particle Size of Suspended Solids	5	Shall pass 850;um IS sieve	TPM/MSK/PAE/3/35	Pass through 850pm IS sieve

Report Prepared by:

BBSR

Mitra S. K. Private Limited

Authorized Signatory

H.D.: Shvachi Centre (6th Floor), 74B, Achorya Jacadish Charidra Bose Road, Kolkata - 700 016, West Bengal, India 7: 91 33 4014 3000 / 2285 0008 / 2285 0007, Fr 81 33 2285 0008, E: Info@mitrask.com W: www.mitrask.com



N-5/100, Ground Floor IRC Villaga, Nayapelli Shubanaswar - 751015 (CIN: U51909WB1956PTC023037)

T: (0674) 2362916, 2360917 F: (0674) 2362918 TEST REPORT

Name & Address of the Customer:

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/629 Date : 01.10.2021

Sample No.: MSKGL/ED/2020-21/09/00794

Sample Description: Waste Water Sampling Location: DRDO South Gate

Date of Sampling : 04.09,2021

#### ANALYSIS RESULT

Sl. No.	Test Parametery	Units	Standard as per Sch. VI of EP Rules, 1986	Test Method / Specification	Result
L	Colour	Hazen		APHA 23rd Edition, 2120B 2017	HDL(DL:1.0)
2.	Odour	-		APHA 23rd Edition, 2150B	Agreeable
3.	pH at 25°C	-	5.5 - 9.0	APHA 23rd Edition, 4500-H-B	8,04
4.	Copper as Cu	mg/L	3.0	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02)
5.	Fluoride as F	mg/l	2.0	APHA (23rd Edition)4500 - F C/D, 2017	0.82
6.	Iron as Fe	mg/L	3.0	APHA 23rd Edition.3500 Fe B 2017	3,70
7.	Manganosc as Min	me/l	2.0	APHA (23rd Edition)3129B 2017 (ICP OES)	BDL(DL:0.02)
8.	PhenolicCompuum as C <sub>e</sub> H <sub>3</sub> OH	mg/l	1.0	APHA (23rd Edition)\$530C 2017 (Chloroform) Extraction)	BDL(DL:0.001
9.	Scienium as Se	mig/l	5.0	APHA (23rd Edition) 3120B 2017	BDL(DL:0.005
10.	Cadmium as Cd	mg/l	2,0	APITA (23rd Edition)3120E 2017	BDL(D1:0.001
TL	Cyanide as CN	mg/I	0.2	APHA (23nl Edition)4500 CN- F 2017	BDL(DL:0.01)
12.	Lead as Pb	mg/I	0.1	APHA (23rd Edition)3120B 2017	BDL(DL:0 005
13.	Mensury as Hg	mg/I	10.0	IS 3025(Part 48)-1994; Rffin: 2014	BDL(DL:0,001
14.	Nickel as NI	mg/l	3.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.02)
15.	Arsenic as As	mg/L	0.2	APHA (23rd Edition)3120B 2017 (ICP OES)	DDL(DL:0.005
16.	Total Chronium as Cr	ing/l	2.0	APRA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.01)
17.	Zinc as Zn	mg/t	5.0	APHA (23rd Edition)3120B 2017	BDL(D1:0.02)
TR.	Hexavulent Chromism as Cr**	ms/l	0.1	APHA 22nd Edition, 3500 Cr.B	BDL(DL:0.01)
19.	Varadium as V	mg/I	0.2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.2)
30.	Total Suspended solids	rage/I	100.0	APHA 23rd Edition, 2540D	129,00
21:	Temperature	Deg C	Shall not exceed 5° C above the receiving water Temp.	APHA 23rd Edm,2550 B	25.00
22	BOD (3days at 25°C).	mg/l	30.0	APHA (23rd Edition)5210B 2017	26.00
23.	COD	mg/l	250.0	APHA 23rd Edition, 5220B 2017	89.00
24.	Oil & Greass	ing/I	10.0	APHA 23rd Edition, 5S20B 2017	BDL(DL:L4)
25.	Ammonical Nitrogen as N	mg/I	50,0	APHA (23rd Edition) 4500-NH3-F 2017	BDL(DL:0.1)
26.	Total Kjeldal Nitrogen as N	Topm	100,0	APHA (23rd Edition) 4500- Norg-E,2017	BDL(DL:0.3)
27.	Sulphide as S	mg/l	2.0	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.1)
28.	Total Residual Chloring	mg/l	1.0	IS 3025(Part-26)-1986 Riffin:2009	BDL(DL:0.1)
29.	Dissolved Phosphate as P	mg/T	5.0	APHA 23rd Edition,4500P, B-D 2017	0.70
30.	Ammonia as NH <sub>3</sub>	mg/l	5.0	APHA 23rd Edn 4500NH3-P 2017	BDL(DL:0.1)
31.	Nitrate Nilrogen as NO <sub>2</sub>	rng/l	0.01	APHA (23rd Edition) 4500- NOG-E, 2017	BDL(DL:0.1)
32.	Bio-assay Tesa.	-	90% survival of fish after 96 hrs in 100% effluent	IS 6582(Part 2)2001, Ed.2.1 (2002-12)	All Fishes are survived in 100% effluent after 96 ha
13.	Particle Size of Suspended Solids	-	Shall pass 850µm IS sieve	TPW/MSK/P&E/3/55	Pass through 850µm IS sieve

Report Prepared by: \_(

Authorized Signatory

Mitra S. K. Private Limited

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## TEST REPORT

Name & Address of the Customer :

THE DHAMRA PORT COMPANY LIMITED.

AT : DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

Report No. : BBS/830

Date : 01.10,2021

Sample No. : MSKGL/ED/2020-21/09/00795

Sample Description: Waste Water Sampling Location: DRDO North Gars

Date of Sampling : 04.09.2021

#### ANALYSIS RESULT

S1: No.	Test Parameters	Units	nits per Sch.VI of Test Method / Specification EP Rules, 1986		Result
$I_i$	Colour	Haen	_	APHA 23rd Edition,2120B 2017	BOL(DL:1.0)
2	Odour	-	. min .	APHA 23rd Edition,2150B	Agreshie
3.	pH at 25°C	-	5,5-9,0	APHA 23rd Edition, 4500-H-B	7.94
4.	Copper as Cu	mg/l	3.0	APRA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02)
5.	Flooride as F	mg/I	2,0	APHA (23rd Edition)4500 - F C/D, 2017	
6.	Iron as Fo	me/L	3.0	APHA 23rd Edition,3500 Fe B 2017	7,30
7	Manganese as Mn	mg/l	2.0	APHA (23rd Edition)3120B 2017 (ICF OES)	BDL(DL(0.02)
8.	Phenolic Compound as C.H.OH	mg/t	1.0	APHA (23rd Edition)5530/C 2017 (Chlorofisms Extraction)	BDL(Dt:0.001)
9.	Selmum es Se	Tgm	3.0	APHA (23rd Edition) 31208 2017	
10.	Cadmium as Co	mg/l	2.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.005) BDL(DL:0.001)
II.	Cyanide as CN	mg/l	0.2	APHA (23rd Edition)4500 CR- F 2017	BDL(DL:0.01)
12.	Lead as Pb	mg/I	0.1	APHA (23rd Edition)3120B 2017	BDL(DL:0.005)
13.	Memsy as Hg	mg/l	0.01	IS 3025(Part 48)-1994; Rffm:2014	
14.	Niokal as Ni	mg/l	3,0	APHA (23rd Edition)3120B 2017	BDL(DL:0.001)
15.	Arsmic as As	mg/1	0,2	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.02)
16.	Total Chromium as Cr	nta/I	2.0	APEIA (23rd Edition)3111 D 2017 (AAS Flume)	BDL(D1:0.005)
17.	Zinc as Zn	mg/l	5.0	APHA (23rd Edition)3120B 2017	BDL(DL:0.01) BDL(DL:0.02)
18.	Hexavalent Chromium as Cr*5	mg/l	1.0	APIIA 22nd Edition, 3500 C=B	
19.	Vamedium as V	mg/T	0.2	APBA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.01) BDL(DL:0.2)
20.	Total Suspended solids	mg/l	100.0	APHA 25rd Edition, 2540D	164.00
21.	Townerships Des C 3		Shall not exceed 5° C above the receiving water Temp.	APHA 23rd Edin,2550 B	25,00
22	BOD /3days at 25°C1	T/pim	30.0	APHA (23rd Edition)5210B 2017	16,00
23,	COD	mg/I	250 U	APHA 23rd Edition, 5220B 2017	100.00
24.	Oit & Grease	/ng/l	10.0	APHA 23rd Edition, 5520B 2017	BDL(DL:0.1)
25	Ammonical, Nitrogen as N	mg/l	50.0	APHA (23rd Edition) 4500-NH3-F 2017	BDL(DL:0.1)
26.	Total Kjeldal Nitrogen as N	mg/L	100.0	APHA (23rd Edition) 4500-Norg-B,2017	BDL(DL:0.3)
27.	Sulphide as S	mg/1 - 1	2.0	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.1)
25	Total Residual Chlorine	mg/l	1.0	IS 3025(Part-26)-1986 Rffin:2009	BDL(DL:0.1)
29.	Distolved Phosphate as P	mg/l	5,0	APHA 23rd Edition.4500P, B -D 2017	0.20
.02	Antmonia as NH <sub>3</sub>	trigs/T	5.0	APHA 23rd Edn 4500NH3-F 2017	BDL(DL:0.1)
11.	Nitrate Nitragen as NO <sub>1</sub>	mg/I	10,0	APHA (23rd Edition) 4500-NO3-E, 2017	BDL(DL:0.1)
12.	90% survival of   18 6582(Part 2)2001,   16 100% effluent   18 6582 (Part 2)2001,   18 100% effluent   18		IS 6582(Part 2)2001,	All Fishes are survived in 100% offluent after 96 hrs	
13.	Particle Size of Suspended Solids	-	Shall press 850µm IS sieve	TPM/MSK/P&E/3/35	Pass (mongh 850µm IS sieve

Report Prepared by:

BSSR -

Mitra S. K. Private Limited

Authorized Signatory

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TESTING # (NSPECTION

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## TEST REPORT

Name & Address of the Customer : THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : DHAMRA DIST : BHADRAK, 756171 ODISHA Report No. : BBS/797 Date : 01.10.2021

Sample No.: MSKGL/FD/2020-21/09/00900

Date of sampling : 15.09.202) Sampling Description : Ground Water (Piezometric) Sampling Location: Township Pump House Sampling Done By : Mr. Kunja Bihari Nayak

### BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

Sl. No	Test Parameters	Units	Limit	Test Method / Specification	Result
	E Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2	Total Collform Organism	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected

CHEMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL No.	Test Parameter	Units	(Acceptable	in the absence of alternate Source	Test Method / Specification	Result
-14	pH (at 26°C)	960	63-85	No Relaxation	1S 3025 (Part 11)-1984 Riffm: 2012	7.62
2,	Sulphate (as SO <sub>4</sub> )	mu/l	200	600.	1\$ 3025 (Part 24)- 1986 Rffm: 2014	20.00
1.	Calaisum (as Ca)	ma/l	75	200	15 3025 (Part 40)- 1991 Rffm: 2014	37.00
.4.	Assenic (as As)	me/I	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
5.	Lead (as Po)	Pgm	0.01	No Delayation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
6.	Zinc (as Zn)	mg/L	5.0	.15.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
7	Copper (as Cu)	mg/L	0,05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
8	Mercury (as Hg)	mg/l	0,001	No Relaxation	IS 3025 (Part 46)-1994 Refin: 2014	BDL(D1:0.0002
9.	Cadmium (as Cd)	mg/l	0,003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	mg/l	0.5	No Relaxation -	1S 3025 (Part 39)-1991 Rffm: 2014	8DL(DL:0.5)
TL.	Fluoride (as F)	mg/l	1.0	1,5	1S 3025 (Part 60)- 2008 Rffm: 2013	BDL(DL:0.2)
12,	Colgur	Hazen	5	15	3025 (Part 4)-1983; Rffm:2012	BDL(DL:1,0)
13.	Déour	-	Agrecable	Agreeable	IS 3025 (Part 5)-1983 Rffm:2012	Agrecable
14.	Turbidity	N.T.U	- 1	5	IS 3025 (Part 10)-1984 Rffm: 2012	BDL(DL:1.0)
15.	Residual free Chlorine	mg/l	0.2	1.0	IS 3025 (Part 26)- 1986 Rffin: 2014	BDL(DL:0.1)
Tfi.	(reo (as Fe)	trig/li	0.3	No Religantion	IS 3025 (Part 53)-1988 Rffm: 2014	HDL(DL:0.05)
17.	Chlande (as Cl)	mail	250	1000	IS 3025 (Part 32)-1988 Rffm: 2014	73.00
18.	Total Dissolved Solids	mg/l	500	2000	IS 3025 (Part 16)-1984; Rffir: 2012	285.00
19.	Alkalinity (as CaCO <sub>1</sub> )	mse/1	260	600	IS 3025 (Part 23)-1986 Riffm: 2009	187,00
20.	Aluminium (as Al)	me/l	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	nig/L	30	100	IS 3025 (Part 46)-1994 Rffie: 2014	17.00
22.	Total Hardness (as CaCO <sub>3</sub> )	mg/l.	200	600	IS 3025 (Part 21)-2013	173.00
23.	Boron (as B)	mg/L	0,5	1.0	1S 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	mg/l	0.1	0.3	IS 3025 (Part 2) 2004 RA 2014	BDL(Di.:0.02)
25.	Nitrate (as NO <sub>2</sub> )	mg/I	45	No Relaxation	IS 3025 (Part 34)-1988 Rffm; 2014	BDL(D4:0.4)
26.	Phenolie Compounds (as C <sub>4</sub> H <sub>5</sub> OH)	mg/l	0.001	0.002	IS 3025 (Part 43)- 1992; Riffen; 2014	BDL(DL:0.001)
27	Selenium (as Se)	mu/L	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
28.	Total Chromium ( as Cr)	- ITEM/I	0.05	No Relaxation	15 3025 (Part 2) 2004 RA 2014	BDL(DL:0,01)
29	Sliver Fas Agi	mg/l	10,1	No Religation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.005)
30.	Barium (as Ba)	mg/l	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
31.	Salinity	me/l			IS 3025 (Part 14)- 2013	110.00



Ref. No. BBS/797

Date- 01.10.2021

32	Salphide ( as H2S)	mg/l	0.05	No Relaxation	IS 3025 (Part 29)- 1991; Riffm: 2014	DIM (DI -0 05)
33.	Ammonia ( as total ammonia-N)	mg/l	0,5	No Relaxanou	1S 3025 (Part 34)- 1988; Rffin: 2014	BDL(DL:0.02) BDL(DL:0.1)
34.	Chloramines	mg/i	4.0	No Relacation	IS 3025 (Part 26)- 1986; Rffm: 2014	-
	Nickel ( as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
36.	Cyanide (as CN)	mg/I	0.05	No Relaxation	IS 3025 (Part 27)- 1986 R/Fm; 2014	BDL(DL:0.01)
37.	Anionic Detergents (as MBAS)	mg/I	0.2	1.0	IS 13428(Armex K)- 2005	BDL(DL:0.01) BDL(DL:0.05)
38.	Polymedear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA (25 <sup>-4</sup> Edtn.) 6440C	BDL(DL:0,0001)
39.	Polychlorinsted Biphenyls (PCB)	mg/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

BBSR

Report Prepared by:

For Mitra S. K. Private Limited.

MSK JESTINGOINGRECTION

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Name & Address of the Customer 1 THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO : DHAMRA

DIST : BHADRAK, PIN :756171 ODISHA

### TEST REPORT

Report No. : BBS/798 Date : 01.10.2021

Sample No.: MSKGL/PD/2020-21/09/00901

Date of sampling : 15.09.2021

Sampling Description : Ground Water (Plenametric)

Sampling Location: Pump House WTP Sampling Done By: Mr. Kunja Bihari Nayak

## BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

St. No	Test Parameters	- Plate.	24.5		ALCOHOL: NO
200 140		Units	Limit	Test Method / Specification	Result
12	E. Culi	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2	Total Coliforn Organism	/200ml	Not Detectable	IS: 15185 : 2016	The second second
			13.01 moderniants	15, 13103 - 2010	Not Detected

### CHEMICAL ANALYSIS RESULT AS PER 15: 10500 - 2012

SL No.		Linits	Requirement (Acceptable Limit)	Permissible limit in the alwance of alternate Source	Test Method / Sperification	Result
L	pH ( w 26 °C)	-	6.5 - 8.5	No Relaxation	IS 3025 (Part 11)-1984 R/fm; 2012	7.68
2	Sulphaté (as SO <sub>4</sub> )	ma/i	200	400	IS 3025 (Part 24)- 1986 Rffin: 2014	22.00
3.	Calcium (as Ca)	mp/l	75.	200	IS 3025 (Part 40)- 1991 Rffin: 2014	40,00
4.	Austriic (as As)	Pogra	0.01	0.05	IS 3025 (Part 2) 2004 RA 2014	BDL/DL:0.005
5.	Lent (ns F5)	mg/l	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0,005
6	Zinc (as Zn)	Nem -	5.0	15,0	IS 3025 (Part 2) 2004 RA 2014	BDL(D1:0.02)
7.	Cappor (as Cu)	mig/l	0.05	1.5	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.02)
N.	Merrary (as Hg)	mg/I	0.001	No Relacation	IS 3025 (Part 48)-1994 Riffin: 2014	BDL(DL:0.0002
9.	Cadmium (as Cd)	- Ing/I	0.003	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.001)
10.	Mineral Oil	//sm	0.5	No Relaxation	IS 3025 (Part 39)-1991 Rffm: 2014	BDL(DL:0.5)
11.	Florendo (as F)	mg/I	0.1	15	IS 3025 (Part 60)- 2008 Rffin: 2013	BDL(DL:0.2)
12	Color	Hazen	3	15	3025 (Pari 4)-1983; Rffm:2012	BDL(Dt:1.0)
13.	Odour		Agreeable	Agrocable	IS 3025 (Part 5)-1983 P.ffin:2012	Agrocable
14.	Turbidity	26T/U	1	3	IS 3025 (Part 10)-1984 Riffm; 2012	BDL(DL:1.0)
15.	Residual free Chiococ	ma/I	0.2	1.0	1S 3025 (Part 26)- 1986 Rffin:2014	BDL(DL:0.1)
16.	Iron (as Fe)	mg/l	0.3	No Relacation	1S 3025 (Part 53)-1988 Rffin: 2014	BDL(DL:0.05)
17.	Chioride (as Ci)	mg/i	250	1000	LS 3025 (Part 32)-1988 Rffm: 2014	77.00
18.	Total Dissolved Solids	mu/I	500	2000	IS 3025 (Part 16)-1984; Rifin:2012	245.00
19:	Alkalinity (as CaCO <sub>1</sub> )	mg/l	200	600	1S 3025 (Part 23)- 1986 Ruffin: 2009	156,00
20.	Aluminium (as Al)	mg/l	0.03	0.2	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
21.	Magnesium (as Mg)	mg/I	30	100	IS 3025 (Part 46)-1994 Riffin: 2014	16.00
22	Total Hardonss (as CaCO <sub>2</sub> )	mg/I	200	600	15 3025 (Part 21)-2013	171,00
23.	Boros (as B)	mg/l	0.5	1.0	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.3)
24.	Manganese (as Mn)	rng/l	.0.1	0.3	1S 3025 (Part 2) 2004 RA 2014	
25.	Nitrate (as NO <sub>2</sub> )	me/l	45	No Relaxation	IS 3025 (Part 34)-1988 Rffin: 2014	BDL(DL:0.02)
26.	Phenolic Compounds (as C <sub>4</sub> H <sub>4</sub> OH)	mg/i	0.001	0.602	IS 3025 (Part 43)- 1992; Rffm: 2014	BDL(DL:0.4) BDL(DL:0.001)
27.	Selenium (as Se)	mg/L	0.01	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	
28.	Total Chromium ( as Cr)	mg/I	0.05	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL-0.005)
29	Silver (as Ag)	rou/i	0.1	No Relection	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
30.	Barium (us Bu)	mg/I	0.7	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	HDL(DL:0.005)
31.	Salinity	mu/L	-	TO NOTICE OF	IS 3025 (Part 14)-2012	BDL(DL:0.1)
		-			10 SHY (Last 14)- 7013	120.00



### Ref. No. BBS/798

Date-01.10.2021

32	Sulphide ( as H2S)	mg/l	0.05	No Religation	IS 3025 (Part 29)- 1991; Rffin: 2014	I medies a se
33.	Ammonia ( as total ammonia-N)	mg/l	0,5	No Relaxation	IS 3025 (Part 34)- 1988; Rffm: 2014	
34.	Chloramines	mg/T	4.0	No Relaxation	1S 3025 (Part 26)- 1986; R/fm: 2014	
35.	Nickel ( as Ni)	mg/I	0.02	No Relaxation	IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.1)
36,	Cyanide (as CN)	mg/I	0.03	No Relaxation	IS 3025 (Part 27)- 1986 Rffin: 2014	BDL(DL:0.01) BDL/DL:0.01)
37.	Anionic Detergents (as MBAS)	-mg/l	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
38.	Polymuclear Aromatic Hydrocarbons (as PAH)	mg/l	0.0001	No Relexation	APHA ( 23 <sup>rd</sup> Edin.) 6440C	BDL(DL:0.0001)
39.	Polychlorinated Biphenyls (PCB)	ing/l	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)

SBSR

Report Prepared by:

For Mitra S. K. Private Limited.



N-5/100, Gmund Floor IRC VIllage, Nayapelli Shubaneswar - 751015 [CIN: U51909WB1958PTC023037]

T : (0E74) 2362916, 2360917 F | (0E74) 2362918

### TEST REPORT

Name & Address of the Customer :

THE DHAMRA PORT COMPANY LIMITED

AT : DOSINGA, PO : CHAMILA

DIST : BHADRAK, PIN :756171 ODISHA

Report No.: BBS/799 Date: 01.10.2021

Sample No.: MSKGL/FD/2020-21/09/00905

Date of sampling : 15.09,2021

Sampling Description : Ground Water (Piezometric)

Sampling Location: Running Room Sampling Door Py: Mr. Kunja Bihari Nayak

## BACTERIOLOGICAL ANALYSIS RESULT AS PER IS: 10500 - 2012

SL No	Test Parameters	Units	Limit	Test Method / Specification	Thorasti.
L	E. Coli	/100ml	Not Detectable	IS: 15185 : 2016	Not Detected
2;	Total Coliform Organism	/100mil	Mor Detectable	IS: 15185 : 2016	
			- The state of the	10, 17107 : 2010	Not Described

GREMICAL ANALYSIS RESULT AS PER IS: 10500 - 2012 Requirement Permissible florit Test Parameter Units (Acceptable in the absence of Test Method / Sperification No. Heauft Limit) alternate Source pH ( m 26 C) 65-85 No Relaxation 15 5025 (Part 11)-1984 Riffle: 2012 7.73 Sulphate (as SO<sub>4</sub>) ung/ 600. IS 3025 (Part 24)- 1986 Edim: 2014 22.60 Calcium (as Ca) Ing/i 200 18 3025 (Part 40)- 1991 Rffine 2014 52.GU 4 Arsenic (as As) ing/t 0.01 0.05 IS 3025 (Part 2) 2004 PLA 2014 BDL(DL:0.005) Lead (as Pb) ing/l 0.01 No Relaxation IS 3025 (Part 2) 2001 RA 2014 BD1.(DL:0.005) ű. Zinc (as Zn) mg/I 5.0 15.0 IS 3025 (Part 2) 2004 RA 2014 DDL(DL:0.02) Copper (as Cu) 0.05 mg/i 1.5 IS 3025 (Part 2) 2004 RA 2014 EDL(DL:0.92) 2 Mercury (as Hg) 0.001 mg/L No Relaxation 1S 3025 (Part 48)-1994 Rffra: 2014 BCI (DL:0,0502) LCI (DL:0,051) d Cadminton (as Cd) mg/I 0.003No Relaxation IS 3025 (Part 2) 2004 P.A 2014 10 Mineral Oil mg/I 0.5 No Relaxation IS 3025 (Part 39)-1991 Rffm: 2014 BUL(DI-0.5) 11 Plooride (as F) 1.0 me/l 1,5 IS 3025 (Part 60)- 2003 Rffm: 2013 EDL(DL:0.2) 12 Colour Нажи -5 15 3025 (Part 4)-1983; Rffm:2012 BDL(DL:1.0) 13 Odour Agreenble Agreedle IS 3075 (Part 5)-1983 Rffh;:2012 Aprecible 14 Turbidity N.T.U IS 3025 (Part 10)-1984 Refin; 2012 BDL(DL:1.0) Residual free Clalorine 和原生 0.2 IS 3025 (Part 26)- 1986 Rffm:2014 LD SDL(DL:0.1) 16 I/on (as Fc) me/l 0.3 No Relayation IS 3025 (Part 53)-1988 R/ffm: 2014 BDL(DL:0.05) Clifferido (as CI) 17. rate/L 250 1600 IS 3025 (Part 32)-1988 Riffin: 2014 80,00 18 Total Disserved Solids mg/l 500 2000 1S 3025 (Part 16)-1984; Rifm: 2012. 367,00 19. Alkalinity (as CoCO<sub>2</sub>) mg/f 200 600 IS 3025 (Part 23)-1986 Riffin: 2009 156.00 20 Aluminium (as Al) mp/10.03 62 IS 3025 (Part 2) 2004 RA 2014 RDL(DL:0.01) 21. Magnesium (as Mg) mp/l 30 100 IS 3025 (Part 46)-1994 Rffin: 2014 18.00 Total Hardness 27 mg/t 200 600 IS 3025 (Part 21)-2013 (as CaCOy) 153.00 24 Herem (as B) me/i 0.5 1.0 IS 3025 (Part 2) 2004 RA 2014 BDL(DLc.3) 24, Manganesa (us Mn) mg/I 0.1 0.3 IS 3025 (Part 2) 2004 RA 2014 BDL(DL:0:02) 25 Nimme (as NO) mg/l 45 No Religation IS 3025 (Part 14)-1988 RIVIN: 2014 BDL(DL:0.4) Phenolic Compounds 26 0.001 0.002 IS 3025 (Part 45)- 1992; Riffm: 2014 (as CoH, DH) mg/i BDL(D1.30.001) Selenium (as Se) 27. mg/l 0.00 No Relaxation IS J025 (Part 2) 2004 RA 2014 BDL(DL:0.005) 28. Total Chroneium ( as Cr) mg/l 0.03 No Relaxation IS 3025 (Part 2) 2004 RA 2014 BDL(DL:GDI) 79 Silver ( as Ag) 0.1 rea/ No Relaxation IS 3025 (Part 2) 2004 RA 2014 BDL(D)1:0.005) 30. Barium (# Ba) mg/i 0.7 No Relaxation 1S 3025 (Past 2) 2004 RA 2014 BDL(DL:0.1) 31 Salinity  $m_2/l$ IS 3025 (Part 14)-2013 131,00

## Continuation Sheet



### Ref. No. BBS/799

### Date-01.10.2021

33.	Biphopyls (PCB)	mg/I	0.0005	No Relaxation	US EPA 8082	BDL(DL:0.0005)
39.	Polychlorinated		-			
38.	Polynuclear Arematic Hydrocarbons (as PAH)	mg/l	0.0001	No Relaxation	APHA (23 <sup>rd</sup> Edm.) 6440C	BDL(DL:0.0001
3/-	(as MBAS)	and a	0.2	1.0	IS 13428(Annex K)- 2005	BDL(DL:0.05)
37.	Anionic Detergents	mg/l	0,00	No Relaxation	IS 3025 (Part 27)- 1986 Rffm: 2014	BDL(DL:0.01)
36.	Cyanide (as CN)	mg/l	0.05		IS 3025 (Part 2) 2004 RA 2014	BDL(DL:0.01)
35.	Nickel ( as Ni)	mg/l	0.02	No Relaxation	IS 3025 (Part 26)- 1986; Rffm: 2014	BDL(DL:0.1)
34.	Chloramines	mg/I	4.0	No Relaxation		
400	Ammonia-N)	mg/l	0,3	No Relaxation	IS 3025 (Part 34)- 1988; Rffm; 2014	
33.	Ammonia ( as total	17007	0.03	No Relaxation	IS 3025 (Part 29)- 1991; Rffm: 2014	BDL(DL:0.02
32.	Sulphide ( as H2S)	mg/I	0.05	T 10 to 10 to 10	Terror	

Report Prepared by:

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For Mitra S. K. Private Limited.



N-5/100, Ground Floor IRC Village, Niiyapalli Bhuhaneswar - 751015 ICIN: U51909WB1956PTC0230371

T : (0674) 2362916, 2360917 F : (0674) 2362918

## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/500 Date : 01.10.2021

Sample No.: MSKGL/ED/2020-21/09/00100

Sample Description: Sea Sediment

Sampling Location: Dredging Disposal Site

Date of sampling : 02.09.2021

SL No.	Parameters	Ualt	Test Method	Result
d.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7,85
2	Electrical Conductivity	us/cm	1S 3025 (Part 14)-1984 Rffm 2006	5494,00
3	Organic Matter	%	IS 2720 (Part 22)-1972; Rffin:2015	0.98
4.	Turbidity	N.T.U	APHA (23rd Edition) 2130B	24,00
5.	Moisture content	%	Lab Method	39.00
6.	Chloride (as Cl)	mg/kg	TPM/MSK/P&E/1/10	9100.00
7.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	722.00
8	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
9	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	14.00
10.	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	234.00
11.	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	344.00
12.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	2980,00
13.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	214.00
14.	Copper (as Cu)	mg/kg	EPA 6010D	20,00
15.	Nickel (as Ni)	mg/kg	EPA 6010D	58.00
16.	Zinc (as Zn)	mg/kg	EPA 6010D	32.00
17.	Manganese (as Mn)	mg/kg	EPA 6010D	352.00



N-5/100, Ground Floor IRC Village, Neyepalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917

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#### Ref. No. BBS/500

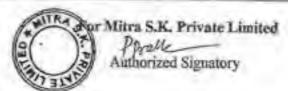
Date-01,10,2021

18.	Lead (as Pb)	mg/kg	EPA 6010D	12.00
19.	Boron (as B)	mg/kg	IS 13428- 2005, Armex H	<5.0
20.	Aluminium ( as Al )	mg/kg	EPA 6010D	BDL
21.	Total Chromium (as Cr)	mg/kg	EPA 6010D	21.00
22.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	628,00
23.	Organie Nitrogen	mg/kg	TPM/MSK/P&E/3/68	641,00
24.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb, 2007	<0,05
25.	Pestivide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
26	Sand	%	TPM/MSK/P&E/1/36A	30.00
27.	Silt	%	TPM/MSK/P&E/1/36A	29.00
28.	Clny	None	TPM/MSK/P&E/I/36A	41.00
29.	Texture	%	TPM/MSK/P&E/1/36A	Loam

#### Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry	1422
2,	Total count (Phytobenthes)	50 mg wet sediment	288
3.	No of species (Phytobenthos)	Nos.	4
4	Diversity index (Phytobenthos)	_	1.94
5.	Major Species (phytobenthos)	-	Coscinodiscus sp., Biddulphia mobilensis
6.	Name of Phylum (Fauna)		Annelida, Mollnsca
7.	Class & Number of individuals encountered (Fauna)	-	Plychaeta-52,Bivalvia-29
8.	Total no. of species encountered (Faima)	Nos.	26
9.	Total fauna (Fauna)	per m <sup>3</sup>	190

Report Prepared by:





N-5/100, Ground Floor IRC Village, Nayapatili Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer; THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/501 Date : 01.10.2021

Sample No. : MSKGL/ED/2020-21/09/00101

Sample Description: Sea Sediment Sampling Location: Dredging Area Date of sampling: 02.09.2021

Sl. No.	Parameters	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7.88
2	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	12475.00
3.	Organic Matter	96	IS 2720 (Part 22)-1972; Rffm:2015	0.87
4.	Turbidity	N.T.U	APHA (23rd Edition) 2130B	29.00
5.	Moisture content	%	Lab Method	24.00
6.	Chleride (as C1)	mg/kg	TPM/MSK/P&E/1/10	6541.00
7.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	1254.00
8.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5,0
9.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	16.00
10.	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	254.00
H.	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	547.00
12,	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	4978.00
13.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	157.00
14.	Copper (as Cu)	mg/kg	EPA 6010D	23.00
15.	Nickel (as Ni)	mg/kg	EPA 6010D	56.00
16.	Zinc (as Zn)	mg/kg	EPA 6010D	21.00
17.	Manganese (as Mn)	mg/kg	EPA 6010D	312.00



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 (CIN: U51909WB1956PT0025037)

T : (0674) 2362916, 2360917 F : (0674) 2362918 Ref. No. BBS/501

Date-01.10.2021

18.	Lead (as Pb)	mg/kg	EPA 6010D	11.00
19.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	<5.0
20.	Aluminum ( as Al )	mg/kg	EPA 6010D	BDL
21	Total Chromium (as Cr)	mg/kg	EPA 6010D	120,00
22.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	584.00
23	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	497.00
24.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
25.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
26.	Sand	%	TPM/MSK/P&E/1/36A	47.00
27	Süt	%	TPM/MSK/P&E/1/36A	33,00
28.	Clay	None	TPM/MSK/P&E/1/36A	20.00
29.	Texture	96	TPM/MSK/P&E/1/36A	Clay Loan

#### Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1578
2.	Total count (Phytobeathos)	50 mg wet sediment	312
3.	No of species (Phytobenthos)	Nos.	4
4.	Diversity index (Phytobenthos)	-	1.66
5.	Major Species (phytobenthos)	6.0	Biddulphia mobilensis,
6.	Name of Phylum (Fauna)	4	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	-	Plychaeta-50,Bivalvia-18
8.	Total no, of species encountered (Fauna)	Nos.	27
9.	Total fauna (Fauna)	per m	159

Report Prepared by:





N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 ICIN: U51909WB1958PTC0230371

T: (0674) 2362916, 2360917 F: (0674) 2362918

## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/502 Date : 01,10,2021

Sample No. ; MSKGL/ED/2020-21/09/00102

Sample Description: Sea Sediment

Sampling Location: Dredging Disposal Site

Date of sampling : 21.09.2021

Sl. No.	Parameters	Unit	Test Method	Result
li.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7.84
2	Electrical Conductivity	us/cm	15 3025 (Part 14)-1984;Rffm:2006	1688.00
3.	Organic Matter	76	IS 2720 (Part 22)-1972; Rffin:2015	0.78
4,	Turbidity	N.T.U	APHA (23 <sup>rd</sup> Edition) 2130B	21.00
5.	Moisture content	%	Lab Method	30,00
6.	Chloride (as Cl )	mg/kg.	TPM/MSK/P&E/1/10	1200.00
7.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	245,00
8:	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
9.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	11.00
10.	Phospharus	mg/kg	TPM/MSK/P&E/1/12	19.00
П.	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	14.00
12.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1588.00
13,	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	150.00
14.	Copper (as Cu)	mg/kg	EPA 6010D	22.00
15.	Nickel (as Ni)	mg/kg	EPA 6010D	13.00
16,	Zinc (as Zn)	mg/kg	EPA 6010D	26.00
17.	Manganese (as Mn)	mg/kg	EPA 6010D	144.00



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T : (0674) 2382916, 2360917 F : (0674) 2362918

#### Ref. No. BBS/502

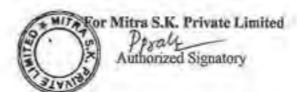
Date-01.10.2021

18.	Lead (as Pb)	mg/kg	EPA 6010D	12.00
19	Boron (as B)	mg/kg	IS 13428-2005, Angex H	<5.0
20.	Aluminium ( as Al )	mg/kg	EPA 6010D	BDL
21.	Total Chromium (as Cr)	mg/kg	EPA 6010D	16,00
22.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	366,00
23.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	249,00
24	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
25	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
26,	Sand	%	TPM/MSK/P&E/1/36A	35.00
27.	Silt	%	TPM/MSK/P&E/1/36A	31.00
28.	Clay	None	TPM/MSK/P&E/1/36A	34.00
29.	Textine	%	TPM/MSK/P&E/1/36A	Clay Losm

#### Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1345
2.	Total count (Phytobenthos)	50 mg wet sediment	296
3.	No of species (Phytobenthos)	Nos.	5
4,	Diversity index (Phytobenthos)	1	1.61
5.	Major Species (phytobenthos)	-	Biddulphia mobilensis, Spirulina aeruginea
6.	Name of Phylum (Fauna)	-	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	Towns 1	Plychaeta-61,Bivalvia-22
8:	Total no. of species encountered (Fauna)	Nos.	24
9,	Total fauna (Fauna)	per m <sup>3</sup>	256

Report Prepared by:





N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0674) 2362916, 2360917 F: (0574) 2362918

## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/503 Date: 01.10,2021

Sample No. : MSKGL/ED/2020-21/09/00103

Sample Description: Sea Sediment Sampling Location: Dredging Area Date of sampling: 21.09.2021

SL No.	Parameters	Unit	Test Method	Result
4.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	8.24
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	12145.00
3.	Organic Matter	%	1S 2720 (Part 22)-1972; Rffin:2015	0.90
d.	Turbidity	N.T.U	APHA (23 <sup>rd</sup> Edition) 2130B	18.00
5.	Moisture content	94	Lab Method	27.00
6.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	6110.00
7.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	112.00
8.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
9.	Phosphate (as PO4)	mg/kg.	TPM/MSK/P&E/1/12	<3.0
10.	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	6.00
H.	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	10.00
12.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	1765,00
13,	Potassium (as K)	mg/kg	TPM/MSK/P&E/U5	160,00
14.	Copper (as Cu)	mg/kg	EPA 6010D	17.00
15,	Nickel (as Ni)	mg/kg	EPA 6010D	8.00
16.	Zinc (as Zn)	mg/kg	EPA 6010D	22.00
17.	Manganese (as Mn)	mg/kg	EPA 6010D	158.00



N-5/100, Ground Floor IRC Village, Nayapalii Bhubanaswar - 751015 (CIN: U51909WB1958PTC023037)

T: (0574) 2382916, 2360917

F: (0674) 2362918

Ref. No. BBS/503 Date- 01.10.2021

18.	Lead (as Pb)	mg/kg	EPA 6010D	7.30
19.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	<5.0
20	Ahminium (as Al)	mg/kg	EPA 6010D	BDL
21.	Total Chromium (as Cr)	mg/kg	EPA 6010D	45.00
22.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffin 2014	279.00
23.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	246,00
24.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb, 2007	<0.05
25.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
26.	Sand	96	TPM/MSK/P&E/1/36A	40.00
27.	Silt	96	TPM/MSK/P&E/1/36A	24,00
28.	Clay	None	TPM/MSK/P&E/1/36A	26.00
29.	Texture	96	TPM/MSK/P&E/1/36A	Clay

#### Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobentiqus)	CFU/g dry wt.	1214
2.	Total count (Phytobenthos)	50 mg wet sediment	345
3.	No of species (Phytobenthos)	Nos.	6
4.	Diversity index (Phytobenthos)	-	2.68
5.	Major Species (phytobenthos)	-	Biddulphia mobilensis, Nizschia distans
6.	Name of Phylum (Fauna)	- Indiana	Annelida, Molfusca
7.	Class & Number of individuals encountered (Fauna)		Plychaeta-80, Bivalvia-34
8.	Total no. of species encountered (Fauna)	Nos.	25
9.	Total fauna (Fauna)	per m³	192

Report Prepared by:

Mitra S.K. Private Limited

MSK TESTING CINSPECTION

N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

T: (0E74) 2362916, 2360917

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/504 Date : 01.10.2021

Sample No.: MSKGL/ED/2028-21/09/00104

Sample Description: Sea Sediment

Sampling Location: Dhamra River Mouth

Date of sampling : 21.09.2021

Sl. No.	Parameters	Unit	Test Method	Result
-la-	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7,45
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	3547.00
3.	Organic Matter	1%	IS 2720 (Part 22)-1972; Rffin:2015	1.92
4.	Turbidity	N.T.U	APHA (23 <sup>rd</sup> Edition) 2130B	20.00
5.	Moisture content	%	Lab Method	31,00
6.	Chloride (as CI)	mg/kg	TPM/MSK/P&E/1/10	1654.00
7.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	588.00
8.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
9.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	BDL
10.	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	8.00
112	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	7.77
12.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	2341.00
13;	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	547.00
14.	Copper (as Cu)	mg/kg	EPA 6010D	4.88
15.	Nickel (as Ni)	mg/kg	EPA 6010D	1.98
16.	Zinc (as Zn)	mg/kg	EPA 6010D	8.45
17.	Manganese (as Mn)	mg/kg	EPA 6010D	BDI.

## Continuation Sheet



Ref. No. BBS/504

Date- 0L10.2021

18.	Lead (as Pb)	mg/kg	EPA 6010D	5.70
19.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	4.30
20.	Aluminium (as Al)	mg/kg	EPA 6010D	BDL
21.	Total Chromium (as Cr)	mg/kg	EPA 6010D	3,80
22.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	10.30
23.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	8.60
24.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb, 2007	₹0.05
25.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
26.	Sand	%	TPM/MSK/P&E/1/36A	38,00
27.	Silt	%	TPM/MSK/P&E/1/36A	22.00
28.	Clay	None	TPM/MSK/P&E/1/36A	40.0
19.	Texture	%	TPM/MSK/P&E/1/36A	Clay Loam

### Biological Result

SI No.	Parameters	Unit	Results
L	Fungus (Phytobenthos)	CFU/g dry wt.	1647
2.	Total count (Phytobenthos)	50 mg wet sediment	161
3.	No of species (Phytobenthos)	Nos.	4
4.	Diversity index (Phytobenthos)	-	0.9450
5.	Major Species (phytobenthos)	-	Coscinodiscuss, Pleurosigma
6.	Name of Phylum (Fauna)	-	Annelida, Mollusca
7 <sub>t</sub>	Class & Number of individuals encountered (Fauna)	-	Plychaeta-22,Bivalvia-10
8.	Total no. of species encountered (Fauna)	Nos.	31
9.	Total fauma (Fauma)	per m <sup>3</sup>	160

Report Prepared by:

BBSR

For Mitra S.K. Private Limited

MSK TESTING • INSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PT0023037]

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## TEST REPORT

Name & Address of the Customer:
THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/505 Date : 01.10.2021

Sample No.: MSKGL/ED/2020-21/09/00105

Sample Description: Sea Sediment

Sampling Location: Dry Bulk Cargo Berth Face.

Date of sampling : 21.09.2021

Sl. No.	Parameters	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffm;2011	8,65
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	3874.00
3.	Organic Matter	96	IS 2720 (Part 22)-1972; Rffm:2015	1.89
4.	Turbidity	N.T.U	APHA (23 <sup>rd</sup> Edition) 2130B	23.00
5.	Moisture content	96	Lab Method	31.00
6.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	2321.00
7.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	301.00
8.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
9.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	10.00
10.	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	11.88
11.	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	5,66
12.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	2214.00
13,	Potassium (as K)	mg/kg	TPM/MSR/P&E/1/5	363.00
14,	Copper (as Cu)	mg/kg	EPA 6010D	3.87
15.	Nickel (as Ni)	mg/kg	EPA 6010D	2.21
16.	Zinc (as Zn)	mg/kg	EPA 6010D	8.45
17.	Manganese (as Mn)	mg/kg	EPA 6010D	BDL

## Continuation Sheet



### Ref. No. BBS/505

### Date-01.10.2021

18.	Lead (as Pb)	mg/kg	EPA 6010D	3.12
19.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	6.00
20.	Aluminium ( as Al )	mg/kg	EPA 6010D	BDL
21.	Total Chromium (as Cr)	mg/kg	EPA 6010D	2.45
22.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	13.00
23.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	7.62
24.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
25.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
26.	Sand	%	TPM/MSK/P&E/1/36A	42.00
27.	Silt	%	TPM/MSK/P&E/1/36A	28.00
28.	Clay	None	TPM/MSK/P&E/1/36A	30.00
29.	Texture	%	TPM/MSK/P&E/1/36A	Loam

## Biological Result

SI No.	Parameters	Unit	Results
Į.	Fungus (Phytobenthos)	CFU/g dry wt.	2354
2.	Total count (Phytobenthos)	50 mg wet sediment	296
3,	No of species (Phytobenthos)	Nos.	4
4.	Diversity index (Phytobenthos)		0.8336
5.	Major Species (phytobenthos)	-	Navicula, Coscinodiscuss,
6.	Name of Phylum (Fauna)	_	Annelida, Mollusca
7,	Class & Number of individuals encountered (Fauna)	-	Plychaeta-59,Bivalvia-21
8.	Total no. of species encountered (Fauna)	Nos.	41
9.	Total fauna (Fauna)	per m <sup>3</sup>	245

Report Prepared by:

For Mitra S.K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalii Bhubaneswar - 751015 ICIN: U51909WB1956PTC023037[

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/506 Date : 01.10.2021

Sample No.: MSKGL/ED/2020-21/09/00106

Sample Description: Sea Sediment

Sampling Location: Liquid/Gas/Cyrogenic Berth

Face

Date of sampling : 21,09.2021

SL No.	Parameters	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7,66
2,	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	3956.00
3.	Organic Matter	96	IS 2720 (Part 22)-1972; Rffm:2015	1,97
A.	Turbidity	N.T.U	APHA (23 <sup>rd</sup> Edition) 2130B	20.00
5.	Moisture content	96	Lab Method	39.00
6	Chloride (as Cl.)	mg/kg	TPM/MSK/P&E/1/10	1012.00
7.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	910.00
8.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
9,	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	BDL
10.	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	BDL
11.	Iron (as Fc)	mg/kg	TPM/MSK/P&E/1/13	4.60
12.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	2009.00
13.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	259.00
14.	Copper (as Cu)	mg/kg	EPA 6010D	2.91
15.	Nickel (as Ni)	mg/kg	EPA 6010D	2.13
16,	Zinc (as Zn)	mg/kg	EPA 6010D	8.45
17.	Manganese (as Mn)	mg/kg	EPA 6010D	BDL

## Continuation Sheet



### Ref. No. BBS/506

### Date-01.10.2021

18.	Lead (as Pb)	mg/kg	EPA 6010D	8.00
19.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	3.10
20.	Aluminium ( as A1 )	mg/kg	EPA 6010D	BDL
21.	Total Chromium (as Cr)	mg/kg	EPA 6010D	2.91
22.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffin;2014	8.66
23.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	3.54
24.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
25.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
26.	Sand	%	TPM/MSK/P&E/1/36A	41,00
27.	Silt	%	TPM/MSK/P&E/1/36A	24.00
28.	Clay	None	TPM/MSK/P&E/1/36A	35.00
29.	Texture	96	TPM/MSK/P&E/1/36A	Clay

## Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1622
2.	Total count (Phytobenthos)	50 mg wet sediment	258
3.	No of species (Phytobenthos)	Nos.	6
4.	Diversity index (Phytobenthos)	_	0.9140
5.	Major Species (phytobenthos)		Bidulphia, Pleurosigma,
6.	Name of Phylum (Fauna)		Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	1020	Plychaeta-66, Biyalvia-20
8.	Total no. of species encountered (Fauna)	Nos.	35
9.	Total fauna (Fauna)	per m <sup>5</sup>	253

Report Prepared by:

BBSR

For Mitra S.K. Private Limited



N-5/100, Ground Floor IRC VIllage, Nayapatli Shubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No. ; BBS/507 Date : 01.10.2021

Sample No.: MSKGL/ED/2020-21/09/00107

Sample Description : Sea Sediment

Sampling Location: Along Channel at I km

St. No.	Parameters	Unit	Test Method	Result
de	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	7.81
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	6813.00
3.	Organic Matter	9%	IS 2720 (Part 22)-1972; Rffin:2015	2.45
4.	Turbidity	N.T.U	APHA (23rd Edition) 2130B	26.00
5.	Moisture content	96	Lab Method	42.00
6.	Chloride (as CI )	mg/kg	TPM/MSK/P&E/1/10	1209.00
7.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	742.00
8.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
9.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	13,00
10.	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	6.80
и.	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	20.00
12	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	3124,00
13.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	278.00
14	Copper (as Cu)	mg/kg	EPA 6010D	1.78
15.	Nickel (as Ni)	mg/kg	EPA 6010D	1.36
16.	Zinc (as Zn)	mg/kg	EPA 6010D	6.84
17.	Manganese (ns Mn)	mg/kg	EPA 6010D	BDL



### Ref. No. BBS/507

### Date-01.10.2021

18.	Lead (as Pb)	mg/kg	EPA 6010D	1.90
19.	Boron (as B)	mg/kg	IS 13428-2005, Annex H	3.66
20.	Aluminium ( as AI )	mg/kg	EPA 6010D	BDL
21.	Total Chromium (as Cr)	mg/kg	EPA 6010D	2.40
22.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffin:2014	12.30
23.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	7.82
24.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
25,	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
26.	Sand	96	TPM/MSK/P&E/1/36A	39,00
27.	Silt	%	TPM/MSK/P&E/1/36A	21.00
28.	Clay	None	TPM/MSK/P&E/1/36A	40.00
29.	Texture	96	TPM/MSK/P&E/1/36A	Clay Loam

### Biological Result

Sl No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1547
2.	Total count (Phytobenthos)	50 mg wet sediment	192
3.	No of species (Phytobenthos)	Nos.	6
4.	Diversity index (Phytobenthos)	-	0.7701
5.	Major Species (phytobenthos)	-	Bidulphia, Gyrosigma
6.	Name of Phylum (Fauna)	120	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)		Piychaeta-54,Biyalvia-24
8.	Total no. of species encountered (Fauna)	Nos.	21
9.	Total fauna (Fauna)	per m <sup>3</sup>	263

Report Prepared by:



For Mitra S.K. Private Limited



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/508 Date : 01.10.2021

Sample No. : MSKGL/ED/2020-21/09/00108

Sample Description: Sea Sediment

Sampling Location: Along Channel at 5 km

Date of sampling : 21,09,2021

St. No.	Parameters	Unit	Test Method	Result
Ti-	pH value	None	IS 2720 (Part 26)-1987;Rfffm:2011	8.14
2.	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffm:2006	4523.00
3.	Organic Matter	94	IS 2720 (Part 22)-1972; Rffin:2015	1.74
4.	Turbidity	N.T.U	APHA (23 <sup>ee</sup> Edition) 2130B	18.00
5.	Moisture content	96	Lab Method	27.00
6.	Chloride (as CI)	mg/kg	TPM/MSK/P&E/1/10	798.00
7.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	600.00
8.	Sulphide (ns S)	mg/kg	TPM/MSK/P&E/1/43	<5,0
9.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	BDL
10.	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	1.96
11.	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	16.20
12.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	2243.00
13.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	332.00
14.	Copper (as Cu)	mg/kg	EPA 6010D	1.97
15.	Nickel (as Ni)	mg/kg	EPA 6010D	1.80
16.	Zinc (as Zn)	mg/kg	EPA 6010D	9.45
17.	Manganese (as Mn)	mg/kg	EPA 6010D	BDL

## Continuation Sheet



### Ref. No. BBS/508

Date- 01.10.2021

18.	Lead (as Pb)	mg/kg	EPA 6010D	1.61
19.	Boron (as B)	mg/kg	IS 13428- 2005, Annex H	1,55
20.	Aluminium ( as Al )	mg/kg	EPA 6010D	BDL
21.	Total Chromium (as Cr)	mg/kg	EPA 6010D	3,50
22.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	10.20
23.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	7.10
24.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
25.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
26.	Sand	%	TPM/MSK/P&E/1/36A	36.00
27.	Silt	96	TPM/MSK/P&E/1/36A	28,00
28.	Clay	None	TPM/MSK/P&E/1/36A	46.00
29.	Texture	96	TPM/MSK/P&E/1/36A	Clay

### Biological Result

SI No.	Parameters	Unit	Results
b	Fungus (Phytobenthos)	CFU/g dry	1741
2.	Total count (Phytobenthes)	50 mg wet sediment	250
3.	No of species (Phytobenthos)	Nos.	8
4.	Diversity index (Phytobenthos)		1.9605
5.	Major Species (phytobenthos)		Navicula, Gyrosigma
6.	Name of Phylum (Fauna)	-	Annelida, Mollusca
7.	Class & Number of individuals encountered (Fauna)	_	Plychaeta-69,Bivalvia-35
8.	Total no. of species encountered (Fauna)	Nos.	69
9.	Total fauna (Fauna)	per m <sup>3</sup>	234



For Mitra S.K. Private Limited

Books

Authorized Signatory



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 (CIN: U51909WB1956PTC023037)

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## TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST: BHADRAK, PIN: 756171 ODISHA

Report No. : BBS/509 Date : 01.10.2021

Sample No. 1 MSKGL/ED/2020-21/09/00109

Sample Description : Sea Sediment

Sampling Location: Along Channel at 10 km

Date of sampling : 21.09.2021

St. No.	Parameters	Unit	Test Method	Result
1.	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	8.44
2	Electrical Conductivity	us/cm	15 3025 (Part 14)-1984;Rffm:2006	6521.00
3,	Organic Matter	96	IS 2720 (Part 22)-1972; Rffin:2015	4.90
3.	Turbidity	N.T.U	APHA (23rd Edition) 2130B	20.00
-5.	Moisture content	%	Lab Method	37.00
6.	Chloride (as Cl )	mg/kg	TPM/MSK/P&E/1/10	1424.00
7.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	579,00
8.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
9.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/1/12	BDL
10.	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	BDL
116	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	25.10
12.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	2513.00
13,	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	1202.00
14.	Copper (as Cu)	mg/kg	EPA 6010D	1.90
15.	Nickel (as Ni)	mg/kg	EPA 6010D	1.40
16,	Zinc (as Zn)	mg/kg	EPA 6010D	9,10
17.	Manganese (as Mn)	mg/kg	EPA-6010D	BDL



### Ref. No. BBS/509

### Date- 01.10.2021

18.	Lead (as Pb)	mg/kg	EPA 6010D	1.72
19.	Boron (as B)	mg/kg	IS 13428-2005, Annex H	1,19
20.	Aluminium (as Al)	mg/kg	EPA 6010D	BDL
21.	Total Chromium (as Cr)	mg/kg	EPA 6010D	2,52
22.	Total Nitrogen (as N)	ing/kg	IS 14684 (1999); Rffm:2014	8.66
23.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	4.79
24.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb,2007	<0.05
25.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
26.	Sand	%	TPM/MSK/P&E/1/36A	43.00
27.	Silt	%	TPM/MSK/P&E/1/36A	34.00
28.	Clay	None	TPM/MSK/P&E/1/36A	23.00
29.	Texture	%	TPM/MSK/P&E/1/36A	Clay Loam

## Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1664
2.	Total count (Phytobenthos)	50 mg wet sediment	249
3.	No of species (Phytobenthos)	Nos.	8
4.	Diversity index (Phytobenthos)		1.0369
5.	Major Species (phytobenthos)	_	Synedra, Coscinodiscuss sp.,
6.	Name of Phylum (Fauna)	-	Anthropoda, Anselida
7.	Class & Number of individuals encountered (Fauna)	- Age-	Plychaeta-44,Bivalvia-21
8.	Total no. of species encountered (Fauna)	Nos.	30
9.	Total fauna (Fauna)	per m <sup>3</sup>	242

Report Prepared by:



For Mitra S.K. Private Limited Authorized Signatory



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956P7C023037]

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#### TEST REPORT

Name & Address of the Customer: THE DHAMRA PORT COMPANY LIMITED

AT: DOSINGA, PO: DHAMRA

DIST : BHADRAK, PIN: 756171 ODISHA

Report No.: BBS/510 Date: 01.10,2021

Sample No. : MSKGL/ED/2020-21/09/00110

Sample Description : Sea Sediment Sampling Location : Near Kanika Island

Date of sampling : 21.09.2021

#### ANALYSIS RESULT

St. No.	Parameters	Unit	Test Method	Result
ti-	pH value	None	IS 2720 (Part 26)-1987;Rffm:2011	8.65
2,	Electrical Conductivity	us/cm	IS 3025 (Part 14)-1984;Rffin:2006	5014.00
3.	Organic Matter	%	IS 2720 (Part 22)-1972; Rffin;2015	2.70
4.	Turbidity	N.T.U	APHA (23 <sup>rd</sup> Edition) 2130B	21.00
5.	Moisture content	%	Lab Method	30,00
6.	Chloride (as CI)	mg/kg	TPM/MSK/P&E/1/10	701.00
7.	Sulphate (as SO4)	mg/kg	IS 2720 (Part 27) 1977,RA 2015	1615.00
8.	Sulphide (as S)	mg/kg	TPM/MSK/P&E/1/43	<5.0
9.	Phosphate (as PO4)	mg/kg	TPM/MSK/P&E/I/12	BDL
10.	Phosphorus	mg/kg	TPM/MSK/P&E/1/12	BDL
H.	Iron (as Fe)	mg/kg	TPM/MSK/P&E/1/13	5.30
12.	Sodium (as Na)	mg/kg	TPM/MSK/P&E/1/4	3114.00
13.	Potassium (as K)	mg/kg	TPM/MSK/P&E/1/5	353.00
14:	Copper (as Cu)	mg/kg	EPA 6010D	2.60
15.	Nickel (ns Ni)	mg/kg	EPA 6010D	1.89
16.	Zinc (as Zn)	mg/kg	EPA 6010D	6.60
17.	Manganese (as Mn)	mg/kg	EPA 6010D	BDL

#### Continuation Sheet

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#### Ref. No. BBS/510

#### Date- 01.10.2021

18.	Lead (as Pb)	mg/kg	EPA 6010D	1.85
19.	Boron (as B)	mg/kg	1S 13428-2005,Annex H	2.66
20.	Aluminium ( as Al )	mg/kg	EPA 6010D	BDL
21.	Total Chromium (as Cr)	mg/kg	EPA 6010D	3.45
22.	Total Nitrogen (as N)	mg/kg	IS 14684 (1999); Rffm:2014	8.60
23.	Organic Nitrogen	mg/kg	TPM/MSK/P&E/3/68	5.80
24.	Total Petroleum Hydrocarbon	mg/kg	USEPA 8015 B - Dec, 1996, 8270 D - Feb, 2007	₩0.05
25.	Pesticide Residue	mg/kg	USEPA 3540 C USEPA 8082	<0.5
26.	Sand	%	TPM/MSK/P&E/1/36A	39.00
27.	Silt	%	TPM/MSK/P&E/1/36A	29,00
28.	Clay	None	TPM/MSK/P&E/1/36A	32.00
29.	Texture	96	TPM/MSK/P&E/1/36A	Clay

#### Biological Result

SI No.	Parameters	Unit	Results
1.	Fungus (Phytobenthos)	CFU/g dry wt.	1780
2.	Total count (Phytobenthos)	50 mg wet sediment	278
3.	No of species (Phytobenthos)	Nos.	12
4.	Diversity index (Phytobenthos)	1	1,4205
5.	Major Species (phytobenthos)		Bidulphia, Navicula
6.	Name of Phylum (Fauna)		Anthropoda, Annelida
7,	Class & Number of individuals encountered (Fauna)	_	Malagostraca-40,Pelecypoda-09
8.	Total no. of species encountered (Fauna)	Nos.	36
9.	Total fauna (Fauna)	per m <sup>3</sup>	396



For Mitra S.K. Private Limited Authorized Signatory



N-5/100, Ground Floor IRC-Village, Nayapali Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

Date: 01.10.2021

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#### MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001140
Type of Sample	Marine Water
Sampling Location	Dhamra River Mouth
Date of Sampling	21.09.2021
Date of Analysis	22.09.2021 to 30.09.2021
Sampling Done by	Mr. Kunja Bihari Nayak

SL.	Name of the Parameters	Unit	Test Method	Analysis Result	
	122 SYLVEN 1			Surface Water	Battom water
1	Colour	Hazen	APHA (23rd Edition) 21200 2017	<1.0	<1.0
2	Odour	-	APIIA (23th Edition) 2150B	Agrocable	Agreeable
3	Temperature	Deg C	APHA (23rd Edition) 2350 B	25.00	25.00
4	Turbidity	N.T.U	APHA (23rd Edition) 2130B	18.00	25.00
3	pH	-	APHA (23 <sup>rd</sup> Edition) 4500-H-B	7.62	8.02
6	Electrical Conductivity	us/cm	APHA (23rd Edition) 2510 B	31600.00	33400,00
7	Salinity	mg/l	APHA (23th Edition) 2520B,2017	16645.00	17845.00
В	Total Suspended Solids	ing/l	APHA (23rd Edition) 2540 D	25.00	48.00
9	Total dissolved solids	mg/f	APHA (23 <sup>rd</sup> Edition) 2540C	22894.00	22488.00
10	Total Hardness	mg/I	APHA (23rd Edition) 2340B 2017	5120.00	4960,00
11	Calcium Hardness	mg/i	APHA (23" Edition) 3500-Ca B	1000.00	920.00
12	Magnesium Hardness	mg/I	APHA (23rd Edition) 3500-Mg B	4120.00	4040.00
13	Chloride (as CI)	mg/l	APHA (23 <sup>rd</sup> Edition) 4500-Cl B	13052.00	13229.00
14	Dissolved Oxygen	mg/l	APILA (23rd Edition)-4500-O-C/G	6.60	6,40
15	Biochemical Oxygen Demand (3 days at 27°C)	mg/t	APHA (23 <sup>rd</sup> Edition) 5210B,2017	<2.0	<2.0
16.	Chemical Oxygen Demand (COD)	mg/I	APHA (23 <sup>rd</sup> Edition) 522013,2017	-01.0	<4.0
17	Qil & Grease	mg/l	APHA (23rd Edition) 5220B,2017	<1.4	SLE
18	Dissolved phosphates (as PO <sub>4</sub> )	mg/l	APHA (23rd Edition) 4500-P D	=0.15	<0.15
19	Sulphate (as SO <sub>4</sub> )	mg/l	APHA (23 <sup>rd</sup> Edition)4500-SO4-E	1400.00	908,00
20	Nitrite (as NO <sub>2</sub> )	mg/l	APHA (23 <sup>rd</sup> Edition)4500-NO2B	<0.01	<0.01
24	Nitrate (as NO <sub>1</sub> )	mg/l	APHA (23rd Edition)4500-NO3-E	<0.5	<0.5
22	Ammonical Nitrogen (as NH <sub>2</sub> -N)	mg/l	APHA (23rd Edition)4500-NH3F	<0.1	<0.1
23	Total Nitrogen	mg/l	APE(A (23th Edition) 4500N C	<0.3	0.54
24.	Total Circonium	mg/I	APHA (23rd Edition) 3111 D	10.0>	10.0>
25	Phenolic Compounds (as C <sub>4</sub> H <sub>5</sub> OH)	mg/f	APHA (23" Edition) 5530C	<0,001	<0,001
26	Hesavalent chromium (as Cr **)	mg/I	APIIA (23rd Edition) ,3500 Cr B	<0.01	< 0.01
27	Copper	mg/l	APHA (23rd Edition) 3120B	<0.02	<0.02
28	Codmium	mg/l	APHA (23 <sup>rd</sup> Edition) 3120B	<0.001	<0.001
29	Mercury	mg/l	15 3025(Part 48)-1994;Rffm:2014	<0.001	<0.001
30	Floating material	mg/I	APHA (23" Edition) 25303	<b>425</b>	<2.5
11	Petroleum Hydrocarbon	mg/t	1S 3025(Part 39)-1994;Rffm:2014	<0.5	<0.5

Prepared By

BBSR)

Checked By- Boyal

N-5/100, Ground Floor IRC Village, Nayapalli 8hubaneswar - 751015

[CIN: U51909WB1956PTC023037]



Date: 01.10.2021

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#### MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001140
Type of Sample	Marine Water
Sampling Location	Dry Bulk Cargo Berth Face
Date of Sampling	21.09.2021
Date of Analysis	22.09.2021 to 30.09.2021
Sampling Done by	Mr. Kunja Bihari Nayak

SL.	Name of the Parameters	Unit	Test Method	Analysi	s Result:
-	7.000 0.000		Test interned	Surface Water	Bottom water
1	Colour	Hazen	APHA (23" Edition) 2120B 2017	<1.0	<1.0
2	Odour	Senter	APHA (23 <sup>rd</sup> Edition) 2150B	Agrecable	Agrecable
3	Temperature	Deg C	APHA (23rd Edition) 2550 B	25.00	25,00
4	Turbidity	N.T.U	APHA (23rd Edition) 2130B	21.00	34.00
5	pH	-	APHA (23rd Edition) 4500-H-B	7.59	7.63
6-	Electrical Conductivity	us/cm	APHA (23rd Edition) 2510 B	33200.00	35700.00
7	Salinity	mg/l	APITA (23rd Edition) 2520B,2017	20215.00	21044.00
8	Total Suspended Solids	ntg/l	APHA (23rd Edition) 2540 D	28.00	30.00
9	Total dissolved solids	mg/l	APHA (23" Edition) 2540C	21768.00	23684.00
10	Total Hardness	mg/I	APHA (23rd Edition) 2340B 2017	5240.00	5160,00
11.	Calcium Hardness	mg/l	APHA (23th Edition) 3500-Ca B	1120,00	800.00
12	Magnesium Hardness	mg/i	APHA (23rd Edition) 3500-Mg B	4120.00	4360.00
13	Chloride (as Cl)	mg/l	APHA (23rd Edition) 4500-C1 B	12440.00	13970.00
14	Dissolved Oxygen	mg/l	APHA (23" Edition)-4500-O-C/G	6,60	6.70
15	Biochemical Oxygen Demand (3 days at 27°C)	mg/I	APHA (23 <sup>rd</sup> Edition) 5210B,2017	<2.0	<2.0
16	Chemical Oxygen Demand (COD)	mg/f	APHA (23 <sup>rd</sup> Edition) 5220B,2017	<4.0	<1.0°
17	Oll & Grease	ing/l	APHA (23rd Edition) 5220B,2017	<1.4	<1.4
18	Dissolved phosphates (as PO <sub>4</sub> )	mg/l	APHA (23td Edition) 4500-P D	< 0.15	<0.15
19	Sulphate (as \$O <sub>4</sub> )	mg/l	APHA (23rd Edition)4500-SO4-E	1220.00	935.00
20	Nitrite (as NO <sub>2</sub> )	mg/T	APHA (23th Edition)4500-NO2B	<0.01	<0.01
21	Nitrate (as NO <sub>3</sub> )	mg/f	APHA (23st Edition)4500-NO3-E	<0.5	<0.5
22	Ammonical Nitrogen (us NH <sub>P</sub> N)	mg/l	APHA (23rd Edition)4500-NH3F	<0.1	<0.1
23	Total Nitrogen	mg/l	APHA (23 <sup>rd</sup> Edition) 4500N C	<0.3	<0.3
24	Total Chromium	mg/l	APHA (23rd Edition) 3111 D	<0.01	<0.01
25	Phenolic Compounds (as C <sub>p</sub> (f <sub>2</sub> OH)	mg/i	APHA (23 <sup>rd</sup> Edition) 5530C	<0.001	<0.001
26	Hecavalent chromium (as Cr '5)	mg/l	APHA (23rd Edition) ,3500 Cr Fl	<0.01	<0.01
27	Copper	mg/l	APHA (23 <sup>rd</sup> Edition) 3120B	<0.02	<0.02
28	Cadmium	mg/T	APHA (23th Edition) 3120B	<0.001	< 0.001
29	Mercury	mg/l	1S 3025(Part 48)-1994;Rffm:2014	< 0.001	<0.001
30	Floating material	rag/I	APHA (23 <sup>rd</sup> Edition) 2530B	<2.5	<2.5
31	Petroleum Hydrocarbon	mg/l	IS 3025(Part 39)-1994;RIIm:2014	<0.5	<0.5

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Checked By- Bull

H.O.: Shrachi Centre (5th Floor), 74B, Acharya Jagathish Chandra Bose Road, Kolkata - 700 016, West Bengal, India T: 91 33 4014 3000 / 2265 0006 / 2265 0007, F: 91 33 2265 0008, E: info@mitrask.com, W: www.mitrask.com

RIVE

BBSR

MSK TESTING OINSPECTION

N-5/100, Ground Floor IRC Village, Nayapalli 8hubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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Date: 01.10.2021

#### MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001140
Type of Sample	Marine Water
Sampling Location	Liquid/Gas/Cyrogenic Berth Face
Date of Sampling	21.09.2021
Dute of Analysis	22:09:2021 to 30:09:2021
Sampling Done by	Mr. Kunja Bihari Nayak

SLL No.	Name of the Parameters	Unit	Test Method	Analysi	s Result
P.m	100000000000000000000000000000000000000	Test mental	Surface Water	Bottom water	
1	Colour	Hazen	APHA (23 <sup>rd</sup> Edition) 2120B 2017	<1.0	<1.0
2	Qdour	-	APHA (23rd Edition) 2150B	Agreeable	Agreeable
3	Teroperature	Deg C	APHA (23rd Edition) 2550 B	25,00	25.00
4.	Turbidity	N.T.U	APHA (23th Edition) 2130B	14.00	23.00
5	pH	5-9-5	APHA (23rd Edition) 4500-H-B	7.57	7.75
- 6	Electrical Conductivity	us/cm	APHA (23rd Edition) 2510 B	27200.00	31700.00
.7	Salinity	mg/l	APHA (23rd Edition) 2520B,2017	19874:00	20557.00
8	Total Suspended Solids	mg/l	APHA (23 <sup>rd</sup> Edition) 2540 D	22.00	34.00
9	Total dissolved solids	mg/l	APFIA (23rd Edition) 2540C	17892.00	20798.00
10	Total Hardness	mg/l	APHA (23rd Edition) 2340B 2017	3720.00	4960.00
u	Culcium Hardness	mig/I	APHA (23 <sup>rd</sup> Edition) 3500-Ca B	720,00	1000,00
12	Magnesium Hardness	mg/l	APHA (23rd Edition) 3500-Mg B	3000,00	3960.00
13	Chloride (as Cl)	mg/I	APHA (23rd Edition) 4500-Cl B	10401.00	11828,00
14	Dissolved Oxygen	mg/I	APHA (2318 Edition)-4500-O-C/G	6,50	6,90
15	Biochemical Oxygen Demand (3 days at 27°C)	mg/t	APHA (23th Edition) 5210B,2017	<2.0	<2.0
16	Chemical Oxygen Demand (COD)	mg/I	APHA (23 <sup>rd</sup> Edition) 5220B,2017	<4.0	<4.0
17	Oil & Grease	ing/t	APHA (23 <sup>rd</sup> Edition) 5220B,2017	<1.4	<1.4
18	Dissolved phosphares (as PO <sub>4</sub> )	mg/I	APHA (23rd Edition) 4500-P D	< 0.15	<0.15
19	Sulphote (as SO <sub>4</sub> )	mg/t	APHA (23rd Edition)4500-SO4-E	374.00	1310.00
20	Nitrite (as NO <sub>2</sub> )	mg/l	APHA (23rd Edition)4500-NO2B	<0.01	<0.01
21	Nitrate (us NO <sub>1</sub> )	mg/l	APHA (23td Edition)4500-NO3-E	<0.5	<0.5
22	Animonical Nitrogen (as NH <sub>3</sub> -N)	ritg/I	APHA (23rd Edition)4500-NH3F	<0.1	<0.1
23	Total Nitrogen	mg/l	APHA (23rd Edition) 4500N C	1.4	0.48
24	Total Chromium	mg/l	APHA (23 <sup>rd</sup> Edition) 3111 D	<0.01	<0.01
25	Phenolic Compounds (as C <sub>6</sub> H <sub>2</sub> OH)	mg/l	APHA (23 <sup>rd</sup> Edition) 5530C	<0.001	<0.001
26	Hexavalent chromium (as Cr **)	mg/l	APHA (23rd Edition) ,3500 Cr D	<0.01	< 0.01
27	Copper	mg/l	APHA (23 <sup>rd</sup> Edition) 3120B	<0.02	< 0.02
28	Cadmium	rug/l	APHA (23 <sup>rd</sup> Edition) 3120B	<0.001	< 0.001
29	Mercury	ing/f	1S 3025(Part 48)-1994;Rffm:2014	<0.001	<0.001
10	Floating muserial	ing/f	APHA (23rd Edition) 2530B	<25	<2.5
11	Petroleum Hydrocarbon	mg/l	IS 3025(Part 39)-1994;Rffm:2014	< 0.5	<0.5

Prepared By - S. Kange

Checked By- Bull

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[CIN: U51909WB1956PTC023037]

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Date: 01.10.2021

#### MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odishi
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001140
Type of Sample	Marine Water
Sampling Location	Along Channel at 1Km
Date of Sampling	21.09.2021
Date of Analysis	22.09.2021 to 30.09.2021
Sampling Done by	Mr. Kunja Bihari Nayak

SL. No.	Name of the Parameters	Unit Test Method	Test Method	Analysis Result	
-			Test Method	Surface Water	Bottom water
1	Calour	Hiszen	APHA (23 <sup>rd</sup> Edition) 2120B 2017	<1.0	<1.0
2	Odour	(Albert	APHA (23 <sup>rd</sup> Edition) 2150B	Agrecable	Agreeable
3	Temperature	Deg C	APHA (23rd Edition) 2550 B	25.00	25,00
4	Turbidity	N.T.U	APHA (23rd Edition) 2130B	19.00	17.00
5	pH	-	APHA (23 <sup>rd</sup> Edition) 4500-H-B	7.56	7.54
6	Electrical Conductivity	us/em	APHA (23rd Edition) 2510 B	28300.00	26600.00
7	Salinity	mg/t	APHA (23rd Edition) 2520B,2017	18774.00	19877.00
8	Total Suspended Solids	Ngm.	APHA (23th Edition) 2540 D	32.00	29.00
9	Tetal dissolved solids	mg/l	APHA (23rd Edition) 2540C	18656.00	17686,00
10	Total Hardness	mg/I	APHA (23rd Edition) 2340B 2017	4040.00	3920.00
11	Calcium Hardmas	mg/t	APHA (23 <sup>rd</sup> Edition) 3500-Ca B	800,00	720,00
12	Magnesium Hardness	mg/l	APHA (23rd Edition) 3500-Mg B	3240.00	3200.00
13	Chloride (a) CI)	mg/l	APHA (23 <sup>rd</sup> Edition) 4500-CLB	10605.00	10095.00
14	Disselved Oxygen	mg/l	APHA (23th Edition)-4500-Q-C/G	7.00	6.70
15	Biochemical Oxygen Demand (3 days at 27°C)	mg/l	APNA (23 <sup>rd</sup> Edition) 5210H,2017	<2.0	<2.0
16	Chemical Oxygen Demand (COD)	mg/l	APIIA (23 <sup>rd</sup> Edition) 5220B,2017	<4.0	<4.0
17	Oil & Grease	mg/l	APHA (23 <sup>rd</sup> Edition) 5220B,2017	<1.4	<1.4
18	Dissolved phusphates (as PO <sub>4</sub> )	mg/I	APHA (23rd Edition) 4500-P D	<0.15	<0.15
19	Sulphate (as SO <sub>4</sub> )	mg/I	APHA (23rd Edition)4500-SO4-E	1140.00	1030.00
20	Nitrite (as NO <sub>2</sub> )	mg/l	APHA (23" Edition)4500-NO2B	<0.01	<0.01
21	Nitrate (as NO <sub>3</sub> )	mg/l	APHA (23th Edition)4500-NO3-E	<0.5	<0.5
22	Ammonical Nitrogen (as NH <sub>2</sub> -N)	mg/I	APHA (23rd Edition)4500-NH3F	<0.1	<0,1
23	Total Nitrogen	mg/t	APHA (23rd Edition) 4500N C	<0.3	<0.1
24	Total Chromium	mj/l	APHA (23rd Edition) 3111 D	<0.01	<0.01
25	Phenolic Compounds (as C <sub>6</sub> H <sub>3</sub> OH)	/mg/t	APHA (23 <sup>rd</sup> Edition) 5530C	<0,001	<0.001
26	Hexavalent chromium (us Cr **)	mg/L	APHA (23rd Edition) J3500 Cr B	<0.01	<0.01
27	Copper	mgs/I	APHA (23rd Edition) 3120B	<0.02	-50.02
28	Cadenium	mg/l	APHA (23rd Edition) 3120B	<0.001	<0.001
9	Mercury	mg/l	1S 3025(Part 48)-1994;Rffm:2014	<0.001	< 0.001
10	Floating material	mg/l	APHA (23" Edition) 2530B	<2.5	<2.5
11	Petroteum Hydrocarbon	mg/l	IS 3025(Part 39)-1994;Rffm:2014	<0.5	<0.5

Prepared By - S. Kange

Checked By- Balde

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[CIN: U51909WB1958PTC023037]

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Date: 01.10.2021

#### MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001140
Type of Sample	Marine Water
Sampling Location	Along Channel at 5Km
Date of Sampling	21.09.2021
Date of Analysis	22.09,2021 to 30.09,2021
Sampling Done by	Mr. Kunja Bihari Nayak

St., No.	Name of the Parameters	Unit	Test Method	Analysis Result		
10.0	The state of the second	- Tan Metaba		Surface Water	Bettom water	
1	Colour	Hazen	APHA (23rd Edition) 2120B 2017	<1.0	<1.0	
2	Odeur	-	APHA (23rd Edition) 2150B	Agreeable	Agrecable	
3	Temperature	Deg U	APHA (23rd Edition) 2550 B	25.00	25.00	
4	Turbidity	N.T.U	APHA (23rd Edition) 2130B	26.00	32.00	
5	pH		APHA (23 <sup>rd</sup> Edition) 4500-H-B	7.53	7.84	
ő.	Electrical Conductivity	us/cm	APHA (23rd Edition) 2510 B	34000,00	33600.00	
7	Salinity	mg/F	APHA (23 <sup>rd</sup> Edition) 2520B,2017	11457.00	13547,00	
8	Total Suspended Solids	mg/l	APHA (23rd Edition) 2540 D	42.00	57,00	
9	Total dissolved solids	mg/l	APHA (23 <sup>rd</sup> Edition) 2540C	22104.00	22294.00	
10	Total Hardness	mg/l	APHA (23rd Edition) 2340B 2017	4760.00	5160,00	
11	Calcium Hardness	mg/T	APRA (23rd Edition) 3500-Ca B	920.00	1120.00	
12	Magnesium Hantness	mg/I	APHA (23rd Edition) 3500-Mg B	3840.00	4045.00	
13	Chloride (as Cl)	A Property leaks		12338.00	12636.00	
14	Dissalved Oxygen			6.80	6.90	
15	Biochemical Oxygen Demand (3 days at 27°C)	mg/t	APHA (23rd Edition) 5210B,2017	<2.0	<2.0	
16	Chemical Oxygen Demand (COD)	Chemical Oxygen Demand 100D) mg/l		<4.0	<4.0	
17	Oil & Grease	mg/l	APHA (23 <sup>rd</sup> Edition) 5220B,2017	<1.4	<1.4	
18	Dissolved phosphates (as PO <sub>4</sub> )	mg/I	APHA (23rd Edition) 4500-P D	< 0.15	<0.15	
19	Sulphate (as SO <sub>4</sub> )	mg/T	APHA (23rd Edition)4500-SO4-E	1680,00	1440.00	
20	Nitrite (as NO <sub>2</sub> )	mg/l	APHA (23rd Edition)4500-NO2B	< 0.01	<0.01	
21.	Nitrate (as NO <sub>3</sub> )	mg/f	APHA (23rd Edition)4500-NO3-E	<0.5	<0.5	
22	Ammonical Nitrogen (us NH2-N)	mg/L	APHA (23rd Edition)4500-NH3F	<0.1	<0.1	
23	Total Nitrogen	tog/I	APHA (23rd Edition) 4500N C	0.54	0.79	
24	Total Chromium	mg/l	APHA (23 <sup>rd</sup> Edition) 3111 D	<0.01	< 0.01	
25	Phenolic Compounds (as C <sub>n</sub> H <sub>2</sub> OH)	mg/t	APHA (2316 Edition) 5530C	<0.001	<0.001	
26	Hexavalent chromium (as Cr **)	mg/l	APHA (23 <sup>rf</sup> Edition) ,3500 Cr B	10.0≥	<0.01	
7	Copper	mg/l	APHA (23th Edition) 3120B	<0.02	< 0.02	
18	Codmium	ntg/l	APHA (23rd Edition) 3120B	<0.001	<0.001	
9	Mercury	mg/l	IS 3025(Part 48)-1994;Rftin:2014	<0.001	<0.001	
0	Floating material	mg/i	APHA (23 <sup>rd</sup> Edition) 2530B	~2.5	<25	
ii ii	Petroleum Hydrocarbun	mg/l	IS 3025(Part 39)-1994;Rifin:2014	< 0.5	<0.5	

Prepared By - S. Konge

Checked By- Buld

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N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

[CIN: U51909WB1956PTC023037]

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Date: 01.10.2021

#### MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001140
Type of Sample	Marine Water
Sampling Location	Along Channel at 10Km
Date of Sampling	21.09.2021
Date of Analysis	22.09.2021 to 30.09.2021
Sampling Done by	Mr. Kuaja Bihari Nayak

SL.	Name of the Parameters	Voit	Test Method	Analysis Result		
				Surface Water	Bottom water	
1	Colour	Hazen	APHA (23 <sup>rd</sup> Edition) 2120B 2017	<1,0	<1.0	
2	Odour		APHA (23rd Edition) 2150B	Agreeable Agre		
3	Тетрегацие	THE THE CONTRACTOR IN THE PROPERTY OF THE PROP		25.00	25.00	
4		N.T.U	APHA (23 <sup>rd</sup> Edition) 2130B	16.00	27.00	
5	pH pH		APHA (23rd Edition) 4500-H-B	7.64	7.82	
6	Electrical Conductivity	us/cm	APHA (23rd Edition) 2510 B	35300.00	34600.00	
7	Salinity	mg/J	APHA (23 <sup>rd</sup> Edition) 2520B,2017	9225.00	8741,00	
8	Total Suspended Solids	mg/l.	APHA (23 <sup>rd</sup> Edition) 2540 D	29.00	43.00	
9	Total dissolved solids mg/I APHA (23 <sup>rd</sup> Edition) 2540C 23556.00		23556.00	22758.00		
10			APHA (23rd Edition) 2340B 2017	5360.00	5440000	
11	Calcium Hardness	mg/l	APHA (23rd Edition) 3500-Ca B	960,00	1000.00	
12	Magnesium Hardness	mg/l	APHA (23 <sup>rd</sup> Edition) 3500-Mg B	4400.00	4452:00	
13	Chloride (as Cl)	mg/f	APISA (23 <sup>rd</sup> Edition) 4500-C1 B	13256.00	13358.00	
14	Dissolved Oxygen	mg/l	APHA (23" Edition)-4500-O-C/G	6.80	7.00	
13	Blochemical Oxygen Denmad (3- days at 27°C)	emical Oxygen Demand (3		<2.0	<2.0	
16	Chemical Oxygen Demand (COD)	mg/t	APRA (23 <sup>rd</sup> Edition) 5220B,2017	<4.0	<4.0	
17	Oil & Grease	T/gmi	APHA (23" Edition) 5220B,2017	<1.4	<1.4	
18	Dissolved phosphates (as PO <sub>a</sub> )	mg/I	APHA (23rd Edition) 4500-P D	< 0.15	<0.15	
19	Sulphate (as SO <sub>4</sub> )	mg/l	APHA (23 <sup>rd</sup> Edition)4500-SO4-E	1660.00	1050.00	
20	Nitrite (as NO <sub>2</sub> )	mg/l	APHA (23rd Edition)4500-NO2B	<0.01	<0.01	
21	Nitrate (as NO <sub>3</sub> )	mg/t	APHA (23 <sup>rd</sup> Edition)4500-NO3-E	<0.5	<0.5	
22	Antmonical Nitrogen (as NH <sub>2</sub> -N)	mg/l	APHA (23rd Edition)4500-NH3F	<0.1	<0.1	
23	Total Nitrogen	mg/l	APHA (23 <sup>rd</sup> Edition) 4500N C	<0.3	<0.3	
24	Total Chromium	mg/l	APHA (23rd Edition) 3111 D	<0.01	<0.01	
25	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/I	APHA (23 <sup>rd</sup> Edition) 5530C	<0.001	<0.001	
26	Hexavalent chromium (as Cr +6)	mg/i	APIIA (23th Edition) ,3500 Cr B	<0.01	< 0.01	
7	Copper	mg/l	APHA (23rd Edition) 3120B	<0.02	<0.02	
8	Cadmium	mg/l	APHA (23rd Edition) 3120B	<0.001	< 0.001	
9	Mercury	mg/l	1S 3025(Part 48)-1994;Jtffm:2014	<0.001	<0.001	
0	Floating material	rog/1	APHA (23th Edition) 2530B	<25	<2.5	
1	Petroleum Hydrocarbon	mg/l	IS 3025(Part 39)-1994;Rffm:2014	<0.5	<0.5	

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MSK TESTING INSPECTION

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Date: 01.10.2021

#### MARINE WATER QUALITY REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001140
Type of Sample	Marine Water
Sampling Location	Near Kanika Island
Date of Sampling	21.09.2021
Date of Analysis	22.09.2021 to 30.09.2021
Sampling Done by	Mr. Kunja Bihari Nayak

SL.	Name of the Parameters	Unit	Test Method	Analysis Result		
-	The state of the s	3.00		Surface Water	Bottom water	
1	Colour	Hazen	APITA (23rd Edition) 2120B 2017	<1.0	<1.0	
2	Odnar	— APHA (23 <sup>rd</sup> Edition) 2150B		Agreeable	Agreeable	
3	Temperature	Deg C	APHA (23rd Edition) 2550 B	25.00	25.00	
t	Turbidity	N.T.U	APHA (23rd Edition) 2130B	18.00	44.00	
5	pH	+04	APHA (23 <sup>rd</sup> Edition) 4500-H-B	7,80	7.67	
6	Electrical Conductivity	us/cm	APHA (23 <sup>rd</sup> Edition) 2510 B	21800,00	24000.00	
7	Salinity	mg/l	APHA (23rd Edition) 2520B,2017	10762.00	11421.00	
8	Total Suspended Solids	mg/l	APHA (23rd Edition) 2540 D	26.00	74.00	
9	Total dissolved solids	mg/t	APHA (23rd Edition) 2540C	14392.00	15896,00	
10	Total Hardness	mg/l	APHA (23th Edition) 2340B 2017	2920.00	3120.00	
11	Calcium Hardness	mg/l	APHA (23 <sup>rd</sup> Edition) 3500-Ca B	600.00	720.00	
12	Magnesium Hardness	mg/l	APHA (23rd Edition) 3500-Mg B	2320.00	2400,00	
13	Chloride (as CI)	mg/l	APHA (23rd Edition) 4500-CLB	7954.00	8973.00	
14	Dissolved Oxygen			7.20	7.10	
15	Biochemical Oxygen Demand (3 days at 27°C)	mg/l	APRA (23rd Edition) #2108,2017	<2.0	<2.0	
16	Chemical Oxygen Denumd (COD)	mg/l	APHA (23rd Edition) 5220B.2017	<4.0	<4.11	
17	Oil & Grease	mg/l	APHA (23 <sup>rd</sup> Edition) 5220B,2017	<1.4	<(A)	
18	Dissolved phosphates (its PO <sub>4</sub> )	mg/l	APHA (23rd Edition) 4500-P D	<0.15	<0.15	
19	Sulphate (as SO <sub>4</sub> )	mg/l	APHA (23 <sup>rd</sup> Edition)4500-SO4-E	1040.00	980.0	
20	Nitrite (as NO <sub>1</sub> )	mg/l	APHA (23th Edition)4500-NO2B	<0.01	< 0.01	
21	Nitrate (as NO <sub>3</sub> )	nig/I	APHA (23rd Edition)4500-NO3-E	< 0.5	<0.5	
22	Ammonical Nitrogen (as NH <sub>3</sub> -N)	mg/l	APHA (23rd Edition)4500-NH3F	<0.1	<0,1	
23	Total Nitrogen	mu/I	APHA (23 <sup>rd</sup> Edition) 4500N C	<0.3	<0.3	
24	Total Chromium	mg/l	APIIA (23 <sup>rd</sup> Edition) 3111 D	<0.01	< 0.01	
25	Phenolic Compounds (as C <sub>2</sub> H <sub>3</sub> OH)	nig/l	APHA (23 <sup>rd</sup> Edition) 5530C	<0.001	<0.001	
26	Hesavalent chromism (as Cr *6)	mg/l	APHA (23rd Edition) ,3500 Cr B	<0.01	< 0.01	
7	Copper	mg/l	APHA (23rd Edition) 31208	<0.02	< 0.02	
28	Cadmium	mg/t	APHA (23rd Edition) 3120B	<0.001	<0.001	
9	Mercury	mg/l	IS 3025(Part 48)-1994;Rffm:2014	< 0.001	<0.001	
0	Floating material	mg/l	APHA (23rd Edition) 2530B	<2.5	<2.5	
1	Petroleum Hydrocarbon	mgd	IS-3025(Part 39)-1994;Rffin:2014	≥0.5	<0.5	

Prepared By - S. Kongo

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Date: 01.10.2021

#### PHYTOPLANKTONMONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha					
Work Order No.	4802006186	4802006186				
Reference No.	MSKGL/ED/2020-21/001140					
Type of Sample	Marine Sample (Phytoplankton	1 =				
Sampling Location	S1:Dhamra River Mouth S2:Dry Bulk Cargo Berth Face S5:Along Chanel at 5Km S7:Near Kanika Island	S3:Liquid/Gas/Cyrogenic Berth Face				
Date of Sampling	21,09,2021					
Date of Analysis	22.09.2021 to 30.09.2021					
Sampling Done by	Mr. Kunja Bibari Nayak					

	me of the rameters	Total count	No of species	Chlorophyll-a	Major Species
Unit		Unit Units/L Nos.		mg/l	june .
Testi	ing Method	APHA 10200	APHA 10200	APHA 10200H	APHA (23 <sup>rd</sup> Edition) 10200
			A	analysis Result	
S-1	Surface Water	23000	4	0.94	Navicula, Fragitaria
9	Bottom water	20000	4	0.87	Cyclotella, Enteromorpha
S-2	Surface Water	22000	3	0.76	Zostera, Spirogyra
	Bottom water	15000	2	0.79	Fragilaria, Enteromorpha
S-3	Surface Water	17000	3	0.70	Vallisneria, Enteromorpha
3-5	Bottom water	15000	4	0.76	Zostera, Phormidium
S-4	Surface Water	26000	5	0.73	Moueotia, Calothrix
3-4	Bottom	17000	3	0.32	Enteromorpha, Zostera
S-5	Surface Water	14000	4	0.75	Vallisneria, Nereocystis
9-3	Bottom	23000	4	0.94	Fragilaria, Vallisneria
S-6	Surface Water	10000	3	0.84	Vallimeria, Nereocystis
5-0	Bottom	22000	4	0.78	Zostera, Phormidium
	Surface Water	18000	3	0.81	Cyclotella, Enteromorpha
S-7	Bottom water	22000	2	0.92	Vallisneria, Calothrix

Prepared By - S. Koungo



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N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]



Date: 01.10,2021

T: (0€74) 2362916, 2360917 ZOOPLANKTONMONITORING REPORT

E-1	VACE Y	7.81	22	220	65
F -1	uo	4	لنكدا	629	10

(4) 2002310	
Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001140
Type of Sample	Marine Sample (Zooplankton)
Sampling Location	S1:Dhamra River Mouth S2:Dry Bulk Cargo Berth Face S2:Dry Bulk Cargo Berth Face S4:Along Channel at 1Km S5:Along Channel at 5Km S6: Along Channel at 10Km
Date of Sampling	21.09.2021
Date of Analysis	22.09.2021 to 30.09.2021
Sampling Done by	
The state of the s	21.09,2021

	ome of the arameters	Total count	No of species	Major Species		
	Unit	Units/L	Nos.	How I		
Test	ing Method	APHA 10200	APHA 10200	APHA (23 <sup>rd</sup> Edition) 10200		
			Analysis			
S-1	Surface Water	None	None	None		
	Bottom water	None	None	None		
S-2	Surface Water	None	None	None		
.,	Bottom water	None	None	None		
5-3	Surface Water	None	None	None		
30	Bottom water	1000	).	Daphnia		
84	Surface Water	None	None	None		
	Bottom water	None	None	None		
S-5	Surface Water	1000	1	Daphnia		
4-3	flottom water	None	None	None		
S-6	Surface Water	None	None	None		
5-0	Bottom water	None	None	None		
S-7	Surface Water	None	None	None		
3-1	Bottom water	None	None	None		

Prepared By -



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MSK TESTING INSPECTION

N-5/100, Ground Floor IRC Village, Nayapelli Bhubaneswar - 751015 [CIN: U51909WB1956PTC023037]

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Date: 01.10.2021

#### MICROBIOLOGICAL MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Desinga, Bhadrak, Odisha			
Work Order No.	4802006186			
Reference No.	MSKGL/ED/2020-21/001140			
Type of Sample	Marine Sample (Microbiological)			
Sampling Location	S1:Dhamra River Mouth S3:Liquid/Gas/Cyrogenic Berth Face S2:Dry Bulk Cargo Berth Face S4:Along Channel at 1Km S5:Along Channel at 5Km S6: Along Channel at 10Km S7:Near Kanika Island			
Date of Sampling	21.09.2021			
Date of Analysis	22,09,2021 to 30.09,2021			
Sampling Done by	Mr. Kunja Bihari Nayak			

Name of the Parameters Unit Testing Method		Total Bacteria count	Total Coliform	Faccal Coliform	E, zoli	Enterococcus	Salmonella	Shigella	Vibrio
		A STATE OF THE PARTY OF THE PAR		MPN/100ml MPN/100ml	CFU/ml	/100ml	7100ml	/100ml	
		APHA 5 <sup>th</sup> Edn	APHA 9221 B	APHA 9221 E	APHA 9721 F	IS 5887(Part-II)	15 5887(Part-	1S 5887(Part-	15 5887(Part-
				An	alysis Result			VII)	(V)
ş.	Surface Water	100.0	<1.8	≤1.8	<1.8	<1.0	Absent	Absent	Absent
1	Bottom	73.0	<1.8	≥1.8	<1.8	<1.0	Absent	Absent	Absent
s-	Surface Water	125.0	<1.8	<1.8	<1.8	<1.0	Absent	Absent	Absent
2	Bottom	150.0	12.0	<1.8	<1.8	<1.0	Absent	Absent	Absent
5-	Surface Water	140.0	<1.8	<1.8	<1.8	<1,0	Absent	Absent	Absent
3	Bottom	65.0	<1.8	<1.8	<1.8	<1.0	Absent	Absent	Absent
5	Surface Water	50,0	<1.8	<1.8.	<1.8	<1.0	Absent	Absent	Absent
4	Buttom	25,0	<1.8	<1.8	<1.8	<1.0	Absent	Absent	Absent
S-	Surface Water	64,0	≤1.8	<1.8	<1.8	<1.0	Absent	Absent	Absent
5	Bottom	F10.0	<1,8	<1.8	<1.8	<1.0	Absent	Absent	Absent
5	Surface Water	75.0	<1.8	<1.8	<1.8	<1.0	Absent	Absent	Absent
6	Bottom water	80,0	<1.8	<1.8	<1.8	<1.0	Absent	Absent	Absent
s-	Surface Water	74.0	<1.8	<1.8	<1.8	<1.0	Absent	Absent	Absent
7	Bottom water	92.0	4.8	<1.8	<1.8	<1.0	Absent	Absent	Absent

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TESTING INSPECTION

Date: 01.10.2021

### PRIMARY PRODUCTIVITYMONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001140
Type of Sample	Marine Sample (Productivity)
Date of Sampling	21.09.2021
Date of Analysis	22.09.2021 to 30.09.2021
Sampling Done by	Mr. Kunja Bihari Nayak

SL No.	Monitoring Location		Gross Primary productivity (O2mg/L/day)	Net Primary productivity (O2mg/L/day)
0	SI:Dhamra River Mouth	Surface Water	2,0	1.2
	3,110,000,000,000	Bottom water	2.2	1.7
2	S2:Dry Bulk Cargo Berth Face	Surface Water	2.1	1.6
L	extens out cargo acria race	Bottom water	2.4	1.8
3	S3:Liquid/Gas/Cyrogenic Berth Face	Surface Water	2.0	1.3
	Solidate Gastyrogenic Bertii Pace	Bottom water	1.8	1.3
4	S4:Along Channel at 1Km	Surface Water	1.9	0.9
	Stational Character Treat	Bottom water	1.8	0.8
5	S5:Along Chanel at 5Km	Surface Water	2,1	1.3
1	Sections, Commercial Section	Bottom water	2.2	1.7
6	S6: Along Channel at 10Km	Surface Water	1.0	1.3
7	Toking Channel at Tokin	Bottom water	1.7	0.9
7	57:Near Kanika Island	Surface Water	2.2	1.2
-	Statem teaming paiding	Bottom water	1.8	1.0

Prepared By - S. Kange

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Checked By- Durch

N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015

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Date: 01.10.2021

#### PHYTO BENTHOSMONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha
Work Order No.	4802006186
Reference No.	MSKGL/ED/2020-21/001140
Type of Sample	Marine Sample
Sampling Location	S1:Dhamra River Mouth S3:Liquid/Gas/Cyrogenic Berth Face S2:Dry Bulk Cargo Berth Face S4:Along Channel at 1Km S5:Along Channel at 5Km S6: Along Channel at 10Km S7:Near Kanika Island
Date of Sampling	21.09.2021
Date of Analysis	22.09.2021 to 30.09.2021
Sampling Done by	Mr. Kunja Bihari Nayak

2.35	ime of the	Fungus	Total Count	No of species	Diversity Index	Major species
	Unit	CFU/g dry wt.	50 mg wet sediment	Nos.	-	2
Test	ing Method	APHA 9610 B	APHA 9215 B,C	APHA 10500 B	By Calculation (Shanon's Index)	APHA 10500 B
			1	Analysis Result		
5.1	Surface Water	1980	221	12	0.6247	Ditylum, N.longsigma
	Bottum water	1450	245	10	0.6541	N.longsigma
S-2	Surface Water	2200	224	16	0.6802	Copepods
2-1	Bottom	1780	187	7	0.5235	Podasira,
5-3	Surface Water	1200	194	9	0.6051	Ctenophora, Copepods
3-3	Bottom water	1800	201	13	0.4127	Dîtylum,
S-4 Wa Buit	Surface Water	2800	294	27	0.8829	Ditylum, Copepods
	Battom water	1400	180	14	0.6612	N.longsigma, Echinodermata
S-5	Surface Water	2100	264	37	0.9872	Podasira, Copepods
3-3	Bottom water	1700	233	14	0.6922	Ditylum, Echinodermata
	Surface Water	2900	320	48	1.6200	Podasíra, Ditylum
S-6	Bottom water	2000	224	20	0.8064	Echinodermata, Copepods
	Surface Water	1100	188	6	0.4884	N.longsigma, Podasira
S-7	Bottom water	1520	178	15	0,5237	Ctenophora

Prepared By - S. Kango



Checked By-Buck



N-5/100, Ground Floor IRC Village, Nayapalli Bhubaneswar - 751015 [CIN U51909WB1956PTC023037]

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Date: 01.10.2021

#### TOTAL FAUNA MONITORING REPORT

Client Name & Address	M/s The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha	
Work Order No.	4802006186	
Reference No.	MSKGL/ED/2020-21/001140	
Type of Sample	Marine Sample	
Sampling Location	S1:Dhamra River Mouth S3:Liquid/Gas/Cyrogenic Berth Face S2:Dry Bulk Cargo Berth Face S4:Along Channel at 1Km S5:Along Channel at 5Km S6: Along Channel at 10Km S7:Near Kanika Island	
Date of Sampling	21.09,2021	
Date of Analysis	22,09,2021 to 30,09,2021	
Sampling Done by	Mr. Kunja Bihari Nayak	

Name of the Parameters Testing Method		Name of phylum	Class & No. of individuals encountered	Total no of species encountered	Total faum per m <sup>3</sup>
		APHA 10700	APHA 10700	APHA 10700	APHA 10700
			Analysis Result		201111111111111111111111111111111111111
5-1	Surface Water	Annelida, Mollusca	Plychaeta-64,Bivalvia-27	69	124
	Bottom	Annelida, Mollusca	Plychaeta-38,Bivalvia-10	55	138
S-2	Surface Water	Annelida, Mallusca	Plychaeta-44,Bivalvia-26	94	221
3-1	Bottom	Annelida, Mollusca	Plychaeta-49,Bivalvia-20	67	187
S-3	Surface	Anthropoda, Annelida	Plychaeta-30,Bivalvia-14	77	205
3-3	Bottom	Annelida, Mollusca	Plychaeta-39,Bivalvia-11	88.	345
S-4	Surface Water	Annelida, Mollusca	Plychaeta-60,Bivalvin-28	-61	277
3-4	Bottom water	Annelida, Mollusca	Plychaeta-43,Bivalyia-19	310	664
5-5	Surface Water	Annelida, Mollusca	Plychaeta-51,Bivalvia-17	70	388
3-3	Bottom	Annelida, Mollusca	Plychaeta-50,Bívalvia-22	8)	50K
64	Surface Water	Anthropoda, Annelida	Malagostraca-29,Pelecypoda-33	145	915
5-6	flottom water	Annelida, Mollusca	Płychaeta-57, Gastropoda-25	67	211
	Surface Water	Anthropoda, Annelida	Maiagostraca-18,Pelecypoda-08	96	243
5-7	Bottom	Anthropoda, Annelida	Plychaeta-47, Gastropoda-27	71.	229

Prepared By - S. Kounge

REER

Checked By- Block

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Ref: MSKGL/ED/BHU-2021/00600

Date: 01.10.2021

# Site Specific Monitored Meteorological Data

For: The Dhamra Port Company Limited, Dosinga, Bhadrak, Odisha

Sr. No.	Pa	rameters	September.21
1.	-	Minimum	25.9
	Temperature ( °C)	Maximum	36.2
-		Average	29.4
2	N. L	Minimum	43.1
2.	Relative Humidity (%)	Maximum	100.0
-		Average	75.3
2	W. 10	Minimum	0.0
3.	Wind Speed (m/s)	Maximum	15.8
	1911 1 1914 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Average	3.7
4.	Wind Direction (%)	N	4.56
		NNE	4.57
		NE	6,8
		ENE	5.23
		E	3.8
		ESE	2.41
		SE	3.44
		SSE	2.54
		S	6.21
		SSW	4.8
		SW	19.4
		WSW	20.7
		W	4.89
		WNW	4.26
		CALM	6.39
5.	Data fall (and	Total	189.6
7	Rainfall (mm)	Minimum Day Wise	0.0
		Maximum Day Wise	13.4
		Average	0.26
	4 - LT - L P	Minimum	747.8
	Ambient Pressure (mm Hg)	Maximum	758.7
	Site Specific Data)	Average	751.9

Prepared By SKa

8958

Verified By Bolds

# THE DHAMRA PORT COMPANY LIMITED

# **Environment Management Plan**

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Noch	
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Complance	Dredging is being carried out in the areas identified and approved as a part of existing operation, Periodic marine water quality monitoring including turbidity is carried out near Kanika Island by engaging MOEF&CC approved	Nater quality monitoring reports for the period of Apr'21 to Sep'21 is enclosed as Annexure III.	Noted & will be complied.  As a part of existing operation periodic manifolicies
Mitigation Measures	- Check turbidity levels with baseline levels as reference during entire monitoring programme.  Discharge of waste into sea will be prohibited.  Oil Spill control measures will be adopted.  Ensure that slop tanks are promited.	barges/ workboats for collection of liquid/ solid waste.  Recirculation/Reuse of Bentonite clay and adoption of better construction methods to minimize the spill on marine environment.  Adoption Standard Reclamation methods with containment system to retain the solid inside the reclamation area.  Disposal of unused Dredged material at the identified offshore disposal area only.  Marine environmental monitoring as per environmental monitoring as per environmental	luded scattered mangroves ar the southern boundary phase I development from
Likely Impacts and their significance in the absence of Mitigation Measures	- Increase in turbidity - Change in marine water quality due to aqueous discharges (olly waste, sanitary wastes) from dredgers, barges and workboats Spill of Bentonite Clay during pile driving.	Marine Ecology of this environment is already subjected to the changes due to maintenance dredging activities and hence the net impact will be minimal. Some of the likely impacts are:  Decrease in DO levels.  Disturbance to benthic communities.  Changes in species diversity and density in areas adjoining dredging site.  Smothering or blanketing of sub-tidal communities.	near the southern boundary.
Environmental components likely to be impacted	Marine water Quality	Marine ecology.	Mangrove area
Activity	Capital dredging/ Reclamation/ Disposal/ Construction of Approach Trestle/ Berths and other offshore	such as seawater intake/ marine outfall	
ज हं	++		

Compliance	aspects of the marine ecology monitoring is being carried out by NABL & MoEF&CC accredited laboratory.
Mitigation Measures	the port activity and implementing the conservation measures. During the planning stage, a channel for seawater influx is considered to the mangrove area.  Care shall be taken during reclamation near northern and southern side mangroves and reclamation bund shall be constructed to ensure that no impact on them. Construction of Northern rail link will pass through the sparse mangrove patch. It is estimated that "0.1 ha of mangrove area will come under the development of utility corridor where the corridor will be developed on piles. Considering the mangrove footprint, 10 times of mangrove plantation will be developed near the Northern mangrove area and all the construction would not be allowed.  Revised Master Plan ensures the Tidal exchange near the mangrove area which is also ensured by of hydrodynamic modelling studies.  Dredge spoil should not be entered into mangrove area.
Likely impacts and their significance in the absence of Mittgation Measures	Impact on mangroves near northern boundary. Impact on mangroves at Kanika Island.
Relevant Environmental components likely to be impacted	
Activity	
2, 5	

Compliance		Noted	Noted
Mitigation Measures	Awareness will be imparted to workers in the port about the importance of mangroves and their conservation.	The channel area is well away from the turtle congregation area and hence there is no regular movement of turtle into the channel area.  DPCL to take appropriate measures to avoid accidental take of turtle during dredging.  Install specialized Illumination system in line with "International Dark Sky Association (IDA)" to avoid glare to the sky or focusing light towards sea.  Mercury vapour and metal halides will not be used. Sodium vapour lamps will be used	access to the sea for the local in is considered during planning elf.  In existing port hence no direct is envisaged. Signboards will be it the construction activities in make fishermen aware of the sconstruction activities or marker buoys will be installed interactions will be initiated e fishing community before crement of construction works ston shall be limited to as per dopment plan.
Likely impacts and their significance in the absence of Mitigation Measures		dredging. Light Glare on Nesting	- Local Fishermen approach to sea.  - Impact on fishing due to Construction works.  - Fishing harbour is located in Dhamra River at 6.5 km southwest boundary of the port. The fishing boats travels all through the Dhamra River and enter into sea. The approach channel of the port is oriented from south to boats travels from south to east. Fishing is being carried out at deep sea. Therefore,
Relevant Environmental Components likely to be impacted		Impact on turtle/Other Macro Fauna	Fishing villages
Activity			
St.			

Compliance		Complied.  As a part of existing operation, air pollution mitigation measures are being adopted.
. Mitigation Measures		To reduce impacts, from exhausts, emission control norms will be enforced /adhered.  All the vehicles and construction machinery will be periodically checked to ensure compliance to the emission standards.  Construction equipment and transport vehicles will be periodically washed to remove accumulated dirt.  Providing adequately sized construction materials, equipment tools, earthmoving equipment, etc.  Provide enclosures on all sides of construction materials, equipment of material will be mostly during nonpeak hours.  Movement of material will be mostly during nonpeak hours.  On-site vehicle speeds will be controlled to reduce excessive dust suspension in air and dispersion by traffic.  Water sprinkling will be tarried out to suppress fugitive dust.  Environmental awareness program will be provided to the personnel involved in developmental works.  Use of tarpaulin covers and speed regulations for vehicles engaged in transportation.
Ukely Impacts and their significance in the absence of Mitigation Measures	significant impact on fishing is not envisaged.	Vindblown dust during material movement. Fugitive dust during construction material unloading. Dust suspension during site preparation, construction. Emissions from DG Sets.
Relevant Environmental Components likely to be impacted		Air Quality
Activity		Materials transport and construction activities.
8		2

Compliance	adhined below Noted.  As a part of existing operation Noted by Central Note monthly basis by engaging achinery / accredited NABL & MOEFCC laboratory. The Monitoring results are also submitted to the Regional see levels less office on regular basis. The copy is enclosed as Annexure - III.  By high noise, et oriented so of away from construction the regulatory elevels, will be a oriented so of away from construction of the minimize levels lill be provided at on the monitored be monitored.  By high noise, et oriented so a different regulatory alto minimize and the minimize levels lill be provided at equipment's s, etc.  By high noise levels lill be provided at equipment's s, etc.  By high noise levels lill be provided at equipment's s, etc.  By high noise levels lill be provided at equipment's s, etc.
Miligation Measures	Noise levels will be maintained below threshold levels stipulated by Central Pollution Control Board /Odisha State Pollution Control Board /Odisha State Pollution Control Board (CPCB)/OSPCB.  Procurement of machinery / construction secondance with specifications conforming to source noise levels less than 75 dB (A).  Well-maintained construction equipment, which meets the regulatory standards for source noise levels, will be used.  Any equipment emitting high noise, wherever possible, will be oriented so that the noise is directed away from sensitive receptors.  Noise attenuation will be practiced for noisy equipment by employing suitable techniques such as acoustic controls, insulation and vibration dampers.  High noise generating activities such as pilling and drilling will be scheduled at daytime (6.00am to 10 pm) to minimize noise impacts.  Personnel exposed to noise levels beyond threshold limits will be provided with personal protective equipment's such as earplugs, ear muffs, etc.  Ambient noise levels will be monitored at regular intervals.
Likely impacts and their significance in the absence of Mitigation Measures	Noise from following activities  Vehicles transporting  construction matchinery and dredgers  Pile driving activities during  construction of Approach  trestle/cargo berths etc.,
Environmental components likely to be impacted	Polse
Activity	
ND.	

Compliance		Noted, Drainage pattern of the area is maintained, Creeks are periodically cleaned to ensure free flow of water from both outside and inside. Further Inline to Revised Master Plan proper drainage facility will be developed as per the drainage plan.	Noted
Mitigation Measures	Exercise route selection, traffic regulations, timings etc.,	Storm water runoff will be directed as per the storm water drainage network proposed considering the existing drainage pattern and from village area and port area into the sea.  Requirements of villagers for tide water and boat movement has been duly considered in the drainage plan. Prudent Planning of Layout— Mathematical Modelling Studies shows Flow regime changes for various tidal conditions in the study domain after the proposed expansion development of the Port are predicted to be not of much significance and is limited to the development location mostly and found to be very much local in nature. No change in the flow regime of the rest of the domain is observed.	The area being highly saline and Sea/Submerged inter tidal zone, no Major Vegetation is present in the proposed expansion area except a narrow strip of throny bushes.  Construction activities shall be limited within the site and dust shall be contained within the construction area.
Likely impacts and their significance in the absence of Mitigation Measures		Impact to natural flow of runoff due to reclamation and change of drainage course.	Loss of vegetation and strain on existing infrastructure.
Relevant Environmental components likely to be impacted		Disturbance to Natural Drainage pattern.	Vegetation and Strain on existing Infrastructure
Activity			
₹ Š.			

75 Q	Activity	Relevant Environmental components likely to be impacted	Likely Impacts and their significance in the absence of Mitigation Measures.	Mitigation Measures	Compliance
		Existing Traffic	- Traffic addition	- The existing approach road to Dhamra Port is being widened by GoO which will improve the traffic conditions	Noted.  DPCL has an exclusive rall connectivity for the project and
				<ul> <li>Proposed National Water Way (NW-5)</li> <li>will also be used for the transport of</li> </ul>	has proposal for future expansion of rail-road connectivity.
				part of construction material which will reduce likely congestion on road.	Besides, DPCI has participated with PWD for maintenance and
				obtained by DPCL for 4 lane road and 2	improvement of the main service road to Dhamra and has shared the
				Clearance), As a part of Revised Master	cost of development. As a part of RMP EIA studies, Traffic
				Plan, it is to develop further additional Z lane road and 1 rall tracks. Traffic	study was conducted for assessment & evaluation of
				Wardens shall be deployed for	E
				- Drivers should be sensitized with	Is already approved as a part of Phase -II clearance) with future.
				respect to need to drive carefully while	provision of Two lane, to be
				passing village areas.  Speed of the trucks shall be controlled	developed as a part of Revised Master Plan to connect Bhadrair &
				broards and other appropriate county	Dhamra Port, Based on this -
				control techniques.	Generated traffic (due to
				<ul> <li>Proper lighting, signboards shall be provided at required locations.</li> </ul>	proposed expansion)
					2. Four lane (which is already
					approved as a part of Phase -!!
					clearance) with future
					developed as a part of Revised
					Master Plan is proposed, which shall be sufficient to

СотрПансе	meet the Port Requirement as per the IRC guidelines.  Existing approach road from Jamujhadi to Dhamra will be utilized during construction phase (apart from proposed NW-5) which will improve the traffic conditions. Proposed road link will induce local traffic movement on either side and boost the travel characteristics of the people residing in nearby villages addition, for easy evacuation of cargo, a new Rail/Road/Utility Corridor (12 km x 125 m wide) is also proposed from Northern side of Dhamra Port.	Noted
Mitigation Measures		Existing protective bunds (salt dyke) and slope gradient will prevent inundation of salt water to the adjoining land.  Return seawater from reclamation areas will be channeled back to sea.
Ukely Impacts and their significance in the absence of Mitigation Measures		proposed expansion is planned in an additional area of 1323.4 Ha. Out of which approximately 1075.7 Ha land will be reclaimed and 247.7 Ha of land is proposed applied land. The proposed development of master plan site falls in saline and Sea/Submerged intertidal area without any macro vegetation, habitation and built-up area. The applied land to be
Relevant Environmental components likely to be impacted		Existing Water Resources like Groundwater and surface water
Activity		Reclamation
15 E		m

Compliance		Noted DPCL has developed a vision for making itself — "A Zero Waste to Landfill Port" by adoption of SR principle of waste management Le., Reduce, Reuse, Reprocess, Recycle & Recover, During the period of Apr'21 to Sep'21, a total quantity of 115.06 MT of solid waste has been handled in line to SR concept. We have color coded bins for segregating different category of solid waste. Biodegradable wastes are used for compost preparation. Recyclable wastes are handed over to authorized recyclers.
Mittigation Measures.		Proper waste Management practice is being followed and shall be extended. General refuse generated on-site will be collected in waste skips and separated from construction waste. Other Construction waste will be used within port site for filling of low lying areas.  Solid Waste Management Rules, 2016 and Construction & Demolition Waste Management Rules, 2016 (as amended) will be followed for environmental sound management of respective waste.  Burning of refuse at construction sites will be prohibited.
Likely impacts and their significance in the absonce of Mitigation Measures.	reclaimed will be saline mud and will be separated from the adjoining land mass through the salt dyke. This being an intertidal zone which is sloping towards sea, therefore, there will be no impact on groundwater quality.  Construction phase water requirement will be met through existing sources. I.e. Matai River.	solid waste on ground
Environmental components likely to be impacted		- Allient Joseph
Activity		Management Management
75 E		T.

Сатрівнов		
Mitigation Measures	Hazardous and other waste Noted Management Rules, 2016 (as amended) will be followed for environmental sound management of hazardous waste.  Adequate safety measures as per OSHA standards will be adopted.  Construction site will be secured by fencing with controlled/limited entry points.  Hazardous materials such as lubricants, paints, compressed gases, and varnishes etc., will be stored as per the prescribed/approved safety norms.  Construction site will be secured by fencing with controlled/ limited entry points.  Medical facilities including first aid will be made available for attending to injured workers.  Handling and storage as per statutory guidelines.  Positive Isolation procedures will be adhered.  Hazardous wastes will be disposed through approved OSPCB/CPCB	Water required during construction Noted activity will be met through existing water supply system from Matal River. Groundwater table at Dhamra is high due to high rainfall. However,
Likely impacts and their significance in the absence of Mitigation Measures	hazardous material handling. Impact on Terrestrial and Marine Environment.	impacts to the surface
Relevant Environmental components likely to be impacted	Human safety and property/ Environment toss	Existing Water Resources like Groundwater and surface water
St. Activity NO.	hazardous wastes	6 Water Resources

93			
Compliance			Noted
Miligation Measures	optimization of water resource will be done.  Prudent Planning of Layout - Based on existing drainage pattern and cotchment area, main outfall drains are proposed to carry storm water discharge from village area and port area and discharge from village area and port area and discharging into seas.  Care will be taken to prevent the runoff from the construction site to the nearby natural streams connecting to rivers.  Construction camp wastewater will be collected and treated. Treated wastewater will be used for Plantation/Greenbelt development.	al Phase	Most of the cargo transportation Not through rall and Pipelines (** 70%).  Use of specialized ship loaders, wagon tippler, track Hopper, covered conveyors and rapid loading system through silos.  Use of -low Sulphur diesel fuel is proposed.  Dust Suppression measures at loading/unioading points, wagon tippler complex, Track Hoppers, transfer points, stock yards, rapid loading system and at internal roads.
Mkely Impacts and their significance in the absence of Mitigation Measures.		Operational Phase	Emissions from loading/ unloading equipment, DG sets, vehicular dust emissions, from storage areas, Emissions from vessels visiting Dhamra Port, Vehicular emissions due to cargo transport, emissions from LNG/LPG regasification process, spillage of cargo etc., Air Quality Modelling study is carried out to Predict the GLCs at the receptors due to
Relevant Environmental components likely to be impacted			Air Quality
Activity			Cargo handling and Inland Cargo movement and storage areas, Regasification process and equipment operation such as pumps, compressors, etc.,
SI, NO.			4

SI. Activity			
Environmental components likely to be impacted		Noise	Traffic Addition
Likely impacts and their significance in the absence of Mitigation Measures	Fugitive emissions from Dry bulk, cargo stockyard, and Vehicular movements, etc., and ill is found that resultant concentrations, are well within the NAAQs standards at all receptors.	Due to equipment handling and vehicular movement. Ship unloading operations. Due to Regasification Process and equipment operation.	Cargo movement from/to port
Witigation Measures	- Scientific and regulated stacking of cargo piles  - Wind screens will be provided along stack yard.  - Periodic cleaning of cargo spills.  - Use of tarpaulin covers and speed regulations for vehicles/wagons engaged in transportation.  - Greenbelt Development.  - Regularization of truck movement.  - Regularization of truck movement.  - Vessels visiting the facility shall meet emission standards as per MARPOL.  - Use of Eco-friendly regasification technology such as Seawater based/ Ambient Air Based for LNG Regasification.	Acoustic Barriers and Enclosures.     Personal Protective Equipment (PPE).     Greenbelt Development.     Counselling and traffic regulation.	<ul> <li>Most of the cargo transportation through rail and Pipelines (~70%).</li> <li>Proposed National Water Way (NW-5) will also be used for the transport of cargos which will reduce likely congestion on road.</li> </ul>
Compliance		Noted.  As a part of existing operation Noise monitoring is carried out on monthly basis by engaging accredited NABL & MOEF&CC laboratory. The Monitoring results are also submitted to the Regional office on regular basis. The copy is enclosed as Annexure - III.	Noted.  DPCL has an exclusive rall connectivity for the project and has proposal for future expansion of rail-road connectivity.

Ti OS	Activity	Environmental components likely to be impacted	Likely impacts and their significance in the absence of Mitigation Measures	Mitigation Measures	Compliance
				<ul> <li>Approval has already been obtained by DPCL for 4 lane road and 2 rail tracks (as a part of Phase I &amp; II Chearance). As a</li> </ul>	Besides, DPCL has participated with PWD for maintenance and improvement of the main service
				part of Revised Master Plan, it is to develop further additional 2 lane road	road to Dhamra and has shared the cost of development.
				and I rail tracks in the existing corridor.  125 m Wide corridor is meant to	100
				lane road, an electric overhead	assessment & evaluation of feasibility of Four Lane road (which
				transmission line, utility corridor and side drain. This will be sufficient to	is already approved its a part of PhaseII clearance) with future
				cater the DPCL revised master Plan transportation regulements.	provision of Two lane, to be
				rall, road and utilities corridor	Master Plan to connect Bhadrak &
				(approx. Lkkm x	3. Both Normal traffic +
				Narthern side	Generated traffic (due (a
				development of Dhamria Port.     In addition, for east expression of	proposed expansion)
				cargo, a new rall, road and utilities	4. Four lane (which is already
				corridor (approx.12km x 125m wide) is	approved as a part of Phase -II
				development of Dhamra Port.	provision of 2 lane road, to be
					developed as a part of Revised
					Master Plan is proposed,
					meet the Port Requirement as
					per the IRC guidelines.
					utilized during construction phase
					(apart from proposed NW-5)

Compliance	which is being widened by GoO which will improve the traffic conditions Proposed road link will induce local traffic movement on either side and boost the travel characteristics of the people residing in nearby villages addition, for easy evacuation of cargo, a new Rail/Road/Utility Corridor (12 km x 125 m wide) is also proposed from Northern side of Dhamra Port.	Noted	Noted
Mitigation Measures.		Dhamra Port is an existing port, fishermen in the area are well aware of the existing port activities. Therefore, no direct impact is envisaged.  Creation of awareness among the fishermen about proposed master plan activities is being done and will be continued.  Marker buoys along the channel.  Educate the fishermen about the orientation of approach channel and ships visits etc., Regular interactions will be initiated with the fishing community.  Conflicts, if any, with fishing community all cases.	Vessels/Ships will be required to exchange
Likely impacts and their significance in the absence of Mitigation Measures		Local Fishermen approach to sea. Fishing harbour is located in Ohamra River at 6,5 km southwest boundary of the port. The fishing boats travels all through the Dhamra River and enter into sea. The approach channel of the port is oriented from south to north east whereas fishing boats travels from south to east. Fishing is being carried but at deep sea. Therefore, significant impact on fishing is not envisaged.	- Change in marine water - quality/ecology due to discharge ship wastes
Relevant Environmental components likely to be imported		fishing villages	Marine water quality and ecology
Activity			Aqueous discharges in harbour basin
38.08			2

Compliance	
Mitigation Measures	ballast water in a deep sea location prior to arrival in the harbour.  Ships are prohibited from discharging Waste water, bilge, oil wastes, etc. into the near shore as well as harbour waters.  Ships would also comply with the MARPOL.  regulation.  As a mitigation measure for spillages an Oil spill contingency plan prepared and will be implemented.  Provision of waste reception facility for bilge water and waste oil will be explored.  Desalination Plant water requirement selected prudently and will be sourced from river Matai which will ensure the reject TDS will be always less than the seawater TDS and hence no significant impact due to reject discharge into marine environment.  LNG/LPG regasification return water with low temperature (<70c than ambient) will be sent back through marine outfall system with diffusers at identified location the in the ensures attainment of ambient conditions (within 600 m) in the harbour area.
Likely impacts and their significance in the absence of Mitigation Measures	(sullage), sewage, bilge water, Desalination Plant reject water, LNG/LPG regasification return water eff.
Relevant Environmental components likely to be impacted	
Āctivity	
NO.	

Compliance		Noted	Noted
Mitigation Measures	Marine Water Quality monitoring is proposed as Part of Environmental Monitoring programme.	s, it will be espills, ment such as ment such as mers will be mers will be thing down the direcovery will	It will be ensured that dumping of the maintenance dredge material would be uniform at the identified offshore disposal ground.  Dredge spoil disposal studies reveals that the changes in bed level at disposal site due to deposition of dredge spoil is less than 0.011 m. The spread of plume is also ensured that it will never reach the channel, shoreline and other eco sensitive areas.  Pre and post dredge material disposal bathymetry survey at disposal location shall be carried out.  Based on the TSS/Turbidity monitoring results during dredging, nearby receptors if any impacted would be provided with suitable mitigations
	a -	h	T 1 1 1 1 1 1
Likely Impacts and their algolicance in the absence of Mitigation Measures		Change in marine water quality	Decrease in DO levels
	-	1	r. r.
Relevant Environmental components likely to be impacted		Marine water quality and ecology	Marine water quality/Marine Ecology
Activity		Cargo and Oil Spills (Accidental)	dredging
is g		on .	*

Compliance			pa
Mitigation Measures	measures such as silt screen to contain the turbidity.	Raw water shall be taken from Matai River (Perennial) at the existing intake location. The maximum water withdrawal shall be 100 MLD for 40 MLD desalination plant). No downstream users are observed beyond the intake Point at River Matai. Government of Odisha has accorded permission for water intake of 5 MLD from Matai River and necessary permission will be obtained from the concerned authorities for revised Master plan requirements.	Collection of runoff from stock piles Noted and directing into settling ponds for recycling and supernatant water will be used for dust suppression.  Neutralization using lime to ensure settlement of heavy metals, if any.  STP (1 MLD capacity during 5 year and 2 MLD (Cumulative) capacity during 30 year development) to treat the sewage.  ETP (3 MLD capacity during 5 year and 5 MLD (Cumulative) capacity during 30 year.  STP (1 MLD capacity during 5 year and 5 MLD (Cumulative) capacity during 30 year.  Storm Water Drainage System.
		i	
Likely impacts and their ugnificance in the absence of Mitigation Measures		Impact on existing water resources	Impact due to discharge of runoff from stock piles and disposal of untreated sewage. Impact due to discharge of brine (reject from Desalination plant) runoff from stock piles. And disposal of untreated sewage.
Relevant Environmental pomponents likely to be impacted		Water resources	Water Quality
Activity		Water Supply	Discharge
vi 2		in .	ь

800			d a vision for- tero Waste to doption of SR snagement i.e. ocess, Recycle period, a total MT of solid dled in line to ded bins for t category of rdable wastes preparation.	
Compliance	Noted		Noted DPCL has developed a vision for making itself – "A Zero Waste to Landfill Port" by adoption of SR principle of waste management i.e. Reduce, Reuse, Reprocess, Recycle & Recover.  Buring the reported period, a total quantity of 115,06 MT of solid waste has been handled in line to SR concept.  We have color coded bins for segregating different category of solid waste. Biodegradable wastes are used for compost preparation.	
Mitigation Measures	Treated Sewage and effluents shall be reused for dust suppression, irrigating greenbelt and other requirements.	Intake with proper screens will be Provided Maintaining Low intake Velocity to minimize the Entrainment & impingement. Seawater intake is proposed in protected harbour basin which will reduce major marine organism entry. Intake is proposed nearer to LNG Terminal and hence entrapment will be insignificant.	5 R (Reduce /Reuse/Recover/Recycle and Re Process) principle shall be explored. 5TP sludge will be used as manure in green belt. 6TP sludge will be used as manure in provided. Composted bio-degradable waste will be used as manure in greenbelt/gardens. Other recyclable wastes will be sold to OSPCB authorized vendors. Commercial use will be explored for the materials settled in dump pond.	
Likely Impacts and their significance in the absence of Mitigation Melikures		Entrapment of aquatic life	solid waste on ground	
Environmental components likely to be impacted		Marine ecology/ River Ecology	and Soil quality	
Activity		Seawater withdrawal for Regasification and water withdrawal from River matal for desalination plant	Solid Waste Management	
15 S		_	00	

Compliance	Recyclable wastes are handed over to authorized recyclers.	Complied.  We have a strict safety regimen with the motto "Safety First".  Safety Observations are mandatory from every department of the port and immediate measures are undertaken to rectify the shortcoming.  OHSAS Guidelines and MSIHC Guidelines are followed for handling of Hazardous materials. First aid center facilities have been provided for employees and workers. Inline to this a wellness center is also operated outside the port premises for villagers. Dhamra Port Company Limited is an ISO 45001-2018 certified company.	
Mitigation Measures		Hazardous and other waste Management Rules, 2016 (as amended) will be followed for environmental sound management of hazardous waste.  Adequate safety measures as per OSHA standards will be adopted.  Hazardous materials such as lubricants, paints, compressed gases, and varnishes etc., will be stored as per the prescribed/approved safety norms.  Medical facilities including first aid will be made available for attending to injured workers.  Madical facilities including first aid will be made available for attending to injured workers.  Handling and storage as per statutory guidelines.  Positive isolation procedures will be adhered.  Hazardous wastes will be disposed through approved OSPCB/CPCB vendors or shall be given to nearby approved cement industry for coprocessing.  Risk analysis has been carried out and suggested risk mitigation measures shall be adopted.  Emergency alarms, provision of fire fine hydrant.	
likely impacts and their significance in the absence of Mittgation Measures		Human life and loss of property. Impact on Terrestrial and Marine Environment	
Relevant Environmental components likely to be impacted		Fire accidents due - to products handling and other health hazards/ Groundwater and soil contemination	
SI. Activity NO.	,	Handling of hazardous materials/ wastes	

Compliance		Noted. Shoreline monitoring study was carried out as a part of Environment Impact Assessment study for Revised Master plan and further, the same will be carried out at regular intervals to check the Impact and if required miligation measures will be carried out.
Mitgation Measures	System and fire station.  Effective Disaster Management Plan (DMP) which covers onsite and offsite emergency plans, Recovery of spills to the maximum extent possible.	Monitoring of shareline with the help of high resolution satellite imageries during operation phase shall be carried out periodically.  Based on the monitoring results and if required, appropriate remedial measures such as beach nourishment/ creation of sand trap/ any other suitable methods shall be carried out to maintain the stability of coast.
Likely impacts and their significance in the absence of Mitigation Measures		The shoreline modelling studies shows that mostly accretion in the stretches studies and erosion in north of revised master pan area at the rates of 4.38m/ year and erosion below the Dhamra river region at the rate of -2.71 m/ year. Suitable mitigation measurus will be carried out to maintain the stability of coast.  Flow modelling shows that Variation in the flow regime (in the current speeds) after the expansion is limited to the development location mostly and found to be very much local in nature. No change in the flow regime of the rest of the domain is observed.
Relevant Environmental Components likely to be impacted		Change In Hydrodyna mics
SI. Activity No.		Reclaimed back up area or Bund

Activity Environmental Likely impacts and their components likely Mitigation Measures to be impacted.	Operation of Socio-economic be 2200 persons and 11000 persons region persons and 20000 persons during 30 persons and 20000 persons during 30 people with this employment pote socio economic conditions of the area and transport facilities that will be de economic development of the region.	Natural Hazards Disaster Management Plan (DMP) is already in plan after expansion also with required revisions. Port Co overall in-charge of the control of aducative, prote activities to ensure least damage to life and property	Induced Offers an efficient and cost effective supply challed the properties of Induced Induced Also serves as an alternative gateway India and Asia
Withgation Measures	During operational phase the expected direct and indirect employment will be 2200 persons and 11000 persons during 5 year development and 4000 persons and 20000 persons during 30 year development respectively, Local people will be given preference based on their qualification and skill set. Together with this employment potential, project will help to enhance the socio economic conditions of the area with better schooling, communication and transport facilities that will be developed/ triggered as a part of overall economic development of the region.	Disaster Management Plan (DMP) is already in place and will be continued after expansion also with required revisions. Port Conservator will act as the overall in-charge of the control of educative, protective and rehabilitation activities to ensure least damage to life and property.	Offers an efficient and cost effective supply chain/value proposition to the local importers and exporters in the states of Ddisha, Chisattisgarh and Iharkhand, Also serves as an alternative gateway to ports on the east coast of India for trade helicean porth east India and Asia.
Compliance	Noted	At present no hazardous or petroleum products are being handled at shore and details RA recommendation will be compiled as and when applicable, However, as a part of present operation following measures are being adopted.  Disaster Management Plan was prepared was approved from District Administration. Periodic mock drills are also being carried out. Safety is being followed as per the prescribed guideline. Dedicated team lead by dedicated site safety team along with team at Corporate is ensuring best safety practices at Port premises.	-

Armemure -V

### **Environment Expenditure**

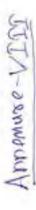
### Apr'21 to Sep'21

51 Na	Activity/Category	Expenditure (in Lakhs)
01	Environmental study, audit and consultancy	5.08
02	Construction of new drains and drain cleaning	10,08
03	Environmental Monitoring Services	13.42
04	Hazardous waste management & disposal	23.76
05	Treatment and Disposal of Bio-Medical Waste	1.85
06	Plastic Waste Management & Disposal	1.52
07	Inside Port plantation and maintenance	21.22
08	Plantation in degraded village forest patch	64.64
09	O&M of Sewage Treatment Plant (STP)	18.42
10	O & M of Water Treatment Plant (WTP)	35.85
11	Port housekeeping (Environment)	18.09
12	Port housekeeping (Operation)	457.00
13	Housekeeping (Admin)	58.89
14	Housekeeping (Railway)	6.80
15	Housekeeping (Engineering Services)	106.97
15	Mechanized Sweeping Machine	49.43
17	O & M of OWC machine	5.25
18	Vehicle Washing	5,74
19	Firefighting Expenses	46,51
20	O & M of Dust Buster and Mist Cannon	14,23
21	Kanika Island Conservation	51.70
	Total	1017.45

### THE DHAMRA PORT COMPANY LIMITED ADAM FOUNDATION - ESR WORK DETAILS Aur 21 to Sep 21 2000 Sheek Linest! As IT of Personal Property and 50 (7 14with Scholarship. The students from eight core GPs, appring 75% & allows transic in title in class (Oth examination under the Board of Secondary Education 0.00 5.00 0.87 200 0.05 0.87 Odishu. LEAF project - Think Jone. 0.00 0.00 0.00 0.00 2.00 0,00 0.00 Suggest to Quality Education (Setting up School Edwary in righ Schools and ME died 0.00 0.00 0.00 0.00 6.90 0.95 ichools) Programme : GURU SAMMAN. Felilliospen of repred teachers who have immensely untributed towards the Education upillberest of Shedrals & dremms region. 0.00 5.00 0.00 0.00 330 8.89 0.17 Support to School ( in bridging the girp of basic fucilities in schools ) Programme 0.00 5.00 di.pes 73.00 0.00 95.95 10.88 Levering Enrichment program forTeachers 0.00 5.00 0.50 0.00 0.00 0.00 2.00 Switchings and (To bring about a culture of claimings) among chooses and 0.00 0.00 5.00 0.00 0.00 8.00 continuedly presents) Self Defense Training to School Cirio 0.00 0.00 5.00 \$ 00 0.20 1.00 1.00 Adam DAY Public School, Fuerture, 31.11 14.60 15:40 32:35 30,00 23.23 152.26 Urdams - Young & attolesomer Students gut to visit the Aders Distrova Part for a knowledge based experience about the Fort and the advitios of Adam 0.00 0.00 MISQ oze Foundmen 82.25 12.45 11.90 起打。 加拉 30.07 158.19 COMMUNITY YEALTH (Webviess Centre-Medicines for free distribution to community at the health 1 inho 6.00 6.00 0.00 4000 MHCU Service - 2 Mobile result) Care Units are cutativing door stee halasts 2 19.000 ervice to the villages in and around 03 blocks of Bhadrak Connex La. Chavallais 5.00 oper. 0.00 0.00 28.8% 26.29 Tintel & Shearak Mega Health Camp - D4 Maga Health Check Up Camps will be organised 00.00 3.00 man. 0.00 di del 0.00 0.00 Received on the prevalent dissues from the community. Eyel Storpening Clemp in School: Speniel Day and Month Observation (Virtual) and addressing the Ivind of CUVID 0.00 3.00 0.00 5.00 0.00 0.00 5.00 0.00 6.00 5.00 0.00 0.00 600 Softcuhan Project - In curting Malnounthment and central the number of Sevi Actuals Malnourishment (SAM) & Moderate Accuse Malnourishment enoug © il -3.00 0.00 0,00 0.00 0,00 0.00 0.00 years of children and develop the Health status of Prognost and Lactating. michell 0.00 0.00 2.60 D.00 10.70 47.70 SISTAMAN'S UNION Support to Women Drill 9.00 0.00 0.00 0.00 Farmers' group institutive 0.00 0.00 9.00 .00.00 5.55 9.00 Ukentock Care 1,40 1.40 1.40 1.65 10.50 1.41 47.43 Disaster Mitigation-Calamity Rediscoal 0.00 0.32 0.00 7.64 Promoting Rutel Spaints 0.00 0.00 0.00 9.18 2,39 ANNAF 0.00 0.06 2.83 2.33 2.33 11.55 Statisticides Management 0.00 0.00 D.00 140 3.77 4.05 9.42 12.00 10.25 RORAL INDRASTRICTU RE DEVE THES Villago Gevelopment Related; Root Infra Support 5.00 (0.00) 0.00 0.00 0.00 0.00 0.00 Drinking Water Facility-Handouno (31) 0.00 2.60 **U.00** 0.00 à Williams Coversor Country Salated: Stanch Chames Mission Visco Community Today 6.00 0.00 0.60 0.00 0.00 0.00 0.00 Education related infrastructure Development for Education 0.00 0.40 0,00 5.05 9.92 9.00 0.00 Stadium Work Support: Mini Stadium at Cranitials 0.00 0.00 0.00 0.00 0.00 3,00 500 Agent Excepation 0.00 0.00 5.20 0.00 0.00 6.20 Wilage Development Relatest: High Mass Light Support 0.00 0.00 0.00 5.00 0.00 (Morary Support (Dinary Infrastructure Supportur Basseleyes) Engagement with Different Stakeholders, (SUD) - Rencovation of Community 0.00 0.00 5.00 0.00 5,66 0.00 0.00 0.05 6000 00.00 0.60 0.00 dobb dico. PÓNO. 2 Chartesonum 0.00 0.00 0.00 2.50 8.50 0.00 0.00 0.00 1676 CONNECTORIAL DESIGNATION OF THE PERSON OF TH 2135 01.66 19.25 ist. 44.50 X1.96 МA

Anneuvre-VII

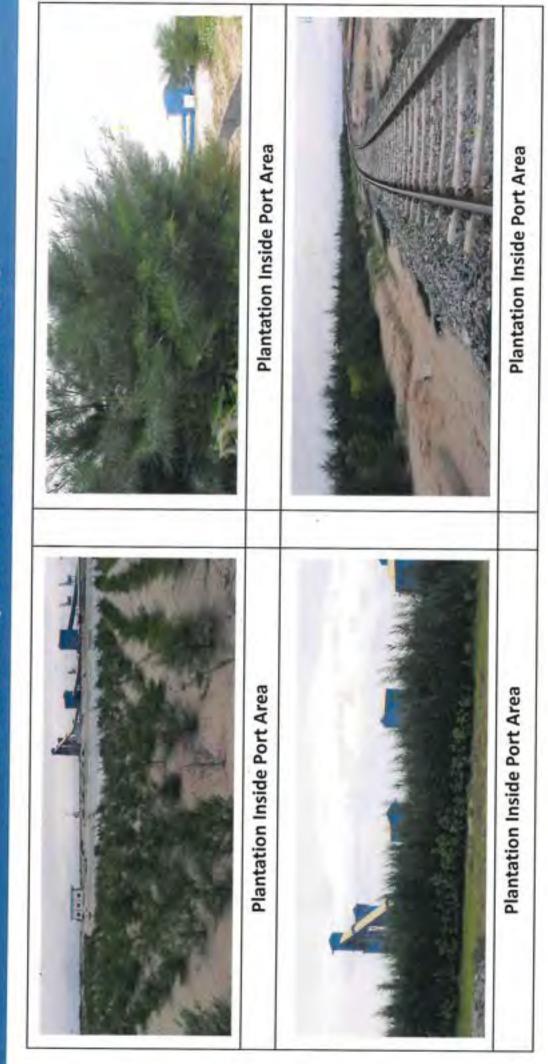
		Dhar	nra Port (	Compan	y Limited
			OIL SPILL N	MANAGEM	ENT
	nes	CRIPTION	DHA	MRA	
	DES	CRIPTION	VIKOMA	DESMI	REMARKS
	Inflatable B	oom (meters)	300	1750	VIKOMA, Sentinel 1100 Boom + DESMI
	Skimmer (2)	0 TPH)	1	3	VIKOMA, KOMARA-20, 5-bar + DESMI
	OSD Applica	stor (no.)	10	2	
	Oll Spill Disp	persant (litres)	6920		
EQUIPMENT	10 Tons flex Barge (np.)		-	4	
ECONTRIVE	Sorbent boom (meters)		-	500	
	Sorbent Pad (no.)			2000	
	Shoreline	Mini Vaccum pur		5	
	cleanup Equipment	OSD Applicator	12 1	5	
		Fast Tanks		5	
VESSELS	Work Boats		- 2		
VESSELS	Tugs		5		2 tugs are equiped with equipment
	(MO Level 1		1	2	
MANPOWER	IMO Level 2		4		
	Other (operating)		10		



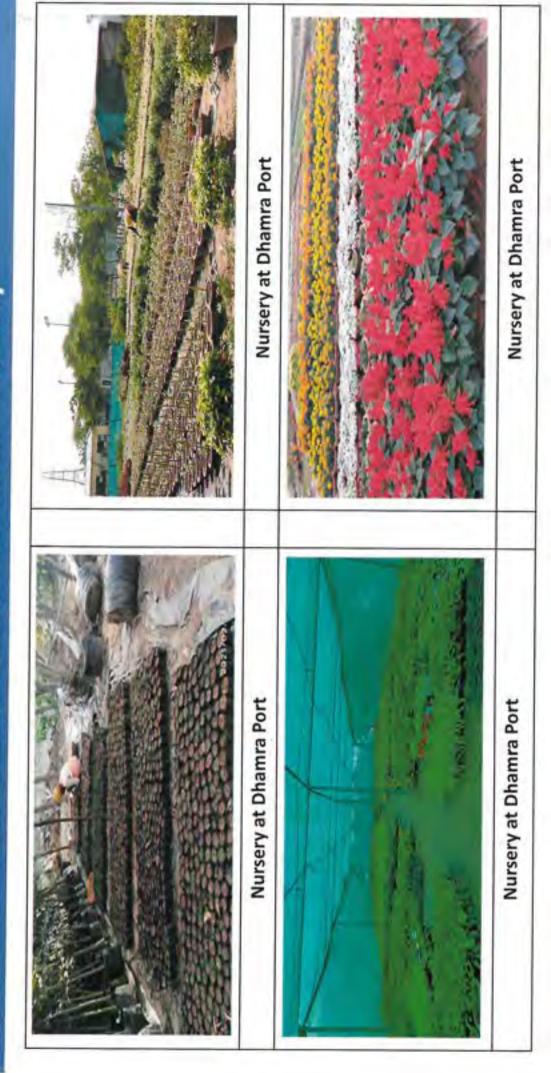
## Plantation / Greenbelt Inside Port



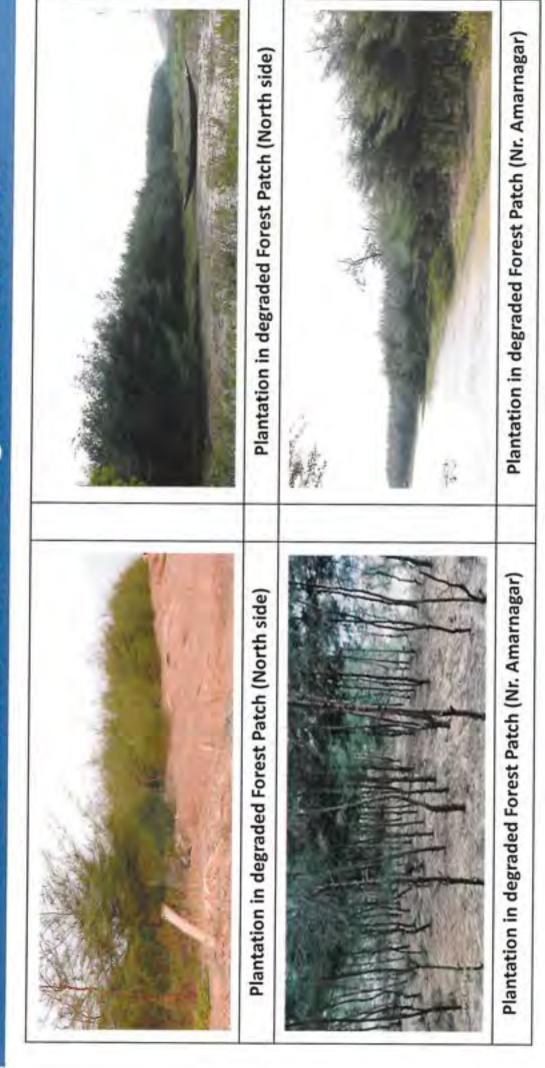
## Plantation / Greenbelt Inside Port



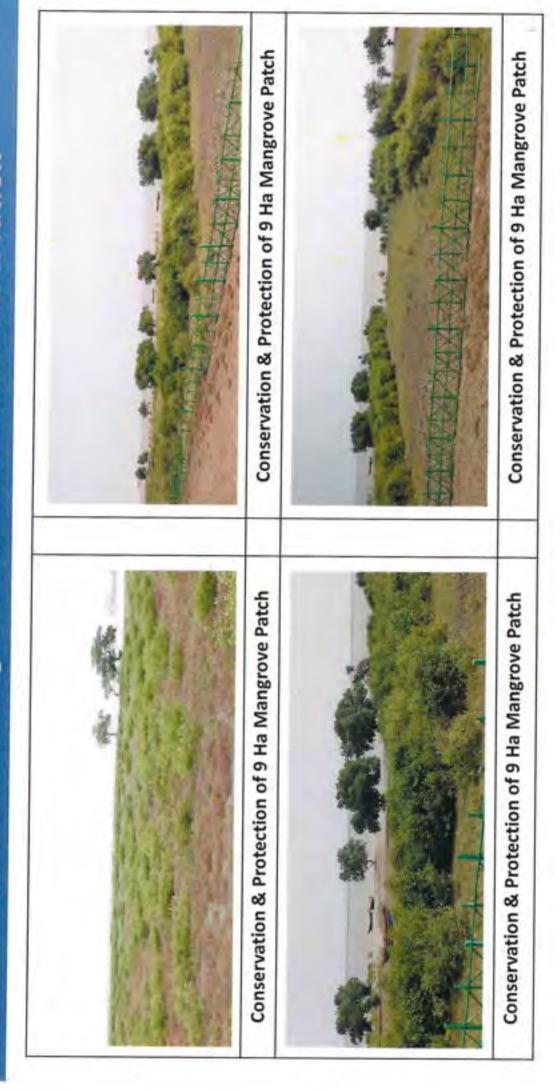
### Plantation / Greenbelt - Nursery



## Plantation / Greenbelt - Degraded Forest Patch



# South Side Mangrove Plantation and Conservation



	The Dh	amra Port Company Limited
	Fit	e Extinguisher Details
51, Nu	Locations	Type of Extinguishers & Quantity
1	SWITCH YARD	DCP-5KG-4nos
2	MCC-1	(CO2-4.5KG)-5nos (CO2-3KG)-1no, (FOAM-50ltrs)-01no
3	MCC-1(A)	(CO2-4.5KG)-3Nos(DCP-6KG)-2KG
4	MCC-2	(CO2-4.5KG)-2nos
5	MCC -2(A)	(CO2-4.5KG)-lno (CO2-3KG)-lno
- 6	Mantei Office (Security)	CO2-4.5kg-02 Nos, DCP-6kg-04 Nos, DCP25kg-01 N
7.	MCC-4	(CO2-4.5KG)-02nos.(DCP-5KG)-1no
8	TP - 1(A)	CO2-4-5KG-1no
9	TP - 1(B)	CO2-4.5KG-1ng
10	TP-2	CO2-4-5KG-1no
11	TP - 2(A)	CO2-4.5KG-1ng
12	TP-3	C02-4.5KG-1no
13	TP - 3(A)	CO2-4.5KG-1no
14	NEW TP-3	CO2-4,5KG-1no
15	TP - 4	CO2 -4.5KG-1no
16	TP - 4 (A)	CO2 -4.5KG-1no
17	TP+S	CO2 -4.5KG-1ng
18	TP - 6	CD2 -4.5KG-1no
19	TP-7	CO2 -4.5KG-1no
20	TP-8	CO2 -4.5KG-1no.
21	TP-9	CO2 -4.5KG-1no (DCP-5KG)-1no:
22	TP-10	CO2 -4.5KG-1ng
23	TP-10(A)	CO2 -4.5KG-1no
24	TP-11	CO2 -4.5KG-1no
25	TP-11(A)	CO2 -4.5KG-1ng
26	TP - 12	CO2 -4.5KG-1no
27	TP - 12(A)	CO2 -4.5KG-1ng
28	TP-14	CO2 -4.5KG-1no
29	TP - 15	CO2 -4.5KG-1no
30	TP - 15(A)	CO2 -4.5KG-1no
31	TP - 15	CO2-4.5KG-Ino
32	TP - 17	CO2 -4.5KG-1no
33	TP - 19	CO2 -4.5KG-1no
34	TP-21	CO2 -4.5KG-1no
35	TP-21	CO2 -4.5KG-1no
36	JETTY	CO2 -4,5KG-2nos DCP-5KG-5nos
37	SL	CO2 -4.5KG-4nos DCP-5KG-1no
88	SUL-1	CO2 -4.5KG-5nos (CO2 -3KG)-1nos (DCP-5KG)-2nos
39	SUL-2	CO2-4,5KG-5nos (CO2-3KG)-1nos (DCP-5KG)-2nos
10	SUL-3	CO2 -4.5KG-6nos (DCP-2KG)-2nos (DCP-5KG)-1no
11	SUL-4	CO2 -4.5KG-6nos (DCP- 5KG)-3nos
2	SUL-5	CO2 -4.5KG-6nos (DCP- 5KG)-3nos
3	LIEBHERR-11	CO2 -4.5KG-2no, DCP-5KG-2nos, DCP-2KG-2nos
4	LIEBHERR-12	CO2 -4.5KG-2ng, DCP-5KG-4ngs
5	LIEBHERR-06	(CO2 -4.5KG)-2no, (CO2 -3KG)-1no, DCF-5KG-1no

46	LIEBHERR-07	CO2 -4.5KG)-3no, DCP-2KG-1no	
47	SILO - 1	CO2 -4.5KG-3nos DCP-5KG-1no	
48	SILO - 2	CO2 -4.5KG-3nos DCP-5KG-1no	
49	SILO - 3	CO2 -4.5KG-2nos DCP-5KG-1no	
50	SILO - 4	CO2 -4.5KG-3nos DCP-5KG-1no	
51	FIRE PUMP HOUSE	CO2 -4.5KG-2nos	
52	WTC-1	CO2 -4.5KG-2nos. DCP-5KG-2Nos	
53	WTC -2	CO2 -4.5KG-2nos DCP-5KG-2nos CO2 -3KG-1no	
54	SR -1	CO2 -4.5KG-2nos DCP-5KG-1no	
55	R-1	CO2 -4.5KG-2nos DCP-5KG-1no	
56	SR -2	CO2 -4.5KG-2nos DCP-5KG-1no	
57	SR -3	CO2 -4.5KG-2nos DCP-5KG-1no	
58	SR -4	CO2 -4.5KG-1no CO2 -3KG-1no, DCP-5KG-1no	
59	SR-5	CO2 -4.5KG-2nos DCP-5KG-1no	
60	SR-6	CO2 -4.5KG-2nos DCP-5KG-1no	
61	SR-7	CO2 -4.5KG-2nos DCP-5KG-1no	
62	SR-8	CO2 -4.5KG-2nos DCP-5KG-1no	
63	SR-4A	CO2 -4.5KG-2nos DCP-5KG-1no	
64	SR-3A	CO2 -4.5KG-2nos DCP-5KG-1no	
65	Fire & Security Barrack	CO2-4.5KG-3nos, DCP-5KG-2no	
66	JETTY CONTAINER	CO2-4.5KG-1no, DCP-5KG-1no	
67	MHS OFFICE	CO2-4.5KG-2 Nos.	
68	PSS	CO2 -4.5KG-3nos, DCP-5kg-01No.	
69	BMH WORK SHOP	CO2 -4.5KG-3nos DCP-5KG-3nos FOAM-50ltrs-01r	
70	All Equipment	DCP-5KG-08nos.	
71	LOCO SHED	CO2 -4.5KG-02nos, DCP-5KG-2Nos.	
72	DIESEL FILLING STATION	Foam-9ltr-1no	
73	IOCL	Foam-9ltr-1no , Foam Soltr-01 No.	
74	WTP	CO2 -4.5KG-4nos	
75	ADANI HEALTH CENTER	CO2-4.5kg-05 Nos, DCP5kg-03 Nos.	
76	REWA OFFICE	CO2-4.5KG-3Nos DCP-5KG-1No	
77	CUSTOMS OFFICE	CO2-4.5KG-1No DCP-5KG-1No	
78	DPCL STORE	CO2 -4.5KG-1N0 DCP-5KG-1N0	
79	Lubricant Store	Foam-9ltr-1no, DCP-5KG-1No.	
30	SS-01	CO2 -4.5KG-1no	
31	SS-02	CO2 -4.5KG-1no	
32	SS-03	CO2 -4.5KG-1no	
33	SS-04		
34		CO2 -4.5KG-1no	
)* <del>1</del>	SS-05	CO2 -4.5KG-3nos	
35	NEW CANTEEN (Adani port canteen)	CO2 -4.5KG-03no DCP-5KG-1no	
36	DHAMRA HOUSE	DCP-6KG-7nos, DCP-2KG-1nos CO2 4.5KG-01no	
37	KANIKA GUEST HOUSE	CO2 -4.5KG-01no DCP-5KG-1no	
18	DAV SCHOOL, KUAMARA	CO2 -4.5KG-16nos DCP-5KG-15nos	
	TOWNSHIP	CO2 -4.5KG-11nos	
9	TOWNSHIP	CO2 -4.5KG-04nos, DCP-6KG-4nos	
9	New Township		

93	DHAMRA GUEST HOUSE (Kalibhanja Guest House)	CO2 -4.5KG-4Nos.	
94	RAILWAY OFFICE	CO2 -4.5KG-02noS DCP-5KG-3nos	
95		310 310 310 310 310 310 310 310 310 310	
96	BHATATIRA STATION	CO2(4.5kg)-2Nos DCP-5KG-1no	
97	BHATATIRA LC-5	DCP-5KG-1no	
98	BHATATIRA- SP	CO24.5kg-1No	
99	GURUDASPUR STATION	CO2-4.5KG-1No DCP-5KG-1No	
100	GURUDAS PUR TSS	CO2 -4.5KG-1no DCP-5KG-4Nos.	
101	GURUDAS PUR SUB STATION	DCP-5KG-2Nos	
102	INTAKE	CO2 -4.5KG-3nos DCP-5KG-1no	
103	RANITAL	CO2 -4.5KG-1no	
104	GURUDAS PUR LC-19	DCP-5KG-1no	
105	IMWB	CO2-4.5KG-1 No.	
106	LOCO TRANSFORMER	CO2-4.5KG-2nos, DCP-5KG-1no	
107	HEALTH CENTRE	CO2-4.5KG-1no, DCP-5KG-1 No.	
108	TOWER WAGON	DCP-5KG-3nos	
109	TIHIDI STATION	CO2 -4.5KG-1no DCP-5KG-1no	
110	BANSADA STATION	CO2 -4.5KG-3nos	
111	LC-26,NEAR DI ROAD	CO2 -4.5KG-1no	
112	KOCHILA OFFICE	C02-4.5KG-2Nos DCP-5KG-2nos	
113	BRAMHANI OFFICE	CO2 -4.5KG-1no DCP-5KG-1no	
114	KANIKA TRANSFORMER	CO2 -4.5KG-1no, DCP5KG-1NO.	
115	SECURITY CONTAINER, NEAR MAIN GATE	CO2 -4.5KG-1no DCP-5KG-1no	
116	FIRST AID CENTER	CO2 -4.5KG-1no DCP-5KG-1no	
117	DPCL AMBULANCE(OLD)	DCP-5KG-1no.	
118	DPCL AMBULANCE(NEW)	DCP-5KG-1no.	
119	RAILWAY GSS	CO2 -4.5KG-1no DCP-5KG-1no	
120	RUNNING ROOM	CO2 -4.5KG-1no DCP-5KG-1no	
121	SAFETY INDUCTION HALL	CO2 -4.5KG-1no	
122	FCC GODOWN	CO2 -4.5KG-19nos DCP-5KG-03nos Foam-9ltr-3nos, Foam 50 ltr1 No.	
123	FCC OFFICE	CO2 -4.5KG-1no DCP-5KG-1no	
124	FCC CANTEEN	DCP-5KG-1no	
125	WAISTAGE OIL STORE	Foam-9ltr-1no,CO2 4.5KG-01NO	
126	LABOUR REST HOUSE	CO2 -4.5KG-1no	
127	SS-6	CO2 -4.5KG-16nos DCP-5KG-10nos, Foam-50ltr-1no	
128	COLONY PUMP HOUSE	CO2 -4.5KG-1no	
129	BHADRAK GUEST HOUSE	CO2 -4.5KG-1no DCP-5KG-1no	
130	BBSR OFFICE	CO2 -4.5KG-3nos DCP-5KG-4nos	
131	BBSR GUEST HOUSE	CO2 -4.5KG-1no DCP-5KG-1no.	
132	ADANI RAILWAY ENGINE	CO2 4.5KG-1, DCP-5KG-01 NO.	
133	WASTE SHED	DCP5KG-1 NO, FOAM9LTR-1 NO.	
134	FCC TRANSFERMER	DCP5KG-01 NO,CO2 4.5KG-01 NO	
135	FCC LABOUR COLONY	CO2-4.5KG-01 NO, DCP5KG-02NOS.	

		DCP Extinguisher- 325 Nos. CO2 Extinguisher- 399 Nos. Foam Extinguisher- 30 Nos.	
150 151		CO2 (4.5kg)- 36nos, CO2 (3kg) -5nos DCP (ABC)-6kg-46nos, DCP (ABC)-2kg-12nos, DCP 25kg-08nos, Foam(9ltrs)-04nos, Foam(45ltrs)-05nos & Foam (50ltrs)-02nos.	
		CO2-4.5kg=353Nos, CO2-3kg =05nos, DCP-6/5kg=247nos, DCP-2kg=04nos DCP 25kg-02nos & Foam-9ltrs=017nos, Foam -50ltrs -06nos	
149	Township Shopping Mall	DCP5kg-03 Nos, CO2-4.5kg-01 no.	
148	FCC Workshop	CO24.5kg-02 Nos, DCP5kg-02 Nos.	
147 Fire pump house (Near track hopper)		CO24.5kg-01 No, DCP5kg-01 No.	
146	DPCL Central Store	Foam 50ltr-01 No, DCP5kg-01 No.	
145 Mobile Equipment CO2 -4.5KG-1no CO2 -4.5KG-1no		CO2 -4.5KG-1no	
144	North Gate	CO2 -4.5KG-3nos, DCP-5KG-01No	
143	TP-3(C)	CO2 -4.5KG-1no	
142	TP-2(C)	CO2 -4.5KG-1no	
141	TP-1(C)	CO2 -4.5KG-1no	
140	TP-8(A)	CO2 -4.5KG-1no	
139	TP-7(A)	CO2 -4.5KG-1no	
138	SS-9	CO2 -4.5KG-16nos, DCP-5KG-06Nos	
137	SS-8	CO2 -4.5KG-9nos, DCP-5KG-02Nos	
136	SS-7	CO2 -4.5KG-9nos	

SL.No.	Description of mock drills and training	Numbers of training & mock drill conducted	Numbers of participants
1	Emergency Rescue mock drill	06	130
2	Safety Induction Training	140	1545
3	Portable fire Extinguishers training	38	765
4	Defensive driving training	234	4350
5	Tool box training	30801	298540
6	On the Job Safety Awareness	2467	36767

### Fire Crews member:-

SI No	Position	Total
01	Fire Officer	01
02	Sub Fire Officer	00
03	Fire Supervisor	01
04	Safety Co ordinator	00
05	Fire tender Operator	07
06	Leading fireman	07
07	Fire man .	23
		Total Fire Crews- 39

### Fire Tender Details:-

SI No	Fire Tenders	Water tank Capacity	Foam tank Capacity	1

01	OR22D8144	4500 ltr	500 ltr
02	OR22D8145	4500 ltr	500 ltr
03	OD22T3231	5000 ltr	1000 ltr

### FIRE EXTINGUISHER TRAINING



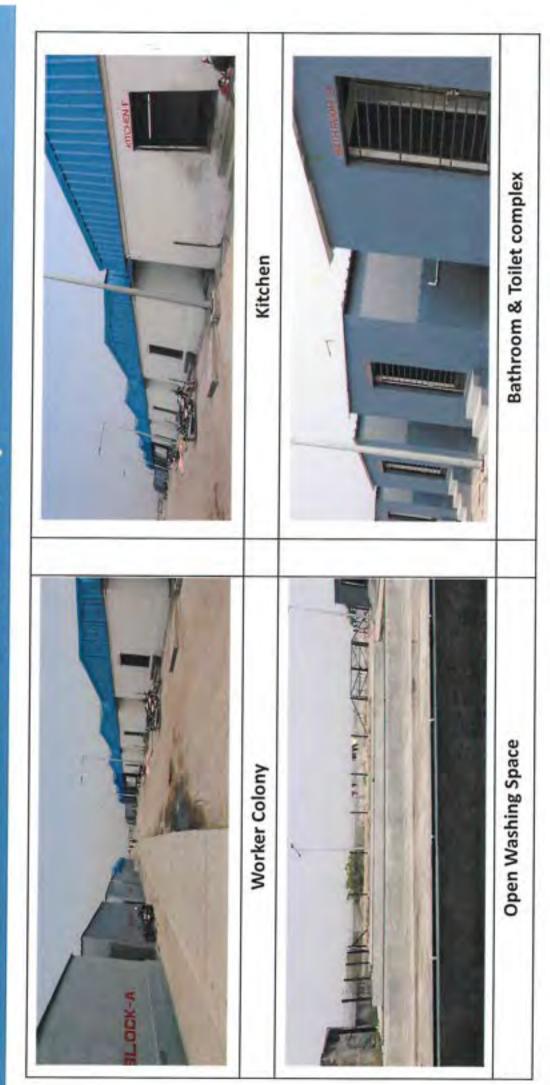


### EMERGENCY RESCUE MOCK DRILL AT SITE





### **Worker Colony**





### Ports and Logistics

Annemure-XI

DPCL/ENV/OSPCB/2021-075

Date: 14.09.2021

To
The Member Secretary
State Pollution Control Board, Odisha
A/118, Nilakantha Nagar, Unit –VIII,
Bhubaneswar – 751012
Odishu

Sub: Environmental Statement for the financial year ending 31st March 2021 for Dhamra Port Company Limited at Dhamra, Bhadrak, Odisha,

Ref: Consent Order No. 4218/IND-I-CON-6348 dated 24.04.2020.

Dear Sir,

With reference to the above-mentioned subject, please find enclosed Environmental Statement in Form V prescribed under Rule 14 of the Environment (Protection) Rules 1986 of The Dhamra Port Company Limited situated at Dhamra, Bhadrak, Odisha for the financial year ending 31th March 2021.

Thanking you,

Yours faithfully,

For The Dhamra Port Company Limited

Krisnna Kumar Head Environment

Encl: As above.

Copy to: The Regional Officer, State Pollution Control Board, Odisha, Plot no. -1602, Ganeshwarpur, Januganj, Balasore - 756019

### FORM V (See Rule 14)

### Environmental Statement for the Financial Year ending 31st March 2021

### PART - A

Name and address of the Owner/ (i) Occupier of the Industry Operation or

: Sudip Dasgupta Chief Operating Officer

Process

The Dhamra Port Company Limited

At/PO.- Dosinga, Via. Dhamra, Dist-Bhadrak

Odisha - 756171

(ii) Industry Category Primary (STC Code) Secondary (STC Code)

Red-B

NA

Production Capacity

NA

: 71.84 Million MT/Annum Cargo & 1 Million TEU/Annum Containerized Cargo

(iii)

(iv)

: 2000

(v) Date of last Environment Statement

Year of Establishment

: 21<sup>ST</sup> September, 2020

submitted

### PART-B

### Water and Raw Material Consumption

### (i) Water Consumption

Water Consumption Cu. Mtr./Day	
Process	Nil
Cooling	Nil
Domestic	494.323 m³/day
Dust suppression	893.467 m <sup>3</sup> /day
Fire fighting	670.923 m <sup>3</sup> /day

Name of Products	Process Water Consumption per unit of Product Output		
	During the current financial year (2019-20)	During the current financial year (2020-21)	
Handling of Iron Ore, Coal, Limestone, Gypsum, Steel coil/plate, Slag, Fertilizers, Gas oil, LPG, Pyroxenite, Olivine Sand, Project Cargo, Dolomite, Coke*	0.035 m³/Ton	0.018 m³/Ton	

### (ii) Raw Material Consumption

Name of	Name of Products	Consumption of Raw Material per Unit of output		
Raw Material		During the previous financial year (2019-20)	During the current financia year (2020-21)	
NiL*	Not Applicable	Nil	Nil	

<sup>\*</sup> Unit does not have any manufacturing process

PART – C
Pollutants discharged to Environment/Unit of Output
(Parameters as specified in consent issued)

Pollu	rtants	Quantity of pollutants discharged (Mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a)	Water	Nil*		
(b)	Air	Monitoring data attached as Annexure-1		

<sup>\*</sup>Unit does not manufacture anything, as it is a service industry (Port) engaged in handling and storage of cargo. No effluents are generated from the port. Treated water from the STP is used for horticulture purposes.

PART – D

Hazardous Wastes

(As specified under Hazardous Wastes Management and Handling Rules 1989)

	Total Quantity	
Hazardous Wastes	During the previous financial year (2019-20)	During the current financial year (2020-21)
(a) From Process Used oil /Spent oil	24.096 KL	30.680 KL
(b) From Process Oil containing cargo residue, Washing water and Sludge (Waste Oil)	896.250 KL	1003.530 KL
(c) From Process Chemical Containing Cargo residue and sludge/ waste/Residue containing oil	NA	Nil +
(d) From Process Sludge and Filters contaminated with oil / Process waste, Residues and sludge /Contaminated cotton rags or other cleaning materials	1.154 MT	1.128 MT
(e) From Process  Ash from Incineration of Hazardous waste, Flue gas cleaning residues	NA	Nil
(f) From Process Empty barrels / Containers / Liners contaminated with Hazardous chemicals /wastes	NA .	Nil
g) From Pollution Control facilities	Nil	Nil

### PART - E

### Solid Waste

Visualization vente	Total Quantity Generated (MT/Annum)		
Solid Waste	During the previous financial year (2019-20)	During the current financial year (2020-21)	
(a) From Process (Ash)	Nil	Nil	
(b) From Pollution Control facilities	3.535 MT/Annum	4.645 MT/Annum	
(C-1) Quantity recycled or reutilized within the unit	3.535 MT/Annum	4.645 MT/Annum	
(C-2) Sold	Nil	Nil	
(C-3) Disposed	Nil	Nil	

### PART - F

Please specify the characterization (in terms of Composition and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes:

Hazar	dous Waste		
SI. No	Name of waste	Generation quantity	Disposal method
1	Used oil /Spent Oil	30.680 KL	Sold to Authorized Recyclers /Re processors
2	Oil containing cargo residue, Washing water and Sludge (Waste Oil)	1003.530 KL	Sold to Authorized Recyclers / Re-processors
3	Chemical Containing Cargo residue and sludge/ waste/Residue containing oil	Nil	NA
4	Sludge and Filters contaminated with oil / Process waste, Residues and sludge /Contaminated cotton rags or other cleaning materials	1.128 MT	ACC for co-processing /energy recovery/Stored in HW Shed
5	Ash from Incineration of Hazardous waste, Flue gas cleaning residues	Nil	NA .
6	Empty barrels / Containers / Liners contaminated with Hazardous chemicals /wastes	Nil	NA

DPCL has got the authorization from OSPCB vide letter no. IND-IV-HW-894/3729 on dated 21.03.2020 for handling of hazardous waste which is valid till 31.03.2025.

Solid W			
SI. No	Name of waste	Generation quantity	Disposal method
1	Paper waste	6.631 MT	Recycled for making note pac through third party recycler
2	Plastic waste	64.839 MT	Sent to M/s ACC Limited for co-processing/energy recovery
3	Glass Waste	5.219 MT	Sold to scrap vendor for recycling.
4	Food waste	95.253 MT	Used for making compost for horticulture use.
5	STP Sludge	4.645 MT	Used as manure in horticulture work

### PART-G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production

- DPCL has three nos. of settling pond of capacity about 50,000 m3 is being used for collection of effluent and runoff water form stack yard area. The treated water is further being reused for dust suppression & sprinkling on road.
- Wastewater generated from Port and township is being treated in four nos. of sewage treatment plant (STP) of capacity 150 KLD, 140 KLD, 25 KLD & 15 KLD. The treated water is being used for horticulture/gardening purpose.
- Effluent Treatment Plant is used for treatment of wastewater generated from vehicle washing.
   Treated water from this ETP is again reused for vehicle washing.
- 9 nos. of mechanized road sweeping machines have been deployed for cleaning of road on regular basis.
- 2 nos. mist cannons have been deployed for suppression of fugitive dust emissions.
- Regular monitoring of Ambient Air Quality by a MOEFCC accredited agency to meet the prescribed standard by concerned authority.
- Green belt has been developed inside & outside of the port.
- During the financial year 2020-21, the total amount of Rs. 20.66 Crores was incurred on environmental protection measures.
- 50 KL capacity of rainwater harvesting structure has been developed for reutilization of rainwater in plantation purpose.
- Trawler has been provided to Forest Department, Govt. of Odisha for patrolling purpose for conservation of Olive Ridley turtle.
- Two nos. of rowing boat and one motor boat has been provided to Forest Department, GoO for conservation of Kanika Sand Island.

### PART - H

Additional measures /investment/ proposal for environmental protection including abatement of pollution, prevention of pollution.

### **GHG Emission**

- Shoreline power for Ships, Dredgers & Tugboat berthed at Port
- Use of Renewable Energy (Roof top solar power)
- Switching over to e-machines from diesel operated
- Use of LED Lightings in inside and outside lightings
- Use of automatic sensor fitted lights in roads and common areas
- Usage of Ozone friendly gases in ACs and HVAC systems
- Use of air circuit breaker instead of conventional having SF6

### Air management

- Use of rain guns for fugitive dust suppression at minerals stack yard
- Mechanized Road sweeping machines
- Pre wet system before wagon tippling
- Closed conveyor system.
- Tarpaulin covering of rail wagons at Wagon covering shed
- Wagon cargo loading by closed silo system
- Mechanized handling (loading & unloading) of cargo from ship
- Dust suppression system at conveyor lines and transfer points.
- Water sprinkling on stack yard internal roads
- Dedicated team for housekeeping.
- Use of movable mist cannon for control of fugitive emission.

### Water management

- Zero effluent discharge from Port premises
- Use of 4 nos. of STP for treatment of domestic wastewater
- Reuse of STP treated wastewater for gardening and horticulture purpose
- Use of ETP for treatment of effluent generated at vehicle washing station
- Reuse of ETP treated wastewater for vehicle washing
- 3 nos. settling pond for runoff water treatment
- Reuse of Settling pond treated water for dust suppression and sprinkling on roads
- Installation of water meter for monitoring the water usage
- Use of drip irrigation in gardening and horticulture work
- Installation of 50 KLD rainwater harvesting structure.

### Waste Management

- Achieved zero waste to landfill in case of solid waste
- Energy recovery from plastic waste and hazardous waste by co-processing at ACC Limited.
- Port certified as Single Use Plastic (SUP) free Port by M/s CII.
- Implementation of 5R concept in waste management
- Waste to wealth initiative implemented
- Utilization of STP sludge as manure for horticulture use

### **Bio-Diversity Conservation**

- Around 9 ha of the mangrove area situated at south site of our port is being conserved and protected by declaring the area as no activity zone with proper bamboo fencing and providing material support to maintain the natural ecosystem.
- Further around 4,000 mangroves have been planted for conservation of mangroves.
- DPCL has also developed a nursery with massive numbers of mangrove sapling.
- Degraded forest patch/ gramya jungle adjacent to Port periphery at Amarnagar, Dosinga, Kanakprasad, Rabindranagar & Balisahi village are being developed by planting trees in coordination with forest department, GoO.
- DPCL provides support to Forest department for conservation of Kanika Sand Island.
- Specially designed "dark sky friendly" lights fixed in the port and township area which are turtle friendly.
- Adopting horizontal mounting lights and its periodic checking.
- Mercury vapor lamp and metal halides lamp are prohibited.
- Awareness programmes have been conducted in nearby village as well as inside the port premises by DPCL regarding the conservation of the Sea turtle Olive Ridley, mangrove conservation etc.
- Distribution of plants and seedling among local people for development of green ecosystem.

### PART-I

### Any other particulars for improving the quality of environment:

- Dhamra Port committed to promote a culture seeking continual improvement in Environment performance of the organization.
- Dhamra Port emphasizes on implementing Environment Management System to optimize its resource consumption, improve efficiencies, reduce wastes by adopting 5R principles and enhance operational safety to minimize environmental risks. The environmental concerns are considered and addressed adequately during planning, project development and operations.
- Specialized illumination system in line with "International Dark Sky Association (IDA)" has been installed to avoid illuminating the sky or focusing light towards sea. Sodium vapour lamps are being used instead of mercury lamp. All area lighting, roadway lighting and lighting mounted on masts or other elevated structures are of full cutoff luminaries.
- Deflectors are installed on drag-head of dredgers to keep turtles out of path of dredger.
   Screens are also installed in inflow/overflow pipes of dredgers to monitor turtle entrainment.
   There are observers on Dredgers to ensure implementation of IUCN Dredging Protocol.
- DPCL has made an effective contribution towards Environment Protection, management and conservation during this year.
- Under the inspiration of Prime Minister's Clean India Mission, APSEZ has developed a vision for making itself — "A Zero waste to landfill Company". APSEZ's vision is based on adoption of 5 R's principle of waste management, i.e. Reduce, Reuse, Reprocess, Recycle & Recover.
- 100 % wastewater generated is being reused and recycled.
- Waste camps are being organized in township for collection of waste materials from township residents so as to collect other waste apart from garbage. The main intention is to make the area waste free and for creating awareness among residents.
- DPCL believe in sustainable development and are working in close harmony of biodiversity rich area. We are regularly monitoring our footprints on environment.
- Adopted the 5Rs principle in our Port premises
- Achieved Zero discharge of wastewater.
- Achieved Zero Plastic used inside our Port Premises.
- Single Use Plastic free port declared by M/s CII.
- Waste paper Recycling
- Use of Eco- Friendly product which is made of waste paper.
- Installation of 621 kwp Roof top solar power.

Date: 14-09-2021

(Signature of a person carrying out an industry,

operation or process) Name: Krishna Kumar

Designation: Head Environment

Address: The Dhamra Port Company Limited

At/PO. Dosinga, Via. Dhamra,

Dist-Bhadrak, Odisha

### Annexure 1

