

संदर्भ सं./Ref. No.: S&E/E/43C-1/588

दिनांक/Date: 28.05.2024

From	:	Executive Director (HSE & ESG)
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 (October 2023 to March 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 (**October 2023 to March 2024**) compliance reports of the conditions stipulated in the Environment Clearance (EC) granted to Oil India Limited. List of the EC are tabulated below:

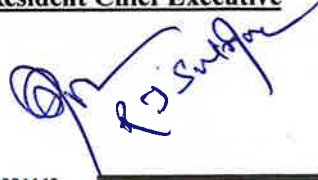
S.No	EC Identification No/File No.	Name of the EC proposal
1.	F. No. J-11011/413/2008-IA II (I) dated 24.01.2011	OCS Bhogpara.
2.	F. No. J-11011/1251/2007-IA II (I) dated 01.11.2011	Exploratory Drilling of 01 (One) well at Doomdooma-Pengry Area, District Tinsukia, Assam.
3.	F. No. J-11011/682/2008-IA 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, Higrijan 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 Sapkaintb, 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.


(Rajendra Singh Garbyal)
Executive Director (HSE & ESG)
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.

- **Name of the Project:** Exploratory Drilling of 1 Well at Dumduma-Pengry Area, District Tinsukia, Assam by M/s Oil India Limited.
- **Clearance L. No and date:** J-11011/1251/2007 - IA II (I) Dated 1st November, 2011
- **Period of Compliance Report:** October 2023 to March 2024.
- **Present Status:** No drilling activity was carried out during the above period.

General Conditions:

SI No.	CONDITIONS	COMPLIANCE STATUS
I.	The project authorities must strictly adhere to the stipulations made by the Assam Pollution Control Board (APCB), State Government and any other statutory authority.	Complied. Necessary consent from Pollution Control Board, Assam was obtained for the drilled well.
II.	No further expansion or modification 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. No additional wells were drilled against the EC granted by MoEF&CC. The user agency (OIL) has already submitted Environmental Clearance application for its expansion activities in this area wherever applicable.
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. Permission under Manufacture, Storage and Import of Hazardous Chemicals Rules, 2000 as amended subsequently from Chief Inspectorate of Factories, Chief Controller of Explosives (CCOE), Fire Safety Inspectorate are not applicable for drilling wells. However, onsite and offsite Emergency response plan is in place under the compliance of MSIHC rule. Further permission from CCOE for the major tank farms area is obtained wherever applicable.
IV.	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 generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night time).	Complied. The overall noise levels in and around the plant area were kept within permissible limits by taking necessary noise control measures.
V.	A copy of clearance letter shall be sent by the proponent to concerned 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. The clearance letter shall also be put on the web site of the company by the proponent.	Complied. Copy of the EC was published on OIL's website under the link https://www.oil-india.com/Environmental.aspx .

VI.	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 APSPCB. The criteria pollutant levels namely; PM ₁₀ , 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. Ambient Air monitoring was carried out. Ambient air quality was monitored for PM ₁₀ , PM _{2.5} , SO _x , NO _x , Methane & Non-methane HC, within the premises.
VII.	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the APSPCB. The Regional Office of this Ministry / CPCB / APCB shall monitor the stipulated conditions.	Complied EC compliance report for the period April 2023 to September 2023 was submitted to IRO - Guwahati. Zonal Office CPCB, Shillong and, Chairman - Pollution Control Board Assam vide L.No. S&E/E/43C-1/52 dated 11.01.2024. Also, a copy of the EC and Six-monthly compliance report are uploaded to OIL website under the link https://www.oil-india.com/Environmental.aspx
VIII.	The environmental statement for each financial year ending 31 st 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 Environment Statement (Form – V) for the F.Y. 2022-23 was submitted to Pollution Control Board, Assam vide No. S&E/E/21(B)/940 dated 20.09.2023. Copy of the same is enclosed as Annexure – C .
IX.	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 APSPCB and may also be seen at Website of the Ministry of Environment and Forests 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 Regional office.	Complied.
X.	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.	Will be Complied.

Specific Conditions:

Sl No.	CONDITIONS	COMPLIANCE STATUS
I.	As proposed, only exploratory well (1 No.) shall be drilled. No additional wells shall be drilled without prior permission from this Ministry.	Complied. As stated in the Environment Clearance only 01 Nos. exploratory well was drilled.
II.	No drilling of well and any construction work shall be carried out in forest land.	Complied. No drilling was carried out in forest land.
III.	Permission should be obtained from the State Forest Department regarding the impact of the proposed drilling on the surrounding reserve forest viz. Telpani RF.	Complied. All the drilled wells were located outside forest area. Therefore, no forest clearance as well as forest impact certificate were taken from the forest department.
IV.	Drilling site shall not be close to villages, schools etc.	Complied. The well site was away from schools, villages.
V.	Prior clearance shall be from the Standing Committee of the National Board for Wildlife regarding Wildlife Sanctuary (Dihing Patkai).	Complied. No drilling was carried out within the 10 Km ESZ of Dihing Patkai National Park.
VI.	Ambient air quality shall be monitored near the closest human settlements 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 for PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO, CH ₄ , HC, Non-methane HC etc.	Complied. Ambient Air Quality monitoring was carried out as per NAAQS, 2009.
VII.	The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The stack height shall be provided as per the regulatory requirements and emissions from stacks will meet the MOEF/CPCB guidelines.	Complied. Flare system was not required in the site. However, wherever required company has installed the non- luminous flare.
VIII.	The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.	Complied. Acoustic enclosures were provided around DG sets and also adequate Stack Height is provided
IX.	Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.	Complied.
X.	Approach road shall be made pucca to minimize generation of suspended dust.	Complied.
XI.	Total fresh water requirement shall not exceed 42m ³ /day/well and prior permission shall be obtained from the concerned agency.	Complied.

XII.	The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.	Complied.
XIII.	Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF should be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Shillong.	Complied. Drilling wastewater was collected in HDPE lined pits. As there is no TSDF in the North Eastern Region, therefore membership could not be obtained.
XIV.	Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.	Complied. Domestic sewage is disposed through adequate septic tank and soak pits.
XV.	Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.	Complied. Oil spillage prevention and mitigation plan is in place. However, M/s OIL is equipped with technology which have developed consortium of bacteria capable of digesting the entire range of hydrocarbon. Spent oil is disposed through PCBA authorised recyclers.
XVI.	The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30 th August, 2005.	Complied. Disposal of Solid waste, drill cuttings and drilling fluids are carried out as per the guidelines notified vide GSE.546 (E) dated 30.08.2005.
XVII.	The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.	Complied. Each drilling site of M/s OIL has fixed firefighting system and portable fire extinguisher are kept in accordance with OISD std 189. All personnel posted in site are trained in firefighting. Hot jobs are controlled through permit system i.e., "Hot work permit" system. Measures to prevent fire hazards, containing oil spill and soil remediation have been taken. Flaring of gases has been done as per OISD standard. Since the drilling well did not produce any hydrocarbon the question of flaring did not arise.

XVIII.	The company shall develop a contingency plan for H ₂ S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H ₂ S detectors in locations of high risk of exposure along with self containing breathing apparatus.	Complied. Contingency Plan for H ₂ S release was in place. OIL never encountered H ₂ S and no such evidence exists in our field of operation. However, H ₂ S gas detector and Self Containing Breathing Apparatus (SCBA) were kept available to meet the emergency situation, if any.
XIX.	The Company should carry out long-term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected should be submitted six monthly to the Ministry and its Regional Office at Shillong.	Complied. OIL conducted the subsidence study through ISRO-NRSC (R&D facility of ISRO) The study took almost three years to complete the study & prepared the report. The study does did not reveal any delineate and subsidence in the oil fields.
XX.	Blow Out Preventor (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.	Complied. Appropriate Blow out preventer (BOP) system having a set of Annular and RAM BOP is installed to prevent well blow out during drilling operation. Function test of BOPs are carried out periodically and care is taken to maintain the hydrostatic pressure in the well bore during drilling, logging and other well operation by maintaining proper mud weight.
XXI	Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.	Complied. OIL has site-specific Emergency plan and contingency plan and Disaster Management Plan (DMP) based on relevant and realistic emergency scenarios.
XXII.	The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored the area in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.	Complied. OIL has formulated a well –defined and plausible abandonment and restoration procedure which is been followed in the event of decision taken to abandon the well.
XXIII.	Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.	Complied.
XXIV.	In case the commercial viability of the project is established, the Company shall prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.	Complied. For Development as well as expansion activities the user agency (OIL) has already submitted Environment Clearance application.

XXV	Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Shillong.	Complied Restoration of well plinth has been done completely as per OIL's Well Abandonment, Site Restoration and Reclamation policy
XXVI	Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Shillong.	Complied. Cuttings were analysed through CSIR-NEIST.
XXVII	Company shall prepare and circulate the environmental policy.	Complied.
XXVII I	Company shall prepare operating manual in respect of all activities. It shall cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.	Complied. Standard operating procedure for drilling operation covering safety and environment aspect of operations have been made available at the site. Safe work practices are also made available at site. Regular safety and environment training are imparted to the employees by various training institutions in house as well as by outside recognised institutes.
XXIX	Base and side of Drill cutting storage pits and supernatant storage pit shall be provided with HDPE lining. Overflow channel and oil grease trap facility shall be provided.	Complied. All pits used for storage of drill cuttings & Effluent are provided with HDPE lining.
XXX	Chemical characteristics and toxicity in respect of amine and all other chemicals should be found out and monitoring arrangement should be made. A copy of report should be sent to the Ministry's Regional Office at Shillong.	Complied. The toxicity study was carried out during the time project execution period.
XXXI	Company shall ensure good housekeeping at the drilling site.	Complied.
XXXII	Company shall have own Environment Management Cell having qualified persons with proper background. Full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.	Complied. OIL has Environment Cell along with laboratory facilities to carry out environmental management and monitoring functions. Details are enclosed as Annexure – A.

ANNEXURE - A**ENVIRONMENT MANAGEMENT CELL OF OIL INDIA LIMITED - FHQ, DULIAJAN**

S.No	NAME	DESIGNATION	QUALIFICATION
1.	Sri. Rupam Jyoti Sutradhar	Deputy General Manager (HSE)	B.Sc (Chemistry), M.Sc (Chemistry)
2.	Sri. Swapnanil Kakaty	Deputy Chief Engineer (HSE)	B.E (Electrical Engineering)
3.	Sri. Sachin Kumar Verma	Superintending Engineer (HSE)	B.Tech (Environmental Engineering)
4.	Sri. Akash Neel Das	Superintending Engineer (HSE)	B.E (Mechanical Engineering), PG Diploma (Fire & Safety Management), PGDM
5.	Sri. Bantupalli Sai Venkatesh	Superintending Engineer (HSE)	B.E (Civil Engineering), M.Tech (Environmental Engineering)

Annexure - C



ऑयल इंडिया लिमिटेड
(भारत सरकार का उद्यम)
Oil India Limited
(A Government of India Enterprise)

Health Safety & Environment Department

P.O. DULIAJAN-786602,

ASSAM, INDIA

Phone : 0374-2800542

Fax : 0374-2801796

Email: safety@oilindia.in

Ref. No.: S&E/E/21(B)/940

Date: 20.09.2023

To
**The Member Secretary,
Pollution Control Board, Assam,
Bamunimaidam, Guwahati- 781021.**

Sub: Submission of Environmental Statement (Form-V) under Environment (Protection) Rules, 1986.

Sir,

With reference to the above subject, we are submitting herewith the Environmental Statement (Form-V) for the financial year ending 31st March, 2023 pertaining to the operations of Oil India Limited in the districts of Dibrugarh, Tinsukia, Sivsagar and Charaideo in Assam.

Thanking You,

Yours faithfully
OIL INDIA LIMITED

(Ajit Chandra Haloi)
Executive Director (HSE)
For Resident Chief Executive

Encl: As above.

Copy:

1. Regional Executive Engineer,
Pollution Control Board Assam,
Back Side of ASTC Bus Station,
Chowkidinghee, Dibrugarh,
PIN: 786001.
2. Executive Engineer,
Regional Laboratory cum Office,
Pollution Control Board Assam,
Melachakar, Sivsagar,
PIN: 785640.

Summary of the Project

The project was initiated in 1998 and has since then been a continuous effort to improve the quality of the project. The project has been successful in achieving its goals and has been a valuable experience for all involved.

Project Objectives

The project objectives were to improve the quality of the project and to ensure that the project was completed on time and within budget.



Project Results

The project results were as follows:

- 1. Improved the quality of the project.
- 2. Completed the project on time and within budget.
- 3. Increased the efficiency of the project.

The project was successful in achieving its goals and has been a valuable experience for all involved. The project has been completed on time and within budget and has resulted in improved quality and efficiency.

The project was successful in achieving its goals and has been a valuable experience for all involved. The project has been completed on time and within budget and has resulted in improved quality and efficiency.

The project was successful in achieving its goals and has been a valuable experience for all involved.

The project was successful in achieving its goals and has been a valuable experience for all involved.

The project was successful in achieving its goals and has been a valuable experience for all involved.

The project was successful in achieving its goals and has been a valuable experience for all involved.

The project was successful in achieving its goals and has been a valuable experience for all involved.

The project was successful in achieving its goals and has been a valuable experience for all involved.

The project was successful in achieving its goals and has been a valuable experience for all involved.

The project was successful in achieving its goals and has been a valuable experience for all involved.

FORM - V
(See Rule 14)
ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE
31st MARCH, 2023

PART - A

(i) **Name and address of the owner/occupier of the industry operation or process.**

OIL INDIA LIMITED
P.O. DULIAJAN
DIST. DIBRUGARH
ASSAM -786602.

Note: Environmental Statement (Form - V) is pertaining to the operations of Oil India Limited in the districts of Dibrugarh, Tinsukia, Sivasagar and Charaideo in Assam.

(ii) **Industry category:** Red - Oil and gas extraction (on-shore extraction through drilling wells)

(iii) **Production capacity - Units**

OIL's production target is fixed as per the Memorandum of Understanding (MoU) with Ministry of Petroleum and Natural Gas, Govt. of India, which varies from year to year.

Production details during F.Y. 2022-23:

- **Crude Oil:** 3.114 MMT.
- **Natural Gas:** 2809.214 MMSCM
- **LPG:** 32,100 MT.

(iv) **Year of establishment:**

OIL INDIA LTD. was formed in 1961 as a joint venture with M/S. Burma Oil Company, UK and on 14th Oct. 1981, OIL became a fully owned Govt. of India Enterprise.

(v) **Date of last Environmental Statement submitted:** 20.09.2022.

PART - B

WATER AND RAW MATERIAL CONSUMPTION

(I) Water consumption m³/d:

S.No	Purpose	Water Consumption (m ³ / day)
1.	Process & Cooling	14473.7
2.	Domestic	16038.63
TOTAL		30512.33



Name of Products	Process water consumption per unit of product output	
	During F.Y. 2021-22	During F.Y. 2022-23
(1)	(2)	(3)
Hydrocarbon (Crude Oil, Natural Gas, LPG)	1.12 m ³ /MT (Approx.)	1 m ³ /MT (Approx.)

(II) Raw material consumption

*Name of raw materials	Name of products	Consumption of raw material per unit	
		During F.Y. 2021-22	During F.Y. 2022-23
No raw materials are used as Oil India Limited is engaged in Exploratory and development drilling activities & production of Crude Oil and Natural Gas. However, chemicals such as Bentonite are used for preparation of Water based drilling mud.			

PART - C

POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT

(Parameter as specified in the consent issued).

Pollutants	Quantity of Pollutants Discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	NIL. There is no discharge of pollutants from drilling locations and Production Installations. <ul style="list-style-type: none"> Wastewater generated from drilling locations is treated in Effluent Treatment Plant (ETP) and reused back in the drilling operation. The formation water generated after separation from crude oil and 	<ul style="list-style-type: none"> Quality of ETP treated water from the drilling locations is analyzed frequently. (Test report is enclosed as Annexure - 1). Quality of Formation water is analyzed frequently (Test report enclosed as Annexure- 	No variation is observed. All parameters of treated effluent and Formation water are within the permissible limits.



	treatment is pumped back to the underground formation (depth greater than 1600 m) through formation water disposal wells.	II)	
(b) Air	No major air pollutants are emitted from Oil & Gas exploratory and development drilling and production activities except Stack Gas emissions at drilling locations and Production Installations & Flaring at Oil Collecting Stations.	Stack Gas and Ambient Air Quality (AAQ) monitoring is carried out frequently at drilling locations and Production Installations (Test report enclosed as Annexure- III)	No variation is observed. All parameters of Stack Gas emissions and Ambient Air are within the permissible limits.

PART - D
HAZARDOUS WASTES

(As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

Hazardous Wastes	Category of Hazardous Waste as per Schedule - I of HW Rules, 2016	Total Quantity generated	
		During F.Y. 2021-22	During F.Y. 2022-23
a) From process	S.No. 2.2 Sludge containing Oil	9943 MT	4671.52 MT
	S.No. 5.1 Used or Spent Oil	60 KL	208 KL
	S.No. 33.1 Empty barrels/containers/liners contaminated with hazardous chemicals/ wastes	41569 Nos.	26616 Nos.
	S.No. 33.2 Contaminated cotton rags or other cleaning materials	3.7 MT	6.19 MT
b) From pollution control facilities	S.No. 33.5 Chemical sludge from waste water treatment	2600 KL	120.84 KL



PART - E
SOLID WASTES

Solid Wastes	Total Quantity	
	During F.Y. 2021-22	During F.Y. 2022-23
(a) From process		
Drill Cuttings	23,000 m ³ (Approx.)	27,000 m ³ (Approx.)
(b) From pollution control facilities	NIL	
(c)		
(1) Quantity recycled or re-utilized within the unit.	N/A	
(2) Sold	N/A	
(3) Disposed	N/A	

PART - F

PLEASE SPECIFY THE CHARACTERIZATION (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.

(I) Hazardous Wastes:

Name of the Hazardous Waste	Quantity generated during F.Y. 2022-23	Disposal Practices
a) Sludge containing Oil	4671.52 MT	Sent to Sludge Processing Plant for oil recovery followed by Bioremediation
b) Used or Spent Oil	208 KL	Stored in barrels under covered shed and sold to authorized recyclers through auction
c) Empty barrels/containers/liners contaminated with hazardous chemicals/wastes	26616 Nos	Sold to authorized recyclers through auction
d) Contaminated cotton rags or other cleaning materials	6.19 MT	Bioremediation
e) Chemical sludge from waste water treatment	120.84 KL	Disposed in HDPE lined pits



(I) Solid Wastes:

Name of the Solid Waste	Quantity generated during F.Y. 2022-23	Disposal Practices
a) Drill Cuttings	27,000 m ³ (Approx.)	Disposed in HDPE lined pits

PART – G**IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION**

- Acoustic enclosures have been provided around all gensets to reduce noise levels.
- Recovery of drilling mud from drill cuttings by using a combination of Vertical Cutting Dryer (VCD) and a high-performance centrifuge.
- Wastewater generated from drilling locations is collected in HDPE lined pits, treated in Effluent Treatment Plant (ETP) with Reverse Osmosis unit and the treated effluent is reused back in the drilling operation.
- Formation water generated from Production Installations is treated in Effluent Treatment Plant (ETP) before disposal in the abandoned/ water disposal wells.
- Processing of oily sludge for recovery of Crude oil and further treatment of sludge through Bioremediation.
- Construction of central concrete pit for disposal of waste mud.
- Treatment of Biomedical waste through incinerator.
- Plantation of 50,000 saplings was carried out at 8 nos. of abandoned OIL well sites.

PART – H**Additional measures/investment proposal for environmental protection, abatement of pollution, prevention of pollution.**

- MoU with District Administration, Tinsukia for treating the legacy waste of Tinsukia Municipality through the process of Biomining.
- Proposal for construction of Community Sewage Treatment Plant (STP) at Duliajan.
- MoU with Digboi Forest division, Assam for carrying out afforestation in 100 Ha of degraded forest area.
- MoU with IIT Guwahati to study the feasibility of using treated drill cutting as a building material.

PART – I**ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF THE ENVIRONMENT.*******
