



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

To,

The Sr. Manager - Environment

M/s Vedanta Limited(Division Cairn Oil & Gas)

Cairn Oil & Gas, Vedanta Limited, DLF Atria, DLF Phase-2, DLF City,  
Gurgaon, Haryana - 122002 Cairn Oil & Gas, Vedanta Limited, DLF Atria,  
DLF Phase-2, DLF City, Gurgaon, Haryana - 122002 -122002

**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/AS/IND2/221726/2021 dated 16 Dec 2021. The particulars of the environmental  
clearance granted to the project are as below.

- |   |  |
|---|--|
| 1. EC Identification No.                      | EC22B002AS164784   |
| 2. File No.                                   | SEIAA.1855/2021  |
| 3. Project Type                               | New  |
| 4. Category                                   | B2   |
| 5. Project/Activity including<br>Schedule No. | 1(b) Offshore and onshore oil and gas<br>exploration, development & production   |
| 6. Name of Project                            | Onshore Oil and Gas Exploration,<br>Appraisal and Early Production in AA-<br>ONHP-2017/5 Block in Jorhat, Majuli and<br>Sivasagar Districts of Assam |
| 7. Name of Company/Organization               | M/s Vedanta Limited(Division Cairn Oil &<br>Gas)   |
| 8. Location of Project                        | Assam  |
| 9. TOR Date                                   | N/A  |

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

Date: 07/02/2022

(e-signed)  
Indreswar Kalita  
Member Secretary  
SEIAA - (Assam)

*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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PARIVESH

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and Virtuous Environmental Single-Window Hub)



This has reference to your application for Prior Environmental Clearance **Proposal No. SIA/AS/IND2/221726/2021 dated 16/12/2021** along with Form-2, Pre-feasibility Report, Project Summary, EMP and the additional clarifications furnished in response to the observations of the SEAC & SEIAA, Assam for further necessary action for proposed Onshore Oil & Gas Exploration, Appraisal & Early production in AA-ONHP-2017/5 Hydrocarbon Block falling in Jorhat, Majuli & Sivasagar District in Assam.

The project proposal requesting EC for Early production from the proposed **“Onshore Oil and Gas Exploration, Appraisal and Early Production Project in AA-ONHP-2017/5 Hydrocarbon”** proposed by **Vedanta Limited** is placed before the SEAC for appraisal and detail deliberation. Necessary scrutiny of the documents is made. Appraised the proposal and necessary discussion is held. The proponent was invited to give presentation on the project proposal, and accordingly presentation is given elaborating the project in details. Detailed discussion is held among the members of the SEAC in presence of representatives of the project proponent. After a thread bare deliberation, the committee recommended the project proposal approving for issuance of EC against exploration and early production in 14 well sites & EPU under block -V in the Districts of **Jorhat** and **Sivasagar** as shown in the following table.

Sl.No	Well No.	District	Location	Sl.No	Well No.	District	Location
1	1	Jorhat	Phukanbari Gaon	1	3	Sivasagar	Dulakharia Gaon
2	2		Chowdang Gaon	2	8		Nora Knower Bailung
3	4		Dulia Bharali Gaon	3	9		Baruati
4	5		Jelengitup Gaon	4	10		Hati Ghuli
5	6		No.2 Kawaimari Gaon	5	11		Mitong Nakatani
6	7		Bokur Pathar Gaon	6	12		Nowbaisa Gaon
7	14		Jelengitup Gaon	7	13		No.1 Chintamoni Garh

The conditions as per SOP shall have to strictly follow by the proponent. Further, utmost care should be taken by the proponent not to cause any damage in the surrounding environment.

2. Brief details of the Project:

1	Category/ Item No. ( In Schedule):	1(b) B2
2.	Location of Project	(a) Plot/ survey/ Khasra No. G46E/4, G46K/1, G46E/8, G46K/5, G46E/12 and G46K/9, Pin:- 785001 (b) Bounded Latitudes (North) From 26 <sup>0</sup> 50' 0" to 27 00' 0"

  
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		(c) Bounded Longitudes (East) From 94 <sup>0</sup> 10' 0" to 94 <sup>0</sup> 10' 0" (d) Survey of India Topo Sheet No G46E/4, G46K/1, G46E/8, G46K/5, G46E/12 and G46K/9 (e) Distant of nearest HFL from the project boundary within the study area 0 (f) Seismic Zone – 5		
3.	Project Details	Vedanta Limited (Div: Cairn Oil & Gas) proposes to carry out oil and gas exploration (including exploratory and appraisal well drilling) and setting up of 4 Nos. early production units for production of oil & gas. The AA-ONHP-2017/5 onshore block covers an area of 758 Sq.Km. in Jorhat, Majuli & Sivasagar districts of Assam. All activities involve in the exploratory process will be restricted within the block area situated in the Jorhat, Majuli & Sivasagar District, Assam. The exploratory wells in the Geographical location has been given in Table-4 (Coordinates of proposed well locations in Assam) are approved for exploration.		
4.	Total Project Cost	400 Crores.		
5.	Water Requirement & source	Water requirement: 102 Cu.M water per well will be required for drilling of wells. Sourcing of water requirement: water requirement for all the project activities would be sourced locally through Govt. approved/ authorized sources. No Bore wells shall be drilled for extraction of ground water for this project activities in AA-ONHP-2017/5 as the water requirement is very minimal and only for short period of time.		
6.	Power Requirement	(a) Quantity (KVA)	4100	
		(b) Source	DG Sets E & A & 1MW GEG during EPU	
		(c) Uploaded Copy of Agreement	Not Applicable	
		(d) Standby Arrangement ( Details of DG Sets)	1 Unit of 350 KVA, 1 Unit of 1000 KV, 1 Unit of 250 KVA, 1 Unit of 100 KVA, 1 Unit of 1850 KVA, 1 Unit of 50 KVA.	
		(e) Stack Height (in m)	10	
7.	Environment Management Plan	Environment Management Plan (EMP) has been submitted to SEIAA office. Cost of Environment Management Plan (EMP) including Greenbelt/ plantation:- The tentative budget for implementation of the EMP including environmental monitoring and Green/ plantation would be INR 20 Lakh per well during drilling activity.		
		Sl. No.	Particulars	Approx. budget/ well (INR) in Lakh
		1	Air quality management	10 Lakh per well
		2	Noise monitoring	
3	Surface and Ground water Quality			



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		4	Soil Quality		
		5.	Waste management		
		6.	Greenbelt/ Plantation		
		7.	EMP cost for Wastewater Treatment	10 Lakh per well	
		The tentative budget for implementation of the EMP including environmental monitoring and Green/ plantation would be INR 22.0 Lakh for each Early Production Unit per year.			
		Sl. No.	Particulars	Approx. budget/ well (INR) in Lakh	
		1	Air quality management	11 Lakh per well	
		2	Noise monitoring		
		3	Surface and Ground water Quality		
		4	Soil Quality		
		5.	Waste management		
		6.	Greenbelt/ Plantation		
		7.	EMP cost for Wastewater Treatment		11 Lakh per well
8	CSR /ESR Activities	Detailed Outlay of CER (Corporate Environmental Responsibility) Budget: <b>Vedanta Limited</b> (Div: Cairn Oil & Gas) will comply as per OM issued by MOEF & CC time to time.			
9	Green Belt/ Plantation	Greenbelt/ Plantation will be carried out suitably. 33% of the total project area.			
10	Budgetary Breakup for Labour	Estimated Budgetary Breakup for Labour Welfare: The following provisions will be made towards Labour Welfare during Drilling activities:			
		S. No.	Particulars	Estimated Budget per well (in Lakhs)	
		1.	Safe drinking water for workforce	6.0 Lakhs/Well (Approx.)	
		2.	Sanitation facilities		
		3.	First aid facility and ambulance for emergency medical evacuation		
		4.	PPEs (Safety Boots, Helmet, Mask, ear plugs, gloves, etc.		
		5.	Environmental, safety & occupational health and wellness awareness program		
		The following provisions will be made towards Labour Welfare during Early Production activities:			
		S. No.	Particulars	Estimated Budget per well (in Lakhs)	
		1.	Safe drinking water for workforce	2.0 Lakhs/Well (Approx.)	
2.	Sanitation facilities				



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		3.	First aid facility and ambulance for emergency medical evacuation	
		4.	PPEs (Safety Boots, Helmet, Mask, ear plugs, gloves, etc.	
		5.	Environmental, safety & occupational health and wellness awareness program	

Accordingly, SEIAA, Assam hereby accords necessary Environmental Clearance for the above project as per the provisions of Environmental Impact Assessment Notification, 2006 and its subsequent amendments, approved for issuance of EC in respect of the following 14 well sites & EPU falling in the Districts of Jorhat, Majuli & Sivasagar as shown in the following table subject to strict compliance of the terms and conditions as follows:-

Sl.No	Well No.	District	Location	Sl.No	Well No.	District	Location
1	1	Jorhat	Phukanbari Gaon	1	3	Sivasagar	Dulakharia Gaon
2	2		Chowdang Gaon	2	8		Nora Knower Bailung
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7	14		Jelengitup Gaon	7	13		No.1 Chintamoni Garh

#### I. Statutory compliance:

- The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of Schedule-I species in the study area)

  
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 SEIAA, Assam  
10/10/2022

iv. 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 concerned State Pollution Control Board/Committee.

v. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

vi. The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

## **II. Air quality monitoring and preservation.**

i. The project proponent shall install 24×7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under environment (Protection) Act, 1986.

iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM25 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120 each), covering upwind and downwind directions.

iv. To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. Sulphur content should not exceed 0.5% in the coal for use in coal fired boilers to control particulate emissions within permissible limits (as applicable). The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.

v. Storage of raw materials, coal etc shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

vi. National Emissions Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21<sup>st</sup> July, 2010 and amended from time to time shall be followed.

vii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be complied with.

## **III. Water quality monitoring and preservation**

i. The project proponent shall provide online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (applicable in case of the projects achieving ZLD).

ii. As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises (applicable in case of the projects achieving the ZLD).



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SEIAA, Assam  
20/2/22

- iii. 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.
- iv. Total fresh water requirement shall not exceed the proposed quantity or as specified by the Committee. Prior permission shall be obtained from the concerned regulatory authority/ CGWA in this regard.
- v. Process effluent/any waste water shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
- vi. The company harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilized the same for different industrial operations within the plant.
- vii. The DG sets shall be equipped with suitable Pollution control devices and the adequate stack height so that the emissions are in conformity with the extant regulations and the guidelines in this regard.

#### **IV. Noise monitoring and preservation**

- i. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- ii. 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.
- 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. Hazardous chemical shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
- ii. Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- iii. The Company shall undertake waste minimization measures as below:-
  - a. Metering and Control of quantities of active ingredients to minimize waste.
  - b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - c. Use of automated filling to minimize spillage.
  - d. Use of Close Feed system into batch reactors.
  - e. Venting equipment through vapors recovery system.
  - f. Use of high pressure hoses for equipment clearing to reduce waste water generation.

#### **VII. Green Belt**

The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

#### **VIII. Safety, Public hearing and Human health issues**

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.



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- ii. The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- iii. The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- iv. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment 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.
- v. 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.
- vi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- vii. There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

#### **IX. Corporate Environment Responsibility**

- i. The project proponent shall comply with the provisions contained in this Ministry's IM vide F.No.22-65/2017-IA III dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environment policy duly approved by the Board of Directors. The environment policy should prescribe for standards operating procedures to have proper checks and balances and to bring into focus any infringements/ 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 MOEF& CC as a part of six-monthly report.
- iii. 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.
- iv. 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. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

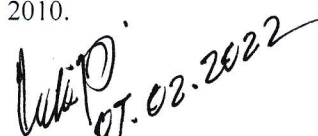
#### **X. Miscellaneous**

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safe guards 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.
- ii. 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.

  
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- iii. 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.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or criteria sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submitted the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and out on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment Forest and Climate Change (MoEF & CC).
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

  
OT. 02. 2022  
**Member-Secretary,**  
**SEIAA, Assam**  
**Bamunimaidam, Guwahati 781021**  
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Memo No. SEIAA.1855/2021/EC/ 24/1651 -A

Dated: 07/02/2022 .

**Copy to:-**

- The Secretary to the Govt. of Assam, Environmental & Forest Department, Dispur, Guwahati-6 for favour of kind information.
- The Chairman, PCBA for information.
- The Regional Office, MoEF, Govt. of India, Low-U-sib, Lumbatngen, Near MTC Workshop, Shillong-21 for information.
- Office Copy.

*Handwritten signature and date: 07.02.2022*

*Member-Secretary,  
SEIAA, Assam  
Bamunimaidam, Guwahati 781021.  
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