

संदर्भ सं./Ref. No.: S&E/E/43C-1/1243

दिनांक/Date: 30.11.2024

From	:	Executive Director (HSE & ESG) - Officiating
To	:	Deputy Director General of Forests (Central), Sub Office, Guwahati (under Regional Office, Shillong), 4th Floor, Housefed Building, Rukminigaon, Guwahati-781022. (Email : iro.guwahati-mefcc@gov.in, iro.moefcc.ghy@gmail.com)
Subject	:	Submission of Half-yearly (April 2024 to September 2024) compliance reports of the conditions stipulated in the Environment Clearance (EC) granted to Oil India Limited.

Sir,

Reference to above subject, please find enclosed herewith the Half-yearly (April 2024 to September 2024) compliance reports of the conditions stipulated in the Environment Clearance (EC) granted to Oil India Limited. List of the EC are tabulated below:

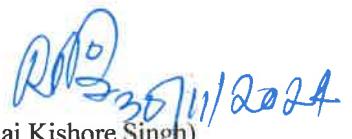
S.No	EC Identification No/File No.	Name of the EC proposal
1.	F. No. J-11011/413/2008-IA II (I) dated 24.01.2011	OCS Bhogpara.
2.	F. No. J-11011/1251/2007-IA II (I) dated 01.11.2011	Exploratory Drilling of 01 (One) well at Doomdooma-Pengry Area, District Tinsukia, Assam.
3.	F. No. J-11011/682/2008-IA II (I) dated 17.06.2013	Expansion of Gas field Development in Tengakhat-Naharkatia-Jorajan area and Doomdooma Pengry area, Assam by M/s Oil India Ltd.
4.	F. No. J-11011/116/2018-IA II (I) dated 07.01.2020	Onshore Oil & Gas Exploration & Development Drilling and Production in Ningru Oil & Gas Field in Districts Changlang and Namsai for Ningru PML Block (Arunachal Pradesh)
5.	F. No. J-11011/1260/2007-IA II (I) dated 09.04.2020	Onshore Oil & Gas Development Drilling and Production in Mechaki Area covering Mechaki, Mechaki Extension, Baghjan and Tinsukia Extension PMLs on District Tinsukia (Assam).
6.	F. No. J-11011/150/2016- IA II (I) dated 11.05.2020	Extension Drilling & Testing of Hydrocarbons at 7 (seven) Locations under Dibru-Saikhowa National Park Area, North-West of Baghjan PML, District Tinsukia, Assam.
7.	F. No. J-11011/1253/2007-IA II (I) dated 28.12.2020	Onshore Oil & Gas development drilling and production by M/S Oil India Ltd in Dibrugarh district under Dibrugarh, Chabua, Higrizan and Tinsukia PMLs. (Dibrugarh- Bhogpara)
8.	F. No. J-11011/375/2016-IA II (I) dated 28.12.2020	Onshore Oil & Gas Development Drilling and Production (179 wells and 9 Production Installations) in North Hapjan – Tinsukia –

		Dhola area under Tinsukia district, Assam.
9.	F. No. J-11011/35/2018-IA II (I) dated 26.02.2021	Onshore Oil & Gas development drilling and production by M/S Oil India Ltd. Located in Khagorijan Oil & Gas Field in Dibrugarh & Tinsukia District under Tinsukia PML, Tinsukia Extension PML and Chabua PML District: Dibrugarh, Assam
10.	F. No. J-11011/186/2016-IA II (I) dated 03.03.2021	Onshore Oil & Gas development drilling and production in Borhat-Titlagarh area, Dibrugarh, Sibsagar and Charaideo Districts under Sapkaint, Borhat, Moran Extension and Doomdooma PMLs.
11.	EC22A002AS110311 F. No. J-11011/156/2017-IA II (I) dated 28.11.2022	Oil & Gas development drilling and production (16 exploratory, 73 developmental drilling wells and 9 Production Installations) in Moran Area under Dibrugarh, Sibsagar and Charaideo districts, Assam.
12.	EC23A002AS125690 F. No. J-11011/1254/2007-IA II (I) dated 13.01.2023	Oil & Gas development drilling and production (68 developmental drilling wells and 9 Production Installations) in Khowang Shalmari Area under Dibrugarh, Sibsagar districts, Assam.
13.	EC23A002AS188131 F.No J-11011/1257/2007- IA II (I) dated 17.04.2023	Onshore Oil & Gas development drilling and production (167 wells and 7 production Installations) in Tengakhat-Kathaloni-Dikom (TKD) under Dibrugarh district, Assam.
14.	EC23A002AS198872 F. No. J-11011/388/2016-IA II (I) dated 31.07.2023	Onshore Oil & Gas development drilling (67 wells) in Jorajan Area under Dibrugarh, Charaideo and Tinsukia districts, Assam.
15.	EC23A002AS146942 F.No. J-11011/546/2017-IA(I) dated 20.09.2023	Onshore Oil & Gas development drilling and production (294 wells and 2 Production Installations) in Naharkatiya-Deohal-Bogapani-Nagajan (NDBN) area under Dibrugarh & Tinsukia districts, Assam.

This is for your kind information please.

Thanking you.

Yours faithfully,
For Oil India Limited


(Raj Kishore Singh)
ED (HSE & ESG) - Officiating
Nodal Officer (EC, FC, NBWL)
For Resident Chief Executive



HSE Department
Oil India Limited
Duliajan, Dibrugarh, 786602, Assam
Phone : 0374-2800542
Email: safety@oilindia.in

Encl: As above

Copy:

1. Director, Monitoring Cell, MoEF, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi-110003.
2. Zonal Office, Central Pollution Control Board, "TUM-SIR", Lower Motinagar, Near Fire Brigade Headquarter, Shillong-793014.
3. Chairman, Assam Pollution Control Board, Bamunimaidan, Guwahati-781021, Assam.
4. Chairman, Arunachal Pradesh State Pollution Control Board, Office of the Principal Chief and Secretary (E&F) Conservator of Forests, Govt. of Arunachal Pradesh, Itanagar-791111, Arunachal Pradesh.

STATUS OF COMPLIANCE OF EC CONDITIONS

Installation: OCS-BHOGPARA

Period: 01/04/2024-31/09/2024

EC No: No J-11011/413/2008-I A II(I) DATED 24.01.2011

Specific Condition		
Sl No.	EC Condition	Compliance status/Remark
i.	Environmental clearance is subject to obtaining prior clearance from wildlife angle including clearance from the Standing Committee of the National Board for Wildlife regarding impact of the proposed project on the Padumani Wildlife Sanctuary (8.2 km from new BUS at Mahum), Borjhan Wildlife Sanctuary (5 km from STF) and 3 recently declared Wildlife sanctuaries (declared on 20th October, 1999) besides Dibru-Saikhowa National Park (9 km from BUS) located within 10 km. area as applicable.	Not Applicable
ii.	Grant of environmental clearance does not necessarily imply that wildlife clearance shall be granted to the project. The proposal for wildlife clearance shall be considered by the respective authorities on their merits and decision taken. The investment made in the project, if any, based on environmental clearance so granted, in anticipation of the clearance from wildlife angle shall be at the cost and risk of the project proponent and Ministry of Environmental & Forests shall not be responsible in this regard in any manner.	Point noted
iii.	Ambient air quality shall be monitored for PM ₁₀ , SO ₂ , NO _x , and non-methane hydrocarbon (NMHC) as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R No. 826(E) dated 16 th November 2009.	Complied. Display of AAQM parameters is being done at site. Copy of report enclosed.
iv.	The stacks of adequate height shall be provided to control emissions from all the sources including DG sets, steam generators etc. as per the regulatory requirements and emissions from stacks shall meet the MOEF/CPCB guidelines.	Complied.

Sl. No.	EC Condition	Compliance status/Remark
v.	The company shall make the arrangement for control of noise from the DG sets and meet DG set norms notified by the MoEF.	In the said time period no DG sets were available and hence Not Applicable.
vi.	Total ground water requirement for OCS, STF, ITF and BUS shall not exceed 128 m ³ /day/well and prior permission shall be obtained from the Central Ground Water authority/state Ground Water Board (CGWA/SGWB). A copy of the permission shall be submitted to the Ministry's Regional Office at Shillong. Effluent Treatment Plant (ETP) shall be installed to control oil content and other parameters as per Assam Pollution Control board (APCB) and/or Environment (Protection) Act whichever is more stringent. Treated wastewater shall be passed through multi-media filters to remove solids and clarified water shall be collected into storage tubes before pumping to disposal wells. Oily waste water shall be treated in oil separator to remove oil content in the effluent. Domestic effluent shall be treated in septic tank followed by soak pit. The treated effluent shall be monitored regularly.	Complied. Formation water of Bhogpara OCS is treated in ETP Tengakhat to desired standards.
vii.	Tank bottom sludge from crude oil tanks of OCS shall be stored in secured covered impermeable concrete sludge pit located outside the proposed installation before safe disposal through approved/registered recyclers. Waste oil and used batteries shall be sold to authorized recyclers/re-processors. Secured land fill shall be as per the design approved by the CPCB and obtain authorization from the Assam SPCB. Copy of authorization shall be submitted to Ministry's Regional Office at Shillong.	Point noted. Shall be done when tank cleaning will be carried out.
viii.	Total storage capacity of the tanks shall not exceed 40,000 KL after expansion. Capacity of the each of the storage tank shall not exceed 5,000 KL. Instead of fixed roof tanks, floating roof tanks shall be provided.	Complied.
ix.	A comprehensive Oil Spill Contingency plan (OSCP) shall be prepared to handle all major, moderate and minor spill.	Complied during all the operation & maintenance activities.
x.	All the OCS shall have facilities for knocking out water from the formation fluid. The Formation	Complied

Sl. No.	EC Condition	Compliance status/Remark
	water from Electrostatic, Emulsion Treater (EET) shall be disposed to the disposal wells only after ensuring all the parameters within permissible limit of Assam PCB and / or prescribed under E(P) Act whichever is more stringent.	
xi.	Use of browser for the transportation of oil shall be stopped as soon as pipeline is installed.	Complied
xii.	M/s OIL shall prepare a remediation plan (both bio-remediation) where solid is contaminated due to spillage of oil in existing units and submit to MOEF.	In Situ & Ex-Situ Bioremediation plan is in place for any soil contamination.
xiii.	An immediate action shall be ensured to control and treat oil spill or oil sludge using suitable method. Remaining oil shall be remediated through bioremediation / Phyto-remediation etc. Therecyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.	Emergency Response Plan to mitigate oil spillage and its control is in place and bioremediation is carried out for remaining oil. Hence complied.
xiv.	All the solid/hazardous waste including bottom sludge shall be handled as per the rules and guidelines under Manufacture, Storage and Import of Hazardous chemicals Rules, 1989 as amended in October, 1994 and January, 2000. All the oily sludge from ITF, STF, and BUS OCS shall be stored in secured land fill (SLF) as per CPCB guidelines.	Complied as per the Rules. Secured, covered, impermeable sludge storage facility is available.
xv.	Handling and disposal of hazardous wastes shall be in accordance with the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008. Authorization from the Assam SPCB shall be obtained for collections/treatment/storage/disposal of hazardous wastes.	Complied.
xvi.	The project authorities shall patrol and inspect the pipeline regularly for detection of faults as per OISD guidelines and continuous monitoring of pipeline operations by adopting non- destructive method (S) of testing. Pearson survey and continuous potentialsurvey shall be carried out a regular interval to ensure the adequacy of cathodic protection system.	Complied
xvii.	The project authorities shall install SCADA system for safe operation of pipeline and leak Detection Systems (LDS). Additional sectionalizing valves in the residential area and	SCADA system has been installed at the installation to monitor the leak for safe operation of pipeline. Hence complied.

Sl. No.	EC Condition	Compliance status/Remark
	sensitive installations shall be provided to prevent the spillage of the oil in the event of pipeline failure. Intelligent pigging facility shall be provided for the entire pipeline system for internal corrosion monitoring.	
xviii.	M/S OIL shall ensure smokeless flaring in case of ground flaring. The company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation. To prevent fire and explosion at Oil and Gas facility, potential ignition sources shall be kept to a minimum and adequate separation distance between potential ignition sources and flammable materials shall be in place.	Complied. Complete combustion is ensured by adequate supply of air.
xix.	The flare system shall be designed as per good oil field practices and oil industry Safety Directorate (OISD) guidelines.	Complied.
xx.	The firefighting facilities shall be designed as per OISD-117 guidelines. For fighting prolonged fires, the company shall firm up a plan for assured water supply from nearby ground water/surface water sources.	Complied.
xxi.	Comprehensive Risk assessment and Consequence Analysis for all the activities regarding impact of the proposed project on the Secondary Tank Farm (STF), Oil Collecting Station (OCS), Intermediate Tank Farm (ITF), Browser Unloading station (BUS) and pipeline shall be carried out. Action plan to implement the recommendations shall be submitted to the ministry and proper implementation shall be ensured.	Risk analysis for the installation has been carried out internally and risk register is being maintained. Hence complied.
xxii.	Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.	Already exists and implemented as per the prevailing Acts/ Regulations. Hence complied.
xxiii.	The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA/EMP report.	Complied with the environmental protection measures and safeguards recommended in the EIA/EMP report.
xxiv.	The surface facilities shall be installed as per applicable codes and standards, international practices and applicable local regulations.	Complied. All the surface facilities are installed as per applicable codes and standards, international practices and

Sl. No.	EC Condition	Compliance status/Remark
		applicable local regulations such as API, ASTM, OISD, OMR, APCB & CPCB etc.
xxv.	The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the natural gas/oil shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.	Complied.
xxvi.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Not Applicable
General Condition		
Sl No.	EC Condition	Compliance status/Remark
i.	The project authorities must strictly adhere to the stipulations made by the Assam State Pollution Control Board (ASPCB), State Government and any other statutory authority.	Complied
ii.	No further expansion or modifications in the project shall be carried out without prior approval of the Ministry of environment & Forests. In case of deviations or alterations 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.	Complied
iii.	The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous chemicals Rules, 2000 as amended subsequently. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire safety Inspectorate etc. must be obtained, wherever applicable.	Complied.

Sl. No.	EC Condition	Compliance status/Remark
iv.	The project authorities must strictly comply with the rules and regulation with regarding to handling and disposal of Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 wherever applicable. Authorization from the State Pollution Control Board must be obtained for collections/treatment/storage/disposal of hazardous wastes.	Complied
v.	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generations. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70dBA (nighttime).	Complied.
vi.	A separate Environment Management Cell equipped with full-fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.	Already exists centrally at S&E.
vii.	The project authorities shall provide adequate funds both recurring and non- recurring 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 stipulated herein. The funds so provided shall not be diverted for any other purpose.	Complied.
viii.	The Regional Office of this Ministry/CentralPollution Control Board/ Assam State PollutionControl Board shall monitor the stipulated conditions.A six-monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	Being complied.
ix.	A copy of clearance letter shall be sent by the proponent to concern Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Complied

Sl. No.	EC Condition	Compliance status/Remark
x.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the Assam SPCB. The Criteria pollutant levels namely; SPM, RSPM, SO ₂ , NO _x , HC (Methane & Non-methane), VOCs (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Complied Compliance status including monitored data is regularly uploaded in company's website and sent to concerned government authorities. Monitored data is also enclosed herewith.
xi.	The Project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environment conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional of MOEF, the respective Zonal Office of CPCB and the Assam SPCB. The Regional Office of this Ministry/ CPCB/ Assam SPCB shall monitor the stipulated conditions.	Complied Monitored data enclosed.
xii.	The environment statement for each financial year ending 31st march in Form-V as is mandated to be submitted by the project proponent 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 conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.	Complied
xiii.	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 Assam SPCB and may also be seen at Website of the Ministry of Environment and Forest 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 newspaper that are widely circulated in the region of which one shall be forwarded to the Regional Office.	Complied Copy of newspaper advertisement forwarded with our Compliance Status Report submitted.

Sl. No.	EC Condition	Compliance status/Remark
xiv.	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 commencing the land development work.	Complied Copy of newspaper advertisement forwarded with our Compliance Status Report submitted.

Ambient Air Quality Monitoring Report

Name & Address of the Customer :		Report No. :MSK/2024-25/01410			
"M/s OIL INDIA LIMITED", Duliajan, Dibrugarh, Assam-786602		Report Date : 01.10.2024			
		Sample Description : Ambient Air			
		Sample Number : MSKGL/ED/2024-25/09/01398			
		Sampling Location : OCS BHOGPARA			
Ref. No.:W.O. NO.- 8129283 of Contract No. 6119277		Instrument ID : RDS 202-DTF-2016/ FPS 94-DTL-2021			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date		
13.09.2024	16.09.2024	16.09.2024	23.09.2024		
Enviromental Conditions During Sampling & Transport Condition :Temperature : 36°C, Rain fall : NO					
Analysis Result					
Sl. No.	Test Parameter	Method	Unit	Results	CPCB Limit
1.	Particulate Matter (PM ₁₀)	IS : 5182 (Part-23)-2006	(µg/m ³)	68.5	100
2.	Particulate Matter (PM _{2.5})	IS : 5182 (Part-24)	(µg/m ³)	42.6	60
3.	Sulphur Dioxide (SO ₂)	IS : 5182 (Part-2)-2001	(µg/m ³)	7.3	80
4.	Nitrogen Dioxide (NO ₂)	IS : 5182 (Part-6)-2006	(µg/m ³)	21.5	80
5.	Carbon Monoxide (CO)	IS 5182 : (Part-10) :1999	(mg/m ³)	0.62	2
6.	Ozone (O ₃)	IS:5182 (Part-IX)-1974 Reaffirmed-2019	(µg/m ³)	<20.0	180
7.	Ammonia (NH ₃)	IS 5182 (Part 25) : 2018	(µg/m ³)	<10.0	400
8.	Lead (Pb)	USEPA IO-3.4	(µg/m ³)	<0.01	1
9.	Nickel (Ni)	USEPA IO-3.4	(ng/m ³)	<5.0	20
10.	Arsenic (As)	USEPA IO-3.4	(ng/m ³)	<1.0	6
11.	Benzene (C ₆ H ₆)	IS 5182 : (Part 11) :2006	(µg/m ³)	<4.2	5
12.	Benzo(a)Pyrene (BaP)	IS 5182 : (Part 12) :2004	(ng/m ³)	<0.5	1
13.	Mercury (Hg)	USEPA IO-5.0	(µg/m ³)	<0.002	...
14.	Methane (Hydrocarbon)	IS 5182 : (Part 17)	ppm	1.96	...
15.	Non-methane (Hydrocarbon)	IS 5182 : (Part 17)	ppm	<0.5	...
16.	Total Hydrocarbon	IS 5182 : (Part 17)	ppm	1.96	...
17.	Volatile Organic Compounds (VOC)	IS 5182 : (PART-11):2006	(µg/m ³)	<4.2	...
Limit as per CPCB notification, New Delhi, 18th Nov, 2009. for Ambient air quality					

Analyzed By:



Prepared By:



Authorized Signatory

For Mitra S.K. Private Limited

Signature :

Name : Mr. Bhaskarjyoti Dutta

Designation. : Chemist

Signature :

Name : Hiramoni Rajbongshi

Designation. : Office Assistant

Signature :

Name : Mr. Ravi Shankar Roy

Designation : Branch Manager



- The results relate only to the item(s) tested.
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- Our Lab is Approved by NABL & MOEF, Lab Address : P-48 Udayan Industrial Estate, 3 Pagladanga Road Kol-700015

Head Office: Shrachi Centre (5th floor), 74B, A.J.C. Bose Road, Kolkata - 700 016, West Bengal, India.
 Tel. : 91 33 40143000 / 22650006 / 22650007 Fax : 91 33 22650008
 Email : info@mitrask.com. Website: www.mitrask.com



Approved by

Uttam Prodhan

Suptdg. Research Scientist, R&D Dept.,
 Oil India Ltd., Duliajan, Assam

STACK GAS MONITORING REPORT

Name & Address of the Customer		Report No.	: MSK/2024-25/00869
“M/s OIL INDIA LIMITED” Duliajan, Dibrugarh, Assam-786602		Report Date	: 15.07.2024
		Nature of Sample	: Stack Emission
		Sample Mark	: OCS' BHOGPARA
		Sample Number	: MSKGL/ED/2024-25/07/01682
		Instrument ID	: 135-H-19
Ref. No.:W.O. NO.- 8129283 of Contract No. 6119277			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date
19.06.2024	22.06.2024	22.06.2024	29.06.2024

ANALYSIS RESULT

A.	General information about stack :	: CODP-1		
1.	Stack connected to	: CRUDE TANK		
2.	Emission due to	: NG		
3.	Material of construction of Stack	: MS		
4.	Shape of Stack	: Circular		
5.	Whether stack is provided with permanent platform & ladder	: Yes		
6.	DG capacity	: 157 HP		
B.	Physical characteristics of stack :			
1.	Height of the stack from ground level	: 2.4384 m		
2.	Diameter of the stack at sampling point	: 0.1016 m		
3.	Area of Stack	: 0.00810 m ²		
C.	Analysis/Characteristic of stack:			
	1. Fuel used : NG			
D.	Result of sampling & analysis of gaseous emission	Result	Limit as per CPCB	Method
1.	Temperature of emission (°C)	153	...	USEPA Part 2, 25.09.1996
2.	Barometric Pressure (mm of Hg)	762.0	...	USEPA Part 2, 25.09.1996
3.	Velocity of gas (m/sec.)	19.77	...	USEPA Part 2, 25.09.1996
4.	Quantity of Gas Flow (Nm ³ /hr)	401	...	USEPA Part 2, 25.09.1996
5.	Concentration of Oxygen (%v/v)	13.8	...	IS:13270 :1992 Reaff, 2014
6.	Concentration of Carbon Monoxide (g/kW-hr)	0.149	≤ 3.5	IS:13270 :1992 Reaff, 2014
7.	Concentration of Carbon Dioxide (%v/v)	5.8	...	IS:13270 :1992 Reaff, 2014
8.	Concentration of Sulphur Dioxide (mg/Nm ³)	22.1	...	USEPA-29, 25/06/1996
9.	Concentration of Nitrogen Oxide & Hydrocarbons (g/kW-hr)	0.235	≤ 4.7	USEPA Part-7, 12/03/1996 & USEPA 18 -25.09.1996
10.	Concentration of Lead (mg/Nm ³)	<0.005	...	USEPA-29, 25/06/1996
11.	Concentration of Particulate matter (g/kW-hr)	0.094	≤ 0.3	USEPA Part-17, 16/08/1996
E.	Pollution control device:	Remarks: Nil		
	Details of pollution control devices attached with the stack : Nil			

Analyzed By:

Prepared By:

Authorized Signatory

For Mitra S.K. Private Limited

Signature :

Name :

Designation :



: Mr. Dipankar Mazumdar

: Executive Chemist

Signature :

Name :

Designation :



: Hiramoni Rajbongshi

: Office Assistant

Signature :

Name :

Designation :



: Mr. Rajib Roy

: Branch Manager

- The results relate only to the item(s) tested.
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- Our Lab is Approved by NABL & MOEF, Lab Address : P-48 Udayan Industrial Estate, 3 Pagladanga Road Kol-700015

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Tel. : 91 33 40143000 / 22650006 / 22650007 Fax : 91 33 22650008

Email : info@mitrask.com. Website: www.mitrask.com



Approved by

Uttam Prodhan

Suptdg. Research Scientist, R&D Dept.,

Oil India Ltd., Duliajan, Assam

STACK GAS MONITORING REPORT

Name & Address of the Customer		Report No.	: MSK/2024-25/00870
"M/s OIL INDIA LIMITED" Duliajan, Dibrugarh, Assam-786602		Report Date	: 15.07.2024
		Nature of Sample	: Stack Emission
		Sample Mark	: OCS BHOGPARA
		Sample Number	: MSKGL/ED/2024-25/07/01683
		Instrument ID	: 135-H-19
Ref. No.: W.O. NO.- 8129283 of Contract No. 6119277			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date
19.06.2024	22.06.2024	22.06.2024	29.06.2024

ANALYSIS RESULT

A.	General information about stack :	: CODP-2		
1.	Stack connected to	: CRUDE TANK		
2.	Emission due to	: NG		
3.	Material of construction of Stack	: MS		
4.	Shape of Stack	: Circular		
5.	Whether stack is provided with permanent platform & ladder	: Yes		
6.	DG capacity	: 157 HP		
B.	Physical characteristics of stack :			
1.	Height of the stack from ground level	: 2.4384 m		
2.	Diameter of the stack at sampling point	: 0.1016 m		
3.	Area of Stack	: 0.00810 m ²		
C.	Analysis/Characteristic of stack:			
	1. Fuel used : NG			
D.	Result of sampling & analysis of gaseous emission	Result	Limit as per CPCB	Method
1.	Temperature of emission (°C)	144	...	USEPA Part 2, 25.09.1996
2.	Barometric Pressure (mm of Hg)	762.0	...	USEPA Part 2, 25.09.1996
3.	Velocity of gas (m/sec.)	19.14	...	USEPA Part 2, 25.09.1996
4.	Quantity of Gas Flow (Nm ³ /hr)	397	...	USEPA Part 2, 25.09.1996
5.	Concentration of Oxygen (%v/v)	13.8	...	IS:13270 :1992 Reaff, 2014
6.	Concentration of Carbon Monoxide (g/kW-hr)	0.151	≤ 3.5	IS:13270 :1992 Reaff, 2014
7.	Concentration of Carbon Dioxide (%v/v)	5.2	...	IS:13270 :1992 Reaff, 2014
8.	Concentration of Sulphur Dioxide (mg/Nm ³)	22.4	...	USEPA-29, 25/06/1996
9.	Concentration of Nitrogen Oxide & Hydrocarbons (g/kW-hr)	0.242	≤ 4.7	USEPA Part-7, 12/03/1996 & USEPA 18 -25.09.1996
10.	Concentration of Lead (mg/Nm ³)	<0.005	...	USEPA-29, 25/06/1996
11.	Concentration of Particulate matter (g/kW-hr)	0.096	≤ 0.3	USEPA Part-17, 16/08/1996
E.	Pollution control device:	Remarks: Nil		
	Details of pollution control devices attached with the stack : Nil			

Analyzed By:

Prepared By:

Authorized Signatory

For Mitra S.K. Private Limited

Signature :

Name :

Designation :



: Mr. Dipankar Mazumdar

: Executive Chemist

Signature :

Name :

Designation :



: Hiramoni Rajbongshi

: Office Assistant

Signature :

Name :

Designation :



: Mr. Rajib Roy

: Branch Manager

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Tel. : 91 33 40143000 / 22650006 / 22650007 Fax : 91 33 22650008

Email : info@mitrask.com. Website: www.mitrask.com



Approved by

Uttam Prodhan

Suptdg. Research Scientist, R&D Dept.,

Oil India Ltd., Duliajan, Assam

STACK GAS MONITORING REPORT

Name & Address of the Customer		Report No.	: MSK/2024-25/00871
"M/s OIL INDIA LIMITED" Duliajan, Dibrugarh, Assam-786602		Report Date	: 15.07.2024
		Nature of Sample	: Stack Emission
		Sample Mark	: OCS BHOGPARA
		Sample Number	: MSKGL/ED/2024-25/07/01684
		Instrument ID	: 135-H-19
Ref. No.: W.O. NO.- 8129283 of Contract No. 6119277			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date
19.06.2024	22.06.2024	22.06.2024	29.06.2024

ANALYSIS RESULT

A.	General information about stack :	: CODP-3		
1.	Stack connected to	: CRUDE TANK		
2.	Emission due to	: NG		
3.	Material of construction of Stack	: MS		
4.	Shape of Stack	: Circular		
5.	Whether stack is provided with permanent platform & ladder	: Yes		
6.	DG capacity	: 157 HP		
B.	Physical characteristics of stack :			
1.	Height of the stack from ground level	: 2.4384 m		
2.	Diameter of the stack at sampling point	: 0.1016 m		
3.	Area of Stack	: 0.00810 m ²		
C.	Analysis/Characteristic of stack:			
	1. Fuel used : NG			
D.	Result of sampling & analysis of gaseous emission	Result	Limit as per CPCB	Method
1.	Temperature of emission (°C)	158	...	USEPA Part 2, 25.09.1996
2.	Barometric Pressure (mm of Hg)	762.0	...	USEPA Part 2, 25.09.1996
3.	Velocity of gas (m/sec.)	19.90	...	USEPA Part 2, 25.09.1996
4.	Quantity of Gas Flow (Nm ³ /hr)	399	...	USEPA Part 2, 25.09.1996
5.	Concentration of Oxygen (%v/v)	13.6	...	IS:13270 :1992 Reaff, 2014
6.	Concentration of Carbon Monoxide (g/kW-hr)	0.153	≤ 3.5	IS:13270 :1992 Reaff, 2014
7.	Concentration of Carbon Dioxide (%v/v)	5.4	...	IS:13270 :1992 Reaff, 2014
8.	Concentration of Sulphur Dioxide (mg/Nm ³)	22.6	...	USEPA-29, 25/06/1996
9.	Concentration of Nitrogen Oxide & Hydrocarbons (g/kW-hr)	0.247	≤ 4.7	USEPA Part-7, 12/03/1996 & USEPA 18 -25.09.1996
10.	Concentration of Lead (mg/Nm ³)	<0.005	...	USEPA-29, 25/06/1996
11.	Concentration of Particulate matter (g/kW-hr)	0.092	≤ 0.3	USEPA Part-17, 16/08/1996
E.	Pollution control device:			
	Details of pollution control devices attached with the stack : Nil	Remarks: Nil		

Analyzed By:

Prepared By:

Authorized Signatory

For Mitra S.K. Private Limited

Signature :

Name :

Designation :



: Mr. Dipankar Mazumdar

: Executive Chemist

Signature :

Name :

Designation :



: Hiramoni Rajbongshi

: Office Assistant

Signature :

Name :

Designation :



: Mr. Rajib Roy

: Branch Manager

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Email : info@mitrask.com. Website: www.mitrask.com



Approved by

Uttam Prodhan

Suptdg. Research Scientist, R&D Dept.,

Oil India Ltd., Duliajan, Assam

STACK GAS MONITORING REPORT

Name & Address of the Customer "M/s OIL INDIA LIMITED" Duliajan, Dibrugarh, Assam-786602		Report No.	: MSK/2024-25/00872
		Report Date	: 15.07.2024
		Nature of Sample	: Stack Emission
		Sample Mark	: OCS BHOGPARA
		Sample Number	: MSKGL/ED/2024-25/07/01685
		Instrument ID	: 135-H-19
Ref. No.: W.O. NO. - 8129283 of Contract No. 6119277			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date
19.06.2024	22.06.2024	22.06.2024	29.06.2024

ANALYSIS RESULT

A.	General information about stack :	: DRENCHING PUMP-1		
1.	Stack connected to	: WATER PUMP		
2.	Emission due to	: HSD		
3.	Material of construction of Stack	: MS		
4.	Shape of Stack	: Circular		
5.	Whether stack is provided with permanent platform & ladder	: Yes		
6.	DG capacity	: 310 HP		
B.	Physical characteristics of stack :			
1.	Height of the stack from ground level	: 2.4384 m		
2.	Diameter of the stack at sampling point	: 0.1016 m		
3.	Area of Stack	: 0.00810 m ²		
C.	Analysis/Characteristic of stack:			
	1. Fuel used : HSD			
D.	Result of sampling & analysis of gaseous emission	Result	Limit as per CPCB	Method
1.	Temperature of emission (°C)	135	...	USEPA Part 2, 25.09.1996
2.	Barometric Pressure (mm of Hg)	762.0	...	USEPA Part 2, 25.09.1996
3.	Velocity of gas (m/sec.)	18.47	...	USEPA Part 2, 25.09.1996
4.	Quantity of Gas Flow (Nm ³ /hr)	391	...	USEPA Part 2, 25.09.1996
5.	Concentration of Oxygen (%v/v)	13.2	...	IS:13270 :1992 Reaff, 2014
6.	Concentration of Carbon Monoxide (g/kW-hr)	0.292	≤ 3.5	IS:13270 :1992 Reaff, 2014
7.	Concentration of Carbon Dioxide (%v/v)	5.6	...	IS:13270 :1992 Reaff, 2014
8.	Concentration of Sulphur Dioxide (mg/Nm ³)	23.2	...	USEPA-29, 25/06/1996
9.	Concentration of Nitrogen Oxide & Hydrocarbons (g/kW-hr)	0.296	≤ 4.7	USEPA Part-7, 12/03/1996 & USEPA 18 -25.09.1996
10.	Concentration of Lead (mg/Nm ³)	<0.005	...	USEPA-29, 25/06/1996
11.	Concentration of Particulate matter (g/kW-hr)	0.104	≤ 0.3	USEPA Part-17, 16/08/1996
E.	Pollution control device:	Remarks: Nil		
	Details of pollution control devices attached with the stack : Nil			

Analyzed By:

Prepared By:

Authorized Signatory

For Mitra S.K. Private Limited

Signature :

Name :

Designation. : Executive Chemist

Signature :

Name :

Designation. : Office Assistant

Signature :

Name :

Designation : Branch Manager

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Approved by

Uttam Prodhan

 Suptdg. Research Scientist, R&D Dept.,
 Oil India Ltd., Duliajan, Assam

STACK GAS MONITORING REPORT

Name & Address of the Customer		Report No.	: MSK/2024-25/00873
"M/s OIL INDIA LIMITED" Duliajan, Dibrugarh, Assam-786602		Report Date	: 15.07.2024
		Nature of Sample	: Stack Emission
		Sample Mark	: OCS BHOGPARA
		Sample Number	: MSKGL/ED/2024-25/07/01686
		Instrument ID	: 135-H-19
Ref. No.: W.O. NO.- 8129283 of Contract No. 6119277			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date
19.06.2024	22.06.2024	22.06.2024	29.06.2024

ANALYSIS RESULT

A.	General information about stack :	: DRENCHING PUMP-2		
1.	Stack connected to	: WATER PUMP		
2.	Emission due to	: HSD		
3.	Material of construction of Stack	: MS		
4.	Shape of Stack	: Circular		
5.	Whether stack is provided with permanent platform & ladder	: Yes		
6.	DG capacity	: 310 HP		
B.	Physical characteristics of stack :			
1.	Height of the stack from ground level	: 2.4384 m		
2.	Diameter of the stack at sampling point	: 0.1016 m		
3.	Area of Stack	: 0.00810 m ²		
C.	Analysis/Characteristic of stack:			
	1. Fuel used : HSD			
D.	Result of sampling & analysis of gaseous emission	Result	Limit as per CPCB	Method
1.	Temperature of emission (°C)	128	...	USEPA Part 2, 25.09.1996
2.	Barometric Pressure (mm of Hg)	762.0	...	USEPA Part 2, 25.09.1996
3.	Velocity of gas (m/sec.)	17.91	...	USEPA Part 2, 25.09.1996
4.	Quantity of Gas Flow (Nm ³ /hr)	386	...	USEPA Part 2, 25.09.1996
5.	Concentration of Oxygen (%v/v)	13.4	...	IS:13270 :1992 Reaff, 2014
6.	Concentration of Carbon Monoxide (g/kW-hr)	0.287	≤ 3.5	IS:13270 :1992 Reaff, 2014
7.	Concentration of Carbon Dioxide (%v/v)	5.2	...	IS:13270 :1992 Reaff, 2014
8.	Concentration of Sulphur Dioxide (mg/Nm ³)	23.5	...	USEPA-29, 25/06/1996
9.	Concentration of Nitrogen Oxide & Hydrocarbons (g/kW-hr)	0.301	≤ 4.7	USEPA Part-7, 12/03/1996 & USEPA 18 -25.09.1996
10.	Concentration of Lead (mg/Nm ³)	<0.005	...	USEPA-29, 25/06/1996
11.	Concentration of Particulate matter (g/kW-hr)	0.102	≤ 0.3	USEPA Part-17, 16/08/1996
E.	Pollution control device:	Remarks: Nil		
	Details of pollution control devices attached with the stack : Nil			

Analyzed By:

Signature :

Name : Mr. Dipankar Mazumdar

Designation. : Executive Chemist

Prepared By:

Signature :

Name : Hiramoni Rajbongshi

Designation. : Office Assistant

Authorized Signatory

For Mitra S.K. Private Limited

Signature :

Name : Mr. Rajib Roy

Designation : Branch Manager

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Approved by

Uttam Prodhan

Suptdg. Research Scientist, R&D Dept.,

Oil India Ltd., Duliajan, Assam

STACK GAS MONITORING REPORT

Name & Address of the Customer		Report No.	: MSK/2024-25/00874
"M/s OIL INDIA LIMITED" Duliajan, Dibrugarh, Assam-786602		Report Date	: 15.07.2024
		Nature of Sample	: Stack Emission
		Sample Mark	: OCS BHOGPARA
		Sample Number	: MSKGL/ED/2024-25/07/01687
		Instrument ID	: 135-H-19
Ref. No.: W.O. NO.- 8129283 of Contract No. 6119277			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date
19.06.2024	22.06.2024	22.06.2024	29.06.2024

ANALYSIS RESULT

A.	General information about stack :	: GENSET-1		
1.	Stack connected to	:		
2.	Emission due to	: NG		
3.	Material of construction of Stack	: MS		
4.	Shape of Stack	: Circular		
5.	Whether stack is provided with permanent platform & ladder	: Yes		
6.	DG capacity	: 250 KVA		
B.	Physical characteristics of stack :			
1.	Height of the stack from ground level	: 2.4384 m		
2.	Diameter of the stack at sampling point	: 0.1016 m		
3.	Area of Stack	: 0.00810 m ²		
C.	Analysis/Characteristic of stack:			
	1. Fuel used : NG			
D.	Result of sampling & analysis of gaseous emission	Result	Limit as per CPCB	Method
1.	Temperature of emission (°C)	124	...	USEPA Part 2, 25.09.1996
2.	Barometric Pressure (mm of Hg)	762.0	...	USEPA Part 2, 25.09.1996
3.	Velocity of gas (m/sec.)	17.37	...	USEPA Part 2, 25.09.1996
4.	Quantity of Gas Flow (Nm ³ /hr)	378	...	USEPA Part 2, 25.09.1996
5.	Concentration of Oxygen (%v/v)	13.6	...	IS:13270 :1992 Reaff, 2014
6.	Concentration of Carbon Monoxide (g/kW-hr)	0.248	≤ 3.5	IS:13270 :1992 Reaff, 2014
7.	Concentration of Carbon Dioxide (%v/v)	5.6	...	IS:13270 :1992 Reaff, 2014
8.	Concentration of Sulphur Dioxide (mg/Nm ³)	22.8	...	USEPA-29, 25/06/1996
9.	Concentration of Nitrogen Oxide & Hydrocarbons (g/kW-hr)	0.253	≤ 4.7	USEPA Part-7, 12/03/1996 & USEPA 18 -25.09.1996
10.	Concentration of Lead (mg/Nm ³)	<0.005	...	USEPA-29, 25/06/1996
11.	Concentration of Particulate matter (g/kW-hr)	0.097	≤ 0.3	USEPA Part-17, 16/08/1996
E.	Pollution control device:			
	Details of pollution control devices attached with the stack : Nil	Remarks: Nil		

Analyzed By:

Prepared By:

Authorized Signatory

For Mitra S.K. Private Limited

Signature

Name

Designation

[Signature]
 : Mr. Dipankar Mazumdar
 : Executive Chemist

Signature

Name

Designation

[Signature]
 : Hiramoni Rajbongshi
 : Office Assistant

Signature

Name

Designation

[Signature]
 : Mr. Rajib Roy
 : Branch Manager

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Approved by

Uttam Prodhan

Suptdg. Research Scientist, R&D Dept.,
 Oil India Ltd., Duliajan, Assam

STACK GAS MONITORING REPORT

Name & Address of the Customer		Report No.	: MSK/2024-25/00875
"M/s OIL INDIA LIMITED" Duliajan, Dibrugarh, Assam-786602		Report Date	: 15.07.2024
		Nature of Sample	: Stack Emission
		Sample Mark	: OCS BHOGPARA
		Sample Number	: MSKGL/ED/2024-25/07/01688
		Instrument ID	: 135-H-19
Ref. No.: W.O. NO.- 8129283 of Contract No. 6119277			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date
19.06.2024	22.06.2024	22.06.2024	29.06.2024

ANALYSIS RESULT

A.	General information about stack :	: GENSET-2		
1.	Stack connected to	:		
2.	Emission due to	: NG		
3.	Material of construction of Stack	: MS		
4.	Shape of Stack	: Circular		
5.	Whether stack is provided with permanent platform & ladder	: Yes		
6.	DG capacity	: 250 KVA		
B.	Physical characteristics of stack :			
1.	Height of the stack from ground level	: 2.4384 m		
2.	Diameter of the stack at sampling point	: 0.1016 m		
3.	Area of Stack	: 0.00810 m ²		
C.	Analysis/Characteristic of stack:			
	1. Fuel used : NG			
D.	Result of sampling & analysis of gaseous emission	Result	Limit as per CPCB	Method
1.	Temperature of emission (°C)	127	...	USEPA Part 2, 25.09.1996
2.	Barometric Pressure (mm of Hg)	762.0	...	USEPA Part 2, 25.09.1996
3.	Velocity of gas (m/sec.)	17.85	...	USEPA Part 2, 25.09.1996
4.	Quantity of Gas Flow (Nm ³ /hr)	386	...	USEPA Part 2, 25.09.1996
5.	Concentration of Oxygen (%v/v)	13.4	...	IS:13270 :1992 Reaff, 2014
6.	Concentration of Carbon Monoxide (g/kW-hr)	0.239	≤ 3.5	IS:13270 :1992 Reaff, 2014
7.	Concentration of Carbon Dioxide (%v/v)	5.6	...	IS:13270 :1992 Reaff, 2014
8.	Concentration of Sulphur Dioxide (mg/Nm ³)	22.7	...	USEPA-29, 25/06/1996
9.	Concentration of Nitrogen Oxide & Hydrocarbons (g/kW-hr)	0.257	≤ 4.7	USEPA Part-7, 12/03/1996 & USEPA 18 -25.09.1996
10.	Concentration of Lead (mg/Nm ³)	<0.005	...	USEPA-29, 25/06/1996
11.	Concentration of Particulate matter (g/kW-hr)	0.099	≤ 0.3	USEPA Part-17, 16/08/1996
E.	Pollution control device:	Remarks: Nil		
	Details of pollution control devices attached with the stack : Nil			

Analyzed By:

Signature :

Name :

Designation :



: Mr. Dipankar Mazumdar

: Executive Chemist

Prepared By:

Signature :

Name :

Designation :



: Hiramoni Rajbongshi

: Office Assistant

Authorized Signatory

For Mitra S.K. Private Limited

Signature :

Name :

Designation :



: Mr. Rajib Roy

: Branch Manager

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Approved by

Uttam Prodhan

Suptdg. Research Scientist, R&D Dept.,

Oil India Ltd., Duliajan, Assam

For internal use only

Ref. no.: Chem/Ana/MTW/978/DJN/24

Date: 13.06.2024

Asset Manager-Central Asset

Attn.: A J Bhuyan, Senior Engineer (P-C)

Sub : MONITORING TUBE WELL WATER ANALYSIS REPORT

Your memo reference is CA/MTW/11/06, dated:- 11.06.2024

Reference above, please find the test results of Monitoring Tube Well water samples forwarded to us from your end for laboratory testing.

Characteristics	Unit	Acceptable limit as per Bureau of Indian Standards for drinking water (IS:10500:2012) Second revision	MTW Nearer to WDW (Bhogpara OCS)					Test method/ Instrument used
			WDW# 118 & 119	WDW# 146	WDW# 147	WDW# 148	WDW# 151 & 15	
Appearance	-	-	Clear	Clear	Clear	Turbid	Turbid	Visual
pH	-	6.5 to 8.5	6.6	6.5	6.5	6.6	6.6	BIS 3025-11 / Metrohm pH meter
Chloride (as Cl ⁻)	mg/l	250.0 (max.)	6	11	12	73	12	BIS 3025-32 / Titration with silver nitrate
Alkalinity (as CaCO ₃)	mg/l	200 (max.)	50	65	50	160	100	BIS 3025-23 / Titration with HCl
Total dissolved solids	mg/l	500 (max.)	46	61	65	269	103	BIS 3025-16 / Hach water checker
Mineral Oil	mg/l	0.5(max.)	Nil	Nil	Nil	Nil	Nil	BIS 3025-39 / Horiba oil content analyser

Sample details :-

The monitoring tube well water samples were collected from the tube wells nearer to the above mentioned WDW wells of Bhogpara OCS on 11.06.2024 and received at Analytical & Environmental laboratory on 11.06.2024.

Tested by: SB/BD

Surajit Bora

Chief Chemist (Lab)

For GM-Chemical (HoD)

Copy: Analytical & Environmental sec. file.

ChemLab/Ana/Report/Water/02A



For internal use only

Ref. no.: Chem/Ana/MTW/799/DJN/24

Date: 18.05.2024

Asset Manager-Central Asset

Attn.: Harkhani Utsav Nileshbhai, Senior Engineer (P-C)

Sub : MONITORING TUBE WELL WATER ANALYSIS REPORT

Your memo reference is BPR/Chem Lab/TW/2024/05, dated:- 16.05.2024


Reference above, please find the test results of Monitoring Tube Well water samples forwarded to us from your end for laboratory testing.

Characteristics	Unit	Acceptable limit as per Bureau of Indian Standards for drinking water (IS:10500:2012) Second revision	MTW Nearer to WDW (Bhogpara OCS)					Test method/ Instrument used
			WDW# 148	WDW# 151 & 15	WDW# 118 & 119	WDW# 146	WDW# 147	
Appearance	-	-	Turbid	Clear	Turbid	Turbid	Clear	Visual
pH	-	6.5 to 8.5	6.7	6.5	6.5	6.5	6.9	BIS 3025-11 / Metrohm pH meter
Chloride (as Cl ⁻)	mg/l	250.0 (max.)	85	11	4	12	5	BIS 3025-32 / Titration with silver nitrate
Alkalinity (as CaCO ₃)	mg/l	200 (max.)	150	60	40	70	60	BIS 3025-23 / Titration with HCl
Total dissolved solids	mg/l	500 (max.)	281	64	43	73	59	BIS 3025-16 / Hach water checker
Mineral Oil	mg/l	0.5(max.)	Nil	Nil	Nil	Nil	Nil	BIS 3025-39 / Horiba oil content analyser

Sample details :-

The monitoring tube well water samples were collected from the tube wells nearer to the above mentioned WDW wells of Bhogpara OCS on 16.05.2024 and received at Analytical & Environmental laboratory on 16.05.2024.

Tested by: SB/BD


Surajit Bora
Chief Chemist (Lab)
For GM-Chemical (HoD)
Copy: Analytical & Environmental sec. file.
ChemLab/Ana/Report/Water/02A

For internal use only

Ref.No.: Chem/Ana/FW/1177/DJN/24

Date: 11.07.2024

Asset Manager - Central Asset

Attn.: A J Bhuyan, Senior Engineer (P-C)

Sub: FORMATION WATER ANALYSIS REPORT OF BHOGPARA OCS

Your memo reference is CA/BGP/ETFW/09/07, dated:- 09.07.2024

Reference above, please find below the test results of the formation water samples from Bhogpara OCS forwarded to us from your end for laboratory testing:

Characteristics	Unit	Bhogpara OCS		Test method/Instrument used
		ET water Outlet	FWDP Outlet	
Appearance	-	Turbid	Turbid	Visual
pH	-	7.6	7.6	BIS 3025-11 / Metrohm pH meter
Salinity as NaCl	mg/l	3300	3300	BIS 3025-32 / Titration with silver nitrate
Carbonate as CO_3^{--}	mg/l	Nil	Nil	BIS 3025-23 / Titration with HCl
Bicarbonate as HCO_3^-	mg/l	427	427	BIS 3025-23 / Titration with HCl
Total dissolved solid	mg/l	3450	3460	BIS 3025-16 / Gravimetric method
Suspended solid	mg/l	544	828	BIS 3025-17 / Gravimetric method
Oil and grease	mg/l	2.7	2.2	BIS 3025-39 / Horiba oil content analyser
Lithium as Li^+	mg/l	0.84	0.82	BIS 3025-45 / Flame Photometer

Sample details :-

The formation water samples were collected from the above mentioned sources of Bhogpara OCS on 09.07.2024 and received at Analytical & Environmental Laboratory on 09.07.2024.

Tested by: BD

Surajit Bora

Chief Chemist (Lab)

For GM - Chemical (HoD)

Copy: Analytical & Environmental sec. file.

ChemLab/Ana/Report/Water/01

