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File No: IA-J-11011/80/2024-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Date 14/05/2026



To,

Shri. Dilip Kumar Bera
M/s Vedanta Limited(Division Cairn Oil & Gas)
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Subject: Onshore Oil & Gas Development and Production in CB-ONHP-2017/2 Hydrocarbon Block, Taluka Jambusar, Dist. Bharuch, Gujarat by M/s Vedanta Limited (Div.: Cairn Oil & Gas) - Grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 -regarding.

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/GJ/IND2/572514/2026 dated 18/03/2026 for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC26A0303GJ5901592N
(ii) File No.	IA-J-11011/80/2024-IA-II(I)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(b) Off-shore and onshore oil and gas exploration, development and production
(vi) Sector	Industrial Projects - 2
(vii) Name of Project	Onshore Oil & Gas Development and Production in CB-ONHP-2017/2 Hydrocarbon Block, Taluka Jambusar, Dist. Bharuch, Gujarat.
(viii) Name of Company/Organization	M/s Vedanta Limited(Division Cairn Oil & Gas)
(ix) Location of Project (District, State)	BHARUCH, GUJARAT
(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

3. The Ministry of Environment, Forest and Climate Change has examined the proposal for proposed project Onshore Oil & Gas Development and Production in CB-ONHP-2017/2 Hydrocarbon Block, Taluka Jambusar, Dist. Bharuch, Gujarat by M/s. Vedanta Limited (Div.: Cairn Oil & Gas).

4. The proposal was considered in EAC (Ind-2) meetings held on 20th January, 2026 and 24th March, 2026 wherein the project proponent and their accredited Consultant M/s AECOM India Pvt. Ltd. (NABET Certificate No.: NABET/EIA/24-27/IA 0147 Validity: 13/11/2027), made a detailed presentation on the salient features of the project. The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B, Part C EIA, EMP)] are available on PARIVESH portal which can be accessed by scanning the QR Code available above.

5. All Projects are listed at S.N. 1 (b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

6. The details of products and capacity are enclosed at Annexure-2.

7. Terms of Reference have been obtained vide letter Identification No. TO24A0303GJ5356607N, File No. IA-J-11011/80/2024-IA-II(I), dated 03.10.2024. PP informed that no litigation is pending against them. As per granted ToR, proposed project activities include marine treated effluent disposal pipeline which attracts provisions of CRZ Notification 2011/ 2019. Based on the latest geological and other technical considerations of the prospect, the proposed marine treated effluent disposal pipeline has been dropped/ withdrawn from the overall exploration and Production Plan in the hydrocarbon block. Hence, in Final EIA and EC application, it has been removed from the scope of work. Public Hearing for the proposed project had been conducted by the Gujarat, Pollution Control Board on 02.04.2025, 11:00 am at project site, Survey no. 276, Village Panchkada, Taluka-Jambusar, District-Bharuch, Gujarat chaired by Dr. S.M Ganguli, Deputy Collector & Sub Divisional Magistrate. The main issues raised in Public Hearing and action plan submitted by PP is enclosed at Annexure -3.

8. The hydrocarbon block covers an area of 317 Sq. Km. Total land area requirement for industrial activities: an area of about 200 m X 200 m would be taken on lease basis for the construction of well pad, drill site etc. The proposed land use within the block is as follows: Well Pads-Approx. 88 ha. (Approx. 4 ha for each well pad), Central Processing Terminal (including living quarter)- 10 ha., Green belt- Approx. 33% of total operational area, Pipeline (well fluid, effluent & utilities)-190.8 ha. (RoU for laying intra field & utilities pipeline). The estimated project cost is INR 2385.22 Crores. Capital cost of EMP would be Rs. 33.5 Lakhs and the recurring cost for EMP would be Rs. 34.5 lakhs per year of each Production location and Recurring Cost 97.5 lakhs per well during drilling. Industry proposes to allocate Rs 995 lakhs towards Extended EMP (Corporate Environment Responsibility). About 80-100 manpower per well will be required for drilling a well and about 15-30 manpower will be required during Production.

9. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, wildlife Corridors etc. within 10 km distance from block. No Reserve forests/protected forests within 10 km distance.

10. Ambient air quality monitoring was carried out at 12 locations during October'23 to Jan'24 (post-monsoon) and the baseline data indicate the ranges of concentrations as: PM10 (51 - 180 µg/m³), PM2.5 (23 - 124 µg/m³), SO₂ (3.8 - 19.6 µg/m³) and NO₂ (3.8 - 47.2 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.035- 0.5 µg/m³, 0.09 - 0.9 µg/m³ and 0.38-2.5 µg/m³ with respect to PM10, SO₂ and NO_x. Additional One month Ambient air quality monitoring was carried out at 12 locations during (Jan-Feb 2026) and the baseline data indicate the ranges of concentrations as: PM10 (37.7 - 140 µg/m³), PM2.5 (20 - 89 µg/m³), SO₂ (7.0 - 30.5 µg/m³) and NO₂ (14.1-37.6 µg/m³). The resultant concentrations after the proposed project for PM10 and PM2.5 values were exceeding NAAQS due to presence of industries, burning of biomass for fuels and other construction activities. The resultant concentrations after the proposed project for rest of the concentrations were well within the NAAQS.

11. Total freshwater requirement will be Drilling: 87 KLD each well, and Production: 22 KLD at each well pad (@1 KLD per well pad) and 40 KLD at Central Processing Terminal.

From Drilling:

Industrial: 40 KLD/ well drilling wastewater treated in mobile ETP. Treated effluent will be reused back in drilling mud preparation, housekeeping, washing and sanitation usage. Domestic: 12 KLD/ well domestic wastewater will be Mobile STP. The domestic wastewater treated would be used for dust suppression etc.

From Production:

From Central Processing Terminal: Industrial: 24 KLD industrial effluent from washing and process activities will be generated which will be sent for treatment with the produced water. Domestic: 9 KLD of domestic wastewater would be generated which shall be collected and sent for further treatment.

From Each Well Pad:

Industrial: 0.7 KLD industrial wastewater from washing and process activities will be generated from each well pad which will be diverted for treatment with the produced water. Domestic: 0.2 KLD of domestic wastewater would be generated which shall be collected and sent for further treatment.

Produced Water:

- Apart from that Max. 225 KLD/ well Produced water will be generated. Cumulative maximum Produced Water generation will be approx. 3000 m3/ day (assuming 60% water cut).
- Produced water & effluent will be disposed as below:
 - i. sent to CETP AND/ OR
 - ii. produced water will be treated suitably to remove the physical impurities (sediments & Oil) & re-use for Re-injection into the reservoir for voids replacement AND/ OR
 - iii. Provision to install onsite ETP for treatment and treated effluent would be disposed-off in deep dump well >1000 m depth as per GSR 546(E).

12. The power requirement of drill rig will be met by DG sets are:

Drilling:

S. No.	Stack attached to	Fuel type	Stack Height (m)
1.	DG set with Drilling Rig – 3X1250 KVA (A/B/C) (2W+1S) or 2X1850* KVA (A/B) (1W+1S)	HSD	9
2.	DG set at camp Site – 2X350 KVA (A/B) (1W+1S)	HSD	4
3.	DG set at Liquid Mud Plant (LMP) – 3X500 KVA (A/B/C) (2W+1S)	HSD	4.5
4.	DG set at Radio Room – 2X100 KVA (1W+1S) (A/B/C)	HSD	2
5.	Diesel fired Heater-Treater or IWBH (Induced Water Bath Heater) with well testing setup – 1X350 KVA	HSD	4
6.	Flare (well testing/ extended well testing)		30

**Depending on the rig capacity and rig availability during drilling.*

Production:

Captive Power requirement at Central Processing Terminal and wellpads will be approx. 70 MW. Power requirements will be fulfilled through Gas Engine Generators (GEG)/ Gas Turbine Generators (GTG), if required, power will be taken from state electricity grid. Configurations: 4 nos. x 2.5 MW, 4 nos. x 5 MW & 4 nos. x 10 MW.

Emergency Diesel Generator:

At Central Processing Terminal: 2X850 KVA (A/B) and at each well pad: 440 KVA

Configurations: Stacks at Central Processing Terminal

S. No	Stack attached to	Fuel type	Stack Height (in m)	No. of stacks
1	Gas Engine Generators (GEG)/ Gas Turbine Generators (GTG) (4X2.5 MW) (A/B/C/D) (3W+1S)	Natural Gas	10	4
2	Gas Engine Generators (GEG)/ Gas Turbine Generators (GTG) (4X5 MW) (A/B/C/D) (3W+1S)	Natural Gas	11	4
3	Gas Engine Generators (GEG)/ Gas Turbine Generators (GTG) (4X10 MW) (A/B/C/D) (3W+1S)	Natural Gas	15	4
4	Emergency Diesel Generator – 2X850 KVA (A/B)	HSD	6	2
5	TEG Regenerator – 2X250 KVA (A/B) (1W+1S)	Natural Gas	10	2
6	Diesel fired Heater-Treater or IWBH (Induced Water Bath Heater) – 2X400 KVA (A/B) (1W+1S)	Natural Gas	10	2
7	Hot Oil/ Steam Heater – 3X1400 KVA (A/B/C) (2W+1S)	Natural Gas	11	3
8	Gas engine driven Booster Compressors (2X5740 KW) (A/B) (1W+1S)	Natural Gas	15	2
9	Gas engine driven Recycle Compressors (2X5740 KW) (A/B) (1W+1S)	Natural Gas	15	2
10	Sales Compressors (gas engine) (2X5740 KW) (A/B) (1W+1S)	Natural Gas	15	2
11	HP Flare Stack	--	30	2
12	LP Flare Stack	--	30	2

Stacks at Each Well Pad			
S.No.	Stack attached to	Fuel type	Stack Height (in m)
1.	Emergency Diesel Generator – 1X440 KVA (1W)	HSD	4.5
2.	Flare	--	30

Note# The captive power requirement and its configurations have been proposed considering the envisaged development & production. However, during execution of the project suitable configurations will be adopted.

13. **Details of Process emissions generation and its management:** Process emission sources would be Gas fired equipment, DG sets, Flare stack, which shall be monitored regularly to ensure compliances. Gas fired equipment, DG and flare stacks shall be provided with adequate height as per CPCB guidelines.

14. Details of solid waste/Hazardous waste generation and its management:

Drilling:

The expected waste generation from well drilling:

S. No.	Nature of waste	Category	Quantity from Drilling a well	Disposal
A	Hazardous Waste			
1.	Drill cuttings associated with SBM	Cat. 2.1	1500 tons/well	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
2.	Spent /Residual drilling mud	Cat. 2.3	500 tons/well	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
3.	Used Lubricating oil	Cat.5.1	2 tons/well	Used oil will be sent to CPCB/ SPCB authorized recyclers.
4.	Sludge containing oil and other drilling work	Cat. 2.2	500 tons/well	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous

S. No.	Nature of waste	Category	Quantity from Drilling a well	Disposal
				waste TSDF/ HW processing facility.
B	Non-Hazardous Waste			
1.	Drill cuttings associated with WBM	-	750 tons/ well	Will be temporarily stored in well-designed HDPE lined pit and will be further used as subgrade material for construction; back-filling in low lying areas; site restoration, etc.
2.	Municipal Solid waste	-	30 Kg per well	Food waste to be stored in a closed container and composted.
3.	Non-combustible waste containing metallic residues, glass	-	1200 Kg/well	To be disposed through registered vendors on periodic basis.
4.	Packaging wastes including drums, wooden pallets, plastic containers, plastic foils.	-	1000 kg/well	To be disposed of their registered vendors on periodic basis.
5.	Left over chemicals and materials, scrap metal, sludges, scales, batteries, spent acids, spent lubricants, filters etc.	-	300 kg/well	To be disposed of their registered vendors on periodic basis.
6.	Cement, grit, blasting and painting wastes.	-	500 kg per well	To be disposed of their registered vendors on periodic basis.

Production:

The expected waste generation during production activities from Central Processing Terminal:

Sr. No.	Nature of waste	Category	Quantity from Drilling a well	Disposal
A	Hazardous Waste			
1.	Oily sludge/ residues	Cat. 2.2	20 Tons/Year	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
2.	Waste oil (Slop oil)	Cat. 4.3	2 Tons/Year	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
3.	ETP sludge	Cat. 35.3	120 Tons/Year	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
4.	Used oil/spent oil	Cat. 5.1	20 KL/Year	Used oil will be sent SPCB/CPCB authorized recyclers.
5.	Oil contaminate ed filters, cottons, rags, gloves, etc.	Cat. 3.3	5 Tons/Year	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
6.	Waste/ residues containing oil	Cat. 5.2	10 KL/Year	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
7.	Spent Chemicals	Cat. 32.1	10 Tons/Year	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
8.	Spent Carbon	Cat. 36.2	3 Tons/Year	Collection in HDPE lined pit and disposal in Co

				processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
9.	Discarded containers/ barrels/ liners contaminated with Hazardous waste	Cat. 33.1	500 Nos./Year	Will be sent to recyclers
10.	Sludge or filters contaminated with oil	Cat. 3.3	15 Tons/Year	Will disposed as per Hazardous Waste Rules, 2016
11.	Expired Paint Sludge	Cat. 21.1	1.5 Tons/ Year	Will disposed as per Hazardous Waste Rules, 2016
Sr. No.	Nature of waste	Category	Quantity from Drilling a well	Disposal
B	Non-Hazardous Waste			
12.	Municipal Solid waste	-	2.5 Kg/day	Food waste to be stored in a closed container and composted.

The expected waste generation during production activities from each Well Pad:

Sr. No.	Nature of waste	Category	Quantity from Drilling a well	Disposal
A	Hazardous Waste			
1.	Oily sludge/ residues	Cat. 2.2	2 Tons/Year	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
2.	Waste oil (Slop oil)	Cat. 4.3	0.1 Tons/Year	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
3.	Used oil/spent oil	Cat. 5.1	0.1 KL/Year	Used oil will be sent to SPCB/CPCB authorized recyclers.
4.	Oil contaminated filters, cottons, rags, gloves, etc.	Cat. 3.3	0.3 Tons/Year	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
5.	Waste/ residues containing oil	Cat. 5.2	0.5 KL/Year	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
6.	Spent Chemicals	Cat. 32.1	1 Tons/Year	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
7.	Discarded containers/ barrels/ liners contaminated with Hazardous waste	Cat. 33.1	100 Nos./Year	Will be sent to recyclers
Sr. No.	Nature of waste	Category	Quantity from Drilling a well	Disposal
B	Non-Hazardous Waste			
8.	Municipal Solid waste	-	0.36 Tons/Year	Food waste to be stored in a closed container and composted.

15. The proposal was earlier considered by the EAC in its meeting ID EC/AGENDA/EAC/644741/1/2026 held during 20.01.2026 wherein EAC returned the proposal seeking requisite information. Information desired by the EAC and responses submitted by the project proponent is as under:

Query 1: As per the declaration of consultants submitted in the EIA/EMP report, the tenure of the EIA Coordinator and Functional Area Experts commenced from 23.02.2024, whereas the baseline environmental data was collected during the period October 2023 to January 2024. It was also noted that the baseline data analysis was carried out at a NABL-accredited laboratory located in Kolkata whereas the project is located in Bharuch district of Gujarat. The Committee desired justification for the same.

Response: Declaration of Consultants submitted in the EIA/EMP Report confirms that the tenure of the EIA Coordinator and Functional Area Experts is involved from 2023. The SAP-generated Callout/Work Order for obtaining EC/CRZ/CTE/Public Hearing for the CB-ONHP-2017-2 Block was issued to the EIA Consultant on 05.10.2023. The acknowledgement of the same was received from AECOM Consultants on 05.10.2023. Copy of the accepted Callout/COO and the acknowledgement mail is submitted.

Due to a typographical error in the declaration of Consultants in the EIA/EMP report submitted to MoEFCC, the tenure details of the EIA Coordinator and Functional Area Experts were inadvertently mentioned incorrectly. The revised declaration incorporating the correct details has now been prepared and is enclosed. The experts visited the project site during the first week of October 2023 to finalise and select the environmental monitoring locations. Photographs documenting the site visit and monitoring location selection are enclosed.

The Baseline environmental monitoring for the period October 2023 to January 2024 was carried out by M/s Qualissure Laboratory Services (QLS), Kolkata, an NABL accredited laboratory. QLS follows a stringent chain of custody protocol to ensure proper handling, preservation, and integrity of all environmental samples so that their physical and chemical characteristics remain unchanged throughout transportation and analysis. The Water Sample Chain of Custody documentation is enclosed. Additional One month (Jan-Feb2026) baseline Monitoring data has been collected from ENPRO, Enviro Tech & Engineers Pvt. Ltd., Surat based Laboratory having valid NABL certificate.

Query 2: Based on Google historical imagery, it was observed that the proposed JW-1 well has already been drilled. In this regard, the Project Proponent informed that the well was drilled under the existing Environmental Clearance granted for exploratory drilling. However, details of the said Well were not specifically mentioned in the existing EC dated 16 December 2020. The Project Proponent shall clarify the same and provide details of all existing drilled wells, clearly differentiating them in the DSS for development and production activities.

Response: We have planned the drilling of one well JW-1. This well can be accommodated against Well No. 49 as per the Environmental Clearance (EC) granted by SEIAA, Gujarat. The JW-1 location has not yet been drilled. Although the civil work at the site was completed, drilling could not be initiated due to certain geographical and currently operational reasons. The site has not been restored to its original condition, and it has now been handed over back to the landowner. Copy NOC from Landowner is enclosed.

The actual geographical surface coordinates of the Exploration and Appraisal well locations may vary within a 2000-meter radius of the proposed coordinates. All final locations will ensure a minimum safe distance of 500 meters from major human habitations, water bodies, forests, Ecologically Sensitive Zones (ESZ), and major roads. EC approved location details versus proposed location JW-1 distance, details and shown in google Maps coordinates in figure:

Proposed Well Locations with coordinates:

#	Well ID (proposed)	Actual Lat. & Long.	Well ID (as per EC granted by SEIAA Gujarat)	Lat. & Long (as per EC granted by SEIAA Gujarat)	Distance	Village Name (as per EC granted by SEIAA Gujarat)

1.	JW-1	22° 8'10.55"N, 72°43'17.19"E	49	22° 8' 20.737" N,72° 43' 55.771" E	1.15 Km	Samoj
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Note: Actual geo-graphical surface coordinates of exploratory & appraisal well locations would be within 2000 m radius of the proposed coordinates while maintaining safe distance of 500 m from major human habitant/ water body/ forest/ ESZ/ major road.

The well has been drilled under the existing Environmental Clearance (EC) granted from SEIAA for exploratory drilling, and it has been duly accommodated against the approved Well Number and shown in google Maps coordinates in figure as provided below and detail well location with distance from approved EC enclosed as. Coordinates of proposed development and Production Well are enclosed. As we are unable to edit the CAF. We are upload the KML file on additional details (form-I).

Query 3: As reported in the CCR, six well pads were established, whereas the scope of activity was limited to exploratory drilling and establishment of EPU's/QPU's. Further, this differs from the instant proposal, which mentions only four existing well pads. The Project Proponent shall clarify the discrepancy.

Response: The proposed project originally included the drilling of 69 exploratory and appraisal wells and the establishment of 14 Early Production Units (EPU's) to facilitate early production of approximately 20,000 BOPD of crude oil and 52 MMSCFD of associated natural gas.

Till date, a total of six exploratory and appraisal wells has been drilled during the execution phase to carry out exploratory and appraisal drilling activities. Details of the well-pad-wise drilling duration and the current status of each well have been provided in table:

#	Well pad Name	Coordinates & Drilling Duration	Status
1)	WP # Jaya Jambusar,	22°07'42.51" N; 72°45'54.51" E July 2021	Commercially viable discovery found in Well location.
2)	WP # NW Channel,	22°10'57" N, 72°42'30" E Oct-21 to Dec-21	No commercially viable discovery found. The well pad had been plugged and abandoned.
3)	WP # Hazad Delta Lobe	22°08'14" N, 72°42'19" E Dec-21 to Jan-22.	No commercially viable discovery found. The well pad had been plugged and abandoned.
4)	WP # Y-Marker E-1	22°07'39" N, 72°45'49" E 26th May'23 to 22nd Jun'23	Commercially viable discovery found in Well location.
5)	WP # Jaya SW-1	22°07'11" N, 72°44'30" E 09th Sept'23 to 30th Sept'23	Wells temporarily plugged.
6)	WP # Jaya SW-3	22°4'56.21" N, 72°41'20.81" E 09th Oct'23 to 18th Nov'23	Wells temporarily plugged.

- Out of the six wells drilled so far, hydrocarbons have been discovered in two wells, and the discoveries are assessed to be commercially viable.
- Only two well pads that are ongoing / active WP# Jaya and WP# Y-Marker E-1.
- There is two wells temporarily plugged: -Jaya SW-1 & Jaya SW-3.
- Extended Well Testing/ Early Production in progress for two (02) no. wells (Jaya & Y-Marker E-1)
- Based on this discovery, Extended Well Testing/ Early Production in progress for two (02) no. wells (Jaya & Y-Marker E-1) early production commenced in December 2022.

Therefore, four well pads currently existing well pad and included in the present proposal for future development planning.

Query 4: The CETP membership obtained, i.e., 9125 KLD, should be adequate for the production phase, and the Project

Proponent shall utilise the same accordingly. In case of re-injection of treated effluent into a dump well, the Project Proponent shall provide provisions for water quality analysers and flow meters at the dump wells. As per the CCR, an ETP is already installed for treating produced water and effluent, whereas the instant proposal mentions a provision for installation of an onsite ETP. The Project Proponent shall clarify the effluent management strategy, prioritize utilization of the CETP membership, and provide details of monitoring provisions (water quality analysers and flow meters) at dump wells, along with clarification regarding the status of the existing and proposed ETP.

Response: For the production phase, the CETP membership of 9125 KLD obtained by the Vedanta Ltd. is adequate and will be utilised as the primary mechanism for effluent management, as mandated. The effluent management strategy will prioritize conveyance of treatable effluent to the CETP in accordance with the membership capacity.

In case any portion of treated effluent is proposed to be re-injected into dump wells, necessary infrastructure online water quality analysers and flow meters will be installed at each dump well to ensure continuous monitoring of effluent quality and quantity, in compliance with regulatory requirements.

As per CCR Effluent Treatment Plant (ETP) has already been installed at the site for treating the effluent generated during the drilling phase. The treated effluent is being reused within the operational area for drilling-mud preparation, dust suppression, and other miscellaneous activities, thereby ensuring minimal discharge and maximum onsite reuse.

Wastewater Management during Drilling:

- Domestic: The domestic water will be treated with Septic tank and soak pit system.
- Industrial: Wastewater will be treated in Mobile ETP (physico-chemical treatment). Treated water will be recycled/reused in mud preparation, dust suppression and other miscellaneous uses.

Exiting Status

Wastewater Management during Early Production:

- Domestic: The domestic water will be treated with Septic tank and soak pit.
- Industrial: Generated wastewater from the industrial activities will be collected into the collection tank and it will be sent to CETP of Detox India Pvt. Ltd. for further treatment and recycle/disposal. CETP membership has been obtained from M/s Detox India Pvt (Ref No: DIPL/104182/2022/33 dated 04/05/2022).

Wastewater treatment and disposal Present Proposal:

Effluent will be pre-treated at the proposed ETPs to meet CETP inlet standards before being conveyed to the CETP. From the Central Processing Terminal, domestic wastewater would be generated and treated in onsite STP. The domestic wastewater treated would be used for greenbelt development, dust suppression etc. Industrial effluent from washing and process activities will be generated which will be sent for treatment with the produced water. Produced water and effluent will be managed & disposed through the following disposal options:

- Onsite treatment to remove physical impurities (sediments and oil), followed by re-injection into the reservoir for void replacement and/or
- Installation of an onsite ETP, with treated effluent disposed through a deep disposal well (>1,000 m depth) in compliance with GSR 546(E).

Generated Wastewater from the industrial activities will be collected into the collection tank and it will be sent to CETP of BEIL Infrastructure Limited for further treatment and recycle/disposal. CETP membership has been obtained from M/s BEIL Infrastructure Limited (Membershp No. is MEE/OTH/137).

Monitoring Provisions at ETP, CETP Discharge Point & Dump Wells

1. At ETP Outlet:

- To be installed Continuous Effluent Water Quality Monitoring system to monitor the applicable parameters.
- Flow meter (EMF/ultrasonic) with totalizer.
- Grab sampling for major parameters (pH, COD, BOD, O&G, TSS).
- Detailed analysis through NABL-accredited laboratory.
- SCADA/PLC connectivity for real-time data display and alarm generation.

2. At CETP Transfer Point:

- Dedicated flow meter to record quantity of effluent sent to CETP.
- pH and conductivity monitoring before dispatch to ensure CETP inlet norms.
- Daily reconciliation logbooks for flow and quality.

3. At Dump Wells (If Effluent is Rejected):

- Online analysers installed for applicable parameters (except O&G) at the disposal well header
- Flow meters (EMF/ultrasonic) with totalizers to record the disposal quantity.
- Wellhead pressure and temperature gauges for formation safety.
- Grab sampling for validation of online readings.

Query 5: The project proponent shall prepare a site-specific comprehensive conservation plan and wildlife management plan in case of the presence of Schedule-1 species in the study area, as applicable to the project, and submit to Chief Wildlife Warden for approval.

Response: Detailed conservation plan and wildlife management plan for presence of Schedule-1 species in the study area is prepared and same was submit to CWLW, Gujarat, copy of conservation plan and wildlife management plan is submitted.

16. During deliberations, following issues were discussed:

- The committee acknowledged that fresh baseline data has been carried out for one month during the period January-February, 2026 in addition to the initial baseline data collected for the period October 2023 to January 2024. However, discrepancies were observed w.r.t BOD and COD values in surface water samples; Calcium, Sodium Absorption Ratio (SAR) and Potassium of soil samples.
- The committee noted that BOD & COD in surface water samples were reported as 3.1-18mg/L & 11-70mg/L in baseline of 2023 whereas both of them were reported as BDL in additional baseline data collected. In this regard, the PP has informed that the deviation might be due to seasonal variations as the sampling campaigns in year 2023 & 2026 was done in post-monsoon & pre-monsoon season respectively. During post-monsoon season (2023) the BOD & COD values were attributable due to organic matter carried with surface runoff rainwater to village pond from nearby habitations during rainy season. Whereas in 2026 sampling period (Feb'26) i.e. pre-monsoon season, as such no inflow in surface water bodies (Ponds), water mostly stagnant, shallow ecosystems with increased self-purification. In this period (post-monsoon), due to long retention time, minimal external inflow/outflow, strong sunlight exposure, stable conditions for microbial degradation, allows natural processes to remove organic matter much more effectively over time i.e. settling of suspended organic matter, complete microbial decomposition and uptake of nutrients/organics by algae & macrophytes. As a result, remaining organic matter becomes too low to be detected i.e. BDL during pre-monsoon season (2026). The presence of sufficient DO further supports good surface water quality under aerobic conditions. Accordingly, COD and BOD values reported as < 5 mg/L and < 2 mg/L (i.e., BDL) do not imply their absence but rather confirm that their concentrations are too low to be detected below the – method detection limits.
- Further, the Committee has also noted that there was extreme deviation of Calcium level in soil samples i.e., 920- 1100 mg/kg reported in baseline of 2023 to 14.25-15.52 mg/kg reported in baseline of 2026. In this regard, it was informed that 'Ca' level in 2023 was reported in mg/kg whereas in 2026 it was reported in meq/100g. Upon conversion the latest Ca 14.25-15.52 meq/100g shall be in the range of 2900-3122 mg/kg. The increased 'Ca' ranges may be attributed to multiple natural and anthropogenic factors. Over time, the weathering of parent material contributes to the gradual release of Ca²⁺ ions into the soil solution. This process can be further enhanced by seasonal wet-dry cycles, temperature variations, and

increased microbial activity, all of which accelerate mineral decomposition and nutrient mobilization, thereby elevating extractable calcium levels. In addition, agricultural practices in the surrounding region may indirectly influence soil calcium content through the application of lime, gypsum, and calcium-based fertilizers, as well as irrigation with water containing dissolved bicarbonates and calcium. Furthermore, in coastal and high-tide influenced areas, the influx of seawater contributes to the accumulation of calcium in soils over time. During dry periods, evaporation of soil moisture leaves behind dissolved salts, including calcium, leading to its gradual enrichment. This is a well-documented phenomenon in coastal soil systems. Lab reports of the fresh baseline data collected for soil were submitted.

- The Committee noted that there was extreme deviation of Sodium Adsorption Ratio in soil samples i.e., 0.28-0.66 reported in baseline of 2023 to 38.5-77.5 reported in baseline of 2026. In this regard, it was informed an inadvertent typographical error led to the monitored values being incorrectly presented under a different parameter in the EC presentation. The monitoring lab reports were submitted confirming that the values of SAR for all the 8 sampling stations were < 1 (May kindly explain how < 1 values were reported in 2023). BDL (Below Detection Limit) values for Sodium Adsorption Ratio (SAR) can differ from laboratory to laboratory and it depends on Calculation method and equipment's used. In this case, the analytical laboratory was different in 2023 & 2026. Since SAR is a calculated parameter, not directly measured, its BDL depends entirely on the detection limits of Na^+ , Ca^{2+} , and Mg^{2+} in the soil extract. Labs may use different equipment for analyzing cations in soil extracts. Each method has different sensitivity. Hence, while a lab can report < 1 values, the different lab can report it as BDL based on the sensitivity of equipment & method detection limit. Further, in the soil samples, SAR and Ca^{2+} concentration exhibit a significant inverse (negative) relationship, higher Ca levels correspond to lower SAR values, same were also observed in the present dataset. Lab reports of the fresh baseline data collected for soil were submitted.

- Further, the Committee has also noted that there was extreme deviation of Potassium level in soil samples i.e., 0.25-0.21 reported in baseline of 2023 to 120-172 reported in baseline of 2026. In this regard, it was informed that potassium levels mentioned for 2023 were incorrectly reported in presentation due to typographical error. The initial baseline collected has been reviewed, the Potassium levels range from 110-164 mg/kg (as per EMP), which is comparable with the 2026 values i.e., 120–172 mg/kg, indicating typical seasonal or annual variation. Overall, the 2023 and 2026 data are consistent, with no significant or abnormal change in soil potassium levels.

- As suggested by EAC, the PP has submitted Statistical Deviation Analysis for AAQ monitoring data for (October 2023 to January 2024) and (January–February 2026). The analysis indicates that deviation within ± 5 –15%, with respect to PM10 & PM2.5 and it was inferred that it was due to local meteorological conditions, seasonal variations, and dispersion characteristics. Gaseous pollutants such as SO_2 , NO_2 , and O_3 exhibit marginal fluctuations, which are consistent with normal ambient environmental behaviour.

- The Committee took serious note of the inconsistencies observed in the presentation, which were attributed to negligence on the part of the QCI/NABET-accredited Consultant. Accordingly, the Committee suggested that the accredited Consultant may be referred to QCI/NABET for taking appropriate action in view of the inconsistencies observed in the presentation and the negligence involved.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

17. The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

18. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in

the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance.

19. The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

20. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), Ministry of Environment, Forest and Climate Change hereby accords environmental and CRZ clearance to the project proposed Onshore Oil & Gas Development and Production in CB-ONHP-2017/2 Hydrocarbon Block, Taluka Jambusar, Dist. Bharuch, Gujarat by M/s. Vedanta Limited (Div.: Cairn Oil & Gas), under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions enclosed at Annexure-1.

21. The Ministry 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 Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

22. 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.

23. 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.

24. 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.

25. This issues with the approval of the Competent Authority.

Copy To

1. The Member Secretary, CGWA, 18/11 Jamnagar House Man Singh Road, Central, Delhi, cgwa@nic.in
2. The Member Secretary, CPCB, Parivesh Bhawan Cbd-Cum-Office Complex East Arjun Nagar, East, Delhi, msb.cpcb@nic.in
3. The Monitoring Cell MoEFCC, Compliance & Monitoring Division, Indira Paryavaran Bhawan Jor Bagh Road New Delhi, South, Delhi, moefcc-monitoring@gov.in
4. The District Collector, DC Office, Bharuch, Bharuch, Gujarat, collector-bha@gujarat.gov.in
5. The Member Secretary, SPCB/PCC, Paryavaran Bhavan, Sector-10a, Gandhinagar, Gujarat, ms-gpcb@gujarat.gov.in

Annexure 1

Specific EC Conditions for (Off-shore And Onshore Oil And Gas Exploration, Development And Production)

1. Off-shore And Onshore Oil And Gas Exploration, Development And Production

S. No	EC Conditions
1.1	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
1.2	The project proponent has submitted a Wildlife Conservation Plan for conservation of Schedule-1 fauna in the study area which has been submitted to O/o Chief Wildlife Warden for approval. The recommendations made by the CWLW shall be implemented.
1.3	As committed, the proposed marine treatment pipeline shall be dropped.
1.4	<p>Total fresh water requirement shall not exceed 87 KLD KLD per well which shall be met from tankers. During drilling phase 40 KLD/ well drilling wastewater treated in mobile ETP. Domestic: 12 KLD/ well domestic wastewater shall be treated in mobile STP. During production phase, 9 KLD of domestic wastewater would be generated which shall be collected and sent for further treatment. During production phase produced water and effluent shall be managed & disposed through the following disposal options:</p> <p><u>Monitoring Provisions at ETP, CETP Discharge Point & Dump Wells</u></p> <ol style="list-style-type: none"> 1. At ETP Outlet <ul style="list-style-type: none"> · To be installed Continuous Effluent Water Quality Monitoring system to monitor the applicable parameters. · Flow meter (EMF/ultrasonic) with totalizer. · Grab sampling for major parameters (pH, COD, BOD, O&G, TSS). · detailed analysis through NABL-accredited laboratory. · SCADA/PLC connectivity for real-time data display and alarm generation. 2. At CETP Transfer Point <ul style="list-style-type: none"> · Dedicated flow meter to record quantity of effluent sent to CETP. · pH and conductivity monitoring before dispatch to ensure CETP inlet norms. · Daily reconciliation logbooks for flow and quality. 3. At Dump Wells (If Effluent is Rejected) <ul style="list-style-type: none"> · Online analysers installed for applicable parameters (except O&G) at the disposal well header · Flow meters (EMF/ultrasonic) with totalizers to record the disposal quantity. · Wellhead pressure and temperature gauges for formation safety. · Grab sampling for validation of online readings.
1.5	During production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology. No flaring shall be carried out during operation phase.
1.6	The project proponent shall ensure trapping/storing of the CO ₂ generated, if any, during the process and handling.
1.7	Approach road shall be paved to minimize generation of suspended dust.
1.8	The project proponent shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.
1.9	The project proponent shall construct the garland drain to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil

S. No	EC Conditions
	contaminated and non-oil contaminated.
1.10	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 shall be discharged/disposed of into nearby surface water bodies. 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 30th August, 2005. Industry shall obtain membership of TSDF site before obtaining CTO and shall dispose the hazardous waste generated at drill site to TSDF approved by SPCB.
1.11	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.
1.12	Gas produced during testing shall be flared with appropriate flaring device as prescribed by the CPCB. The flare shall be designed as per good oil field practices and OISD guidelines. The stack height shall be provided as per the regulatory requirements and emission from the stacks will meet MOEFCC/CPCB guidelines.
1.13	The project proponent shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At fixed installations or plants use of 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.
1.14	The project proponent 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.
1.15	Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.
1.16	On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable DGH / Indian Petroleum Regulations.
1.17	Green belt of 5-10 m width shall be developed in atleast 62.96 ha i.e 33 % of of the total total operational area/ in all permanent facilities such as GGS/GCS or any other processing facilities with tree density @ 2500 trees per hectare, mainly along the plant periphery. Indigenous species shall only be planted as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall plant at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. No cutting of existing trees is permitted. Records of tree canopy shall be monitored through remote sensing map. Trees shall be planted in the Green Belt under the campaign #Plant4Mother #एक पेड़ माँ के नाम and uploaded on the MeriLiFE portal (https://merilife.nic.in/)

S. No	EC Conditions
1.18	PP proposed to allocate Rs. 9.95 Crores towards commitments made in Public Hearing which shall be spent as per plan submitted in consultation with District Administration.
1.19	No lead acid batteries shall be utilized in the project/site.
1.20	PP has allocated Rs. 0.06 Crore and Rs. 0.025 Crores as capex and opex for Occupational health Safety. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules. All workers & employees shall be provided with required safety kits/mask for personal protection.
1.21	Oil content in the drill cuttings shall be monitored and report & shall sent to the Ministry's Regional Office.
1.22	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.
1.23	PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MoEF&CC on 12 th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Standard EC Conditions for (Off-shore and onshore oil and gas exploration, development and production)

1. General Conditions

S. No	EC Conditions
1.1	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
1.2	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
1.3	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 the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
1.4	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and

S. No	EC Conditions
	administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
1.5	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
1.6	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
1.7	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
1.8	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
1.9	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 SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/ . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
1.10	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
1.11	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

Annexure 2

Details of the Project

S. No.	Particulars	Details	
a.	Details of the Project	Onshore Oil & Gas Development and Production in CB-ONHP-2017/2 Hydrocarbon Block, Taluka Jambusar, Dist. Bharuch, Gujarat.	
b.	Latitude and Longitude of the project site	21.89304096852487,72.43690754806192 22.27414834418857,72.89717870650964	
c.	Land Requirement (in Ha) of the project or activity	Nature of Land involved	
		Area in Ha	
		Non-Forest Land (A)	31700
		Forest Land (B)	0
		Total Land (A+B)	31700.0
d.	Date of Public Consultation	Public consultation for the project was held on 2025-04-02	
e.	Rehabilitation and Resettlement (R&R) involvement	NO	
f.	Project Cost (in lacs)	238522	
g.	EMP Cost (in lacs)	Capital cost of EMP would be Rs. 33.5 Lakhs and the recurring cost for EMP would be Rs. 34.5 lakhs per year of each Production location and Recurring Cost 97.5 lakhs per well during drilling	
h.	Employment Details		

The details of products and capacity as under:

S. No.	Activity/ Product /by Product	Proposed Quantity
1.	No. of Drilling Wells	51 nos.
2.	No. of Well Pads for Development and Production	22 nos. (18 nos. Proposed Well Pads and 4 nos. Existing)
3.	Natural Gas and Crude Oil Production	Crude Oil- 30000 BOPD & Natural Gas- 100 MMSCFD
4.	Surface Facilities	Central Processing Terminal (CPT) for processing of well fluid for production of Crude Oil and Natural Gas, and associated facilities/ utilities. The same will be located in/ around the existing WP# Jambusar (Jaya) location.
5.	Laying of Infield pipeline (intra well pad) of approx. 60 km for collection of well fluid from well pads to the Central Processing Terminal.	
6.	Living Quarters (LQ) and other amenities for company staff on plot area of approx. 10000 sqm (1 ha).	
7.	Extraction of approx. 95 KLD of groundwater to meet the water requirements of the project. NOC from Central Ground Water Authority (CGWA) has been obtained for the same.	
8.	Generation of total Captive Power of 70 MW or power demands through the state electricity grid.	

Note: BOPD = Barrels of Oil Per Day; MMSCFD = Million Standard Cubic Feet of Gas Per Day

Proposed (Tentative) Coordinates of Existing and development & production wellpads and wells location:

S.No	Proposed/Existing Well Pad And Lat & long	Proposed Development and Production well		
		Latitude	Longitude	Nos. of wells
1.	YME-1 (Existing WP)* 22° '39.82"N,72°45'46.50"E	22° 7' 59.291" N	72° 45' 39.876" E	1
2.	Jaya-P2 22° '12.53"N,72°45'40.49"E	22° 7' 19.394" N	72° 45' 56.055" E	2
		22° 7' 21.692" N	72° 45' 21.306" E	
3.	Jaya-P3 22° 8'57.44"N,72°43'21.29"E	22° 8' 1.130" N	72° 46' 58.200" E	2
		22° 7' 35.757" N	72° 47' 14.840" E	
4.	Jaya-SW-1(JSW-1) (Existing WP)* 22° 7'5.37"N,72°44'29.76"E	22° 7' 11.643" N	72° 44' 43.060" E	2
		22° 7' 2.703" N	72° 44' 19.084" E	
5.	JSW-1 P2 22° 7'47.09"N,72°44'41.93"E	22° 7' 53.570" N	72° 45' 1.301" E	3
		22° 8' 2.373" N	72° 44' 37.615" E	
		22° 7' 36.690" N	72° 44' 24.819" E	
6.	JW-1 22° 8'10.55"N,72°43'17.19"E	22° 8' 23.448" N	72° 43' 27.816" E	2
		22° 8' 20.361" N	72° 42' 59.319" E	
7.	JW-1 P2 22° 7'48.75"N,72°43'18.03"E	22° 7' 44.740" N	72° 42' 57.419" E	2
		22° 7' 31.916" N	72° 43' 26.866" E	
8.	JW-1 P3 22° 8'10.55"N,72°43'17.19"E	22° 8' 56.932" N	72° 43' 39.690" E	2
		22° 9' 7.618" N	72° 43' 8.818" E	
9.	JW-2 22° 9'32.81"N,72°41'59.19"E	22° 9' 41.291" N	72° 42' 13.810" E	2
		22° 9' 19.293" N	72° 41' 37.621" E	

10.	JW-2 P2 22° 8'51.48"N,72°42'4.00"E	22° 9' 0.962" N 22° 9' 0.726" N 22° 8' 44.004" N	72° 42' 17.950" E 72° 41' 56.307" E 72° 42' 9.192" E	3
11.	JW-2 P3 22° 8'42.49"N,72°41'5.34"E	22° 8' 49.727" N 22° 8' 52.920" N 22° 8' 26.665" N	72° 41' 14.796" E 72° 40' 52.444" E 72° 41' 5.335" E	3
12.	JSW-2 22° 6'3.36"N,72°43'30.23"E	22° 6' 17.349" N 22° 6' 3.426" N	72° 43' 44.677" E 72° 43' 13.000" E	2
13.	JSW-2 P2 22° 5'38.76"N,72°43'20.12"E	22° 5' 24.254" N 22° 5' 18.921" N	72° 43' 35.519" E 72° 43' 14.734" E	2
14.	JSW-2 P3 22° 6'43.75"N,72°43'19.08"E	22° 6' 34.922" N 22° 6' 58.907" N 22° 6' 31.598" N	72° 43' 39.452" E 72° 43' 23.541" E 72° 43' 2.169" E	3
15.	JSW-2 P4 22° 4'33.76"N,72°43'21.16"E	22° 4' 45.170" N 22° 4' 49.483" N 22° 4' 15.840" N	72° 43' 32.788" E 72° 43' 8.634" E 72° 43' 10.791" E	3
16.	JSW-3 (Existing WP)* 22° 4'56.21"N,72°41'20.81"E	22° 5' 11.265" N 22° 4' 50.993" N	72° 41' 23.177" E 72° 41' 37.626" E	2
17.	JSW-3 P2 22° 4'25.09"N,72°41'0.45"E	22° 4' 30.813" N 22° 4' 30.990" N 22° 4' 5.726" N	72° 41' 20.907" E 72° 40' 40.803" E 72° 40' 56.527" E	3
18.	JSW-3 P3 22° 5'36.79"N,72°41'0.63"E	22° 5' 48.018" N 22° 5' 52.435" N 22° 5' 21.164" N	72° 41' 17.904" E 72° 40' 55.997" E 72° 40' 57.764" E	3
19.	JSW-3 P4 22° 3'32.83"N,72°42'24.60"E	22° 3' 45.233" N 22° 3' 26.682" N 22° 3' 19.439" N	72° 42' 35.639" E 72° 42' 41.469" E 72° 42' 14.439" E	3
20.	JSW-4 P1 22° 0'0.00"N,72°37'30.00"E	22° 0' 16.281" N 21° 59' 40.011" N	72° 37' 41.851" E 72° 37' 30.054" E	2
21.	JSW-4 P2 22° 1'9.24"N,72°37'35.45"E	22° 1' 30.200" N 22° 0' 55.437" N 22° 0' 52.801" N	72° 37' 48.378" E 72° 37' 44.613" E 72° 37' 21.897" E	3
22.	Jambusar (Jaya) (Existing WP)* 22° 7'42.79"N,72°45'54.42"E	22° 7' 52.371" N	72° 46' 4.387" E	1
Total wells				51

Note: The proposed well locations are tentative and may have a variation within a 500 m radius of the proposed coordinates, considering site suitability and feasibility. Adequate buffer distance shall be maintained to ensure that no major human settlements fall within the potential blowout threat zone.

Pipeline:

- Laying of infield pipelines of approx. 60 km for evacuation of well fluid from the well-pads to the central processing terminal.

The main issues raised in Public Hearing and its action plan:

Issue in Brief	Response given in PH	Action plan in brief	Budget allocated and timeline
Issue of public hearing during PH interaction			
<p>Name of the person: Shri. Rameshbhai Chandubhai Parmar, Village-Sindhav, Tal.-Jambusar, District-Bharuch</p> <p>Issue: Which block of land has been allocated at which place? How much profit-loss will it bring to the farmers? From whom has its approval been taken? And how much will you solve the issues related to pollution?</p>	<p>As shown in the presentation, well pads will be constructed in a total 22 villages including Amanpur Mota, Nadhana, Amanpur Nana, Kavali, Samoj, Nahar, Kangam, Tundaj, Kava, Panchkada, Kora, Thakore Talawadi.</p>	<p>The project would generate direct and indirect employment for unskilled, semi-skilled and skilled manpower. AECOM has identified the sources of pollution, impacts and given the mitigation and monitoring measures in the previous slides. CAIRN will follow all the mitigation measures to decrease the impacts as specified.</p> <p>CPT area (10 ha) And wells (Area 4 ha each well-22*4=88 ha). For project affected families compensation will be provided as per RFCTLARR (Right for Fair Compensation and Transparency in land Acquisition, Rehabilitation and Resettlement) Act, 2013.</p>	<p>EMP budget During drilling-INR 20.0 Lakhs During production-Capital-INR 33.5 Lakhs Recurring-INR 34.5 Lakhs</p>
<p>Name of the person: Sarpanch Shri Gram Panchayat Tankari, Village-Tankari, Tal.-Jambusar, District-Bharuch</p> <p>Issue: The previous public hearing of the Bulk Drug Park, no solution was reached regarding our representation. No</p>	-	<p>This point was not related to CAIRN. Perhaps, we will give employment as we have already mentioned.</p> <p>Employment opportunities will be provided through direct and indirect for 100-200 people by CAIRN.</p>	Not Applicable

Issue in Brief	Response given in PH	Action plan in brief	Budget allocated and timeline
Issue of public hearing during PH interaction			
employment was given to us and we have not received any response regarding our representation yet.			
<p>Name of the person: Representations were made by a person from Tankari Bhagol village and others village</p> <p>Issue: All villagers are presenting there representation, the surrounding villages and farmers are causing losses by here located companies. The crops of the surrounding farmers are failing</p>	-	AECOM has identified the sources of pollution, impacts and given the mitigation and monitoring measures in the previous slides. CAIRN will follow all the mitigation measures to decrease the impacts as specified.	The EMP budget has been provided below: During drilling- INR 20.0 Lakhs During production-Capital- INR 33.5 Lakhs , Recurring- INR 34.5 Lakhs
<p>Name of the person: Shri. Vijaybhai Padhiyar, Village- Thakore, Tal.- Talawadi, Tal.- Jambusar, District-Bharuch</p> <p>Issue: Our issue is about employment and water, please solve it.</p>	-	Reply of the same has been given in previous questions Point no. 1 & 3.	Not Applicable
<p>Name of the person: Shri. Yogesh bhai, Tal.-Jambusar, District-Bharuch</p> <p>Issue: Is there a risk of earthquakes from this project? Is there a problem with wastewater disposal? We had made verbal representations earlier regarding pollution.</p>	-	It is falling under seismic zone III which has moderate risk of earthquake. As per the proposed drilling activities, there is no risk of induced Earthquakes.	Not applicable
<p>Name of the person: Mr. Baraiya Surabhai, Vill.- Nodhna, Tal.-</p>	In given presentation by	Vedanta Ltd. conducted the	CER Budget for 5 years is INR 9.95 Cr.

Issue in Brief	Response given in PH	Action plan in brief	Budget allocated and timeline
Issue of public hearing during PH interaction			
<p>Jambusar, Dist.- Bharuch</p> <p>Issue: How employment and CSR will be done by company?</p>	<p>company an employment opportunities will be provided to approximately 100 to 200 people, semi- skilled, skilled and unskilled, directly and indirectly, during the different drilling, construction and operation phases.</p> <p>In CSR activities, furniture in primary schools of villages, furniture in libraries, infrastructure in village panchayats etc. have been done in different villages. Even when this project comes, the company will implement different CSR projects of health education and infrastructure as per the requirements of different villages. In addition, the representations made by the villagers will be taken into consideration and they will be included in the necessary CSR program.</p>	<p>following CSR activities:</p> <ul style="list-style-type: none"> • Tar Fencing Work at Garden in Nana Aamanpura. • Support for Anganwadi Centers: Kitchen set provision in Nodhana & Nana Aamanpura. • Farewell Kit Distribution: For 10th grade students appearing for exams (100 students) at Nodhana & Nana Aamanpura schools. <p>Planned CER activities to be completed in Upcoming Days :</p> <ul style="list-style-type: none"> • Dhobi Ghat Development : Kora Village • Kota Stone Flooring Work : Nahar School • Library Furniture Setup : Samoj School • Furniture Setup: Panchakada Panchayat office 	

Written representation from Jitendra Babalbhai, GIDC-Ankelwar, Bharuch

Issue in brief	Action plan in Brief*
<ol style="list-style-type: none"> 1. Crude oil and gas will be extracted from the underground in this area. What benefits will the local people of this area receive? Do you have any special plans for this? 2. What are the company's plans for rainwater harvesting? Please provide information about it. 3. The brief Gujarati report provided to each affected village – when was it provided, to which village, and to whom was it given? 4. Apart from this, through what other means was the publicity for this public environmental hearing carried out? 5. Have you obtained approval from CGWA for creating water bores? What is the status of this process? 6. Please provide details. 7. How many trees will need to be cut to establish this project? 8. You have mentioned that for effluent disposal, a 63-kilometer-long pipeline will be laid. How deep into the sea will it be laid? 9. How much effluent will be discharged through the pipeline laid into the sea? What specifications will be maintained for this discharge? 10. Will this pipeline harm the marine ecosystem? Has a survey been conducted? If so, please provide the report. 11. There are several discharges into the Gulf of Khambhat, including the effluent channel of Vadodara, discharges from Dahej companies, and many others. Considering the increasing effluent, what special measures will you take to prevent adverse impacts on the marine ecosystem? 12. You have stated that internal village roads will be strengthened for transportation. What are the plans for this? Which roads of which villages will be strengthened? 	<ol style="list-style-type: none"> 1. Local people would benefit through direct and indirect employment opportunities. Employment opportunities would be available for skilled, semi-skilled and un-skilled as per qualification and experience. Local people would also be benefitted from CSR & CSR programs. Local people would also be benefitted by provision of services like hotels, restaurants, transport services, etc. 2. Company plans to implement suitable rainwater harvesting measures to harvest rainwater from the roof tops and storm water drains to recharge the ground water and to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources. 3. Gujarat Executive summary of the Draft EIA report of the project has been provided to Gram Panchayats in the study impact area around a month before. 4. Public announcements have been carried out at villages by vehicle (posted Gujarati Banner) within the study area and the Gujarati Executive summary of the Draft EIA report of the project circulated/ distributed to gram panchayat. Newspaper advertisement has been published in both Gujarati and English languages. 5. NOC obtained from CGWA for extraction of ground water. 6. No tree felling is anticipated. 7. Treated effluent disposal pipeline with diffuser system would be laid into the sea (approx. 20 km from landfall point) at water depth of more than 10 m. 8. Maximum anticipated treated effluent disposal requirement is 5000 m³/day. Treated effluent would meet the specifications stipulated in standards for Oil & Gas Extraction Industry as per Gazette Notification 546(E) GSR dated 30th August 2005 (MOEFCC) under The Environment (Protection) Rules, 1986. 9. EIA study has been carried out & EMP has been prepared including the treated effluent disposal pipeline into marine environment. 10. Treated effluent disposal location has been selected based on the findings and recommendations of CSIR-NIO Numerical modeling studies. No harm to the marine ecosystem is anticipated Recommendations of

<p>13. You have mentioned that the Mahi River flows through the block. Will your activities have any negative impact on the Mahi River?</p> <p>14. It is expected that you will give maximum priority to the affected local people over outsiders for employment.</p> <p>15. The amount paid to the consultant for preparing the EIA report must be mentioned in Chapter-1. You have not provided this information. Please provide the details. (ANNEXURE-I)</p> <p>16. The expenses incurred for conducting the baseline survey for the EIA report should be mentioned. You have not provided this information. Please provide the details. (ANNEXURE-II)</p> <p>17. Provide information about which category this area falls under concerning groundwater.</p> <p>18. What CSR activities are planned for the surrounding villages? If feedback has been taken from anyone regarding this, please provide that information.</p> <p>19. You have mentioned that a greenbelt will be developed over 32.34 hectares of land. Which area has been designated for this purpose?</p>	<p>CSIR-NIO numerical modelling studies indicate that no harm to the marine ecosystem is anticipated.</p> <p>11. NOC obtained from CGWA for extraction of ground water.</p> <p>12. Necessary widening and strengthening of village roads falling in the project area would be taken up at the time of project execution.</p> <p>13. EIA study has been carried out and EMP has been prepared for the project. No negative impacts on the Mahi River are anticipated.</p> <p>14. Suggestion is noted.</p> <p>15. No such requirement to provide such commercial details in EIA report.</p> <p>16. No such requirement to provide such commercial details in EIA report.</p> <p>17. Project area falls under "Safe" category of ground water.</p> <p>18. CSR activities (such as tar fencing work at garden in Nana Aamapura; support for Anganwadi centers; kitchen set provision at Nohanda & Nana Aamapura; farewell kit distribution for 10th grade students appearing for exams at Nohanda & Nana Aamapura schools) have been undertaken in villages surrounding the project areas in consultation with local administration based on need. Further, the following activities are planned for implementation in near future:</p> <ul style="list-style-type: none"> • Dhobi Ghat development: Korai Village, • Kota stone flooring work: Nahar School, • Library furniture setup: Samoj School, • Furniture setup: Panchakada Panchayat Office <p>19. Greenbelt would be developed surrounding the proposed operational areas during project implementation as per the CPCB guidelines and in consultation with local authorities.</p>
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***Budgetary Allocation (As applicable): Budgetary allocation as part of EMP have been prepared to address the concerns/suggestion raised in Public Hearing is given below table and provided EIA report.**

Details of capital and recurring cost of EMP:

Drilling: The tentative budget for implementation of the EMP including environmental monitoring & Greenbelt/ Plantation would be Rs. 97.5 lakhs for each well site during activity.

S. No.	Particulars	Approx. budget (INR, Lakhs) each well drilling	
		Capital cost (INR) in Lakh	Recurring cost (INR) in Lakh
1.	Air Quality Monitoring	-	3.5
2.	Noise Monitoring	-	0.75
3.	Surface and Ground Water Quality Monitoring	-	2.0
4.	Soil Quality Monitoring	-	0.75
5.	Waste Management	-	80.0
6.	Greenbelt/ Plantation	-	0.5
7.	Wastewater Treatment		
	A. Installation of Mobile ETP	-	5.0 Lakhs
	B. Installation of Mobile STP/Septic Tan or Soak pits system	-	5.0 Lakhs
Total			97.5 Lakhs

Production: Tentative budget for implementation of the EMP including Environmental monitoring and green belt/Plantation for each production location per year.

S. No.	Particulars	Approx. budget (INR Lakhs) for each production unit	
		Capital cost (INR) in Lakh	Recurring cost (INR) in Lakh
1.	Air Quality Monitoring	-	3
2.	Noise Monitoring	-	2
3.	Surface and Ground Water Quality Monitoring	-	3
4.	Soil Quality Monitoring	-	2
5.	Waste Management	5	0.5
6.	Greenbelt/ Plantation	10	0.5
7.	Occupational Health & Safety	6	2.5
8.	Environment Audit	-	10
9.	Wastewater Treatment		
	A. Installation of ETP	7.5	6
	B. Installation of STP or septic tank & soak pit	5	5
Total		33.5 Lakhs	34.5 Lakhs

Details of Extended EMP with proposed activities and budgetary allocation:

Details of CER with proposed activities and budgetary allocation:												
Sl.No	CER Activities	Taluka/ Tehsil	Village Name	Unit (Number/ Kilometers)	Unit Cost (In Lacs INR)	Cost Allocation (INR Lacs)	CER Budget (In Lacs INR)					
							Y1	Y2	Y3	Y4	Y5	
Public Health												
1	Safe drinking water supply through installation of RO plant (Capacity 1000 Liter/ day)	Jambusar	Amanpur Nana, Kavali, Samoj, Nahar, Kangam, Tundaj, Kava, Panchakada, Kora, Thakore Talavadi, Amanpur Mota, Nondhana,	25	8	200	40.0	40	40	40	40	
Environment												
2	Sanitation facility (Community Toilet complex with four seat with Septic Tank and Soak pit)	Jambusar	Kavali, Samoj, Nahar, Kangam, Tundaj, Kava, Amanpur Mota, Nondhana, Amanpur Nana, Panchakada, Kora, Thakore Talavadi,	14	12	168	33.6	33.6	33.6	33.6	33.6	
Renewal Energy												
3	Household Biogas plant/Solar lighting etc	Jambusar	Amanpur Mota, Nondhana, Amanpur Nana, Kavali, Samoj, Nahar, Kangam, Tundaj, Kava, Panchakada, Kora, Thakore Talavadi,	39	15	585	117	117	117	117	117	
Health Care												
4	Health care/PHCs improvement in local villages	Jambusar	Amanpur Mota, Nondhana, Amanpur Nana, Kavali, Samoj, Nahar, Kangam, Tundaj, Kava, Panchakada, Kora, Thakore Talavadi,	62	0.64	40	8	8	8	8	8	
Skill Development of local Human Resource												
5	Skill development of local people for enhancing their livelihood opportunities, etc. (Training e.g. Fitter, welders, Tailoring, electronics item repairing, electrical, masonry work, etc.) of unskilled villagers	Jambusar	Kavali, Samoj, Nahar, Kangam, Tundaj, Kava, Panchakada, Kora, Thakore Talavadi, Amanpur Mota, Nondhana, Amanpur Nana,	800	0.0025	2.00	0.40	0.40	0.40	0.40	0.40	
Total						995	199	199	199	199	199	
Grand Total							995					
