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Government of India Ministry of Environment, Forest and Climate Change (Issued by the State Environment Impact Assessment Authority(SEIAA), West Bengal)

To,

The General Manager OIL AND NATURAL GAS CORPORATION LIMITED MBA Basin, 4th Floor Technopolis Building Block BP-4, Sector-V

Salt Lake, Kolkata-91 -700091

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/WB/IND2/277881/2022 dated 13 Jun 2022. The particulars of the environmental clearance granted to the project are as below.

1. EC Identification No. EC22B002WB155201 EN/T-II-1/042/2022 2. File No. 3. **Project Type** 4. Category B₂

5. Project/Activity including 1(b) Offshore and onshore oil and gas Schedule No. exploration, development & production

Proposed Onshore Exploratory drilling of 7 wells in Bengal Onshore OALP-III Block 6. Name of Project BP-ONHP-2018/1 situated in North 24 Parganas and South 24 Parganas

districts, West Bengal by M/š. ONGC Limited, MBA Basin

7. Name of Company/Organization OIL AND NATURAL GAS CORPORATION LIMITED 8. **Location of Project** West Bengal

9. **TOR Date** N/A

The project details along with terms and conditions are appended herewith from page no 2 onwards.

(e-signed) Kaliyamurthi Balamurugan Date: 26/09/2022 Member Secretary SEIAA - (West Bengal)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH.Please quote identification number in all future correspondence.

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Background of the project

The proponent made online application vide proposal no. SIA/WB/IND2/277881/2022 dated 13.06.2022 seeking environment clearance under the provisions of the EIA Notification, 2006 for the proposed Onshore Exploratory drilling of 7 wells in Bengal Onshore OALP-III Block BP-ONHP-2018/1 situated in North 24 Parganas district (villages Phulsara, Uttar Shibpur, Aziznagar, Patharghata) and South 24 Parganas district (villages Begampur, Andulgari, Netra), West Bengal by M/s. Oil & Natural Gas Corporation Limited.

The proposal has been examined and processed in accordance with the EIA Notification, 2006. The proposal for Exploratory Drilling of 7 nos. of wells. The exploratory wells will be drilled to explore the reservoirs up to a maximum depth of 2500-6000m.

Salient of the proposed project as per PARIVESH Portal are as follows –

Proposed Project	Proposed Onshore Exploratory drilling of 7 wells in Bengal Onshore OALP-III Block BP-ONHP-2018/1 situated in North 24 Parganas and South 24 Parganas Districts, West Bengal								
Name of blocks	OALP-III Block BP-ONHP-2018/1								
Area of block	2468 Sq.Km								
Average elevation	10 m								
Project Location	OALP-III Block BP-ONHP-2018/1 situated in North 24 Parganas and South 24 Parganas districts, West Bengal Coordinates of the Block								
			Point			LONGITUDE			
			A. 22° 10' 0" B. 22° 10' 0"			88° 30' 0"			
				22° 10' 0"		88° 20' 0"			
			C.	22° 30' 0"			88° 20' 0" 88° 30' 0"		
			E.	22° 42' 0"			0'0"		
			F.	22° 42' 0"	88° 4 88° 4		and the same of th		
			G.	23° 10' 0"					
			J.	23° 10' 0"	CONTRACTOR OF STREET		50' 0"		
			J.	22° 20' 0"	88° 5				
			K.	22° 20' 0"	88° 3				
			A.	22° 10' 0"	88° 3				
Proposed well locations	В	Block	Well	District	Blo	ck	Villag	e	
		OALP-III Block BP- ONHP-2018/1	EC1	North 24 Parganas	Gaighata		Phulsara		
			EC2	North 24 Parganas	Baduria		Uttar Shibpur		
			EC3	North 24 Parganas	Deganga		Aziznagar		
		[] -H-	EC4	South 24 Parganas	Baruipur		Begampur		
			EC5	South 24 Parganas	· Bhangar - I		Andulgoria		
			EC6	North 24 Parganas			Patharghata		
			EC7	South 24 Parganas	Canning – II		Netra		
		N. B: the well location is tentative and will be confirmed before filing of application							
Product & Quantity	D	Drilling of 7 nos. of exploratory wells within OALP-III Block BP-ONHP-							
	2	018/1 to	a maxim	um depth of 2500-6000	m				
Duration of Drilling	90-150 days								
Land Area	For well site during drilling will be 150m x 150m i.e. 5.5 acres OR 2.25					.25			
	H	Ha, including site facilities and for camp site.							

Project Cost	INR 210 Crore for 7 nos. of exploratory wells								
Pollution Control Cost	Capital Cost: 76 Lacs for each well; Recurring Cost: 15 Lacs/Well								
Water requirement and source	Total Water Requirement for each well: 22 KLD (Domestic: 3 KLD; Drilling water consumption for mud preparation: 12 KLD; Jet wash – washing of drill cuttings at shale shaker: 1.5 KLD/well; Preparation of cementing materials: 4 KLD/well; General housekeeping/ washing: 1.5								
	KLD/well) Surface water will be utilized and will be transported by contractual water tankers on a weekly basis.							tractual	
Waste Water generation	Type of wastewater					Amount (KLD)			
8		Drilling and rig wash Wastewater					6		
		Domestic Wastewater (Sewage)				2.5			
Power Requirement & source	requirem No of DO	ents 3 Set	ement per rig v during site prepa s of 1430 KVA e	ration and drill ach. DG Sets	ing p	hase wil	l be met	by 4	
	Location		DG Capacity	Fuel Requiremen	2721	tack eight	Stack (m)	dia	
	Drilling Site		4 X 1430 KVA (3 working and 1 standby)	HSD- 6 KLD			0.21		
Manpower	Total I	Manp	ower: 12-15 d	uring (Constru	uction	n Phase	e) and	during	
requirement	Operational Phase around 30 ONGC employees & 30 contingent workers								
	from loc	al ar	ea.						
Hazardous Waste	Hazardous waste					Quan			
generation		Oily waste used oil & spent Oil				1 m3 per well			
			tes/residues conta		5-10 Kg/Well				
		Discarded containers/barrels/ liners contaminated with hazardous waste 50 Nos./Year							
Solid Waste							5./ I Cui		
					One	ntity	3.7 T Cui		
generation					- 11111	ntity 0 kg pe			
generation		Kitcl	nen Waste	te grant	10-2	0 kg pe			
generation		Kitcl	nen Waste clable waste like	te grant	10-2				
generation		Kitcl Recy plast	nen Waste clable waste like	te grant	10-2 Neg	0 kg pe	r day		
generation		Kitcl Recy plast Pack Drill base	nen Waste clable waste like ics, aging wastes cutting generated d Mud and not co	papers,	10-2 Neg 2.3	0 kg pe ligible	r day		
generation		Kitcl Recy plast Pack Drill based with	nen Waste clable waste like ics, aging wastes cutting generated Mud and not co oil.	papers,	10-2 Neg 2.3	lo kg pe ligible Fon/wel	r day		
generation Area for Greenbelt	The per	Recy plast Pack Drill based with Wast	nen Waste clable waste like ics, aging wastes cutting generated d Mud and not co	papers, d from Water entaminated	10-2 Neg 2.3	0 kg pe ligible Γοη/wel -600 Τος	r day	50 m x	
	-	Kitcl Recy plast Pack Drill based with Wast	nen Waste clable waste like ics, aging wastes cutting generated Mud and not co oil. e Drilling Mud	papers, d from Water ontaminated	10-2 Neg 2.3 ' 150- 450- xima	O kg pe ligible Γοη/wel -600 Τος -900 Τος te dime	r day l n/well nsions 1		
	150 m	Kitch Recy plast Pack Drill based with Wast ipher is no	nen Waste clable waste like ics, aging wastes cutting generated d Mud and not co oil. te Drilling Mud y around the dril	papers, d from Water entaminated ll site of approd	10-2 Neg 2.3 150- 450- xima aplin	CO kg pe ligible Fon/wel -600 To -900 To te dimens	r day I n/well nsions 1 roximate	ely 120	
	150 m saplings	Kitch Recy plast Pack Drill based with Wast ipher is ne	nen Waste clable waste like ics, aging wastes cutting generated Mud and not co oil. te Drilling Mud y around the dril ccessarily planted	papers, d from Water ontaminated ll site of approd with local sained till the ri	10-2 Neg 2.3 7 150- 450- xima aplin g mo	Co kg pe ligible Fon/wel -600 To -900 To te dime gs (app	r day l n/well nsions 1 roximate he next l	ely 120 ocation	
	150 m saplings after 90	Kitcl Recy plast Pack Drill based with Wast ipher is not to 15	nen Waste clable waste like ics, aging wastes cutting generated d Mud and not co oil. te Drilling Mud y around the dril excessarily planted thereafter maint	papers, d from Water entaminated ll site of approd with local sained till the rions. The planta	Neg 2.3 150 450 xima aplin g montion	Co kg pe ligible Fon/wel -600 To te dimensus (app ves to the	r day I n/well nsions 1 roximate the next I and if n	ely 120 ocation o oil or	
	150 m saplings after 90 gas is o	Recy plast Pack Drill base with Wast ipher is no 3) and to 15 discov	nen Waste clable waste like ics, aging wastes cutting generated d Mud and not co oil. te Drilling Mud y around the dril cessarily planted thereafter maint 0 days of operati	papers, d from Water ontaminated l site of approd with local s ained till the rions. The plantal land is restored.	Neg 2.3 150- 450- xima aplin g montion ed ba	Fon/wel Fon/wel Fon/ Ton Fon	r day I n/well nsions 1 roximate the next I and if next sear of	ely 120 ocation o oil or original	

State Level Environment Impact Assessment Authority (SEIAA), West Bengal examined the proposal and also perused recommendations of the State Level Expert Appraisal Committee (SEAC). After due consideration of the project proposal, and after considering the recommendations of the State Level Expert Appraisal Committee (SEAC), the State Level Environment Impact Assessment Authority accords Environmental Clearance to the project as per provisions of the EIA notification no. S.O. 1533 (E) dt. 14th September, 2006 of Ministry of Environment & Forests, GOI and the subsequent amendments, on the basis of above mentioned features along with other details submitted to SEIAA subject to strict compliance of the terms and conditions mentioned below.

A. Specific conditions:-

- i) No drilling shall be carried out in Protected Areas/forest area.
- ii) Approach road shall be made pucca to minimize generation of suspended dust.
- iii) Total water requirement shall not exceed 22 KLD/well proposed to be met through tankers. Mobile ETP shall be installed coupled with RO to reuse the treated water in drilling system. Size of the waste shall not exceed from the hole volume of the well + volume of drill cutting expected to be generated and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible, pit less drilling be practiced instead of above.
- iv) No lead acid batteries shall be utilized in the project/site.

B. General Conditions

I. Statutory compliance

- i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, if drilling is carried in Forest areas.
- ii) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the State pollution Control Board.
- iii) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- iv) The project proponent shall obtain and adhere to statutory clearance under the Coastal Regulation Zone Notification, 2011, if applicable.

II. Air quality monitoring and preservation

- i) The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with.
- ii) The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one stations each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- iii) Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM10, PM2.5, SO2, NOX, CO, CH4, HC, Nonmethane HC etc.
- iv) During exploration, production, storage and handling, the fugitive emission of methane, if any,

shall be monitored.

- v) The project proponent also to ensure trapping/storing of the CO₂ generated, if any, during the process and handling.
- vi) Approach road shall be made pucca to minimize generation of suspended dust.

III. Water quality monitoring and preservation

- As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land. Domestic sewage shall be disposed off through septic tank/soak pit.
- ii) The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air/Water Act, whichever is more stringent.
- The project proponent 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.
- iv) Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies. The project proponent 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 30th August, 2005.

IV. Noise monitoring and prevention

- i) Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- ii) The overall noise levels in and around the drilling location areas shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation.
- iii) The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures

i) The energy sources for lighting purposes shall preferably be LED based.

VI. Waste management

- i) 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.
- ii) Oil content in the drill cuttings shall be monitored by Authorized agency and report shall be sent to the State Environment Impact Assessment Authority.

VII. Safety and Human health issues

- i) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii) Blow Out Preventer 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.
- iii) The project proponent shall prepare operating manual in respect of all activities, which would cover

- all safety & environment related issues and 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. Remote monitoring of site should be done.
- iv) On completion of drilling, the project proponent should plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.
- v) The project proponent 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.
- vi) The project proponent 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.
- vii) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Preemployment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- viii) The project proponent shall develop a contingency plan for H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S detectors in locations of high risk of exposure along with self-containing breathing apparatus
- ix) 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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- x) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xi) The project proponent shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry of Environment, Forests & Climate Change / State Environment Impact Assessment Authority / State Pollution Control Board.

VIII. Environment Management Plan (EMP)

- i) The project proponent should submit the proposed EMP on a six monthly basis. The Office Memorandum issued by the MoEF & CC vide F. No. 22-65/2017-IA.III dated 30.09.2020 should be strictly followed.
- ii) Need based activities for local people is part of the EMP.
- iii) The company shall have a well laid down-environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the Ministry of Environment, Forests & Climate Change / State

Environment Impact Assessment Authority / State Pollution Control Board as a part of six-monthly report.

- iv) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of Senior Executive, who will directly report to the head of the organization.
- v) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose.
- vi) Year wise progress of implementation of action plan shall be reported to the Ministry of Environment, Forests & Climate Change / State Environment Impact Assessment Authority / State Pollution Control Board along with the Six-Monthly Compliance Report.
- vii) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

IX. Additional conditions

(1) Short term need-based activities to be identified and implemented. Name of the beneficiary should be displayed at site.

X. Miscellaneous

- i) The environmental clearance accorded shall be valid for a period of 10 years for the proposed project or till the exploration period whichever is earlier.
- ii) This is EC issued for exploratory wells only and those wells shall not be converted to production wells without prior permission from State Environment Impact Assessment Authority.
- iii) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- iv) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- v) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- vi) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions to Ministry of Environment, Forests & Climate Change / State Environment Impact Assessment Authority / State Pollution Control Board.
- vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- viii) The project proponent shall inform the State Environment Impact Assessment Authority, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
 - ix) Restoration of the project site shall be carried out satisfactorily and report shall be sent to the

State Environment Impact Assessment Authority.

- x) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- xi) The project proponent shall abide by all the commitments and recommendations made in the EMP report and also that during their presentation to the State Expert Appraisal Committee.
- xii) No further expansion or modifications in the project shall be carried out without prior approval of the State Environment Impact Assessment Authority.
- xiii) The State Environment Impact Assessment Authority / State Pollution Control Board shall monitor compliance of the stipulated conditions.
- xiv) The project authorities should extend full cooperation to the officer(s) of the State Environment Impact Assessment Authority / State Pollution Control Board by furnishing the requisite data / information/monitoring reports.
- xv) The State Environment Impact Assessment Authority reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The State Environment Impact Assessment Authority may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.
- xvi) Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xvii) Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- xviii) The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.
 - xix) The contact details of the proponent and the name of the consultant are given below –

Name of the Contact person with Designation	Mr. Champak Mitra, General Manager				
Address	MBA Basin, 4 th Floor, Technopolis Building, Block BP-4, Sector – V, Salt Lake, Kolkata – 700 091.				
Email	hhsemba2022@gmail.com				
Telephone Number Fax No.	033-23670121				
Name of the Environmental Consultant	M/s. ABC Techno Labs India Pvt. Ltd.				