

PPL/Env. Mgt. /F-05/2025-26/79

29th November 2025

The Deputy Director General of Forest (C),
Ministry of Environment, Forest & Climate Change,
Integrated Regional Office,
A/3, Chandrasekharpur,
Bhubaneswar -751023

Sub: Half Yearly EC compliance report for the period from April 2025 to September 2025.

- Ref: i. Environment Clearance vide letter No. 11011/17/86-IA-II dated 23rd July 1990.
 - Environment Clearance vide letter No.- J-11011/251/2003-IA.II (I) dated 02nd December 2004.
 - Environment Clearance vide letter No. J-11011/370/2008-IA. II (I) dated 05th October 2010.
 - Environment Clearance vide letter No. J-11011/370/2009-IA-II (I) dated 27th August 2020.

Respected Sir,

With Reference to the above subject & Environment Clearance, we are submitting herewith the half yearly compliance report for the period from April 2025 to September 2025 along with the relevant annexures for your kind perusal.

Thanking you

Yours faithfully,

For M/s Paradeep Phosphates Limited

Palanisamy Velusamy

Chief Manufacturing Officer & Unit Head

Encl: As above.

- CC: 1.The Member Secretary, Central Pollution Control Board, Paribesh Bhawan, East Arjun Nagar, New Delhi -110032.
 - The Rigonal Director, Central Pollution Control Board, South end conclave, 5th Floor 1582, Rajdanga Main Road, Kolkata-700107
 - The Member Secretary, State, Pollution Control Board, Odisha, A/118, Nilkantha Nagar, Unit-VIII, Bhubaneswar -751012.

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HALF YEARLY EC COMPLIANCE REPORT

For the period from April 2025 to September 2025



PARADEEP PHOSPHATES LIMITED
PARADEEP, JAGATSINGHPUR, ODISHA -754145

STATUS OF COMPLIANCE OF ENVIRONMENTAL CLEARANCE CONDITIONS REF: LETTER No. 11011/17/86-IA-II; DATED. 23rd JULY 1990

Sl. No.	CONDITIONS	COMPLIANCE STATUS
1	The project authority must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government of Odisha.	We are strictly adhering to the stipulations made by the State Pollution Control Board, Odisha and the State Government of Odisha.
1.DAP	PLANT:	
i	All stacks shall confirm to the prescribed norms of 150 mg/Nm ³	The stacks emissions (PM) are well within the prescribed limit. Please refer Appendix - A.
ii	In exigency when waste water cannot be recycled shall discharge to effluent drain leading to the Effluent Treatment Plant.	Effluent is recycled to PAP through close pipeline in case of emergency effluent is being sent to ETP through close pipeline.
2.SULI	PHURIC ACID PLANT:	l.
i	Quantification of Sulphur muck generation, its use in DAP plant shall be done and submitted to the Board.	Quantity of Sulphur muck generation and utilization is being submitted to the State Pollution Control Board regularly on monthly basis.
		Please refer Annexure-I.
ii	Sulphur Dioxide emission through stack shall not exceed 2 Kg/Ton of 100% concentrated acid produced.	SO ₂ emission through stack is well within the prescribed limit.
3 PHO	SPHORIC ACID PLANT :	Please refer Appendix – A.
i	No effluent shall be discharged outside the premises of Phosphoric acid plant except Gypsum pond.	PPL has maintained the closed loop system from PAP Plant to Gypsum Pond and vice versa recycled back to PAP. The plant is not discharging any effluent to outside premises.
ii	The unit shall provide scrubbing arrangements for reduction of fluoride from the gaseous emission.	Scrubbing system has been provided for reduction of fluoride from the gaseous emission.
4.CAP	TIVE POWER PLANT :	
1	DM plant waste water to be neutralized before discharge.	DM plant waste water is being recycled to PAP.
2	Any further expansion of the plant either with existing product or any new product can be taken up only with the prior approval of this Ministry.	Noted and Agreed.
3	The project authorities should come with a proposal for bringing the stack emission levels within standards. An action plan in this regard should be prepared and submitted to this Ministry within a period of one year.	Stack emissions level through all the plants are well within the prescribed standards of CPCB/OSPCB. Please refer Appendix – A.
4	Adequate number (a minimum of 3 to 5) of air quality monitoring stations should be set up in the down-	The following online analysers have been installed in PPL. Details are as under:

	wind direction as well as where the maximum ground level concentration is anticipated. Also stack emission should be monitored by setting up automatic stack monitoring units.	Continuous Ambient Air Quality Monitoring Station -1 near Main gate (Time office). Continuous Ambient Air Quality Monitoring Station -2 near Guest House Continuous Ambient Air Quality Monitoring Station -3 near MOP Silo Continuous Ambient Air Quality Monitoring Station -4 near Rock Silo. Continuous stack emission monitoring analysers are installed at Diammonium Phosphate Plant, Sulphuric Acid Plant and Phosphoric acid plant.
5	There should be no change in the stack design without the approval of the State Pollution Control Board.	Noted.
6	A re-examination of the discharge into river should be undertaken at the time of operation of the plant, and if necessary relocation of discharge points into the coastal water should be envisaged.	PPL has installed a recycling arrangement of the treated water from ETP to PAP and for lime slurry preparation. Zero discharge is achieved at both storm drains during non -monsoon.
7	Cooling tower blow down along with spillages, floor washings etc. from Phosphoric acid plant may be fully treated.	Cooling water blow down of Phosphoric acid plant is recycled to Gypsum Pond in a closed circuit. Washings and spillages are re-circulated to reactor through Gypsum Pond.
8	A comprehensive waste water treatment for treating all the liquid effluents including domestic sewage should be set up.	Two numbers of waste water treatment plants namely Effluent Treatment Plant and Sewage Treatment Plant are in place to take care of the industrial effluent as well as domestic sewage respectively.
9	Routine Toxicity – Bioassay based on the effluent with fish and fish food organisms must be carried out at least once a year.	The Bio-assay study is conducted every year. Report for the year 2025 is enclosed as Annexure-II.
10	Fluoride which present in the effluent should be recovered and converted into useful product within a period of two years, in order to meet the effluent standard stipulated by Orissa State Prevention and Control of Pollution Board.	The effluent generated from the PAP is being collected in the Gypsum Pond which is not allowed to go out of the closed circuit of Phosphoric acid plant; it is re-circulated in the process for recovery of P2O5 and fluorine.
11	Slurry water from ponds should be treated for removal of fluoride and phosphate before recycling.	Gypsum Pond water is being re-circulated in the process to recover phosphate and fluoride present in it. The recycling is an integral part of process.
12	The supernatant liquid from Gypsum Ponds at no stage should be allowed to escape into drains.	The water level in gypsum pond is properly maintained with free board to avoid any overflow of liquid and is recycled continuously

		to PAP.		
13	The treated effluent confirming to the prescribed standards should be utilized for green belt development to the maximum extent possible. The green belt should preferably be developed within the plant boundary.	capacity are the prescribeen insta and lawns has plant around morpremises. Green Be of the tot III.	nd treated water bed limit. Water lled in the Tow for utilization of ed massive plore than 7.2 lak colony area a lt coverage are al area. Please	in STP of 150 m ³ /h quality is well within sprinkler system has mship, plant gardens of treated water. PPI antation comprising hs trees within plant and road side. The ea is achieved 40% refer Annexure —
			enclosed as <i>Appe</i>	
14	A plan for complete utilization of gypsum should be worked out within 3 years and in the interim period. The gypsum has to be stored in ponds and a close monitoring of ground water in the vicinity of ponds has to be carried out.	with prope being sold wells have pond and quality are out. The s	er stack manager to outside partie e been construc close monitori ound Gypsum po	in the Gypsum Pond ment. Some of this is es. Ten number of test eted around Gypsum ing of ground water and are being carried opsum /utilization for ws;
		GYPSUM	GENERATION, CO	NSUMPTION & SALE
		MONTH	GENERATION (MT)	CONSUMPTION/ SOLD (MT)
		Apr-25	156100	112986
		May-25	176150	129414
		Jun-25	230950	133367
		Jul-25	200450	130407
		Aug-25	183200	109280
		Sep-25	218150	107407
		TOTAL	1165000	722861
		240 TPD utilization is made by	is installed an of Gypsum. Al Gypsum in cor as a pilot project	nt having capacity of d commissioned for so 1200 meters Road isultation with CPCE t which has approved
15	A preliminary study on the radioactivity level in gypsum and its likely impact on the environment should be carried out within six months.	As per shipment produced of U-238 within the	the MoEF&C of rock phosp gypsum sample & Ra -226. The	C condition every hate along with its sare being analyzed test results are well e is no impact on the Annexure -IV.

Half - Yearly Compliance Report (April 2025 - September 2025)

16	A detailed risk analysis study should be undertaken. Disaster management plan should be prepared after risk assessment within six months.	Already Complied. Please refer Annexure-V.
17	A separate Environment Management Cell with suitable qualified people to carry out various functions related to environmental management should be set up under the control of a Senior Technical Personnel who will report directly to the head of the organization.	A full-fledged Environment Management Section consisting of qualified personnel under a senior technical person has been set up for the periodical monitoring of all environmental related jobs in the plant.
18	The project authorities must set up a laboratory facility for collection and analysis of samples under the supervision of competent technical personnel who will directly report to the Chief Executive.	A well-equipped and full-fledged Environment Management laboratory with NABL accreditation is set up with latest and sophisticated modern analytical instruments for the measurement and analysis of Environmental parameters. The results are informed to the top management as well as the concerned in charge.
19	The project authority will provide adequate funds for environmental control measures along with implementation schedule for all the conditions stipulated above.	Adequate funds have been provided for environmental control measures.
20	The Ministry or any other competent authority may stipulate any further condition after reviewing the impact assessment report or any other reports prepared by the project authority.	Noted.
21	The Ministry may revoke clearance if implementation of the stipulated conditions is not satisfactory.	Noted.
22	The above conditions will be enforced interalia under the Water (Prevention and Control of Pollution) Act, 1974, The Air (Prevention and Control of Pollution) Act, 1981 and Environment (Protection) Act, 1986 along with their amendments.	Noted.

STATUS OF COMPLIANCE OF ENVIRONMENTAL CLEARANCE CONDITIONS FOR RETROFITING OF PHOSPHORIC ACID PLANT (PAP) FROM 750MTPD TO 1400MTPD & INSTALLATION OF ADDITIONAL TRAIN OF 2000 MTPD SULPHURIC ACID PLANT REF: LETTER No- J-11011/251/2003-IA.II (I); DATED. 02nd DECEMBER 2004

A. Specific Conditions:

Sl. No.	CONDITIONS	COMPLIANCE STATUS
1	The gaseous emissions from various process units should conform to the standards prescribed by the concerned authorities from time to time. The State Pollution Control Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission levels should go beyond the prescribed standards. In the event of failure of pollution control system (s) adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.	Being Complied. Gaseous emission level from various process units of the Plant confirms the prescribed norms of CPCB/OSPCB. Adequate air pollution control devices are installed and commissioned to take care of the gaseous emissions. Monitoring report of gaseous emission from various process units is enclosed as Appendix-A.
2	The effluent generation shall not exceed 1860 m3/d in the proposed expansion. The company shall totally utilize the treated effluent by undertaking recycling/ reuse measures. In the existing plant, the waste water generation shall be 1632m3/d. The waste water after treatment after confirming to the prescribed standards shall be discharged into Atharabanki river. The company shall construct guard pond at the outlet of treatment plant before final discharge of effluent into Atharabanki river. The Bio-assay test should be carried out to assess the toxicity of the treated waste water. The treated sewage should be utilized for green belt development.	Effluent generated from plant is treated in ETP and treated water quality is well within the prescribed limit. Treated water is being used in PAP. Zero liquid discharge is maintained during non—monsoon. Treated sewage is being utilized for green belt development. The Bio-assay study is conducted every year. Report for the year 2025 is to be provided in the next Half yearly report.
3	The company shall achieve SO ₂ emission of 1Kg/Ton of Sulphuric acid produced. The acid mist emission should confirm to the prescribed standard of 50 mg/Nm3. The stack height for the Sulphuric acid plant shall be provided as per the guidelines and on the basis of normal plant operations. The scrubbed gases should be let out at the same height of the plant.	The plant is designed to achieve SO ₂ emission less than 1Kg/Ton of Sulphuric acid produced and maintains the same accordingly. The acid mist emission is well within the prescribed limit of 50 mg/Nm3. Pl refer Appendix-A. The stack height for the Sulphuric acid plant has been designed as per the guidelines which is 120 meter height from the ground level. The scrubbed gas passes through the same.
4	To control the total fluoride emission within the prescribed standards of 25mg/Nm3 in the Phosphoric acid plant, the company shall provide fume scrubber system to scrub the fluoride.	Fumes Scrubber has already been installed and commissioned to control the fluoride emission in the Phosphoric acid plant. We are regularly monitoring the fluoride in the stack and results are found well within the prescribed standard. Pl refer Appendix – A.

		Fumes Scrubber
5	The company shall explore the possibility and technical feasibility of treating Hydrofluorosilisic acid and intimate to this Ministry.	The plant has been installed and commissioned the Fluorine Recovery Unit (FRU) to take care of Hydrofluorosilisic acid.
6	The company shall continuously monitor the SO2 emission in both the Sulphuric acid plant streams at the same time. The emission from the Sulphuric acid plant shall be controlled by installation of alkali scrubber. Monitoring of SO2 and fluorine should be carried out continuously as per the Central Pollution Control Board guidelines.	SO ₂ emission level is being monitored through online continuous SO ₂ analyzer and real time data is being transmitted to the OSPCB and CPCB server. Alkali scrubber has been provided to control emission from Sulphuric acid plant. Online HF analyzer has been installed and commissioned in Phosphoric acid plant stack.
7	Waste heat generated during Sulphur burning shall be utilized for power generation	In Sulphuric acid Plant during Sulphur burning, the waste heat is being recovered through waste heat recovery boiler for power generation.
8	The gypsum pond shall be provided with proper lining at the bottom as well as side of the dykes. Accumulated gypsum shall be properly capped. The low —lying areas in the south of gypsum pond should be rehabilitated. The Sulphur muck should be disposed off in the impervious lined pit. The project should take immediate measures to remove the gypsum from the channels in the existing ponds so that adequate space in the channel is available for leachate collection especially during monsoon. The leachate should be sent to ETP for further treatment. Further a new gypsum storage pond properly lined with HDPE along with drainage channel should be constructed for gypsum disposal. The ground water quality around the gypsum disposal area should be monitored and data submitted to the Ministry.	The Sulphur muck is being reused in DAP plant as filler. The old gypsum pond -1 is not in use. Gypsum Pond -2 has been constructed with HDPE lining as per guidelines of CPCB guideline which in operation. PPL is selling gypsum to cement industries and gypsum board factories. In addition to this PPL has been installed and commissioned the 240 TPD Zypmite plant for utilization of gypsum.

9	Green belt of adequate width and density in 25% of the plant area should be provided to mitigate the effects of fugitive emission all around the plant. The development of green belt should be consultation with the DFO as per the CPCB guidelines.	PPL has planted massive plantation comprising around more than 7.2 lakhs trees within plant premises, colony area and road side. The Green Belt coverage area is achieved 40% of the total area. Please refer Annexure-III.
10	The company should take measures for the harvesting of rain water to recharge the ground water.	The average ground water table in the project area is 2 to 3 meters below ground level. During rainy season almost all open area are submerged. PPL has number of open ponds inside PPL Township which naturally receive surface runoff of the township area during rainy season and recharge the ground water.
11	Recommendations made in the Risk Assessment report for the risk mitigation should be strictly complied with.	Already Complied. Please refer Annexure -V.
B. Ger	neral Conditions:	
Sl. No.	CONDITIONS	COMPLIANCE STATUS
1	The project authority shall strictly adhere to the stipulations of the Orissa Pollution Control Board.	The plant is strictly adhering to all stipulations of statutory bodies relevant to the plant.
2	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alteration in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted.
3	The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January,2000. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety inspectorate etc. must be obtained.	We are strictly complying with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000.
4	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of Hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 2003. Authorisation from State	The Plant is being complied with the rules and regulations concerning handling and disposal of Hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 2003.

	Pollution Control Board must be obtained for collection/treatment/storage /disposal of hazardous wastes.	Authorisation obtained from OSPCB, Odisha vide no - IND-IV-HW-02/68/2, dated 31.03.2025 is valid up to 31-03-2027.
5	The overall noise levels in and around the plant area should be kept well within the standards (85dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should confirm to the standards prescribed under EPA rules,1989 viz. 75dBA(day time and 70 dBA (night time).	Necessary measures are taken by the Plant to keep the work zone and ambient noise level well within the limit. Noise monitoring report is enclosed as Appendix - A.
6	Occupational health surveillance programme should be undertaken as regular exercise for all the employees, especially for those engaged in handling hazardous substances. The first Aid facility in the occupational health centre should be strengthened and the medical records of each employee should be maintained separately.	Occupational health surveillance of the workers is being carried out on a regular basis and records are being maintained. During the year 2024-25 medical checkup has been done for 669 Nos. of Employees and 2656 Nos. of contract workers.
7	The project proponent should have a scheme for social upliftment in the surrounding villages with reference to contribution in road construction, education of children festivals, health centre sanitation facilities, drinking water supply community awareness and employment to local people whenever and wherever possible both for technical and nontechnical jobs.	M/s. PPL has taken various initiatives for the socio-economic development of its surrounding villages. CSR report for the year 2025-26 shall be submitted in the next half year report.
8	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA and Risk Analysis Report.	Already Complied. Please refer Annexure -V.
9	A separate Environment management cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and monitoring functions.	Environment management cell with full-fledged laboratory facilities is already in place.
10	The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment & Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purpose.	M/s. PPL has provided adequate funds and no fund is diverted to any other purpose.

11	The implementation of the project vis-a-vis environmental action plans will be monitored by Ministry's Regional Office at Bhubaneswar / State Pollution Control Board / Central Pollution Control Board A six monthly compliance status report should be submitted to monitoring agencies.	We are submitting six monthly compliance status report to Ministry's regional office at Bhubaneswar/ State Pollution Control Board/ Central Pollution Control Board.
12	The project proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in . This should be advertised within seven days from the date of issue of the clearance letter at least in two local News papers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office.	Already Complied.
13	The project authorities should inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work if any.	Already Complied.

COMPLIANCE OF CONDITIONS OF ENVIRONMENT CLEARANCE FOR ENHANCEMENT OF PRODUCTION CAPACITY

REF: LETTER No - J-11011/370/2008-IA.II (I); DATED. 05th OCTOBER 2010

A. Specific Conditions:

Sl. No.	Conditions	Compliance status
1	The company shall comply with all the conditions stipulated in the environmental clearance issued vide letter no. J -11011/17/86-IA-II dated 23 rd July ,1990.	We are submitting herewith the separate compliance status of environmental clearance issued vide letter no. J -11011/17/86-IA-II dated 23 rd July, 1990.
2	On line SO2, NOx and NH3 analyzer shall be installed to monitor ambient air. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. Nom 826(E) dated 16th November, 2009 shall be followed.	On line Ambient Air Quality monitoring stations for SO2, NOx and NH3 have been installed and commissioned. The real time data thus generated is meeting the prescribed standards. Please refer <i>Appendix – A</i> .
3	The gaseous emissions (PM2.5, PM10, SO2, NOx, HCl, and NH3 and urea dust) from various units shall conform to the prescribed standards. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system (s) adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.	We are strictly monitoring the gaseous emissions from various units. It is observed that the emission levels are well within norms. Please refer Appendix – A. Monitoring of parameters like HCL & Urea dust are not applicable to our Industry since we are not manufacturing Urea.
4	As proposed, wet scrubbing system to DAP and Alkali scrubbing system to PAP plant shall be provided to control fluoride and emissions. Cyclones, Venturi scrubbers and mist eliminators along with stack of adequate height shall be provided to DAP plant to control particulate emissions. Alkali scrubber shall be provided to Sap unit to control SO2 and SO3 .V2O5 catalyst and candle filters shall be provided to SAP unit to improve efficiency and reduce emissions. PM2.5, PM10, SO2, NOx, HCl,NH3 and fertilizer dust emissions shall be monitored.	Wet scrubbing system at DAP plant, fumes scrubbing system at PAP Plant have been installed and commissioned to control fluoride and emissions. Cyclones, Venturi scrubbers and mist eliminators along with stack of adequate height have been provided to DAP plant to control particulate emission. Alkali scrubber has been installed and commissioned in SAP Plant to control SO ₂ and SO ₃ .
5	Double Contact Double Absorption (DCDA) process shall be adopted in Sulfuric Acid Plant (SAP). Continuous SO2 monitoring system shall be provided in the stack of SAP unit. Fluorine Recovery Unit (FRU) shall be installed for recovering Fluoro- silicic acid and fluoride levels shall be monitored in ambient air.	Double Contact Double Absorption (DCDA) process has been adopted in Sulfuric Acid Plant (SAP). Continuous SO ₂ monitoring system in stack of SAP unit has been provided. Fluorine Recovery Unit (FRU) has been installed and commissioned.

6	Fugitive emissions from different sources shall be controlled, regularly monitored and reports submitted to the Regional Office at Bhubaneswar. To control fugitive emissions, regular monitoring of sub floor environment shall be carried Leakages in form of gases, liquid and dust emission shall be checked and mitigative measures taken. The company shall provide de-dusting system at all the transfer points in the bagging system.	Bag filters are installed at all the transfer points from Jetty to Plant to control fugitive emissions. We are monitoring fugitive emissions from different sources regularly. The six monthly monitoring report is herewith enclosed as Appendix - A.
7	The company shall upload the status of compliance of the stipulated environmental clearance conditions including results of monitored data on its web site and shall update the same periodically. It shall simultaneously be sent to the Regional office of MoEF, the respective zonal office of CPCB and the Orissa Pollution Control Board. The levels of RSPM (PM10,PM2.5), NH3 and NOx (ambient levels) and emissions from the stacks shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.	Compliance status of the stipulated environmental clearance conditions including results of monitored data is being uploaded on our company web site. The same data is being submitted to Regional office of MoEF, CPCB and State Pollution Control Board Odisha respectively. We are monitoring the levels of RSPM (PM10, PM2.5), NH3 and NOx (ambient levels) and emissions from the stacks. The same data are being displayed at our main gate of the company through electronic digital display board.
8	Specific energy consumption shall not exceed 5.127G.cal/MT of Urea production. Optimization of cycle of concentration (COC) to 6 and blow down frequency from the cooling towers shall be reduced.	This condition is not applicable to our industry since we are not manufacturing Urea.
9	Steam stripping system shall be installed in the ammonia plant to recover ammonia as well as bottom water from condensate.	This condition is not applicable to our industry since we are not manufacturing ammonia
10	Total water requirement from Taladanda Canal shall not exceed 15,000 m3 /day and prior permission shall be obtained for drawl of water from the competent authority. A copy of permission shall be submitted to the Ministry's Regional Office at Bhubaneswar within 3 months of issue of environment clearance letter.	Agreement letter regarding drawl of water from water resources department, Govt. of Odisha is enclosed as <i>Annexure-VI</i> .
11	All the pond water shall be completely recycled and reused. Zero discharge shall be adopted and no waste water shall be discharged outside the premises.	We are recycling all the Gypsum Pond water to process. Effluent Treatment Plant has been installed for treatment of waste water. Zero discharge is adopted and no waste water is being discharged outside the premises.
12	The specific water consumption and waste water generation shall not exceed 5.1 m3/MT of urea and 0.9 m3/MT of urea respectively. Accordingly the company shall undertake measures for water conservation.	This condition is not applicable to our industry since we are not manufacturing Urea.

13	The waste water from Phosphoric acid Plant (gypsum slurry) shall be sent to gypsum pond. The overflow from PAP, DAP plant, Offsite and entire effluent from SAP shall be treated in effluent treatment plant (ETP). The waste water from Captive Power Plant (CPP) shall be treated in neutralization tank. Waste water from the existing Gypsum pond shall be pumped to ETP for further treatment. Treated water from ETP shall be reused in Ball Mill of PAP. The Sewage and all other effluents shall treated in the Sewage treatment plant (STP) and used for green belt development after meeting the norms specified by CPCB and OSPCB.	We are sending the waste water from Phosphoric acid Plant (gypsum slurry) to gypsum pond. The washings from PAP, DAP plant, Offsite and entire effluent from SAP is being treated in effluent treatment plant (ETP) and treated water is used in Ball mill of PAP. The waste water from Captive Power Plant (CPP) is being treated in neutralization tank. STP has been provided for sewage effluent treatment and treated water is being reused for green belt development after meeting the norms specified by CPCB and OSPCB.
14	Ground water shall be monitored in around the project site through peizometer wells as per CPCB guidelines.	Piezometers are installed and ground water is being monitored.
15	Another gypsum pond with protective liner shall be constructed as per recommendations of NEERI as per CPCB guidelines.	New gypsum pond is constructed with protective liner (HDPE) as per CPCB guidelines.
16	Phospho gypsum shall be sold to cement manufacturers or a granulation plant shall be installed as proposed to utilize Phospho gypsum.	Phospho gypsum is sold to cement manufacturers. We have installed Zypmite plant of capacity 240 TPD and received Consent to Operate. The plant is running successfully.
17	Spent Catalyst (V2O5) shall be properly stored as per the CPCB guide lines and disposed off to TSDF. Sulfur muck and ETP sludge shall be reused in-house as filler in DAP plant. Spent resin from DM plant shall be sold to authorized agency. Used or spent oil shall be disposed off to authorized re-processor.	Spent Catalyst and Spent Resin has been properly stored and disposed off in PPL Engineering Landfill area. We are reusing Sulfur muck and ETP sludge in-house in DAP plant. Used oil is being disposed to authorized re-cycler/re-processor.
18	As proposed green belt shall be developed in 854 acres (37%) out of 2282.4 acres.	PPL has planted massive plantation comprising around more than 7 lakhs trees within plant premises, colony area and road side. The plant has installed water sprinkler system in the Township, plant gardens and lawns. The Green coverage area is achieved 40% of the total area. Please refer Annexure-III.
19	Action plan prepared for the complete remediation of the site shall be implemented in consultation with NEERI within 5 years of the issue of this environment clearance and six monthly report submitted to the Ministry and its Regional Office at Bhubaneswar.	Already Complied. Please refer Annexure-VII.

20	All recommendation mentioned in the risk assessment report shall be implemented in a time bound manner and an action plan shall be prepared and submitted to the Ministry and its Regional Office at Bhubaneswar.	Complied. Please refer Annexure -V.
21	Risk analysis shall be done again after one year and report submitted to the Ministry and its Regional Office at Bhubaneswar. Efforts shall also be made to reduce risk mentioned in the risk assessment report.	Complied. Please refer Annexure -V.
22	The ammonia unloading arms in the jetty shall be provide with "Quick release couplings" for automatic disconnection of ships from unloading arm during unloading in case of bad weather.	"Quick release coupling" has already been provided in ammonia unloading arms in the jetty.
23	Total quantity of ammonia storage in the plant shall not exceed 40,000Tons at a time.	Total quantity of ammonia storage in the plant is not exceeding 40,000Tons at a time.
24	The company shall undertake adequate protection measures for handling of ammonia vapor in case of plant upset condition. Safety valve exhaust and drains shall be connected to flare and vent stack. During transfer of materials spillage shall be avoided and garland drains shall be constructed to avoid mixing of accidental spillage with domestic waste and storm drains.	Ammonia flare system is installed and commissioned for handling of ammonia vapor in case of plant upset. Safety valve exhaust and drains has been connected to flare and vent stack. Garland drains have been constructed to avoid mixing of accidental spillage with domestic waste and storm drains.
25		
26	Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the Factories Act.	Occupational health surveillance of the workers is being carried out on a regular basis and records are being maintained. During the year 2024-25 medical checkup has been done for 669 Nos. of Employees and 2656 Nos. of contract workers.
27	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for fertilizer industries shall be implemented.	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for fertilizer industries have been implemented. Please refer <i>Annexure -VIII</i> .
28	Provision shall be made for the housing of construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied.

B. General Conditions:

Sl. No.	CONDITIONS	COMPLIANCE STATUS	
1.	The project authority shall strictly adhere to the stipulations of the Orissa Pollution Control Board (OPCB) / State Government or any statutory body.	We are strictly adhering to all stipulations of the statutory bodies relevant to our plant.	
2	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alteration in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.		
3	The gaseous emissions (SO2, HCl, NOx, NH3, fertilizer dust) and particulate matter from various process units shall conform to the standards prescribed by the concerned authorities from time to time, Emission data shall be periodically monitored and reports submitted to Ministry's Regional office at Bhubaneswar, CPCB and OPCB.	We are strictly monitoring the gaseous emissions (PM25, PM10, SO2, NOx and NH3, fertilizer dust) from various units. Results of the same are well within the prescribed standards. Half yearly reports are being submitted to the Ministry's Regional office at Bhubaneswar, CPCB and OPCB. Monitoring of HCL is not applicable to us.	
4	All the waste waters generated from the various processes shall be recycled/reused in the plant and zero discharge shall be maintained. The domestic waste water shall be treated in septic tanks and treated waste shall be used for irrigation in the green belt.	All the waste water generated from DAP plant is recycled to process itself. Further, adequate Effluent Treatment Plant has been provided to treat all the waste water from other processes and the treated water is being used in the plant. STP has also been provided to treat the domestic waste water and treated water is used for greenbelt development.	
5	At no time the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	It is being complied.	
6	The locations of ambient air quality monitoring stations shall be reviewed in consultation with the OPCB and additional stations shall be installed, if required, in the down wind direction as well as where maximum ground level concentrations are anticipated.	We have already reviewed the existing locations in consultation with the SPCB Odisha officials and four Nos. of online AAQMS (Ambient air quality monitoring station) have been installed.	

7	Dedicated scrubbers and stacks of appropriate height as per the Central Pollution Control Board guidelines shall be provided to control the emissions from various vents. The scrubbed water shall be sent to ETP for further treatment.	Scrubber and appropriate height of stacks are provided as per CPCB guidelines for control of emissions. All scrubbed water is taken to ETP for further treatment.
8	All the storage tanks will be under negative pressure to avoid any leakage. Breather valves, N2 Blanketing and secondary condensers with brine chilling system shall be provided for all the storage tanks to minimize vapor losses. All liquid raw materials shall be stored in Storage Tanks and drums.	All the Storage Tanks are operated and maintained as per design parameters & conditions provided by the manufacturer. All liquid raw materials are stored in Storage Tanks and drums.
9	The company shall undertake following Waste Minimization measures: Metering and control of quantities of active ingredients to minimize waste. Reuse of by products from the process as raw materials or as raw material substitute in other processes. Use of automated filling to minimize spillage. Use of closed feed system into batch reactors. Venting equipment through vapor recovery system Use of high pressure hoses for equipment cleaning to reduce waste water generation.	Waste Material taken as filler in DAP plant are Sulphur Muck, Storm water drain sludge & ETP sludge. New initiatives have been implemented to minimize the waste.
10	Fugitive emissions in work zone environment, product and raw material storage area shall be regularly monitored. The emissions shall conform to the limits imposed by the State Pollution Control Boards/ Central Pollution Control Board.	We are regularly monitoring the fugitive emissions. Results of the same are within the prescribed standards. Last six months data for the same is mentioned under special condition no.6 as above.
11	The project authorities shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 as amended time to time.	We are abiding by all the rules as mentioned under Manufacture. Storage and Import of Hazardous Chemicals Rules, 1989 and Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 as amended time to time.
12	The overall noise levels in and around the plant area shall be kept well within the standards by noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under Environment (Protection) Act' 1986 Rules' 1989 viz. 75dBA (day time) and 70 dBA (night time).	Stationary noise levels are being monitored at different locations of the plant. Acoustic hoods, silencers, enclosures etc. are provided to control the noise level. Monitoring data of Ambient & Work Zone noise levels is enclosed here with as Appendix – A.

13	The company shall develop rain water harvesting structures to harvest the runoff water for recharge of ground water.	The average ground water table in the project area is 2 to 3 meters below ground level. During rainy season almost all open area are submerged. PPL has number of open ponds inside PPL Township that naturally receive surface runoff of the township area during rainy season and recharge the ground water.
14	The company shall undertake eco developmental measures including community welfare measures in the project area for the overall improvement of the environment. The eco development plan should be submitted to the SPCB within three months of receipt of this letter for approval.	Complied
15	A separate Environment management cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and monitoring functions.	Environment management cell is already in place with full-fledged laboratory facilities. It carries out all relevant Environmental Management and monitoring functions. Our Environment laboratory is also NABL accredited.
16	As proposed, Rs 25.02 Crores and Rs 1.24 Crores shall be ear marked towards capital cost and recurring cost / annum for pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State government along with the implementation schedule for all the conditions therein. The funds so provided shall not be diverted for any other purpose.	Noted and being complied.
17	The implementation of the project vis-à-vis environmental action plans shall be monitored by the concerned Regional Office of the Ministry / OPCB/CPCB. A six monthly compliance status report shall be submitted to monitoring agencies and shall be posted on the website of the company.	We are submitting six monthly compliance status reports to MoEF&CC, OSPCB, CPCB and uploading the same data in website of the company.
18	A copy of the clearance letter shall be sent by the proponent to the Panchayat, Zila Parishad/ Municipal Corporation, Urban local Body and the local NGO, if any from whom suggestions / representations, if any were received while processing the proposal.	Already Complied.
19	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by	It is being complied.

	e mail) to the respective Regional Office of MoEF&CC, the respective zonal office of CPCB and the Orissa Pollution Control Board.	
20	The environmental Statement for each financial year ending 31 st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986 as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional offices of MoEF by e-mail.	The environmental Statement for each financial year ending 31 st March in Form-V is being submitted to the State Pollution Control Board Odisha and the same is being displayed in the company website.
21	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the OPCB/Committee and may also be seen at website of the Ministry at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional office of the Ministry.	Complied.
22	The project authority 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 and the date of start of the project.	Already Complied.

COMPLIANCE TO THE CONDITIONS OF ENVIRONMENT CLEARANCE FOR EXPANSION OF FERTILIZER MANUFACTURING UNIT BY M/s, PARADEEP PHOSPHATE LIMITED AT PPL TOWNSHIP, DISTRICT – JAGATSINGHPUR, ORISSA.

REF: LETTER No - J-11011/370/2009-IA-II (I); DATED. 27th AUGUST 2020

A. Specific Conditions:

Sl. No.	CONDITIONS	COMPLIANCE STATUS
1.	The Company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management and risk mitigation measures relating to the project shall be implemented.	It is being complied.
2.	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening /green belt development/horticulture.	Zero Liquid Discharge is being maintained and treated effluent is used reused in the process. No waste/treated water is discharged outside the premises.
3.	3. Continuous Online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge & the pollutants concentration and the data to be transmitted to the CPCB & SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	
4.	Total fresh water requirement shall not exceed 1276 cum/hr, proposed to be met from the Taladanda Canal. Prior permission in this regards shall be obtained from the concerned regulatory authority.	Noted. Total fresh water quantity shall not exceed 1276 cum/hr.
5.	Process effluent/any waste water shall not be allow to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.	
6.	Occupational health center for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers and employees shall be provided with required safety kits/mask for personal protection.	Occupational health center for surveillance of the worker's health has set up. The health data is used in deploying the duties of the workers. All the required PPE's are provided for workers & employees.

7.	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.	Training is imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training is also provided to employees on regular basis.	
8.	The unit shall make arrangements for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting systems shall be as per the norms.	Arrangements are made for protection of possible fire hazards. Firefighting systems are implemented as per the norms.	
9.	The Project Proponent shall undertake waste minimization measures as below: (a) metering and control of quantities of active ingredients to minimize waste, (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes, (c) Use of automated filling to minimize spillage, (d) Use of close feed system into batch reactors, (e) Venting equipment through vapor recovery system, (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.		
10.	The green belt of at least 5 -10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of the tree canopy shall be monitored through remote sensing map.	The plant has developed greenbelt more than 40% of the total area with plant species in consultation with the Forest dept.	
11.	As committed Rs. 27.64 Crores shall be allocated for Corporate Environment Responsibility (CER), and shall be utilized for meeting the commitment of issues raised during public consultation / hearing. The CER plan shall be completed before commissioning/expansion of the project.	Noted, allocated fund shall not be diverted for any other purpose.	
12.	A separate Environmental Management Cell (having qualified person with Environmental Science/ Environmental Engineering/ specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the environmental management and monitoring functions.	A separate Environmental Management Cell (having qualified person with Environmental Science/ Environmental Engineering/ specialization) equipped with full-fledged NABL accredited laboratory is in place to carry out the environmental management and monitoring functions.	
13.	The Project Proponent shall implement site specific conservation plan and wild life management plan for the presence of Schedule - 1 species in the study area. The recommendations shall be implemented in consultation with the State Forest/Wildlife Department in a time bound manner.	Noted.	

14.	The Project Proponent has agreed to install 1 MW Solar Power Unit.	Noted and agreed, presently 256 KW Solar Power Unit has installed and 1 MW solar power in under process.	
B. Gen	eral Conditions:	E AFR	
Sl. No.		COMPLIANCE STATUS	
1.	No further expansion or modifications in the plant other that mentioned in EIA Notification, 2006 and its amendments shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alternations in the project proposal from those submitted to the Ministry/SEIAA, as applicable, to access the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable.	
2.	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	Complied.	
3.	The overall noise levels in and around shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under the Environment (Protection) Act, 1986, Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	It is being maintained. Pl refer Appendix -A	
4.	The company shall undertake all relevant measures for improving the Socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administrations and shall be implemented. The company shall undertake eco- developmental measures including community welfare measures in the project area for the overall improvement of the environment.	c ss ss 1. al	
5.	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management pollution control measures shall not be diverted for any other purpose	It is being complied. The earmarked funds for environment management pollution control measures are not diverted for any other purpose.	

	project proponent to the concerned Panchayat, Zila parishad/municipal corporation, urban local body and the NGO, if any from whom suggestions/ representations, if any, were received while processing the proposal.	Complied.
7.	The project proponent shall also submit six monthly on the status of compliance of the stipulated Environmental Clearance conditions including result of monitoring data (both in hard copies as well as e-mail) to the respective Regional Office of MOEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Being complied.
8.	The Environmental Statement for each financial year ending 31st March in FORM - V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of the Environmental Clearance conditions and shall also be sent to the respective Regional Offices of MOEF&CC by e-mail.	Being complied.
9.	The project proponent shall inform the public that the project has been accorded Environmental Clearance by the Ministry and the copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of Ministry and at https://parivesh.nic.in/. This shall be advertise within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Already published in newspaper as under PARADEEP PHOSPHATES LIMITED PL Javaharlal Notro Marg. Brubaneswal 2751 001 PUBLIC NOTICE This has to inform all that Me Paradese Phosphates Limited has received Environment Clearance from Ministry of Environment, Forest and Climate Change for expansion of like Fertilizer manufacturing unit for existing DAP Plant from 1.5MMTPA to 1.9MMTPA and now Coal Handling Plant of 7.0MMTPA. Ammoniam Nitrate Plant of 0.35MMTPA. Nitric Abid Plant of 0.33(0.05MMTPA Cond.Nit Abort GBSP Plant of 0.34(0.05MMTPA Cond.Nit Abort GBSP Plant of 0.35MMTPA Ammoniam Nitrate Plant of 0.35MMTPA. Nitric Abid Plant of 0.33(0.05MMTPA Cond.Nit Abort GBSP Plant of 0.35MMTPA and Atuminium Fluoride Plant of 9500 MMTPA. The copy of the clearance letter is available with OSPCB / Controlles and also may be seen at website of the Ministry www.mosf.gev.in and at https://parivesh.nic.in/
		PARADEEP PHOSPHATES LIMITED Pt. Jawahada Nahru Marg. Bhubanaswar - 751 001।

Half - Yearly Compliance Report (April 2025 - September 2025)

10.	The project authorities 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 and the date of start of the project.	Complied, already informed.	
11.	This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	Noted.	

LIST OF ENCLOSURES

APPENDIX - A	SIX MONTHLY MONITORING REPORT
ANNEXURE - I	SULPHUR MUCK GENERATION & UTILIZATION
ANNEXURE - II	BIO -ASSAY (TOXICITY) STUDY
ANNEXURE - III	PLANTATION & GREEN BELT
ANNEXURE - IV	RADIOACTIVITY REPORT
ANNEXURE - V	RISK ANALYSIS REPORT
ANNEXURE - VI	WATER WITHDRAWAL AGRREMENT
ANNEXURE - VII	NEERI COMPLIANCE REPORT
ANNEXURE - VIII	CREP INITIATIVES
	ANNEXURE - II ANNEXURE - III ANNEXURE - IV ANNEXURE - V ANNEXURE - VI ANNEXURE - VI



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CIN: U51109WB1931PTC007007



TEST REPORT

Certificate No. AP-AAQ/25-26/054		Issue Date : May 03, 2025	Page 1 of 1
Issued to	: M/S. PARADEEP PHOSPHATE LTD.		
Address	: Paradeep, Odisha		
Your Ref. No.	: 5500007609, dtd. 16.08.2024		
Sample Description	1 Ambient Air	Equipment used:	
Sample ID No.	: AP-AAQ/25-26/054	Ambient Fine Dust Sampler	
Name of Industry / Site	: M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha	ID No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: Resperible Dust Sampler	20.01.26
Sampling Location	: Near AAQMS # 01	ID No.: RVB/RDS/APM460/BU/05, Cal. Valid u	pto: 02.11.25
Date & Time of sampling	: 25.04.2025 (10:15 A.M.)-26.04.2025 (10:15 A.M.)	Environmental condition	5
Duration of Sampling	: 24Hrs.	Weather Condition: Clear	
Sampling Plan :	: RVB/FM/45	Temperature: Max: 37.0°C & Min: 27.0°C	
Sampling Carried out by	: Mr. Souvik Banerjee	Barometric Presure: 755 mmHg	

Sampling Carried out by : Mr. Souvik Banerjee

Method of Sampling : As per CPCB guidelines (Volume-I)

: 26.04.2025 Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3, Analysis Started on CO, Pb, Ni, As, CeHe, BaP Analysis Completed on : 03.05.2025

TEST FINDINGS:-

SI. No.	Harris Control of the	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE 8 F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	57.1	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	60.5	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.30	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	15.16	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	13.71	180 (1 Hourly.)
6.	Ammonia as NH ₃	SCP No.: RVB/SCP/01/10 (Indophenol Method) issue No. 04, Issue Date: 10.01.2018	µg/m³	15.01	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispersive Infra-Red (NDIR) spectroscopy	mg/m ³	0.743	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.091	1.0 (24 Hourly.)
9.	Nickel as Ni	SCP No.: RVB/SCP/01/15 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<5.0	20
10.	Arsenic as As	SOP No.: RVB/SOP/01/16 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	0.371	6.0
11.	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	1.27	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit Nicket 5 ng/m3, Arsenic 0.25 ng/m3, Benzene 1 µg/m3 & Benzo(a)Pyrene 0.5 ng/m3

Report Verified by

Reviewed & Authorised by

Kkar (Dr. R. KARIM)

Technical Manager **Authorised Signatory**

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

Results relate only to the parameters tested.

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

Certificate No. AP-AAQ/25	-26/055	Issue Date : May 03, 2025	Page 1 of
Issued to	: M/S. PARADEEP PHOSPHATE LTD.		
Address	: Paradeep, Odísha		
Your Ref. No.	: 5500007609, dtd. 16.08.2024		
Sample Description	: Ambient Air	Equipment used:	
Sample ID No.	: AP-AAQ/25-26/055	Ambient Fine Dust Sampler	
Name of Industry / Site	: M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha	ID No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 2 Resperble Dust Sampler	0.01.26
Sampling Location	: Near AAQMS # 02	ID No.: RVB/RDS/APM460/BL/05, Cal. Valid up	Ao: 02.11.25
Date & Time of sampling	: 24.04.2025 (10:00 A.M.)-25.04.2025 (10:00 A.M.)	Environmental conditions	5
Duration of Sampling	: 24Hrs.	Weather Condition: Clear	**
Sampling Plan :	: RVB/FM/45	Temperature : Max: 37.0°C & Min: 27.0°C	
Sampling Carried out by	: Mr. Souvik Banerjee	Barometric Presure: 755 mmHg	
Method of Sampling	: As per CPCB guidelines (Volume-I)	10130 CONSTITUTE	
Analysis Started on	: 26.04.2025	Parameters Tested: PM25, PM10, SO2,	NO ₂ , O ₃ , NH ₃ ,
Analysis Completed on	: 03.05.2025	CO, Pb, Ni, As, CeHe, BaP	

TEST FINDINGS:-

SI. No.	US000000000000000000000000000000000000	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	54.2	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	59.1	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.66	80 (24 Hourly.)
4,	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	19.49	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	15.92	180 (1 Hourly.)
6.	Ammonia as NH ₃	SCP No.: RVB/SCP/01/10 (Indophend Method) Issue No. 04, Issue Date: 10.01.2018	µg/m³	13.53	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispersive Infra-Red (NDIR) specificacopy	mg/m³	0.760	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.075	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Insue No. 04, Issue Date: 10.01.2018	ng/m³	<5.0	20
10.	Arsenic as As	SOP No.: RVB/SOP/01/16 (AAS Method) Issue No. 04, Issue Date: 10,01,2018	ng/m³	0.371	6.0
11.	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	1.67	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m³, Arsenic: 0.25 ng/m³, Benzene: 1 µg/m³ & Benzo(a)Pyrene: 0.5 ng/m³

Report Verified by

Gayen

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

* Results relate only to the parameters tested.

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

Certificate No. AP-AAQ/25	-26/056	Issue Date : May 03, 2025		
Issued to	: M/S. PARADEEP PHOSPHATE LTD.			
Address	: Paradeep, Odisha			
Your Ref. No.	; 5500007609, dtd. 16.08.2024			
Sample Description	: Ambient Air	Equipment used:		
Sample ID No.	: AP-AAQ/25-26/056	Ambient Fine Dust Sampler		
Name of Industry / Site	: M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha	ID No.: RVB/AFDS/PM2.5/20, Cal. Valid upto Resperible Dust Sampler	20.01.26	
Sampling Location	: Near AAQMS # 03	ID No.: RVB/RDS/APM460/BL/05, Cal. Valid	upto: 02.11.25	
Date & Time of sampling	: 22.04.2025 (09:30 A.M.)-23.04.2025 (09:30 A.M.)	Environmental conditio	ns	
Duration of Sampling	: 24Hrs.	Weather Condition: Clear	-	
Sampling Plan :	: RVB/FM/45	Temperature: Max: 36.0°C & Min: 27.0°C		
Sampling Carried out by	: Mr. Souvik Banerjee	Barometric Presure : 755 mmHg		
Method of Sampling	: As per CPCB guidelines (Volume-I)	epidentification resignation of the contract o		
Analysis Started on	: 26.04.2025	Parameters Tested: PM25, PM10, SO	, NO2, O3, NH2,	

TEST FINDINGS:

Analysis Completed on

: 03.05.2025

SI. No.	The formation of the first term of the first ter	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	52.5	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10μm)	IS 5182 (Part - 23): 2006	µg/m³	57.8	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	5.21	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	20.45	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	14.81	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVB/SOP/01/10 (Indophenol Method) issue No. 94, Issue Date: 10:01:2018	µg/m³	14.82	400 (24 Hourly.)
7.	Carbon Monoxide as CO	as CO IS : 5182 (Part - 10), 1999 Non Dispersive Infra-Red mg/m ³ 0.800		0.800	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.087	1.0 (24 Hourly.)
9.	Nickel as Ni	SCP No.: RVB/SCP/01/15 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<5.0	20
10.	Arsenic as As	SCP No.: RVB/SOP/01/16 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<0.25	6.0
11.	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12.	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit: Nicket: 5 ng/m³, Arsenic: 0.25 ng/m³, Benzene: 1 µg/m³ & Benzo(a)Pyrene: 0.5 ng/m²

Report Verified by

Gayen

Reviewed & Authorised by

CO, Pb, Ni, As, CoHo, BaP

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

* Results relate only to the parameters tested.

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TEST FINDINGS:-

R. V. BRIGGS & CO. PRIVATE LTD.

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



TC-1234

TEST REPORT

-26/057	issue Date : May 03, 2025	Page 1 of 1
: M/S, PARADEEP PHOSPHATE LTD.		
: Paradeep, Odisha		
: 5500007609, dtd. 16.08.2024		
: Ambient Air	Equipment used:	
: AP-AAQ/25-26/057	Ambient Fine Dust Sampler	
: M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha	ID No.: RVB/AFDS/PM2.5/20, Cal. Valid up Resperible Dust Sampler	oto: 20.01.26
: Near AAQMS # 04	ID No.: RVB/RDS/APM460/BL/05, Cal. Val.	lid upto: 02.11.25
: 23.04.2025 (09:45 A.M.)-24.04.2025 (09:45 A.M.)	Environmental condit	tions
; 24Hrs.	Weather Condition: Clear	
: RVB/FM/45	Temperature: Max: 37.0°C & Min: 27.0°	C
: Mr. Souvik Banerjee	Barometric Presure : 755 mmHg	
: As per CPCB guidelines (Volume-I)		
: 26.04.2025	Parameters Tested: PM _{2.5} , PM ₁₀ , S	O ₂ , NO ₂ , O ₃ , NH ₃ ,
: 03.05.2025	CO, Pb, Ni, As, C ₆ H ₆ , BaP	
	: M/S, PARADEEP PHOSPHATE LTD. : Paradeep, Odisha : 5500007609, dtd. 16.08.2024 : Ambient Air : AP-AAQ/25-26/057 : M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha : Near AAQMS # 04 : 23.04.2025 (09:45 A.M.)-24.04.2025 (09:45 A.M.) : 24Hrs. : RVB/FM/45 : Mr. Souvik Banerjee : As per CPCB guidelines (Volume-I) : 26.04.2025	: M/S, PARADEEP PHOSPHATE LTD. : Paradeep, Odisha : 5500007609, dtd. 16.08.2024 : Ambient Air : AP-AAQ/25-26/057 : M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha : Near AAQMS # 04 : 23.04.2025 (09:45 A.M.)-24.04.2025 (09:45 A.M.) : 24Hrs. : RVB/FM/45 : Mr. Souvik Banerjee : As per CPCB guidelines (Volume-I) : 26.04.2025 Parameters Tested: PM _{2.5} , PM ₁₀ , S

SI. No.		Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	45.0	60 (24 Hourly.)
2.	PM _{t0} (Size ≤ 10μm)	IS 5182 (Part - 23); 2006	µg/m³	63.2	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.37	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	21.17	80 (24 Hourly.)
5,	Ozone as O ₃	IS 5182 (Part - 9): 1974	µg/m³	11.73	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVB/SOP/01/10 [Indopheno Method] Issue No. 04, Issue Date: 10.01,2018	µg/m³	15.50	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS : 5182 (Part - 10), 1999 Non Dispersive Infra-Red (NDIR) spectroscopy	mg/m³	0.821	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.066	1.0 (24 Hourly.)

Minimum detection Limit: Nickel: 5 ng/m³, Arsenic: 0.25 ng/m³, Benzene: 1 µg/m³ & Benzo(a)Pyrene: 0.5 ng/m³

Report Verified by

9. Nickel as Ni

10. Arsenic as As

11. Benzene as CeHe

12. Benzo (a) Pyrene

Mayer

Reviewed & Authorised by

<5.0

< 0.25

1.00

< 0.5

20

6.0

5.0

1.0

ng/m3

ng/m3

µg/m³

ng/m3

(Dr. R. KARIM) Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

SOP No.: RVB/SOP/01/15 (AAS Method) issue No. 04,

Issue Date: 10.01.2018 SOP No.: RVB/SOP/01/16 (AAS Method) Issue No. 04,

Issue Date: 10:01:2018

IS 5182 (Part - 11): 2006,

IS 5182 (Part - 12): 2004,

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CIN: U51109WB1931PTC007007



VB1931PTC007007

-		_	-	-	
-	EST		_		_
		_	_		_

	ficate No. AP-FG/25-26/163	Issue Date: April 28, 202		Page 1 o
Issue		: M/S. M/S. PARADEEP PHOSPHATE LTD		ragers
Addr	ess	: Paradeep, Odisha.		
	S.O. No.	: 5500007609, dtd. 16.08.2024		
Sample Description		: Stack Gas / Flue Gas	E	quipment used:
	le ID No.	: AP-FG/25-26/163	Stack Monitoring	
Name	of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVB/SMR	C/07 (Cal. Validity: 30.04.2025)
Sente S		Paradeep, Odisha.	Po	trameters Tested
	k time of sampling	: 22.04.2025 (03:30 P.M. to 04:15 P.M.)	Physical & General	
	ing Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, C	ias flow, O2, CO2 & CO
	ing Carried out by	: Mr. Souvik Banerjee	Chemical :	
	sis Started on	: 26.04.2025	SO ₂ & Acid Mist	
A.	sis Completed on	: 28.04.2025		
1.	General information about stack Stack connected to	the state of the s		
2	Emission due to	: SAP - A		
3.	Material of construction of stack	: Process Emmision		
4.	Shape of stack	: M.S.		
5.	Whether stack is provided with pe	: Circular.		
B.	Physical characteristics of stac	k -		
1.	Height of the stack from ground le	evel : 120 m		
2.	Sampling Point	: Chimney		
3.	Diameter of the stack at sampling	point : 2.7 m		
4.	No. of Traverse point	: 30 Nos		
5.	Height of the sampling point from	GL : 35 m		
C.	Analysis / Characteristic of stac	k Gas / Flue Gas :		
1.	Fuel used :	2. Fuel consumption :	310	nd :
D.	Environmental conditions :		51200	AU . The
1.	Barometric pressure: 755 mmHg		2. Temperature :	26 90
E.	Results of Physical Parameters	of Flue Gas :	a. remperature	30 C
I No	Test Parameters	Test Method	Unit	D. t.
1.	Temperature of emission	IS 11255 : Part 3 : 2008		Results
2.	Velocity of gas in duct		°C	55
3.	Quantity of gas flow	IS 11255:Part 3:2008	m/sec	13.12
		IS 11255:Part 3:2008	NM ³ /hr	230013
F.	Results of gaseous emission :			1000000
l No	Test Parameters	Test Method	Unit	Results
1.	Sulphur dioxide	IS 11255 : Part 2 : 1985	mg/Nm³	689.5
2.	Carbon monoxide	IS 13270 (By Orsat): 1992		AT STATE OF
3.	Carbon dioxide		% v/v	<0.2
4.	Oxygen	IS 13270 (By Orsat): 1992	% v/v	0.2
	100 P. St. Car.	IS 13270 (By Orsat): 1992	% v/v	19.6
5.	Acid Mist	SOP No.: R VB/SOP/01/20, Issue No.: 04, Issue Date: 10.01.2018	mg/Nm ³	36.94
G.	Pollution control device	- sacre (40., 64, made Latte: 10,01,2018	ing/sun	30.94

Report Verified by

gayen

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Certif	icate No. AP-FG/25-26/16	TEST REPO Issue Date: April 28, 20		
Issue		: M/S. M/S. PARADEEP PHOSPHATE L	125 TD	Page 1
Addre	955	Paradeep, Odisha.	D.	
	S.O. No.	: 5500007609, dtd. 16.08.2024		
Sampl	e Description	: Stack Gas / Flue Gas		Equipment used:
	e ID No.	: AP-FG/25-26/164	Stack Monitoring	. Va
lame	of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.		U07 (Cal. Validity: 30.04.2025)
		Paradeep, Odisha.		arameters Tested
ate 8	time of sampling	: 22.04.2025 (04:25 P.M. to 05:10 P.M.)	Physical & General	
	ing Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, C	as flow, O2, CO2 & CO
	ing Carried out by	: Mr. Souvik Banerice	Chemical:	
	is Started on	: 26.04.2025	SO ₂ & Acid Mist	
	is Completed on	: 28.04.2025		
A.	General information about			
2.	Stack connected to Emission due to	: SAP - B		
3.	Material of construction of	: Process Emmision		
4.	Shape of stack	ALCOY CONTRACTOR CONTR		
5.		: Circular.		
B.	Physical characteristics of	rith permanent platform & ladder : Yes.		
-	Height of the stack from gro	and level 120		
2.	Sampling Point	und level : 120 m : Chimney		
3.	Diameter of the stack at sam	pling point : 2.7 m		
4.	No. of Traverse point	: 30 Nos.		
5.	Height of the sampling point	from GL - 35 m		
C.	Analysis / Characteristic o	f stack Gas / Flue Gas :		
1.	Fuel used :	2 Fuel consumption :	21	972
	Environmental conditions		3.Loa	d:
1.	Barometric pressure: 755 m	mHg	W0 W0.22222222222222	a War
E.	Results of Physical Parame	eters of Flue Gas :	2. Temperature : 3	6 °C
No	Test Parameters	Test Method	Unit	
1.	Temperature of emission	IS 11255 : Part 3 : 2008		Results
2.	Velocity of gas in duct		°C	58
0.01	Quantity of gas flow	IS 11255:Part 3:2008	m/sec	12.95
	Results of gaseous emission	IS 11255:Part 3:2008	NM ³ /hr	222787
No	Test Parameters			
	Sulphur dioxide	Test Method	Unit	Results
		IS 11255 : Part 2 : 1985	mg/Nm ³	713.88
- 1	Carbon monoxide	IS 13270 (By Orsat): 1992	96 v/v	<0.2
,	Carbon dioxide	IS 13270 (By Orsat): 1992		1000
	Oxygen	IS 13270 (By Orsat): 1992	96 v/v	0.2
	Acid Mist	SOP No.: RVB/SOP/01/20,	% v/v	19.4
		Issue No. 04, Issue Date: 10.01,2018	mg/Nm³	41.99
	ollution control device		T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

Report Verified by

Reviewed & Authorised by (Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

Certificate No. AP-FG/25-26/1	65 Issue Date: April 28, 20	25		Page
ssued to Address Your S.O. No.	: M/S. M/S. PARADEEP PHOSPHATE LTI : Paradeep, Odisha. : 5500007609, dtd. 16.08.2024	D.		rage
Sample Description Sample ID No. Name of Industry / Site	: Stack Gas / Flue Gas : AP-FG/25-26/165 : M/S. M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha.		nitoring Kit B/SMK/07 (C	ment used; al. Validity: 30.04,2025
Oate & time of sampling Sampling Plan & Method Sampling Carried out by Analysis Started on Analysis Completed on A. General Information abou	: 23.04.2025 (03:30 P.M. to 04:06 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3) : Mr. Souvik Banerjee : 26.04.2025 : 28.04.2025	Parameters Tested Physical & General: Temp., Velocity, Gas flow, O ₂ , CO ₂ & CO Chemical: PM & TF		
Height of the stack from gree Sampling Point Diameter of the stack at san No. of Traverse point Height of the sampling point Analysis / Characteristic of	: Circular. with permanent platform & ladder : Yes. f stack : ound level : 50 m : Chimney apling point : 1.0 m : 12 Nos.			
D. Environmental conditions	2. Fuel consumption :		3.Load :	
Barometric pressure : 755 m Results of Physical Parameters	mHg eters of Flue Gas :	2. Tempera	ture: 36 °C	
No Test Parameters 1. Temperature of emission	Test Method	Unit		Results
Velocity of gas in duct Quantity of gas flow Results of gaseous emissions.	ity of gas in duet IS 11255:Part 3:2008 tity of gas flow IS 11255:Part 3:2008 ts of gaseous emission :		°C m/sec NM³/hr	
Tan tananteters	Test Method	Unit	Results	Norms
Carbon monoxide Carbon dioxide Oxygen Particulate Matters Total Fluoride	IS 11255: Part 1: 1985 By Orsat IS 11255: Part 1: 1985 By Orsat IS 13270 (By Orsat): 1992 IS 11255: Part 1: 1985 IS 11255 (Part - 5): 1990	% v/v % v/v % v/v mg/Nm3	<0.2 0.2 19.8 37.30	Not Specified Not Specified Not Specified Not Specified 150 max.

Report Verified by

Gayer

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

Certi	ficate No. AP-FG/25-28	/166	Issue Date April M	-2020KI		Page 1 of
	d to		ADEEP PHOSPHATE L	TD.		193010
Addr	ess	: Paradeep, Odish				
our:	S.O. No.	: 5500007609, dtd.				
amp	le Description	Stuck Gas / Flue			Equ	ipment used:
	le ID No.	: AP-FG/25-26/166	75.75.0	Stack Monito		ALMOST MACHINE
	of Industry / Site		EEP PHOSPHATE LTD.			Validity: 30.04.2025)
	Control of the contro	Paradeep, Odisha.	DECTACON TO THE CASE.	10.110.111.00		meters Tested
Date /	time of sampling		P.M. to 01:10 P.M.)	Physical & Ge		mentra rusien
	ling Plan & Method					2 00 + 00
Sampling Plan & Method : RVB/FM/45 & IS: 11255 (Part-1,2 & 3) Sampling Carried out by : Mr. Souvik Banerjee Chemical:				05, 002 & 00		
Analysis Started on : 26.04.2025 SO ₂ , NO ₂ ,HC & PM Analysis Completed on : 28.04.2025						
A.	General information ab			_		
1.	Stack connected to	Out Stack	: Diesel Generator	Sat 2		
2.	Emission due to		Burning of H.S.D	7		
3.	Material of construction	of stuck	: M.S.	M		
4.	Shape of stack	THE PERSON NAMED IN	: Circular.			
5.	Whether stack is provide	d with permanent alar	form & ladder - Ver			
6.	Generator capacity	- ma permanent punt	: 1 MVA			
B.	Physical characteristic	s of stack :	. 1 May 2			
1.	Height of the stack from		: 30.0 m			
2	Sampling Point	gradien in ini	: Chimney			
3.	Diameter of the stack at	sampling point	: 0.46 m			
4.	No. of Traverse point	markanie benne	: 08 Nos.			
C,	Analysis / Characterist	c of stack Gas / Flue	Gos +			
1.	Fuel used	:H.S.D		2. Fuel consu	and the second	
D.	Environmental condition	ins :		2. Fuer consu	mpuon : +++	
1.	Barometric pressure: 75:			2012	24900	
E.	Finding of Physical Par			2. Temperatur	e: 35 °C	
SINO		anieters of Fide Gas				
1.	Temperature of emission		Test Method	Unit		Results
2.	Velocity of gas in duct	20.	S 11255 : Part 3 : 2008	"C		430
3.	Quantity of gas flow	365	5 11255 : Part 3 : 2008	m/sec		49.62
F.	Results of gaseous emi	eelee :	S 11255 : Part 3 : 2008	NM'/hr		12216
I No		ssion:			4-200-2-22	
******	rest rarameters		Test Method	Unit	Results	Norms as per Environment
						(Protection) Amendment Rules 2003
1	Oxygen					for > 800 kee
2	The state of the s	1.50	13270 (By Orsat): 1992	% v/v	10.8	Not Specified
	Sulphur dioxide	20.0	11255 : Part 2 : 1985	mg/Nm ³	94.79	Not Specified
3	Nitrogen dioxide	ts	11255 : Part 7 : 2005	mg/Nm ³	183.49	A STATE OF THE PARTY OF THE PAR
		я		gm/kw-hr	2.80	3 57650
4	Total Hydrocarbon as HC		EPA Mothod 18	gm/kw-hr	0.07	⊢ 4.0
-21	2008			mg/Nm³	4.64	_
5	Carbon monoxide	1	USEPA 10:2017	mg/Nm²	140	E
		1		gm/kw-hr	2.14	3.4
	han reconvenience and	15	3270 (By Orsat): 1992	% v/v		3.5
6	Carbon dioxide		3270 (By Orsat): 1992	% v/v	<0.2	196792 1920
7	Particulate Matters		11255 : Part 1 : 1985		7.8	Not Specified
	THE PERSON NAMED IN	100	Constitution of the Section	mg/Nm²	27	
	Dellution control devices			gm/kw-hr	0.41	0.2
G.	Pollution control device Details of pollution control					

Report Verified by

Reviewed & Anthorised by

Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

Certificate No.E(D)/25-26/175	Issue Date: 30 April 2025	Page 1 of 1
Issued to	: M/s. PARADEEP PHOSPHATE I Paradeep, Odisha	LIMITED
Description of Sample	: Effluent	
Sample ID No	: E(D)/25-26/175	
Name of Industries/Site	 Paradeep Phosphate Limited Paradeep, Odisha 	
Collection Source	: ETP Outlet	
Sample Drawn by us on	: 25.04.2025 at 12:25 P.M.	Parameter Tested:
Sample Carried out by	: Mr. A.Manna	pH, TSS, O & G, F,
Sampling Plan	: RVB/FM/45	NH ₃ -N, TKN, NH ₃ , P, N
Analysis Started on	: 25.04.2025	
Analysis completed on	: 30.04.2025	

: APHA 24th Edition 1060 Sample collection Procedure

: Grab Mode of Sampling

Environmental condition during sampling : Temperature : 29°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1	pH Value	APHA 24th edition-4500H+B		7.86	6.5 - 8.5
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	10	100 (Max.)
2	Oil & Grease (O & G)	APHA 24th edition 5520B	mg/l	< 2	10 (Max.)
4	Fluoride as F	APHA 24th edition 4500 F-C	mg/l	0.70	10 (Max.)
5	Ammoniacal Nitrogen as NH ₃ -N	APHA 24th edition 4500 NH3F	mg/l	0.15	50 (Max.)
6	Total Kjeldahl Nitrogen (TKN) as N	APHA 24th edition 4500-NorgA	mg/l	0.18	75 (Max.)
0	Free Ammonia as NH ₃	APHA 24th edition 4500 NH3F	mg/I	< 0.1	4 (Max.)
/	Dissolved Phosphates as P	APHA 24th edition 4500-PD	mg/l	0.18	5 (Max.)
8	Nitrate Nitrogen as NO ₃ -N	APHA 24th edition 4500-N03D	mg/l	11.6	20 (Max.)

Note: BDL: Below Detection Limit. Minimum Detection Limit of Oil & Grease .. 2.0 mg/l, NH3 .. 0.1mg/l.

Remarks: The sample of effluent complies with the above Specification.

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT:-

Results relate only to the parameters tested.

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CIN: U51109WB1931PTC007007



TEST REPORT

Certificate No.E(D)/25-26/176 Issue Date: 30 April 2025 Page 1 of 2

Issued to : M/s. PARADEEP PHOSPHATE LIMITED

Paradeep, Odisha

Description of Sample : Effluent

Sample ID No : E(D)/25-26/176

Name of Industries/Site : Paradeep Phosphate Limited

Paradeep, Odisha

Collection Source : STP Outlet

Sample Drawn by us on : 25.04.2025 at 5:20 P.M.

Sample Carried out by : Mr. A.Manna Sampling Plan : RVB/FM/45 Analysis Started on : 25.04.2025

Analysis Started on : 25.04.2025 Analysis Completed on : 30.04.2025

Sample collection Procedure : APHA 24th Edition 1060

Mode of Sampling : Grab

Environmental condition during sampling : Temperature : 28°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

SI. No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1	pH Value	APHA 24th edition-4500H+B		6.70	6.5 - 9.0
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	46	< 100
3	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	I.S. 3025 (Part - 44) - 1993	mg/I	6.8	< 30

Remarks: The sample of/effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

Parameter Tested:

pH, TSS, BOD

(Dr. R. KARIM)

Technical Manager

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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Results relate only to the parameters tested.



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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

Certificate No.E(D)/25-26/176	Issue Date: 30 April 2025	Page 2 of 2
Issued to	: M/s. PARADEEP PHOSPH Paradeep, Odisha	HATE LIMITED
Description of Sample	: Effluent	
Sample ID No	: E(D)/25-26/176	
Name of Industries/Site	 Paradeep Phosphate Limited Paradeep, Odisha 	
Collection Source	: STP Outlet	
Sample Drawn by us on	: 25.04.2025 at 5:20 P.M.	
Sample Carried out by	: Mr. A.Manna	Parameter Tested:
Sampling Plan	: RVB/FM/45	Microbiological : Faecal Coliform
Analysis Started on	: 25.04.2025	
Analysis completed on	: 29.04.2025	
Sample collection Procedure	: APHA 24th Edition 1060	
Mode of Sampling	: Grab	

MICROBIOLOGICAL TEST FINDINGS:

SI. No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1.	Faecal Coliform	APHA 24th edition 9221E	MPN/ 100 ml	63	< 1000

Environmental condition during sampling : Temperature : 28°C, Transported in Ice box, Cold chain maintained

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

(Pijush Kanti Dutta)

1 5000

Sr. Microbiologist Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT:-

Results relate only to the parameters tested.

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TEST REPORT

Certificate No. AP-SL/25-26/087A-090A Issue Date : April 30, 2025 Page 1 of 1 : M/S. PARADEEP PHOSPHATES LIMITED issued to Address : Paradeep, Odisha. Your P.O. Ref. no. : 5500007609, dtd. 16.08.2024 Equipment used: Description of Sample : Sound Level Monitoring : AP-SL/25-26/087A-090A Sample ID No. Sound Level Meter ID No.: RVB/SLM/07 Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED (Cal. Validity: 07.05.2025) : Paradeep, Odisha. Parameters Tested : L-Miss L-Max & Sampling Plan: : RVB/FM/45 Sampling Carried out by : Mr. Souvik Banerjee Test Method: IS 4758: 1968 Date of Monitoring : 22.04.2025 to 25.04.2025

A. SOUND LEVEL MONITORING

SI.	Date of	Date of Locations Day Time (06.00 A.M to 10.00 P.M)			10.00 P.M)	Night Time (10.00 P.M to 06.00 A.M)				
No N	Monitoring		Sound	Level in	dB(A)	Norms as per	Sound	Level in	n dB(A)	Norms as per
			L _{Min}	L _{ttax}	Leq	Protection Act 1986, rule 3(1) and 4 (1) for Industrial area	L _{Min}	L _{Max}	Leq	Protection Act 1986, rule 3(1) and 4 (1) for Industrial area
1.	24.04.2025	Near AAQMS -	60.8	65.1	63.3		48.3	54.2	51.8	
2	22.04.2025	Near AAQMS -	58.1	65.4	62.4	75 dB(A)	50.4	53.1	51.9	70 dB(A)
3	23.04.2025	Near AAQMS -	53.9	57.9	55.7		45.1	50.2	48.0	

B. SOUND LEVEL MONITORING AT AMBIENT LOCATION: RESIDENTIAL AREA

SI.	Date of	Date of Locations Day Time (06.00 A.M to 10.00 P.M)		10.00 P.M)	Night Time (10.00 P.M to 06.00 A.M					
No	Monitoring		Sound	Level i	n dB(A)	Norms as per	Sound	Level in	n dB(A)	Norms as per
	•		L _{Min}	L _{Max}	L _{eq}	Protection Act 1986, rule 3(1) and 4 (1) for Residential area	L _{Min}	L _{Max}	L _{eq}	Protection Act 1986, rule 3(1) and 4 (1) for Residential area
1.	25.04.2025	Near AAQMS - 2	52.9	56.8	54.1	55 dB(A)	41.9	44.8	43.1	45 dB(A)

Note: - Leg - Equivalent sound energy.

Report Yerified by

AN

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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CIN: U51109WB1931PTC007007

TEST REPORT

Issued to : M/S. PARADEEP PHOSPHATES LIMITED

Address : Paradeep, Odisha.

Your W.O. Ref. no. : 5500007609, dtd. 16.08.2024

Description of Sample : Sound Level Monitoring

Sample ID No. : AP-SL/25-26/091-093

Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED

Paradeep, Odisha.

Sampling Plan: : RVB/FM/45

Sampling Carried out by : Mr. Souvik Banerjee

Date of Monitoring : 22.04.2025 to 25.04.2025

Equipment used: Sound Level Meter

ID No.: RVB/SLM/07

(Cal. Validity: 07.05.2025)

Parameters Tested : L_{Min}, L_{Max} & L_{eq}

Test Method: IS 4758: 1968

SOUND LEVEL MONITORING:

SI.	Locations	TIME	Noise	Level in	dB(A)	Permissible Noise Exposure for Industrial
No.			L_{Min}	L _{Max}	\mathbf{L}_{eq}	Workers as per The Noise Pollution (Regulation And Control) Rules, 2000
1.	Bagging Section	02:00 P.M 02:05 P.M.	67.2	72.1	71.0	
2.	SAP Plant	02:15 P.M 02:20 P.M.	56.2	59.2	58.0	90 dB(A)
3.	Off Side	11:00 A.M 11:05 A.M.	53.2	56.0	55.0	

Note: - L = - Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

Page 1 of 1

TEST REPORT

Certificate No. AP-AAQ/25-26/0127 : M/S. PARADEEP PHOSPHATE LTD.

issued to : Paradeep, Odisha Address

: 5500007609, dtd. 16.08.2024

Your Ref. No.

: Ambient Air Sample Description.

: AP-AAQ/25-26/0127 Sample ID No.

MIS. PARADEEP PHOSPHATE LTD. Name of Industry / Site Paradeep, Odisha

Near AAQMS # 01

Sampling Location : 23.05.2025 (10:30 A.M.)-24.05.2025 (10:30 A.M.) Date & Time of sampling

Duration of Sampling RVB/FM/45 Sampling Plan:

: Mr. Partha Pratim Mandal Sampling Carried out by

: As per CPC8 guidelines (Volume-I) Method of Sampling

27.05.2025 Analysis Started on 03.06.2025 Analysis Completed on

Equipment used:

Ambient Fine Dust Sampler

Issue Date: June 03, 2025

D No.: RVB/AFDS/PM2.5/20, Cel. Valid upto: 20.01.26

Resperible Dust Sampler

ID No : RVB/RDS/APM460/BL715, Cal. Valid upto: 02.11.25

Environmental conditions

Weather Condition: Clear

Temperature: Max: 36.5°C & Min: 27.0°C

Barometric Presure: 756 mmHg

Parameters Tested: PM21, PM15, SO2, NO2, O3, NH3.

CO, Pb, Ni, As, C, He, BaP

TEST EINDINGS.

SL No.	Parameters	T Mathead		Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
4	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	hã/w ₃	59.0	60 (24 Hourly.)
111	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m ⁵	66.0	100 (24 Hourly.)
3	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m²	6.30	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	15.00	80 (24 Hourty.)
5.	Ozone as O ₃	IS 5182 (Part + 9) : 1974	µg/m³	14.00	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVE/EOP/01/10 (Industranol Method) femure No. 04, lesue Date: 10.01.2018	µg/m³	13.70	400 (24 Hourly.)
7.	Carbon Monoxide as CO	85 - 5182 (Part - 10), 1599 Non Dispersive simu-field (REDIR) spectroscopy	mg/m³	0.680	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.006	1.0 (24 Hourly.)
9.		SOP No.: RVB/SCP/01/15 (AAS Method) feaue No. 04, Noise Clate: 10.01.2016	ng/m²	<5.0	20
10	Arsenic as As	SOP No.: RV6/SOP/01/16 (AAS Method; lasue No. 04, lasue Date: 10.01/7016	ng/m ³	<0.25	5.0
	Benzene as C ₆ H ₅	IS 5182 (Part - 11): 2006,	ug/m²	<1.0	5.0
-	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004.	ng/m ³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m², Arsenii:: 0.25 ng/m³, Benzace: 1 µg/m² 5, Benzo(a)Pyrene: 0.5 ng/m

Report Verified by

Reviewed & Authorised by

Kata (Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-



Issued to

R. V. BRIGGS & CO. PRIVATE LTD.

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CIN: U51109WB1931PTC007007



Certificate No. AP-AAQ/25-26/0128

: M/S. PARADEEP PHOSPHATE LTD.

Address : Paradeep, Odisha

5500007609, dtd. 16.08.2024 Your Ref. No.

: Ambient Air Sample Description

: AP-AAQ/25-26/0128 Sample ID No.

MIS. PARADEEP PHOSPHATE LTD. Name of Industry / Site Paradeep, Odisha

: Near AAQMS # 02

Sampling Location : 22.05.2025 (10:15 A.M.)-23.05.2025 (10:15 A.M.) Date & Time of sampling

: 24Hrs. Duration of Sampling

:RVB/FM/45 Sampling Plan: Sampling Carried out by : Mr. Partha Pratim Mandal

: As per CPCB guidelines (Volume-I) Method of Sampling

27.05.2025 Analysis Started on 03.06.2025 Analysis Completed on

Equipment used:

TC-12347

Page 1 of 1

Ambient Fine Dust Sampler D No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 20.01.26

Resperible Dust Sampler

ID No.: RVBIRDS/APM460/BL/15, Cel. Valid upto: 02.11.25

Environmental conditions

Weather Condition: Clear

Issue Date : June 03, 2025

Temperature: Max: 34.0°C & Min: 27.0°C

Barometric Presure: 756 mmHg

Parameters Tested: PM_{2.5}, PM₁₅, SO₂, NO₂, O₅, NH₅,

CO. Pb. Ni. As, C.H., BaP.

THEY EINDINGS

SI. No.	T FINDINGS:- Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997s,40 CFR Part 50, Appendix L.	µg/m³	48.8	60 (24 Hourly.)
	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23); 2006	µg/m³	56.0	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2); 2001	µg/m³	6.70	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2008	µg/m³	19.60	80 (24 Hourly.)
5.	Ozone as O ₅	IS 5182 (Part - 9) : 1974	µg/m³	15.20	180 (1 Hourly.)
6.	Ammonia as NH ₃	SCP No.: RyS/SCP/C1/10 (Indephonal Method) Issue No. 04, Issue Date 18,01,2018	µg/m³	12.80	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispersive Into-Rod (NDIR) specimentry	mg/m ³	0.720	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.070	1.0 (24 Hourty.)
9.	Nickel as Ni	SCP No.: RVB/SCP/07/15 (AAS Memor) issue No. 04, issue Date: 10,01.2018	ng/m³	<5.0	20
10	Arsenic as As	SOF htt.: RVB/SCP/01/15 (AA5 Memod) Issue No. 04. isnoe Calle; 10.01.2018	ng/m³	<0.25	6.0
11	Benzene as C ₀ H ₆	IS 5182 (Part - 11); 2006,	µg/m³	1.25	5.0
+2	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m ³	<0.5	1.0

Minimum detection Limit. Nickel: 5 ng/m³. Arsenic: 0.25 ng/m³. Benzene: 1 µg/m³.5 Benzo(e)Pyrene: 0.5 ng/m

Report Verified by

Reviewed & Authorised by

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

Page 1 of 1

TEST REPORT

Certificate No. AP-AAQ/25-26/0129 : M/S. PARADEEP PHOSPHATE LTD. Issued to

: Paradeep, Odisha Address

5500007609, dtd. 16.08.2024 Your Ref. No.

: Ambient Air Sample Description

: AP-AAQ/25-25/0129 Sample ID No.

M/S. PARADEEP PHOSPHATE LTD. Name of Industry / Site

Paradeep, Odisha : Near AAQMS # 03 Sampling Location

: 20.05.2025 (09:40 A.M.)-21.05.2025 (09:40 A.M.) Date & Time of sampling

: 24Hrs. Duration of Sampling RVB/FM/45 Sampling Plan:

Sampling Carried out by : Mr. Partha Pratim Mandal

As per CPCB guidelines (Volume-I) Method of Sampling

Analysis Started on 03.06.2025 Analysis Completed on

Equipment used:

Ambient Fine Dust Sampler

Issue Date: June 03, 2025

D No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 20.01.26

Resperble Dust Sampler

IO No: RVB/RDS/APM450/BL/15, Cal. Valid upto: 02.11.25

Environmental conditions

Weather Condition: Clear

Temperature: Max: 36.0°C & Min: 27.0°C

Barometric Presure: 758 mmHg

Parameters Tested: PM2 to PM10, SO2, NO2, O3, NH3,

CO. Pb. Ni, As, C.H., BaP

TEST PRIDINGS

SI. No.	FINDINGS:- Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1	PM ₂₃ (Size ≤ 2,5μm)	USEPA 1957a,40 CFR Part 50, Appendix L.	µg/m³	55	60 (24 Hourly.)
2	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m²	57.8	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	5.20	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2008	pg/m ³	20.30	80 (24 Hourly.)
5.	Ozone as O ₂	IS 5182 (Part - 9) : 1974	µg/m³	14.80	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVa/SOP/01/10 (haphond Method) incur No. 04, Issue Date: 10.01.2018	µg/m²	13.50	400 (24 Hourly.)
7,	Carbon Monoxide as CO	19 : 5182 (Part - 10), 1999 Non Dispersive Into-Red PATR) specimoscopy	mg/m³	0.750	04 (1 Hourly.)
8	Lead as Pb	IS 5182 (Part - 22): 2004	pg/m ³	0.820	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04, Issue Date: 10:01:2018	ng/m ³	<5.0	20
10	Arsenic as As	SCP No.: RVB/SCFX01/16 (AAS Method) lasse No. 04, lissus Date: 10:01.2018	ng/m ³	0.3	6.0
11	Benzene as C ₀ H ₆	IS 5182 (Part-11): 2006.	µg/m³	1.02	5.0
-	Benzo (a) Pyrene	IS 5182 (Part - 12), 2004,	ng/m³	<0.5	1.0

Minimum detection Limit. Notice: 5 ng/m². Arsenic: 0.25 ng/m². Benzene: 1 µg/m². Benzo(a)Pyrene: 0.5 ng/m².

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

Certificate No. AP	AAQ/25-26/0130	Issue Date : June 03, 2025	Page 1 of 1
lesued to	: M/S. PARADEEP PHOSPHATE LTD.		

Address Paradeep, Odisha

5500007609, dtd. 16.08.2024 Your Ref. No.

Ambient Air Sample Description - AP-AAQ/25-25/0130

Sample ID No. : M/S. PARADEEP PHOSPHATE LTD. Name of Industry / Site

Paradeep, Odisha Near AAQMS # 04 Sampling Location

: 21.05.2025 (10:00 A.M.)-22.05.2025 (10:00 A.M.) Date & Time of sampling

24Hrs. Duration of Sampling RVB/FM/45 Sampling Plan:

Sampling Carried out by : Mr. Partha Pratim Mandal

As per CPCB guidelines (Volume-I) Method of Sampling

27.05.2025 Analysis Started on 03.06.2025 Analysis Completed on

Equipment used:

Ambient Fine Dust Sampler

D No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 20.01.26

Resperible Dust Sampler

D No.: RVB/RDS/APM480/BL/15, Cal. Valid upto: 02.11.25

Environmental conditions

Weather Condition: Clear

Temperatura: Max: 36.0°C & Min: 27.0°C

Barometric Presure: 756 mmHg

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3,

CO. Pb. Ni, As. CaHe, BaP

TEST FINDINGS:

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997#.40 CFR Part 50, Appendix L.	µg/m²	47.0	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23) 2008	µg/m³	6.3	100 (24 Hourly)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m²	6.40	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	hã/m ₃	21.00	80 (24 Hourly)
5.	Ozone as O ₂	IS 5182 (Part - 9): 1974	µg/m³	12.20	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No: RVB/SOP(01/10 [Insupsional Method) Insue No. 04, Issue Date: 10.01.2018	µg/m³	15.00	400 (24 Hourly.)
7,	Carbon Monoxide as CO	IS 5152 (Part - 10), 1969 Non Dispensive Infra-Red (ND R) appelroscopy	mg/m ²	0.800	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.950	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB:SOP:01/15 (AAS Worker) issue No. 04. Issue Date: 10.01.2018	ng/m³	<5.0	20
10	Arsenic as As	SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04. Issue Date: 10.01.2018	ng/m ³	<0.25	6.0
11	Benzene as C ₀ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m ³	<0.5	1.0

Minimum detection Limit. Nickel: 5 ng/m³. Arsenic: 0.25 ng/m³. Berszene: 1 µg/m³ & Bersze(a;Pyrene: 0.5 ng/m

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



TEST REPORT

Issue	ficate No. AP-FG/24-25/0		125	Page 1 of
Addr		: M/S. M/S. PARADEEP PHOSPHATE	LTD.	
	S.O. No.	er diddock, caldida		
	le Description	: Stack Gas / Flue Gas		
	e ID No.	: AP-FG/24-25/0299		ipment used:
	of Industry / Site	MS. M/S. PARADEEP PHOSPHATE LTD.	Stack Monitoria	ig Kit K/07 (Cal. Validity: 30:04.2)
		Paradeep, Odisha.	Due Day	umeters Tested
Dute á	time of sampling	: 22.05.2025 (11:30 A.M. to 12:09 P.M.)	Physical & Gene	merers Lexical
	ing Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		Gas flow, O ₂ , CO ₂ & CO
	ing Carried out by	: Mr. Partha Pratim Mandal	Chemical :	our mine of our wood
	sis Started on	: 27.05.2025	SO ₃ & Acid Mis	
	sis Completed on	: 27.05.2025	C. 20 C. C. 20 C. 20 C.	
A	General information abo			
1.	Stuck connected to	: SAP + A		
2	Emission due to	: Process Emmission		
4.	Material of construction of			
5.	Shape of stack	: Circular.		
В.	Whether stack is provided	with permanent platform & ladder: Yes.		
1	Physical characteristics Height of the stack from gr	of stack ;		
3.	Diameter of the stack at sa	round level : 120 m		
4	No. of Traverse point			
5.	Height of the sampling poi	: 30 Nos.		
C.	Analysis / Characteristic	nt from GL 35 m		
1.	Fuel used :	2. Fuel consumption :	No. of Contract of	
D	Environmental condition	E - Laci consumption : ***	3.1.6	and :
1.	Barometric pressure : 756			
E.	Results of Physical Parar	nators of Eluc Cas :	2. Temperature	32 °C
SI No		The state of the s		
	Temperature of emission	Test Method	Unit	Results
1.	Solid Barrellines and Same and an agent	IS 11255 : Part 3 : 2008	o.C.	63
2	Velocity of gas in duct	IS 11255 Part 3:2008	m/sec	14.15
3	Quantity of gas flow	IS 11255-Part 3:2008	NM ⁵ /hr	253596
F	Results of gaseous emis-	sion :		100 C 10
SI No	Test Parameters	Test Method	Unit	Results
1	Sulphur dioxide	15 11255 : Part 2 : 1985	mg/Nm ³	679.20
2.	Carbon monoxide	1S 13270 (By Omar): 1992		
3.			26.v/v	< 0.2
	Carbon dioxide	15 13270 (By Orsat): 1992	96 v/v	0.2
4.	Oxygen	15 13270 (Hy Ocsat): 1992	26 v/v	19.6
5.	Acid Mist	SOP No.: RVB/SOP(61/20) Insue No.: 04, Insue Date: 10(01/2018)	mg/Nm ²	41.59
G.	Pollution control device			

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Certificate No. AP-FG/24-25	TEST REPO)R1			
ssued to	10300 Issue Date: May 27, 20 : M/S, M/S, PARADEEP PHOSPHATE L	25	Page 1		
Address	Paradeep, Odisha	TD.			
Your S.O. No.	: 5500007609, did. 16.08.2024				
ample Description	Stack Gas / Flue Gas	-			
ample ID No.	: AP-FG/24-25/0300	Stack Manual	julpment used:		
lame of Industry / Site	: MFS. M/S. PARADEEP PHOSPHATE LTD.	Stack Monitor	ing K.ii /IK/07 (Cal. Validity: 30 0		
No. of the Control of	Prosdeep, Odisha	Pa	rameters Tested		
oute & time of sampling	: 22.05.2025 (12:20 P.M. to 01:02 P.M.)	Physical & Gen	eral -		
ampling Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Tentp_Velocity	Gas flow, O ₂ , CO ₇ & CO		
ampling Carried out by nalysis Started on	: Mr. Partha Pratim Mandal	Chemical:	Committee with sent or con		
nulysis Completed on	: 27.05.2025	SO ₂ & Acid Mi	st		
A. General information abo	: 27.05.2025				
Stack connected to					
2. Emission due to	SAP - B				
3. Material of construction of	: Process Emmission : M.S.				
4. Shape of stack	Circular,				
5. Whether stack is provided	with permanent platform & ladder : Yes.				
 Priysical characteristics 	of stack:				
 Height of the stack from ; 	ground level + 120 m				
 Diameter of the stack at s. 	ampling point 2.7 m				
4. No. of Traverse point	- 30 Nov				
 Height of the sampling po 	int from GL + 35 m				
 Analysis / Characteristic 	of stack Gas / Flue Gas :				
I. Fuel used :	2. Fuel consumption :	3.1	ond :		
 Environmental condition 	5 :	270	Contract Con		
 Barometric pressure: 756 	mmHg	2. Temperature	. 32 %		
E. Results of Physical Para	meters of Flue Gas :	a remperation	7.74 (-		
No Test Parameters	Test Method	Unit	Results		
Temperature of emission	15 11255 : Port 3 : 2008	°C	68		
Velocity of gas in duct	IS 11255 Part 3:2008	m/sec			
Quantity of gas flow	IS 11255:Part 3:2008		12.81		
Results of gaseous emis-	ion :	NM/hr	226586		
No Test Parameters	Test Method	1			
. Sulphur dioxide	IS 11255 : Part 2 : 1985	Unit	Results		
Carbon monoxide		mg/Nm ²	638.83		
	IS 13270 (By Orsat): 1992	55 x/y	<0.2		
Carbon dioxide	18 73270 (By Orsatic 1992	26.4/6	0.2		
. Oxygen	IS 13270 (By Orsat): 1992	96 v/v	19.6		
	SOP No.: EVB/SOF/01/20,		1950		
- Acid Mist	base No. 64, Issue Date: 10.01.2018	mg/Nm ³	38.61		

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Certi	ficate No. AP-FG/24-25/	D301 Issue Date: May 27, 203	25	Deve 4 of		
ssue	d to	: M/S. M/S. PARADEEP PHOSPHATE L	TD.	Page 1 of		
Addr		: Paradeep, Odisha.				
Your S.O. No. : 5500007609, dtd. 16.08.202		: 5500007609, dtd. 16.08.2024				
	e Description	: Stack Gas / Flue Gas	Equ	sipment used:		
Sample ID No.		: AP-FG/24-25/0301	Stack Monitoris	ng Kit		
vame	of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVB/SM	K/07 (Cal. Validity: 30:04.2		
Note: 3	time of sampling	Paradeop, Odiniu.		ameters Tested		
	ing Plan & Method	: 22.05.2025 (04:05 P.M. to 04:41 P.M.)	Physical & Gene			
	ing Carried out by	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3) : Mr. Partha Pratim Mundal		Gus flow, O ₂ , CO ₂ & €O		
	sis Started on	: 27.05.2025	Chemical:			
	sis Completed on	: 27.05.2025	SO ₂ & Acid Miss	F		
Α.	General information abou	ut stack :	-			
	Boller connected to	: SAP - C				
	Emission due to	: Process Emission				
3.	Material of construction of	f stack : M.S.				
4. Shape of stack : Circular.						
5. D	Whether stack is provided	with permanent platform & ladder : Yes.				
B.	Physical characteristics	of stack ;				
3.	Height of the stack from g Diameter of the stack at sa	round level : 120 m				
4.	No. of Traverse point	mpling point : 2.7 m : 30 Nos.				
5.	Height of the sampling poi					
C.	Analysis / Characteristic	of stack Gas / Flue Gas -				
1.	Fuel used :	2. Fuel consumption :	21.	oad :		
D.	Environmental conditions	5 to 1	344	Alu		
1.	Barometric pressure: 756	mmHg	2. Temperature	22.97		
E.	Results of Physical Parar	neters of Flue Gas :	as remperature	32 0		
i No		Test Method	Unit	Results		
1	Temperature of emission	IS 11255 : Part 3 : 2008	°C	71		
2.	Velocity of gas in duct	IS 11255 Part 3:2008	254	. 222		
3.	Quantity of gas flow		m/sec	6.69		
F.	Results of gaseous emiss	IS 11255 Pari 3 2008	NM ³ /hr	115654		
I No	Test Parameters	5-001 F (-)				
1.	Sulphur dioxide	Test Method	Unit	Results		
		IS 11255 : Part 2 : 1985	mu/Nm³	558.59		
2.	Carbon monoxide	IS 13270 (By Orant) 1992	% v/v	< 0.2		
3.	Carbon dioxide	IS 13270 (By Orsat): 1992	% V/V	0.2		
4.	Oxygen	IS 13270 (By Orsat): 1992	% v/v	19.8		
5	Acid Mist	50P No.: RVB/S0P/01/20, Issue No.: 04, Issue Date: 10:01,2018	mg/Nm ³	41.26		
40.0						

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Reviewed & Authorised by

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

. END OF TEST REPORT :-

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Results relate only to the parameters of the item tested.



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CIN: U51109WB1931PTC007007



TC-12347

Certifi	icate No. AP-FG/24-25/0	302	TEST REPO Issue Date: May 27, 20		Page 1 of
Issue	d to	: M/S. M/S.	PARADEEP PHOSPHATE	LTD.	rageror
Address Your S.O. No.		: Paradeep,		-1.00	
		: 5500007609			
	e Description	: Stack Gas/	Flue Gus	Equ	ipment used:
	t ID No.	: AP-FG/24-2		Stack Monitorin	
Name (of Industry / Site		WADEEP PHOSPHATE LTD.	ID No.: RVB/SMI	C/07 (Cal. Validity: 30.04.20
F6-7 (100) 11 (44)	DANKE STOPP SINANCE CONTAINED	Paradeep, Od			imeters Texted
	time of sampling		(11:30 A.M. to 12:06 P.M.)	Physical & Gener	
	ng Plan & Method		5 & IS: 11255 (Part-1,2 & 3)		ias flow, O2, CO2 & CO
	ng Carried out by		Pratim Mandal	Chemical:	
	is Started on	: 27.05.2025		PM	
A.	is Completed on	: 27,05,2025			
1.	General information about	it stack :	202000020001		
2.	Emission due to		: Zypmite - I		
3.		TARGET ST	: Process Emmision : M.S.		
Shape of stack : Circular. Whether stack is provided with permanent platform & ladder: Yes.					
В.	Physical characteristics	of stack	s prantorm & muder ; 1 es.		
1.	Height of the stack from gr		: 30 m		
3.	Diameter of the stack at sa	moling point	: 1.03 m		
4.	No. of Traverse point	tolerrade feature	: 12 Nos.		
C.	Analysis / Characteristic	of stack Gas /			
1.	Fuel used :		2. Fuel consumption :	317	ad :
D.	Environmental conditions	5.1		31175	
1	Barometric pressure: 756	mmHg		2. Temperature :	32 %
E.	Results of Physical Parar	neters of Flue	Gas:	- romp-rature	34.0
SINo			Test Method	Unit	Results
1.	Temperature of emission	0	IS 11255 : Part 3 : 2008	°C	46
2	Velocity of gas in duct	1 8			2.000
			IS 11255 : Part 3 : 2008	m/sec	14,53
3.	Quantity of gas flow		IS 11255 : Part 3 : 2008	NM*/hr	39963
F.	Results of gaseous emis-	sion:			
SI No	Test Parameters		Vest Method	Unit	Results
1	Carbon monoxide	15	i 13270 (By Orsat): 1992	% v/v	<0.2
2.	Carbon dioxide	15	13270 (By Orsat), 1992	96 v/v	0.2
3.	Oxygen	100	13220 (By Orsat): 1992	96 v/v	19.8
4.	Particulate Matters	1.70	S 11255 : Part 1 : 1985		19.8
100	THE RESIDENCE PROPERTY.		O 1 LEAD - FIELD 1985	mg/Nm3	4.4

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Reviewed & Authorised by

Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

« END OF TEST REPORT »

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TC-12347

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CIN: U51109WB1931PTC007007

TEST REPORT

	ificate No. AP-FG/24-25/		25	Page 1 of
Issued to		: M/S. M/S. PARADEEP PHOSPHATE L	TD.	Page 1 of
Address		: Paradeep, Odisha.		
	S.O. No.	: 5500007609, dtd. 16.08;2024		
	le Description	: Stack Gas / Flue Gas	E	juipment used:
Samp	le ID No.	: AP-FGr24-25r0303	Stack Monitorin	o Kit
	of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD: Paradeep, Odisha.	ID No.: RVB/SMI	K/07 (Cal. Validity: 30.04.202) rameters Texted
Date:	& time of sampling	: 24.05.2025 (12:15 P.M. to 12:51 P.M.)	Physical & Gener	
	ling Plun & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		Gas flow, O ₅ , CO ₁ & CO
Samp	ling Carried out by	: Mr. Partha Pratim Mandal	Chemical:	an more of crotise co.
	sis Started on	: 27.05.2025	PM	
	sis Completed on	: 27.05.2025		
Α.	General information abo	ut stack :		
1.	Stack connected to	: Zypmite - 2		
2.	Emission due to	: Process Emmission		
3:	Material of construction o	CONTRACTOR		
4.	Shape of stack	: Circular,		
5.	Whether stack is provided	with permanent platform & ladder: Yes.		
8.	Physical characteristics			
3.	Height of the stack from g	mund level ± 30 m		
4	Diameter of the stack at sa	mpling point : 0.85 m		
C.	No. of Traverse point	: 12 Nos		
1.	Analysis / Characteristic			
D.	Environmental condition	2. Fuel consumption :	3.1.0	ad
L				
_	Barometric pressure : 756	minHg	2. Temperature :	32 °C
E.	Results of Physical Para	meters of Flue Gas :		
I No	The state of the s	Test Method	Unit	Results
F.	Temperature of emission	15 11255 : Part 3 : 2008	°C	49
2.	Velocity of gas in duct	IS 11255 : Part 3 : 2008	m/sec	
3.	Quantity of gas flow	IS 11255 : Part 3 : 2008	i i i i i i i i i i i i i i i i i i i	14,99
F.	Results of gaseous emiss	13 11225 : Part 3 : 2008	NM ⁷ /hr	27523
I No.	Test Parameters	Test Method	I was I	
	5550,500,000,000	rest Method	Unit	Results
ķ.	Carbon monoxide	IS 13270 (By Orsas): 1992	% v/v	<0.2
2.	Carbon dioxide	IS 13270 (By Orsat): 1992	% v/v	
3.	Oxygen	IS 12270 (By Onar): 1992	3300077	0.4
	Particulate Matters	1S 11255 : Part 1 = 1985	96.v/v	19.4
₹.			mg/Nm3	31

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Reviewed & Authorised by

(Dr. R. KARIM

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

ertific	ate No. AP-FG/24-25/03	304 Issue Date: May 27, 2	025	Page 1 of 1
ssued t		: M/S. M/S. PARADEEP PHOSPHATE	LTD.	
		: Paradeep, Odisha.		
our S.C		: 5500007609. dtd. 16.08.2024	Faule	ment used:
	Description	: Stack Gus / Flue Gas	Stack Monitoring	
ample l	ID No.	: AP-FG/24-25/0304 : M/S. M/S. PARADEEP PHOSPHATE L/TD.	ID No : RVB/SMK/	07 (Cal. Validity: 30 04 20
lame of	Industry / Site	Paradeep, Odisha.	Paran	neters Tested
V W	Carrie of Commentions	: 24.05.2025 (02:00 P.M. to 02:32 P.M.)	Physical & General	
	time of sampling g Plan & Method	: RVB/FM/45 & 1S: 11255 (Part-1,2 & 3)	Temp., Velocity, Ga	s flow, O ₁ , CO ₂ & CO
	g Carried out by	: Mr. Partha Pratim Mandal	Chemical:	
Santyais	Started on	27.05.2025	PM:	
	s Completed on	: 27.05.2025		
Α. (General information abou	it stack:		
	Stack connected to	: Zypmite - 3		
	Emission due to	: Process Emmision		
	Material of construction of			
4.	Shape of stack	: Circular.		
5.	Whether stack is provided	with permanent platform & ladder : Yes.		
В.	Physical characteristics	of stack: round level : 30 m		
1.	Height of the stack from g	mpling point : 0.5 m		
	Diameter of the stack at sa	imping point : 0.5 m		
4.	No. of Traverse point	of stack Gas / Flue Gas :		
C.	Fuel used :	2. Fuel consumption :	3.Lo	id :
D.	Environmental condition			
	Barometric pressure : 756		2. Temperature :	30 °C
E.	Results of Physical Para	meters of Flue Gas :		
SI No		Test Method	Unit	Results
-	Temperature of emission		°C	32
1.	Curative Second Second Second	IS 11255: Part 3: 2008	m/sec	3.78
2.	Velocity of gas in duct	TOTAL STREET,	NM³/hr	2585
3.	Quantity of gas flow	IS 11255 : Part 3 : 2008	NM (hr	4-377-2
F.	Results of gaseous emis			Results
Si No	Test Parameters	Test Method	Unit	Resuits
1.	Carbon monoxide	15 13270 (By Orsat): 1992	% v/v	<0.2
2.	Carbon dioxide	IS 13270 (By Orsan: 1992	% v/v	0.2
3.	Oxygen	1S 13270 (By Orsat): 1992	% v/v	20.0
4.	Particulate Matters	IS 11255 : Part 1 : 1985	mg/Nm3	33
	1 Particulate Whites			

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Reviewed & Authorised by

(Dr. R. KARIM

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

Celti	ficate No. AP-FG/24-25/0	0305 Issue Date: May 27, 202			D. C.
ssue		: M/S. M/S. PARADEEP PHOSPHATE L'	rn.		Page 1 of
Address Para		Paradeep, Odisha.	10.		
	S.O. No.	5500007609, dtd. 16.08.2024			
Samp	le Description	Stock: Gos / Flue Gos		To be a second	
Sampl	le ID No.	: AP-FG/24-25/0305	Strait Manual	Equipment	used:
Name	of Industry / Site	: M/S. M/S. PARADEEP PROSPRATE LTD.	Stack Mon		
		Parudoep, Odishu.	111 1907 3645		I. Validny: 30.04.2
Date &	L time of sampling	: 21.05.2025 (12:10 P.M. to 12:46 P.M.)	March Company	Parameters	Tested
lampl	ing Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Physical & t		and the second second
	ing Carried out by	: Mr. Partha Pratim Mandal	Chemical:	cay, ties now,	O ₂ , CO ₂ & CO
	sis Started on	: 27,05:2025		1800	
	sis Completed on	: 27.05.2025	PM, NH ₃ &	TE.	
A	General information abou	ut stack :			
1.	Stack connected to	DAP - A			
2	Emission due to	Process Emmission			
3.	Material of construction of	stack M.S.			
4.	Shape of stack	: Circular			
5.		with permanent platform & ladder : Yes.			
В.	Physical characteristics	of stack			
1	Height of the stack from gr	ound level : 50 m			
3.	Diameter of the stack at sar	npling point : 2.8 m			
4.	No. of Traverse point	30 Nos			
5.	Height of the sampling poin	nt from CrL. 235 m			
C.	Analysis / Characteristic	of stack Gas / Flus Gas :			
î.	Fuel used :	2. Faul consumption :		200 4	
D.	Environmental conditions	a: Final consumption 2		3.Loud :	
1.	Barometric pressure: 756 n				
E	Results of Physical Parar	marry	Temperar	me:36 °C	
il No	Test Parameters				
1.	Temperature of emission	Test Method	Unit	I	Results
		IS 11255 : Part 3 : 2008	°C		58
2	Velocity of gas in duct	IS 11255:Part 3:2008	m/sec		15.56
3.	Quantity of gas flow	IS 11255:Part 3:2008	NM ² /hr	2	85430
E.	Results of gaseous emiss	sion :	13.51		44.123
Si No	Test Parameters	Test Method	Unit	Results	T No.
	COME OF THE PARTY	1100001 00000000		resuits	Norms
E.	Curbon monovide	IS 11255 : Part 1 : 1985 By Ornat	MC Vide	-0.7	as per CPCB
2.	Carbon dioxide	IS 11255 : Part 1 : 1985 By Orsat	%.v/v	<0.2	Not Specified
3.	Oxygen		26.9/9	0.2	Not Specified
4.	Particulate Motters	IS 13270 (By Creat): 1992	% v/v	19.8	Not Specified
		IS 11255 : Part 1 : 1985	mg/Nm3	65	150 max.
5.	Total Fluoride	IS 11255 (Pari - 5): 1990	mg/Nsm²	2.82	< 10
6.	Ammonia as NH ₃	Methods of Air Sampling & Analysis, 3rd set. (Indopisent Method), Mathod 401	mg/Nm ³	177.06	300 max.

Report Verified by

Reviewed & Authorised by

(Dr. R: KARIM)
Technical Manager

Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Sample I Name of Date & ti	S D. No. Description	: M/S. M/S. PARADEEP PHOSPHATE LT Paradeep, Odisha. : 5500007609, dtd. 16 08 2024 : Stock Gan / Flue Gan	4		Page 1 of
Your S.C Sample I Sample I Name of Date & ti Sampling	D. No. Description D No.	: 5500007609, dtd. 16:08:2024 : Stock: Gas / Floe Gas			
Sample I Sample I Name of Date & ti Sampling	Description D No.	: Stock Gas / Flue Gas	·		
Sample I Name of Date & ti Sampling	D.No.				
Name of Date & ri Sampling		A PARTY COLD TO A CONTROL OF THE PARTY OF TH		Equipment	used:
Date & ti Sampling	Industry / Site	:AP-FG/24-25/0306	Stack Monit	oring Kit	Marie
Sampling		: M/S. M/S. PARADEEP PHOSPHAYE LTD.	ID No. RVB	/SMK/07 (Cii	Validay: 30.04.2
Sampling		Paradeep, Odishu.		Parameters	Tested
	ime of sampling	: 21.05.2025 (01:00 A.M. to 01:36 P.M.)	Physical & G		
Sampuni,	Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		ily, Gas flow,	02 001 & 00
Sandante	Started on	: Mr. Partha Pratim Mundal	Chemical:		
	Completed on	27.05.2025	PM, NH ₃ &	TF	
A. G	Completed on	: 27:05.2025			
L S	Seneral information about tack connected to				
	mission due to	: DAP - B			
	Agerial of construction of	: Process Ilmmision stack : M.S.			
	hape of stack	Circular.			
		vith permanent platform & ladder : Yes.			
B. P	hysical characteristics of	of etack :			
	leight of the stack from gro				
	Diameter of the stack at san				
	lo. of Traverse point	: 30 Nos.			
	leight of the sampling poin				
C. A	nalysis / Characteristic	of stack Gas / Flue Gas ;			
	uel used :	2. Fuel consumption :		3.Load :	
D. E	nvironmental conditions	1 dui commingana		J.1.000 ;	
	arometric pressure: 756 n	medi:	2. Temperan	26.50	
	tesults of Physical Paran		2 rempens	me an C	
SINo	Test Parameters	Test Method	Unit	-	Results
1_ 7	Temperature of emission	IS 11255 : Part 3 : 2008	°C		62
200	Velocity of gas in duct	18 11255:Part 3:2008			
	Quantity of gas flow	(-25) DESTRUCTION CONTRACT	m/sec		16.12
	esults of gaseous emiss	1S 11255:Pwrt 3:2008	NM ³ /hr		86590
The second second	or the state of th				lie -
	Test Parameters	Test Method	Duit	Results	Norms as per CPCB
	arbon monoxide	IS 11255 : Part 1 : 1985 By Orsat	% v/v	< 0.2	Not Specified
2. (Sarbon dioxide	IS 11255 Part 1: 1985 By Orsat	% v/v	0.4	Not Specified
	Drygen	15 13270 (By Orsat): 1992	% v/v	19.8	Not Specified
	articulate Matters	IS 11255 : Part 1 : 1985	mg/Nm3	69.8	150 max.
	Total Fluoride	IS 11255 (Part - 5) 1990	11.17		THE STATE OF THE S
			mg/Nm"	3.56	< 10
6. A	Ammonia as NH ₃	Methods of Air Sumpling & Analysis, 3rd Cd. (Indophenol Method), Method 401	mg/Nm ³	221.34	300 max.

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(Dr. R. KARIM)

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CIN: U51109WB1931PTC007007



TEST REPORT

-	ficate No. AP-FG/24-25/0	0307 Issue Date: May 27, 202	25		Page 1 of
Issue	d to	: M/S. M/S. PARADEEP PHOSPHATE L	TD.		rage 1 of
Address : Paradeep, Odisha.					
	S.O. No.	5500007609, dtd. 16.08.2024			
	le Description	: Stack Gas / Flue Gas		Equipment	used:
	e ID No.	: AP-FO/24-25/0307	Stack Moni	toring Kit	- Book State of the State of th
Vanne	of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No. RVB	/SMK-07 (Ca	Validity: 30.042
	A CANADA CAN	Paradeep, Odishu		Parameters	Tested
Jame &	k time of sampling	: 21.05.2025 (05:10 P.M. to 05:43 P.M.)	Physical & C		-
sampl	ing Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Veloc	rity, Gus flow,	0,00,800
sampi	ing Carried out by	: Mr. Partha Pratim Mandal	Chemical:		
Analy:	sis Sturted on	: 27.05.2025	PM, NH, &	TF	
A	sis Completed on	: 27.05.2025			
L	General information about	The state of the s			
2	Emission due to	DAP - C			
3.	Material of construction of	Process Emmission			
4.	Shape of stack				
5.		: Circular, with permanent platform & ladder : Yes.			
В.	Physical characteristics	of etack :			
L	Height of the stack from gr	ound level 50 m			
2.	Sampling Point	: Chinney			
3	Diameter of the stack at sat	mpling point : 2.8 m			
4.	No. of Traverse point	: 30 Nos.			
5.	Height of the sampling point	nt from GL 35 m			
C.	Analysis / Characteristic	of stack Gas / Flue Gas :			
1.	Fuel used :	2. Fuel consumption :		3.Load :	
D.	Environmental conditions	5:		DAME -	
1.	Barometric pressure: 756:	mmItg	2. Temperat	una - 27 0ps	
E.	Results of Physical Parar	neters of Flue Gas :	4. Petropesin	nto - 30 C	
SI No		Test Method	Unit	-	Results
1.	Temperature of emission	IS 11255 Part 3 : 2005	°C		65
2.	Velocity of gas in duct	IS 11255 Part 1:2008	100		
3.	Quantity of gas flow	IS 11255 Part 3:2008	misec		17.31
E.	Results of gaseous emiss		NM ² /hr	3	12505
Sec.	Test Parameters	The state of the s			
CE NOW	rest Parameters	Test Method	Unit	Results	Norms
I No					
- Nich	Cartenana	Capital Same Section			as per CPCB
L	Carbon monoxide	IS 11255 : Part 1 : 1985 By Orsat	% v/v	<0.2	Not Specific
1. 2.	Curbon dioxide	IS 11255 : Part 1 : 1985 By Cenat	% v/v % v/v	<0.2 0.2	Not Specific
1. 2. 3.	Curbon dioxide Oxygen	IS 11255 : Part 1 , 1985 By Cenat IS 13270 (By Oraut), 1992	56 v/v		Not Specifie Not Specifie
1.	Curbon dioxide	IS 11255 : Part 1 : 1985 By Cenat	56 v/v % v/v	0.2	Not Specifie Not Specifie Not Specifie
3.	Curbon dioxide Oxygen	IS 11255 : Part 1 , 1985 By Cenat IS 13270 (By Oraut), 1992	56 v/v	0.2 19.6	Not Specifie Not Specifie

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

- END OF TEST REPORT |-



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TEST REPORT

40111	ficate No. AP-FG/24-25/0	308 Issue Date: May 27, 202	16		Daniel I
ssue		: M/S. M/S, PARADEEP PHOSPHATE L'	TD.		Page 1 of
Address Paradeep, Odisha.			-		
	S.O. No.	. 5500007609, dtd. 16.08/2024			
Sampl	e Description:	: Stack: Gas / Flue Gas		Equipment	used
	le ID No.	: AP-FG/24-25/0308	Stack Moni		JANUARE.
Name	of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVB	bSME/07 (Ca	l. Validity: 30.04.2
Date &	k time of sampling	Paradeep, Odisha		Parameters	Tested
Samuel	ing Plan & Method	: 21.05.2025 (06:00 P.M. to 06:36 P.M.)	Physical & t		
Samuel	ing Carried out by	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3) : Mr. Partha Pratim Mandal		city, Gas flow,	O2 CO2 & CO
	sis Started on	: 27.05.2025	Chemical:	Taken a	
	sis Completed on	: 27.05.2025	PM, NH, &	TF	
A.	General information abou	ut stack	_		
1.	Stack connected to	DAP - D			
2.	Emission due to	: Process Emmission			
3	Material of construction of	stack : M.S.			
4.	Shape of stack	: Circular.			
5.	Whether stack is provided	with permanent platform & badder - Yes			
В.	Physical characteristics	of stack :			
1.	Height of the stack from gr	mmd level : 50 m			
3.	Diameter of the stack at sar	npling point : 2.8 m			
4.	No. of Traverse point	: 30 Nos.			
5.	Height of the sampling pois	ot from GL : 35 m			
C.	Analysis / Characteristic				
D.	Fuel used :	2. Fuel consumption :		3.Load :	
D.	Environmental condition				
1.	Barometric pressure : 756 a		2. Temperat	ore:34 °C	
E.	Results of Physical Parar	neters of Flue Gas :			
SINo	The state of the s	Test Method	Unix	- 1	tesults
1	Temperature of emission	IS 11255 : Part 3 : 2008	"C		60
2.	Velocity of gas in duct	(S. 11255:Part 3:2008	m/sec		16.65
3.	Quantity of gas flow	15: 11255:Part 3:2008	NM ³ /br		03632
E.	Results of gaseous emiss	sion:	2404740		01002
SINo	Test Parameters	Test Method	Unit	Results	Norms
					as per CPCB
F-	Carbon monoxide	IS 11255 : Part 1 : 1985 By Omat	% v/v	< 0.2	Not Specified
2.	Carbon dioxide	15 11255 : Part 1 : 1985 By Orsat	% v/v	0.2	Not Specified
3.	Oxygen	IS 13270 (By Clean); 1992	% v/v	19.6	Not Specified
4.	Particulate Matters	IS 11255; Part 1.: 1985	mg/Nm3	72	150 max.
5.	Total Fluoride	IS 11255 (Part - 5): 1990	mg/Nm ⁴	3.62	<10
	0.519-04-000004	Methods of Air Sampling & Analysis, 3rd Ed	mgann	3.02	< 10

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Drin KARIM

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007

TEST REPORT

Certif	icate No. AP-FG/24-25/0	0309	Issue Date: May 27, 20	25		Page 1 of
Issued to : M		: M/S. M/S. F	PARADEEP PHOSPHATE I	TD.		rage (or
		: Paradeep,				
	S.O. No.		dtd. 16,08.2024			
	e Description	: Stack Gas/			Equipment	nsad-
	e ID No.	: AP-FG/24-2	5/0309	Stack Moni		useu.
Vame	of Industry / Site	: M/S: M/S, PA	RADEEP PROSPHATE LTD.	ID No.: RVB	SMK/07 (Cal	Validity: 30.04.2
		Paradeep, Odi	sho.		Parameters	
	time of sampling	: 20,05.2025 (04:35 P.M. to 05:20 P.M.)	Physical & C		
	ng Plan & Method	: RVB/FM/45	& IS: 11255 (Part-1,2 & 3)	Temp., Veloc	ity, Gas flow,	0,00,00
	ng Carried out by	: Mr. Partha P	ratim Mandal	Chemical :		
	is Started on	: 27.05.2025		PM & TF		
	is Completed on	: 27.05.2025				
A.	General information about	ut stack:				
1.	Stack connected to		:PAP#1			
2.	Emission due to		: Process Emmision			
3.	Material of construction of	l stock	z M.S.			
4.	Shape of stack		: Circular.			
5.	Whether stack is provided	with permanent	platform & ladder: Yes.			
В.	Physical characteristics	of stack:				
1.	Height of the stack from g	round level	: 50 m			
3.	Diameter of the stack at sa	mioq gailqm	: 2.7 m			
4.	No. of Traverse point		: 30 Nos.			
5.	Height of the sampling poi	int from GL	: 35 m			
C.	Analysis / Characteristic	of stack Gas / F				
1-	Fuel used :		2. Fuel consumption :		3.Load:	
D.	Environmental condition					
1.	Barometric pressure : 756			2. l'emperat	ure: 36 °C	
E.	Results of Physical Parar				August and a second	
SI No	Test Parameters		Test Method	Unit	F	tesults
1.	Temperature of emission	15	\$ 11255 : Part 3 : 2008	°C		45
2.	Velocity of gas in duct		IS 11255 Part 3:2008	m/sec		5.15
3.	Quantity of gas flow	1 3	IS 11255 Part 3:2008	NM ¹ /hr	157	14991
F.	Results of gaseous emis-		TO THE PERSON OF	1 1534 (m)		14991
SI No	Test Parameters		Test Method	87.74	Water Co.	
27 INIT 2910			rest method	Unit	Results	Norms
1.	Carbon monoxide	10 110	55 : Part 1 : 1983 By Orsal	80000		as per CPCB
2.	Carbon dioxide			76 V/V	<0.2	Not Specified
			55 : Part 1 : 1985 By Octat	36 x/v	0.2	Not Specified
3.	Oxygen		13270 (By Omit): 1992	26 N/V	19.6	Not Specified
4.	Particulate Matters	18	11255 : Part 1 : 1985	mg/Nm3	44	150 max.
	Total Fluoride	15	11255 (Part - 5) : 1990	mg/Nm ³	5.30	20 max.
5.	Pollution control device					

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Reviewed & Apthorised by

(Dr. R. KARIM)

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Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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TC-12347

Corti	ficate No. AP-FG/24-25/	0310	TEST REP Issue Date: May 27,	2025		
ssue	d to		PARADEEP PHOSPHATE	2025		Page 1
Addre	ess	Paradeep	Orlisha	LID.		
our S	S.O. No.	: 550000760	9, dtd. 16.08.2024			
	e Description	: Stack Gas			W. A. L. P. L.	
Sample ID No.		: AP-FG/24-		Stack Mon	Equipme	or used:
			ARADEEP PHOSPHATE LTD.	ID No. RV	BASMICANTAC	d. Validity, 30.04.26
	POSITION NO.	Paradeep, Or	dislam.	77.77.00.1.XC.9.3	Parameter	w Taxted
Date & time of sampling		: 20.05.2025	(12:16 P.M. to 12:58 P.M.)	Physical &		3 1 031011
ampl	ing Plan & Method	RVB/FM/4	5 & IS: 11255 (Part-1.2 & 3)			0,00,800
ampli	ing Carried out by	3 Mr. Partha	Pratim Mandal	Chemical 2	ALLEN GOOD LINES AND	Code produce pro-
	is Started on	: 27.05.2025		PM & TF		
	is Completed on	: 27.05.2025				
A.	General information about Stack connected to	ut stack :				
2.	Emission due to		: PAP # 2			
3.	Material of construction of	Connect	: Process Emmision			
4.	Shape of stack	SINCK	: M.S.			
5.	Whether stuck is provided	saith manna	: Circular. nt platform & ladder : Yes.			
В.	Physical characteristics	of stack:	ni prattorm & ladder : Yes.			
1	Height of the stack from g	found level	1 500 am			
3.	3. Diameter of the stack at sampling point : 1.0 m					
	No. of Traverse point	and desired	: 12 Nos			
	Height of the sampling poi	nt from GI.	: 45 m			
C.	Analysis / Characteristic	of stack Gas /	Flue Gas :			
1.	Fuel used :		2. Fuel consumption : -		3.Lond:-	
	Environmental conditions		The second second		3.Long:	
L	Barometric pressure: 756	mmHg		9.99	an Ho	
E.	Results of Physical Paran	neters of Flue	Gas :	2. Temperat	ure:38 °C	
No	Test Parameters		Test Method	1 11-14		
	Temperature of emission		S 11255 : Part 3 : 2008	Unit "C		Results
2.	Velocity of gas in duct		IS 11255:Part 3:2008			49
3.	Quantity of gas flow		IS 11255 Part 3/2008	m/sec		12.82
_	Results of gaseous emiss	ion	13 11 222 1301 2/2008	NM ³ /hr		32545
No	Test Parameters	1011				
	rest Parameters		Test Method	Unit	Results	Norms
	Carbon monoxide	(0.77)	Sallallo V- sus-			as per CPCB
			255 : Part 1 : 1985 By Onin	26 v/y	< 0.2	Not Specified
_	Carbon dioxide		255 : Part 1 : 1985: By Onat	% v/v	0.4	Not Specified
	Oxygen		13270 (By Omat): 1992	96.879	19.4	Not Specified
	Particulate Matters	- 3	5 11255 : Part 1 : 1985	mg/Nm3	39.7	150 max.
_	Total Fluoride	IS	11255 (Part - 5) : 1990	mg/Nm ³	4.20	
3. 1	Collution control device			HIS/AIR	7-4-5	20 max.

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Reviewed & Authorised by

(Dr. R. KARIM)

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

out the	cate No. AP-FG/2	4-25/0311	Issue Date: May 27	2025		Page 1 of
ssuec			ARADEEP PHOSPHATE L'			Page 1 of
Addre		: Paradeep, O				
	O. No.	5500007609, d				
***	Description.	Stuck Gas / Fl			T.	quipment used:
	ID No.	AP-FG/24-25/		Stack Monito	799	ADDROGRAM AND
	Titchestry / Site		ADEEP PHOSPRATE LTD			L Validity: 30.04.2026)
		Puradeep, Odish		75-310-301-0	Po	irametery Testeil
hate X	time of sampling		3:10 P.M. to 03:34 P.M.)	Physical & G		and a second
	ng Plan & Method		E IS: 11255 (Part-1,2 & 3)	2.73072-732-73		0, 00, & 00
	ng Carried out by	Mr. Partha Pra		Chemical :	ig, cas bire,	105 1107 & CD
	is Started on	: 27.05.2025	TESTS (PARTICULAR	SO ₂ NO ₂ Hi	E. 118.4	
	is Completed on	27.05.2025		Section Control	C 0C 1:141	
A.	General informatio					
ï	Stack connected to	HI MATCHES STRAND	: Diesel Generator	Sur - 2		
2	Emission due to		Burning of H.S.D			
	Material of construc	tion of stark	M.S.	r.c		
	Shape of stack	The second second	- Circular.			
		wided with neron	ament platform & Indder Ves			
6	Generator capacity	men to min become	I MVA			
В.	Physical character	istics of stack :				
1	Height of the stack					
2	Sampling Point		Chimney			
3.	Diameter of the stac	de set amonding ou				
4	No. of Traverse poi		. 08 Nos			
	Analysis / Charact	eristic of stack (Sac / Flue Gae :			
1.	Fuel used	HSD	SWELLING MEST	2. Fuel consu	imurlion :	
D.	Environmental cor			2 1 Mel softis	militarion -	
1.	Barometric pressure			-	Was Fine	
			E A	2. Temperate	ne:32°C	
E.	Finding of Physica					
Sl No			Last Markad			
			Test Method	Unit		Results
1.	Temperature of em		IS 11255 : Pun 3 : 2068	C		241
2.	Velocity of gas in o	fact	IS 11255 : Purt 3 : 2008 IS 11255 : Purt 3 : 2008	missec missec		241 15.40
3.	Velocity of gas in o Quantity of gas flor	fact	IS 11255 : Pun 3 : 2068	3.0		241
2. 3.	Velocity of gas in o Quantity of gas floo Results of gaseou	fact w s emission :	IS 11255 Part 3 : 2068 IS 11255 Part 3 : 2008 IS 11255 Part 3 : 2008	missec missec		241 15.40
3.	Velocity of gas in o Quantity of gas flor	fact w s emission :	IS 11255 : Purt 3 : 2008 IS 11255 : Purt 3 : 2008	missec missec	Results	241 15.40
2. 3.	Velocity of gas in o Quantity of gas floo Results of gaseou	fact w s emission :	IS 11255 Part 3 : 2068 IS 11255 Part 3 : 2008 IS 11255 Part 3 : 2008	"C misee NM/hr Unit		241 15.40 3500 Norms at jur Environment (Prosection) Amendment Rules 2002, for > 800 ton
2. 3. F. SI No	Velocity of gas in of Quantity of gas flor Results of gaseou Test Parameter Sulphur disside	fact w s emission :	IS 11255 Purt 3 : 2008 IS 11255 Purt 2 : 1985	"C misee NM"/hr Unit	88.20	241 15.40 3900 Norms as per Environmens (Protection
2. 3. F. SI No	Velocity of gas in of Quantity of gas flor Results of gaseou Test Parameter	fact w s emission :	IS 11255 Part 3 : 2008 IS 11255 Part 3 : 2008 IS 11253 Part 3 : 2008 Test Method	"C misee NM"/hr Unit Unit	88.20 147.52	241 15.40 3900 Norms at jur Environment (Princetion Amendment Rules 2002, for > 800 for Not Specifical
2. 3. F. 3 No	Velocity of gas in of Quantity of gas flor Results of gaseour Test Parameter Sulphur dincide Nitrogen dioxide	iuct w s emission :	IS 11255 Part 3 : 2008 IS 11255 Part 3 : 2008 IS 11253 Part 3 : 2008 Test Method IS 11255 Part 2 : 1985 IS 11255 Part 7 : 2005	"C misce NM"/hr Unit ug/Nm" mg/Nm" gm/kw-hr	88.20 147.52 0.72	241 15.40 3500 Norms at jur Environment (Prosection) Amendment Rules 2002, for > 800 ton
2. 3. F. 3 No	Velocity of gas in of Quantity of gas flor Results of gaseou Test Parameter Sulphur disside	iuct w s emission :	IS 11255 Purt 3 : 2008 IS 11255 Purt 2 : 1985	"C misee NM"/hr Unit ung/Nm" ung/Nm" gm/kw-hr gm/kw-hr	88.20 147.52 0.72 0.03	241 15.40 3900 Norms at jur Environment (Princetion Amendment Rules 2002, for > 800 for Not Specifical
2. 3. F. I No 1 2	Velocity of gas in of Quantity of gas flor Results of gaseout Test Parameter Sulphur dissode Nitrogen disorde. Total Hydrocarbon	iuct w s emission :	IS 11255 Purt 3 : 2008 IS 11255 Purt 2 : 1985 IS 11255 Purt 7 : 2005 ISPA Method 18	"C misee NM"/hr Unit ung/Nm' mg/Nm' gm/kw-hr mg/Nm'	88.20 147.52 0.72 0.03 6.96	241 15.40 3900 Norms at jur Environment (Princetion Amendment Rules 2002, for > 800 for Not Specifical
2. 3. F. 3 No	Velocity of gas in of Quantity of gas flor Results of gaseour Test Parameter Sulphur dincide Nitrogen dioxide	iuct w s emission :	IS 11255 Part 3 : 2008 IS 11255 Part 3 : 2008 IS 11253 Part 3 : 2008 Test Method IS 11255 Part 2 : 1985 IS 11255 Part 7 : 2005	"C misee NM"/hr Unit ung/Nm" ung/Nm" gm/kw-hr ung/Nm" ung/Nm"	88.20 147.52 0.72 0.03 6.96 139	241 15.40 3900 Norms or per Environment (Protection Amendment Rules 2002, for > 800 tow Not Specifical
2. 3. F. II No 1 2	Velocity of gas in of Quantity of gas flor Results of gaseout Test Parameter Sulphur dissode Nitrogen disorde. Total Hydrocarbon	iuct w s emission :	IS 11255 Purt 3 : 2008 IS 11255 Purt 2 : 1985 IS 11255 Purt 7 : 2005 ISPA Method 18 IJSEPA 10:2017	"C mixee NM"/hr Unit Unit ung/Nm' ung/Nm' gm/kw-hr ung/Nm' ung/Nm' ung/Nm' ung/Nm'	88 20 147 52 0.72 0.03 6.96 139 0.68	241 15.40 3900 Norms as per Environment (Protection Amendment Rules 2002, for > 800 km Not Specifical
2 3 F. II No 1 2 3	Velocity of gas in of Quantity of gas flor Results of gaseour Test Parameter Sulphur dissode Nitrogen dioxide Total Hydrocarbon Carbon monoxide	iuct w s emission :	IS 11255 Purt 3 : 2008 IS 11255 Purt 2 : 1985 IS 11255 Purt 7 : 2005 IPA Method 18 IJSEPA 10:2017 IS 13270 (By Orsat), 1992	"C mixee NM"/hr Unit Unit Unit mg/Nm' mg/Nm' mg/Nm' mg/Nm' mg/Nm' mg/Nm'	88.20 147.52 0.72 0.03 6.96 139 0.68 <0.2	241 15.40 3900 Norms or per Environment (Protection Amendment Rules 2002, for > 800 tow Not Specifical 4.0 3.5
2 3 F. SI No 1 2 3	Velocity of gas in of Quantity of gas flor Results of gaseour Test Parameter Sulphur dissode Nitrogen dioxide Total Hydrocarbon Carbon monoxide Carbon dioxide	s emission :	IS 11255 Part 3 : 2008 IS 11255 Part 2 : 1915 IS 11255 Part 7 : 2005 IPA Method 18 IJSEPA 10:2017 IS 13270 (By Orsat) 1992 IS 13270 (By Orsat) 1992	"C mixee NM"/hr Unit Unit Unit Unit mg/Nm' mg/Nm' mg/Nm' mg/Nm' mg/Nm' mg/Nm' mg/Nm' mg/Nm' yev/v	88.20 147.52 0.72 0.03 6.96 139 0.68 <0.2 7.4	241 15.40 3900 Norms or per Environment (Protection Amendment Rules 2002, for > 800 tow Not Specifical
2 3 F. SI No 1 2 3	Velocity of gas in of Quantity of gas flor Results of gaseour Test Parameter Sulphur dissode Nitrogen dioxide Total Hydrocarbon Carbon monoxide	s emission :	IS 11255 Purt 3 : 2008 IS 11255 Purt 2 : 1985 IS 11255 Purt 7 : 2005 IPA Method 18 IJSEPA 10:2017 IS 13270 (By Orsat), 1992	"C mixee NM"/hr Unit Unit Unit mg/Nm' mg/Nm' mg/Nm' mg/Nm' mg/Nm' mg/Nm'	88.20 147.52 0.72 0.03 6.96 139 0.68 <0.2	241 15.40 3900 Norms as per Environment (Protection) Amendment Rules 2002, for > 800 km Not Specifical 4.0 3.5

Report Verified by

Reviewed & Authorised by

Dr. R. KARIM

Technical Manager
Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

< END OF TEST REPORT :-

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



TEST REPORT

Issue Date: 30 May 2025 Page 1 of 1 Certificate No.E(D)/25-26/331 M/s, PARADEEP PHOSPHATE LIMITED Issued to Paradeep, Odisha Effluent. Description of Sample E(D)/25-26/331 Sample ID No Paradeep Phosphate Limited Name of Industries/Site Paradeep, Odisha ETP Outlet Collection Source 24.05.2025 at 2:10 P.M. Parameter Tested: Sample Drawn by us on pH, TSS, O & G, F, Mr. S.Roy Sample Carried out by NH-N, TKN, NH₁₀ P, N RVB/FM/45 Sampling Plan 26.05.2025 Analysis Started on : 30.05.2025 Analysis completed on

Sample collection Procedure : APHA 24th Edition 1060

Mode of Sampling : Grab

Environmental condition during sampling : Temperature : 30°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
T	pH Value	APHA 24th edition-4500H+B		8.20	6.5 - 8.5
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	57	100 (Max.)
3	Oil & Grease (O & G)	APHA 24th edition 5520B	mg/l	< 2	10 (Max.)
4	Fluoride as F	APHA 24th edition 4500 F-C	mg/l	1.0	10 (Max.)
5	Ammoniacal Nitrogen as NH ₃ -N	APHA 24th edition 4500 NH3F	mg/l	46.8	50 (Max.)
6	Total Kjeldahl Nitrogen (TKN) as N	APHA 24th edition 4500-NorgA	mg/l	47.2	75 (Max.)
7	Free Ammonia as NH ₃	APHA 24th edition 4500 NH3F	mg/l	2	4 (Max.)
8	Dissolved Phosphates as P	APHA 24th edition 4500-PD	mg/l	0.74	5 (Max.)
9	Nitrate Nitrogen as NO ₃ -N	APHA 24th edition 4500-N03D	mg/I	12	20 (Max.)

Note: BDL: Below Detection Limit. Minimum Detection Limit of Oil & Grease .. 2.0 mg/l, NH3 .. 0.1 mg/l.

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT:-

* Results relate only to the parameters tested. for the particular item.

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CIN: U51109WB1931PTC007007



TEST REPORT

Page 1 of 2 Issue Date: 30 May 2025 Certificate No.E(D)/25-26/332

M/s. PARADEEP PHOSPHATE LIMITED Issued to

Paradeep, Odisha

Effluent Description of Sample

E(D)/25-26/332 Sample ID No

Paradeep Phosphate Limited Name of Industries/Site

Paradeep, Odisha

STP Outlet Collection Source

24.05.2025 at 2:40 P.M. Sample Drawn by us on

Mr. S.Roy Sample Carried out by RVB/FM/45 Sampling Plan 26.05.2025 Analysis Started on

: 30.05.2025 Analysis Completed on

APHA 24th Edition 1060 Sample collection Procedure

Grab Mode of Sampling

Environmental condition during sampling : Temperature : 29.5°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1	pH Value	APHA 24th edition-4500H+B		7.36	6.5 - 9.0
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	12	< 100
3	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	1.S. 3025 (Part - 44) - 1993	mg/l	10	< 30

Remarks: The sample of effluent complies with the above Specification.

Report Verified by T. Rudderfile

Reviewed & Authorised by

Parameter Tested:

pH, TSS, ROD

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT:-

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CIN: U51109WB1931PTC007007



TEST REPORT

Certificate No.E(D)/25-26/332	Issue Date: 30 May 2025	Page 2 of 2
Issued to	: M/s. PARADEEP PHOSI Paradeep, Odisha	PHATE LIMITED
Description of Sample	Effluent	
Sample ID No	: E(D)/25-26/332	
Name of Industries/Site	: Paradeep Phosphate Limited	ď
	Paradeep, Odisha	
Collection Source	: STP Outlet	
Sample Drawn by us on	: 24.05.2025 at 2:40 P.M.	
Sample Carried out by	: Mr. S.Roy	Parameter Tested:
Sampling Plan	: RVB/FM/45	Microbiological: Faecal Coliform
Analysis Started on	: 26.05.2025	
Analysis completed on	: 28.05.2025	

Sample collection Procedure : APHA 24th Edition 1060

Mode of Sampling : Grab

Environmental condition during sampling: Temperature: 29.5°C, Transported in Ice box, Cold chain maintained

MICROBIOLOGICAL TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1	Faecal Coliform	APHA 24th edition 9221E	MPN/ 100 ml	< 2	< 1000

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Denil.

Reviewed & Authorised by

124-

(Pijush Kanti Dutta)

Sr. Microbiologist

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT:-



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TC-12347



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CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-SL/25-26/0232A-0235A Issue Date : May 28, 2025 Page 1 of 1 : M/S. PARADEEP PHOSPHATES LIMITED Issued to Address : Paradeep, Odisha. Your P.O. Ref. no. : 5500007609, dtd. 16.08.2024 Description of Sample : Sound Level Monitoring Equipment used: Sound Level Meter Sample ID No. : AP-SL/25-26/0232A-0235A ID No.: RVB/SLM/09 Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED (Cal. Validity: 07.05.2026) : Paradeep, Odisha. Parameters Tested : L_{Miss}, L_{Max} & Sampling Plan: : RVB/FM/45 Sampling Carried out by : Mr. Partha Pratim Mandal Test Method: 1S 4758: 1968 Date of Monitoring : 20.05.2025 to 23.05.2025

A. SOUND LEVEL MONITORING

SI.	Date of	Locations	Day Time (06.00 A.M to 10.00 P.M) Night Time (10.00 P.M to				o 06.00 A.M)			
No	Monitoring		Sound	Level in	dB(A)	Norms as per	Sound Level in dB(A)			
			L _{Min}	L _{Max}	Leq	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Industrial area	L _{Min}	L _{Max}	L _{eq}	Protection Act 1986, rule 3(1) and 4 (1) for Industrial area
1.	23.05.2025	Near AAQMS -	56.2	58.4	57.5		45.8	49.1	47.6	
2	20.05.2025	Near AAQMS -	55.4	59.1	57.5	75 dB(A)	48.6	51.3	50.0	70 dB(A)
3	21.05.2025	Near AAQMS -	56.1	59.2	58.2		47.7	51.5	50.1	

B. SOUND LEVEL MONITORING AT AMBIENT LOCATION : RESIDENTIAL AREA

SI.	Date of	Locations	Day Time (06.00 A.M to 10.00 P.M)			Night Time (10.00 P.M to 06.00 A.M				
No Monitoring		Sound Level in dB(A)		n dB(A)	Norms as per	Sound	Sound Level III ab(r)		Norms as per	
			L _{Min}	L _{Max}	Leq	Protection Act 1986, rule 3(1) and 4 (1) for Residential area	L _{Min}	L _{Max}	L _{eq}	Protection Act 1986, rule 3(1) and 4 (1) for Residential area
1.	22.05.2025	Near AAQMS -	51.5	54.8	53.5	55 dB(A)	42.5	44.5	44.4	45 dB(A)

Note: - L . - Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

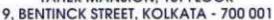
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CIN: U51109WB1931PTC007007

TEST REPORT

Issued to : M/S. PARADEEP PHOSPHATES LIMITED

Address : Paradeep, Odisha.

Your W.O. Ref. no. : 5500007609, dtd. 16.08.2024

Description of Sample : Sound Level Monitoring Equipment used:

Sample ID No. : AP-SL/25-26/0236-0242 Sound Level Meter

Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED ID No.: RVB/SLM/09

Paradeep, Odisha. (Cal. Validity: 07.05.2026)

Sampling Plan : RVB/FM/45 Parameters Tested : L_{Min} , L_{Max} & L_{eq} Sampling Carried out by : Mr. Partha Pratim Mandal Test Method : IS 4758 : 1968

Date of Monitoring : 20.05.2025 to 23.05.2025

SOUND LEVEL MONITORING:

SI.	Locations	TIME	Noise	Level in	dB(A)	Permissible Noise Exposure for Industrial	
No.			$\mathbf{L}_{\mathrm{Min}}$	L _{Max}	\mathbf{L}_{eq}	Workers as per The Noise Pollution (Regulation And Control) Rules, 2000	
1.	PAP Plant	10:10 A.M 10:15 A.M.	79.9	84.1	82.4		
2.	Bagging Section	10:20 A.M 10:25 A.M.	72.5	77.7	75.5		
3.	SAP Plant	10:40 A.M 10:45 A.M.	72.8	76.2	74.8		
4.	DAP- AB Side	11:00 A.M 11:05 A.M.	86.4	89.1	87.9	90 dB(A)	
5.	DAP - CD Side	11:10 A.M 11:15 A.M.	87.5	89.6	88.7		
6.	Zypmite Plant	10:00 A.M 10:05 A.M.	78.6	87.9	84.2		
7.	Off Side	10:30 A.M 10:35 A.M.	72.8	76.1	74.9]	

Note: - L eq - Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

TC-12347

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Certificate No. AP-AAQ/25-26/0209

Issue Date: June 30, 2025

Page 1 of 1

Issued to

: M/S. PARADEEP PHOSPHATE LTD.

Address

: Paradeep, Odisha

Your Ref. No.

5500007609, dtd. 16.08.2024

Sample Description

: Ambient Air

Sample ID No.

AF-AAQ/25-26/0209

Name of Industry / Site

: M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Odisha

Sampling Location Date & Time of sampling : Near AAQMS # 01 : 23.06.2025 (10:40 A.M.)-24.06.2025 (10:40 A.M.)

: 24Hrs

Duration of Sampling Sampling Plan:

RVB/FM/45

Sampling Carried out by : Mr. Partha Pratim Mandal

Method of Sampling

: As per CPCB guidelines (Volume-I)

Analysis Started on

24.06.2025

Analysis Completed on

30.06.2025

Equipment used:

Ambjent Fine Dust Sampler

ID No.: RVB/AFDS/PM2:5/14, Call. Valid upto: 12:07:25

Respondle Dust Sampler

D No.: RVB/RDS/APM460/BL/15, Call Valid upto: 02:11:25

Environmental conditions

Weather Condition: Clear

Temperature: Max: 31°C & Min: 27.0°C

Barometric Presure: 756 mmHg

Parameters Tested: PM2.5, PM10, SQ2, NO2, O5, NH3, CO, Pb, Ni, As, CeHe, BaP

TEST FINDINGS:-

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L	µg/m³	52.0	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10μm)	IS 5182 (Part - 23): 2006	µg/m ³	59.6	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part + 2): 2001	µg/m³	6.00	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5162 (Part - 6): 2006	µg/m²	13.00	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m²	12.00	180 (1 Hourly.)
6.	Ammonia as NH ₃	SCP No.: RVB/SCP/C1/10 (Intochenol Micrody Issue No. 54, Issue Date: 10.01.3018	µg/m³	16.00	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Fan 10), 1999 Non Dispensive, 1879 Red (NOR) specimosopy	mg/m ¹	0.600	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m ³	0.282	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No: RVB/SOP/01/15 (AAS Method) (sque No. 04, issue Cate: 10.01 2018	ng/m ³	<5.0	20
10.	Arsenic as As	SOP No.: FIVE/SOP/81/16 (AAS Method) lissue No. 54, Issue Dato: 10.01 2018	ng/m³	<0.25	6.0
11.	Benzene as C _e H _e	IS:5182 (Part -11): 2006,	µg/m²	<1.0	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m ³	<0.5	1.0

Minimum detection Limit: Nickel' 5 ng/m³. Amenic: 0.25 ng/m³, Benzene: 1 μg/m³ & Benzo(e)Pyrene: 0.5 ng/m

Report Verified by

Reviewed & Authorised by

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Certificate No. AP-AAQ/25-26/0210

Issue Date: June 30, 2025

Page 1 of 1

TC-12347

Issued to

: M/S. PARADEEP PHOSPHATE LTD.

Address

: Paradeep, Odisha

Your Ref. No.

5500007609, dtd. 16.08.2024

Sample Description

Ambient Air

Sample ID No.

AP-AAQ/25-28/0210

Name of Industry / Site

: M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha

Sampling Location Date & Time of sampling : Near AAQMS # 02

: 22.06.2025 (10:35 A.M.)-23:06.2025 (10:35 A.M.)

: 24Hrs.

Duration of Sampling Sampling Plan:

: RVB/FM/45

Sampling Carried out by : Mr. Partha Pratim Mandal

Method of Sampling

: As per CPCB guidelines (Volume-I)

Analysis Started on Analysis Completed on

: 24.06.2025

Equipment used:

Ambiert Fine Dust Sampler

ID No.: RVB/AFDS/PM2.5/14, Cal. Valid upto: 12.07.25

Respectite Dust Sampler

D No.: RVB/RDS/APM466/BL/15, Cal. Valid upto: 02.11.25

Environmental conditions

Weather Condition: Clear

Temperature : Max: 31.0°C & Min: 27.0°C

Barometric Presure: 756 mmHq

: 30.06.2025

Parameters Tested: PM25 PM10 SO2 NO5 O3 NH1.

CO, Pb, Ni, As, CoHa, BaP

TEST FINDINGS.

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MC5 & F Notification New Delhi, 16th November, 2009
1_	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m²	42.0	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10μm)	IS 5182 (Part - 23): 2006	µg/m ³	51.5	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m²	6.20	80 (24 Hourly.)
4,	Nitrogen Dioxide as NO ₂	IS 5162 (Part - 6): 2006	µg/m³	15.40	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	13.20	180 (1 Hourly:)
6.	Ammonia as NH ₃	SQP No.: RV8/SQP/01/10 (interpreno: Method) lesue No. 04: tesue Date: 10.01:2018	µg/m³	16.80	400 (24 Hourly.)
7.	Carbon Monoxide as CO	(5 : 5182 (Part - 10), 1969 Non Disposive Infra-Red (NOIR) reactivecopy	mg/m ³	0.700	04 (1 Hourly)
8.	Lead as Pb	(S 5182 (Part - 22): 2004	µg/m³	0.008	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) result No. 04, speed Date: 10.01.2018	ng/m³	<0.5	20
10.	Arsenic as As	SOP No.: RVE/SOP/01/16 (AAS Murror) have No. 04, lenie Date: 10/01/2018	ng/m³	<0.25	6.0
11.	Benzene as C _E H _E	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12.	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit: Nickel: 5 right³, Arsenic: 0.25 right³, Benzane: 1 µg/m³ 8 Benzo(a)Pyrene: 0.5 right

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

		TEST REPO	RT					
Ce	rtificate No. AP-AAQ/25-26	/0211		: June 30, 2025	Page 1 of			
Add	dress	M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha 5500007609, dtd. 16.08.2024						
Sample Description : Amb Sample ID No. : AP-A Name of Industry / Site : M/S. Para Sampling Location : Near		Description : Ambient Air D No. : AP-AAQ/25-26/0211 Industry / Site : M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha		Equipment used: Ambient Fine Dust Sampler ID No.: RVE/AFDS/PM2 5/14, Call Valid upto: 12.07.25 Respontite Dust Sampler ID No.: RVB/RDS/APM460/BL/15, Call Valid upto: 02.11.25				
Duration of Sampling 24H Sampling Plan : RVB Sampling Carried out by : Mr. Method of Sampling : As		or of Sampling : 24Hrs. ng Plan : RVB/FM/45 Ning Carried out by : Mr. Partha Pratim Mandal		Environmental conditions Weather Condition: Clear Temperature: Max: 31.0°C & Min: 27.0°C Barometric Presure: 758 mmHg				
		4.06.2025 0.06.2025		s Tested: PM _{2.5} , PN As, C ₀ H ₆ , BaP	M ₁₀ , SO ₂ , NO ₂ , O ₃ , NH ₃ ,			
TES	ST FINDINGS:-							
SL. No.		Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE of F Notification New Delhi, 16th November 2009			
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a.40 CFR Part 50, Appendix L	µg/m³	47.6	60 (24 Hourly.)			
2	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2008	µg/m³	52.0	100 (24 Hourly.)			
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	4.96	80 (24 Hourly.)			
4,	Nitrogen Dioxide as NO	IS 5182 (Part - 6): 2006	µg/m³	18.00	80 (24 Hourly.)			
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m ³	13.00	180 (1 Hourly.)			
6.	Ammonia as NH ₂	SCP No.: RVB/SCP/C1/10 (Inducher of Method): Insue No. 04, Insue Cate: 10.01.2018		20.00	400 (24 Hourly.)			
7.	Carbon Monoxide as CC	55 : 5182 (Part - 10), 1999 Non Disparative Infra-Red (N/DIR) spectroscopy	mg/m³	0.720	04 (1 Hourly.)			

Minimum detection Limit. Nickel: 5 ng/m3. Amenic: 0.25 ng/m3. Benzene: 1 µg/m3& Benzo(e)Pyrene: 0.5 ng/m3.

Report Verified by

Lead as Pb

Nickel as Ni

Arsenic as As

Benzene as C₆H₆

Benzo (a) Pyrene

Gayen

Reviewed & Authorised by

0.810

<5.0

0.28

1.03

< 0.5

1.0 (24 Hourly.)

20

6.0

5.0

1.0

ha/w,

ng/m3

ng/m³

µg/m²

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

IS 5182 (Part - 22): 2004

SCP No.: RVS/SCP/01/15 (AAS Method) Issue No. 04.

Innue Date: 10.01.2018 SOP No.: RVB/ROP/01/16 (AAS Method) Innue No. 04.

Issue Date: 10 01 2618

IS 5182 (Part - 11): 2006.

IS 5182 (Part - 12): 2004,

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

Certificate No. AP-AAQ/25	-26/0212	Issue Date : June 30, 2025 Page 1 c
Issued to Address Your Ref. No.	: M/S. PARADEEP PHOSPHATE LTD. : Paradeep, Odisha : 5500007609, dtd. 16.08.2024	
Sample Description Sample ID No. Name of Industry / Site Sampling Location	Ambient Air AP-AAQ/25-26/0212 M/S PARADEEP PHOSPHATE LTD. Paradeep, Odisha Near AAQMS # 04	Equipment used; Ambient Fine Dust Sampler ID No.: RVB/AFDS/PM2.5/14, Cat. Valid upto: 12:07:25 Respentite Dust Sampler ID No.: RVB/RDS/APM450/BL/15, Cat. Valid upto: 02:11:25
Date & Time of sampling Duration of Sampling Sampling Plan: Sampling Carried out by Method of Sampling	: 21.06.2025 (10:15 A.M.)-22.06.2025 (10:15 A.M.) : 2414s : RVB/FM/45 : Mr. Partha Pretim Mandal : As per CPCB guidelines (Volume-I)	Environmental conditions Weather Condition: Clear Temperature: Max: 30.0°C & Min: 27.0°C Barometric Presure: 756 mmHg
Analysis Started on Analysis Completed on	: 24.06.2025 : 30.06.2025	Parameters Tested: PM _{2.5} , PM ₁₀ , SO ₂ , NO ₂ , O ₃ , NH ₃ CO, Pb, Ni, As, C ₆ H ₈ , BaP

TEST FINDINGS:-

SI. No.		Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,46 CFR Part 56, Appendix L.	µg/m ²	39.8	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	49.0	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2); 2001	µg/m ²	5.60	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	19.50	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) ; 1974	µg/m³	11.70	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: HVB/SOPYC1/10 (Indephase) Method) (usue No. 64, Itsue Date) 10:01:2018	µg/m³	18.20	400 (24 Hourly.)
7.	Carbon Monoxide as CO	15 : 5192 (Part - 10), 1999 Non Dispensive Intra-Red (NDIR) spectroscopy	mg/m ³	0.760	04 (1 Hourly.)
8.	Lead as Pb	19 5182 (Part - 22): 2004	µg/m ³	0.880	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVS/SOP/01/15 (AAS Nethod) Issue No. 54, from Date: 10.01.2016	ng/m ⁹	<5.0	20
10.	Arsenic as As	SOP No.: RVB/SOP/01/16 (AAS Method) have No. 04, have Callet 10/21/2018	ng/m³	<0.25	6.0
11.	Benzene as C ₉ H ₆	IS 5182 (Part - 11): 2008,	Jug/m ³	<1.0	5.0
12	Benzo (a) Pyrene	IS:5182 (Part - 12): 2004,	ng/m²	<0.5	1.0
					17.1147

Minimum detection Limit: Nicket: 5 ng/m³, Arsenic: 0.25 ng/m³, Serizene: 1 µg/m³ & Benzola/Pyrana: 0.5 ng/m²

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT Issue Date: June 30, 2025 Page 1 of 1 Certificate No. AP-FG/24-25/0524 : M/S. M/S. PARADEEP PHOSPHATE LTD. Issued to Paradeep, Odisha. Address 5500007609, dtd. 16.08.2024 Your S.O. No. Equipment used: : Stack Gas / Flue Gas Sample Description Stack Monitoring Kit : AP-FG/24-25/0524 Sample ID No. ID No.: RVB/SMK/06 (Cal. Validity: 04-05-26) M/S. M/S. PARADEEP PHOSPHATE LTD. Name of Industry / Site Parameters Tested Paradeep, Odisha. ; 23.06.2025 (10:40 A.M. to 11:19 A.M.) Physical & General Date & time of sampling Temp., Vetocity, Gas flow, O., CO. & CO. : RVB/FM/45 & IS: 11255 (Part-1,2 & 3) Sampling Plan & Method Chemical z : Mr. Partha Pratim Mandal Sampling Carried out by SO- & Acid Mist. : 24.06.2025 Analysis Started on : 30.06.2025 Analysis Completed on General information about stack: : SAP - A Stack connected to Emission due to : Process Emmision : M.S. Material of construction of stack 3. : Circular. Shape of stack 4. Whether stack is provided with permanent platform & ladder: Yes. 5 Physical characteristics of stack: B. Height of the stack from ground level : 120 m 1. Diameter of the stack at sampling point : 2.7 m 3. = 30 Nos. No. of Traverse point : 35 m Height of the sampling point from GL Analysis / Characteristic of stack Gas / Flue Gas : 3.Load : ---2. Fuel consumption : ---Fuel used :---Environmental conditions: D. 2. Temperature: 32 °C Barometric pressure: 752 mmHg Results of Physical Parameters of Flue Gas: E. Results Unit Test Method Test Parameters SINo 65 IS 11255 Part 3 : 2008 °C Temperature of emission 1. m/sec 14.31 1S 11255 Part 3:2008 2. Velocity of gas in duct 251152 IS 11255:Part 3:2008 NM hr Quantity of gas flow 3 Results of gaseous emission: Results Test Method Unit Test Parameters SINe 665.05 15 11255 : Part 2 | 1985 mg/Nm Sulphur dioxide 1. <0.2 IS 13270 : 1992 (By Orsat) 56 575 2. Carbon monoxide 0.2 18 13270 = 1992 (Hy Orint) % viv. Carbon dioxide 3. 19.4 19 13270 : 1992 (By Oriet) % V/V 4. Oxygen SOP No. RVB/SOE/01/20, 41.84 mg/Nm 5. Acid Mist Issue No.: 04, Issue Date: 10:01:2018 Pollution control device

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

< END OF TEST REPORT :-

Results relate only to the parameters of the item tested.

Details of pollution control devices attached with the stack : Alkaline scrubber

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CIN: U51109WB1931PTC007007



ortifica	ite No. AP-FG/24-25/05	TEST RED 1525 Issue Date: June 30, 20	25	Page 1 of 1			
sued t		: M/S. M/S. PARADEEP PHOSPHATE L'	TD.	110.000.000.000.000			
ddress		Paradeep, Odisha.					
our S.O		5500007609, dtd. 16.08.2024					
	Description	: Stack Gas / Flue Gas	Equipment used:				
ample II		: AP-FG/24-25/0524	Stack Monitoring	<u>Kit</u> Se organ Matatana na na 26			
	Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.		06 (Cal. Validity: 04-05-26) seters Tested			
		Paradeep, Odisha.	Physical & General				
ate & ti	ime of sampling	: 23.06.2025 (10:30 A.M. to 12:12 P.M.)		s flow, O ₂ , CO ₂ & CO			
ampling	Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Chemical :	\$ 1100 to 2 to 2 to 2			
ampling	E Carried out by	: Mr. Partha Pratim Mandal	SO ₂ & Acid Mad				
analysis	Started on	: 24.06.2025 : 30.06.2025	30245				
knalysis	Completed on						
	General information abou	: SAP - B					
	Stack connected to Emission due to	: Process Emmision					
3. 1	Material of construction of						
4 5	Shane of stack	: Circular.					
5. 1	Whether stack is provided	with permanent platform & ladder : Yes.					
B. 1	Physical characteristics	of stack:					
1. 1	Height of the stack from g	round level : 120 m					
3. 1	Diameter of the stack at se	sampling point : 2.7 m : 30 Nos.					
4. 1	No. of Traverse point						
5.	Height of the sampling po	int from GL : 35 m					
		of stack Gas / Flue Gas ;	310	nd :			
	Fuel used :	2. Fuel consumption :	- 2,1,00	HIP.:			
	Environmental condition		2. Temperature:	2100			
1.	Barometric pressure: 752	mmHg	2. Temperature :	34.6			
E.	Results of Physical Para		T 21.14	Results			
SINo	Test Parameters	Test Method	Unit	66			
da	Temperature of emission	15 11255 : Part 3 : 2008	°C				
2.	Velocity of gas in duct	1S 11255:Part 3:2008	m/sec	12.84			
3.	Quantity of gas flow	18 11255:Part 3:2008	NM ³ /hr	227029			
F.	Results of gaseous emi						
-		Test Method	Unit	Results			
SINo		IS 11255 : Part 2 : 1985	mg/Nm²	625.47			
1.:	Sulphur dioxide		76 V/V	< 0.2			
2.	Carbon monoxide	1S 13270 : 1992 (By Orsat)	1	0.2			
3.	Carbon dioxide	18 13270 : 1992 (By Oniat)	% v/v				
4.	Öxygen	1S 13270 : 1992 (Hy Orsat)	36 V/V	19.0			
5.	Acid Mist	SOP No. RVB/SOP/01/20,	mg/Nm ³	32.35			
	SPAIN MISSE	Issue No. 04, Issue Data: 10:81:2018					

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Reviewed & Authorised by

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

		ILOI KLI		Page 1 of 1	
rtificate	e No. AP-FG/24-25/05	26 Issue Date: June 30, 202	70	1 age	
sued to		MIS. MIS. PARADEEP PRODUCTION	U.		
ddress		Paradeep, Odisha.			
our S.O.	1.401	: 5500007609, dtd. 16.08.2024	Equipment used:		
ample De	scription	: Stack: Gas / Flue Gas : AP-FG/24-25/0526	Study Monitoring K	it	
imple ID	No.	M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVB/SMK/00	(Cal. Validity: 04.05.2	
ame of Ir	idustry / Site	Paradeep, Odisha.		ters Tested	
	NOTE AND ADMINISTRAL	: 22.06.2025 (02:20 P.M. to 03:02 P.M.)	Physical & General	CONTRACTOR OF THE STATE OF	
rate & tin	ne of sampling	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, Gas	flow, O ₂ , CO ₃ & CO	
ampling	Plan & Method Carried out by	: Mr. Partha Pratim Mandal	Cremical:		
endesia 6	Started on	: 24.06.2025	SO2 & Acid Mist		
contrain f	"ompleted on	: 30.06.2025			
A. G	eneral Information abou	ut stack:			
1. 134	offer connected to	SAP - C : Process Emission			
2 Fr	mission due to				
3. M	laterial of construction of	f stack : M.S. : Circulir.			
4. S	hape of stack	(A) Andrew & Indian Yes			
5. W	thether stack is provided	with permanent platform & ladder : Yes.			
B. P	hysical characteristics	round level : 120 m			
	leight of the stack from g hameter of the stack at st	ampling point : 2.7 m			
3. E	nameter of the stack at a to, of Traverse point	: 30 Nos.			
4 4	v. s. v. v. Filter exceeding pr	oint from GL 35 m.			
5. I	malveis / Characteristic	e of stack (sas / Fine Uso	31.00	1	
1 1	ruel used :	2. Fuel consumption :-	. 5.1.01	O 5 sec	
D. I	Environmental conditio	ins:	2. Temperature	24.07	
W 9	Barometrie pressure: 757	2 mmHg	2. Temperature	14.6	
E.	Results of Physical Par	rameters of Flue Gas :	1	Results	
SINo	Test Parameters	Test Method	Unit	69	
-	Temperature of emission	n IS 11255 : Part 3 : 2008	°C		
4.	[] : ' [-] - [] : ' [] : ' [] : ' [] : ' [] : ' [] : ' [] : ' [] : ' [] : ' [] : ' [] : ' [] : '	18 11255;Part 3:2008	ni/sec	5.94	
2.	Velocity of gas in duct	(S 11255 Part 3:2008	NM ³ /hr	102695	
3.	Quantity of gas flow				
F.	Results of gaseous em	nission :	Unit	Results	
F.	Test Parameters	Test Method	mg/Nm ⁵	532.50	
SI No	Sulphur dioxide	1S 11255 : Part 2 : 1985	The state of the s	<0.2	
SINo	Stubum oursine	The second secon	16 v/v	750.40	
SI No	The state of the s	IS 13270 : 1992 (By Orsat)		20100	
SI No 1. 2.	Carbon monoxide	IS 13270 : 1992 (By Orial)	96 v/v	0.2	
SI No. 1. 2. 3.	Carbon monoxide Carbon dioxide	15 13270 1992 (By Ornat)	% v/v %6 v/v	0.2 19.4	
SI No 1. 2.	Carbon monoxide		10010001111	0.5	

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

		ILUI INLI			Page 1 of 1	
rtifica	te No. AP-FG/24-25/0	527 Issue Date: June 30, 2025			rage rail	
ued to		: MIS. MIS. PARADEEP PHOSPHATE LTD	8		1	
dress		; Paradeep. Odisha.				
ur S.O.	No.	5500007609, did. 16.08.2024	Va.	uloment use	ult:	
	escription	: Stack Gas / Flue Gas	Equipment used: Stack Monitoring Kit			
mple II		: AP-FG/24-25/0527	States, Storages	WWW. Frat V	alidity: 04.05:26)	
ame of Industry / Site		M/S. M/S. PARADEEP PHOSPITATE LTD	Bar Page	rameters Tes	ted	
	8	Paradeep, Odisha.	Physical & Gen		23.02	
sie & ti	me of sampling	21.06.2025 (03:30 P.M. to 04:06 P.M.)	Temp_Velocity.	Clas flow (%)	03-8-03	
unilam	Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Chemical:	Chillia Horas 202	A STATE OF STATE	
mpling	Carried out by	Mr. Partha Pratim Mandal	The state of the s	1		
nalysis	Started on	: 24.06.2025	PM, NH, & Ti			
nalysis	Completed on	: 30.06,2025				
A. G	seneral information abo	ut stack :				
1. 8	tack connected to	: DAP - A				
2 E	mission due to	: Process Emmission				
3. 8	Asterial of construction of	f stack : M.S.				
4 8	Shape of stack	Circular.				
5 1	Whether stack is provided	with permanent platform & ladder : Yes.				
B F	Physical characteristics	of stack				
1 1	Height of the stack from p	round level : 50 m				
3. 1	Diameter of the stack at a	ampling point 2.8 m				
4.	No. of Traverse point	: 30 Nos.				
4 1	Height of the sampling po	oint from GL : 35 m				
C.	Analysis / Characteristi	c of stack Gas / Flue Gas :		1 T		
	Fuel used :	2. Fuel consumption :	-3	Load:		
	Environmental condition	ons:		+0011110201		
	Barometric pressure: 75	2 mmHg	2. Temperatu	re:34 "C		
I.	Results of Physical Par	ameters of Flue Gas :				
		Test Method	Unit	R	esults	
Sl No	Test Parameters	The second secon	PC.		56	
1.	Temperature of emission	IS 11255:Part 3:2008	m/sec		15.32	
2.	Velocity of gas in duct		NM ³ /hr	2	82528	
3.	Quantity of gas flow	15 11255:Part 3:2008	1 881 00			
E.	Results of gaseous en	nission :		- March 1971	Norms	
SINo	Test Parameters	Test Method	Unit	Results	as per CPCB	
_	Who have been didnessed the	IS 13270 : 1992 (By Cesat)	25/a/v	< 0.2	Not Specifics	
1	Carbon monoxide	15 (3270 1992 (By Closet)	96.979	0.4	Not Specifie	
	Carbon diexode		% v/v	19.6	Not Specifie	
2.		(S 13270 : 1992 (By Orsat)	mg/Nm3	57	150 max.	
	Oxygen				The state of the s	
2.	Oxygen Particulate Matters	IS 11235 : Part 1 : 1985			-10	
2.		IS 11255 : Part 1 : 1985 8S 11255 (Part – 5) : 1990 Methods of Air Sampling & Analysis, 3rd Ed.	mg/Nm ²	2.24	< 10	

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

	ficate No. AP-FG/24-25/0	0528	1EST KEPUR					
SSUE			Issue Date: June 30, 202 PARADEEP PHOSPHATE LTD.	.5		Page 1		
Addr	77. 5.5	: Paradeep,		-				
	S.O. No.		Outsid.), dtd. 16.08.2024					
	le Description	Stack Gas			12 1			
ampl	ie ID No.	AP-FG/24-		Strole Manual	Equipment used:			
lame.	of Industry / Site		ARADEEP PHOSPHATE LTD.	ID No. PVB	Stack Monitoring Kri			
anament handwick in the con-		Paradeep, Oc	100,000,000	(D No.: RVB/SMK/06 (Cal. Validity: 04.05.26)				
Date & time of sampling		: 21.06.2025 (04:20 P.M. to 04:59 P.M.)		Parameters Tested Physical A General				
Sampling Plan & Method		: RVB/FM/45 & IS: 11255 (Purt-1,2 & 3)		Tunp, Velocity, Gas flow, O ₂ , CO ₇ & CO Chemical:				
Sampling Carried out by		: Mr. Partha Pratim Mandal						
	sis Started on	: 24.06.2025		PM, NH, &	TF			
	sis Completed on:	: 30.06.2025		7.000				
Α.	General information abo	ut stack :	1 0077478-2-1-777					
L	Stack connected to		:DAP-B					
2.	Emission due to		Process Ununision					
3.	Material of construction of	stack	ack : M.S. : Circular					
5.	Shape of stack							
В.	Whether stack is provided	with permanen	t platform & ladder : Yes.					
1.	Physical characteristics	of stack :						
î	Height of the stack from gr	ound level	: 50 m					
4.	Diameter of the stack or san No. of Traverse point	mpling point						
5.	Height of the sampling poi	ne Come etc						
C.	Analysis / Characteristic	of stack Con	: 35 m					
1.	Fuel used :	UI SLICK Was						
D.	Environmental condition	e 1	2. Fuel consumption :		3.Lnad :			
1.	Baronsetric pressure : 752 r							
E.	Results of Physical Parar		0	2. Temperate	ure:34°C			
I No	Test Parameters	neters of Fide						
1.	Temperature of emission	_	Test Method	Unit		Results		
2	Velocity of gas in duct		IS 11255 Part 3 2008	"C		60		
3			3S 11255:Pact 3:2008	in/sec	15.53			
E.	Quantity of gas flow		IS 11255:Part 3:2008	NM ³ /hr		281444		
gen.	Results of gaseous emis-	sion :						
-	There is a second of the secon		Test Method	Unit	Results	Norms		
-	Test Parameters		1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.			0.7393.03945		
I No				10.193220		as per CPCB		
I.No	Carbon monoxide		S 13270 : 1992 (By Orsac)	16 v/v	<0.2	as per CPCB Not Specified		
1. 1. 2.			IS 13270 : 1992 (By Orsac)		11.7	Not Specified		
1. 1. 2. 3.	Carbon monoxide		IS 13270 : 1992 (By Orsa) IS 13270 : 1992 (By Orsa)	% v/v	0.4	Not Specified Not Specified		
1. 2. 3.	Carbon monoxide Carbon dioxide		IS 13270 : 1992 (By Orsar) IS 13270 : 1992 (By Orsar) IS 13270 : 1992 (By Orsar)	56 v/v 56 v/v	0.4 19.2	Not Specified Not Specified Not Specified		
I.No	Carbon monoxide Carbon dioxide Oxygen		IS 13270 : 1992 (By Creat) IS 13270 : 1992 (By Creat) IS 13270 : 1992 (By Creat) IS 11255 : Part 1 : 1985	% v/v % v/v mg/Nm3	0.4 19.2 62	Not Specified Not Specified Not Specified 159 max.		
1. 2. 3. 4.	Carbon monoxide Carbon dioxide Oxygen Particulate Matters		IS 13270 : 1992 (By Orsar) IS 13270 : 1992 (By Orsar) IS 13270 : 1992 (By Orsar)	56 v/v 56 v/v	0.4 19.2	Not Specified Not Specified Not Specified		

Report Verified by

Reviewed & Apthorised by

(Dr. R. WARIM) Technical Manager

Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



TC-12347

ALTE A AND	No. AP-FG/24-25/05	29	Issue Date: ULAS 30, 202	PORT		Page 1 of 1		
sued to	NO. AP-F0/24-29/00	· M/S. M/S. P	ARADEEP PHOSPHATE LT	D.				
		: Paradeep. C						
ddress	in a second	3500007609	did. 16.08.2024					
our S.O. No. : 55 ample Description : S		Stack Gas/1	luc Gas		Equipment used:			
umple ID?	Va.	: AP-FG/24-25	5/0529	Stack Monitori	Stack Monitoring Kit			
ume of Ind	fostey / Site	M/S. M/S. PA	MIS. M/S. PARADEEP PHOSPHATE LTD.		D No.: RVB/SMK/06 (Cal. Validity: 04.05.26)			
P		Paradeep, Odishu.			Parameters Tested			
hete & time of sumpline : 2		21.06.2025 (11:35 A.M. to 12:11 P.M.)		Physical & Gen	Physical & General : Temp., Velocity, Gai flow, O ₂ , CO ₂ & CO			
amoling Plun & Method : 1		: RVB/FM/45	RVB/FM/45 & IS: 11255 (Part-1,2 & 3)					
anyoling C	arried out by	: Mr. Pariba P	ratim Mandal	Chemical:				
nalysis St	arted on	: 24.06.2025		PM, NH, & T				
	ompleted on	: 30.06.2025						
A. Ger	neral information abou	ut stack:						
	ck connected to		: DAP - C					
2. Emi	ission due to		: Process Emmision					
3. Mu	terial of construction of	stack	ek : M.S.					
4. Sha	ipe of stack		: Circulat.					
5. Wh	ether stack is provided	with permanent	platform & ladder : Yes.					
B. Phy	ysical characteristics	of stack:						
1. Hei	ight of the stack from gr	round level	; 50 m					
2. Sur	Sampling Point Clamney							
Die	Diameter of the stack at sampling point : 2.8 m							
4. No	. of Traverse point		; 30 Nos.					
	ight of the sampling po-	int from Cit.	: 35 m					
	alysis / Characteristic	of stack Gas	2. Fuel consumption : —		Load:			
	el used :		2. Fuel consumption					
	vironmental condition			2. Temperatu	m = 25 °C			
1. Ba	rometric pressure: 752	mmHg		2. Temperam	10.20			
E. Re	sults of Physical Para	meters of Flu	e Gas :	Unit	Results			
	Test Parameters		Test Method	- PC	,,,	64		
1. T	emperature of emission		IS 11255 : Part 3 : 2808	m/sec	16.95			
2. V	elocity of gas in duct		IS 11255 Part 3/2008					
	Quantity of gas flow		3S 11255 Part 3:2008	NM ³ /hr	3	03651		
E. Re	esults of gaseous emi	ission:						
1000	Test Parameters	T	Test Method	Unit	Results	Norms		
21 (40)	ICM Parameters					as per CPCB		
	arbon monoxide		S 13270 : 1992 (By Dearr)	96 v/v	< 0.2	Not Specifica		
4.75			S 13278 : 1992 (By Omat)	95 v/v	0.4	Not Specifie		
0.00	Imbon dioxide		S 13270 : 1992 (By Desat)	96 v/v	19.4	Not Specifie		
	Dxygen			mg/Nm3	51	150 max.		
4. 8	Particulate Matters		IS 11255 Part 1 : 1985	11,000,000,000,000	3.33	< 10		
5. 7	Total Fluoride		15 11255 (Part - 5): 1990	mg/Nm²	2.22	2.16		
1	Ammonia as NH ₂	Methods	of Air Sampling & Analysis, 3rd Ed Jophenni Method), Method 401	d. mg/Nm ³	165.00	300 max.		

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CIN: U51109WB1931PTC007007



TC-12347

4.544	- N. 10 COINT OCIO	620	TEST REF	UKI		Page 1 of		
Commence in the later	ate No. AP-FG/24-25/0	- MIC MIC I	ADADEED PHOSPHATE LTD			1.48		
sued t		· Daradoon	M/S. M/S. PARADEEP PHOSPHATE LTD.					
ddress our S.C		\$500007600	: Paradeep, Odisha. : \$500007609, dnl. 16.08.2024					
		: Stack Gas /	as / Flue Cas			Equipment used:		
			P-FG/24-25/0530		ring Kit			
		M/S. M/S. P/	MS, MS, PARADEEP PROSPHATE LTD.		ID No.: RVB/SMK/06 (Cal. Validity: 04.05.26)			
tante or industry to the		Paradeep, Odisha		Parameters Tested Physical & General Temp., Valuetry, Gas flow, O ₂ , CO ₂ & CO Chemical:				
hate & time of sampling		: 21.06:2025 (12:30 P.M. to 01:06 P.M.)						
ampling Plan & Method		: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)						
Sampling Carried out by		: Mr. Partha Pruim Mandal						
knalysis	Started on	: 24.06.2025		PM, NH, & T	F			
	Completed on	: 30.06.2025						
	General information abo	ut stack:	0.0000000000000000000000000000000000000					
-50	Stack connected to		: DAP - D					
	Emission due to	NO CONTRACT		: Process Emmision				
4.	Shape of stack		: Circular.					
3.	Whether stack is provided	with permanen	t platform & ladder : Yes.					
В.	Physical characteristics	of stack	- FO					
1.	Height of the stack from g	round level	: 50 m					
3.	Diameter of the stack at sa	mpling point	: 2.8 m : 30 Nos.					
	No. of Traverse point	7179000000						
5.	Height of the sampling po-	int from Cit.	: 35 m					
	Analysis / Characteristic of stack Gas / Flue Gas :							
	Fuel used :	207	2. Fuel consumption :		7-150400			
	Environmental condition			2. Temperatu	m - 26 PC			
1.	Barometric pressure: 752	mmHg	0	2. Chiperate	10:30 C			
	Results of Physical Para	imeters of Flu	e Gas :	Unit	Results			
SLNo			Test Method	*C		63		
1-	Temperature of emission		18 11255 : Part 3 : 2008					
2.	Velocity of gas in duct		IS 11255:Part 3/2008	m/sec	16.45			
3.	Quantity of gas flow		IS 11255:Part 3:2008	NM ² /hr:		289952		
10.0	Results of gaseous emi	ssion:						
E.			Test Method	Unit	Results	Norms as per CPCB		
	Test Parameters					las per Creat		
E. Si No		-		% viv	<0.2			
E. SI No	Carbon monoxide		(S.13270 : 1992 (By Dnut)	% v/v % v/v	<0.2 0.2	Not Specified		
E. SI No 1. 2.	Carbon monoxide Carbon dioxide		IS 13270 : 1992 (By Onat) IS 13270 : 1992 (By Onat)	% v/v		Not Specified Not Specified		
E. SI No 1. 2. 3.	Carbon monoxide Carbon dioxide Oxygen		IS 13270 : 1992 (By Onat) IS 13270 : 1992 (By Orat) IS 13270 : 1992 (By Orat)	96 v/v 96 v/v	0.2 19.6	Not Specified Not Specified Not Specified		
E. SI No 1. 2.	Carbon monoxide Carbon diexide Oxygen Particulate Matters		IS 13270 : 1992 (By Onat) IS 13270 : 1992 (By Onat) IS 13270 : 1992 (By Onat) IS 11255 : Part 1 : 1985	% v/v % v/v mg/Nm3	0.2 19.6 63.5	Not Specified Not Specified Not Specified 150 max.		
E. SI No 1. 2. 3.	Carbon monoxide Carbon dioxide Oxygen		IS 13270 : 1992 (By Onat) IS 13270 : 1992 (By Orat) IS 13270 : 1992 (By Orat)	96 v/v 96 v/v	0.2 19.6	Not Specified Not Specified Not Specified		

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Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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TEST REPORT

		1EST REPO			Page 1 of 1			
ertifica	te No. AP-FG/24-25/05	531 Issue Date: June 30, 2025	3		Fage 1011			
sued t	0	: M/S. M/S. PARADEEP PHOSPHATE LTD	<i>λ</i> .					
ddress		: Paradeep, Odisha.						
our 5.0		: 5500007609, dtd. 16.08.2024	Fo	uipment us	ed:			
	Description.	: Stack: Gas / Flue Gas	Stack Monitori		Ziakho			
ample I	D No.	: AP-FG/24-25/0531 : M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No. RVB/SMK/06 (Cal. Validay: 04.05.26)					
tune in minory (one		Puradeep, Odisha.	Purameters Tested Physical & General					
		: 20.06.2025 (03:50 P.M. to 04:32 P.M.)						
		: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, Gas flow, O ₁ , CO ₂ & CO					
Sampling Plan & Method Sampling Carried out by		: Mr. Partha Pratim Mandal	Chemical:					
		: 24,06,2025	PM & TF					
	Started on	: 30.06.2025						
malysis	Completed on Seneral information about							
100000000000000000000000000000000000000	Stack connected to	PAP#1						
77	Emission due to : Process Emmision							
- TTT - 2	Emission due w							
	Shape of stuck	: Circular.						
5.	Strape in such Whathar stock is provided	with permanent platform & ladder: Yes,						
B. 1	Physical characteristics	of stack :						
1.	Unight of the stack from p	round level : 50 m						
3. 1	ricigit in the state from g.							
	(in the 1993年) 1993年 (1994年) 1994年 (1994年) (1994年) (1994年) (1994年) (1994年) (1994年) (1994年) (1994年)							
4	4. NO. 01 Have 5 (1997)							
C.	Analysis / Characteristic of stack Gas / Flue Gas :							
1	Fuel used :	2. Fuel consumption :	- 3	Load:				
	Environmental condition	15						
	Barometric pressure: 752		2. Temperatu	re:36 °C				
E.	Results of Physical Para	meters of Flue Gas :						
SI No	Test Parameters	Test Method	Unit	F	tesults			
-	Temperature of emission	5 4000	°C	47				
1.	Velocity of gas in duct	1S 11255 Part 3:2008	m/sec	5.63				
2.		15 11255 Part 3:2008	NM ³ /hc	104234				
3.	Quantity of gas flow							
F.	Results of gaseous emi-	Test Method	Unit	Results	Norms			
SINO	Test Parameters	lest Methon	Cana	Assessed	as per CPCB			
		20 1 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	36 V/V	< 0.2	Not Specifie			
1.	Carbon monoxide	IS 13270 - 1992 (By Orsat)	% v/v	0.2	Not Specifie			
2_	Carbon dioxide	IS 13270 : 1992 (By Oran)			Not Specifie			
3.	Oxygen	IS 13220 : 1992 (By Ornat)	96.474	19.8				
4.	Particulate Matters	IS 11255 : Part 1 : 1985	mg/Nm3	35	150 max.			
5.	Total Fluoride	IS 11255 (Part - 5): 1990	mg/Nm ³	3.58	20 max.			
G.	Pollution control device	ground devices attached with the stack : Wet Scrubb	odr					

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	E-m	ail: rvbriggs.kolkata@gm CIN: U51109WB1			om
Certificate No. AP-FG/24	-25/0532	Issue Date: June 30, 20	250111		Page 1 of
ssued to Address Your S.O. No.	: Paradee;	s, PARADEEP PHOSPHATE L p, Odisha. 09. dtd. 16.08.2024	.TD.		
Sample Description		s / Flue Gas	- 4	Equipment s	ised:
Sample ID No.	- AP-FG/24		Stack Monito	ring Kit	
Nume of Industry / Site		PARADEEP PHOSPHATE LTD.	ID No. RVB/S	ME/06 (Cal.)	Validity: 04.05.26)
Sume of manady some	Paradeep, C			Parameters 7	exted.
Date & time of sampling		15 (12:15 P.M. to 12:57 P.M.)	Physical & Ge	neral :	
Sampling Plan & Method		/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocit	y, Gas flow, O	2 CO; & CO
Sampling Carried out by		a Pentim Mandal	Chemical:		
Analysis Started on	: 24.06.202		PM & TF		
Analysis Completed on	: 30.06.202				
A. General information					
Stack connected to		: PAP # 2			
2. Emission due to		: Process Emmision			
Material of construct	tion of stack	; M.S.			
4. Shape of stack		: Circular.			
5. Whether stack is pro	vided with permar	nent platform & ladder : Yes.			
B. Physical character	stics of stack :				
1. Height of the stack t	from ground level	: 50 m			
3. Diameter of the stac	k at sampling poin	if : 1.0 m			
4. No. of Traverse poin		: 12 Nos.			
5. Height of the sample	ing point from GL	: 45 m			
C. Analysis / Characte	eristic of stack Gr	as / Flue Gas :			
1. Fuel used :		2. Fuel consumption : -		3.Loud:	
D. Environmental con	ditions:				
Barometric pressure			2. Temperat	ure: 34 °C	
E. Results of Physica	Parameters of F	lue Gas :			
SI No Test Parameter		Test Method	Unit		Results
1. Temperature of em		IS 11255 : Part 3 : 2008	"C		55
Velocity of gas in or	The state of the s	15 11255:Part 3:2008	m/sec		13.38
[H 10] [전 : [H.]		IS 11255:Part 3:2008	NM ⁷ /hr		33014
The second secon	And the latest terminal and th	and a function of the same	1111111		
F. Results of gaseou		F	Unit	Results	Norms
SINo Test Parameter	59.	Test Method		9-11-11	as per CPCB
1 20 (0 10 10 10 10 10 10 10 10 10 10 10 10 10		15:13:220 - 1002 (By Chent)	760,676	<0.2	Not Specific

SINo	Test Parameters	Test Method	Unit	Results	Norms as per CPCB
	Carbon monoxide	15 13270 - 1992 (By Oosii)	76 v/v	< 0.2	Not Specified
2.	Carbon dioxide	15 13270 - 1992 (By Orsat)	%-v/v	0.2	Not Specified
3.	Oxygen	1S 13270 : 1992 (By Ornat)	% v/v	19.4	Not Specified
4.	Particulate Matters	1S 11255: Part 1 : 1985	mg/Nm3	33.2	150 max.
5.	Total Fluoride	15 11255 (Part - 5): 1990	mg/Nm ²	2.84	20 max.

G. Pollution control device

Details of pollution control devices attached with the stack: Wes Scrubber

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(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

		TEST REI	025	Page 1 of 1
ASSESSMENT OF THE PARTY OF	ste No. AP-FG/24-25/05	: M/S. M/S. PARADEEP PHOSPHATE	LTD.	Manager and the second
sued t		Danidos Odisha	L 1 D	
ddress		: Paradeep, Odisha. : 5500007609, did. 16.08.2024		
Out divisions		: Stack Gas / Flue Gas	Equip	ment used:
		: AP-FG/24-25/0533	Stack Monitoring I	Kit
ample 1	D-No.	M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVB/SMK/0	96 (Cal. Validity: 04-05-26
ame of	Industry / Site	Paradeep, Odisha	Param	eters Texted
CARL SECTION	ime of sampling	: 22.06.2025 (03:30 P.M. to 04:06 P.M.)	Physical & General	The second
	g Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, Gir	flow, O ₂ , CO ₂ & CO
	g Carried out by	: Mr. Partha Pratim Mandal	Chemical:	
nalveis	Started on	: 24.06.2025	PM	
	Completed on	: 30.06.2025		
A. (General information abou	it stack :		
	Stack connected to	: Zypmite - 1		
	Emission due to	: Process Emmision		
3. 1	Material of construction of	f stack : M.S.		
4 4	Sharpe of stack	: Circular.		
5.	Whether stack is provided	with permanent platform & ladder: Yes.		
B. 1	Physical characteristics	of stack :		
1.	Height of the stuck from g	round level : 30 m		
	Diameter of the stack at sa	smpling point : 1.03 m		
4.	No. of Traverse point	: 12 Nos.		
		of stack Gas / Flue Gas :	310	sd :
1-	Fuel used :	2. Fuel consumption:	214,09	100
	Environmental condition		2. Temperature :	22.00
1.	Harometric pressure: 752	mmHg	2, 1 emperature :	32 C
E.	Results of Physical Para	meters of Flue Gas :	1 2 2 1	Results
SINo	Test Parameters	Test Method	Unit	
1.	Temperature of emission	15 11255 : Part 3 : 2008	°C	51
117.0	Velocity of gas in duct	IS 11255 : Part 3 : 2008	m/sec	15.05
2.		IS 11255 : Part J : 2008	NM ³ /hr	40523
3.	Quantity of gas flow		1,444,7,00	
F.	Results of gaseous emi	ssion :	Unit	Results
Si No	Test Parameters	Test Method	Aims	456-100-10
1.	Carbon monoxide	IS 13270 1992 (By Orsat)	96 v/v	< 0.2
	Carbon dioxide	IS 13278 - 1992 (By Orsat)	% v/v	0.2
2.		IS 13270 = 1992 (By Orsat)	% v/v	19.6
3 .	Oxygen	18 11285 Part 1 : 1985	mg/Nm3	31
4.	Particulate Matters	15-11-23-7 Pall 1 - 190-7	Lings corners	9-02-

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Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT Issue Date: June 30, 2025 Page 1 of 1 Certificate No. AP-FG/24-25/0534 : M/S. M/S. PARADEEP PHOSPHATE LTD. Issued to Paradeep, Odisha. Address 5500007609, dtd. 16.08.2024 Your S.O. No. Equipment used: : Stack Gas / Flue Gas Sample Description Stock Monitoring Kit : AP-FG/24-25/0534 Sample ID No. ID No.: RVB/SMK/06 (Cal. Validity: 04.05.26) M/S. M/S. PARADEEP PHOSPHATE LTD. Name of Industry / Site Parameters Tested Paradeep, Odisha. Physical & General : : 22.06.2025 (04:15 P.M. to 04:51 P.M.) Date & time of sampling Temp., Velocity, Gas flow, O2, CO2 & CO : RVB/FM/45 & IS: 11255 (Part-1,2 & 3) Sampling Plan & Method Chemical: : Mr. Parthu Pratim Mandal Sampling Carried out by PM : 24.06.2025 Analysis Started on : 30.06.2025 Analysis Completed on A. General information about stack : : Zypmite - 2 1. Stack connected to : Process Emmision 2. Emission due to .M.S. Material of construction of stack : Circular. 4. Shape of stack Whether stack is provided with permanent platform & ladder : Yes. Physical characteristics of stack: B. Height of the stack from ground level : 30 m 1. : 0.85 m Diameter of the stack at sampling point 3. : 12 Nos. No. of Traverse point Analysis / Characteristic of stack Gas / Flue Gas : 3.Load : -Fuel consumption: ---Fuel used :---Environmental conditions: 2. Temperature: 32 °C Barometric pressure: 752 mmHg 1. Results of Physical Parameters of Flue Gas: E. Results Unit Test Method Test Parameters Si No 53 IS 11255 : Part 3 : 2008 VC. Temperature of emission 1. 15.98 m/sec IS 11255 : Part 3 : 2008 2. Velocity of gas in duct 28682 IS 11255 : Part 3 : 2008 NM'/br 3. Quantity of gas flow Results of gaseous emission : F. Results Unit Test Method Test Parameters SINO < 0.2 94. v/v IS 13270 : 1992 (By Ornat) Carbon monoxide 1. 0.4 16 VIV IS 13270 : 1992 (By Orsat) Carbon dioxide 74. 19.6 IS 13270 : 1992 (By Oral) % V/V Oxygen 3 . 35.0 mg/Nm3 (S 11255 | Part 1 | 1985 Particulate Matters 4. Pollution control device Details of pollution control devices attached with the stack : Bagfilter, Cyclone

Report Verified by

Reviewed & Authorised by

Nacota

Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

		TEST REPO	RT			
Certific	ate No. AP-FG/24-25/0	535 Issue Date: June 30, 2025	5	Page 1 of 1		
ssued	THE RESERVE OF THE PARTY OF THE	: M/S. M/S. PARADEEP PHOSPHATE LTI).			
Addres		: Paradeep, Odisha.				
Your S.C		: 5500007609, dtd. 16.08.2024				
	Description	: Stack Gus / Flue Gas		ment used:		
Sample 1		: AP-FG/24-25/0535	Stack Monitoring	NJI 06 (Cal. Validity: 04.05.26		
Name of	f Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.		neters Tested		
		Paradeep, Odinha.	Physical & General			
Date & 1	time of sampling	: 22.06.2025 (05:00 P.M. to 05:32 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temn Velocity, Ga	s flow, O ₂ , CO ₂ & CO		
	g Plan & Method	: Mr. Partha Pratim Mandal	Chemicul:	4.0		
	g Carried out by	: 24.06.2025	PM			
	s Started on	: 30.06.2025				
	s Completed on General information abo					
The second second	Stack connected to	: Zypmite - 3				
	Emission due to	: Process Emmision				
	Material of construction o					
2017	Shape of stack	: Circular,				
5.	Whether stack is provided	with permanent platform & ladder : Yes.				
B.	Physical characteristics	of stack :				
1.	Height of the stack from g	ground level : 30 m				
3.	Diameter of the stack at s	ampling point : 0.5 m				
4	No. of Traverse point	: 8 Nos.				
C.	Analysis / Characteristic	of stack Gas / Flue Gas :				
1.	Fuel used :	2. Fuel consumption :	3.L0	nd :		
D.	Environmental condition	ns:		The state of the s		
1.	Barometric pressure: 752	mmHg	2. Temperature :	30 °C		
E.	Results of Physical Para	ameters of Flue Gas :				
SLNo	Test Parameters	Test Method	Unit	Results		
1.	Temperature of emission	IS 11255 : Part 3 : 2008	°C	33		
2.5		18 11255 : Part 3 : 2008	m/sec	3.74		
2.	Velocity of gas in duct		NM ³ /hr	2532		
3.	Quantity of gas flow	IS 11255 - Part 3 - 2008	290, 401			
F.	Results of gaseous emi		1 222	Results		
SINo	Test Parameters	Test Method	Unit	Results		
1.	Carbon monoxide	18 13270 : 1992 (By Orsat)	% v/v	< 0.2		
	Carbon dioxide	1S 13270 : 1992 (By Orsat)	% v/v	0.2		
2.		15 13270 : 1992 (By Orsat)	% v/v	19.2		
3.	Oxygen	15 11255 : Part 1 : 1985	mg/Nm3	28		
4.	Particulate Matters	19 11723 : ERLT : 1505	mgr44002			

Report Verified by

Particulate Matters

Pollution control device

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

< END OF TEST REPORT >

* Results relate only to the parameters of the item tested.

Details of pollution control devices attached with the stack : Bagfilter, Cyclone

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CIN: U51109WB1931PTC007007



ertifica	ate No. AP-FG/24-	25/0536	issue Date: Suie 10	REPORT		Page 1 of 1
ssued t	to		PARADEEP PHOSPHATE LT	D,		
ddress	S	Paradeep,	Odisha.			
our S.C), No.		, dtd. 16.08.2024		** *	
ample I	Description	: Stack Gas /			Equipmen	Haca:
ample I		: AP-FG/24-2		Stack Monitoring	KII	
Same of Industry / Site		M/S M/S P/	ARADEEP PHOSPHATE LTD.	ID No. RVIDSMK	06 (Cut. Valid)	(ty::04,05.26)
		Parudeep, Od		10-000000000000	Parameters	Tested
Date & t	ime of sampling	: 23,06,2025	(03:00 p.M. to 03:44 P.M.)	Physical & General		- 4 000
Sampling	g Plan & Method		5 & 18: 11255 (Part-1,2 & 3)	Temp., Velocity, Gr	a flow, O ₅ CO); &. CO
amplin	g Carried out by		Pentin Mandal	Chemical:	2020	
Analysis	Started on	: 24.06.2025		SO ₂ , NO ₂ ,HC & F	N.E.	
Analysis	Completed on	: 50.06.2025				
A. (General Information	about stack :				
	Stack connected to		: Diesel Generator			
2 1	Emission due to		: Burning of H.S.D			
	Material of construct	ion of stack	: M.S.			
4. 5	Shape of stack		- Circular.			
5. 1	Whether stack is pro-	vided with perm	annent platform & ludder : Yes			
	Generator capacity		1 MVA			
B. 1	Physical characteris	stics of stack:				
1.	Height of the stack fr	rom ground leve	23 : 30.0 m			
2.	Sampling Point		: Chimney			
	Diameter of the stack		oint : 0.4 m			
4.	No. of Traverse poin	1	: 08 Nos.			
	Analysis / Characte	ristic of stack : H.S.D	Gas / Flue Gas :	2. Fuel consumpt	ion:	
	Environmental con-					
	Barometrie pressure	- 752 mmHs		2. Temperature :	34 °C	
- 1.	Finding of Physical	Daramatars n	Flue Gas			
			Test Method	Unit		Results
SINo	Temperature of emi	estin.	IS 11255 : Part 1 : 2008	°C		239
100			IS 11255 : Part 3 : 2008	m/sec		18.81
2.	Velocity of gas in d		IS 13255 Part 3 2008	NM3/hr		4756
3	Quantity of gas flow Results of gaseous	ambulan :	W. 176-0-1-01-2			
F.			Test Method	Unit	Results	Norms as per Environment
St No	Test Parameter		Test Method	7.5,000	337-1110-1	(Protection) Amendment Rule 2002, for > 800 hm
1	Sulphur dioxide		8S 11255 : Part 2 : 1985	mg/Nm	82.02	Not Specified
2	Nitrogen dioxide		15 11255 : Part 7 : 2005	ing/Nm*	156.13	
4	Allingen dioxide		anterned Edicology (E.	gurkw-hr	0.93	4.0
3	Total Hydrocarbon	= HC	EPA Method 18	gm/kw-hr	0.03	4.0
- 3	total Hydrocarnon	m #150		mig/Nm ³	5.86	
2.1	Carbon monoxide		USEPA 10/2017	mp/Nm ³	146	
4	# action monowing		No. of the last of	nm/kw-hr	0.87	3.5
100			15 (3270 - 1992 (By Orsot)	55.4/V	< 0.2	
	Carbon diaxide		15 13270 1992 (By Onar)	26 v/v	7.2	Not Specified
2				mg/Nm ³	28	
5			18: 11255 - Doi: 1 - 1085	THE PERSON	46.00	
5	Particulate Matters		IS 11255 : Part.1 : 1985	mg.sm	0.17	0.2

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

.: END OF TEST REPORT :-

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CIN: U51109WB1931PTC007007



TEST REPORT

Page 1 of 1 Issue Date: 30 June 2025 Certificate No.E(D)/25-26/534 M/s. PARADEEP PHOSPHATE LIMITED Issued to Paradeep, Odisha Effluent Description of Sample E(D)/25-26/534 Sample ID No Paradeep Phosphate Limited Name of Industries/Site Paradeep, Odisha ETP Outlet Collection Source 23.06.2025 at 2:10 P.M. Parameter Tested: Sample Drawn by us on pH, TSS, O & G, F, Sample Carried out by : Mr. S.Roy : RVB/FM/45 NH₂-N, TKN, NH₃, P, N Sampling Plan 24.06.2025 Analysis Started on : 30.06.2025 Analysis completed on APHA 24th Edition 1060 Sample collection Procedure : Grab

Mode of Sampling : Grab

Environmental condition during sampling : Temperature : 30°C, Transported in Icc box, Cold chain maintained

TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1	pH Value	APHA 24th edition-4500H+B	222	8.44	6,5 - 8.5
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	20	100 (Max.)
3	Oil & Grease (O & G)	APHA 24th edition 5520B	mg/I	< 2	10 (Max.)
4	Fluoride as F	APHA 24th edition 4500 F-C	mg/l	1.0	10 (Max.)
5	Ammoniacal Nitrogen as NH ₃ -N	APHA 24th edition 4500 NH3F	mg/I	33.7	50 (Max.)
6	Total Kjeldahl Nitrogen (TKN) as N	APIIA 24th edition 4500-NorgA	mg/l	34.2	75 (Max.)
7	Free Ammonia as NH ₃	APHA 24th edition 4500 NH3F	mg/l	2.5	4 (Max.)
8	Dissolved Phosphates as P	APHA 24th edition 4500-PD	mg/l	3.14	5 (Max.)
0	Nitrate Nitrogen as NO ₃ -N	APHA 24th edition 4500-N03D	mg/I	8	20 (Max.)

Note: BDL: Below Detection Limit. Minimum Detection Limit of Oil & Grease ... 2.0 mg/l, NH3 .. 0.1mg/l.

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

T muly'se

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT:-

* Results relate only to the parameters tested. for the particular item.

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TEST REPORT

Certificate No.E(D)/25-26/535	Issue Date: 30 June 20	Page 1 of 2
Issued to	: M/s. PARADEEP PHOSPH. Paradeep, Odisha	ATE LIMITED
Description of Sample	: Effluent	
Sample ID No	: E(D)/25-26/535	
Name of Industries/Sitc	 Paradeep Phosphate Limited Paradeep, Odisha 	
Collection Source	: STP Outlet	
Sample Drawn by us on	: 23.06.2025 at 2:10 P.M.	
Sample Carried out by	: Mr. S.Roy	Parameter Tested:
Sampling Plan	: RVB/FM/45	pH, TSS, BOD
Analysis Started on	: 24.06.2025	
Analysis Completed on	30.06.2025	

Sample collection Procedure : APHA 24th Edition 1060

Mode of Sampling : Grab

Environmental condition during sampling: Temperature: 29.5°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

SI, No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha	
1	pH Value	APHA 24th edition-4500H+B		7.54	6.5 - 9.0	
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/I	14	< 100	
3	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	LS. 3025 (Part - 44) - 1993	mg/I	8.5	< 30	

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.



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CIN: U51109WB1931PTC007007



TEST REPORT

Certificate No.E(D)/25-26/535		Issue Date: 30 June 2025	Page 2 of 2
Issued to	:	M/s, PARADEEP PHOSPHAT Paradeep, Odisha	E LIMITED
Description of Sample	9	Effluent	
Sample ID No	1	E(D)/25-26/535	
Name of Industries/Site		Paradeep Phosphate Limited Paradeep, Odisha	
Collection Source	÷	STP Outlet	
Sample Drawn by us on	ů.	23.06.2025 at 2:10 P.M.	
Sample Carried out by		Mr. S.Roy	Parameter Tested:
Sampling Plan	4	RVB/FM/45	Microbiological: Faecal Coliform
Analysis Started on	đ	24.06.2025	
Analysis completed on		26.06.2025	
Sample collection Procedure	*	APHA 24th Edition 1060	
Mode of Sampling	1	Grab	
Environmental condition during sampling	;	Temperature: 29.5°C, Transported in	Ice box, Cold chain maintained

MICROBIOLOGICAL TEST FINDINGS:

St. No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha	
1	Faccal Coliform	APHA 24th edition 9221E	MPN/ 100 ml	<2	< 1000	

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

- Instan

(Pijush Kanti Dutta)

Sr. Microbiologist

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.



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CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-SL/25-26/0481-0486 Issue Date :June 30, 2025 Page 1 of 1

Issued to : M/S. PARADEEP PHOSPHATES LIMITED

Address : Paradeep, Odisha.

Your W.O. Ref. no. : 5500007609, dtd. 16.08.2024

Description of Sample : Sound Level Monitoring Equipment used:

Sample ID No. : AP-SL/25-26/0481-0486 Sound Level Meter

Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED ID No.: RVB/SLM/06

Paradeep, Odisha. (Cal. Validity: 02.05.2026)

Sampling Plan : : RVB/FM/45 Parameters Tested : L_{Min}, L_{Max} & L_{eq}
Sampling Carried out by : Mr. S Sen Test Method : IS 4758 : 1968

Date of Monitoring : 20.06.2025 to 23.06.2025

SOUND LEVEL MONITORING:

SI. No.	Locations	TIME	Noise	Level in	Permissible Noise Exposure for Industrial	
	Tal.		L _{Min}	L _{Max}	\mathbf{L}_{eq}	Workers as per The Noise Pollution (Regulation And Control) Rules, 2000
1.	PAP Plant	11:00 A.M 11:05 A.M.	79.8	84.6	82.4	
2.	Bagging Section	10:10 A.M 10:15 A.M.	70.4	73.4	71.9	
3.	SAP Plant	02:30 P.M 02:35 P.M.	68.2	73.6	71.1	
4.	DAP- AB Side	10:30 A.M 10:35 A.M.	85.4	88.8	87.4	90 dB(A)
5,	DAP - CD Side	10:50 A.M 10:55 A.M.	86.8	89.2	88.2	
6.	Zypmite Plant	03:00 P.M 03:05 P.M.	79.9	83.1	81.7	
7.	Off Side	11:00 A.M 11:05 A.M.	70.8	74.4	72.6	

Note: - L ... - Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

TC-12347

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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-: END OF TEST REPORT :

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CIN: U51109WB1931PTC007007



Certificate No. AP-SL/25-26/0487A-0490A Issue Date: JUNE 30, 2025 Page 1 of 1 Issued to : M/S. PARADEEP PHOSPHATES LIMITED Address : Paradeep, Odisha. Your P.O. Ref. no. : 5500007609, dtd. 16.08.2024 Description of Sample : Sound Level Monitoring Equipment used: Sample ID No. : AP-SL/25-26/0487A-0490A Sound Level Meter Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED ID No.: RVB/SLM/06 : Paradeep, Odisha. (Cal. Validity: 02.05.2026) Sampling Plan: : RVB/FM/45 Parameters Tested : L.Min. L.Min. & Sampling Carried out by : Mr. Partha Pratim Mandal

: 20.06.2025 to 23.06.2025

A. SOUND LEVEL MONITORING A

Date of Monitoring

SI. Date of		Locations	Day Ti	me (06.0	0 A.M to	10.00 P.M)	Night T	ime (10.	.00 P.M t	o 06.00 A.M)
No	Monitoring		Sound	Level i	n dB(A)		Sound	Level i	n dB(A)	Norms as per
			L _{Min}	L _{Max}	Leq	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Industrial area	L _{Min}	L _{Max}	Leq	Protection Act 1986, rule 3(1) and 4 (1) for Industrial area
1.	23.06.2025	Near AAQMS -	52.8	55.9	54.6		48.6	51.1	50.1	
2	20.06.2025	Near AAQMS -	51.9	56.2	54.1	75 dB(A)	46.8	50.2	48.7	70 dB(A)
3	21.06.2025	Near AAQMS -	54.3	57.1	55.9		49.8	53.7	51.8	

B. SOUND LEVEL MONITORING AT AMBIENT LOCATION : RESIDENTIAL AREA

SI. Date of		Locations	Day Ti	ay Time (06.00 A.M to 10.00 P.M)		10.00 P.M)	Night Time (10.00 P.M to 06.00 A.M)			
No Monitoring	Monitoring		Sound	Level i	n dB(A)				Norms as per	
			L _{Min}	L _{Max}	Leq	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Residential area	10004300	L _{Max}	L _{eq}	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Residential area
1.	22.06.2025	Near AAQMS - 2	50.8	54.1	52.7	55 dB(A)	41.7	44.2	44.5	45 dB(A)

Note: - L . - Equivalent sound energy.

Report Kerified by

Reviewed & Authorised by

Test Method: IS 4758: 1968

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.



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CIN: U51109WB1931PTC007007



TEST REPORT

SCHIIICHTE NO. N. N. N. M. LEO .				Issue Date :	July 26, 2025	Page 1 of 1	
ssue	d to	: M/S.	PARADEEP PHOSPHATE LTD.				
Addn	ess	: Parad	eep, Odisha				
Your	Ref. No.	: 5500	007609, dtd. 16 08 2024				
Name of Industry / Site M/S. P.		: AP-AA M/S, P Parad	0/25-26/PPL/01 ARADEEP PHOSPHATE LTD. eep, Odisha	Equipment used: Ambient Fine Dust Sample: 10 No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 20.01.26 Resperible Dust Sampler 10 No.: RVB/ROS/APM460/NU/05. Cal. Valid upto: 26.06.26			
	oling Location	1111	AQMS # 01 2025 (11:10 A.M.)-23:07.2025 (11:10 A.M.)	IL INO. RVEN	Environmental c	THE RESIDENCE OF STREET, SANSON, SANSO	
	& Time of sampling tion of Sampling	24Hrs.		Weather Con		ottutootis	
	oling Plan :	- RVB/F		Part of the second	: Max: 34°C & Min. 27	'.0°C	
	opling Carried out by			Barometric P	resure: 748 mmHg		
	hod of Sampling		er CPCB guidelines (Volume-I)				
Arial	ysis Started on	: 24.07	2026	Parameters	Tested: PM _{2.5} , PM	Ho, SO ₂ , NO ₂ , O ₃ , NH ₃ ,	
Anal	ysis Completed on	: 26.07	2025	CO, Pb, Ni, As, C _s H _s , BaP			
TES	T FINDINGS:-						
SI. No.	Parameters		Test Method	Unit	Results (Time Weighted Avg.)	F Notification New Delhi, 16th November 2009	
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part St. Appendix L.	µg/m³	44.2	60 (24 Hourly.)	
2.	PM ₁₀ (Size ≤ 10µm)		IS 5182 (Part - 23): 2006	µg/m³	51.0	100 (24 Hourly.)	
3.	Sulphur Dioxide as S	SO ₂	IS 5182 (Part - 2): 2001	µg/m ³	5.36	80 (24 Hourly.)	
4.	Nitrogen Dioxide as	NO ₂	IS 5182 (Part - 6): 2006	µg/m³	14.57	80 (24 Hourly)	
5.	Ozone as O ₃		IS 5182 (Part - 9) : 1974	µg/m³	18.00	180 (1 Hourly.)	
6	Ammonia as NH ₃		SCP No.: RVS/SCP/01/10 (interpreted Method) Issue No. 04. Issue Direct 0.01/2018	µg/m³	22.01	400 (24 Hourly.)	
7,	Carbon Monoxide as	CO	15 : S182 (Part - NI), 1299 Nor Dispersive Infla-Rad (NDR) spectrastopy	mg/m ³	0,762	04 (1 Hourly.)	
8.	Lead as Pb		IS 5182 (Part - 22): 2004	µg/m³	0.080	1.0 (24 Hourly.)	
9.	Nickel as Ni		SDP No.: RVB/SCF/01/15 (AAE Method) iteue No. 04 fecus Date: 10.01,2218	ng/m³	<5.0	20	
10.	Arsenic as As		SOP No.: RV9/SQP/01/16 (AAS Method) brue No. 04 Issue Own. 10.01 2010	ng/m ²	<0.25	6.0	
11.	Benzene as C ₆ H ₆		IS 5162 (Part - 11): 2006	µg/m³	<1.0	5.0	
						1.0	

Minimum detection Limit. Nickell 5 ng/m³. Arsenic: 0.25 ng/m³. Benzene: 1 µg/m³.5 Benzo(a)Pyrene: 0.5 ng/m³.

Report Verified by

Clayer

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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CIN: U51109WB1931PTC007007



TEST REPORT

Page 1 of 1 Certificate No. AP-AAQ/25-26/PPL/02 Issue Date: July 26, 2025 : M/S. PARADEEP PHOSPHATE LTD. Issued to Address Paradeep, Odisha 5500007609, dtd. 16.08.2024 Your Ref. No. Equipment used: Ambient Air Sample Description Ambient Fine Dust Sampler Sample ID No. AP-AAQ-25-25/PPL/02 M/S. PARADEEP PHOSPHATE LTD. D No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 20.01.26 Name of Industry / Ste. Paradeep, Odisha Resperible Dust Sampler ID No.: RVB/RDS/APM460/NL/05, Cal. Valid upto: 26.06.26 Near AAQMS # 02 Sampling Location 21.07.2025 (10:50 A.M.)-22.07.2025 (10:50 A.M.) Environmental conditions Date & Time of sampling Weather Condition: Clear Duration of Sampling Temperature: Max: 34.5°C & Mirc 25.5°C Sampling Plan: RVB/FM/45 Barometric Presure: 748 mmHg Sampling Carried out by : Mr.S. Roy : As per CPCB guidelines (Volume-I) Method of Sampling Parameters Tested: PM21, PM10, SO2, NO2, O5, NH3, 24.07.2025 Analysis Started on CO. Pb. Ni. As, C.-H., BaP 26.07.2025 Analysis Completed on

TEST FINDINGS:-

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m²	36.3	60 (24 Hourly.)
2,	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2008	µg/m³	48.0	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.61	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2005	µg/m³	12.92	80 (24 Hourly.)
5.	Ozone as O ₂	S 5182 (Part - 9) : 1974	µg/m ³	15.02	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVB/SOP-01/40 (nasprend Method) Issue No. 04, Issue Debt. 10.01.2019	µg/m³	19.62	400 (24 Hourly.)
7,	Carbon Monoxide as CO	(6: 5182 (Part - 10), 1999 Nor Dispensive Info-Rad (NDIFO appointments)	mg/m³	0.820	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.065	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOF/01/15 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<5.0	20
10	Arsenic as As	SOP No.: RVS/SDP:01/16 (AAS Metrod) lesse No. 04: lasse Date: 10.91.2016	ng/m³	<0.25	6.0
11	Benzene as C ₈ H ₈	IS 5182 (Part - 11): 2006	h8/w _y	<1.0	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m ³	< 0.5	1.0

Minimum detection Limit. Nickel: 5 ng/m³. Arsenic: 0.25 ng/m³. Benzene: 1 µg/m³ & Benzota: Pyrene: 0.5 ng/m³

Report Verified by

ajayer

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

Certificate No. AP-AAQ/25-	26/PPL/03	Issue Date : July 26, 2025	Page 1 of
Issued to Address	: M/S. PARADEEP PHOSPHATE LTD. : Paradeep, Odisha		
Your Ref. No.	: 5500007609, dtd. 16.08.2024		
Sample Description Sample ID No. Name of Industry / Site Sampling Location	: Ambient Air : AP-AAQ/25-26/PPL/03 : M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha : Near AAQMS # 03	Equipment used: Ambient Fine Dust Sampler ID No.: RVB/AFDS/PM2.5/20, Cat. Valid upto. 2 Rasperible Quat Sampler ID No.: RVB/RDS/APM460/NL/05, Cat. Valid up	
Date & Time of sampling Duration of Sampling Sampling Plan :	: 19.07.2025 (10:00 A,M.)-20.07.2025 (10:00 A,M.) : 24Hrs. : RVB:FM/45 : Mr. S. Roy : As per CPCB guidelines (Volume-I)	Environmental conditions Weather Condition: Clear Temperature: Max: 34.0°C & Mir.: 26.5°C Barometric Presure: 748 mmHg	
Analysis Started on Analysis Completed on	: 24.07,2025 : 26.07.2025	Parameters Tested: PM _{2.0} , PM ₁₀ , SO ₂ , CO, Pb, NI, As, C ₃ H ₆ , BaP	NO ₂ , O ₃ , NH ₃ ,

TEST FINDINGS:-

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size s 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	32.1	60 (24 Hourly.)
2.	PM₁c (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	43.0	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2); 2001	µg/m ¹	5.14	88 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6); 2006	µg/m³	14.10	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m²	15.71	180 (1 Hourly.)
6.	Ammonia as NH ₃	SCF No.: RV8/SCP/01/10 (ndephere) Method) lasse No. 04, Issue Date: 10.01.2018	µg/m³	18.65	400 (24 Hourly.)
7:	Carbon Monoxide as CO	(6 : \$182 (Part - 10), 1990 Non Corpensive Infla-Red (NOIR) spectroscopy	mg/m ³	0.751	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.750	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Metricit) leave No. 54, leave Date: 10.01.2018	ng/m ³	<5.0	20
10.	Arsenic as As	SCP No.: RV8/SSP/01/16 (AAS Method) lease No. 04, lause Date: 13.61, 2018	ng/m³	<0.25	6.0
11.	Benzene as C ₀ H ₀	15 5182 (Part - 11): 2006,	µg/m ^S	1.06	5.0
12	Benzo (a) Pyrene	(S 5182 (Part - 12): 2004,	ng/m²	<0.5	1.0

Minimum detection Limit: Nickel. 5 ng/m², Arsenic: 0.25 ng/m², Benzene, 1 µg/m² & Benzo(a)Pyrene: 0.5 ng/m²

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

Certificate No. AP-AAQ/25	26/PPL/04	Issue Date: July 26, 2025	Page 1 of	
issued to	: M/S. PARADEEP PHOSPHATE LTD.			
Address	: Paradeep, Odisha			
Your Ref. No.	5500007609, dtd. 16.08.2024			
Sample Description	: Ambient Air	Equipment used:		
Sample ID No.	: AP-AAQ/25-26/PP1/04	Ambient Fine Dust Sampler		
Name of Industry / Site	: M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha	ID No. RVB/AFDS/PM2.5/20, Call. Valid up Resperible Dust Sampler		
Sampling Location	Near AAQMS # 04	ID No.: RV8/RDS/APM460/NL/05, Cal. Valid	d upto: 26.06.26	
Date & Time of sampling	20.07.2025 (10:30 A.M.)-21.07.2025 (10:30 A.M.)	Environmental conditi	ions	
Duration of Sampling	24Hrs.	Weather Condition: Clear		
Sampling Plan :	RVB/FM/45	Temperature: Max: 35.0°C & Mic: 27.0°C	C C	
Sampling Carried out by	: Mr.S. Roy	Barometric Presure : 748 mmHg		
Method of Sampling	: As per CPCB guidelines (Volume-I)	The state of the s		
Analysis Started on	24.07.2025	Parameters Tested: PM _{2.5} , PM ₁₀ , S6	O ₃ , NO ₃ , O ₃ , NH ₃ ,	
Analysis Completed on	26.07.2025	CO, Pb, Ni, As, C ₂ H ₆ , BaP		
		A		

TEST FINDINGS:-

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	34.6	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10μm)	IS 5182 (Part - 23); 2006	jug/m ³	44.0	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5162 (Part - 2): 2001	µg/m²	4.99	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	16.45	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	11.99	180 (1 Hourly.)
6.	Ammonia as NH ₃	SCP No.: RV8/SCP/01/10 (indepterol Method) lasue No. 04, Issue Dear 10.01 2016	jug/m³	19.49	400 (24 Hourly.)
7.	Carbon Monoxide as CO	19 5182 (Part - 10), 1990 New Dispensive Info-Red ((4014) specimicopy	mg/m ³	0.879	04 (1 Hourly.)
8.	Lead as Pb	(S 5182 (Part - 22): 2004	µg/m²	0.890	1.0 (24 Hourly.)
9.	Nickel as Ni	SDP No.: RVE/SOF/03/15 (AAS Melbos) Itelas No. 04. Issue Date: 16.01.2018	ng/m ³	<5.0	20
10.	Arsenic as As	SOP No.: RV6/SOP(01/16 (AAS Method) leque No. 04: fissue Oute: 10.01/2018	ng/m³	<0.25	6.0
11.	Benzene as C ₀ H ₆	IS 5182 (Part - 11); 2006,	µg/m³	<1.0	5.0
12	Benzo (a) Pyrene	IS 5182 (Pan - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m³, Arsenic: 0.25 ng/m³, Benzene: 1 µg/m³ 8 Benzo(a)Pyrane: 0.5 ng/m²

Report Verified by

Clayer

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

Certifi	cate No. AP-FG/24-25/F			Page 1 of 1
ssued	i to	: M/S. M/S. PARADEEP PHOSPHATE I	LTD.	
Addre		: Paradeep, Odisha.		
	O. No.	: 5500007609, dtd. 16:08:2024		
	: Description	: Stack: Gas / Flue Gas		pment used:
	ID No.	: AP-FG/24-25/PPL/01	Stack Monitoring	LKit
Nume (of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.		304 (Cal. Validity: 04 05.26
4200000000	STATE OF STA	Paradeep, Odisha.		meters Tested
	time of sampling	: 22,07,2025 (03:00 P.M. to 03:42 P.M.) : RVB/FM/45 & IS: 11255 (Purt-1,2 & 3)	Physical & General	as flow, O ₂ , CO ₂ & CO
	ng Plun & Method ng Carried out by	: Mr. S. Banerjee	Chemical:	as now, of colorect
	is Started on	: 28.07.2025	SO ₂ & Acid Mist	
	is Completed on	: 30.07.2025	333236.33306.2340	
A.	General information abou	and the second s		
1.	Stack connected to	: SAP - A		
2.	Emission due to	: Process Emmision		
3.	Material of construction of	f stuck : M.S.		
4.	Shape of stack	: Circular.		
5.		with permanent platform & ladder: Yes.		
В.	Physical characteristics			
1.	Height of the stack from g			
3.	Diameter of the stack at so			
4.	No. of Traverse point	: 32 Nos.		
5.	Height of the sampling po	int from GL : 35 m of stack Gas / Flue Gas :		
C.	Fuel used :	2. Fuel consumption :-	310	ad:
D.	Environmental condition		3,43	SING 1 PPP
I.	Barometrie pressure: 748		2. Temperature :	74 %
E.	Results of Physical Para		z. remperature :	24 .0
SI No		Test Method	Unit	Results
1.	Temperature of emission		°C	60
2.	Velocity of gas in duct	IS 11255:Part 3:2008	m/sec	14.24
3.	Quantity of gas flow	IS 11255:Part 3:2008	NM ³ /hr	243452
F.	Results of gaseous emis		1935 /381	345.715.715.715
SINo	production and the second seco	Test Method	Unit	Results
1.	Sulphur dioxide	IS 11255 : Part 2 : 1985	mg/Nm ³	699.74
2.	Carbon monoxide	15 13270 : 1992 (By Ornat)	% v/v	< 0.2
3.	Carbon dioxide	1S 13270 : 1992 (By Ornat)	% v/v	0.2
	Oxygen	IS 13270 : 1992 (By Orsat)	%v/v	19.8
4.	Control of the Contro	SOP No. RVB/SOP/01/20.	2000000	2200
5.	Acid Mist	Imue No.: 64, Imae Date: 10.01, 2018	mg/Nm ³	27.12

Report Verified by

Grayen

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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TEST REPORT

ssue	d to	24-25/PPL/02 Issue Date: July 30, 2025 Page 1 of 1 : M/S. M/S. PARADEEP PHOSPHATE LTD.			
Addre	155	: Paradeep, Odisha.			
Your S	S.O. No.	: 5500007609, dtd. 16.08.2024			
	r Description	: Stack: Gus / Flue Gus		ipment used:	
	e ID No.	: AP-FG/24-25/PPL/02	Stack Monitoring		
Vame	of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LT	The second secon	C64 (Cal. Validity: 04.05.26	
ectivities	CONTRACTOR CONTRACTOR CONTRACTOR	Paradeep, Odisha.		meters Tested	
	time of sampling	22.07.2025 (04:00 P.M. to 04:45 P.M.			
	ing Plan & Method ing Carried out by	: RVB/FM/45 & IS: 11255 (Part-1,2 &	Chemical:	ias flow; O ₃ , CO ₂ & CO	
	sis Started on	: Mr.S. Banerjee : 28.07.2025	SO ₂ & Acid Mist		
	sis Completed on	: 30.07.2025	SOME SERVICE		
Α.	General information abou				
1.	Stack connected to	; SAP - II			
2.	Emission due to	: Process Emmision			
3.	Material of construction of	f stack ; M.S.			
4,	Shape of stack	; Circular.			
5.		with permanent platform & ladder: Yes	i		
В.	Physical characteristics				
1.	Height of the stack from g				
3,	Diameter of the stack at so				
4.	No, of Traverse point	: 32 Nos.			
5. C.	Height of the sampling po	int from GL : 35 m of stack Gas / Flue Gas :			
1.	Fuel used :	of stack Gas / Flue Gas ; 2. Fuel consumptio	21.	and :	
D.	Environmental condition		H	URI 1 +++	
1.	Barometric pressure: 748	Marian Control of the	2. Temperature :	2496	
E.	Results of Physical Para		2. Temperature :	34 6	
SINo		+	Unit	Results	
	. Prot. Parimeters	Test Method 18 11255 : Part 3 : 2008			
1.	Temperature of emission	The Control of the Co	"C	62	
2.	Velocity of gas in duct	IS 11255:Part 3:2008	m/sec	13.05	
3.	Quantity of gas flow	IS 11255;Part 3:2008	NM ³ /hr	220901	
F.	Results of gaseous emis	sion:			
Sl No	Test Parameters	Test Method	Unit	Results	
1.	Sulphur dioxide	1S 11255 : Part 2 : 1985	mg/Nm ³	657.34	
2.	Carbon monoxôde	IS 13270 : 1992 (By Orsat)	5% v/v	< 0.2	
3.	Carbon dioxide	15 13270 : 1992 (By Ornat)	26 V/V	0.2	
	The state of the s	1S 13270 : 1992 (By Orsat)	80.00	19.8	
- 1	Oxygan	SOP No. RVB(SOP(07/20)	96 v/v	19.8	
4.	Acid Mist		mg/Nm ³	25.32	

Report Verified by

Gloyen

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

-	cate No. AP-FG/24-25/		25	Page 1 of 1
ssue		: M/S. M/S. PARADEEP PHOSPHATE LT	TD,	
Addre		Paradeep, Odisha.		
	.O. No.	: 5500007609, dtd. 16.08.2024		
	Description	: Stack Gas / Flue Gas	Equ	ipment used:
	ID No.	: AP-FG/24-25/PPL/03	Stack Monitorin	
Vame (of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.		C/04 (Cal. Validity: 04.05.26
		Paradeep, Odisha.	Para	imeters Tested
	time of sampling	: 19.07.2025 (12:05 P.M. to 12:43 P.M.)	Physical & Gener	
	ng Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, (ins flow, O ₁ , CO ₂ & CO
	ng Carried out by	: Mr. S. Banerjee	Chemical z	
	is Started on	: 28.07.2025	SO ₂ & Acid Miss	
	is Completed on	: 30.07.2025		
A.	General Information about	The state of the s		
1.	Boiler connected to	: SAP - C		
2.	Emission due to	: Process Emission		
3.	Material of construction of			
4.	Shape of stack	: Circular.		
5.	Whether stack is provided	with permanent platform & ladder: Yes.		
В.	Physical characteristics			
L	Height of the stack from g			
3.	Diumeter of the stack at sa			
4.	No. of Traverse point	: 30 Nos.		
5.	Fleight of the sampling po	nt from GL : 35 m		
C.	Analysis / Characteristic			
D.	Fuel used :	2. Fuel consumption :	3.12	od :
D,	Environmental condition	DESCRIPTION OF THE PROPERTY OF		
1.	Barometric pressure: 748		Temperature :	32 °C
E.	Results of Physical Parar	neters of Flue Gas :		
SINo	Test Parameters	Test Method	Unit	Results
L	Temperature of emission	IS 11255 : Part 3 : 2008	"C	76
2.	Velocity of gas in duct	IS 11255:Part 3:2008	m/sec	6.52
3.	Quantity of gas flow	IS 11255 Part 3:2008	NM³/hr	110019
F.	Results of gaseous emis-	sion:		
SI No	Test Parameters	Test Method	Unit	Results
1.	Sulphur dioxide	IS 11255 Part 2 1985	mg/Nm ³	567.64
2.	Carbon monoxide	(S 13270 : 1992 (By Orsat)	% v/v	< 0.2
3.	Carbon dioxide	IS 13270 : 1992 (By Orant)	% v/v	0.2
4.	Oxygen	IS 13270 : 1992 (By Orsar)	% v/v	19.6
5.	Aoid Mist	SGP No.: RVB/SOT(0):/20, Insie No.: 04, Insee Diez. 10:01:2018	mg/Nm ³	22.48

Report Verified by

Clayer

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

Addres Your S.A Sample Sample		: M/S. M/S. PARADEEP PHOSPHATE LT			Page 1 of
Your S.t Sample Sample	55				
Sample Sample		: Paradeep, Odisha.			
Sample)	O. No.	5500007609, did. 16.08.2024			
Sample)	Description	Stack Gas / Flue Gas	T	Equipment	used:
		: AP-FG/24-25/PPL/04	Stack Monit		mcsatz.
Name of	f Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.			Validity: 04.05.2
		Paradeep, Odishu.		arameters	The state of the s
Onte & stock	time of sampling	: 20.07.2025 (11:50 A.M. to 12:24 P.M.)	Physical & G		Harris States
Samplin	ng Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Language 1 and 2 to 1 to		O ₅ , CO ₂ & CO
amplio	ig Carried out by	; Mr.S. Banerjee	Chemical :		
Analysis	s Started on	: 24.07.2025	PM, NH, &	TF	
Analysis	s Completed on	: 30.07.2025	TOTAL STREET, NO.	7.75	
A. (General information abou	ut stack :	-		
	Stack connected to	: DAP - A			
2. 1	Emission due to	; Process Emmision			
3. 1	Material of construction of	stack : M.S.			
4. 5	Shape of stack	: Circular.			
5. 1	Whether stack is provided	with permanent platform & ladder: Yes.			
B. F	Physical characteristics of	of stack :			
1. 1	Height of the stack from gr	ound level : 50 m			
3. 1	Diameter of the stack at sar	mpling point : 2.8 m			
4. 2	No. of Traverse point	: 32 Nos.			
5. 1	Height of the sampling point	nt from GL : 35 m			
C. /	Analysis / Characteristic	of stack Gas / Flue Gas :			
	Fuel used 1	2. Fuel consumption :		3.Loud :	
D. 6	Environmental conditions	5.7			
1. 1	Barometric pressure: 748 i	mmHg	2. Temperati	tre : 34 °C	
	Results of Physical Parar		a. rempetus	are to the	
SINo	Test Parameters	Test Method	Unit	1	tesults
	Temperature of emission	IS 11255 : Pan 3 : 2008	"C		58
	Velocity of gas in duct	IS 11255 Part 3:2008			1,300,0
		- ACTION AND TO SECTION ASSESSMENT	m/sec		16.69
	Quantity of gas flow	IS 11255:Part 3:2008	NM ³ /hr		299894
	Results of gaseous emiss	sion :			
SINo	Test Parameters	Test Method	Unit	Results	Norms
					as per CPCB
1	Carbon motoxide	IS 13270 : 1992 (By Orsat)	% v/v	< 0.2	Not Specified
2.	Carbon dioxide	IS 13270 : 1992 (By Orsit)	95 v/v	0.2	Not Specified
	Oxygen	1S 13270 : 1992 (By Orsin)	% v/v	19.2	Not Specified
3.7%	Particulate Matters	IS 11255 : Part 1 : 1985			and the second s
1000			mg/Nm3	46.45	150 max.
5.	Total Fluoride	IS 11255 (Part - 3): 1990	mg/Nm ¹	1.55	< 10
6.	Ammonia as NH ₃	Methods of Air Sampling & Analysis, 3rd Ed. (Indophenol Method), Method 401	mg/Nm³	134.00	300 max.

Report Verified by

Clayen

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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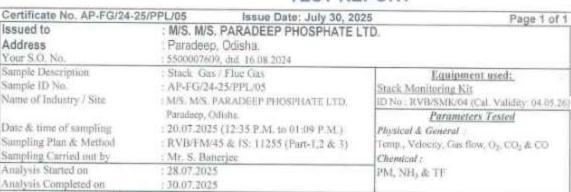
Phone: (033) 4044-3380 / 3381 / 3382 / 3383, Website: www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TC-12347





Δ	General	informat	ion ah	out stack	Ī

Stude	connected to		DAP - B
154.00	SCHOOLSESS BUT		1 1 2 15 10 10 11 11 11 11 11

² Emission due to Process Emmision

3.	Material of construction of stack	: M.S.
4.	Shape of stack	: Circular.

Whether stack is provided with permanent platform & ladder: Yes.

Physical characteristics of stack:

1.	Height of the stack from ground level	= 50 m
3.	Diameter of the stack at sampling point	: 2.8 m

4.	No. of Traverse point	: 32 Nos.
5.	Height of the sampling point from GL	: 35 m

Analysis / Characteristic of stack Gas / Flue Gas :

w was a second as		
I. Fuel used 1	2. Fuel consumption :	3.Lond : ***

D. Environmental conditions:

Ъ.,	Barometric pressure : 748 mml	ig.	2. Temperature: 34	3

Results of Physical Parameters of Flue Gas :

SI No.	Test Parameters	Test Method	Unit	Results
1.	Temperature of emission	IS 11255 : Part 3 : 2008	°C	62
2.	Velocity of gas in duct	JS 11255 Part 3:2008	m⊱sec	17.06
3.	Quantity of gas flow	IS 11255 Part 3-2008	NM3/hr	299846

SI No	Test Parameters	Test Method	Unit	Results	Norms as per CPCB
1.	Carbon monoxide	15 13270 : 1992 (By Cirsat)	% v/v	< 0.2	Not Specified
2.	Carbon diexide	IS 13270 : 1992 (By Orant)	% v/v	0.2	Not Specified
3.	Oxygen	IS 13270 : 1992 (By Orant)	% v/v	19.6	Not Specified
4.	Particulate Matters	38 11255 : Part I : 1985	mg/Nm3	55.08	150 max.
5.	Total Fluoride	15 11255 (Part - 5): 1990	mg/Nm ²	1.40	< 10
6.	Anumonia as NH ₃	Methods of Air Sampling & Analysis, 3rd Ed. (Indophenol Method), Method 401	mg/Nm ¹	122.00	300 max.

Pollution control device

Details of pollution control devices attached with the stack : Wet Scrubber

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(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

la-	icate No. AP-FG/24-25/P				Page 1 of
ssue		: M/S. M/S. PARADEEP PHOSPHATE LT	D.		
Addre		: Paradeep, Odisha.			
	i.O. No.	- 5500007609, dtd. 16 08 2024			
	e Description	: Stack Gus / Flue Gus	The state of the s	Equipment	used:
	e ID No.	: AP-FG/24-25/PPL/06	Stack Monit	oring Kit	
Name	of Industry / Site	M/S. M/S. PARADEEP PROSPHATE LTD. Paradeep, Odisha.		SMK/04 (Cal Parameters)	Validity 04:05:2
Jate &	time of sampling	: 20.07.2025 (03:25 P.M. to 03:57 P.M.)	Physical & G		10000
	ing Plan & Method	: RVB/FM/45 & IS: 11255 (Purt-1,2 & 3)	the state of the s		0,00,800
	ing Carried out by	Mr.S. Baneriee	Chemical:		
	is Started on	: 28.07.2025	PM. NH. &	TF	
Analys	sis Completed on	: 30.07.2025	120,000		
A.	General information abou	it stack :			
1.	Stack connected to	: DAP - C			
2	Emission due to	: Process Emmission			
3.	Material of construction of	stnek : M.S.			
4.	Shape of stack				
5.	Whether stack is provided v	with permanent platform & indder : Yes.			
В.	Physical characteristics of	of stack :			
1.	Height of the stack from gre	and level : 50 m			
2.	Sampling Point	; Chimney			
3.	Diameter of the stack at san	opling point : 2.8 m			
4.	No. of Traverse point	; 32 Nos.			
5.	Height of the sampling poir				
C.	Analysis / Characteristic				
1.	Fuel used :	2. Fuel consumption :		3.Load :	
D.	Environmental conditions				
1.	Barometric pressure: 748 n		2. Temperati	irro:34 °€	
E.	Results of Physical Paran	neters of Flue Gas :			
SI No	Test Parameters	Test Method	Unit	- 1	Results
1_	Temperature of emission	IS 15255 : Part 3 : 2008	70		60
2.	Velocity of gas in duct	IS 11255 Part 3:2008	misso		16.74
3.	Quantity of gas flow	IS 11255 Part 3:2008	NM ¹ /ar		03234
E.	Results of gaseous emiss		INDI 701		03234
	Test Parameters	Test Method	Unit	Results	Norms as per CPCB
SI No		IS 15270 : 1992 (By Onial)	76 V/V	< 0.2	Not Specified
SI No	Carbon monoxide	Commence of the commence of th			THE COURSE OF THE PARTY OF THE
	Carbon monoxide Carbon dioxide	18 13270 : 1992 (By Creat)	96.v/v	0.2	Not Specified
J.:					Not Specified Not Specified
I 2 3	Carbon diaxide	IS 13270 : 1992 (By Creat) IS 13270 : 1992 (By Creat)	% v/v	19.8	Not Specified
2.	Carbon dioxide Oxygen	IS 13270 : 1992 (By Creat)			

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Glyen

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(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

ertinc	ate No. AP-FG/24-25/P	PL/07 Issue Date: July 30, 202	5		Page 1 of 1
ssued	to	: M/S. M/S. PARADEEP PHOSPHATE LT	D.		
ddres		: Paradeep, Odisha			
our S.		: 5500007609, dtd. 16 08:2024			
	Description	: Stack: Gas / Flue Gas		quipment a	sed:
ample	ID No.	; AP-FG/24-25/PPL/07	Stack Monito	CINE K.E	Control of the State of the Control of the State of the S
lame at	f Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.			Validity: 04.05:26
		Paradeep, Odisha.		arameters T	esteit
	time of sampling	: 20.07.2025 (04:15 P.M. to 04:50 P.M.)	Physical & Ge Temp., Velocit		V 200 III 200
	ig Plan & Method	: RVH/FM/45 & IS: 11255 (Part-1,2 & 3)	Chemical:	y, our now, c	4.001000
ampling Carried out by malysis Started on		Mr. S. Bunerjee	PM, NH, & T	TE TE	
		28,07,2025	PAL MILES	T.	
	s Completed on General information abou	: 30.07.2025			
	Stack connected to	: DAP - D			
	Emission due to	: Process Emmision			
	Emission due to Material of construction of				
Material of construction of stack Shape of stack					
5.	Whother stuck is recorded	with permanent platform & ladder : Yes.			
B.	Physical characteristics	of stack t			
	Height of the stack from gr				
	Diameter of the stack at sa				
No. of Traverse point 32 Nos.					
	Height of the sampling poi	nt from GL 35 m			
C.	Analysis / Characteristic	of stack Gas / Flue Gas :			
1.	Fuel used :	2. Fuel consumption :		Load:	
	Environmental condition	5.1			
	Barometric pressure: 748	parties and the same and the sa	2. Tempensis	re:34°C	
	Results of Physical Para				
SLNo	Test Parameters	Test Method	Unit	R	esults
1.	Temperature of emission	15 11255 : Part 3 : 2008	*C		65
2.	Velocity of gas in duct	15 11255 Part 3:2008	m/sec		16.23
3	Quantity of gas flow	IS 11255 Part 3:2008	NM ³ -hr	2	85450
E.	Results of gaseous emis	The state of the s	34445-111		
SI No	Test Parameters	Test Method	Unit	Results	Norms
21.140	1est rarameters	1237 3471100	(3,3111)	3000	as per CPCB
1	Carbon monoxide	IS 13276 : 1992 (By Onat)	56 v/v	< 0.2	Not Specified
	Carbon dioxide	18 13270 : 1992 (By Oriat)	96 v/v	0.2	Not Specifie
2.,	Programme and the second secon	IS 13270 : 1992 (By Orsat)	% v/v	19.4	Not Specifie
3.,	Oxygen		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	54.8	150 max.
	Particulate Matters	15 11255 : Part 1 : 1985	mg/Nm3		
4	Francis Colonia Coloni	IS 11255 (Part - 5) : 1990	mg/Nm ³	1.72	< 10
5	Total Fluoride	Methods of Air Sampling & Analysis, 3rd Ed.	The second second second		

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Player

Reviewed & Authorised by

(Dr./R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

ssued	cate No. AP-FG/24-25/		Issue Date: July 30, 202			Page 1 of
			ARADEEP PHOSPHATE LT	D.		
Addre		: Paradeep, (
	O: No. Description	: Stack Gas /	dtd. 16.08.2024	1	entination of the	
		: AP-FG/24-2			Equipment (ised:
다음에 발생하는 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.			RADEEP PHOSPHATE LTD.	Stack Monite		Validity: 04.05.20
Par		Paradeep, Odi			arameters 7	
			03:00 P.M. to 03:38 P.M.)	Physical & G		E1608
	ng Plan & Method		& IS: 11255 (Part-1,2 & 3)			0 ₅ , CO ₅ & CO
	ng Carried out by	: Mr. S. Baner		Chemical:	ty, can most,	og, copie co
	is Started on	: 28.07.2025	744	PM & TF		
	is Completed on	: 30.07.2025		1.373.66.11		
A.	General information abo					
	Stack connected to	ALL DESCRIPTION OF THE PARTY OF	: PAP = 1			
2.	Emission due to		Process Emmision			
Material of construction of stack : M.S.						
4. Shape of stack : Circular,						
5.						
В.	Physical characteristics	of stack:				
	Height of the stack from a		: 50 m			
3,	Diameter of the stuck at sa	ampling point	: 2.7 m			
	No. of Traverse point		: 32 Nos.			
	Height of the sampling po		: 35 m			
C.	Analysis / Characteristic	of stack Gas / I				
L	Fuel used :		2. Fuel consumption :		3.Load:	
D.	Environmental condition	market and a second				
4.:	Barometric pressure: 748			2. Temperati	ure: 33 °C	
E.	Results of Physical Para	meters of Flue	Gas:			
SINo	Test Parameters		Test Method	Unit	F	esults
1.	Temperature of emission	1	S 11255 Part 3 : 2008	°C		45
2.	Velocity of gas in duct		IS 11255:Part 3:2008	m/sec		6.07
37	Quantity of gas flow		IS 11255 Part 3:2008	NM ³ hr	10	12334
F.	Results of gaseous emis			1 (400)10 1	-	34-27
SI No	Test Parameters	T	Test Method	Unit	Results	Norms
34.510	rest Tarameters		rest method	Can	PERSONS	as per CPCB
1.	Carbon monoxide	/10:	13270 1992 (By Orun)	MONO	<0.2	Not Specified
				26 979		
2.	Curbon dioxide		13270 : 1992 (By Orsat)	% v/v	0.2	Not Specified
3.	Oxygen		13270 : 1992 (By Orsat)	% v/v	19.6	Not Specified
	Particulate Matters	1	S 11255 : Part 1 : 1985	mg/Nm3	38.18	150 max.
4.				mg/Nm³		

Report Ventied by

Glayen

Reviewed & Authorised by

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

Certificate No. AP-FG		Issue Date: July 30, 20			Page 1 of		
ssued to		. PARADEEP PHOSPHATE L	.TD.				
Address	: Paradee						
Your S.O. No.		99, dtd. 16.08.2024					
Sample Description		s / Flue Gas	Equipment used:				
Sample ID No.		I-25/PPL/09	Stack Monit				
Name of Industry / Site		PARADEEP PHOSPHATE LTD ID No.: RVB/SMK/04 (Cal. Validity) 04.65.26					
Name of the Control o	Paradeep, C		Parameters Tested 12:06 P.M.) Physical & General :				
Date & time of sampling Sampling Plan & Method		5 (11:30 A.M. to 12:06 P.M.) 45 & IS: 11255 (Part-1.2 & 3)			02, CO2 & CO		
Sampling Carried out by	: Mr. S. Ba		Chemical:	ay, cascatone, t	12, 121,12 10, 1, 1, 1		
Analysis Started on	: 28.07.202		PM & TF				
Analysis Completed on	: 30.07.202		134 00 11				
	ion about stack :		-				
Stack connected to		: PAP # 2					
2. Emission due to	9	: Process Emmision					
3. Material of constr	uction of stack	2 M.S.					
4. Shape of stack		: Circular,					
5. Whether stack is a	provided with perman	ent platform & ladder : Yes.					
 B. Physical charact 	eristics of stack;						
	k from ground level	: 50 m					
	ack at sampling point						
4. No. of Traverse p		; 12 Nos.					
Height of the sam	pling point from GL.	: 30 m					
	cteristic of stack Ga	Charles and the Control of the Contr		water to the control			
1. Fuel used :	PW	 Fuel consumption : 		3.Load :			
D. Environmental c				6			
Barometric pressu			2. Temperat	we:34 ℃			
The state of the s	cal Parameters of FI						
Sl No Test Paramet		Test Method	Unit		Results		
1. Temperature of e		15 11255 ; Part 3 ; 2008	°C		50		
2. Velocity of gas in		15:11255:Part 3:2008	m/sec		14.21		
 Quantity of gas f 		IS 11255:Part 3;2008	NM ³ /hr		35414		
 F. Results of gased 	ous emission :						
SINo Test Paramet	ers	Test Method	Unit	Results	Norms		
1. Carbon mionoxid		IS 13270 : 1992 (By Orsat)	36 v/v	<0.2	as per CPCB Not Specifie		
2 . Carbon dioxide		1S 13270 : 1992 (By Oriat)	% x/v	0.2	Not Specifie		
3. Oxygen		IS 13270 : 1992 (By Oron)	% x/v	19.4	Not Specifie		
4 , Particulate Matte	13	IS 11255; Part 1: 1985	Em/Nm3	35.72	150 max.		
5. Total Fluoride		IS 11255 (Part - 5): 1990	mg/Nm ³	2.52	20 max.		
G. Pollution control	device						
Details of pollution	on control devices atta	sched with the stack: Wet Scrubb	cr				

Report Verified by

Glayen

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager Authorised Signatory

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

ssued to	o. AP-FG/24-25/PI	PL/10 Issue Date: July 30, 20: : M/S. M/S. PARADEEP PHOSPHATE L	TO	Page 1 of
Address		: Paradeep, Odisha.	I.D.	
Your S.O. No.		: 5500007609, dtd. 16.08.2024		
Sample Descri		: Stack, Gas / Flue Gas	Eou	ipment used:
Sample ID No.		: AP-FG/24-25/PPL/10	Stack Monitorin	
Same of Indus	try / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.		K/04 (Cal. Validity: 04:05.26
		Paradeep, Odisha.		meters Tested
Inte & time of		: 21.07.2025 (03:00 P.M. to 03:32 P.M.)	Physical & Gener	
Sampling Plan		: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		list flow, O ₂ , CO ₂ & CO
Sampling Carri		: Mr. S. Banerjee	Chemical:	
Analysis Starte		: 28.07.2025	PM	
Analysis Comp		: 30,07,2025		
	I Information about			
	onnected to	: Zypmite - 1 : Process Emmision		
	of construction of			
4. Shape of		: Circular.		
		with permanent platform & ladder : Yes.		
- Artistance - The Artist Control of the Control of	al characteristics of	stack:		
	of the stack from gro			
3. Diamet	er of the stack at san	opling point : 1.03 m		
4. No. of	I'mverse point	: 12 Nos.		
C. Analys	is / Characteristic o	f stack Gas / Flue Gas :		
 Fuel use 	ed :	2. Fuel consumption :	3.Lc	ad :
D. Environ	imental conditions			
	tric pressure : 752 m		2. Temperature :	35 °C
E. Results	of Physical Param	eters of Flue Gas :		
SI No Test	Parameters	Test Method	Unit	Results
I. Tempe	rature of emission	IS 11255 Part 3 2008	°C	50
2. Velocii	y of gas in duct	18 11255 Part 3 2008	m/sec	16.63
	ty of gas flow	75 11255 : Part 3 : 2008.	NM ³ /hr	44089
	of gaseous emissi		NiM Zhr	94007
	Parameters		Taxaras I	THE STREET
Si NO 1 EST	rarameters	Test Method	Unit	Results
200	monoxide	15 13270 : 1992 (By Orsat)	% v/v	<0.2
2. Carbon	dioxide	IS 13270 : 1992 (By Orset)	26 V/V	0.2
 Oxyger 	1	38 13276 : 1992 (By Omar)	56 v/v	19.4
4. Particu	late Matters	IS 11255 : Part 1 : 1985	mg/Nm3	32
			The second secon	

Report Verified by

Gayen

Reviewed & Authorised by

(Dr. R. KARIM

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Addre Your S.	7.7.7	PPL/11 Issue Date: July 30, 20 : M/S. M/S. PARADEEP PHOSPHATE I	TD.	Page 1 o		
	55	- Dornalisan Adlaha				
Your S.		: Paradeep, Odisha.				
	Name and Advanced to the Park of the Park	: 5500007609, dtd. 16.08.2024				
	Description	: Stack Gas / Flue Gas		tipment used:		
		: AP-FG/24-25/PPL/11	Stack Monitoring	Kit		
Name o	f Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.		06 (Cal. Validity: 04.05.26)		
escale in	AT AN AD A POST OF THE ATTERNATION	Paradeep, Odisha.		Parameters Tested		
	time of sampling ng Pian & Method	: 21.07.2025 (03:45 P.M. to 04:19 P.M.)	Physical & Genera			
	ng Carried out by	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3) : Mr.S. Banerjee		is flow, O ₂ , CO ₂ & CO		
	s Started on	: 28.07.2025	Chemical : PM			
	s Completed on	: 30.07.2025	PNI			
A.	General information about	it stack :				
	Stack connected to	: Zypmite + 2				
	Emission due to	: Process Emmision				
3.	Material of construction of					
	Shape of stack	: Circular.				
5.	Whether stack is provided	with permanent platform & ladder : Yes.				
B.	Physical characteristics	of stack :				
	Height of the stack from gr					
	Diameter of the stack at sa					
	No. of Traverse point	: 15 Nos.				
C.	Analysis / Characteristic					
	Fuel used :	2. Fuel consumption :	3.Lo	d:		
	Environmental condition					
	Barometric pressure : 752		2. Temperature :	33 °C		
	Results of Physical Parar					
SINo	Test Parameters	Test Method	Unit	Results		
1.	Temperature of emission	IS 11255 : Part 3 : 2008	°C	52		
2.	Velocity of gas in duct	IS 11255 : Part 3 : 2008	m/sec	16.11		
3.	Quantity of gas flow	IS 11255 : Part 3 : 2008	NM ³ /hr	28922		
F.	Results of gaseous emis-	sion :				
SI No	Test Parameters	Test Method	Unit	Results		
1.	Carbon monoxide	IS 13270 : 1992 (By Orsat)	% v/v	< 0.2		
2	Carbon dioxide	IS 13270 : 1992 (By Orsat)	56 v/v	0.2		
3.	Oxygen	IS 13270 - 1992 (By Creat)	% v/v	19.8		
4.	Particulate Matters	IS 11235 Part 1 : 1985	mg/Nm3	30.4		

Report Verified by

ajoyen

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

	icate No. AP-FG/24-25/F			Page 1 of
ssue		: M/S. M/S. PARADEEP PHOSPHATE	LTD.	
Addre		: Paradeep, Odisha.		
transmission and it	i.O. No.	: 5500007609, dtd. 16.08.2024		
	e Description	: Stack: Gas / Flue Gas		ipment used:
		: AP-FG/24-25/PPL/12	Stack Monitorin	
Name:	of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.	the fact of the last of the la	C/04 (Cal. Validity: 04.05.26
W 1	20 20 11	Paradeep, Odishu.		meters Tested
	time of sampling ing Plan & Method	: 21.07.2025 (04:30 P.M. to 05:02 P.M.)	Physical & Gener	
	ing Carried out by	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3) : Mr. S. Banerjee		ins flow, O2, CO2 & CO
	is Started on	: 28.07.2025	Chemical : PM	
	is Completed on	: 30.07.2025	1094	
	General information abo			
L	Stack connected to	: Zypmite - 3		
2.	Emission due to	: Process Emmission		
3.	Material of construction of			
4.	Shape of stack	: Circular,		
5.	Whether stack is provided	with permanent platform & ladder : Yes.		
В.	Physical characteristics	of stack :		
1	Height of the stack from g			
3.	Diameter of the stack at sa			
4.	No. of Traverse point	: 8 Nos.		
C.	Control of the Contro	of stack Gas / Flue Gas :		
1	Fuel used :	2. Fuel consumption:	3.Lc	nd :
D,	Environmental condition			
1.	Barometric pressure: 750		2. Temperature :	34 °C
E.	Results of Physical Para	meters of Flue Gas :		
SI No	Test Parameters	Test Method	Unit	Results
lo.	Temperature of emission	15 11255 : Part 3 : 2008	%C	36
2.	Velocity of gas in duct	IS 11255 : Part 3 : 2008	m/sec	4.16
3	Quantity of gas flow	15 11255 : Part 3 : 2008	NM ³ /hr	2675
F.	Results of gaseous emis	sion:		
SI No	Test Parameters	Test Method	Unit	Results
I.	Carbon monoxide	IS 13270 : 1992 (By Orsat)	96.v/v	< 0.2
2.	Carbon dioxide	IS 13270 : 1992 (Ry Orsat)	96 v/v	0.2
	Oxygen	IS 13270 : 1992 (By Orsat)	96 v/v	19.6
3		15 11255 : Part 1 : 1985	mg/Nm3	

Report Verified by

Ofagen.

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

Certif	icate No. AP-FG/24	-25/PPL/13	Issue Date: July 30	2025		Page 1 of
ssue	d to		RADEEP PHOSPHATE L'	TO.		Page 1 of
Addre	155	: Paradeep, Odi		4 No. 4		
our S	i.O. No.	: 5500007609, did				
anipl	c Description	: Stack Gas / Flu			Foulam	ent used:
	e ID No.	: AP-FG/24-25/P		Stack Monitoria		CHI USENI
	of Industry / Site		DEEP PROSPRATE LTD	ID No. RVB/SM	DESTRUCTION STA	liano ne ne ne nei
		Paradeep, Odisha		Harriston and theory		
ate &	time of sampling		40 A.M. to 11:04 A.M.)	Physical & Gene		ers Tested
	ing Plan & Method	RVR/FNEAS A	IS: 11255 (Pim-1,2 & 3)	Temp. Velocity,		75 x 70
	ing Carried out by	: Mr.S. Baneriee	to stand (care to b)	Chemical:	V1014 1000MP 47/20	005 W 00
	is Started on	: 28.07.2025		SO ₃ , NO ₃ , HC &	CDV4	
nalv	is Completed on	: 30.07.2025		SOL NOSHC A	CPM	
A.	General information					
1	Stack connected to	SIDOUL SECUR.	: Diesel Generator	F-1 2		
2	Emission due to			Mary and the same		
3	Muterial of construct	or of stuck	: Burning of H.S.D : M.S.	55		
4	Shape of stack	NAME OF THE PERSON.	: Circular.			
5.	Whether stuck is rown	defect with economic	t platform & ladder : Yes			
6.	Generator capacity	none with permanen	: I MVA			
В.	Physical characteris	rtice of stack :	1,3/391826			
1.	Height of the stack for	om enume level	: 30.0 m			
2	Sampling Point	Superior server	: Chimney			
3.	Diameter of the stack	at canneling point	0.4 m			
4.	No. of Traverse point	or sandaring boun	: 08 Nos.			
C.	Analysis / Character	datic of stack Cas I	Flor Can			
1	Fuel used	: H.S.D	Fide Gas	W. W. H.	La constitución de la constituci	
D.	Environmental cond	Otlone:		2. Fuel consump	oticio : ***	
1.						
	Barometric pressure :			2. Temperature	:34 °C	
E.	Finding of Physical	Parameters of Flue	Gas :			
il No			Test Method	Unit		Results
1.	Temperature of emis		18 11255 : Part 3 : 2008	, C		138
2.	Velocity of gas in du		IS 11255: Part 3 2008	m/sec		50.32
3.	Quantity of gas flow		IS 11255 Part 3 2006	NM ³ /hr		11768
F.	Results of gaseous	emission:	11.72			1273907
SI No	Test Parameters		Test Method	Unit	Results	Norms as per Environment
				1550	100000000000000000000000000000000000000	(Protection) Amendment Rule
						2002, for > 800 for
1	Sulphur dioxide		IS 11255 Part 2 1983	mg/Nm²	93.03	Not Specified
2	Nitrogen dioxide		15 11255 Pwt 7: 2005	mg/Nm ³	152.71	ouse opecanied
	The second second		THE RESERVE OF THE PARTY OF THE	gm/kw-hr	2.25	
3	Total Hydrocarbon as	HC	EPA Method 18	gm/kw-hr	0.02	4.0
	The state of the s		and the control of the		1,000,000,000	
4	Carbon monoxide		USEPA 10:2017	mag/Nm²	5.74	
	CHI THE HAMING		WEELS HOSEL	mg/Nm ^T	142	1200
		100		gm/kw-hr	2.09	3.5
	Managara ta ay 400 mg m		8 13270 1992 (By Orsar)	% v/v	< 0.2	75 - TO- VOCE
	Carbon dioxide	13	8 12270 : 1992 (By Omat)	16 v/v	8:0	Not Specified
5			TRUTTER - Show I - TORK	mg/Nm²	25	85
5	Particulate Matters		15 11255 : Part 1 - 1985	11135/5/031	20	

Report Verified by

gayer

Reviewed & Authorised by

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

SEND OF TEST REPORT:
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CIN: U51109WB1931PTC007007



TEST REPORT

Page 1 of 1 Issue Date: 28 July 2025 Certificate No.E(D)/25-26/740 M/s. PARADEEP PHOSPHATE LIMITED Issued to Paradeep, Odisha Effluent Description of Sample E(D)/25-26/740 Sample ID No Paradeep Phosphate Limited Name of Industries/Site Paradeep, Odisha ETP Outlet Collection Source Parameter Tested: 22.07.2025 at 11:40 P.M. Sample Drawn by us on pH, TSS, O & G, F. Mr. S.Roy Sample Carried out by NIL-N. TKN, NIL, P. N. RVB/FM/45 Sampling Plan 22.07.2025 Analysis Started on

Analysis completed on APHA 24th Edition 1060 Sample collection Procedure

Grab Mode of Sampling

TEST FINDINGS:

Environmental condition during sampling : Temperature : 29°C, Transported in Ice box, Cold chain maintained

28.07.2025

SL No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1	pH Value	APHA 24th edition-4500H+B	0.15	8.20	6.5 - 8.5
	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	39	100 (Max.)
3	Oil & Grease (O & G)	APHA 24th edition 5520B	mg/l	< 2	10 (Max.)
4	Fluoride as F	APHA 24th edition 4500 F-C	mg/I	1.18	10 (Max.)
-	Ammoniacal Nitrogen as NH ₃ -N	APHA 24th edition 4500 NH3F	mg/l	21	50 (Max.)
5	Total Kjeldahl Nitrogen (TKN) as N	APHA 24th edition 4500-NorgA	mg/l	35.6	75 (Max.)
6	Free Ammonia as NH ₃	APHA 24th edition 4500 NH3F	mg/I	1.8	4 (Max.)
7	Dissolved Phosphates as P	APHA 24th edition 4500-PD	mg/l	3.0	5 (Max.)
- 26	H JISSOIVED PROSDUMUS 45 F			-	

APHA 24th edition 4500-N03D

Nitrate Nitrogen as NO3-N Note: BDL: Below Detection Limit. Minimum Detection Limit of Oil & Grease .. 2.0 mg/l, NH3 .. 0.1mg/l.

Remarks: The sample of effluent complies with the above Specification.

Dissolved Phosphates as P

Reviewed & Authorised by

5.2

20 (Max.)

mg/l

(Dr. R. KARIM)

Technical Manager

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

Certificate No.E(D)/25-26/741 Issue Date: 28 July 2025 Page 1 of 2

Issued to : M/s. PARADEEP PHOSPHATE LIMITED

Paradeep, Odisha

Description of Sample : Effluent

Sample ID No : E(D)/25-26/741

Name of Industries/Site : Paradeep Phosphate Limited

Paradeep, Odisha

Collection Source : STP Outlet

Sample Drawn by us on 22.07.2025 at 12:10 P.M.

Sample Carried out by : Mr. S.Roy
Sampling Plan : RVB/FM/45
Analysis Started on : 22.07.2025

Analysis Completed on : 28.07.2025

Seconds collection Procedure : APHA 24th Edition 1060

Sample collection Procedure : APHA Mode of Sampling : Grab

Environmental condition during sampling: Temperature: 30°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

SI. No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1	pH Value	APHA 24th edition-4500H+B	m	7.25	6.5 - 9.0
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	42	< 100
3	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	I.S. 3025 (Part - 44) - 2023	mg/l	6.0	< 30

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

Parameter Tested:

pH, TSS, BOD

(Dr. R. KARIM)

Technical Manager

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

Page 2 of 2 Issue Date: 28 July 2025 Certificate No.E(D)/25-26/741 M/s, PARADEEP PHOSPHATE LIMITED Issued to Paradeep, Odisha Effluent Description of Sample E(D)/25-26/741 Sample ID No Paradeep Phosphate Limited Name of Industries/Site Paradeep, Odisha STP Outlet Collection Source 22,07,2025 at 12:10 P.M. Sample Drawn by us on Parameter Tested: Mr. S.Roy Sample Carried out by Microbiological : Faecal Coliform RVB/FM/45 Sampling Plan 22.07.2025 Analysis Started on 21.07.2025 Analysis completed on

Sample collection Procedure : APHA 24th Edition 1060

Mode of Sampling : Grab

Environmental condition during sampling : Temperature : 30°C, Transported in Ice box, Cold chain maintained

MICROBIOLOGICAL TEST FINDINGS: Norms prescribed by Paradeep Phosphate SL Unit Results Test Method Ltd., Paradeep. Test Parameters No. Odisha MPN/ < 1000 <2 APHA 24th edition 9221E Faecal Coliform 100 ml 4

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

(Pijush Kanti Dutta)

Sr. Microbiologist
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.



Issued to

R. V. BRIGGS & CO. PRIVATE LTD.

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CIN: U51109WB1931PTC007007



Certificate No. AP-SL/25-26/PPL/01/07/01 : M/S. PARADEEP PHOSPHATES LIMITED

: Paradeep, Odisha. Address

: 5500007609, dtd. 16.08.2024

Your W.O. Ref. no.

: Sound Level Monitoring Description of Sample : AP-SL/25-26/PPL-01-07 Sample ID No.

Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED

Paradeep, Odisha.

Sampling Plan: Sampling Carried out by

: RVB/FM/45 : Mr. S. Roy

Date of Monitoring : 19.07.2025 to 22.07.2025

Issue Date: July 22, 2025

Sound Level Meter ID No.: RVB/SLM/07

(Cal. Validity: 02.05.2026)

Parameters Tested : LMm. LMax & Lm

Equipment used:

TC-12347

Page 1 of 1

Test Method: IS 4758: 1968

SL No.	Sample ID No.	Locations	TIME	Noise	Level in	dB(A)	Permissible Noise Exposure for Industrial
No.				L _{Min}	L _{Max}	L _{eq}	Workers as per The Noise Pollution (Regulation And Control) Rules, 2000
1.	AP-SL/25-26/PPL- 01	SAP Plant	11:00 A.M 11:05 A.M.	53.9	57.8	56.0	
2.	AP-SL/25-26/PPL- 02	PAP Plant	11:20 A.M 11:25 A.M.	60.1	63.5	62.0	
3.	AP-SL/25-26/PPL- 03	DAP- AB Side	10:30 A.M 10:35 A.M.	53.6	56.6	55.0	
4.	AP-SL/25-26/PPL- 04	DAP - CD Side	02:20 P.M 02:25 P.M.	55.8	57.9	57.0	90 dB(A)
5.	AP-SL/25-26/PPL- 05	Zypmite Plant	02:00 P.M 02:05 P.M.	57.8	59.8	59.0	
6.	AP-SL/25-26/PPL-	Bagging Section	11:30 A.M 11:35 A.M.	74.2	75.8	75.0	

Note: - L eq - Equivalent sound energy.

06 AP-SL/25-26/PPL

7.

Report Verified by

Off Side

Reviewed & Authorised by

52.0

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

.: END OF TEST REPORT :-

11:10 A.M. - 11:15 A.M.

51.0

52.8

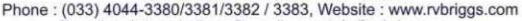
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CIN: U51109WB1931PTC007007



Certificate No. AP-SL/25-26/PPL/08A/11A/01 Issue Date: July 22, 2025 Page 1 of 1 issued to : M/S. PARADEEP PHOSPHATES LIMITED Address : Paradeep, Odisha. : 5500007609, dtd. 16.08.2024 Your P.O. Ref. no. Equipment used: Description of Sample : Sound Level Monitoring Sound Level Meter Sample ID No. : AP-SL/25-26/PPL/08/11 ID No.: RVB/SLM/07 Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED (Cal. Validity: 07.05.2026) : Paradeep, Odisha. Parameters Tested : LMin. LMax & Sampling Plan: : RVB/FM/45 Sampling Carried out by : Mr. S. Banerjee Test Method: 1S 4758: 1968 : 19.07.2025 to 22.07.2025 Date of Monitoring

A. SOUND LEVEL MONITORING A

SI.	Sample ID	Locations	Day Ti	me (06.0	O A.M to	10.00 P.M)	Night T	ime (10.	00 P.M t	to 06.00 A.M)	
No	No.	52-550 11/2 110	Sound Level in dB(A)		n dB(A)	Norms as per	Sound	Level i	n dB(A)	Norms as per	
		L _{Min} L _{Max} L _{eq} Protection At 1986, rule 3(1 and 4 (1) for	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Industrial area	L _{Min}	L _{Max}	L _{eq}	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Industrial area				
1.	AP-SL/25- 26/PPL/08	Near AAQMS -	53.4	56.4	55.0		47.5	50.1	49.0		
2	AP-SL/25- 26/PPL/09	Near AAQMS -	54.2	58.2	56.7	75 dB(A)	46.2	50.3	48.6	70 dB(A)	
3	AP-SL/25- 26/PPL/10	Near AAQMS -	54.8	57.2	56.1		46.4	50.2	48.4		

B. SOUND LEVEL MONITORING AT AMBIENT LOCATION: RESIDENTIAL AREA

SI.	Date of	Locations	Day Time (06.00 A.M to 10.00 P.M)				Night Time (10.00 P.M to 06.00 A.M)			
No	No Monitoring		Sound	Level in dB(A) Norms as per		Sound Level in dB(A)				
			L _{Min}	L _{Mex}	L _{eq}	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Residential area	L _{Min}	L _{Max}	Leq	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Residential area
1.	AP-SL/25- 26/PPL/11	Near AAQMS - 2	51.4	54.7	54.1	55 dB(A)	40.8	43.9	43.7	45 dB(A)

Note: - Leg - Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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CIN: U51109WB1931PTC007007



rtificate No. AP	-FG/25-26/0781 A	Issue Date: August 26, 20)25 FD	Page 1 of 1
sued to	: M/S. I	M/S. PARADEEP PHOSPHATE LI	ID.	
dress	: Parad	leep, Odisha.		
ur S.O. No.	: 55000	07609, dtd. 16.08.2024	Fauinn	nent used:
mple Description	: Stack	Gas / Flue Gas	Stack Monitoring K	
mple ID No.		3/25-26/0781 A	ID No - RVB/SMK/0	7 (Cal. Validity: 04.05.26
me of industry / S		NS. PARADEEP PHOSPHATE LTD.	Parame	ters Tested
	Parade	ep, Odisha.	Physical & General	
ate & time of samp	11111	2025 (04:10 P.M. to 04:49 P.M.)	Temp. Velocity, Gas	flow, O2, CO2 & CO
mpling Plan & M	ethod : RVB	FM/45 & IS: 11255 (Part-1,2 & 3)	Chemical:	
unpling Carried or	it by Mr. P	.P. Mondal	PM	
nalysis Started on	: 23.08		1.323	
nalysis Completed	00 : 26.08			
A. General info	rmation about stack	: Zypmite - 1		
 Stack conne 	cted to	: Zypinite - 1		
2. Emission d	ue to	: M.S.		
	construction of stack	: Circular.		
4. Shape of sta	ick	: Circular.		
Whether sta	ck is provided with pe	rmanent platform & ladder : Yes.		
 B. Physical ch 	aracteristics of stack	ci evel : 30 m		
 Height of th 	e stack from ground le			
 Diameter of 	the stack at sampling	: 12 Nos.		
4. No. of Trav	erse point	- Can / Elvin Gas :		
C. Analysis /	Characteristic of stac	2. Fuel consumption :	3.Loa	d :
 Fuel used 	1	Z. Fuci Consumplier		
D. Environme	ental conditions :		2. Temperature :	30 °C
 Barometric 	pressure: 754 mmHg		41 1 2 3 1 2	
E. Results of	Physical Parameters	of Flue Gas :	Unit	Results
SI No Test Pr	rameters	Test Method	°C	48
	ure of emission	IS 11255 : Part 3 : 2008		
10 10 10 10 10 10 10 10 10 10 10 10 10 1	of gas in duct	IS 11255 : Part 3 : 2008	m/sec	20.25
		IS 11255 ; Part 3 ; 2008	NM³/hr	54167
3. Quantity	of gas flow			
	f gaseous emission :		Unit	Results
Sl No Test P	arameters	Test Method	Can	10000000000
	- Table	IS 13270 : 1992 (By Orsat)	% v/v	<0.2
1. Carbon n	Control of the contro	IS 13270 : 1992 (By Orsat)	96 v/v	0.2
2 Carbon d	ioxide		% v/v	19.4
3 Oxygen		IS 13270 : 1992 (By Orsat)		33
	te Motters	IS 11255 : Part 1 : 1985	mg/Nm3	-01
4 Particula	Tr. Intercept of			

Report Verified by

Reviewed & Authorised by

TC-12347

Dago 1 of 1

(Dr. R. KARIM

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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 Results relate only to the parameters of the item tested.



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CIN: U51109WB1931PTC007007

TEST REPORT

W. F. C. L. L. D. C.	ate No. AP-FG/25-26/07	782 A Issue Date: August 26, 2	2025	Page 1 of		
sued t	3077	: M/S. M/S. PARADEEP PHOSPHATE L	.10.			
ddress		: Paradeep, Odisha.				
our S.C		: 5500007609, dtd. 16.08.2024	Equi	oment used:		
	Description	: Stack Gas / Flue Gas	Stack Monitoring K			
ample I	D No.	: AP-FG/25-26/0782 A : M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No: RVB/SMK/0	ID No.: RVB/SMK/07 (Cal. Validity: 04.05.26)		
ame of	Industry / Site	Paradeep, Odisha.		neters Tested		
oate & time of sampling		: 20.08.2025 (04:55 P.M. to 05:37 P.M.)	Physical & General			
ate & t	ime of sampling	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, Gas	flow, O2, CO2 & CO		
ampling	g Plan & Method g Carried out by	: Mr.P.P.Mondal	Chemical:			
ampini	Started on	: 23.08.2025	PM			
maiysis	Completed on	: 26.08.2025	177.00			
A. C	General information abou					
	Stack connected to	: Zypmite - 2				
	Emission due to	: Process Emmision				
	Material of construction of	f stack : M.S.				
4 4	Shane of stack	: Circular.				
5.	Whether stack is provided	with permanent platform & ladder : Yes.				
B. 1	Physical characteristics	of stack;				
1.	Height of the stack from g	round level : 30 m				
	Diameter of the stack at sa	ampling point ; 0.85 m				
4.	No. of Traverse point	: 12 Nos.				
C.	Analysis / Characteristic	of stack Gas / Flue Gas :	3.Loa	1:		
1.	Fuel used :	2. Fuel consumption : -	21000			
D.	Environmental condition	15:	2. Temperature : 3	0 "C		
	Barometric pressure: 754	mmHg	2. reinjerature	0		
E.	Results of Physical Para	meters of Flue Gas :	Unit	Results		
51 No	Test Parameters	Test Method		41		
1.	Temperature of emission		"C			
2.	Velocity of gas in duct	IS 11255 : Part 3 : 2008	m/sec	13.31		
3.	Quantity of gas flow	IS 11255 : Part 3 : 2008	NM ³ /hr	24879		
F.	Results of gaseous emi	ssion:				
SI No	Test Parameters	Test Method	Unit	Results		
	Carbon monoxide	(S 13270 : 1992 (By Orsat)	96.0/0	⊴0.2		
1.		IS 13270 : 1992 (By Orsat)	% v/v	0.2		
2.	Carbon dioxide	270070000000000000000000000000000000000	1.51.0	19.6		
	Oxygen.	IS 13270 1992 (By Orsat) IS 11255 Part 1 1985	% v/v mg/Nm3	35.7		
3.			and the first of			

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For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



ertifica	te No. AP-FG/25-26/07	83A Issue Date: Augus	st 26, 2025	Page 1 of 1			
sued to		: M/S. M/S. PARADEEP PHOSPF	IATE LTD.				
ddress		: Paradeep, Odisha.					
our S.O.		: 5500007609, dtd. 16.08.2024	24 Equipment used:				
	escription	: Stack Gas / Flue Gas	Stack Monitoring				
ample II	No.	: AP-FG/25-26/0783A		07 (Cal. Validity: 04.05.26)			
ame of	Industry / Site	M/S. M/S. PARADEEP PHOSPHATE	Paran	neters Tested			
		Paradeep, Odishu.					
ate & ti	me of sampling	: 20.08.2025 (05:40 P.M. to 06:08 P.		s flow, O ₂ , CO ₂ & CO			
ampling	Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2	Chemical:				
ampling	Carried out by	: Mr.P.P.Mondal	PM				
Analysis	Started on	: 23.08.2025	1				
Analysis	Completed on	: 26.08.2025					
A. G	eneral information abou	t Stack :					
	tack connected to	: Process Emmisio	n a				
77. 0	mission due to		94.				
	Material of construction of	Stack Circular.					
4. 8	hape of stack		/es				
5. 1	Whether stack is provided	with permanent platform & ladder : Y	103.				
B. F	Physical characteristics	of stack:					
1. 1	leight of the stack from g	I Other The von					
3. 1	Diameter of the stack at st	impling point : 0.5 iii					
4. 3	No. of Traverse point						
C.	Analysis / Characteristic	of stack Gas / Flue Gas : 2. Fuel consum	ation: 3.Lo	ad :			
_1, _1	Fuel used :		octon ;				
D.	Environmental condition	<u>15 :</u>	2. Temperature :	30 °C			
1.	Barometric pressure: 754	mmHg	2. remperature				
E.	Results of Physical Para	imeters of Flue Gas :	Mode	Results			
SI No	Test Parameters	Test Method		32			
1.	Temperature of emission	IS 11255 : Part 3 : 2008	°C				
		IS 11255 : Part 3 : 2008	m/sec	4.81			
2.	Velocity of gas in duct		The Court of State of the Court	3247			
3.	Quantity of gas flow	IS 11255 : Part 3 : 2008	JSN4 7III				
F.	Results of gaseous emi	ssion :	Unit	Results			
SI No	Test Parameters	Test Method	1 Chit	100000			
-	Carbon monoxide	1S 13270 : 1992 (By Ors	at) % v/v	<0.2			
1.		1S 13270 : 1992 (By Ors	2000 CO	0.2			
2	Carbon dioxide			19.8			
3.	Oxygen	IS 13270 : 1992 (By On	20 070	28			

Particulate Matters Pollution control device

Details of pollution control devices attached with the stack : Bagfilter, Cyclone Reviewed & Authorised by

mg/Nm3

28

TC-12347

Page 1 of 1

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

IS 11255 : Part 1 : 1985

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CIN: U51109WB1931PTC007007



Certificate No. AP-FG/25-2 ssued to Address Your S.O. No.	: M/S. M/S. PARABEEP 71100111111111111111111111111111111111	Equipment used:	
Sample Description Sample ID No. Name of Industry / Site	: Stack Gas / Flue Gas : AP-FG/25-26/0784 A : M/S. M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha	Stack Monitoring Kit ID No.: RVB/SMK/07 (Cal. Validity: 04.05.26 Parameters Tested	
Date & time of sampling Sampling Plan & Method Sampling Carried out by	: 21.08.2025 (04:10 P.M. to 04:43 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3) : Mr.P.P.Mondal	Physical & General: Temp., Velocity, Gas flow, O ₂ , CO ₂ & CO Chemical: PM & TF	
Analysis Started on Analysis Completed on	± 23.08.2025 ± 26.08.2025	1,11,00	

M	General information	: PAP # 1
1	Smok connected to	1.544

: Process Emmision Emission due to

 Material of construction of stack -M.S. : Circular.

 Shape of stack Whether stack is provided with permanent platform & ladder: Yes.

B. Physical characteristics of stack :

: 50 m Height of the stack from ground level Diameter of the stack at sampling point : 2.7 m 3.

: 30 Nos. No. of Traverse point : 35 m

Height of the sampling point from GL

Analysis / Characteristic of stack Gas / Flue Gas ; 3.Load : ---2. Fuel consumption: ---Fuel used :---

Environmental conditions :

2. Temperature: 30 °C Barometric pressure: 752 mmHg

Results of Physical Parameters of Flue Gas:

 Results of Physical Parameters of 		of Flue Gas :	Unit	Results	
SINO		Test Method	°C	48	
1.	Temperature of emission Velocity of gas in duct	IS 11255: Part 3: 2008 IS 11255: Part 3:2008	m/sec NM³/hr	7.21 129767	
	Quantity of gas flow	IS 11255:Part 3:2008	18/84 710		

F.	Results of gaseous emission	1;	Unit	Results	Norms
SINo	Test Parameters	Test Method			as per CPCB
707752-1		IS 13270 : 1992 (By Orsat)	% v/v	< 0.2	Not Specified
1.	Carbon monoxide	IS 13270 : 1992 (By Orsat)	% v/v	0.2	Not Specified
2.	Carbon dioxide	IS 13270 : 1992 (By Orsat)	% v/v	19.4	Not Specified
3.	Oxygen	IS 11255 : Part 1 : 1985	mg/Nm3	42	150 max.
4.	Particulate Matters	IS 11255 (Part - 5): 1990	mg/Nm ³	4.66	20 max.
5.	Total Fluoride	IS 11235 (Fait - 51+122)			

Pollution control device

Details of pollution control devices attached with the stack: Wet Scrubber

Reviewed & Authorised by

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



		IEST REPOR	SI:		
Certificate No. AP-FG	125-25/0785 A	Issue Date: August 26, 202	5		Page 1 of 1
sued to	: M/	S. M/S. PARADEEP PHOSPHATE LTD	Q.		1
ddress	· Pa	radeep, Odisha.			
our S.O. No.	: 550	00007609, dtd. 16.08 2024		ipment use	de l
ample Description	: Sta	ick Gas / Flue Gas	Equ	upment uses	dia.
ample ID No.	- AF	FG/25-26/0785 A	Stack Monitorin ID No.: RVB/SM	ENH PRODUCAL Val	Mrs- 04 05 26)
ame of Industry / Site	: M/	S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: KVB/SM	ameters Test	ted.
entire or memory	Par	radeep, Odisha.	Physical & Gene		
Date & time of sampling	: 22	.08.2025 (11:30 A.M. to 12:09 P.M.)	Temp., Velocity,	rui ; Gas flow Ox	CO-A-CO
Sampling Plan & Metho	d : R*	VB/FM/45 & IS: 11255 (Part-1.2 & 3)		Chas how, Cop.	2070.00
Sampling Carried out by	: M	r.P.P. Mondal	Chemical:	ž.	
Analysis Started on	: 23	3.08.2025	PM, NH ₃ & TF		
Analysis Completed on	: 26	5.08.2025			
A. General inform	ation about st	ack :			
Stack connected	10	:DAP - A			
2. Emission due 1		: Process Emmision			
Material of cons	struction of stac	k : M.S. : Circular.			
And the second second second					
# Whether stack i	s provided with	permanent platform & ladder : Yes.			
p Physical chara	cteristics of st	tack ;			
1 Lieubt of the st	ack from grouns	d level 50 m			
3. Diameter of the	stack at sampli	ng point 22.6 m			
4 No of Traverse	point	: 50 NOS			
a trade of the o	ampling point fr	rom GL : 35 m			
C. Analysis / Cha	racteristic of s	stack Gas / Flue Gas .	1	Loud :	
1 Foel used 1 .	**	2. Fuel consumption :	- 47-	Elephone :	
D. Environmenta	conditions:		141 May 177 St. 178 St. 188 St	20°C	
1 Barometric ner	ssure: 752 mm	Hg	2. Temperatur	6:30 C	
The state of the s	vsical Parame	ters of Flue Gas :		D.	esults
	neters	lest Method	Unit	K	52
	of amission	IS 11255 : Purt 3 : 2008	°C	- 9	
		IS 11255 Part 3:2008	m/sec		4.22
2. Velocity of g		IS 11255 Part 3 2008	NM ³ /hr	2:	59173
3. Quantity of g	as flow				
	seous emissio	Test Method	Unit	Results	Norms
Si No Test Para	meters	Test Method	C.III.S	200000000000000000000000000000000000000	as per CPCB
		IS 13270 : 1992 (By Orsat)	% v/v	< 0.2	Not Specifie
1. Carbon mon	oxide	1S 13270 : 1992 (By Orsat)	96 V/V	0.2	Not Specifie
2 Carbon diox	ide		96 V/V	19.6	Not Specifie
3. Oxygen		IS 13270 1992 (By Orsat)	mg/Nm3	59.9	150 max.
4. Particulate N	Antters	IS 11255 : Part 1 : 1985	U Language In Control	3.96	< 10
5 Total Fluori	1.07	IS 11255 (Part - 5): 1990	mg/Nm³	3.90	
5 Total Pidots	Owners .	Methods of Air Sampling & Analysis, 3rd Ed	mg/Nm ³	191.10	300 max.

Pollution control device

Ammonia as NH₃

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

(Indophenol Method), Method 401

Details of pollution control devices attached with the stack : Wet Scrubber

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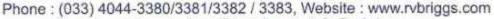


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TC-12347



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CIN: U51109WB1931PTC007007

TEST REPORT

Company of the Party of the Par	te No. AP-FG/25-26/07	786 A Issue Date: August 26, 202	5		Page 1 of 1
Issued to		: M/S. M/S. PARADEEP PHOSPHATE LTD	0.		
		; Paradeep, Odisha.			//
our S.O.	No.	: 5500007609, dtd. 16.08.2024			-1
imple D	escription	: Stack Gas / Flue Gas		quipment us	ea:
ample II	D No.	: AP-FG/25-26/0786 A	Stack Monitor	ing Kit	alidity: 04.05.26)
ame of I	Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.		rameters Te	
		Paradeep, Odisha.	Physical & Ger		.sreu
nte & tir	me of sampling	: 22.08.2025 (12:20 P.M. to 12:56 P.M.)	Temp., Velocity		- CO- & CO
ampling	Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1.2 & 3)	Chemical:	A 6300 AND 118 O	# 7 T # 5 T C T C
ampling	Carried out by	: Mr.P.P. Mondai	PM, NH, & T	F.	
	Started on	: 23.08.2025 : 26.08.2025	Line thing on a	*:	
nalysis	Completed on				
100	seneral information abou	: DAP - B			
	tack connected to	: Process Emmision			
	mission due to faterial of construction of	- T. (DATE-TOTAL STATE IN CONTRACT			
		: Circular.			
4. S	hape of stack	with permanent platform & ladder: Yes.			
5. W	Physical characteristics	of ctack:			
B. P	leight of the stack from gr	round level : 50 m			
1. H	Diameter of the stack at sa	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
3. D	No. of Traverse point	: 30 Nos.			
4. N 5. H	leight of the sampling poi	The state of the s			
C. A	nature / Characteristic	of stack Gas / Flue Gas :		460 (000)	
	Fuel used :	2. Fuel consumption :	3	Load : ***	
	Environmental condition				
	Barometric pressure: 752		2. Temperatu	re: 30 °C	
E. F	Results of Physical Para	meters of Flue Gas :			
SI No	Test Parameters	Test Method	Unit	P	esults
	Temperature of emission		°C		57
		1S 11255 Part 3:2008	m/sec		15.83
	Velocity of gas in duct	IS 11255:Part 3:2008	NM ³ /hr	2	84357
3,	Quantity of gas flow		1439 300		
E. F	Results of gaseous emis	ssion:	Unit	Results	Norms
SI No	Test Parameters	Test Method	Unit	Kesuits	as per CPCB
E.	Carbon monoxide	IS 13270 : 1992 (By Orsai)	Povy	< 0.2	Not Specified
	Carbon dioxide	IS 13270 1992 (By Orsat)	% v/v	0.2	Not Specified
		IS 13270 : 1992 (By Orsat)	% v/v	19.4	Not Specified
	3. Onge		mg/Nm3	63.3	150 max.
4.	Particulate Matters	IS 11255 (Part - 5): 1990	mg/Nm ³	4.02	< 10
	Total Fluoride	Methods of Air Sampling & Analysis, 3rd Ed.			557755
5		1 Methods of Air Sampling & Analysis, 3rd Ed.	mg/Nm3	144.00	300 max.

Report Verified by

Reviewed & Anthorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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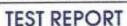
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CIN: U51109WB1931PTC007007



ertifica	te No. AP-FG/25-26/07	87 A	Issue Date: August 26, 202	3		Page 1 of 1
sued to	0	: M/S. M/S.	PARADEEP PHOSPHATE LT).		
ddress		: Paradeep	, Odisha.			- 1
our S.O.		: 550000760	9, dtd. 16.08.2024		uipment use	di
	escription	: Stack Gas		Eq	uipment use	u.
umple II		: AP-FG/25	-26/0787 A	Stack Monitori ID No. RVB/SM	DE VIII	Daine 04 05 261
ame of	Industry / Site	M/S M/S P	ARADEEP PHOSPHATE LTD.	ID No. RVBSN	ameters Tes	ted
43,100		Paradeep, O	disha			иен
nes & si	me of sampling	: 22.08.202:	5 (01:15 P.M. to 01:51 P.M.)	Physical & Gene	eral :	00.000
and the st	Plan & Method	: RVB/FM/	45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity,	Gas flow, O2,	COLACO
ampang	Carried out by	; Mr.P.P. M		Chemical:	9	
malerie	Started on	: 23.08.202	5	PM, NH ₃ & Ti	5	
nalysis	Completed on	: 26.08.202	5			
A. G	Seneral information abou	t stack :				
1. S	tack connected to		: DAP - C			
	mission due to		: Process Emmission			
3. 8	Material of construction of	stack	: M.S.			
	Same of stack		: Circular.			
5. 1	Whether stack is provided	with perman	ent platform & ladder : Yes.			
B. F	Physical characteristics	of stack :				
0.	Height of the stack from go	round level	: 50 m			
2. 5	Sampling Point		: Chimney			
3. 1	Diameter of the stack at sa	mpling point	: 2.8 m			
4.	No. of Traverse point		: 30 Nos.			
5	Height of the sampling po	int from GL	: 35 m			
C.	Analysis / Characteristic	of stack Ga	s / Flue Gas :		wood was	
	Fuel used		2. Fuel consumption :	3	Loud;	
D.	Environmental condition	18:			200	
	Barometric pressure : 752	mmHg		2. Temperatu	re:30 °C	
1.	Results of Physical Para	motors of F	lue Gas :	The Court of the C		
1,140		mileters or r	Test Method	Unit	R	esults
SINo			IS 11255 Part 3 : 2008	*C		65
1.	Temperature of emission	50	IS 11255 Part 3:2008	m/sec	. 1	6.55
2.	Velocity of gas in duct	1		NM ³ /hr		95877
3.	Quantity of gas flow		IS 11255 Part 3:2008	NM /III 1		
E.	Results of gaseous emi	ssion:			22.00	Norms
SINo		1	Test Method	Unit	Results	
21/20	Test Parameters	4				as per CPCB
-	Text and the control of the control	_	15 13270 : 1992 (By Orsat)	% v/v	< 0.2	Not Specifie
100	Carbon monoxide	1	15 13270 : 1992 (By Orsat)	% v/v	0.2	Not Specifie
2.	Carbon dioxide		IS 13270 : 1992 (By Orsat)	96 x/v	19.6	Not Specific
3.	Oxygen	1		mg/Nm3	57	150 max.
4	Particulate Matters		IS 11255 : Part 1 : 1985		2.88	< 10
5.	Total Fluoride		IS 11255 (Part - 5) 1990	mg/Nm ²	4.50	-10
6-	Ammonia as NH ₃	Metho	ods of Air Sampling & Analysis, 3rd Ec (Indophenol Method), Method 401	mg/Nm ³	135.00	300 max.
2	Pollution control device	_	No. of the last of			
F.						

Regon Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



ertifica	te No. AP-FG/25-26/07	88 A Issue Date: August 26, 20:	20		Page 1 of 1
sued to		: M/S. M/S. PARADEEP PHOSPHATE LT	D.		
Address		: Paradeep, Odisha.			
our S.O		5500007609, dtd. 16.08.2024	T Ea	uipment us	ed:
mple D	escription	: Stack Gas / Flue Gas	Stack Monitori		Min.
imple II	D No.	: AP-FG/25-26/0788A	Stick Monitor	48 /07/Cal V	didity: 04.05.26)
ame of	Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.	Per	rameters Te	ted
		Paradeep, Odisha.	Physical & Gen		
ate & ti	me of sampling	: 22.08.2025 (02:00 P.M. to 02:39 P.M.)	Temp., Velocity	Gas flow, O	CO2 & CO
	Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Chemical:		2000/2007
ampling	Carried out by	: Mr.P.P. Mondal	PM. NH ₂ & T	P	
nalysis	Started on	: 23.08.2025	1.00,1.00,00		
nalysis	Completed on	26.08.2025			
	eneral information abou	DAP - D			
	stack connected to	: Process Emmision			
2. E	mission due to Material of construction of				- 1
		Circular			
4. 5	Shape of stack	with permanent platform & ladder : Yes.			
5. 1	Physical characteristics	of stack			
В. Г	Height of the stack from gr	ound level : 50 m			
3. 1	Diameter of the stack at sa	muline point : 2.8 m			
4	No. of Traverse point	; 30 Nos.			
2 1	Unight of the sampling poi	nt from GL 35 m			
C.	Analysis / Characteristic	of stack Gas / Flue Gas		NATION WILLIAM	
Ĭ.	Fuel used :	2. Fuel consumption :	3	:Load : ***	
D.	Environmental condition	15:		a viller	
1	Barometric pressure: 752	mmHg	2. Temperatu	re : 30 C	
E.	Results of Physical Para	meters of Flue Gas :		D	neselte.
SINo	AND DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUM	Test Method	Unit	Results 66	
L	Temperature of emission	IS 11255 : Part 3 : 2008	*C		17.13
2.	Velocity of gas in duct	IS 11255:Part 3:2008	m/sec		
3.	Quantity of gas flow	IS 11255 Part 3:2008	NM ³ /hr	2	92589
Ε.	Results of gaseous emi	ssion:			
	Test Parameters	Test Method	Unit	Results	Norms
SINo	Test Parameters				as per CPCB
-	Carbon monoxide	IS 13270 : 1992 (By Orsat)	% v/v	< 0.2	Not Specified
1.		IS 13270 : 1992 (By Orsat)	95 v/v	0.2	Not Specified
2.	Carbon dioxide	IS 13270 : 1992 (By Orsat)	% v/v	19.2	Not Specified
3.	Oxygen	1S 11255 Part 1 1985	mg/Nm3	61.2	150 max.
4	Particulate Matters	IS 11255 (Part - 5): 1990	mg/Nm ³	2.65	< 10
1777	Total Fluoride			E5/45/5	200
5.	The state of the s				
1777	Ammonia as NH ₃	Methods of Air Sampling & Analysis, 3rd Ed (Indophenol Method), Method 401	mg/Nm ¹	125.00	300 max.

Report Verified by

Reviewed & Authorised by

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

.: END OF TEST REPORT :-

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9, BENTINCK STREET, KOLKATA - 700 001

TC-12347

Phone : (033) 4044-3380/3381/3382 / 3383, Website : www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

rtificat	te No. AP-FG/25-26/07	90A Issue Date: August 26, 2	TD	Page 1 of 1
ued to		: M/S. M/S. PARADEEP PHOSPHATE L	.10.	
dress		: Paradeep, Odisha.		
Cour S O No 15		: 5500007609, dtd. 16.08.2024	Equipo	nent used:
mple De	escription	: Stack Gas / Flue Gas	Stock Monitoring K	lit
mple ID	No.	: AP-FG/25-26/0790A : M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVB/SMK/0	7 (Cal. Validity: 04:05:26)
one of I	industry / Site	Paradeep, Odisha.	Parame	ters Tested
	CONTRACTOR CONTRACTOR IN CONTRACTOR IN	: 19.08.2025 (04:40 P.M. to 05:19 P.M.)	Physical & General	
ate & tir	me of sampling	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, Gas	flow, O2, CO2 & CO
mpling	Plan & Method	: Mr.P.P.Mondal	Chemical:	
unpling	Carried out by	: 23.08.2025	SO₂ & Acid Mist	
nalysis :	Started on	: 26.08.2025		
nalysis	Completed on eneral information abou	it stack :		
	oiler connected to	: SAP - C		
F-10	mission due to	: Process Emission		
3. N	Anterial of construction of	f stack : M.S.		
411	to an a Cornella	: Circusar.		
5 V	Vhether stack is provided	with permanent platform & ladder: Yes.		
B P	hysical characteristics	of stack:		
1 1	leight of the stack from a	round level : 120 m		
3. I	Diameter of the stack at s	ampling point 2.7 m		
4 1	No. of Traverse point	: 30 Nos.		
5. I	Height of the sampling po	oint from GL. : 35 m		
		of stack Gas / Flue Gas : 2. Fuel consumption : -	3.Los	id :
1. 1	Fuel used :			
D. E	Environmental conditio	ns:	2. Temperature :	30 °C
1. 1	Barometric pressure: 75	I mmHg	21 1 2007	
E. 1	Results of Physical Par	Test Method	Unit	Results
SINo	Test Parameters	2.000	°C	72
1.	Temperature of emission	n. IS 11255 : Part 3 : 2008		6.75
2.	Velocity of gas in duct	15 11255:Part 3:2008	m/sec	115531
3.	Quantity of gas flow	IS 11255:Part 3:2008	NM ³ /hr	115551
F.	Results of gaseous em	ission :		W 10-
-		Test Method	Unit	Results
SINo		IS 11255 : Part 2 : 1985	mg/Nm ³	802.80
1.	Suiphur dioxide	IS 13270 : 1992 (By Orsat)	% v/v	<0.2
2.	Carbon monoxide		% v/v	0.2
	Carbon dioxide	IS 13270 1992 (By Orsat)	% v/v	19.6
3.	17.55	1S 13270 : 1992 (By Orsat)		24,22,20
3.	Oxygen		THE CO. LEWIS CO., LANSING, MICH.	
3. 4.	Oxygen Acid Mist	5OP No. RVB/SOP/01/20, Issue No. 04, Issue Date: 10.01.2018	mg/Nm³	28.7

Report Verified by

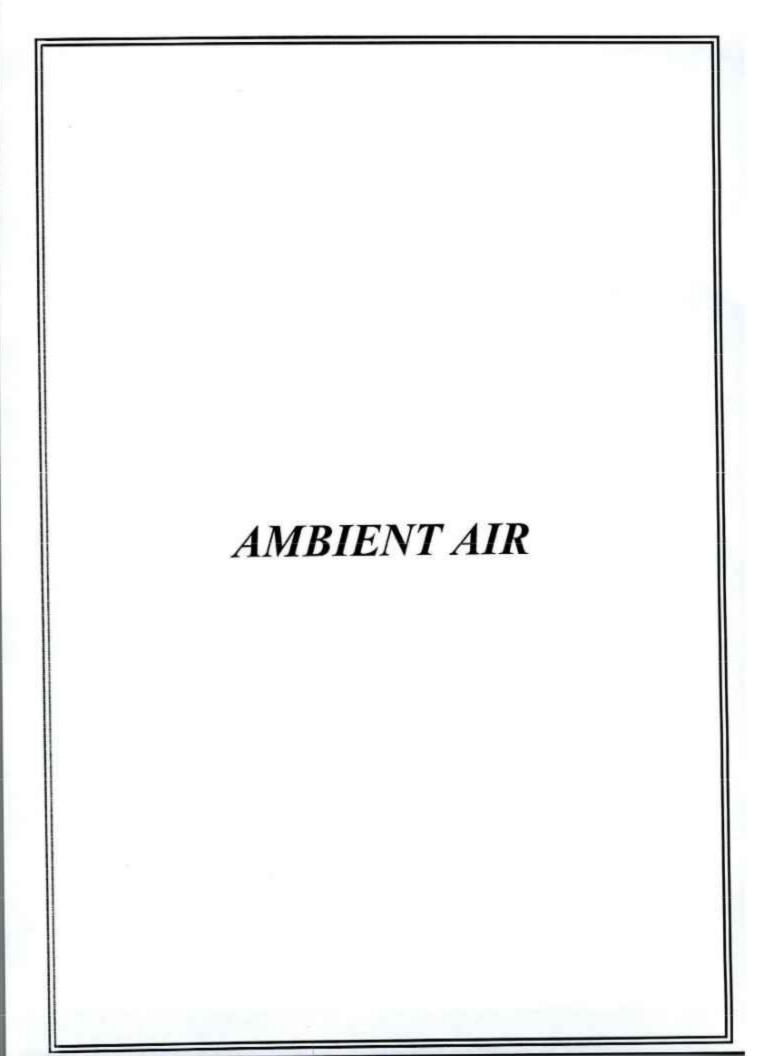
Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

END OF TEST REPORT :-

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Phone: (033) 4044-3380/3381/3382 / 3383, Website: www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



Issue Date: August 30, 2025 Page 1 of 1 Certificate No. AP-AAQ/25-26/0354 A

Issued to Address : Paradeep, Odisha

: 5500007609, dtd. 16.08.2024 Your Ref. No.

: Ambient Air Sample Description

: M/S. PARADEEP PHOSPHATE LTD.

Sample ID No. : AP-AAQ/25-26/0354A

: M/S. PARADEEP PHOSPHATE LTD. Name of Industry / Site

Paradeep, Odisha

: Near AAQMS # 01 Sampling Location

: 22.08.2025 (10:30 A.M.)-23.08.2025 (10:30 A.M.) Date & Time of sampling

Duration of Sampling : 24Hrs. : RVB/FM/45 Sampling Plan: Sampling Carried out by : Mr. S. Roy

: As per CPCB guidelines (Volume-I) Method of Sampling

Analysis Started on 23.08.2025 Analysis Completed on : 30.08.2025

Nerified by

Equipment used:

TC-12347

Ambient Fine Dust Sampler ID No.: RVB/AFDS/PM2.5/22, Cal. Valid upto: 20.01.26

Resperible Dust Sampler

ID No.: RVB/RDS/APM460/NL/05, Cal. Valid upto: 26.05.26

Environmental conditions

Weather Condition: Clear

Temperature: Max: 34°C & Min: 26.0°C

Barometric Presure: 754 mmHg

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3,

CO, Pb, Ni, As, C₆H₆, BaP

TES	T FINDINGS:-				
SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5μm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	39.6	60 (24 Hourly.)
2	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	48.9	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.27	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	8.40	80 (24 Haurly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	hg/w ₃	10.53	180 (1 Hourly.)
6.	Ammonia as NH ₂	SOP No.: RVB/SOP/01/10 (indeptens) Method) Issue No. 04, Issue Date: 10:01:2018	µg/m³	14.99	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS : 5182 (Part - 10), 1999 kips Dispersive Infra-Rad (NOIR) spectroscopy	mg/m ³	0.653	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.090	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04. Issue Date: 10:01:2018	ng/m³	<5.0	20
10	Arsenic as As	SOP No.: RVB/SOP/Ct/16 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m ³	<0.25	6.0
11	Benzene as C ₆ H ₅	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	< 0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m³, Arsenic: 0.25 ng/m³, Benzene: 1 µg/m³ & Benzo(a)Pyrene: 0.5 ng/m²

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.



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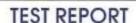
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CIN: U51109WB1931PTC007007



Certificate No. AP-AAQ/25-26/0355A Issue Date : August 30, 2025 Page 1 of 1

Address : Pa

: M/S. PARADEEP PHOSPHATE LTD.

: Paradeep, Odisha

Your Ref. No.

Issued to

: 5500007609, dtd. 16.08.2024

Sample Description : Ambient Air

Sample ID No. Name of Industry / Site : AP-AAQ/25-26/0355A : M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Odisha : Near AAQMS # 02

Date & Time of sampling Duration of Sampling

Sampling Location

: 21.08.2025 (10:15 A.M.)-22.08.2025 (10:15 A.M.)

: 24Hrs. : RVB/FM/45

Sampling Plan : RVB/FM/45
Sampling Carried out by : Mr.S. Roy
Method of Sampling : As per CP

: Mr.S. Roy : As per CPCB guidelines (Volume-I)

Analysis Started on Analysis Completed on

Repair Verified by

: 23.08.2025 : 30.08.2025 Equipment used:

TC-12347

Ambient Fine Dust Sampler ID No : RVB/AFDS/PM2.5/22, Cal. Valid upto: 20.01.26

Resperible Dust Sampler

ID No.: RVB/RDS/APM460/NL/05, Car. Valid upto: 26.06.26

Environmental conditions

Weather Condition: Clear

Temperature : Max: 32°C & Min: 26.5°C

Barometric Presure : 754 mmHg

Parameters Tested: PM_{2.5}, PM₁₀, SO₂, NO₂, O₃, NH₃,

CO, Pb, Ni, As, C₆H₆, BaP

TEST FINDINGS:-

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	37.1	60 (24 Hourly.)
2	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2008	µg/m³	46.4	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	7.02	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2005	µg/m³	7.90	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	11.02	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVB/SOP/01/10 (indephenal Method) Issue No. 04, Issue Date: 10.01.2018	µg/m³	12.29	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS - 5182 (Part - 10), 1999 Non Dispersive Infra-Red (NDIR) spectroscopy	mg/m ³	0.722	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.078	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) issue No. 04. lissue Date: 10.01.2018	ng/m³	<5.0	20
10	Arsenic as As	SCP No.: RVB/SCP/01/16 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	< 0.25	6.0
11	Benzene as C ₆ H ₅	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m ³	<0.5	1.0

Minimum detection Limit, Nickel, 5 ng/m³, Arsenic, 0.25 ng/m³, Benzene, 1 ug/m³ & Benzo(a)Pyrene, 0.5 ng/m³

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

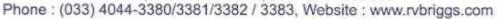
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CIN: U51109WB1931PTC007007



Certificate No. AP-AAQ/25-26/0356A Issue Date : August 30, 2025 Page 1 of 1

Issued to : M/S. PARADEEP PHOSPHATE LTD.

Address : Paradeep, Odisha

Your Ref. No. : 5500007609, dtd. 16.08.2024

Sample Description : Ambient Air

Sample ID No. : AP-AAQ/25-26/0356A

Name of Industry / Site : M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Cdisha Sampling Location Near AAQMS # 03

Date & Time of sampling : 19.08.2025 (10:00 A.M.)-20.08 2025 (10:00 A.M.)

Duration of Sampling : 24Hrs. Sampling Plan : : RVB/FM/45

Sampling Carried out by : Mr. S. Roy

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Started on : 23.08.2025 Analysis Completed on : 30.08.2025

Verified by

Equipment used:

TC-12347

Ambient Fine Dust Sampler ID No.: RVB/AFDS/PM2.5/22 Call Valid upto: 20.01.26

Resperible Dust Sampler

ID No.: RVB/RDS/APM460/NL/05, Cal. Valid upto: 26.06.26

Environmental conditions

Weather Condition: Clear

Temperature: Max: 34.0°C & Min: 27°C

Barometric Presure: 754 mmHg

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3,

CO. Pb. Ni. As, CsHa, BaP

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50. Appendix L.	µg/m³	42.1	60 (24 Hourly.)
2	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	52.8	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	5.52	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	12.10	80 (24 Hourly.)
5.	Ozone as O ₂	IS 5182 (Part - 9) : 1974	µg/m³	13.42	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVB/SCP/01/10 (indephenal Method) Issue No. 04, Issue Date: 10.01.2018	µg/m³	10.99	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS - 5182 (Part - 10), 1999 Non Dispersive Infra-Red (NDIR) spectroscopy	mg/m ³	0.822	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.500	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m ³	<5.0	20
10	Arsenic as As	SOP No.: RVB/SOP/01/16 (AAS Method) issue No. 04, issue Date: 10:01:2018	ng/m³	0.482	6.0
11	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	Hg/m ³	1.24	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004.	ng/m ³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m³, Arsenic: 0.25 ng/m³, Benzene: 1 µg/m³ & Benzo(a)Pyrene: 0.5 ng/m³

Reviewed & Authorised by

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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 Results relate only to the parameters of the item tested.



Carbon Monoxide as CO

8. Lead as Pb

9. Nickel as Ni

10. Arsenic as As

11. Benzene as CoHe

12. Benzo (a) Pyrene

R. V. BRIGGS & CO. PRIVATE LTD.

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com CIN: U51109WB1931PTC007007





			TEST REPOR	21			
Cer	tificate No. AP-AAQ/25	-26/035	7A	Issue Date	: August 30, 2025	Page 1 of 1	
Issued to : M/S.		: M/S	. PARADEEP PHOSPHATE LTD.				
Address : Para			deep, Odisha				
You	ir Ref. No.	: 550	0007609, dtd. 16.08.2024				
Sam	ple Description	: Ambie	nt Air	- Charles Control	Equipment	used:	
Name of Industry / Site : M/S. F		: M/S. F	I/S. PARADEEP PHOSPHATE LTD.		Ambient Fine Dust Sampler ID No.: RVB/AFDS/PM2.5/22, Cal. Valid upto: 20.01.26 Respenble Dust Sampler		
Sarr	pling Location	: Near /	AAQMS#04	ID No.: RVB/F	RDS/APM460/NL/05, CI	al. Valid upto: 26.06.26	
Date	& Time of sampling	: 20.08	2025 (10:20 A.M.)-21.08.2025 (10:20 A.M.)	MANUAL AND	Environmental c	onditions	
Dura	ation of Sampling	: 24Hrs	dimen.	Transfer at the	ndition: Clear		
Sampling Plan : : RVB/F		: RVB/F	CONTRACTOR	Temperature: Max: 34.0°C & Min: 27.0°C		27.0°C	
		: Mr.S		Barometric Presure : 754 mmHg			
			er CPCB guidelines (Volume-I)				
Analysis Started on : 23.08		: 23.08	3.2025			10, SO ₂ , NO ₂ , O ₃ , NH ₃ ,	
Ana	lysis Completed on	: 30.08	3.2025	CO, Pb, Ni, As, C ₅ H ₆ , BaP			
TES	ST FINDINGS:-						
SI. No.	Parameters		Test Method	Unit	Results (Time Weighted Avg.)	F Notification New Delhi, 16th November 2009	
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	35.0	60 (24 Hourly.)	
2.	PM ₁₀ (Size ≤ 10µm)	Ž.	IS 5182 (Part - 23): 2006	µg/m³	47.7	100 (24 Hourly.)	
3.	Sulphur Dioxide as SO ₂		IS 5182 (Part - 2): 2001	µg/m³	8.31	80 (24 Hourly.)	
4.	Nitrogen Dioxide as NO ₂		IS 5182 (Part - 6): 2006	µg/m³	10.13	80 (24 Hourly.)	
5.	Ozone as O ₃		IS:5182 (Part - 9) : 1974	µg/m³	10.84	180 (1 Hourly.)	
6.	Ammonia as NH ₃		SCP No.: RV9/SCIP/01/10 (Indephenol Method) Issue No. 04, Issue Date: 10.01.2018	µg/m³	10.61	400 (24 Hourly.)	
_	-			1			

Minimum detection Limit: Nickel: 5 ng/m³. Arsenic: 0.25 ng/m³. Benzene: 1 ug/m³ & Benzo(a)Pyrene: 0.5 ng/m³

Reviewed & Authorised by Report Verified by

IS: 5182 (Part - 10), 1999 Non Dispersive Infra-Red

(NDIR) spectroscopy

IS 5182 (Part - 22): 2004

SOP No.: RVB/SOPI01/15 (AAS Method) Issue No. 04,

Issue Date: 10:01:2018 SOP No.: RVB/SQP/01/16 (AAS Method) Issue No. 04.

Issue Date: 10.01.2018

IS 5182 (Part - 11): 2005.

IS 5182 (Part - 12): 2004,

(Dr. R. KARIM) Technical Manager **Authorised Signatory** For R.V. BRIGGS & CO. (P) LTD.

0.780

0.650

<5.0

< 0.25

<1.0

<0.5

mg/m³

µg/m³

ng/m³

ng/m3

µg/m³

ng/m³

04 (1 Hourly.)

1.0 (24 Hourly.)

20

6.0

5.0

1.0

-: END OF TEST REPORT :-

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



Certificate No.E(D)/25-26/888 Issue Date: 30 August 2025 Page 1 of 1

Issued to : M/s. PARADEEP PHOSPHATE LIMITED

Paradeep, Odisha

Description of Sample : Effluent

Sample ID No : E(D)/25-26/888

Name of Industries/Site : Paradeep Phosphate Limited

Paradeep, Odisha

Collection Source : ETP Outlet

Sample Drawn by us on : 22.08.2025 at 3:40 P.M.

Sample Carried out by : Mr. S.Roy
Sampling Plan : RVB/FM/45
Analysis Started on : 25.08.2025

Analysis completed on : 30.08.2025

Sample collection Procedure : APHA 24th Edition 1060

Mode of Sampling : Grab

Environmental condition during sampling : Temperature : 29°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

SI. No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1	pH Value	APHA 24th edition-4500H+B		7.70	6.5 - 8.5
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	42	100 (Max.)
3	Oil & Grease (O & G)	APHA 24th edition 5520B	mg/l	<2	10 (Max.)
4	Fluoride as F	APHA 24th edition 4500 F-C	mg/l	1.05	10 (Max.)
5	Ammoniacal Nitrogen as NH ₃ -N	APHA 24th edition 4500 NH3F	mg/l	26	50 (Max.)
6	Total Kjeldahl Nitrogen (TKN) as N	APHA 24th edition 4500-NorgA	mg/l	44	75 (Max.)
7	Free Ammonia as NH ₃	APHA 24th edition 4500 NH3F	mg/l	1.6	4 (Max.)
8	Dissolved Phosphates as P	APHA 24th edition 4500-PD	mg/l	1.8	5 (Max.)
9	Nitrate Nitrogen as NO3-N	APHA 24th edition 4500-N03D	mg/l	4.8	20 (Max.)

Note: BDL: Below Detection Limit, Minimum Detection Limit of Oil & Grease .. 2.0 mg/l, NH3 .. 0.1mg/l.

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

TC-12347

Parameter Tested:

pH, TSS, O & G, F,

NH3-N, TKN, NH3, P, N

Dy.Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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 Results relate only to the parameters of the item tested.



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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



:	M/s. PARADEEP PHOSP		Page 1 of
	Paradeep, Odisha	HATE LIMITED.	
:	Effluent		
:	E(D)/25-26/888A		
:		ř.	
	Paradeep, Odisha		
:	Strom Drain - 1, At Zero Poi	int	
:			
:			
:	RVB/FM/45		
:	25.08.2025	Parameter Tes	ted:
	30.08.2025		
:	APHA 24th Edition 1060	pn, 155, 0 & G, F, NH3-N,	I KN, NH3, P, N
:	Grab		
:	Temperature: 29°C, Transported	d in Ice box. Cold chain	maintained
		: E(D)/25-26/888A : Paradeep Phosphate Limited Paradeep, Odisha : Strom Drain - 1, At Zero Poi : 25.08.2025 at 1:20 P.M. : Mr. S.Roy : RVB/FM/45 : 25.08.2025 : 30.08.2025 : APHA 24th Edition 1060 : Grab	: E(D)/25-26/888A : Paradeep Phosphate Limited Paradeep, Odisha : Strom Drain - 1, At Zero Point : 25.08.2025 at 1:20 P.M. : Mr. S.Roy : RVB/FM/45 : 25.08.2025 PARAMETER PARAME

ILS	1 1	IN	DI	NO	S:
-	-			-	-

SI. No.	Test Parameters	Test Method	Unit	Results
1	pH Value	APHA 24th edition-4500H+B	-	7.20
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	45
3	Oil & Grease (O & G)	APHA 24th edition 5520B	mg/l	< 2
4	Fluoride as F	APHA 24th edition 4500 F-C	mg/I	
5	Ammoniacal Nitrogen as NH ₃ -N	APHA 24th edition 4500 NH3F	mg/l	1.20
6	Total Kjeldahl Nitrogen (TKN) as N	APHA 24th edition 4500-NorgA	mg/l	28.4
7	Free Ammonia as NH ₃	APHA 24th edition 4500 NH3F	mg/l	30
	Nitrate Nitrogen as NO ₃ -N	APHA 24th edition 4500-N03D	mg/l	2.2
	Dissolved Phosphates as P	APHA 24th edition 4500-PD	mg/l	4.5
10	Chemical Oxygen Demand (COD)	APHA 24th edition 5220B		2.72
11	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	I.S. 3025 (Part – 44) – 2023	mg/l mg/l	5.0

Note: Minimum Detection Limit of O & G .. 2 mg/l.

Nolube

Reviewed & Authorised by

Dy.Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Certificate No.E(D)/25-26/889 Issue Date: 30 August 2025 Page 1 of 2 Issued to M/s. PARADEEP PHOSPHATE LIMITED Paradeep, Odisha Description of Sample Effluent Sample ID No E(D)/25-26/889 Name of Industries/Site Paradeep Phosphate Limited Paradeep, Odisha Collection Source : STP Outlet Sample Drawn by us on 22.08.2025 at 3:10 P.M. Sample Carried out by Mr. S.Roy Parameter Tested: Sampling Plan RVB/FM/45 pH, TSS, BOD Analysis Started on 25.08.2025 Analysis Completed on

Sample collection Procedure : APHA 24th Edition 1060

Mode of Sampling : Grab

Environmental condition during sampling : Temperature : 29°C, Transported in Ice box, Cold chain maintained

30.08.2025

TEST FINDINGS:

SI. No.		Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1	pH Value	APHA 24th edition-4500H+B	122	6.80	6.5 - 9.0
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/I	39	< 100
3	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	I.S. 3025 (Part - 44) - 2023	mg/l	6.7	< 30

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

TC-12347

Dy. Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.



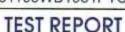
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CIN: U51109WB1931PTC007007



Certificate No.E(D)/25-26/889 Issue Date: 30 August 2025 Page 2 of 2 Issued to M/s. PARADEEP PHOSPHATE LIMITED Paradeep, Odisha Description of Sample Effluent Sample ID No E(D)/25-26/889 Name of Industries/Site Paradeep Phosphate Limited Paradeep, Odisha Collection Source : STP Outlet Sample Drawn by us on 22.08.2025 at 3:10 P.M.

Sample Carried out by Mr. S.Roy

Sampling Plan RVB/FM/45 Analysis Started on 25.08.2025 Analysis completed on 29.08.2025

Sample collection Procedure : APHA 24th Edition 1060

Mode of Sampling : Grab

Environmental condition during sampling: Temperature: 29°C, Transported in Ice box, Cold chain maintained

MICROBIOLOGICAL TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1	Faecal Coliform	APHA 24th edition 9221E	MPN/ 100 ml	79	< 1000

Remarks: The sample of effluent complies with the above Specification.

Reviewed & Authorised by

Parameter Tested:

Microbiological: Faecal Coliform

(Pijush Kanti Dutta)

Sr. Microbiologist Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.



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CIN: U51109WB1931PTC007007

TEST REPORT

Page 1 of 1 Issue Date: August 22, 2025 Certificate No. AP-SL/25-26/0760A/0763A/01

: M/S. PARADEEP PHOSPHATES LIMITED Issued to

: Paradeep, Odisha. Address

: 5500007609, dtd. 16.08.2024 Your P.O. Ref. no.

: Sound Level Monitoring Description of Sample : AP-SL/25-26/0760A-0763A

Sample ID No. : M/S. PARADEEP PHOSPHATES LIMITED

Name of Industry / Site : Paradeep, Odisha.

: RVB/FM/45 Sampling Plan:

: Mr. P.P. Monal Sampling Carried out by

: 19.08.2025 to 22.08.2025 Date of Monitoring

Equipment used:

Sound Level Meter ID No.: RVB/SLM/07

(Cal. Validity: 07.05.2026)

Parameters Tested : L. L. L. L. &

Test Method: IS 4758: 1968

A. SOUND LEVEL MONITORING A

SI.	Sample ID	Locations	Day Tir	me (06.0	0 A.M to	10.00 P.M)				o 06.00 A.M)
No	No.			Level in		Norms as per	Sound	Level in	dB(A)	Norms as per
	L _{Min} L _{Max} L _{eq} Protection 1986, rule and 4 (1	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Industrial area	L _{Min}	L _{Max}	L _{eq}	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Industrial area				
1.	AP-SL/25- 26/0760	Near AAQMS -	53.9	57.4	55.7		49.6	53.3	51.7	
2	AP-SL/25- 26/0761	Near AAQMS -	56.9	61.1	59.4	75 dB(A)	50.9	54.1	52.8	70 dB(A)
3	AP-SL/25- 26/0762	Near AAQMS -	51.2	54.1	53.2		42.7	46.4	45.1	

B. SOUND LEVEL MONITORING AT AMBIENT LOCATION : RESIDENTIAL AREA

SI.	Date of	Locations	Day Ti	me (06.0	O A.M to	10.00 P.M)				o 06.00 A.M)
110000	No Monitoring			Level in		Norms as per	Sound	Level in	dB(A)	Norms as per Environmental
.,,			L _{Min}	L _{Max}	L _{eq}	Protection Act 1986, rule 3(1) and 4 (1) for Residential area	L _{Min}	L _{Max}	L _{eq}	Protection Act 1986, rule 3(1) and 4 (1) for Residential area
1.	AP-SL/25- 26/0763	Near AAQMS -	49.8	54.6	53.7	55 dB(A)	40.0	44.4	44.1	45 dB(A)

Note: - L = - Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-SL/25-26/0764/0770/01 A

Issue Date: August 22, 2025

Page 1 of 1

Issued to

: M/S. PARADEEP PHOSPHATES LIMITED

Address

: Paradeep, Odisha.

Your W.O. Ref. no.

: 5500007609, dtd. 16.08.2024

Description of Sample

: Sound Level Monitoring

Sample ID No.

: AP-SL/25-26/0764-0770 A

Name of Industry / Site

: M/S. PARADEEP PHOSPHATES LIMITED

Paradeep, Odisha.

Sampling Plan:

: RVB/FM/45 : Mr.P.P. Mondal

Sampling Carried out by Date of Monitoring

: 19.08.2025 to 22.08.2025

Equipment used:

Sound Level Meter

ID No.: RVB/SLM/07

(Cal. Validity: 02.05.2026)

Parameters Tested : Litter Litter & Leq

Test Method: IS 4758: 1968

Sample ID No.	Locations	TIME	Noise	Level in	dB(A)	Permissible Noise Exposure for Industrial
		L _{Min}	L _{Max}	L_{eq}	Workers as per The Noise Pollution (Regulation And Control) Rules, 2000	
AP-SL/25-26/0764 A	Bagging Section	11:00 A.M 11:05 A.M.	80.2	81.9	81.0	
AP-SL/25-26/0765 A	SAP Plant	12:10 P.M 12:15 P.M.	57.4	58.5	58.0	
AP-SL/25-26/0766 A	Off Side	10:40 A.M 10:45 A.M.	60.9	62.9	62.0	
AP-SL/25-26/0767 A	DAP- AB Side	11:10 A.M 11:15 A.M.	57.5	58.7	58.0	90 dB(A)
AP-SL/25-26/0768 A	DAP - CD Side	11:20 A.M 11:25 A.M.	53.0	54.7	54.0	
AP-SL/25-26/0769 A	PAP Plant	12:00 P.M 12:05 P.M.	62.5	63.5	63.0	
AP-SL/25-26/0770 A	Zypmite Plant	12:30 P.M 12:35 P.M.	63.0	64.8	64.0	
	AP-SL/25-26/0764 A AP-SL/25-26/0765 A AP-SL/25-26/0766 A AP-SL/25-26/0767 A AP-SL/25-26/0768 A AP-SL/25-26/0769 A	AP-SL/25-26/0764 A Bagging Section AP-SL/25-26/0765 A SAP Plant AP-SL/25-26/0766 A Off Side AP-SL/25-26/0767 A DAP- AB Side AP-SL/25-26/0768 A DAP - CD Side AP-SL/25-26/0769 A PAP Plant	AP-SL/25-26/0764 A Bagging Section 11:00 A.M 11:05 A.M. AP-SL/25-26/0765 A SAP Plant 12:10 P.M 12:15 P.M. AP-SL/25-26/0766 A Off Side 10:40 A.M 10:45 A.M. AP-SL/25-26/0767 A DAP- AB Side 11:10 A.M 11:15 A.M. AP-SL/25-26/0768 A DAP - CD Side 11:20 A.M 11:25 A.M. AP-SL/25-26/0769 A PAP Plant 12:00 P.M 12:05 P.M.	AP-SL/25-26/0764 A Bagging Section 11:00 A.M 11:05 A.M. 80.2 AP-SL/25-26/0765 A SAP Plant 12:10 P.M 12:15 P.M. 57.4 AP-SL/25-26/0766 A Off Side 10:40 A.M 10:45 A.M. 60.9 AP-SL/25-26/0767 A DAP- AB Side 11:10 A.M 11:15 A.M. 57.5 AP-SL/25-26/0768 A DAP - CD Side 11:20 A.M 11:25 A.M. 53.0 AP-SL/25-26/0769 A PAP Plant 12:00 P.M 12:05 P.M. 62.5	Noise Level in Company Locations TIME Noise Level in Company Locations Locatio	Noise Level in dB(A) L _{Min} L _{Max} L _{eq}

Note: - L ... - Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



ertificate No. AP-FG/25-26	/0956 Issue Date: September 26	, 2025	Page 1 of 1
sued to	: M/S. M/S. PARADEEP PHOSPHATE L	.TD.	
ddress	: Paradeep, Odisha,		
our S.O. No.	: 5500008829, dtd. 29.07.2025	Posts	tt
ample Description	: Stack Gas / Flue Gas		ment used:
ample ID No.	: AP-FG/25-26/0956	Stack Monitoring	N1 07 (Cal. Validity: 04.05.26
ame of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.		eters Tested
	Paradeep, Odisha	Physical & General	
ate & time of sampling	: 20,09.2025 (12:10 P.M. to 12:40 P.M.)	Tamp Velocity Go	s flow, O ₂ , CO ₂ & CO
ampling Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Chemical:	a more of columns
ampling Carried out by	: Mr. P.P. Mondal	PM	
nalysis Started on	: 24.09.2025	Fivi	
analysis Completed on	: 26.09.2025		
A. General information at	oout stack :		
 Stack connected to 	: Zypmite - 1 : Process Emmision		
2. Emission due to			
3. Material of construction	of stack : M.S. : Circular.		
 Shape of stack 			
Whether stack is provid	led with permanent platform & ladder : Yes.		
B. Physical characteristic	e ground level : 30 m		
1. Height of the stack from	is a continue to the		
 Diameter of the stack a 	t sampling point : 1,03 m : 12 Nos.		
4. No. of Traverse point			
	tic of stack Gas / Flue Gas : 2. Fuel consumption : -	3.Lo	ad :
1. Fuel used :			
 D. Environmental condit 		2. Temperature :	34 °C
 Burometric pressure : 7 	55 mmHg	a. rempetation	54.6
	arameters of Flue Gas :	Unit	Results
SI No Test Parameters	Test Method		49
1. Temperature of emissi		°C	
2. Velocity of gas in duc	1S 11255 : Part 3 : 2008	m/sec	18.92
3. Quantity of gas flow	IS 11255 Part 3 2008	NM ³ /hr	50517
F. Results of gaseous e	mission:		
SI No Test Parameters	Test Method	Unit	Results
Carbon monoxide	- IS 13270 : 1992 (By Orsat)	% v/v	<0.2
	IS 13270 : 1992 (By Orsat)	% v/v	0.2
2. Carbon dioxide		20000000	19.6
3. Oxygen	1S 13270 : 1992 (By Orsat)	% v/v	29.42
4 . Particulate Matters	IS 11255 : Part 1 : 1985	mg/Nm3	29.42

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007

TEST REPORT

ertificate No. AP-FG/25-26	/0957 Issue Date: September 26	, 2025	Page 1 of
ssued to	: M/S. M/S. PARADEEP PHOSPHATE L	.TD.	
Address	; Paradeep, Odisha.		
our S.O. No.	: 5500008829, dtd. 29.07.2025	6.0	
ample Description	: Stack Gas / Flue Gas		pment used:
iample ID No.	: AP-FG/25-26/0957	Stack Monitoring I	37 (Cal. Validity: 04.05.26)
same of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD		meters Tested
Zeromotamo el rosso describor se como	Paradeep, Odisha.	Physical & General	
Date & time of sampling	: 20,09.2025 (12:50 P.M. to 01:56 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		flow, O ₂ , CO ₂ & CO
sampling Plan & Method	: Mr.P.P.Mondal	Chemical :	(100H) 1025 NOV 250 NOV
Sampling Carried out by Analysis Started on	: 24,09,2025	PM	
Analysis Staned on Analysis Completed on	: 26.09.2025		
A. General information at			
Stack connected to	: Zypmite - 2		
Emission due to	: Process Emmision		
Material of construction	of stack : M.S.		
4. Shape of stack	: Circular.		
Whether stack is provid	ed with permanent platform & ladder : Yes.		
B. Physical characteristic	es of stack :		
1. Height of the stack from			
3. Diameter of the stack at	sampling point : 0.85 m		
4. No. of Traverse point	: 12 Nos.		
C. Analysis / Characteris	tic of stack Gas / Flue Gas :	2200	70
1. Fuel used :	2. Fuel consumption :	- 3.Loa	d :
 D. Environmental conditi 			owe.
 Barometric pressure: 7 		2. Temperature :	14 °C
E. Results of Physical Pa	arameters of Flue Gas :		
SI No Test Parameters	Test Method	Unit	Results
1. Temperature of emission	on IS 11255 : Part 3 : 2008	°C	47
2. Velocity of gas in duct		m/sec	15.09
	Am the same and th	NM ³ /hr	27712
 Quantity of gas flow 	IS 11255 : Part 3 : 2008	NM/hr	A77.14
F. Results of gaseous er		1 20 2 1	Results
SI No Test Parameters	Test Method	Unit	Results
Carbon monoxide	IS 13270 : 1992 (By Orsat)	% v/v	<0.2
2. Carbon dioxide	IS 13270 : 1992 (By Orsat)	% v/v	0.2
The second secon	IS 13270 : 1992 (By Orsat)	% v/v	19.8
1 Overen		763,356,335	
Oxygen Particulate Matters	15 11255 : Part 1 : 1985	mg/Nm3	32.06

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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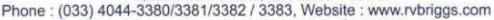


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TC-12347



E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

- F. F. B. L. J. J. L. J.	ate No. AP-FG/25-26/0	958 Issue Date: September 26, : M/S. M/S. PARADEEP PHOSPHATE L'	TD	Page 1 of 1
ssued	775	: Paradeep, Odisha.	ib.	
ddres		: 5500008829, dtd. 29.07.2025		
our S.		: Stack Gas / Flue Gas	Equi	pment used:
	Description ID No.	: AP-FG/25-26/0958		
	f Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.		07 (Cal. Validity: 04.05.26
vame o	i industry / Site	Paradeep, Odisha.		neters Tested
hate &	time of sampling	: 20.09.2025 (01:30 P.M. to 01:58 P.M.)	Physical & Genera	
	ng Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, Gr	is flow, O2, CO2 & CO
	ng Carried out by	: Mr.P.P.Mondal	Chemical:	
	s Started on	: 24.09.2025	PM	
	s Completed on	; 26.09.2025		
	General information abou	ut stack :		
1.	Stack connected to	: Zypmite - 3		
	Emission due to	: Process Emmision		
	Material of construction of			
4.	Shape of stack	; Circular.		
5.	Whether stack is provided	with permanent platform & ladder: Yes.		
	Physical characteristics			
	Height of the stack from g			
	Diameter of the stack at sa			
4.	No. of Traverse point	; 8 Nos.		
C.	Analysis / Characteristic	of stack Gas / Flue Gas :	21.0	ad :
	Fuel used :	2. Fuel consumption :	5.1.0	ac . ***
	Environmental condition			34.973
	Barometric pressure: 755	mmHg	2. Temperature:	34 C
E.	Results of Physical Para			** **
SI No	Test Parameters	Test Method	Unit	Results
1.	Temperature of emission	IS 11255 : Part 3 : 2008	°C	35
2.	Velocity of gas in duct	IS 11255 : Part 3 : 2008	m/sec	3.15
11/25		IS 11255 : Part 3 : 2008	NM ³ /hr	3159
3.	Quantity of gas flow Results of gaseous emis		1101710	
F.			Unit	Results
SI No	Test Parameters	Test Method	Cinc	incomes
1.	Carbon monoxide	IS 13270 : 1992 (By Orsat)	% v/v	<0.2
2.	Carbon dioxide	IS 13270 : 1992 (By Orsat)	% v/v	0.2
3.	Oxygen	IS 13270 : 1992 (By Orsat)	% v/v	19.8
	Particulate Matters	1S 11255 : Part 1 : 1985	mg/Nm3	22.35
4.	The second secon		110000011000110001001001001001001001001	

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

	ate No. AP-FG/25-26/09	959	Issue Date: September 26,			Page 1 of 1		
ssued	to		S. PARADEEP PHOSPHATE L'	ID.				
ddres			ep, Odisha.					
our S.C		: 5500008829, did. 29.07.2025 : Stack: Gas / Flue Gas						
	Description		as / Flue Gas			sear		
	unific us the		25-26/0959	Stack Monitor	nng Kil	Validity: 04.05.26)		
lame of	f Industry / Site		PARADEEP PHOSPHATE LTD.		rameters To			
		Paradeep,		Physical & Ger		Med		
	time of sampling		25 (03:40 P.M. to 04:16 P.M.)	Temp., Velocity	Gas Bow C	CO F.CO		
	g Plan & Method		1/45 & IS: 11255 (Purt-1,2 & 3)		y, thus now, t	2, CO2 & CO		
	g Carried out by	: Mr.P.P.		Chemical:				
Analysis	s Started on	: 24.09.20		PM & TF				
Analysis	s Completed on	: 26.09.20	125					
	General information abou	it stack:	The Street of the					
	Stack connected to		: PAP = 1					
	Emission due to	20 1025	: Process Emmision					
	Material of construction of	stuck	: M.S.					
4.	Shape of stack		: Circular.					
5.	Whether stack is provided	with perma	inent platform & ladder : Yes.					
В.	Physical characteristics	of stack :						
L.	Height of the stack from g	round level	: 50 m					
	Diameter of the stack at sa	impling poi	int : 2.7 m					
	No. of Traverse point		: 30 Nos.					
5.	Height of the sampling po	int from GI	. ; 35 m					
	Analysis / Characteristic	of stack G	sas / Flue Gas :		Load :			
	Fuel used :		2. Fuel consumption:		11.0000			
	Environmental condition				24 000			
1.	Barometric pressure: 755	mmlig		2, Temperatu	ire: 34 C			
E.	Results of Physical Para	meters of	Flue Gas :					
Si No	Test Parameters		Test Method	Unit	I I	esults		
1.	Temperature of emission		IS 11255 : Part 3 : 2008	°C		43		
2.	Velocity of gas in duct		IS 11255 Part 3:2008	m/sec		6.28		
3.	Quantity of gas flow		IS 11255:Part 3:2008 -	NM ³ /hr	1	16465		
F.	Results of gaseous emis	ssion:						
SI No		1	Test Method	Unit	Results	Norms		
21 70	Test Parameters		1 car mernou			as per CPCB		
-	West and an acceptable	+	15 13270 : 1992 (By Orsat)	% v/v	< 0.2	Not Specified		
l-	Carbon monoxide			96 v/v	0.4	Not Specifie		
2.	Carbon dioxide		IS 13270 : 1992 (By Orsat)	0.000	19.6	Not Specifie		
3.	Oxygen		15 13270 : 1992 (By Orsat)	% v/v	14000	150 max.		
4.	Particulate Matters		IS 11255 : Part 1 : 1985	mg/Nm3	33	0.0000000000000000000000000000000000000		
5.	Total Fluoride		IS 11255 (Part - 5) : 1990	mg/Nm ³	3.96	20 max.		
97.4								

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Reviewed & Authorised by

(Dr. R. KARIM

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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Results relate only to the parameters of the item tested.



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CIN: U51109WB1931PTC007007

TEST REPORT

	No. AP-FG/25-26/09	960	Issue Date: September 26,			Page 1 of 1		
ssued to			PARADEEP PHOSPHATE L	TD.				
Address		: Paradeep,						
Your S.O. N			dtd. 29.07.2025			-		
Sample Des		: Stack Gas /		Equipment used:				
Sample ID		: AP-FG/25-2		Stuck Monito		CONTRACT AND ADDRESS.		
Name of Inc	dustry / Site		ARADEEP PHOSPHATE LTD.			Validity: 04.05.26		
		Paradeep, Od			arameters T	ested		
	Company of the Compan		(04:50 P.M. to 05:12 P.M.)	Physical & Ge				
	lan & Method		5 & IS: 11255 (Part-1,2 & 3)	Temp., Velocit	ty, Gas flow, C	12, CO2 & CO		
	arried out by	: Mr.P.P.Mor	ndal	Chemical:				
Analysis Su		: 24.09.2025		PM & TF				
	ompleted on	: 26.09.2025						
	neral information about	it stack :						
	k connected to		; PAP # 2					
	ission due to	0.000	: Process Emmision					
1000	erial of construction of	stack	; M.S.					
	pe of stack	0040400000000000000000	: Circular.					
			nt platform & ladder: Yes.					
	sical characteristics of							
	ght of the stack from gr		: 50 m					
	meter of the stack at sar	mpling point	: 1.0 m					
	of Traverse point		: 12 Nos.					
5. Hei	ght of the sampling poin	nt from GL						
	alysis / Characteristic	of stack Gas	2. Fuel consumption :		3.Load :			
	lused :		2. Puer consumption : ***		S.L.URIU			
	vironmental conditions			4 7	20 50			
	ometric pressure: 755 r		_	2. Temperati	ire: 32 °C			
	sults of Physical Paran	meters of Flue						
	est Parameters		Test Method	Unit	R	esults		
1. Te	mperature of emission		IS 11255 Part 3 : 2008	°C		53		
2. Ve	locity of gas in duct	1	IS 11255:Part 3:2008	m/sec		13.22		
3. Ou	untity of gas flow		IS 11255:Part 3:2008	NM ³ /hr		32879		
	sults of gaseous emiss	sion:						
	est Parameters		Test Method	Unit	Results	Norms as per CPCB		
1 2	rbon monoxide	19	S 13270 : 1992 (By Orsat)	% v/v	<0.2	Not Specifie		
			S 13270 : 1992 (By Orsat)	% v/v	0.2	Not Specifie		
227	rbon dioxide		1. The control of the	1000	1000			
72.57	cygen		S 13270 : 1992 (By Orsat)	% v/v	19.6	Not Specifie		
4. Pm	rticulate Matters		IS 11255 : Part 1 : 1985	mg/Nm3	28	150 max.		
			IS 11255 (Part - 5): 1990	mg/Nm ³	3.20	20 max.		

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Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

< END OF TEST REPORT :-

Details of pollution control devices attached with the stack: Wet Scrubber

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CIN: U51109WB1931PTC007007

TEST REPORT

emnica	ate No. AP-FG/25-26/09	961 Issue Date: September 26, 2	2025		Page 1 of 1		
ssued to		: M/S. M/S. PARADEEP PHOSPHATE LT	D.				
ddress	3	: Paradeep, Odisha.					
our S.O		500007609, dtd. 16.08.2024					
ample D	Description	: Stack Gas / Flue Gas Equipment used: : AP-FG/25-26/0961 Stack Monitoring Kit					
ample II		: AP-FG/25-26/0961			/alidity: 04.05.26)		
ame of	Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.	and and has been been about the beautiful and	arameters T			
	and the transfer on the server	Paradeep, Odisha.	Physical & Ge		Lateu		
	me of sampling	: 18.09.2025 (11:30 A.M. to 12:12 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocit		- CO-& CO		
ampling Plan & Method ampling Carried out by		Mr.P.P. Mondal	Chemical:				
	Started on	: 24.09.2025	PM, NH, & 7	F			
	Completed on	: 26.09.2025	100000000000000000000000000000000000000				
A. G	Seneral information abou	3,70113,1073,1113	•				
	tack connected to	: DAP - A					
1000	imission due to	: Process Emmision					
	Material of construction of	stack : M.S.					
4. S	Shape of stack	; Circular.					
5. V	Whether stack is provided	with permanent platform & ladder : Yes.					
B. P	hysical characteristics	of stack:					
	leight of the stack from gr						
	Diameter of the stack at sar						
4. N	No. of Traverse point	: 30 Nos.					
5. 1	leight of the sampling poi	nt from GL : 35 m					
		of stack Gas / Flue Gas : 2. Fuel consumption :		Load :			
	Fuel used :			LANGE .			
	Environmental condition	The state of the s	2. Temperatu	re : 24 °C			
-	Barometric pressure : 755		2. remperate	10.24			
-	Results of Physical Para		Unit	D	lesults		
SI No	Test Parameters	Test Method 18 11255 Part 3 : 2008	°C		49		
1.0	Temperature of emission				12.91		
	Velocity of gas in duct	IS 11255 Part 3:2008	m/sec		44106		
	Quantity of gas flow	4S 11255:Part 3:2008	NM ³ /hr	- 4	44100		
E. F	Results of gaseous emis				1		
SINo	Test Parameters	Test Method	Unit	Results	Norms as per CPCB		
1.	Carbon monoxide	IS 13270 : 1992 (By Orsat)	% v/v	<0.2	Not Specified		
	Carbon dioxide	IS 13270 : 1992 (By Orsat)	56 v/v	0.4	Not Specified		
	Oxygen	IS 13270 1992 (By Onat)	% v/v	19.4	Not Specified		
4.	Particulate Matters	IS 11255 : Part I : 1985	mg/Nm3	57.0	150 max.		
100000	Total Fluoride	IS 11255 (Part - 5): 1990	mg/Nm3	2.20	< 10		
100000000000000000000000000000000000000	Ammonia as NH ₃	Methods of Air Sampling & Analysis, 3rd Ed. (Indophenol Method), Method 401		152.36	300 max.		

Report Perified by

Reviewed & Authorised by

(Dr. R. KARIM)

<u>Technical Manager</u>

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007

TEST REPORT

Certifi	cate No. AP-FG/25-26/09		2025		Page 1 of
ssued	to	: M/S. M/S. PARADEEP PHOSPHATE LT	D.		
Addres	55	: Paradeep, Odisha.			
	.O. No.	: 5500008829, dtd. 29.07.2025			
	Description	: Stack Gas / Flue Gas		Equipment (used:
	ID No.	: AP-FG/25-26/0962 A	Stack Monito	oring Kit	
Vame o	of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.			Validity: 04.05.2
ACTIVITIES OF	COMPANION AND AND A PARK A COLO	Paradeep, Odisha.		arameters 'l	ested
	time of sampling	: 18.09.2025 (12:25 P.M. to 01:04 P.M.)	Physical & G		03, CO3 & CO
	ng Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Chemical:	ty, tras now.	Oz. COz & CO
	ng Carried out by is Started on	; Mr.P.P. Mondal : 24.09.2025	PM, NH, &	TE	
	is Completed on	26.09.2025	P.VI. IVII3 &	1,0	
	General information abou		1		
î.	Stack connected to	: DAP - B			
2	Emission due to	: Process Emmision			
3.	Material of construction of				
	Shape of stack	: Circular.			
5.		with permanent platform & ladder : Yes.			
В.	Physical characteristics of				
1.	Height of the stack from gr	ound level : 50 m			
3.	Diameter of the stack at sar	npling point : 2.8 m			
4.	No. of Traverse point	: 30 Nos.			
5.	Height of the sampling poin				
C.	Analysis / Characteristic				
1.	Fuel used :	2. Fuel consumption :		3.Load :	
D.	Environmental conditions				
1.	Barometrie pressure: 755 i		2. Temperate	rre: 34 °C	
E.	Results of Physical Parar	neters of Flue Gas :	-0/		
SI No	Test Parameters	. Test Method	Unit	F	Results
1.	Temperature of emission	IS 11255 : Part 3 : 2008	"C		56
2.	Velocity of gas in duct	IS 11255:Part 3:2008	m/sec		15.74
3.	Quantity of gas flow	IS 11255:Part 3:2008	NM ³ /hr	2	84382
E.	Results of gaseous emis-	sion:			
SI No	Test Parameters	Test Method	Unit	Results	Norms
31 540	Test varameters	Test sicinos		recounts	as per CPCB
Τ.	Carbon monoxide	IS 13270 1992 (By Orsat)	% v/v	< 0.2	Not Specified
2.	Carbon dioxide	IS 13270 : 1992 (By Orsati)	96 v/v	0.4	Not Specifie
		IS 13270 : 1992 (By Orsat)	% v/v	19.6	Not Specifie
3.	Oxygen Dominal Martin	IS 11255 : Part 1 : 1985	mg/Nm3	58.2	150 max.
	Particulate Matters			5000	The state of the state of
4.	180 0 1800 18.5		mg/Nm ³	3.40	< 10
4. 5.	Total Fluoride	IS 11255 (Part – 5): 1990 Methods of Air Sampling & Analysis, 3rd Ed.	mg/sun	3.40	

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



act mile	ate No. AP-FG/25-26/0	963 Issue Date: September 26,			Page 1 of 1
ssued	to	: M/S. M/S. PARADEEP PHOSPHATE LT	D.		
Addres	A CONTRACT OF THE PARTY OF THE	: Paradeep, Odisha.			
Your S.	40 / 4 / 4 / 4 /	: 5500008829, dtd. 29.07.2025			
Sample Description : Stack Gas / Flue Gas Equipment Sample ID No. : AP-FG/25-26/0963 Stack Monitoring Kit					ised:
Sample		: AP-FG/25-26/0963 : M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No. RVB	SMK/DT/Cal	Validity: 04.05.26)
Name of	f Industry / Site	Paradeep, Odisha		Parameters 7	
Date &	time of sampling	: 18.09-2025 (03:20 P.M. to 03:56 P.M.)	Physical & Go		E-SPECIAL STREET
	ig Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Committee of the commit		O ₂ , CO ₂ & CO
	ng Carried out by	: Mr.P.P. Mondal	Chemical:		***************************************
	s Started on	: 24.09.2025	PM, NH, &	TF	
	s Completed on	: 26.09.2025	100 200		
	General information abou	it stack :	•		
1.	Stack connected to	DAP - C			
-	Emission due to	: Process Emmission			
727	Material of construction of				
	Shape of stack	: Circular.			
		with permanent platform & ladder ; Yes.			
	Physical characteristics				
	Height of the stack from gr				
	Sampling Point Diameter of the stack at sa	: Chimney mpling point : 2.8 m			
	No. of Traverse point				
	Height of the sampling poi	; 30 Nos. nt from GL : 35 m			
	Analysis / Characteristic				
	Fuel used 1	2. Fuel consumption :		3.Load :	
	Environmental condition				
	Barometric pressure: 755		2. Temperati	ine: 34 °C	
	Results of Physical Para				
SINo	Test Parameters	Test Method	Unit		Cesults
1.	Temperature of emission	IS 11255 Part 3 2008	"C		64
2.	Velocity of gas in duct	IS 11255 Part 3:2008	m/sec		16.74
3.	Quantity of gas flow	IS 11255 Part 3:2008	NM ³ /hr		00377
	Results of gaseous emis	120020000000000000000000000000000000000	NOVE / HE		50427.7
		The state of the s	I that I	Results	Norms
SI No	Test Parameters	Test Method	Unit	Results	312 C 21 1 2 C C C C C C C C C C C C C C
-	an a contract of	M. 12320 - 1003 (D. 1004)	-	- AL W	as per CPCB
1.	Carbon monoxide	IS 13270 1992 (By Orsat)	% v/v	< 0.2	Not Specified
2.	Carbon dioxide	IS 13270 : 1992 (By Orsat)	% v/v	0.2	Not Specified
3.	Oxygen	IS 13270 : 1992 (By Orsat)	% v/v	19.8	Not Specified
4_	Particulate Matters	IS 11255 : Part 1 : 1985	mg/Nm3	55	150 max.
5.	Total Fluoride	IS 11255 (Part - 5) : 1990	mg/Nm ³	2.05	< 10
	Ammonia as NH,	Methods of Air Sampling & Analysis, 3rd Ed. (Indophenol Method), Method 401	mg/Nm ³	155.11	300 max.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
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For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



ssued	cate No. AP-FG/25-26/0				Page 1 of 1
T. T. T. T. T.	l to	: M/S. M/S. PARADEEP PHOSPHATE LT	D,		
Address : Paradeep, Odisha.					
Your S.	12521.0	: 5500008829, dtd. 29.07.2025			
Sample Description : Stack Gas / Flue Gas Equipment				sed:	
	ID No.	: AP-FG/25-26/0964	Stack Monito		
Name o	of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.			Validity: 04.05.26)
	earth and a second	Paradeep, Odisha.		arumeters I	ested
	time of sampling	: 18.09.2025 (04:30 P.M. to 05:06 P.M.)	Physical & Go		0.00 0.00
	ng Plan & Method	: RVB/FM/45 & IS: 11255 (Purt-1.2 & 3)		ty, Gas How,	O2, CO2 & CO
	ng Carried out by	: Mr.P.P. Mondal : 24,09,2025	PM, NH, &	re.	
	is Started on is Completed on	: 26.09.2025	PM, NH ₁ &	i.r	
	General information abo				
	Stack connected to	: DAP - D			
	Emission due to	Process Emmision			
-	Material of construction of	The second control of			
195.5	Shape of stack	Circular.			
		with permanent platform & ladder : Yes.			
	Physical characteristics				
	Height of the stack from gr				
	Diameter of the stack at sa				
	No. of Traverse point	: 30 Nos.			
	Height of the sampling poi	A STATE OF THE PARTY OF THE PAR			
C.	Analysis / Characteristic	of stack Gas / Flue Gas ;			
Ĩ.	Fuel used :	2. Fuel consumption :	3	3.Loud :	
	Environmental condition	9.1			
D.	CHYLLOTHICHER COHUMNON				
	The same of the sa		2. Temperatu	re: 34°C	
1,	Barometric pressure: 755	mmHg	2. Temperatu	ire: 34°C	
I,	Barometric pressure : 755 Results of Physical Para	mmHg meters of Flue Gas :			Results
E. SI No	Barometric pressure : 755 Results of Physical Para Test Parameters	mmHg	Unit		Results
E. SI No	Barometric pressure : 755 Results of Physical Para Test Parameters Temperature of emission	mmHg meters of Flue Gas: Test Method IS 11255 : Part 3 : 2008	Unit "C	R	61
E. SI No 1 . 2 .	Barometric pressure : 755 Results of Physical Para Text Parameters Temperature of emission Velocity of gas in duct	mmHg meters of Flue Gas: Test Method IS 11255: Part 3: 2008 IS 11255: Part 3: 2008	Unit °C m/sec	18	61 16.71
E. SI No 1. 2. 3.	Barometric pressure: 755 Results of Physical Para Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow	mmHg meters of Flue Gas: Test Method IS 11255: Part 3: 2008 IS 11255:Part 3:2008 IS 11255:Part 3:2068	Unit "C	18	61
E. SI No 1 . 2 . 3 . E.	Barometric pressure : 755 Results of Physical Para Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emis	mmHg meters of Flue Gas: Test Method IS 11255: Part 3: 2008 IS 11255:Part 3:2008 IS 11255:Part 3:2008	Unit °C m/sec NM³/hr	2	61 16.71 96883
E. SI No 1. 2. 3.	Barometric pressure: 755 Results of Physical Para Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow	mmHg meters of Flue Gas: Test Method IS 11255: Part 3: 2008 IS 11255:Part 3:2008 IS 11255:Part 3:2068	Unit C m/sec NM³/hr Unit	Results	61 16.71 96883 Norms as per CPCB
E. SI No 1 . 2 . 3 . E.	Barometric pressure : 755 Results of Physical Para Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emis	mmHg meters of Flue Gas: Test Method IS 11255: Part 3: 2008 IS 11255:Part 3:2008 IS 11255:Part 3:2008	Unit °C m/sec NM³/hr	2	61 16.71 96883 Norms as per CPCB
1, E, SI No 1, 2, 3, E, SI No	Barometric pressure : 755 Results of Physical Para Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emis Test Parameters	mmHg meters of Flue Gas: Test Method IS 11255: Part 3: 2008	Unit C m/sec NM³/hr Unit	Results	61 16.71 96883 Norms as per CPCB Not Specified
1, E. SI No 1 . 2 . 3 . E. SI No	Barometric pressure : 755 Results of Physical Para Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emis Test Parameters Carbon monoxide	mmHg meters of Flue Gas: Test Method IS 11255: Part 3: 2008 IS 11255: Part 3: 2008 IS 11255: Part 3: 2008 IS 11255: Part 4: 2008 IS 11255: Part 5: 2008 IS 13270: 1992 (By Orsat)	Unit °C m/sec NM³/hr Unit	Results	Norms as per CPCB Not Specified Not Specified
1, E. SI No 1, 2, 3, E. SI No 1, 2, 3,	Barometric pressure : 755 Results of Physical Para Text Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emis Test Parameters Carbon monoxide Carbon dioxide	mmHg meters of Flue Gas: Test Method IS 11255: Part 3:2008 IS 11255: Part 3:2008 IS 11255: Part 3:2008 IS 11255: Part 4:2008 IS 11255: Part 5:2008 IS 13270: 1992 (By Orsat) IS 13270: 1992 (By Orsat)	Unit "C m/sec NM*/hr Unit "% v/v % v/v	2 Results <0.2 0.2	Norms as per CPCB Not Specified Not Specified
1, E, SI No 1 - 2 - 3 - E, SI No 1 - 2 - 3 - 4 - 4 -	Barometric pressure : 755 Results of Physical Para Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emis Test Parameters Carbon monoxide Carbon dioxide Oxygen Particulate Matters	mmHg meters of Flue Gas: Test Method IS 11255: Part 3: 2008 IS 13270: 1992 (By Orsat) IS 13275: Part 1: 1985	Unit "C m/sec NM*/hr Unit "% v/v % v/v % v/v mg/Nm3	Results <0.2 0.2 19.6 53.8	Norms as per CPCB Not Specified Not Specified Not Specified
1, E. SI No 1 - 2 - 3 - E. SI No 1 - 2 - 3 - 3 - 4 - 2 - 3 - 4	Barometric pressure : 755 Results of Physical Para Text Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emis Test Parameters Carbon monoxide Carbon dioxide Oxygen	meters of Flue Gas: Test Method IS 11255: Part 3: 2008 IS 13270: 1992 (By Orsat) IS 11255: Part 1: 1985 IS 11255 (Part - 5): 1990	Unit "C m/sec NM*/hr Unit "% v/v % v/v mg/Nm3 mg/Nm3	Results <0.2 0.2 19.6 53.8 2.78	Norms as per CPCB Not Specified Not Specified Not Specified 150 max. < 10
1, E, SI No 1 - 2 - 3 - E, SI No 1 - 2 - 3 - 4 - 4 -	Barometric pressure : 755 Results of Physical Para Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emis Test Parameters Carbon monoxide Carbon dioxide Oxygen Particulate Matters	mmHg meters of Flue Gas: Test Method IS 11255: Part 3: 2008 IS 13270: 1992 (By Orsat) IS 13275: Part 1: 1985	Unit "C m/sec NM*/hr Unit "% v/v % v/v % v/v mg/Nm3	Results <0.2 0.2 19.6 53.8	Norms as per CPCB Not Specified Not Specified Not Specified Not Specified 150 max.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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Results relate only to the parameters of the item tested.



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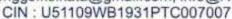
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TC-12347

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Certifi	cate No. AP-FG/25-26/0965	Issue Date: September 26			Page 1 of
ssued		: M/S. M/S. PARADEEP PHOSPHA	TE LTD.		
Address		: Paradeep, Odisha.			
	O. No.	5500008829, dtd. 29.07.2025			
ample	Description	Stack Gas / Flue Gas		Equipme	nt used:
	ID No.	AP-FG/25-26/0965	Stack Monitoring		
	of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LT	ID No.: RVB/SMI	C/07(Cal. Valid	lity: 04.05.26)
	AND THE PARTY OF T	Paradeep, Odisha		Paramete	rs Tested
Date &	time of sampling	: 19.09.2025 (11:00 A.M. to 11:40 A.M.	Physical & Gener	ad:	
	ng Plan & Method	RVB/FM/45 & IS: 11255 (Part-1,2 &			O2 & CO
	ng Carried out by	Mr.P.P. Mondal	Chemical:	ny mattern to refere	
	is Started on	24.09.2025	SO ₂ , NO ₂ ,HC &	PM	
	is Completed on	26.09.2025			
A.	General information about star				
1.	Stack connected to	: Diesel Generator Set	- 2		
2.	Emission due to	: Burning of H.S.D			
3.	Material of construction of stack	: M.S.			
4.	Shape of stack	: Circular.			
5	Whether stack is provided with p	ermanent platform & ladder: Yes			
6.	Generator capacity	: LMVA			
В.	Physical characteristics of star	:k :			
1.	Height of the stack from ground	evel : 30.0 m			
2.	Sampling Point	Chimney			
3.	Diameter of the stack at sampling				
4.	No. of Traverse point	: 08 Nos.			
C.	Analysis / Characteristic of sta	ck Gas / Flue Gas :			
1.	Fuel used : H.S.D		2. Fuel consump	tion:	
D.	Environmental conditions :				
1.	Barometric pressure: 755 mmHg		2. Temperature :	34 °C	
E.	Finding of Physical Parameters	of Flue Gas :			
SINo		Test Method	Unit		Results
1.	Temperature of emission	IS 11255 Part 3 2008	*C		238
2.	Velocity of gas in duct	IS 11255 : Part 3 : 2008	m/sec		20.29
3	Quantity of gas flow	IS 11255 : Part 3 : 2008	NM ¹ /hr		5160
F.	Results of gaseous emission :		10000000		
St No		Test Method	Unit	Results	Norms as per Environment
100,000	The state of the s			ACAMARAGE:	(Protection) Amendment Rule
					2002, for > 800 km
-1	Sulphur dioxide	IS 11255 : Part 2 : 1985	mg/Nm²	103.79	Not Specified
2	Nitrogen dioxide	IS 11255 : Part 7 : 2005	mg/Nm*	148.46	A. C. Aprenion
.6	Timogen bioxide		gm/kw-hr	0.96	7
3	Total Hydrocarbon as HC	EPA Method 18	gm/kw-hr	0.01	- 4.0
3	Total Hydrocaroon as 110	(Papersonance area):	mg/Nm³	2.31	
4	Carbon monoxide	USEPA 10:2017	mg/Nm"	146	
17	Carbon monochie		gm/kw-hr	0.94	3.5
		IS 13270 1992 (By Orsat)	% v/v	<0.2	16.16
	THE	IS 13270 1992 (By Orsat)	% v/v	7.2	Not Specified
	Carbon diescide		20 474		and opening
5	Carbon dioxide		mo/Nm ⁴	28	1 (2) (3)
5	Carbon dioxide Particulate Matters	IS 11255 Part 1 1985	mg/Nm ^a gm/kw-hr	28 0.18	0.2

Report Verified by

Glayer

Reviewed & Authorised by

(S. Mondal) Sr. Chemist

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

END OF TEST REPORT

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 - Results relate only to the parameters of the item tested.



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CIN: U51109WB1931PTC007007



Certificate No. AP-FG/25-2			Page 1 of 1
ssued to	: M/S. M/S. PARADEEP PHOSPHATE	LTD.	
Address	: Paradeep, Odisha.		
Your S.O. No.	: 5500008829, dtd. 29.07.2025		
Sample Description	: Stack Gas / Flue Gas		ipment used:
Sample ID No. Name of Industry / Site	: AP-FG/25-26/0966 A	Stack Monitorin	g. Kit U07 (Cal. Validity: 04.05.26
vame of industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD. Parudeep, Odisha.		meters Tested
Date & time of sampling	: 10.09.2025 (02:30 P.M. to 03:14 P.M.)	Physical & Gener	
Sampling Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		ias flow, O2, CO2 & CO
Sampling Carried out by	: Mr.P.P.Mondal	Chemical:	11 11 11 11 11 11 11 11 11 11 11 11 11
Analysis Started on	: 24.09.2025	SO ₂ & Acid Mist	
Analysis Completed on	: 26.09.2025	A TOTAL LINE OF CO.	
 A. General information a 	about stack :		
 Boiler connected to 	: SAP - B		
Emission due to	: Process Emission		
 Material of construction 			
Shape of stack	: Circular.		
	ded with permanent platform & ladder : Yes.		
Physical characterist Height of the stack fro	m ground level : 120 m		
Diameter of the stack is			
No, of Traverse point	: 30 Nos.		
 Height of the sampling 			
	stic of stack Gas / Flue Gas :		
1. Fuel used :	2. Fuel consumption :	- 3.La	ad :
D. Environmental condi			
1. Barometric pressure :	755 mmHg	2. Temperature :	34 "C
E. Results of Physical P	arameters of Flue Gas :		
Sl No Test Parameters	Test Method	Unit	Results
1. Temperature of emiss	ion IS 11255 : Part 3 : 2008	*C	68
2. Velocity of gas in duc	t IS 11255:Part 3:2008	m/sec	13.32
3. Quantity of gas flow	IS 11255 Part 3:2008	NM ³ /hr	232761
F. Results of gaseous e	mission :		
SI No Test Parameters	Test Method	Unit	Results
1 - Sulphur dioxide	IS 11255 : Part 2 : 1985	mg/Nm3	794.90
2. Carbon monoxide	IS 13270 : 1992 (By Orsat)	% v/v	< 0.2
12 12 12 12	15 13270 : 1992 (By Orsat)	% v/v	0.2
 Carbon dioxide 		4000	
Carbon dioxide Oxygen	IS 13270 : 1992 (By Orsat)	% v/v	19.4
All Control of the Co	1S 13270 : 1992 (By Orsat) SOP No.: RVB:SOP:01/20, Issue No.: 04, Issue Date: 10.01.2018	mg/Nm ³	19.4 33.07

Report/Verified by

Reviewed & Authorised by

(Dr. R. KARIM

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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CIN: U51109WB1931PTC007007

TEST REPORT

ssued Addres Your S.C		: M/S. M/S. PARADEEP PHOSPHATE L	TD.			
our S.C	4					
	~	: Paradeep, Odisha.				
Contractor State St	Page County Facilities	: 5500008829, did. 29.07.2025				
Sample Description		: Stack Gas / Flue Gas		ipment used:		
sample l		: AP-FG/25-26/0967A	Stack Monitoring			
lame of	Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.	Committee and the Committee of the Commi	/07 (Cal. Validity: 04.05.2)		
	Torre of Francis Warr	Paradeep, Odisha	Physical & Genera	meters Tested		
	time of sampling g Plan & Method	: 19.09.2025 (03:40 P.M. to 04:16 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		ins flow, O ₂ , CO ₂ & CO		
	g Carried out by	: Mr.P.P.Mondal	Chemical:	as now, or, corporation		
	Started on	: 24.09.2025	SO ₂ & Acid Mist			
	Completed on	: 26.09.2025	SOZE ALIGNAS			
	General information abou					
	Boiler connected to	: SAP - C				
2. 1	Emission due to	: Process Emission				
3, 1	Material of construction of	stack : M.S.				
4. 5	Shape of stack	: Circular,				
		with permanent platform & ladder : Yes.				
	Physical characteristics					
	Height of the stack from gr					
	Diameter of the stack at sa					
	No. of Traverse point	; 30 Nos.				
5. 1	leight of the sampling poi	nt from GL : 35 m				
		of stack Gas / Flue Gas :				
	Fuel used :	2. Fuel consumption :	3.1.0	ad :		
100	Environmental condition	and the second s		2180		
	Barometric pressure: 755		Temperature :	34 °C		
-	Results of Physical Parar		1			
SI No	Test Parameters	Test Method	Unit	Results		
1:	Temperature of emission	IS 11255 : Part 3 : 2008	°C	69		
2.	Velocity of gas in duct	IS 11255 Part 3 2008	m/sec	6.63		
3.	Quantity of gas flow	IS 11255 Part 3:2008	NM ³ /hr	115250		
F. 1	Results of gaseous emis	sion :				
SI No	Test Parameters	Test Method	Unit	Results		
1.	Sulphur dioxide	IS 11255 : Part 2 : 1985	mg/Nm ³	487.84		
2.	Carbon monoxide	IS 13270 ; 1992 (By Orsat)	% v/v	< 0.2		
3.	Carbon dioxide	IS 13270 : 1992 (By Orsat)	% v/v	0.2		
4.	Oxygen	IS 13270 : 1992 (By Orsat)	% v/v	19.4		
5.	Acid Mist	SOP No. RVB/SOP/01/20, Issue No. 04, Issue Date. 10:01:2018	mg/Nm³	31.12		

Report rified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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AMBIENT AIR



issued to

R. V. BRIGGS & CO. PRIVATE LTD.

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CIN: U51109WB1931PTC007007



Issue Date: September 25, 2025 Certificate No. AP-AAQ/25-26/0451 : M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Odisha Address

5500007609, dtd. 16.08.2024 Your Ref. No.

Ambient Air Sample Description

AP-AAQ/25-26/0451 Sample ID No.

M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha Name of Industry / Site

: Near AAQMS # 01 Sampling Location

: 19.09.2025 (10:50 A.M.)-20.09.2025 (10:50 A.M.) Date & Time of sampling

Duration of Sampling : RVB/FM/45 Sampling Plan:

Sampling Carried out by : Mr. S. Roy : As per CPCB guidelines (Volume-I) Method of Sampling

22.09.2025 Analysis Started on 25.09.2025 Analysis Completed on

ID No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 20.01.26

Ambient Fine Dust Sampler Resperible Dust Sampler

ID No.: RVB/RDS/APM460/NL/65, Cal. Valid upto: 26.06.26

Environmental conditions

Equipment used:

TC-12347

Page 1 of 1

Weather Condition: Clear

Temperature: Max: 34°C & Min: 27.0°C Barometric Presure: 755 mmHg

Parameters Tested: PM_{2.5}, PM₁₀, SO₂, NO₂, O₃, NH₃,

CO, Pb, Ni, As, C₆H₆, BaP

TEST FINDINGS:

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L	µg/m³	34.2	60 (24 Hourly.)
2	PM ₊₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	42.2	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.15	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	13,77	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	10.20	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVE/SOP/01/10 (Indophenol Method) Issue No. 04, Issue Date: 10.01.2018	µg/m³	15.05	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispersive Infra-Red (NDIR) spectroscopy	mg/m³	0.620	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.080	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04. Issue Date: 10.01.2018	ng/m³	<5.0	20
10	Arsenic as As	SOP No.: RVB/SOP(01/16 (AAS Method) lissue No. 04. haue Date: 10.01.2018	ng/m³	<0.25	6.0
11.	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m ³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m², Arsenic: 0.25 ng/m³, Benzene: 1 µg/m² & Benzo(a)Pyrene: 0.5 ng/m³ Repair Verified by Review

Reviewed & Authorised by

Quality Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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CIN: U51109WB1931PTC007007



Certificate No. AP-AAQ/25-26/0452 Issue Date: September 25, 2025 issued to : M/S. PARADEEP PHOSPHATE LTD.

Address : Paradeep, Odisha

: 5500007609, dtd. 16.08.2024 Your Ref. No.

Sample Description : Ambient Air Sample ID No. : AP-AAQ/25-26/0452

Name of Industry / Site M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Odisha

: Near AAQMS # 02 Sampling Location

Date & Time of sampling : 18.09.2025 (10:40 A.M.)- 19.09.2025 (10:40 A.M.)

Duration of Sampling Sampling Plan: : RVB/FM/45

Sampling Carried out by : Mr.S. Roy

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Started on : 22.09.2025 Analysis Completed on 25.09.2025

Report Verified by

Equipment used:

TC-12347

Page 1 of 1

Ambient Fine Dust Sampler D No.: RV8/AFDS/PM2.5/20, Cal. Valid upto: 20.01.26

Resperible Dust Sampler

D No.: RVB/RDS/APM460/NL/05, Cal. Valid upto: 26.06.26

Environmental conditions

Weather Condition: Clear

Temperature: Max: 32°C & Min: 26.5°C

Barometric Presure : 755 mmHg

Parameters Tested: PM2 = PM10, SO2, NO2, O3, NH3,

CO, Pb. Ni. As, C.H., BaP

TEST FINDINGS:-

SI. No.		Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	32.1	60 (24 Hourly.)
2,	PM ₁₀ (Size ≤ 10μm)	IS 5182 (Part - 23): 2006	µg/m³	40.5	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.63	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	12.54	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	10.41	180 (1 Hourly.)
6.	Ammonia as NH ₃	SCP No.: RVB/SCP/01/10 (Indephend Method) Issue No. 54, Issue Dale: 10.01.2018	µg/m³	12.89	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispersive Info-Red (NDIR) spectroscopy	mg/m ³	0.650	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.075	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04. Issue Date: 10 01 2019	ng/m³	<5.0	20
10.	Arsenic as As	SOP No.: RVB/SOP/01/15 (AAS Method) (ssue No. 04. issue Date: 10.01.2015	ng/m³	<0.25	6.0
11.	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12.	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m³. Arsenic: 0.25 ng/m³. Benzene: 1 µg/m³& Benzo(a)Pyrene: 0.5 ng/m

Reviewed & Authorised by

Quality Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-AAQ/25-26/0453 Issue Date : September 25, 2025

Page 1 of 1

TC-12347

Issued to : M/S. PARADEEP PHOSPHATE LTD.

Address : Paradeep, Odisha

Your Ref. No. : 5500007609, dtd. 16.08.2024

Sample Description : Ambient Air

Sample ID No. : AP-AAQ/25-26/0453

Name of Industry / Site : M/S. PARADEEP PHOSPHATE LTD.

Name of Industry / Site M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha

Sampling Location : Near AAQMS # 03

Date & Time of sampling : 16:09:2025 (10:00 A.M.)-17:09:2025 (10:00 A.M.)

Duration of Sampling : 24Hrs.
Sampling Plan : RVB/FM/45
Sampling Carried out by : Mr. S. Roy

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Starled on 22.09.2025 Analysis Completed on 25.09.2025

Verified by

Equipment used:

Ambient Fine Dust Sampler

D No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 20.01.26

Respenble Dust Sampler

ID No.: RVB/RDS/APM460/NL/05, Cal. Valid upto: 26:06:26

Environmental conditions

Weather Condition: Clear

Temperature : Max: 34.0°C & Min: 28°C

Barometric Presure : 755 mmHg

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3.

CO, Pb. Ni, As, CeHe, BaP

TEST FINDINGS:-

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	35.8	60 (24 Hourly.)
2	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	44.0	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	5.18	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	13.03	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	12.81	180 (1 Hourly.)
6.	Ammonia as NH ₂	SOP No.: RVB/SOP/01/10 (Indephend Method) Issue No. 04. Issue Data: 10.01.2018	µg/m³	11.12	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1399 Non Dispersive Infra-Red (NDIR) spectroscopy	mg/m ³	0.770	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.520	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<5.0	20
10	Arsenic as As	SOP No.: RVB/SOP(01/16 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<0.25	6.0
11	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	1.20	5,0
12	Benzo (a) Pyrene	IS 5182 (Part - 12); 2004,	ng/m³	<0.5	1.0

Minimum detection Limit. Nickel: 5 ng/m³, Arsenic: 0.25 ng/m³, Benzene: 1 µg/m³ & Benzo(a)Pyrene: 0.5 ng/m³

Reviewed & Authorised by

J. MUKHERJEE)

Quality Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Certificate No. AP-AAQ/25-26/0454 Issue Date : September 25, 2025
Issued to : M/S. PARADEEP PHOSPHATE LTD.

Address : Paradeep, Odisha

Your Ref. No. : 5500007609, dtd. 16.08.2024

Sample Description : Ambient Air

Sample ID No. AP-AAQ/25-26/04654

Name of Industry / Site M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Odisha Sampling Location Near AAOMS # 04

Sampling Location : Near AAQMS # 04

Date & Time of sampling : 17.09.2025 (10:20 A.M.) -18.09.2025 (10:20 A.M.)

Duration of Sampling : 24Hrs.
Sampling Plan : RVB/FM/45

Sampling Carried out by : Mr.S. Roy

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Started on 22.09.2025 Analysis Completed on 25.09.2025 Equipment used:

TC-12347

Page 1 of 1

Ambient Fine Dust Sampler

D No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 20:01.26

Resperible Dust Sampler

ID No.: RVB/RDS/APM460/NL/05, Cal. Valid upto: 26.06.26

Environmental conditions

Weather Condition: Clear

Temperature: Max: 34.0°C & Min: 27.5°C

Barometric Presure: 755 mmHg

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3,

CO, Pb, Ni, As, C,H, BaP

TEST FINDINGS:-

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a.40 CFR Part 50, Appendix L	µg/m³	31.3	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	41.7	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	7.32	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	13.52	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	11.21	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVB/SOP/01/10 (Indophenol Method) Issue No. 04, Issue Date: 10.01.2018	µg/m³	10.54	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispersive Infra-Red (NOIR) spectroscopy	mg/m ³	0.790	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.620	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SCP/01/15 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<5.0	20
10.	Arsenic as As	SOP No. RVB/SOP/01/16 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<0.25	6.0
11.	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m ³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m³. Arsenic: 0.25 ng/m³. Benzene: 1 µg/m³ & Benzo(a)Pyrene: 0.5 ng/m³

Reviewed & Authorised by

Quality Manager Authorised Signatory

J. MUKHERJEE)

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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Results relate only to the parameters of the item tested.

pm

Report Verified by



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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

Cer	tificate No.E(D)/25-26/1115A		Issue Date: 25 September 20	025	Page 1 of		
Issu	ed to		M/s. PARADEEP PHOSPHA Paradeep, Odisha	ATE LIMITE	D.		
Des	cription of Sample	;	Effluent				
Sam	ple ID No	:	E(D)/25-26/1115A				
Nan	ne of Industries/Site	i i	Paradeep Phosphate Limited Paradeep, Odisha				
Coll	ection Source	:	Strom Drain - 2, At Near Time	Office			
Sam	ple Drawn by us on	:	22.09.2025 at 12:20 P.M.				
	ple Carried out by		Mr. S.Roy				
	pling Plan		RVB/FM/45				
Analysis Started on			22.09.2025 Parameter Tested:				
Analysis completed on			25.09.2025 pH, TSS, O & G, F, NH3-N, TKN, NH3, P,				
Mod	ple collection Procedure e of Sampling ronmental condition during sampling		APHA 24th Edition 1060 Grab Temperature : 27°C, Transported i	n Ice box, Cold c	hain maintained		
TES	T FINDINGS:						
SI. No.	Test Parameters		Test Method	Unit	Results		
1	pH Value	+	APHA 24th edition-4500H+B		8.40		
2	Total Suspended Solids (TSS)		APHA 24th edition 2540D	mg/l	32		
3	Oil & Grease (O & G)	Ι	APHA 24th edition 5520B	mg/l	< 2		
4	Fluoride as F	Ι	APHA 24th edition 4500 F-C	mg/I	1.00		
5	Ammoniacal Nitrogen as NH3-N	I	APHA 24th edition 4500 NH3F	mg/l	28		
6	Total Kjeldahl Nitrogen (TKN) as N	Γ	APHA 24th edition 4500-NorgA	mg/l	32		
44		_					

Note: Minimum Detection Limit of O & G .. 2 mg/l,

Report Verified by

Free Ammonia as NH₃

8

11

Nitrate Nitrogen as NO3-N

Dissolved Phosphates as P

10 Chemical Oxygen Demand (COD)

Biochemical Oxygen Demand

for 3 days at 27°C (BOD)

Reviewed & Authorised by

(J.Bas)

mg/l

mg/1

mg/l

mg/l

mg/I

2.4

4.0

1.55

15

3.9

Dy.Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT:-

APHA 24th edition 4500 NH3F

APHA 24th edition 4500-N03D

APHA 24th edition 4500-PD

APHA 24th edition 5220B

I.S. 3025 (Part - 44) - 2023

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CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No.E(D)/25-26/1115 Issue Date: 26 September 2025 Page 1 of 1

Issued to : M/s. PARADEEP PHOSPHATE LIMITED

Paradeep, Odisha

Description of Sample : Effluent

Sample ID No : E(D)/25-26/1115

Name of Industries/Site : Paradeep Phosphate Limited

Paradeep, Odisha

Collection Source : ETP Outlet

Sample Drawn by us on : 20.09,2025 at 3:50 P.M.

Sample Carried out by : Mr. S.Roy
Sampling Plan : RVB/FM/45
Analysis Started on : 22.09.2025

Analysis completed on : 25.09.2025

Sample collection Procedure : APHA 24th Edition 1060
Mode of Sampling : Grab

Environmental condition during sampling : Temperature : 31°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1	pH Value	APHA 24th edition-4500H+B	***	7.3	6.5 - 8.5
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	39	100 (Max.)
3	Oil & Grease (O & G)	APHA 24th edition 5520B	mg/l	< 2	10 (Max.)
4	Fluoride as F	APHA 24th edition 4500 F-C	mg/l	1.15	10 (Max.)
5	Ammoniacal Nitrogen as NH ₃ -N	APHA 24th edition 4500 NH3F	mg/l	23	50 (Max.)
6	Total Kjeldahl Nitrogen (TKN) as N	APHA 24th edition 4500-NorgA	mg/l	45	75 (Max.)
7	Free Ammonia as NH ₃	APHA 24th edition 4500 NH3F	mg/l	1.5	4 (Max.)
8	Dissolved Phosphates as P	APHA 24th edition 4500-PD	mg/l	1.6	5 (Max.)
9	Nitrate Nitrogen as NO3-N	APHA 24th edition 4500-N03D	mg/l	4.9	20 (Max.)

Note: BDL: Below Detection Limit. Minimum Detection Limit of Oil & Grease .. 2.0 mg/l, NH3 .. 0.1mg/l.

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

TC-12347

Parameter Tested:

pH, TSS, O & G, F.

NH3-N, TKN, NH3, P, N

(J.Das)

Dy.Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT:-

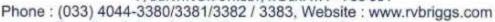
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CIN: U51109WB1931PTC007007

TEST REPORT

	Issue Date: 25 September 2	025	Page 1 of
:	M/s. PARADEEP PHOSPH.	ATE LIMITED.	
	Paradeep, Odisha		
:	Effluent		
:	E(D)/25-26/1116A		
stries/Site : Paradeep Phosphate Limited			
	Paradeep, Odisha		
:	Strom Drain - 1, At Zero Point		
:	22.09.2025 at 12:45 P.M.		
:	Mr. S.Roy		
:	RVB/FM/45		
:	22.09.2025	Parameter Teste	ed:
1	25.09.2025	H, TSS, O & G, F, NH3-N, TI	KN, NH3, P, N
:	APHA 24th Edition 1060		
:	Grab		
3	Temperature: 28.5°C, Transported	in Ice box, Cold chair	maintained
֡֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜		: M/s. PARADEEP PHOSPH. Paradeep, Odisha : Effluent : E(D)/25-26/1116A : Paradeep Phosphate Limited Paradeep, Odisha : Strom Drain - 1, At Zero Point : 22.09.2025 at 12:45 P.M. : Mr. S.Roy : RVB/FM/45 : 22.09.2025 : 25.09.2025 : APHA 24th Edition 1060 : Grab	: M/s. PARADEEP PHOSPHATE LIMITED. Paradeep, Odisha : Effluent : E(D)/25-26/1116A : Paradeep Phosphate Limited Paradeep, Odisha : Strom Drain - 1, At Zero Point : 22.09.2025 at 12:45 P.M. : Mr. S.Roy : RVB/FM/45 : 22.09.2025 Parameter Teste : 25.09.2025 Ph. TSS, 0 & G, F, NH3-N, TI : APHA 24th Edition 1060 : Grab

TEST FINDINGS:

SI. No.	Test Parameters	Test Method	Unit	Results
1	pH Value	APHA 24th edition-4500H+B		7.50
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	40
3	Oil & Grease (O & G)	APHA 24th edition 5520B	mg/l	< 2
4	Fluoride as F	APHA 24th edition 4500 F-C	mg/l	1.30
5	Ammoniacal Nitrogen as NH ₃ -N	APHA 24th edition 4500 NH3F	mg/l	26.7
6	Total Kjeldahl Nitrogen (TKN) as N	APHA 24th edition 4500-NorgA	mg/l	32
7	Free Ammonia as NH ₃	APHA 24th edition 4500 NH3F	mg/l	2.0
8	Nitrate Nitrogen as NO ₃ -N	APHA 24th edition 4500-N03D	mg/l	3.5
9	Dissolved Phosphates as P	APHA 24th edition 4500-PD	mg/l	3.20
10	Chemical Oxygen Demand (COD)	APHA 24th edition 5220B	mg/l	17
11	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	I.S. 3025 (Part - 44) - 2023	mg/I	5.4

Note: Minimum Detection Limit of O & G .. 2 mg/l.

Report Verified by

Reviewed & Authorised by

Dy.Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.



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CIN: U51109WB1931PTC007007

TEST REPORT

Issued to : M/s. PARADEEP PHOSPHATE LIMITED

Paradeep, Odisha

Description of Sample : Effluent

Sample ID No : E(D)/25-26/1116

Name of Industries/Site : Paradeep Phosphate Limited

Paradeep, Odisha

Collection Source : STP Outlet

Sample Drawn by us on : 20.09.2025 at 3:25 P.M.

Sample Carried out by : Mr. S.Roy
Sampling Plan : RVB/FM/45
Analysis Started on : 22.09.2025

Analysis Completed on : 25.09.2025

Sample collection Procedure : APHA 24th Edition 1060 Mode of Sampling : Grab

Environmental condition during sampling: Temperature: 30°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1	pH Value	APHA 24th edition-4500H+B		7.02	6.5 - 9.0
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	41	< 100
3	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	I.S. 3025 (Part - 44) - 2023	mg/l	6.6	< 30

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

Parameter Tested:

pH, TSS, BOD

(J.Das)

Dy.Technical Manager

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No.E(D)/25-26/1116 Issue Date: 26 September 2025 Page 2 of 2

Issued to : M/s. PARADEEP PHOSPHATE LIMITED

Paradeep, Odisha

Description of Sample : Effluent

Sample ID No : E(D)/25-26/1116

Name of Industries/Site : Paradeep Phosphate Limited

Paradeep, Odisha

Collection Source : STP Outlet

Sample Drawn by us on : 20.09.2025 at 3:25 P.M.

Sample Carried out by : Mr. S.Roy
Sampling Plan : RVB/FM/45
Analysis Started on : 22.09.2025
Analysis completed on : 26.09.2025

Sample collection Procedure : APHA 24th Edition 1060

Mode of Sampling : Grab

Environmental condition during sampling: Temperature: 30°C, Transported in Ice box, Cold chain maintained

MICROBIOLOGICAL TEST FINDINGS:

SI. No.	Test Parameters	Test Method	Unit	Results	Norms prescribed by Paradeep Phosphate Ltd., Paradeep, Odisha
1	Faecal Coliform	APHA 24th edition 9221E	MPN/ 100 ml	63	< 1000

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

(Pijush Kanti Dutta)

Parameter Tested:

Microbiological: Faccal Coliform

TC-12347

Sr. Microbiologist

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007

TEST REPORT

Page 1 of 1 Certificate No. AP-SL/25-26/0952A/0955A/01 Issue Date: September 24, 2025 : M/S. PARADEEP PHOSPHATES LIMITED Issued to Address : Paradeep, Odisha, Your P.O. Ref. no. : 5500008829, dtd. 29.07.2025 Equipment used: : Sound Level Monitoring Description of Sample Sound Level Meter : AP-SL/25-26/0952A-0955A Sample ID No. ID No.: RVB/SLM/07 : M/S. PARADEEP PHOSPHATES LIMITED Name of Industry / Site (Cal. Validity: 07.05.2026) : Paradeep, Odisha. Parameters Tested : LMas & : RVB/FM/45 Sampling Plan: : Mr. P.P. Monal Sampling Carried out by

Date of Monitoring : 16.09.2025 - 19.09.2025 Test Method : IS 4758 : 1968

A. SOUND LEVEL MONITORING A

SI.	Sample ID	Locations	Day Ti	me (06.0	0 A.M to	10.00 P.M)	Night T	ime (10.	00 P.M t	o 06.00 A.M)	
No	No.		Sound	Sound Level in dB(A)		Norms as per	Sound Level in dB(A)			Norms as per	
				L _{Min}	L _{Max}	L _{eq}	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Industrial area	L _{Min}	L _{Max}	L _{eq}	Environmental Protection Act 1985, rule 3(1) and 4 (1) for Industrial area
1.	AP-SL/25- 26/0952	Near AAQMS -	54.9	58.2	56.3		45.9	49.3	47.7		
2	AP-SL/25- 26/0953	Near AAQMS -	54.8	59.8	57.4	75 dB(A)	46.5	52.3	50.2	70 dB(A)	
3	AP-SL/25- 26/0954	Near AAQMS - 2	50.8	53.6	52.2		43.9	47.3	45.6		

B. SOUND LEVEL MONITORING AT AMBIENT LOCATION: RESIDENTIAL AREA

SI.	Date of	Locations	Day Time (06.00 A.M to 10.00 P.M)			Night Time (10.00 P.M to 06.00 A.M)				
No Monitoring	100,000,000,000,000	Counta Ect of in ability		Norms as per	Sound Level in dB(A)			Norms as per		
			L _{Min}	L _{Max}	L _{eq}	Protection Act 1986, rule 3(1) and 4 (1) for Residential area	L _{Min}	L _{Max}	L _{eq}	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Residential area
1.	AP-SL/25- 26/0955	Near AAQMS -	47.4	53.8	54.2	55 dB(A)	40.7	44.8	43.1	45 dB(A)

Note: - Leg - Equivalent sound energy.

Report Verified by

SH

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-SL/25-26/0956/0962/01 A Issue Date : September 24, 2025 Page 1 of 1

Issued to : M/S. PARADEEP PHOSPHATES LIMITED

Address : Paradeep, Odisha.

Your W.O. Ref. no. : 5500008829, dtd. 29.07.2025

Description of Sample : Sound Level Monitoring

Sample ID No. : AP-SL/25-26/00956-0962 A

Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED

Paradeep, Odisha.

Sampling Plan : : RVB/FM/45 Sampling Carried out by : Mr.P.P. Mondal

Date of Monitoring : 16.09.2025-19.09.2025

Equipment used:

TC-12347

Sound Level Meter ID No.: RVB/SLM/07

(Cal. Validity: 07.05.2026)

Parameters Tested : L_{Min}, L_{Max} & L_{mg} Test Method : IS 4758 : 1968

SOUND	LEVEL	MONI	TORING	:

AP-SL/25-26/0956 A	Danilla Carl		L _{Min}	L _{Max}	Leq	Workers as per The Noise Pollution (Regulation And
AP-SL/25-26/0956 A	Deceles Canton					Control) Rules, 2000
	Bagging Section	11:00 A.M 11:05 A.M.	65.4	66.7	66.0	
AP-SL/25-26/0957 A	SAP Plant	10:20 A.M 10:25 A.M.	53.9	56.0	55.0	
AP-SL/25-26/0958 A	PAP Plant	10:40 A.M 10:45 A.M.	58.2	59.9	59.0	
AP-SL/25-26/0959 A	DAP- AB Side	11:00 A.M 11:05 A.M.	60.8	62.8	62.0	90 dB(A)
AP-SL/25-26/0960 A	DAP - CD Side	11:10 A.M 11:15 A.M.	59.1	61.0	60.0	
AP-SL/25-26/0961 A	Zypmite Plant	04:20 P.M 04:25 P.M.	67.4	68.7	68.0	
AP-SL/25-26/0962 A	Off Side	10:30 A.M 10:35 A.M.	54.0	56.0	55.0]
10000	AP-SL/25-26/0959 A AP-SL/25-26/0960 A AP-SL/25-26/0961 A	AP-SL/25-26/0959 A DAP- AB Side AP-SL/25-26/0960 A DAP - CD Side AP-SL/25-26/0961 A Zypmite Plant	AP-SL/25-26/0959 A DAP- AB Side 11:00 A.M 11:05 A.M. AP-SL/25-26/0960 A DAP - CD Side 11:10 A.M 11:15 A.M. AP-SL/25-26/0961 A Zypmite Plant 04:20 P.M 04:25 P.M.	AP-SL/25-26/0959 A DAP- AB Side 11:00 A.M 11:05 A.M. 60.8 AP-SL/25-26/0960 A DAP - CD Side 11:10 A.M 11:15 A.M. 59.1 AP-SL/25-26/0961 A Zypmite Plant 04:20 P.M 04:25 P.M. 67.4	AP-SL/25-26/0959 A DAP- AB Side 11:00 A.M 11:05 A.M. 60.8 62.8 AP-SL/25-26/0960 A DAP - CD Side 11:10 A.M 11:15 A.M. 59.1 61.0 AP-SL/25-26/0961 A Zypmite Plant 04:20 P.M 04:25 P.M. 67.4 68.7	AP-SL/25-26/0959 A DAP- AB Side 11:00 A.M 11:05 A.M. 60.8 62.8 62.0 AP-SL/25-26/0960 A DAP - CD Side 11:10 A.M 11:15 A.M. 59.1 61.0 60.0 AP-SL/25-26/0961 A Zypmite Plant 04:20 P.M 04:25 P.M. 67.4 68.7 68.0

Note: - L ... - Equivalent sound energy.

Report Verified by

ort Verified by

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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The test report shall not be reproduced, except in full, without written approval of the Company.

Annexure-1

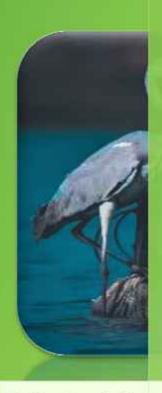
	ULPHUR MUCK (April	
MONTH	GENERATION (MT)	UTILISATION (MT)
April	159	159
May	120	120
June	187	187
July	185	185
August	105	105
Sepember	186	186

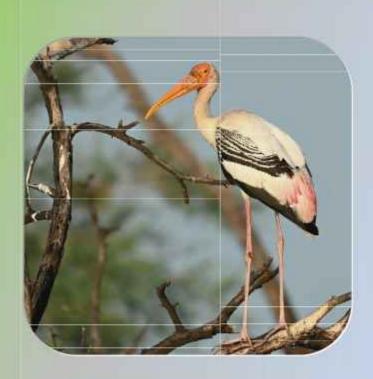
PARADEEP PHOSPHATES LTD.

BIOASSAY TOXICITY STUDIES (Treated Effluent Stream and Storm Water Drains)

2025







Submitted By: -SIMA LABS PVT.LTD.

A-3/7, Mayapuri Industrial Area, Phase-II, New Delhi-110064

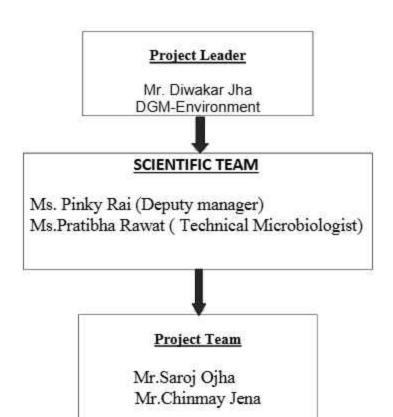
FOREWORD

In the present scenario, due to Industrialization & Urbanization have mainly contributed to the economic growth of the develop in ignitions like India to cater the needs of the population. Production and productivity has been given importance for economic growth of the nation which has exerted tremendous pressure on the environment, on all its wings-air, water, and land. But the pressure should not be so high that it will break the resilience capacity of the environment. Water environment is the most affected and exploited among all the environments. While granting environmental clearance keeping above reasons in mind & to regulate the load keep the resilience capacity under control Union Government has framed some environmental Acts & Rules Ministry of Environment & Forests lays down certain conditions for compliance at the time of grant in the environmental clearances for the projects Ministry of Environment & Forest vide their environmental clearance no11011/17/86-IA-IIdt. 23.7.1990 for Phase-II expansion has directed PPL to comply to 22no'sofspecific conditions incorporated in the environmental Clearance and out of 22 no's .of specific conditions "Routine toxic city bio-assay based on the effluent with fish and fish food organisms must be carried out at least once in a year".

As a renowned & responsible corporate house M/s PPL know how to execute their responsibility towards the society & environment. In order to fulfill the commitment towards the conservation of environment & aquatic resources, M/s PPL have decided to carry out the Bio-Assay Toxicity Study. Accordingly M/s PPL entrusted M/s SIMA LABS PVT.LTD.NEW DELHI A NABL accredited lab an empanelled from MOEF to carry out the test .M/s SIMA Labs Pvt. Ltd. has deputed their technical& scientific team for conducting the study from 06th August to 08th August 2025. The study was carried out as per standard methods and practices and wear sure, the findings of the study in corporate in this report will undoubtedly help PPL in augmenting their planning for treatment of effluent, its monitoring, disposal and its management.

DGM- Environment

PROJECT PERSONNEL



1. Introduction:

Phosphates Limited an OHSAS:18001, ISO Paradeep 14001:2004 and ISO 9001:2008 certified company, situated at Paradeep in Jagatsingpur District of Odisha and was established in1982 to manufacture 2400 TPDDi-ammonium Phosphate(DAP) consisting of four streams each of 600 TPD capacity under phase-I program me. The commercial production started in the year 1986. The fertilizer complex is using imported Sulphur and Rock phosphate to produce Phosphoric acid. The captive production of Phosphoric acid partly caters the requirement for production of DAP through 4 streams of DAP/NPK, Remaining requirement of Phosphoric acids met through imports. The requirement of Ammonia is through imports. Phase II plants comprising of a 750 TPD Phosphoric Acid Plant (PAP), 2x1000 MTPD Sulfuric Acid Plant (SAP) and a 2 x 16 MW Captive Power Plant (CPP) were commissioned in 1992. Subsequently in the year 2010 the capacity of DAP plant, SAP and PAP was enhanced to 5000TPD, 2400TPD and 1400TPD respectively after getting the environmental clearance from MoEF, New Delhi. In January, 2016 SAP-C stream of capacity 2000MTPD and byproduct power generation of 23 MW was commissioned. PAP-2 is commissioned in 23rd August, 2023. Besides, M/s PPL has developed a product Zypmite which is admixture of Phospho gypsum and basic slag by product of steel industry.

The project was setup during the year 2010 with a capacity of 240TPD and commissioned in the year 2012. The basic raw materials are Rock Phosphates, Sulphur and Ammonia are imported and Phosphoric acid & Sulphuric Acid are manufactured indigenously. Although, the entire DAP manufacturing plant along with SAP and PAP has been conceived on zero effluent concept; occasional over flows, leakages and floor washings come out of the plant battery limits as effluent that needs proper treatment before its final discharge. The plant to its credit has a well built modern Effluent Treatment Plant (ETP) in which the effluent is being treated and then recycled to BAL mill in PAP or released out in the event of stoppage of PAP and conforming to the prescribed norms of Odisha State Pollution Control Board. At the behest of PPL, M/s SIMA Labs, New Delhi carried out in-situ toxicity tests at various points of the water streams. The Bio-assay test was carried out in 06th August to 08th August2025 with fresh water fishes locally available and with fishes from the Atharbanki river and local pond. Range finding Bio-assay (RFB), Static Bio-assay and In-situ Bio-assay was carried out at storm drains 1. storm water drain near zero point.

1.2 Project Setting

Paradeep Phosphates Limited is located in Kujang Tehsil of Jagatsinghpur District. The project site is situated at 20016'45.54" North latitude and 860 38' 43.7" East longitude and about 50 km from the Jagatsinghpur town. On the East of PPL, Paradeep port is situated.

This site is situate dinar emote area on the coast of Bay of Bengal and is mainly low lying area with a few creeks, sand dunes subjected to submersion of high tides. Paradeep Phosphates Limited is spreade over on an area of about 2284 Acres with Phosphatic fertilizer complex, township and gypsum storage ponds. It is one of the largest complex fertilizer plants in the country and produces Di-Ammonium Phosphate, NPK fertilizers as its final product with intermediate products like Sulfuric acid and Phosphoric acid. Mahanadi River is flowing at a distance of about 5km from the project site and meets Bay of Bengal which is about 3km away from the site.Athar Banki River is flowing along the boundary wall of the site and is between Paradeep port and plant site. Study area of the project site is shown in Fig.1.1. The mean sea level of the site is 0.6m to 3 m. Paradeep area is very much pronet of request and severe cyclonic storms and very windy during most of the times of the year. The average annual rainfall is 1500 mm most of which falls during June to September. Paradeep weather is highly humid due to the influence of the sea. The mean relative humidity varies from 75%to85% and the average wind speed varies from 12 to 70 Kmph.

The maximum temperature goes up to 40⁰C in summer while the minimum temperature is around 12⁰C in winter season. Seismically Paradeep lies in Zone III with an expected seismic intensity of VII on the modified Mercalle scale 1931, corresponding to horizontal seismic ground acceleration range of 18-140 cm/sec depending upon the ground conditions.

ETP PLANT



Guard Pond





Study Area - Fig 1.1



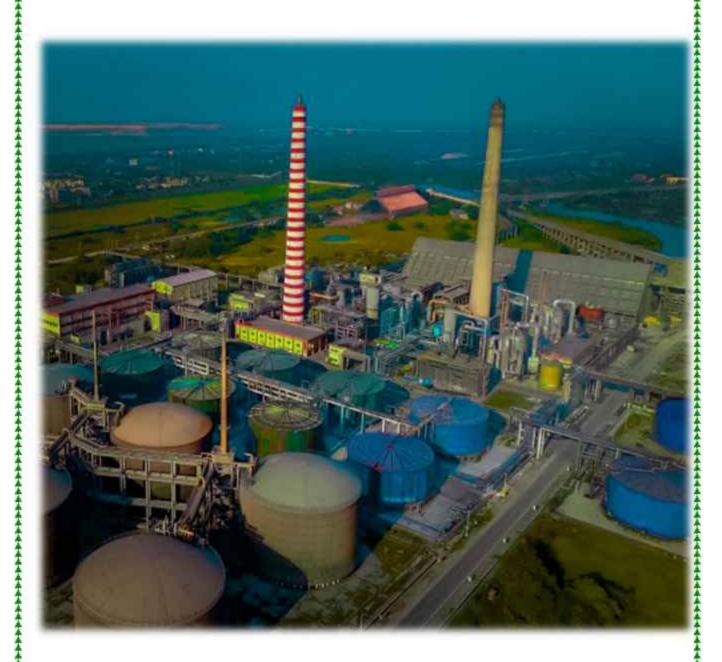
Plant at Glance

1.3 Utilities

The other offsite and support facilities include 5 x 10,000 MT atmospheric Ammonia storage tanks,6x10,000 MT Phosphoric acid storage tank,4x10,000 and 6000MT Sulphuric acid storage tanks well as 2x1500MT fuel oil tanks, bagging facilities and silos. The imported Ammonia and Phosphoric acid are pumped through pipeline from fertilizer berth of Paradeep port to storage tank. The water requirement for entire plant and colony are met from Taldanda canal, which runs from the Mahanadi barrage from Jobra of Cuttack city. The canal is situated at a distance of 4km from PPL.

Demine realization plant of capacity 3 x 120 and 2X 150 MT/hr is installed to meet requirement of CPP and sulphuric acid plant. In case of total power failure, the backup HT power is supplied through 3 MVA DG set.

Plant inside view



Report Submitted BY:SIMA LABS PVT.LTD

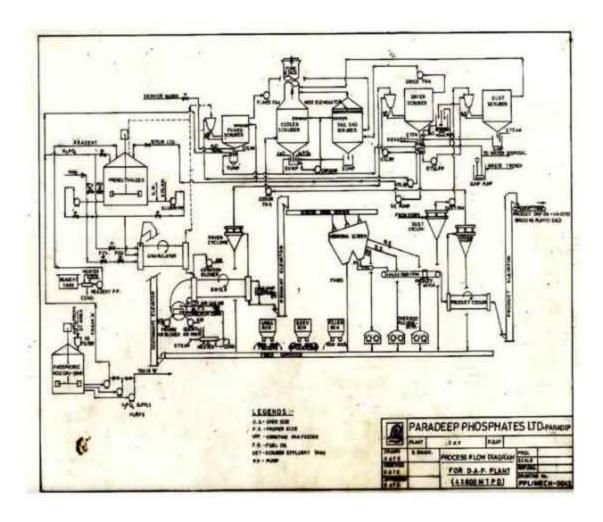
1.4 Brief Description of Manufacturing Process

1.4.1 Di-ammonium Phosphate Plant

The existing 1.9MM TPA DAP plant consist of our streams. The process is based on indigenous know how and M/s. Hindustan Dorr-Oliver Limited are the main engineering consultants for the DAP plant. The main raw materials used for production of DAP/NPK are Phosphoric acid, Ammonia, Sulphuric acid, MO Pand filler.

Phosphoric acid and Ammonia are pumped from storage tanks to pre neutralizer where they react with each other to a Amoleratioo f1.45 and a slurry of DAP and Mono ammonium Phosphate (MAP) are formed with about 80% solids. This slurry is again pumped to a rotary granulator where it is further ammoniated to convert MAP portion to DAP with amoleratioo f1.7to1.8.Wet DAP granules are then dried up by a counter current stream of hot air in arotarydryer. The dried up granules are screened for size separation in a double-deck vibrating screen. The fines and crushed oversize fraction of DAP is recycled back to granulator and the proper size material is coole dina product cooler. The cooled product is conveyed either to product silo(75000MTcapacity) for storage or to bagging plant for dispatch. The flow diagram of the process is shown in **Fig. 1.2**.

MANUFACTURING PROCESS FLOW DIAGRAM OFDAP PLANT

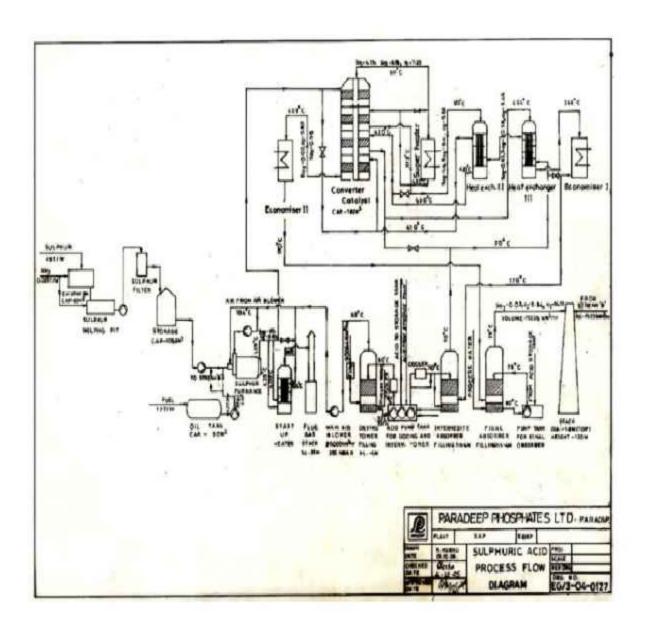


1.4.2 Sulphuric Acid Plant

Sulphuric acid plant consists of two streams, each of 1200 TPD capacity and one stream of 2000 MTPD .The plant is based on most modern Double Contact Double Absorption (DCDA) process. The engineering consultants were M/s. Lurgi Gmbh of Germany along with M/s. FACT Engineering and Design Organization (FEDO) as Indian Associate. The raw material for the Sulphuric acid plant is elemental sulphur which is imported and is transported to the Sulphur Silo. Sulphuris melted in a melting pit by means of heating coils fed with steam. The molten Sulphur is fed to the Sulphur burner where complete combustion of Sulphur takes place giving rise to SO2 The heat of combustion is withdrawn by means of a waste heat boiler where saturated steam of approximately 46 bar is generated. The gas, cooled to a temperature of 420°C, is fed to a converter having 4 catalyst beds. The final gas of 4thcatalyst bed, after getting cooled to a temperature of 170°C in an economizer, enters the final absorber where the SO3 is absorbed by 98.5% sulphuric acid. The remaining gas from the absorber passes through high efficiency filters located in the upper section of the absorber to eliminate spray acid mist.

The acid concentration in both the intermediate and final absorber is maintained by the addition of process water. The flow diagram of sulphuric acid process is shown in **Fig. 1.3**.

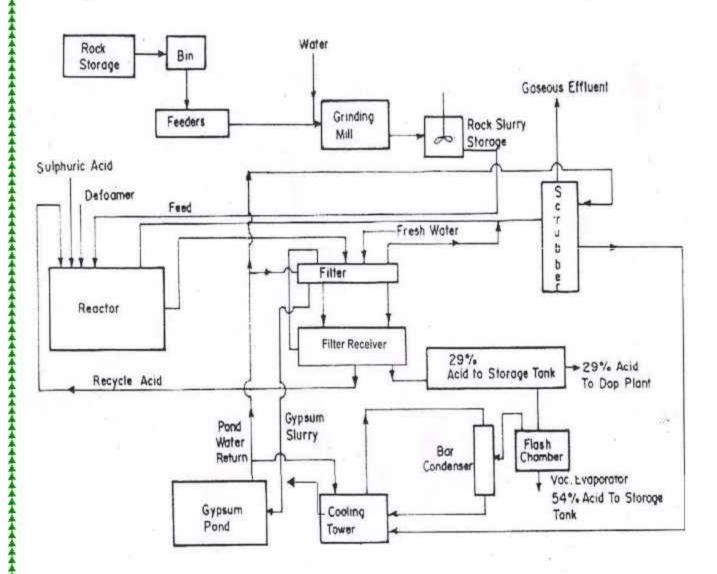
MANUFACTTURING PROCESS FLOW DIAGRAM OF SULPHURIC ACID PLANT



1.4.3 Phosphoric Acid Plant

The 1400 TPD single stream Phosphoric acid plant is based on foreign know how. The 600 TPD second stream Phosphoric acid plant is based on dry grinding principle. The engineering consultants are M/s. Jacobs International Inc. of Florida USA along with M/s. Hindustan Dorr- Oliver Ltd., Bombay as Indian counterpart. Rock phosphate is fed to a ball mill by an extractor weigher and wet grinding slurry of 65-75% solids is prepared. The slurry is fed to are actor where Sulphuric acid with 70-80% concentration and recycle Phosphoric acid is added. The reactor slurry proceeds through the reactor sections and under flows in to the vacuum cooler feed compartment and from where the slurry is pumped to vacuum cooler where degassing takes place. Defoamer is added to the reactor to in hi bit the formation of froth/foam. The slurry from vacuum cooler is pumped to a filter where Phosphoric acid is separated from gypsum. The cake in the filter is given four successive washings by filtrates of 12%P2O5,5%P2O5,heated pond water and a final wash respectively. The dewatered cake is removed after final wash, then the cake is made slurry and pumped to the Gypsum pond. The Phosphoric acid plant has a provision of concentration unit of capacity300MT/day for concentrating 29% dilute acid to52%with the use of evaporators. Normally 54% imported acid will be blended. With 29% acid for direct use in DAP plant. The flow diagram of Phosphoric acid process is shown inFig1.5.

FLOW DIAGRAM OF PHOSPHORIC ACID PLANT-I



The layout plan of the Phosphoric Fertilizer Complex is depicted in Fig.1.5.

2. SAMPLING POINTS

All the effluents from Sulphuric Acid Plant Port Operation & Off-sites are recycled to Phosphoric acid plant .Only surface runoff water is being collected at pond and pumped to ETP for treatment and after treatment the same treated effluent is being reused at PAP. There is no discharge from guard pond and through storm drain -2 .The only discharge point of the plant is "Inside the Storm Water Drain at Near Zero Point (Location1, asL1)"running at the eastern side of the plant near Zero Point. Sample is collected from the pre-determined point and analyzed for physic co – chemical parameters in SIMA Labs Pvt.Ltd. to monitor the water quality during observation Period. The analysis results are given in table – 2.

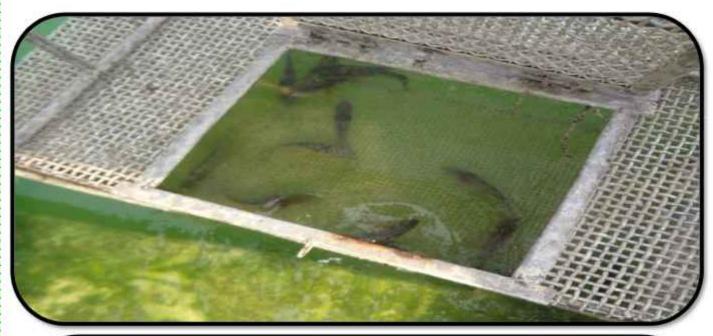
3. IMPACT OF STUDIES

Three types of investigations were made to evaluate the toxic conditions.

3.1 Range of Bioassay

To find out the concentration at which fish mortality occur, Range Finding Bio-assay (RFB) was carried out in the effluents sample collected by team from M/s SIMA Lab, Bhubaneswar on **06.08.2025**The Range finding Bioassay results are presented in **Table-I** for **Storm Drain-I& II (L1& L2)** using fresh water fishes and estuarine fishes available in Athar Banki creek.

Cage for Bio-assay study





Status during study period

Table 1

Bioassay Test Result for Sample Location L1& L2

Time Period of Testing (Hrs)	Location Identification							
	ı	.1	L2					
	Nos. OF Dead Fish	%oF Dead Fish	Nos. OF Dead Fish	%oF Dead Fish				
6	-	_	-	-				
12		Ξ	=	2				
24)=	-	_	-				
48	-	=	=	=				
72	-	-	=	2				
96	3	3	3	3				

Water Sampling from Storm Drain 1

(Location)-L-1



Water Sampling from Storm Drain 2

(Location)-L-2



Report Submitted BY:SIMA LABS PVT.LTD

Diwakar Illu Anchul Supta

G.M Technical Environment

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Se de sing charges will be applicable às unes the results and expressible.
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Sophisticated Industrial Materials Analytic Labs Pvt. Ltd.

(GOVT, APPROVED TESTING LABORATORIES)

A-3/7, Mayapuri Industrial Area, Ph-II, New Delhi - 110064 Address :

+(91)-(011) 43854300 Email reports@simalab.com CIN No. U74899DL1988PTC031785

Website: www.simalab.net | www.simalab.com



TEST REPORT

Party Code *issued to

*Sample Name

: P/ODH/043

Paradeep Phosphates Limited

: Strom Drain Water (Near Zero Point)

REPORT NO.

: SN0814000325

290:24'2

Fose: 24'2 355 88

1025

"Customer Ref No. *Reference Date

: NS : NS

Plant-PPL Township, Paradeep-754175, Odisha . . Date of Sampling Date of Received

: 06/08/2025 : 14/08/2025 : 22/08/2025

Date of Issue Start Date of Analysis

: 14/08/2025 : 22/08/2025

Date of Completion Environmental Condition

: 25±2*C,RH 50±15%

Sample Condition *Sample Qty.

: OK : 1 Ltr.

SOP/Sampling Plan

: SIMA/ENV/SOP/024

Test Method Deviation : NA Sample Collection

: Sample Collected By Us

RESULTS OF ANALYSIS

Reference : EP Act Standards

40.01-	le Description One Strom Drain Water sa	A STATE OF THE PARTY OF THE PAR	CONTRACTOR AND PROPERTY OF THE PERSON		
3.NO.	Test Parameters	Units	Results	Method	Detection Limit
Che	mical Parameter	111	Challill Top		
1	pH	NA	7.33	15:3025 (P-11)	NA.
2	Total Suspended Solids	mg/L	<20	IS:3025 (P-17)	NA
3.	Total Dissolved Solids	mg/L	132	IS:3025 (P-16)	NA.
4.	Chemical Oxygen Demand	mg/L	8	IS:3025 (P-58)	NA.
5.	Biochemical Oxygen Demand (3 days at 27°C)	mg/L	≪0	IS:3025 (P-44)	NA NA
6.	Dissolved Phosphate (as PO4)	mg/L	0.53	IS:3025 (P-31)	NA.
Y.,	Sulphate (as SO4)	mg/L	18.8	IS:3025 (P-24)	NA.
В	Chloride (as Cl)	mg/L	17.6	IS:3025 (P-32)	NA:
9.	Fluoride (ws F)	mg/L	BOL.	APHA-4500 F-D	0.06
10.	Nitrate	mg/L	0.36	IS:3025 (P-34)	NA.
11.	Total Hardness (as CaCO3)	mg/L	75.2	IS:3025 (P-21)	NA.
2	Total Alkalinity (as CeCO3)	mg/L	62.1	IS:3025 (P-23)	NA.

(A) who

Anshul Gupta Reviewed By Diecel

Diwakar Jha

G.M Technical Environment

Authorized Signatory

This Test Report is not valid without a hologram.

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Lesions of recommon assigned to the invesced amount only. Any dispute acting out of the report afset the suspect to Davis amendation any particles are prior as a second of the point as and to be emproposed or many or in part as evidence in the Coast of the wholest estimate permission from BIMA Labs Pvt. Ltd.

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The sample(e) of Oruge & Committee will be destroyed after any year, Polishistics surpples (Other than Druge & Committee) will be destroyed after 7 days and range polishistic samples will be destroyed after 30 days of fire drive of its assist of Test poor or unknown otherwise appealant.

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SBAN Laber Pvt. Ltd. will ensure all correction action on per our policy in deen of any discrept.
 Re-latting charges will be explication in case the results are reproduction.
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SIMA LABS

Sophisticated Industrial Materials
Analytic Labs Pvt. Ltd.

(GOVT. APPROVED TESTING LABORATORIES)

Address : A-3/7, May Ph-II, New

Phone : +(91)-(01' Email : reports@: CIN No : U74899D

Website: www.sima



TEST REPORT

Party	Code : P/ODH/043		REPORT N
S.No.	Test Parameters	Units	Results
13.	Electrical Conductivity (as 25°C)	μS/cm	203
14.	Turbidity	NTU	<1.0
15.	Dissolved Oxygen (as DO)	mg/L	4.6
16.	Ammonical Nitrogen (as N)	mg/L	BDL
17.	Iron (as Fe)	mg/L	0.347
Toxic	c Substance		
18.	Total Chromium (as Cr)	mg/L	BLQ

NA- Not Applicable, BDL- Below Detection Limit, BLQ- Below Limit of Quantification, LOQ- Limit of Note: Customer asked for the above tests only. The above tested parameters meets the require --- End of Test Report ---



<u>^</u>



SIMA LABS

Sophisticated Industrial Materials Analytic Labs Pvt. Ltd.

(GOVT. APPROVED TESTING LABORATORIES)

Address : A-3/7, May Ph-II, New

Phone : +(91)-(011 Email : reports@s

CIN No : U74899DI Website : www.sima



TEST REPORT

Party Code *Issued to : P/ODH/043

Paradeep Phosphates Limited

REPORT N

*Customer

Plant-PPL Township, Paradeep-754175, Odisha . .

*Reference Date of San

Date of Rec

Date of Issu

Start Date c

Date of Con

*Sample Name : Strom Drain Water (Near Time Office)

Environmer Sample Cor

*Sample Qt

SOP/Sampl

Test Method

Sample Col

RESULTS OF ANALYSIS

Reference : EP Act Standards

S.No.	Test Parameters	Units	Results
Che	mical Parameter		
1.	pH	NA	7.35
2.	Total Suspended Solids	mg/L	<2.0
3.	Total Dissolved Solids	mg/L	127
4.	Chemical Oxygen Demand	mg/L	<5
5.	Biochemical Oxygen Demand (3 days at 27°C)	mg/L	<2.0
6.	Dissolved Phosphate (as PO4)	mg/L	0.46
7.	Sulphate (as SO4)	mg/L	16.6

Bio Assay & Toxicity Studies of Paradeen Phosphates Ltd. 2025

SIMA LABS

-(91)-(011) A3854300

Sophisticated Industri

Ph-II, New Delhi - 110064 +(91)-(011) 43854300 reports@simalab.com Email CIN No : U74899DL1988PTC631785

Sophisticated Industrial Materials Analytic Labs Pvt. Ltd. (GOVE APPROVED TESTING LABORATORIES)

Website: www.simalab.net! www.simalab.com



TEST REPORT

Code : P/ODH/043	REPORT NO. : 5N08140004			
Test Parameters	Units	Results	Method	Detection
Electrical Conductivity (as 25°C)	µS/cm	195	IS:3025 (P-14)	NA NA
Turbidity	NTU	<1.0	IS:3025 (P-10)	NA
Dissolved Oxygen (as DO)	mg/L.	4.0	IS:3025 (P-38)	NA.
Ammonical Nitrogen (as N)	mg/L	BDL	IS:3025 (P-34)	1.0
Iron (as Fe)	mg/L	0.321	IS:3025 (P-2)	NA.
c Substance	- 2			- 01
Total Chromium (as Cr)	mg/t.	BLQ	IS:3025 (P-2)	LOQ (0.02)
֡֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜	Test Parameters Electrical Conductivity (an 25°C) Turbidity Dissolved Oxygen (as DO) Ammonical Nitrogen (as N) Iron (as Fe) c Substance	Test Parameters Units Electrical Conductivity (as 25°C) µS/cm Turbidity Dissolved Oxygen (as DO) mg/L Ammonical Nitrogen (as N) mg/L Iron (as Fe) mg/L c Substance	Test Parameters	Test Parameters

Note: - Customer asked for the above tests only. The above tested parameters meets the requirement of EP Act Standard.

- End of Test Report -



Anshul Gupta

Reviewed By

Authorized Signatory

Diwakar Jha

G.M Technical Environment

2. The Results Issued refer only to the above tested earstie & appl

The flessuits issued retire city to the discrete sergie & applicable parameters. Emboreatrant of products is nestine retired or the enumeration of products as nestined as the enumeration of the displacement of the product of the enumeration of the displacement of th

7. SIMA Labb PM. List: will not be held responsible for the authenticity of any photocopies, in the service and or partially presented test reports.

8. SIMA Labb PM. List: will sensure all conscilive action as port our policy in case of any discrepancy in any sensor behalf by SIMA Labb 5.

8. The leading charges will be applicable in cess the results are reproductible.

10. Custodate carry will be issued on inharpeatine bases.

11. SIMA Stands for Supreducted instantive Materials Analytic.

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land-ories deltain provides by the concorner

3.2 In-situ Bio-assay Toxicity Test

In-situ toxi city tests were carried out in pre-fabricated stainless steel cages (70cmx40cmx40cm) provided with inside lining of 2mm nylon mesh. The cages were allowed to dip into the channel by suspending them from the sides with the help of two nylon ropes. Two points of observation, (L1&L2)Storm Drain-1& 2selected for detailed study from 06.08.2025 -08.08.2025.



Cage for Bio-assay study

Bio Assay & Toxicity Studies of Paradeep Phosphates Ltd. 2025

The tests were carried out at the above points with test species collected from Atharbanki Creek & Shyamkoti Creek and fresh water ponds. After proper conditioning observation on fish mortality were recorded at six hourly intervals with fresh water fishes and common fishes. The observations on fish mortality are presented below 50 numbers of fresh water fish species and estuarine species were kept in the cages for observations on mortality. These tests were carried out on 4 species of fresh water fishes and 4 estuarine species and one prawn species. The test fishes were collected from local ponds (fresh water fish) and Atharbanki River (Estuarine fish). The following fish species were selected for the *in-situ* toxicity tests.

Table-3
Aquatic Species Distribution

SI. No.	Species	L1	L2
1	Gong Tengra(Kantia)	08	08
2	Gadisha	10	10
3	Catfish(Magur)	05	05
4	Prawn	07	07
5	Singhi	06	06
6	Bami fish(Todi)	05	05
7	Kau	07	07
8	Seula	02	02
Total		50	50

Table-4 LT50 / LT100

Sl. No.	Fish Species	L1		L2	
		LT50	LT100	LT50	LT100
1	Gadisha	90 hr	96 hr	90 hr	96 hr
2	GongTengra(Kantia)	90 hr	96 hr	90 hr	96 hr
3	Catfish(Magur)	96 hr	96 hr	96 hr	96 hr
4	Prawn	90 hr	96 hr	90 hr	96 hr
5	Singhi	96 hr	96 hr	96 hr	96 hr
6	Bami fish(Todi)	96 hr	96 hr	96 hr	96 hr
7	Kau	96 hr	96 hr	96 hr	96 hr
8	Seula	90 hr	96 hr	90 hr	96 hr
J					

Note: LT 50 & LT 100:- Time at which 50% and 100%mortality occurs.

The results suggest that the treated effluent in Guard pond and the water in storm water drains don't show any perceptible toxic effect on fish species mentioned above available in the creek.

Bio Assay & Toxicity Studies of Paradeep Phosphates Ltd. 2025

OXYGEN BALANCE IN THE EFFLUENT

Table - 5

DISSOLVE OXYGEN CONTENT IN WASTE WATER

Date	I	.2	L	1
	Day	Night	Day	Night
06.08.2025	4.4	5.2	4.6	5.2
07.08.2025	5.3	5.9	5.3	5.9
08.08.2025	4.7	6.2	4.7	6.2

The variations in the concentration of dissolved oxygen in the storm water drains and the guard pond during morning hours and evening hours do not indicate any anoxic conditions. Three days observations on dissolved oxygen at point L1& L2is given above.

3.3 Static Bio-assay

Static Bio-assay tests were carried out with the water from the guard pond; storm water drains in three nos. of Aquarium of 20 liters capacity. Local fish species were taken for the test .Samples were collected from the three points L1& L2 mentioned above. The studies reveal that under static conditions the water does not have any effect on fresh water fishes as shown in the **Table – 6**

Bio Assay & Toxicity Studies of Paradeep Phosphates Ltd. 2025

<u>Table</u>-6 LT50 / LT100

Sl.No.	Fish Species		L1	L2	
		LT50	LT100	LT50	LT100
1	Gadisha	90 hr	96 hr	90 hr	96 hr
2	Gong Tengra(Kantia)	96 hr	90 hr	96 hr	90 hr
3	Catfish(Magur)	96 hr	96 hr	96 hr	96 hr
4	Prawn	96 hr	90 hr	96 hr	90 hr
5	Singhi	96 hr	96 hr	96 hr	96 hr
6	Bami fish(Todi)	96 hr	96 hr	96 hr	96 hr
7	Kau	96 hr	96 hr	96 hr	96 hr
8	Seula	96 hr	96 hr	96 hr	96 hr



Cage for Bio-assay study

4.0 FISH FAUNA IN ATHARBANKI & SHYAMAKOTI CREEK

Fishing is generally carried out in the ad joining Atharbanki & Shyamkoti Creek during the morning and evening hours. The species encountered in the creek, as ascertained from the local fisherman are given in **Table – 8.**

Table-8 Mass Distribution amongst the Available Species Estuarine Fish / Saline Fish

Local Name	Scientific Name	Approx.Size Of Catch		
Gadisha	Channa punctata	50-100gm		
Gong Tengra(Kantia)	Gogatasp	30-50gm 100-200gm 05-20gm		
Catfish(Magur)	Clarias batrachus			
Bagda Chingudi	Panaeusmonodon			
Singhi	Heteropneustes Fossilis	20-50gm		
Bami fish(Todi)	Anguilla bemgalensis	20-40gm		
Kau	Anabas festitues	30-80gm		
Seula	Channa striata	150-400gm		



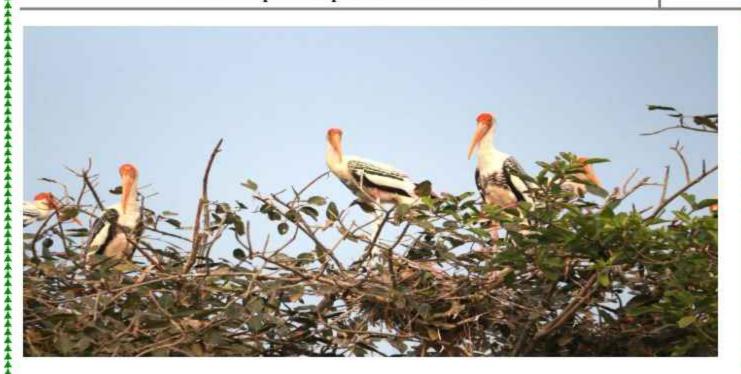
5.0 INFERENCE

The Bio-assay study carried out in the storm water drain-1&2 are found to be very much within the prescribed limit and non-toxic to the fish and fish food organisms.





Report Submitted By: SIMA LABS PVT.LTD.

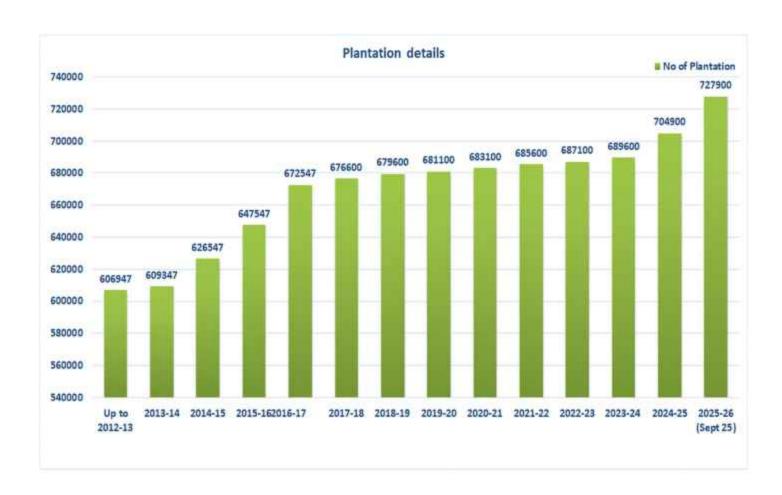




6.0 <u>ACKNOWLEDGEMET</u>

M/s SIMA Labs Pvt .Ltd. New Delhi express its deep gratitude to M/s. Paradeep Phosphates Limited for keeping faith onus & again entrusting the assignment for carrying out the Bio-Assay Toxi city Study.We thank Shri Palanisamy Vellusamy ,CMO& Unit Head, Mr. A K Tiwari ,GM (Projects) ,Mr. Anil Kumar Verma, GM(Production) ,Mr. Ambikesh Kumar Mishra ,Jt. GM(Env,Mgt) and Mr.Narayan Sahoo,Chief Manager(Env.Mgt) and Mr. Sambit Kumar Behera, Asst. Mgr (Env Mgt)for their whole hearted cooperation during the Study Period. The cooperation and hospitality extended by the other officials and staff of Paradeep Phosphates Limited is also gratefully acknowledged.

Annexure - III





Modern Test Center

CONSOLIDATED REPORT

Berhampur

Issued To: Paradeep Phosphates Limited PO: PPL Township, Paradeep Dist: Jagatsinghpur Odisha, India, Pin: 754145. Date of initiation of Test: 17/06/2025 Date of Completion of Test: 07/07/2025 ULR NO: TC531225000001854F

TO

ULR NO: TC531225000001856F

Date of receipt: 16/06/2025

TEST METHOD USED: BARC/2008/E/023

Sample submitted by PARADEEP PHOSPHATES LIMITED, ODISHA.

SAMPLE NO.	Place of Sampling	Name of the Sample	Qty in gm/Kg	Test Certificate No.	Test Requirement	Result Bq/Kg
RP-19			740gm	2113 36149	1-U-238	1 - (830.546 ± 90.675) 2 - (219.992 ± 11.428)
RP-26		ROCK	770gm	2113 36150	2- Ra-226	1- (808.239 ± 96.900) 2- (384.656 ± 15.057)
RP-29		PHOSPHATE	680gm	2113 36151		1- (828.276 ± 93.930) 2- (250.149 ± 12.911)

IMPRESSION: The measured Value of U-238 & Ra-226 are below the clearance level of radionuclides of natural origin in bulk solid materials, as per AERB directive- 01/2010(table-3) dated 26/11/2010.

PART D: REMARKS

- 1) The results stated above relates to the sample tested only.
- This report in full or in part shall not be published, advertised, used for any legal action unless prior permission has been secured from the competent Authority of the laboratory.
- 3) The sample shall be kept for three months after the test and can be returned on request on payment of transport charges or shall be destroyed. Any customer complaint or by regulatory authority shall be entertained, if and only if the complaint is registered within one month from date of report.

Signature of CIEWITH Seal Name: Rajendra Kumar Mishra Designation: Chief Executive

...... End of Report.....



ULR NO: TC531225000001854F

Modern Test Center

Accredited To ISO/IEC 17025:2017 through NABL

Berhampur

TC-5312 Office Address:-

Gandhi Nagar 5th line Extn. East,

Berhampur-760001, Dist-Ganjam (Odisha),

Visit us: www.moderntestcenter.com

Lab Address: -

Neelanchal Nagar 3rd lane,

Berhampur-760010, Dist-Ganjam (Odisha),

Phone: -0680 2403321-22

Mail: - moderntestcenter@gmail.com

Ref: -47090/MTC/LF/7.8/15/2025

DATE: 07/07/2025

TEST CERTIFICATE

Issued to: PARADEEP PHOSPHATES LIMITED

PO: PPL TOWNSHIP, PARADEEP

DIST: JAGATSINGHPUR

ODISHA, INDIA, PIN: 754145.

Customer Reference No. Nil Date: 05/05/2025

Date of Receipt: 16/06/2025

TEST CERTIFICATE NO: 2113 36149

TEST METHOD USED: BARC/2008/E/023

SAMPLE NO: RP-19

Place of Sampling: Rock Phosphate from Rock Silo

Date of Initiation of Test : 17/06/2025 Date of Completion of Test: 07/07/2025

DATE: 07/07/2025

PART A: PARTICULARS OF INFORMATION SUBMITTED BY THE CUSTOMER

Name of the Sample

Batch No./Lot No. and Date of manufacture/

Collection/Sampling (if any)

Quantity

Brand Name (if any) b)

c) Parameters of the test suggested

d) Any other information

: ROCK PHOSPHATE

: Batch No .: Not Specified

: 740 gm

: Not available

: Estimation of 238U & 226Ra

: No Specific Observation

PART B: SUPPLIMENTARY INFORMATIONS

a) Reference to Sampling plan (By the lab/Submitted by the party)

: Sample submitted by PARADEEP PHOSPHATES LIMITED, ODISHA.

By Lab: i) Location

ii) Date & time of collection

iii) Name of lab representative (Wherever applicable)

b) Supporting documents like graphs, tables,

Sketches for the measurements taken and

The results derived, if any to be attached

c) Deviation from the test methods as

Prescribed in relevant ISS / Work Instructions, if any

d) Deviation from environmental condition, if any

: No deviation

: No deviation

PART C: TEST RESULTS

SI. No	Parameters testing	Limit as per AERB directive- 01/2010 (table-3) Dt. 26/11/2010	Result Obtained
1	U-238	1000 Bq.kg ⁻¹	(830.546 ± 90.675) Bq.kg ⁻¹
2	Ra-226	1000 Bq.kg ⁻¹	(219.992 ± 11.428) Bq.kg-1

IMPRESSION: The measured Value of U-238 & Ra-226 are below the clearance level of radionuclides of natural origin in bulk solid materials, as per AERB directive- 01/2010(table-3) dated 26/11/2010.

PART D: REMARKS

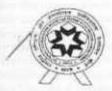
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> Signature of CEWRH Seal Name: Rajendra Kumar Mishra Designation: Chief Executive

 End o	Report



ULR NO: TC531225000001855F

Modern Test Center

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MC Priginal

Berhampur

Office Address:

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Berhampur-760001, Dist-Ganjam (Odisha), Visit us: www.moderntestcenter.com Lab Address: -

Neelanchal Nagar 3rd lane,

Berhampur-760010, Dist-Ganjam (Odisha),

Phone:-0680 2403321-22

Mail: - moderntestcenter@gmail.com

Ref: -47091/MTC/LF/7.8/15/2025

DATE: 07/07/2025

TEST CERTIFICATE

Issued to: PARADEEP PHOSPHATES LIMITED

PO: PPL TOWNSHIP, PARADEEP

DIST: JAGATSINGHPUR ODISHA, INDIA, PIN: 754145.

Customer Reference No. Nil Date: 05/05/2025

Date of Receipt: 16/06/2025

TEST CERTIFICATE NO: 2113 36150

TEST METHOD USED: BARC/2008/E/023

SAMPLE NO: RP-26

Place of Sampling: Rock Phosphate from Rock Silo

Date of Initiation of Test : 17/06/2025 Date of Completion of Test: 07/07/2025

DATE: 07/07/2025

PART A: PARTICULARS OF INFORMATION SUBMITTED BY THE CUSTOMER

a) Name of the Sample

b) Batch No./Lot No. and Date of manufacture/ Collection/Sampling (if any)

a) Quantity

b) Brand Name (if any)

c) Parameters of the test suggested

d) Any other information

: ROCK PHOSPHATE

: Batch No.: Not Specified

: 770 gm

: Not available

: Estimation of ²³⁸U & ²²⁶Ra

: No Specific Observation

PART B: SUPPLIMENTARY INFORMATIONS

a) Reference to Sampling plan (By the lab/Submitted by the party)

: Sample submitted by

PARADEEP PHOSPHATES LIMITED, ODISHA.

: ------

By Lab: i) Location

ii) Date & time of collection

iii) Name of lab representative (Wherever applicable)

b) Supporting documents like graphs, tables,

Sketches for the measurements taken and

The results derived, if any to be attached

c) Deviation from the test methods as

Prescribed in relevant ISS / Work Instructions, if any

d) Deviation from environmental condition, if any

.....

: No deviation

: No deviation

PART C: TEST RESULTS

SI. No	Parameters testing	Limit as per AERB directive- 01/2010 (table-3) Dt. 26/11/2010	Result Obtained
1	U-238	1000 Bq.kg ⁻¹	(808.239 ± 96.900) Bq.kg ⁻¹
2	Ra-226	1000 Bq.kg-1	(384.656 ± 15.057) Bq.kg-1

IMPRESSION: The measured Value of U-238 & Ra-226 are below the clearance level of radionuclides of natural origin in bulk solid materials, as per AERB directive- 01/2010(table-3) dated 26/11/2010.

PART D: REMARKS

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The sample shall be kept for three months after the test and can be returned on request on payment of transport charges or shall be destroyed. Any customer complaint or by regulatory authority shall be entertained if and not if the complaint is registered within one month from date of report.

Signature of the With Seal Name: Rajendra Kumar Mishra Designation: Chief Executive

 End	of	Report
		DECEMBER 1 NOT THE PROPERTY OF



ULR NO: TC531225000001856F

Modern Test Center

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Berhampur

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Berhampur-760010, Dist-Ganjam (Odisha),

Phone: -0680 2403321-22

Mail: - moderntestcenterifigmail.com

Ref: -47092/MTC/LF/7.8/15/2025

DATE: 07/07/2025

TEST CERTIFICATE

Issued to: PARADEEP PHOSPHATES LIMITED

PO: PPL TOWNSHIP, PARADEEP

DIST: JAGATSINGHPUR

ODISHA, INDIA, PIN: 754145.

Customer Reference No. Nil Date: 05/05/2025

Date of Receipt: 16/06/2025

TEST CERTIFICATE NO: 2113 36151

TEST METHOD USED: BARC/2008/E/023

Place of Sampling: Rock Phosphate from Rock Silo

SAMPLE NO: RP-29

Date of Initiation of Test : 17/06/2025 Date of Completion of Test: 07/07/2025

DATE: 07/07/2025

PART A: PARTICULARS OF INFORMATION SUBMITTED BY THE CUSTOMER

Name of the Sample

Batch No./Lot No. and Date of manufacture/

Collection/Sampling (if any)

Quantity

Brand Name (if any)

Parameters of the test suggested

d) Any other information

: ROCK PHOSPHATE

: Batch No .: Not Specified

680 am

Not available

Estimation of 238U & 226Ra : No Specific Observation

PART B: SUPPLIMENTARY INFORMATIONS

Reference to Sampling plan (By the lab/Submitted by the party)

: Sample submitted by

PARADEEP PHOSPHATES LIMITED, ODISHA.

By Lab: i) Location

ii) Date & time of collection

iii) Name of lab representative (Wherever applicable)

Supporting documents like graphs, tables,

Sketches for the measurements taken and

The results derived, if any to be attached

c) Deviation from the test methods as

Prescribed in relevant ISS / Work Instructions, if any

d) Deviation from environmental condition, if any

: No deviation : No deviation

PART C: TEST RESULTS

SI. No	Parameters testing	Limit as per AERB directive- 01/2010 (table-3) Dt. 26/11/2010	Result Obtained
1	U-238	1000 Bq.kg-1	(828.276 ± 93.930) Bq.kg ⁻¹
2	Ra-226	1000 Bq.kg ⁻¹	(250.149 ± 12.911) Bq.kg ⁻¹

IMPRESSION: - The measured Value of U-238 & Ra-226 are below the clearance level of radionuclides of natural origin in bulk solid materials, as per AERB directive- 01/2010(table-3) dated 26/11/2010.

PART D: REMARKS

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> Signature of CE With Seal Name: Rajendra Kumar Mishra Designation: Chief Executive

 Ena	OF	Repor	 	

Annexure-V

Quantitative Risk Assessment (QRA)

Paradeep Phosphates Limited

Sl. No	Recommendations	Compliance status
1	The emergency isolation valves and their actuating systems on the liquid inlet and outlet lines of the storage tanks should be of high reliability conforming to Safety Integrity Level SIL 3. These valves should be air failure-to-close type and provided with partial strike testing arrangement. A review may be conducted to ascertain the current position and take improvement action as necessary.	All liquid Ammonia storage tank outlet control valves are air fail to close except storage tank NO 4& 5. Storage tank NO- 4 & 5 liquid outlet Control valves have air receiver before them. In case of ammonia tank area air supply fails for any reason, these two tanks can supply the ammonia to DAP plants.
2	The following safety interlocks of the storage tanks should be reviewed for their reliability: i-Overfill protection system ii-High-High Level interlock iii-Overpressure protection system iv- High-High Pressure interlock v-Protection against excessive negative pressure in the tank vi-Low-Low Pressure interlock	All the following safety interlock control valve systems of storage tanks are reviewed for their reliability which are in working condition. The Record of the same is being maintained. i-Overfill protection system ii-High-High Level interlock iii-Overpressure protection system iv- High-High Pressure interlock v-Protection against excessive negative pressure in the tank vi-Low-Low Pressure interlock
3	Consider providing emergency switches for operating the ROVs additionally in the field at a suitable location for prompt operation of the valves without having to communicate with the Control Room in an emergency. The electric actuator of the MOV at the jetty will not operate in the event of power failure. Hence, it is important to ensure that the hand wheel arrangement is in good working condition.	One Emergency switch is available at local and one emergency switch is available in control room also for operating ROV. Hand wheel arrangement is in good working condition.
4	Increase the number of ammonia leak detectors (with alarm and hooter) for more effective surveillance. Presently one detector is installed at the jetty and at the transfer pump area. Locations like outlet liquid outlet valves, refrigeration compressor / ammonia pre-heater and ammonia tanker loading area may be considered for the additional detectors. These detectors should be connected to the Control Room.	Ammonia leak detectors (5 nos) are installed at the following places. 1) At conveyors Zero point. 2) NH3 transfer pump 1 area 3) NH3 transfer pump 4 and tanker loading area 4) Refrigeration Compressor house area 5) Ammonia storage Tank No 5 area DAP granulator area.

5	The full containment (cup-in-tank) design of the tanks has a high reliability and a catastrophic failure of the inner and outer tanks at the same time is not considered. Hence a dyke / bund wall may not be necessary from the point of view of such a failure. However, spillage due to failure of valves, fittings, instrument tapings etc. in the pipeline system connected to the tanks has a higher probability of occurring. Containment of liquid spills and minimizing the vapor escaping into adjoining areas will go a long way in mitigating the effect of toxic release. With this in view, the following recommendations are made: i-Provide bund / dyke for the storage tanks and the transfer pump areas. Making the bund/dyke from insulating concrete can also reduce the evaporation rate. ii-Provide water curtain at the periphery of the bund walls to be operated in case of a spillage, to restrict the escape of ammonia vapors to adjoining areas. Provide water curtains also around the valves/safety valves area on top of	Bund/dyke wall for storage and transfer pump areas may obstruct the pathways and hence the same was not provided. However fire hydrant system is available inside the plant and Water spray nozzle system (Fire monitor) is available which can spray up to Ammonia tank top in case of emergency.
	the storage tanks with isolation valves that can be operated from the ground level, preferably by remote operated valves. Water curtains may also be provided around the compressor area.	
6	Emergency power from the DG Set and alternative cooling water supply arrangement should be available for running the refrigeration compressors during outage of normal supply.	Emergency power supply for cooling Tower pump is available through DG set.
7	A large number of Instruments and safety devices are provided for the safe operation of the storage system. Scheduled and effective maintenance of the instruments and safety devices should be ensured and properly documented.	We are regularly checking, maintaining and documenting the records of all instruments provided in Storage tank.
8	Service and test all PSVs and TSVs at regular intervals and properly tracked. Identification tags showing set pressures, last test date, date of next test due may be provided on each safety valve.	PSVs of storage tanks are being tested periodically. Set pressure of safety valve is already painted on the valve Body. Display of last test dates tags on safety valves provided.
9	The SOP for transfer of ammonia into the storage tank should elaborate the risk of overpressure and overfilling – the two most common causes for failure of storage tanks - and the actions / precautions to be taken to prevent them.	SOP for transfer of Ammonia in to storage tank is to prevent against risk of over pressure and over filling is available.

10	The flare stack and its ignition system should be tested periodically.	We are testing the Flare stack and its ignition system periodically and the record of the same is being maintained.
11	The isolation valves, especially the vent valve should be 'eased' periodically to make sure that these will operate freely in case of need.	The isolation valve especially the vent valve is being 'eased' periodically to operate freely in case of need
12	Monitor moisture content in liquid ammonia in each shipment. Presence of 0.2% water in liquid ammonia provides protection against stress corrosion cracking (SCC).	We are receiving Ammonia that contains around 0.2% moisture in liquid Ammonia.
13	The tank shell plates are susceptible to stress corrosion cracking (SCC) in presence of oxygen. During normal service no oxygen is present inside the tank. However, oxygen will enter the system during decommissioning, testing and maintenance. Under such circumstances great care is to be taken for removal of oxygen before taking the tank back in service	We are following SOP and taking extra care by doing Nitrogen purging. N2 gas exchanging and Ammonia gas exchanging for removal of oxygen before taking the tank back in service.
14	As a practice, the drains of pipelines, equipments, instruments etc. that are nor frequently used should be plugged or blinded in a consistent manner	All drains of pipe lines, equipments and instruments that are not being used frequently were blinded and the same practice is being followed strictly.
15	A scheme to monitor the settlement if any of the foundation of the Storage Tank may be put in place. An expert study of the condition of the foundation and piles may also be carried out.	Settlement checking of the foundation of all ammonia storage tanks are being carried out periodically by our Civil department. Condition of foundation and piles are being carried out on regular basis.
16	Carry out detailed periodic inspection of the tanks to ensure their integrity.	Periodic inspection of the tanks is being carried out to ensure their integrity.
17	Review the inventory management practice to determine if the maximum permitted storage in a tank can be lowered from the current level of ~80%.	
18	Ammonia Unloading During ammonia unloading from ship tanker, necessary patrolling and surveillance is to be ensured to prevent emergency due to major leak in the pipeline.	Our operation and maintenance team is taking care for zero leakage by preventive maintenance further during Ammonia unloading, our patrolling team is available to ensure for preventing emergency due to any major leak in pipe line.
19	Tanker Loading Use a detailed checklist to inspect the ammonia tanker before it is accepted for loading. Only tankers having valid test certificates and fulfilling other conditions should be accepted for loading.	Check list and SOP has been provided for Ammonia tanker loading. We are allowing those tankers only after verification of valid certificates and fulfilling other conditions.

20	The ammonia hoses should be hydraulically pressure tested periodically and a record should be maintained. An identification tag with the test details and the due date for next test should be attached to the hoses. There should also be a replacement schedule for the hoses.	This condition is not applicable to us since we are not using hoses for loading ammonia tankers.
21	Keep SCBAs handy at the tanker loading area while loading tankers. The loading operator alone, with PPE, shall have access to the tanker during loading activity. Others like the drivers may stay away.	We are keeping two no of SCBAs and 6 no of masks and other PPEs at site always /while loading tankers.
22	The tanker drivers shall be trained in ammonia tanker safety and a record shall be maintained.	Training to drivers is being given regularly. Record is being maintained.
23	The tanker should carry respiratory protection PPE for the drivers for use in emergencies.	Strict instructions have been given to Tanker owners to carry respiratory protection PPE for their drivers for use in emergencies and the same is being ensured.
24	DAP Plant Provide a ROV in the liquid ammonia line at the battery limit of DAP Plant to enable quick isolation of supply in case of a major leak in DAP Plant. This valve may be operable from the DAP Control Room as well as from the field.	ROVs in liquid ammonia line is available at battery limit of DAP Plant to enable quick isolation of supply in case of a major leak in DAP Plant and the same valve can be operated from the DAP Control Room as well as from the field.
25	General Breathing apparatus with encapsulated suits should be stocked in sufficient numbers to manage rescue works in case of major ammonia leak. As the number of breathing apparatus, spare cylinders, gas masks etc. required to tackle a major emergency will be large compared with presently stored numbers, it is suggested that a special storage facility may be provided at a suitable place for storing them and maintaining them properly for use in emergencies.	We have kept one suit in control room, one in jetty and two no in F&S department Total 29 Nos of breathing apparatus are available with F&S department to manage rescue works in case of major ammonia leak One compressor is also available in F&S Department for refilling of BA set.
26	Plant personnel should be trained to undertake emergency measures in case of ammonia disaster. At least 30% of the personnel employed should also be trained to carry out rescue work.	Mock drills, Onsite emergency plan training are being conducted regularly by F&S Department and our plant personnel are well trained to undertake emergency measures in case of ammonia disaster.
27	Review the number and location of wind socks installed in the plants and township areas.	Total 14 no of wind socks are installed at the following areas 1) WTP-2, Offsite-3, PAP/SAP area-4), Gate house near F&S depart2, DAP-1 PPL
		Township and Navaratna Building-2.

	Efforts should be concentrated on reducing the probability of release of Chlorine in the chlorine handling area - WTP - especially since this is in the high risk region of township.	
29	Only chlorine toners with assured integrity should be allowed. It is suggested that the management insist on a copy of the test certificate to accompany the toners when they are received.	Not Applicable as chlorine handling system has already replaced as above.
30	The Chlorine toner in use should be fitted with a leak extraction hood connected to a caustic scrubbing system. The caustic scrubbing system (blower, caustic circulation pump etc.) should always be kept in a ready-to-start condition. It is desirable to have the system to start automatically based on chlorine leak detector for added safety.	Not Applicable as chlorine handling system has already replaced as above.
31	The chlorine sensor installed in WTP should be fitted with a hooter to alert personnel about a leak. It should be serviced and calibration checked periodically.	Not Applicable as chlorine handling system has already replaced as above.
32	The toner leak arrestor kit inspected at regular intervals to ensure that all items are available in the kit. A list of items should be available in the kit.	Not Applicable as chlorine handling system has already replaced as above.
33	A programme for replacing the chlorine toner connecting tubes at fixed frequency is to be implemented.	Not Applicable as chlorine handling system has already replaced as above.
34	Ensure that gaskets of correct material is procured and used. As a safe practice, a fresh gasket should be used every time tubing is connected and the used gaskets should be destroyed to avoid accidental reuse.	Not Applicable as chlorine handling system has already replaced as above.
35	Respiratory protection in the area is self- contained breathing apparatus giving supply for 30-40 minutes, with audible alarm when the pressure falls below a stipulated figure. Sufficient number of these SCBA should be stocked at a convenient place nearby where these can be accessed without difficulty in an emergency.	Two numbers of SCBAs are available in WTI control room and 4 Nos available in F&S department in case of emergency.
36	Escape suits for use only for emergency evacuation, in adequate numbers, should also be available.	Two no of escape suits are available for emergency evacuation in control room. We have emergency stock available in F&S Department also.
37	More than having these self-contained breathing apparatus, it is very important that the users are imparted adequate training. The	Our operating staff are well trained and als adequate training is imparted periodically.

	upkeep of this safety equipment is equally important	
38	As a measure to remove the risk emanating from the use of chlorine toner on a long term basis, it is recommended to consider changing over from chlorine to chlorine dioxide for treating water.	Replacement of chlorine with chlorine dioxide is implemented.
39	Since the residents and the occupants of several establishments in the township are likely to get exposed to the chlorine leak, the following additional measures are suggested: i-Provide wind socks at several locations surrounding the WTP to guide the people in case of a gas leak. ii-Educate the residents and other members of the public on the actions to be taken in the event of a leak. iii-Develop gas shelters at a few places in the township to be identified for the purpose and equip these shelters with PPEs and communication equipment. Some of the rooms / halls in existing buildings can be nominated for this purpose.	1) Wind socks are provided in township and WTP area to guide the people in case of a gas leak. 2) We are Educating our residents and other members of the public on the actions to be taken in the event of a leak.
40	Fire – FO and HSD Storage Tanks and Day Tanks A detailed inspection of the storage and day tanks should be carried out at regular intervals to ensure the mechanical integrity of the tanks.	Inspection of storage and day tanks is being carried out periodically by our E&I Department to ensure the mechanical integrity of the tanks.
41	The monitoring instruments of the tanks for level and temperature should be maintained in good condition and the tank conditions monitored regularly.	Level and Temperature monitoring instruments are being maintained in good condition by our Instrumentation department. Records are maintained
42	The fire hydrants, monitors, foam trolleys and hose boxes near the storage tanks and day tanks should be identified for more focused maintenance and upkeep	Fire hydrants, foam trolleys and hose boxes Foam type and CO2 Fire Extinguishers and fire buckets are kept near the storage tanks.
43	Adequate quantity of foam to be stored in the premises. Additional inventory of foam should be maintained in the Fire Station / Fire-, Foam Tenders	Adequate quantity of foam is stored in premises and additional quantity is being maintained by F&S department
44	In the storage tank areas, the fire fighting procedure may be displayed for the information of the plant personnel who will be the first responders in the event of a fire.	Fire fighting procedure is already displayed near storage tank area.
45	In view of its importance as secondary containment in the case of a tank failure or other spillages, the integrity of the dykes of the tanks should be ensured at all times. Any drains or other outlets from the dyke should	The drains and other outlets from the dyke are normally kept closed. We open these drains only under supervision for draining water.

	remain closed except when opened under supervision for draining water or spillage.	
46	Clean the flame arrestors on the tank vents at regular intervals to ensure that they are clear of choking which could lead to pressure / vacuum condition in the tanks.	Not applicable.
47	Ensure that the storage tanks are covered by adequate lightning protection.	Lightening protection is available
48	The unloading hoses should be inspected periodically and maintained in good condition.	We do not use unloading hoses and hence not applicable.
49	Ensure that all hot works on or near the tanks are carried out under safe work permits.	SWP system is being followed strictly.
50	Install a system of Manual Fire Call Points in the factory, connected to a control panel in the Fire Station to reduce the response time to fires.	Already in place.



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No. 44139

FORM K

AGREEMENT FOR SUPPLY OF WATER FOR THE PURPOSE OF INDUSTRIAL/COMMERCIAL USE

THIS AGREEMENT is made on 15TH November, 2024 effect from 1st December 2024 between Sri Palanisamy Velusamy, son of Sri Velusamy, resident of village; PPL Township, PS: Paradeep, District: Jagatsinghpur by profession "Chief Manufacturing Officers. Unit Head" Paradeep Phosphates Ltd. The authorized representative of Paradeep Phosphates Ltd, Paradeep (hereinafter called the "Applicant") of the First Part.

AND

Sri Anil Kumar Verma, Son of Shri Mehetaru Ram Verma, resident of Village: PPL Township, PS: Paradeep, District – Jagatsinghpur by Profession General Manager (Production), Paradeep Phosphates Ltd, Paradeep and (2) Prachi Sourabh Panda, Son of Late Bijayananda Panda, resident of Village: PPL Township, PS: Paradeep, District-Jagatsinghpur by Profession Deputy General Manager (Production): (hereinafter referred to as the "Sureties") of the Second Part;

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Rega No 322107
Rega No 38553340

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AND

The Government of Odisha which expression unless repugnant to the context, shall include his successors and assigns (hereinafter called "the Government") of the Third Part

WHEREAS, the applicant has made an application for the supply of water from Government water source/Irrigation works for the period as mentioned in the Schedule here to annexed;

And

charged for such supply in the manner hereinafter appearing and the Government has agreed to supply water for the purpose specified in the schedule annexed hereto.

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Regd No. 32 1/07
Regd No. 89 943855334

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Purpose for which water will be supplied (1)	Volume of water, if any (2)	Period of supply (3)	The place at which it will be supplied (4)	
Industrial purpose	5MGD (inclusive of Domestic use)	01.12.2024 To 30.11.2025	P.P.L Reservoir	

NOW THIS AGREEMENT witness as follows:

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Kujang Court

- In pursuance of the said agreement and in consideration of supply of water to be made to the applicant, the applicant and sureties hereby jointly and severally covenant with the Government as follows:
 - a) The applicant shall pay at the rate of Rs.10.08 (Rupees Ten and Eight Paisa) Pet M3 within stipulated date mentioned on the demand notice.
 - b) The applicant shall make suitable arrangement to take the water from the Government water source/Irrigation works at which it will be supplied.
 - c) The applicant shall not use the water supplied to him for any purpose other than that which is specified in the said Schedule.
- 2. If the sum aforesaid or any part thereof, is not paid on or before the date specified into this agreement it shall become payable at once (unless the Government sanctions for special reason on extension of time) and the applicant and the sureties shall be liable jointly and severally to pay the same with compound interest at the rate of two percent per mensem from the date of default. All amount due to the Government under the terms of these presents shall if not paid in time, be recoverable as a public demand under the Orissa Public Demands Recovery Act 1962.

The applicant shall be liable for criminal and civil action if by drawl of water, the plants of any third party are affected and shall indemnify the Government against all claims for damage preferred by person or persons affected by the permission granted.

- The applicant shall not without prior permission in writing from the Government lay pipe line on Government or communal lands. If the pipe lines have to pass through Government lands permission of the Government for this shall be taken separately which may be granted subject to the protection of rights of Government or community, as the case may be.
- (iii) The applicant shall not draw or lift water more than the quantity mentioned in the requisition or order and not exceeding the volume mentioned in the Schedule except with the prior approval of the Government. The Engineer concerned shall assess the fees to be charged as per Unit/quantity of water drawn or allocated whichever is higher. If drawl is more than the allocation, a penal rate at six times the rate specified in Schedule II and III shall be charged on the quantity of excess drawl, in addition to the normal bill on allocated quantity. The excess drawl is permissible for a maximum period of six months, within which the licensee shall have to apply for a higher

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Paradeep Phosphates Limited
Paradeep-754145 (Odisha)

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anufacturing Officer and Unit Head

allocation of water with reasons and where the licensee fails to so apply for such higher allocation or where the licensee is refused for such higher allocation, the agreement shall be liable to cancellation and the water supplied shall be stopped thereafter.

- (iv) The permission granted shall not be deemed to exempt the applicant from liability to payment of water charges lawfully assessable at the rate as may be prescribed by Government from time to time.
- (v) Government reserves the right to suspend or cancel the permission in case of violation of any of the covenants.
- 4. The applicant at his own cost shall install a flow meter or a suitable measuring device for measurement of water drawn or lifted by him from the Government source/Irrigation works as per the procedure laid down in rule 23-A(b). The Superintending Engineer concerned shall visit location of drawl of lifting of water, verify the quantities of water drawn or lifted by the applicant and ensure such control as may be necessary for administering the drawing or lifting of water. Assessment of water rate shall be made as per the quantity of water drawn or allocated whichever is higher. In case of any defect or non-functioning of the Flow meter, the licensee shall bring the fact to the notice of the concerned Executive Engineer forthwith and take appropriate steps to remove the defects in the meter or replacement thereof within a period of two months and in such cases the fees shall be charged on quantity of water allocated for the said period of three months or till the defects in the Meter is removed or Meter is replaced as the case may be, whichever is earlier, and where the licensee fails to bring the defect or non-functioning of the Meter to the notice of the concerned Superintending Engineer or fails to remove the defects in the Meter or to replace the same, as the case may be, within the stipulated period the agreement shall be liable to cancellation

of the project. For proper test of such effluent there shall be computerized testing system and the applicant shall give details of effluent discharged in the natural source (in river and nala)

6. For construction of head works and control mechanism i.e., intake well, Pump house and other related facilities, M/s. Paradeep Phosphates Ltd will get the land leased in their favor through IDCO as is done in respect of any other government land required by the industry, IDCO will make available land on long term lease to M/s. Paradeep Phosphates Ltd. The continuance of the lease agreement will be subject to the

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and thereafter water supply shall be stopped.

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condition that the industry shall pay water charges as per prevailing water rate and all other dues of Government and IDCO from time to time.

- 7. M/s. Paradeep Phosphates Ltd., would require to pay three months advance water charges in favor of Superintending Engineer concerned in shape of Bank draft or F.D.R duly discharged by the company as non-interest bearing security deposit and for nine months Bank Guarantee duly pledged in favor of the concerned Superintending Engineer. Onus of maintain the Bank Guarantee lies with the company.
- 8. In case of water supply for M/s. Paradeep Phosphates Ltd, is to be met from common source through a sharing mechanism, such common infrastructure for drawD of water will be constructed, maintained and operated either by IDCO or Special purpose Vehicle (SPV) after taking due clearance from IDCO. Water will be supplied to M/s. Paradeep Phosphates Ltd, by IDCO/SPV and they would also be liable for payment of water rate to the Government and will in turn have arrangements as similar therein as clauses (6) and (7) of this agreement.
- 9. M/s. Paradeep Phosphates Ltd., drawing or allocated water from reservoir for it uses, shall sign supplementary agreement with the Odisha Hydro Power Corporation Limited, to compensate the loss of energy generation due to its drawl and the Odisha Hydro Power Corporation Limited, shall raise demands for compensation of loss of energy generation within first week of every month against the quantity of water drawn or allocated, whichever is higher.
- 10. They will not disturb the normal flow of water so that riparian rights in the downstream will be affected and the company shall have no claim on the account.
- 11. The drawl mechanism for raw water and disposal system of effluent to be established by the industry without disturbing existing eco system and environmental set up.
- 12. The Rehabilitation and Resettlement Action Plan/Welfare Action plan, if so, required will be prepared in conformity with the current Orissa Rehabilitation and Resettlement policy and executed by the company at its own cost under the supervision of the Water Resources Department and the Collector of the District, Jagatsinghpur.
- 13. M/s. Paradeep Phosphates Ltd. Shall not claim as a matter of right to get the desired quantity of the water during non-monsoon and lean period to meet their full industrial

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- use and the company has to make adequate storage facility in their own land for supply of water to their plant during such period.
- 14. The safety design of all the structures lies fully on the company.
- 15. In case of any dispute/arising out of this agreement, the same shall be referred to Government and the decision of the Government in water Resources Department shall be final.
- 16. Any surplus power from the Captive Power Plant shall be sold my M/s Paradeep Phosphates Ltd., to GRIDCO or any other entity to be notified by the State Government under mutually acceptable terms & conditions.
- 17. The allocation of water will automatically lapse if the company does not use the water for the purpose applied for within three years of allotment.
- 18. This agreement shall be valid for a period of 1 year i.e., up to 30.11.2025 subject to renewal of the same by the concerned Superintending Engineer. For the renewal of agreement, the concerned drawee has to apply minimum three months before the expiry of agreement.
- 19. If the industry is found to be drawing water unauthorized before signing the agreement/installation of flow meter, the concerned Superintending Engineer will charge penal rate at six times the normal rate as provided Schedule II & III.
- Government shall be at liberty to review the water allocation unilaterally in face of exigencies.

The concerned Superintending Engineer or his authorized representatives reserves the tight to inspect all installations of drawl and disposal mechanism during land after construction including intake structure, flow meter and treatment plant.

Paradeep Phosphates Ltd., will have to show clearly in water management plan as to what storage facility the company will create for the lean season and to what extent and how the water is going to be recycled which shall be a part of the project report of the unit.

23. M/s. Paradeep Phosphates Ltd., may engage at their own cost consultant(s) experienced in the field to take up field investigations, prepare, design and drawing to set up the water supply scheme for drawing water from Government water Source/Irrigation works for their proposed plant. The actual work will start after approval of the scheme by the competent authority of water Resources Department who can inspect the work during the construction.

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- 24. The exact place of lifting will be decided in consultation with the authority of water
- 25. The industry shall have to pay commitment charges which are equivalent to 5% of the cost of unutilized water (allocated quantity-quantity of water utilized) in addition to payment of usual water rate for quantity of water being utilized as per DoWR Notification No. 13233/WR/dated.04.6.2016
- 26. The license fees for drawl or allocation of water shall be enhanced @10% per annum.
- 27. Department of water Resources shall not be held responsible for non-availability of water due to dry season, disruption, repair and maintenance of canal/reservoir. In witness whereof the Parties hereto have put their hands and seals the day and year first above written.

In the presence of Witnesses:

Brasanta Kumar Das. 1. Prasant Kumar Das

BEJOY Kuman Shaw 2. Bijoy Kumar Shaw

Signature of Applicant

Palanisamy Welland Soluting Officer and Unit Head Paradeep Phosphates Limited Paradeep-754145 (Odisha)

Signature of Sureties

1. Anil Kumar Verma

frail Sourable Panda



SIGNATURE OF SUPERINTENDING ENGINEER

advocate disha High Court Regd No 2 1421/07 COD -8530*1789 943855334

NEERI Recommendations & PPL Compliance

NEERI Recommendations	Action taken by PPL
i) The "L" shaped area near ETP- needs remediation as per the measures suggested.	As per the measures suggested, The "L" shaped area near ETP has already been neutralized by using mixture of lime solution.
ii) The Sulphur muck disposal site near factory main gate - needs remediation .	As per the measures suggested Area near main gate has already been neutralized and plantation done.
iii) The Sulphur muck dump site near the scrap yard- can be taken care by natural attenuation	The Sulphur muck dump site near the scrap yard has already been cleaned and sulphur muck was used in DAP plant as filler. After that sulphur muck is being stored at earmarked place and being used in DAP as filler.
iv) The oil contaminated site near offsite area- The traces of oil remaining at this site may be taken care by natural attenuation.	The oil contaminated site near offsite area has already cleaned and developed.
The oil contaminated site near workshop area - The traces of oil remaining at this site may be taken care by natural attenuation.	
vi) Old spent catalyst disposal site- it is recommended that PPL should continue to monitor so as to asses the possibility of contamination in terms of vanadium, if any.	Old spent catalyst disposal site has already closed and sold to authorized party M/s Resustainability, Sukinda (Odisha).
vii) Phosphogypsum contaminated site near railway yard - needs remediation as per the measures suggested. In order to prevent further contamination of soil and groundwater. It is recommended to provide a shed and an impervious platform for phosphogypsum stacked at railway siding.	yard has already neutralized and decontaminated. PPL has provided a shed & an impervious
viii) Old Sulphur muck disposal area (north of Sulphur silo)- remedial measures as delineated need to be taken to decontaminate site.	

CREP guidelines for Fertilizer Industry

SI. No	Action Points	Compliance Status
1	Efforts will be made for conservation of water, particularly with a target to have consumption less than 8.12 and 15 m3 tonne of urea produced for plant based on gas, naphtha and fuel oil, respectively. In case of plants using Naptha and Gas both as feed stocks, water consumption target of less than 10m3/ tonne will be achieved. An action plan for this will be submitted by June 2003 and targets be achieved by March 2004.	Not Applicable to us, as we are not making urea.
2	Use of arsenic for CO2 absorption in ammonia plants and chromate based chemicals for cooling system, which is still continuing in some industries, will be phased out and replaced with non-arsenic and non-chromate systems by December 2003. In this regard, action plan will be submitted by June 2003	Not Applicable to us, as we have not ammonia plant.
3	Adequate treatment for removal of oil, chromium (till non- chromate based cooling system is in place) and fluoride will be provided to meet the prescribed standards at the source (end respective process unit) itself. Action plan will be firmed up by June 2003 for compliance by March 2004.	Effluent Treatment Plant (ETP) is installed to remove fluoride.
4	Proper and complete nitrification and de-nitrification will be ensured wherever such process used for effluent treatment, by September 2003,	Not Applicable
5	Ground water monitoring around the storage facilities and beyond the factory premises will be carried out at regular intervals particularly for pH. Fluoride CPCB will finalize the guidelines for groundwater monitoring by December 2003.	Monitoring is being carried out by NABL accredited third party on regular intervals as per CPCB guideline.
6	No effluent arising from process plants and associated facilities will be discharged to the storm water drain. The quality of storm water will be regularly monitored by all the industries.	Separate effluent & storm drains are provided to avoid mixing of effluent. The quality of storm water is being monitored.
7	The industries, where waste water/ effluent flows through the storm water drains even during the dry season will install continuous systems for monitoring the storm water quality for pH, ammonia and fluoride. If required, storm water will be routed through effluent treatment plant before discharging. An action plan will be submitted by June 2003 and necessary action will be taken by June 2004.	Zero discharge is maintained in storm drain during non- monsoon.

Air	Pollution Management	
1	All the upcoming urea plants will have urea prilling towers based on natural draft so at to minimize urea dust emissions.	Not Applicable for us, as we are not making urea.
2	The existing urea plants particularly, the plants having forced draft prilling towers will install appropriate systems (e.g. scrubber. etc.) for achieving existing norms of urea dust emissions. In this regard, industries will submit action plan by June 2003 and completion of necessary actions by June 2004.	Not Applicable for us, as we are not making urea.
3	The sulphuric acid plants having SCSA system will switch over to DCDA system by March 2004 to meet the emission standard for SO2 as 2kg/tonne of H2SO4 produced. An action plan for this will be submitted by June 2003.	Sulphuric acid plant in PPL is having DCDA system process. We are meeting the CPCB norms of SO2.
4	Sulphuric acid plants having DCDA system will improve the conversion and absorption efficiencies of the system as well as scrubbers to achieve SO2 emission of 2kg tonne of acid produced in case of plants having capacity above 300 tpd and 2.5 kg tonne in case of plants having capacity upto 300tpd. An action plan will be submitted by June 2003 and emission levels will be complied with by September 2004.	Already achieved SO2 emission of 1.5 & 1 kg per tonne of acid produced.
5	Stack height for sulphuric acid plants will be provided as per the guidelines and on the basis of normal plant operations (and not when the scrubbers are in use)by June 2003. The scrubbed gases are to be letout at the same height of the stock	Stack height for sulphuric acid plants is provided as per the CPCB guidelines.
6	An action plan for providing proper dust control systems rock phosphare grinding unit in phosphoric acid plants/ single super phosphate plants, so as to achieve particulate emission of 150 mg/Nm3 will be submitted by September 2003 and complied with by March 2004	We have wet & dry grinding system for rock phosphate grinding. Bag filters are provided at the transfer points to control the dust.
7	Particulate as well as gaseous fluoride will be monitored and adequate control systems will be installed by June 2004 to achieve the norms on total fluoride emissions (25 mg/Nm3).	Fluorine Recovery Unit (FRU) System is installed to recover fluorine and we have achieved the norm of total fluoride emissions within 20 mg/Nm3.
8	Continuous SO2 emission monitoring systems will be installed in sulphuric acid plants (having capacity 200 tpd and above) by March 2004. Action plan for this will be submitted by June 2003.	Continuous SO2 emission monitoring systems are installed in the sulphuric acid plants.
9	Regular monitoring of ambient air quality with regard to SO2 NOx, PM, SO3, fluoride and acid mist will be carried out.	Regular monitoring of ambient air quality is being done.

JUII	Solid Waste Management		
1	Gypsum will be effectively managed by providing proper lining, dykes with approach roads and monitoring of groundwater quality around storage facilities. Accumulated gypsum will be properly capped. In this regard, action plan will be submitted by June 2003 and for compliance by December 2003.	Gypsum stack management is being done as per the CPCB guideline.	
2	An action plan for proper handling, storage and disposal of spent catalyst having toxic metals will be submitted by June 2003 and implemented by September 2003. The industry will also explore recovery/buy-back of spent catalyst by September 2003.	Spent Catalyst is being disposed to authorized party M/s Re-sustainability, Sukinda, Odisha.	
3	Carbon slurry, sulphur muck and chalk will be properly managed and disposed of in properly designed landfill either within premises or in common facility. Action plan on this will be submitted by June 2003 and implemented by March 2004.	Sulphur muck is being reused as filler in DAP plant.	
4	Existing stock of chromium and arsenic bearing sludge will be properly disposed by December 2003. industries will also explore recovery of chromium from the sludge. CPCB will provide guidelines for proper disposal of the sludge	Not Applicable	