EOGEPL/ CBM-RG (E)/ HSE/2025/6632

30th May, 2025

The Regional Director
Ministry of Environment, Forest and Climate Change,
Regional Office (EZ), A/3, Chandersekharpur,
Bhubaneswar-751023

Essar Oil and Gas Exploration and Production Ltd
Essar House- Durgapur
Village & Post Office- Molandigi
Block-Kanksa
Durgapur Sub-Division
Dist. Paschim Bardhhaman
Durgapur-713212
West Bengal
India

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Sub: **Submission of the Six-monthly Compliance Report of the Environment Clearance, Phase-III and its amendments by Essar Oil Gas Exploration and Production Limited (EOGEPL) reg.**

Ref: Environmental Clearance, Phase-III vide F. No. J-11011/491/2011-IA II (I) dated 26th February, 2013 and its amendments dated 27th November, 2017; 9 th May 2019 & 14th August, 2023.

Respected Sir/Madam,

Greetings from Essar Oil and Gas Exploration and Production Ltd.!!

We are pleased to submit the Six-monthly Compliance Report w.r.t. the stipulated conditions of prior Environment Clearance, Phase III vide F. No. J-11011/491/2011-IA II (I), dated 26th February 2013 and its amendments dated 27th November, 2017; 9th May 2019 & 14th August, 2023.

The Six-monthly Compliance Report to be considered for the period of October-24 to March-25

Thanking you for your continued support.

For Essar Oil and Gas Exploration and Production Limited

Warm Regards,

Vikram Anand Goday
Vice President & Head- Facilities
Raniganj East, CBM Project-Durgapur

Enclosed: Annexure I, II, III, IV, V, VI, VII, VIII, IX, X, XI, XII, XIII, XIV, XV, XVI, XVII, XVIII, XIX & XX.

Copy to:

1. Sub-Office, Kolkata, MoEF&CC, IB-198, Sector- III, Salt Lake City, Kolkata- 700106.

2. The Environmental Engineer, Durgapur Regional Office, WBPCB, Durgapur-713216.

Essar Oil and Gas Exploration and Production Limited

RG (East)-CBM-2001/1 (Phase-III) Six-monthly Environment Clearance Progressive Compliance Report

(Oct-24 to Mar-25)

Ref: Environmental Clearance F. No. J-11011/491/2011-IA II (I), dated 26th February 2013 and its amendment dated 27th November, 2017, 9th May, 2019 & 14th August, 2023.

<table>
<tr><th>S. No</th><th>Condition</th><th>Compliance Status</th></tr>
<tr><td>2.0</td><td>The Ministry of Environment & Forest has examined your application. It is noted that the proposal is for drilling of development & production wells along with Surface Facilities, Phase-III of CBM Block RG (E)-CBM-2001/1, Raniganj CBM Block, West Bengal by M/s Essar Oil Ltd. (E&P Division). Essar Oil Ltd. & Govt. of India signed a contract for exploration and production of coal bed methane (CBM) from block RG (East)-CBM-2001/1 on 26th July, 2002. Block is located in Raniganj Coal Field, West Bengal at latitude 23°21’45’’N & 23°41’12” N and longitude 87°14’40”E & 87°28’46”E. Total block area is 500 Km^2 & spread in Burdwan, Birbhum and Bankura districts of West Bengal. Land requirement will be 2 acres/well site and 5 acres per GGS/MCS. Following are the co-ordinates of Block.
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<tr><th>S.N.</th><th colspan="3">Latitude (N)</th><th colspan="3">Longitude (N)</th></tr>
<tr><td>A</td><td>23°</td><td>41’</td><td>12”</td><td>87°</td><td>25’</td><td>02”</td></tr>
<tr><td>B</td><td>23°</td><td>40’</td><td>38”</td><td>87°</td><td>26’</td><td>45”</td></tr>
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<tr><td>E</td><td>23°</td><td>38’</td><td>50”</td><td>87°</td><td>25’</td><td>52”</td></tr>
<tr><td>F</td><td>23°</td><td>37’</td><td>14”</td><td>87°</td><td>25’</td><td>33”</td></tr>
<tr><td>G</td><td>23°</td><td>34’</td><td>47”</td><td>87°</td><td>26’</td><td>17”</td></tr>
<tr><td>H</td><td>23°</td><td>32’</td><td>51”</td><td>87°</td><td>28’</td><td>46”</td></tr>
<tr><td>I</td><td>23°</td><td>31’</td><td>45”</td><td>87°</td><td>28’</td><td>46”</td></tr>
<tr><td>J</td><td>23°</td><td>30’</td><td>00”</td><td>87°</td><td>27’</td><td>35”</td></tr>
<tr><td>K</td><td>23°</td><td>29’</td><td>15”</td><td>87°</td><td>26’</td><td>45”</td></tr>
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<tr><td>M</td><td>23°</td><td>26’</td><td>35”</td><td>87°</td><td>27’</td><td>25”</td></tr>
<tr><td>N</td><td>23°</td><td>23’</td><td>00”</td><td>87°</td><td>26’</td><td>10”</td></tr>
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<tr><td>P</td><td>23°</td><td>21’</td><td>45”</td><td>87°</td><td>25’</td><td>00”</td></tr>
<tr><td>Q</td><td>23°</td><td>24’</td><td>15”</td><td>87°</td><td>20’</td><td>00”</td></tr>
<tr><td>R</td><td>23°</td><td>27’</td><td>30”</td><td>87°</td><td>16’</td><td>30”</td></tr>
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<tr><td>U</td><td>23°</td><td>35’</td><td>10”</td><td>87°</td><td>18’</td><td>00”</td></tr>
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<tr><td>W</td><td>23°</td><td>39’</td><td>45”</td><td>87°</td><td>25’</td><td>20”</td></tr>
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</td><td>Compliance with.

Company Name has been changed from Essar Oil Ltd. (E & P Division) to Essar Oil and Gas Exploration and Production Ltd. (EOGEPL) vide F. No. J-11011/491/2011-IA II (I) dated 27th November, 2017 from MoEF&CC.

Later on the Environment Clearance (EC) was amended for the exploration of shale gas was granted vide MoEF&CC F. No. J-11011/491/2011-IA II (I) dated 9th May, 2019.

Further, the EC also got amendment with an extended validity till 25th Feb. 2025.

<u>Status of the Project</u>

Presently, EOGEPL operational with 454 wells under the ECs, Phase- I, II & III (The area of EC, Phase- I & II are within the area of EC, Phase- III).

Group/ Gas Gathering Station (GGS)- 6 nos.

Main Compressor Station (MCS)- 1 no.

Present production ~1mmscmd.

As required interconnecting and 82.775 km. transportation pipeline network with a diameter range of 4”-18” have been laid..</td></tr>
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	Out of 500 Km^2 block area, phase – III project is proposed in 190.3 Km^2 block area. Out of 180.5 Km^2 area falls within the existing CBM block in Burdwan district, WB with an additional 9.8 Km^2 area located outside the block abutting the western boundary. No national park/sanctuary is located within 10 Km radius of the block. No diversion of forest land is involved. River Damodar and River Ajay are flowing in the block. Total project cost is Rs. 2866 Crore. Following activities are proposed: i) Total no. of wells-650 (each well pad will have one vertical and several directional wells, optimized for the location and geology of the well pad) with the target depth of ~2000 m (618 wells in 180.5 Km^2 of block area and 32 wells in 9.8 Km^2 of additional area). Out of the total 650 wells, 107 wells falling within the Durgapur Municipal Corporation Boundary. ii) 8 Nos. of Group Gathering Station (GGS) with the capacity 0, 45 MMSCMD each and 1 No. of Main Compressor Station (MCS) with capacity 3.0 MMSCMD. iii) Interconnecting and transportation pipeline network with a diameter range of 4"-18". iv) Total estimated production of CBM from the proposed project is 5 million m^3/day. Each well is estimated to generate a peak production of 15,000 m^3/day.	
3.0	Air emissions from DG sets will be dispersed by providing adequate stack height. Flaring will be done as per the CPCB guidelines. Fresh water requirement will be 125 m^3/well during drilling and 1 m^3/day for GGS/MCS operation. Water based mud (WBM) and synthetic based mud will be used. Effluent comprising mud will be treated in compact effluent treatment plant (ETP) comprising equalization, chemical quagulation, flocculation and clarification by settling. Residual unusable mud will be collected in lined pits and solar evaporated. Remaining mud will be reused in the drilling process. Produced water will be generated around 50 m^3/day and treated through reverse osmosis (RO) before utilizing for agriculture, domestic purposes, preparation of mud. Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well-designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30th August, 2005. Used oil will be sent to authorised recyclers.	Green DG sets are in used confirming to CPCB guidelines providing adequate stack height. Flare stack height are 30 meter and 50 meter for GGSs and MCS respectively. Generated produced water is treated through comprehensive RO Units, thereby treated water is reused for project and operational activities eliminates the need of fresh water in drilling and other related activities. Only water based mud is used for drilling. Effluent comprising mud is treated through either central Drilling Waste Processing Plant or Mobile Effluent Treatment Plant; both are systemizing through RO Units for final treatment of water. Drilling mud is reused in the drilling process, where residual unusable mud is collected in lined pits and solar evaporated Produced water generated an average ~ (17 – 20) m^3/well/day is treated through RO Units. The treated water is reused in drilling for preparation of mud and other activities. The balance treated water is discharge into local stream for agricultural purposes. Non-hazardous drill cuttings are used for well pad development and unusable drilling fluid is disposed off in well-designed lined pit with impervious liner for solar drying. EOGEPL is in compliance with the GSR 546 (E) dated 30th August, 2005. Used oil is sent to authorized recycler.
4.0	All the oil and gas production projects are listed at S.N. 1(b) under Category 'A' and appraised at the central level.	Noted.

5.0	The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 30th meeting held during 15th – 16th December, 2011 and reconstituted Expert Appraisal Committee (Industry) in its 2nd meeting held during 29th – 31st October, 2012 respectively.	Noted.
6.0	Public Hearing/ Public Consultation meeting conducted by the W.B. Pollution Control Board on 24th May, 2012.	Noted.
7.0	The Ministry of Environment and Forest hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14th September, 2006 subject to strict compliance of the following specific and general conditions.	Noted.
A	**Specific Conditions**	
I.	Compliance to all the environmental conditions stipulated in the environmental clearance letter nos.J-11011/660/2007-IA-II(I) dated 6th May, 2008, J-11011/351/2009-IA-II(I) dated 23.09.2011 and its subsequent amendment shall be satisfactorily implemented.	Compliance to the environmental conditions stipulated in the Environment Clearance (EC) vide letter no. J-11011/660/2007-IA-II(I) dated 6th May, 2008, J-11011/351/2009-IA-II(I) dated 23.09.2011 and its' amendment dated 18th June 2012 are being satisfactorily implemented. No further activities are being undertaken with respect to the above-mentioned ECs and therefore no further change in status.
II.	Compensation for the land acquisition to the land oustees, if any, and also for standing crop shall be paid as per the National Resettlement and Rehabilitation Policy (NRRP) 2007 or State Government norms. It may be ensured that compensation provided shall not be less than the norms of the NRRP, 2007	Land acquisition is conducted directly with the land owners and the compensation is paid as per the prevailing market rate and mutual consent. There are no involvement of Rehabilitation and Resettlement.
III.	Prior permission from the Ministry of Defence shall be obtained regarding impact of proposed plant on Panagarh, if any.	Prior permission (NOC) has been obtained from the Ministry of Defence vide letter no. Air HQ/S17726/4/ATS(PC-CML-VIII) dated 24.05.2012 for construction of Gas Gathering Station (GGS) and Main Compressor Station (MCS). The aerial distance between nearest facility, GGS-4 and Panagarh Air Force Station is around 3 km. and MCS is located at a distance around 9 km. from Panagarh Air Force Station. We don't have any other major installation in proximity to Panagarh Airbase which could have any such impact.
IV.	As proposed, no forest land shall be used for the proposed facilities	No forest land has been used for the well pads and surface facilities.
V.	Ambient Air Quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards (NAAQES) issued by the Ministry vide G.S.R No. 826(E) dated 16th November, 2009 for PM10, PM2.5, SO2, NOx, CO, CH4, VOCs, HC, Non-Methane HC etc. Efforts shall be made to improve the ambient air quality of the area.	Monitoring of Ambient Air Quality (AAQ) is conducted through NABL accredited laboratory by collecting samples from well sites, facilities near the closest human settlements as per the Ambient Air Quality Standards (NAAQS) issued by the Ministry vide G.S.R No. 826(E) dated 16th November, 2009 for PM10, PM2.5, SO2, NOX, CO, CH4, VOCs, HC, Non-methane HC etc. The summary of the report of AAQ monitoring for last six months i.e. Oct-24 to Mar-25 enclosed in **Annexure I,** where all the monitored parameters found within the stipulated limit. Efforts to improve the AAQ of the area is implemented through green belt development, water sprinkling and schedule maintenance of the equipments.
VI.	Mercury shall also be analysed in air, water and drill cuttings twice during drilling period	Mercury is monitored through NABL accredited laboratory in air, water and drill cuttings.

		Summary of the analysis result of ambient air quality (refer to **Annexure I**), RO treated produced water quality (refer to **Annexure II**) and toxicology analysis of drill cuttings (refer to **Annexure III)**. The analysis reports as mentioned above reveals that the mercury concentration is in below detection limit (BDL).
VII.	The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The company shall take necessary measures to prevent fire hazards and soil remediation as needed. At the place of ground flaring, the flare pit shall be lined with refractory bricks and efficient burning system. In case of overhead flare stacks, the stack height shall be provided as per the regulatory requirements and emission from stacks shall meet the MoEF/CPCB guidelines.	The overhead flaring system has been installed as per OISD Standards/Guidelines. The flare stack height is 30 m. for GGS and 50 m. for MCS. The measures delineated in the EIA/EMP are being maintained to prevent fire hazards. The following measures have been implemented. • Installation of electrical equipment in accordance with the approved hazardous zone classification by the Directorate General of Mine Safety (DGMS). • Major facilities such as Gas Gathering Station (GGS), Main Compressor Station (MCS), Warehouses etc. are equipped with comprehensive fire hydrant system. • Dry chemical fire extinguishers are strategically placed at all well sites. • Online methane gas analysers (CH_4) and portable multi gas detectors are utilized for work zone monitoring, capable of detecting CH_4, O_2, CO, H_2S. • Flame proof lighting fixtures, push buttons and switches are employed at drill site and facilities.
VIII.	The company shall make the arrangement for control of noise from the drilling activity, compressor station and DG sets by providing necessary mitigation measures such as proper acoustic enclosures to DG sets and meet the norms notified by the MoEF. Height of all the stacks/vents shall be as per the CPCB guidelines.	Green DG sets, Gas Generator Sets are in used confirming to CPCB guidelines of acoustic enclosure and providing of adequate stack height. Ambient noise level monitoring by collecting samples is conducted both during day and night time in accordance to the schedule. The summary of the monitoring result of ambient noise level enclosed in **Annexure IV**.
IX.	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.	Complied with. Drill cuttings (non-toxic)) and drilling fluids (non-hazardous "Water Base Mud") are collected in HDPE lined pit at site. After that at treatment site, it is stored in RCC pit for further treatment through Drilling Waste Processing Plant. After treatment, the solid waste, drill cutting/dry cutting is used for well pad development.
X.	Total fresh water requirement should not exceed 125m3 for each well during drilling phase 1 m3/day for GGS/MCS. Prior permission shall be obtained from the Competent Authority and a copy submitted to the Ministry's Regional Office at Bhubaneswar	RO treated produced water is recycled/ reused in project activities and operations., thereby eliminating the need for fresh water in drilling and other related activities. Ground water is utilized solely for potable purposes, with the necessary permissions already obtained from State Water Investigation Directorate (SWID), Govt. of

		west Bengal. The copies of permissions received from District Level Ground Water Resource Development Authority, Burdwan enclosed in **Annexure V**.
XI.	During well drilling, wastewater should be segregated into waste drilling fluid and drill cuttings. Drill cutting should be stored onsite impervious HDPE lined pit for solar evaporation and drying. Effluent should be properly treated and treated effluent should conform to CPCB standards. As proposed, produced water should be treated by reverse osmosis and reuse in drilling of new wells, fire hydrant system and other beneficial purposes. Domestic effluent should be disposed off through septic tank followed by soak pit.	Drilling wastewater (based on non-hazardous "Water Base Mud") & drill cuttings (non-toxic) collected in onsite impervious HDPE lined pit. After that at treatment site, it is stored in RCC pit for further treatment through central Drilling Waste Processing Plant, where drilling fluid and drill cuttings are separated & treated. The treated effluent quality analysis report indicated that the analysed parameters are within the stipulated limit of CPCB standard notified vide GSR.546 (E) dated 30th August, 2005 for onshore discharge of Oil Drilling and Gas Extraction Industry. The summary of the analysis report enclosed in **Annexure VI**. The pit residual is solar evaporated and dry. Produced water is treated through Reverse Osmosis (RO) System (capacity 8100 cu. m. per day) and reused for drilling of new wells, fire hydrant and other beneficial purposes. The summary of the RO treated water analysis enclosed in **Annexure II**. Domestic effluent is disposed of through septic tank followed by soak pit.
XII.	Ground water quality monitoring should be done to assess if produced water storage or disposal has any effect.	The ground water quality monitoring report carried out in the month of Nov-24 enclosed in **Annexure VII**. All the monitoring parameters observed within the permissible limit except few locations the Iron (as Fe) concentration found above the drinking water permissible limit, i.e. 1 mg/L. The ground water quality monitoring is conducted half-yearly basis at pre-monsoon (May month in every year) and post-monsoon (November month in every year), where the last ground water analysis report meaning the May-24 report was indicated with the Iron (as Fe) concentration within the stipulated limit. The topographical characteristic of the Raniganj CBM Block lies in the Raniganj Coalfield predominantly enriched with laterite soil particularly in the central and southern parts where the Raniganj Formation consisting of coal seams, shales and sandstone refers to the baseline condition of the area. Also the area gradient is towards the East, so the drainage system like river, nallah, watershed etc. are flowing towards the East. In consequence of the surface runoff during monsoon may aggravate the Iron (as Fe) concentration in the ground water by percolation through the open wells, resulting seasonal variation of Fe concentration.
XIII.	Drilling wastewater including drill cuttings, wash water shall be collected in disposal pit lined with HDPE lining, evaporated or treated and shall comply with the notified standards for on-shore disposal on land. Proper toxicological analysis shall be done to ensure there is no hazardous material. Copy of toxicological analysis shall be submitted to Ministry's Regional Office at Bhubaneswar.	Drilling wastewater (based on non-hazardous "Water Base Mud") including drill cuttings (non-toxic) are collected in onsite impervious HDPE lined pit. After that at treatment site, it is stored in RCC pit for further treatment through Drilling Waste Processing Plant, where drilling fluid and dry cutting/drill cutting are separated & treated. The treated effluent quality analysis report indicated that the parameters are comply with the notified standards vide GSR.546 (E)

		dated 30th August, 2005 for onshore discharge of Oil Drilling and Gas Extraction Industry. The summary of the analysis report enclosed in **Annexure VI**. Toxicological analysis is done by sample collection of drill cuttings/sludge followed by the analysis report summarized and enclosed in **Annexure III**. The analysis report reveals that all the tested parameters are within the stipulated limit. After treatment, the solid waste, drill cutting/dry cutting is used for well pad development.
XIV.	Water base drilling mud or synthetic based mud shall be used	Only water base mud is used for drilling.
XV.	The company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.	The necessary preventive measures have taken in place to prevent fire hazards, oil spill and soil remediation as follows. • Installation of electrical equipment in accordance with the approved hazardous zone classification by the Directorate General of Mine Safety (DGMS). • Major facilities such as Gas Gathering Station (GGS), Main Compressor Station (MCS), Warehouses etc. are equipped with comprehensive fire hydrant system • Dry chemical fire extinguishers are strategically placed at all well sites. • Fixed and Portable type multi gas detectors are utilized for work zone monitoring, capable of detecting CH_4, O_2, CO, H_2S. • Flame proof lighting fixtures, push buttons and switches are employed at drill site and facilities. • Impervious lining, secondary containment and spill kits are deployed wherever there is a risk of soil contamination. There is no ground flaring at site. The overhead flaring stack with knockout drums have been installed to minimize gaseous emissions during operation.
XVI.	The company shall take necessary measures to prevent fire hazards and soil remediation as needed. The stacks of adequate height shall be provided to flare the gas, if required, to minimize gaseous emissions and heat load during flaring	The necessary preventive measures have taken in place to prevent fire hazards and soil remediation as follows. • Installation of electrical equipment in accordance with the approved hazardous zone classification by the Directorate General of Mine Safety (DGMS). • Major facilities such as Gas Gathering Station (GGS), Main Compressor Station (MCS), Warehouses etc. are equipped with comprehensive fire hydrant system • Dry chemical fire extinguishers are strategically placed at all well sites. • Fixed and Portable type multi gas detectors are utilized for work zone monitoring, capable of detecting CH_4, O_2, CO, H_2S. • Flame proof lighting fixtures, push buttons and switches are employed at drill site and facilities.

		• Impervious lining, secondary containment and spill kits are deployed wherever there is a risk of soil contamination. The overhead flaring stack with heights of 30 meter for GGS and 50 meter. for MCS have been installed to flare the gas, if required, minimizing gaseous emissions and heat load during flaring.
XVII.	To prevent underground coal fire, preventive measures shall be taken for ingress of ambient air during withdrawal inside the coal seams by adopting technologies including vacuum suction. Gas detectors for the detection of CH_4 and H_2S shall be provided.	There is no chance of ingress of ambient air, as the well is arrested with drive head and operational through Progressive Cavity Pump. Fixed and Portable type multi gas detector is present for the detection of CH_4, H_2S, O_2 and CO at Gas Gathering Station and production sites.
XVIII.	The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the natural gas/oil shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141. Pipeline wall thickness and minimum depth of burial at river crossing and casings at rails, major road crossings should be in conformity with ANSI/ASME requirements.	All the surface facilities and pipelines have been designed and installed as per the ASME/ANSI B 31.8 and OISD Standards 141/226. The inspection, testing and safety aspects of operation and maintenance of pipeline and transportation the natural gas is conducted as per PNGRB Guidelines and OISD Standards.
XIX.	The company shall develop a contingency plan for H_2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H_2S detectors in locations of high risk of exposure along with self-containing breathing apparatus.	According to the analysis of gas tapped from the wells, H_2S is not present. All the necessary safety measures have been implemented in accordance with the Emergency Response Plan (ERP). Multi Gas detectors are employed at drilling and production sites to monitor the presence of gases in the work zone. All workforce is ensured with the standard Personal Protective Equipments (PPEs) in line. Additionally, self-contained breathing apparatus (SCABA) are provided as needed to ensure safety.
XX.	Adequate well protection system shall be provided like Blow Out Preventer (BOP) or diverter systems as required based on the geological formation of the blocks.	Hydrostatic pressure of Coal Bed Methane (CBM wells are typically less than 1.5 psi/m. Nevertheless, due to the hydrostatic pressure and the sensitivity of the wells, a Blow Out Preventer (BOP) or Diverter system is adopted at the well head during drilling operation. Additionally other well control measures have been adopted, including through pre-well planning and drilling fluid logging to maintain appropriate hydrostatic pressure and ensure well safety.
XXI.	The top soil removed shall be stacked separately for reuse during restoration process.	During drilling operation, top soil is stacked separately and distributed over the designated areas for green belt development at facilities and well pads.
XXII.	Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India. Recommendations mentioned in the Risk Assessment & Consequence Analysis and Disaster Management Plan shall be strictly followed.	The Raniganj (East) CBM project activities & operations conducted by EOGEPL is adhere to Emergency Response & Disaster Management Plan (ERDMP) approved by the authorized agency 'SEVA' of Petroleum & Natural Gas Regulatory Board (PNGRB). The approved ERDMP certificate vide Certificate No.: SEVA/DMP/27/23 enclosed in **Annexure VIII**.
XXIII.	Project proponent shall comply with the environment protection measures and safeguards recommended in the EIA/EMP/risk analysis report/disaster management plan	Environmental protection measures and safeguards recommended in EMP / Risk Analysis / Disaster Management Plan are being implemented and maintained.

XXIV.	The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.	Till now no such full abandonment is done for any of the well site, however standard practices as per OISD and Indian Petroleum Regulations are being followed for plugging and securing the drilled wells and it is taken into production process. Upon full abandonment/ closure of wells/site, the site shall be restored in accordance with applicable Indian Petroleum Regulation.
XXV.	Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.	During joining, employees are undergone with pre-employment medical examination. The occupational health surveillance is conducted in periodic intervals as stipulated by Directorate General of Mine Safety (DGMS) under Mine Rule 29 B (Form – O). The certified copy of the medical examination for last six month, i.e. October-2024 to till date enclosed in **Annexure IX**.
XXVI.	Company shall adopt Corporate Environment Policy as per the Ministry's O.M.No.J-11013/41/2006-IA II(I) dated 26th April, 2011 and implemented.	Environment Policy has been developed and being implemented & maintained. A copy of the Environment Policy enclosed in **Annexure X**.
XXVII.	All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 24th May, 2012 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.	commitments made to the public during Public Hearing/ Public Consultation meeting held on 24th May, 2012 are being satisfactory implemented by complying/ in process of complying with the commitments. In this connection, during the last Financial Year (FY), i.e. FY 2024-25, EOGEPL judiciously utilized the amount INR 2,24,41,181 towards socio-welfare development in key areas such as Health, Education, Empowerment, Sport Events and Infrastructure Development in the villages surrounding the project area.
XXVIII.	At least 5% of the total cost of the project should be earmarked towards the enterprise social commitment and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program shall be ensured accordingly in a time bound manner.	EOGEPL has been spending on the enterprise social commitment on various activities in accordance with applicable regulatory requirements and based on existing policies of the company and socio-economic requirement in and around the project area. During the period of Oct-24 to Mar-25, EOGEPL has spent an amount of INR 2,12,97,044 **(Annexure XI)** judiciously towards enterprise social commitment in thrust areas like Health, Education, Sports and Cultural Events, Infrastructure Development etc. for the villages surrounding of the project area. *From the beginning to till Mar-25, EOGEPL has spent an expenditure amounting more than INR 10.69 Crores in total towards enterprise social commitment.*
XXIX.	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, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Compliance with. EOGEPL prefer to engage local labour for the CBM project activities. However, all the necessary infrastructure and facilities like porta-cabins, mobile toilets with septic tank & soak pit, safe drinking water, medical health care etc. are provided. The outside crews are accommodated to the nearby localities with all such amenities of living.

Ref: Environmental Clearance F. No. J-11011/491/2011-IA II (I), dated 26th February 2013 and its amendment dated 27th November, 2017, 9th May, 2019 & 14th August, 2023.

B	General Conditions	
I.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), State Government and any other statutory authority.	EOGEPL strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), State Government and Statutory Authority always. For example, Consent to Establish obtained for the drilling of wells, facilities, pipelines etc. and for the operations of wells, facilities and pipelines Consent to Operate also obtained from SPCB.
II.	No further expansion or modification in the project shall be carried out without prior approval of the Ministry of Environment & Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	The EC, Phase III allowed EOGEPL to drill 32 wells in additional area of 9.8 Sq. KM, where 17 wells have been drilled with marginal shifting of area coordinates. a. Due to absence of physical boundary pillars in the preliminary development phase of the project, spread in the open land covering the natural landscapes and habitats posing difficulty in identifying exact area boundary. b. Placement of the CBM wells has the flexibility to move 200-300meter basis subsurface geological data. c. During this process the project team may have shifted the actual well location to accommodate various site constraints like agricultural land, hamlet, township, waterbody, roads etc. resulting in marginally crossing the permitted boundary. Of these 17 wells, 12 wells have been regularized through the allotment of 7 sq. km. additional area by MoPNG and the balance wells within 16 sq. km. are shut. Whereas it is also to mention that the drilled well quantity for additional area not breached, i.e. 32 wells. At present, total operational wells are 454 under the ECs of Phase- I, II & III together with which is far less against the EC, Phase- III permitted quantity i.e., 650 wells included with the 32 wells of additional area. Moreover, the present production capacity is ~1mmscmd against the permitted quantity of 5mmscmd. Therefore, the overall pollution load w.r.t. the EC is maintained well within the permissible limit.
III.	The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 2000 as amended subsequently. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. must be obtained, wherever applicable.	Compliance with. EOGEPL complying with the directions/guidelines/approval of Oil Mines Regulations 2017, Oil Industry Safety Directorate, Directorate General of Mine Safety and Petroleum and Explosives Safety Organization for CBM operation.
IV.	The project authorities must strictly comply with the rules and regulation with regarding to handling and disposal of Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 wherever applicable. Authorization from the State Pollution Control Board must be obtained for collections/treatment/storage/ disposal of hazardous wastes.	Compliance with. As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 EOGEPL obtained Hazardous Waste Authorization vide Memo No. – 190/2S(HW)-2449/2008 dated 28.12.2023 with validity upto 31.10.2028. Additionally, the annual return of hazardous waste is submitted to West Bengal

		Pollution Control Board (WBPCB) through online portal time to time.
V.	The overall noise levels in and around the plant area shall be kept within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75dBA (daytime) and 70 dBA (night time)	Compliance with. Acoustic DG Set and Gas Generator Set are used in the sites. Ambient noise level monitoring is conducted by collecting samples both during day time and night time in accordance to the schedule. The summary of the ambient noise level monitoring result enclosed in **Annexure IV**.
VI.	A separate Environmental Management Cell equipped with full-fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.	A dedicated Environment Management Cell (EMC) is operational for the implementation of Environment Management Plan. Additionally, Environmental Monitoring is conducted by M/s Scientific Research laboratory, Kolkata, which is recognized by Central Pollution Control Board (CPCB) and accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL). The organogram of EMC enclosed in **Annexure XII**.
VII.	As proposed, Rs.2.80 Crore earmarked for environment pollution control measures shall be used to implement the conditions	Complied with. The expenditure amounting INR 2,01,80,458 (CAPEX) and INR 1,90,86,384 (OPEX) have been spent towards environment pollution control measures for the period Oct-24 to Mar-25 enclosed in **Annexure XIII**. This is also to inform that EOGEPL has spent INR 3,70,76,848 (CAPEX) and INR 5,17,14,792 (OPEX) towards environment pollution control measures throughout the FY 2024-25. *From the beginning to till Mar-25, EOGEPL has spent INR ~19.64 Crores (CAPEX) and INR ~47.5 Crores (OPEX), in total INR ~67.14 Crores towards the environment pollution control measures.*
VIII.	The Regional Office of this Ministry/Central Pollution Control Board/State Pollution Control Board will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	Six-monthly compliance report along with the supportive annexures are submitted on regular basis, last submitted on 31.12.2024.
IX.	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/ Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Complied with. EOGEPL intimated the last amendment of the Environment Clearance (EC), i.e. validity extension of the EC, Phase III dated 14.08.2023 to the concerned Panchayat vide Ref. No. EOGEPL/CBM-RG(E)/EC-Int./2023 dated 21.08.2023 and uploaded it on the website of the company also.
X.	The project proponent shall upload the status of compliance for the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF, the respective Zonal Office of CPCB and the WBPCB. The criteria pollutant levels namely; PM_{10}, $PM_{2.5}$, SO_2, NOx, HC (Methane & Non-methane), VOCs (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	The compliance report of environment clearance conditions including results of monitored data is uploaded on EOGEPL website periodically and send it to the Sub-Office of MOEF&CC and WBPCB at regular intervals. The screenshot of portal uploading enclosed in **Annexure XIV**. The ambient air quality monitoring is carried out as per the National Ambient Air Quality Standards (NAAQS) issued by CPCB vide G.S.R No. 826(E) dated 16th November, 2009. The criteria pollutant levels namely;

		$PM_{2.5}$, SO_2, NOx, HC (Methane & Non-methane), VOCs (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects are monitored as per the schedule and displayed at the convenient location near the main gate of the company in the public domain. The display board of environmental information refers to **Annexure XV**.
XI.	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF, the respective Zonal Office of CPCB and the WBPCB. The Regional Office of this Ministry/CPCB/WBPCB shall monitor the stipulated conditions.	The six-monthly report on the status of the compliance of the stipulated environmental conditions including results of environmental monitored data is submitted through e-mail to the Sub-Office Kolkata, MoEF&CC and hard copy is submitted to Durgapur Regional Office, WBPCB time to time. (Refer **Annexure XVI**)
XII.	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MoEF by e-mail	The Environmental Statement in Form-V (FY 2023-24) is submitted to the Durgapur Regional Office, West Bengal Pollution Control Board in hard copy. The official receiving of the submission enclosed in **Annexure XVII.** The Form V has also been uploaded on the website of EOGEPL. The screenshot of the portal enclosed in **Annexure XVIII**. Apart from that the Form V (FY 2023-24) also been submitted to Sub-office Kolkata, MoEF&CC by e-mailing of the soft copy on 06.09.2024. The screenshot of the same enclosed in **Annexure XIX**.
XIII.	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the WBPCB and may also be seen at Website of the Ministry of Environment and Forests at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional Office.	Complied with.
XIV.	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Complied with. The project is in operation stage with the Consent to Operate issued by the West Bengal Pollution Control Board.
8.	The Ministry may revoke or suspend the clearance .if implementation of any of the above condition is not satisfactory	Noted.
9.	The ministry reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner shall implement these conditions.	Noted.
10.	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act,1981, the Environment (Protection) Act.1986, Hazardous Waste	Noted.

<table>
<tr><td></td><td>(Management, Handling and Trans-Boundary Movement) Rules, 2008 and the Public Liability Insurance Act ,1991 along with their amendments and rules.</td><td></td></tr>
<tr><td colspan="3">Ref.: Amendment of EC vide F. No. J-11011/491/2011-IA II (I) dated 27th November, 2017</td></tr>
<tr><td>2</td><td>The Ministry had earlier issued environmental clearance for development & Production Wells along with Surface Facilities, Phase-III of CBM Block RG (E)-CBM-2001/1, Raniganj CBM Block, West Bengal in favour of M/s Essar Oil Limited (E&P Division) vide letter dated 26th February, 2013.</td><td>Noted.</td></tr>
<tr><td>3</td><td>M/s Essar Oil Limited has demerged its Exploration and Production (E&P) Division, which has now been transferred to a newly created wholly owned subsidiary namely M/s Essar Oil and Gas Exploration and Production Ltd (EOGEPL) and thus necessitating transfer of all requisite approvals in the name of new company.</td><td>Complied with.</td></tr>
<tr><td>4</td><td>M/s Essar Oil Limited has given 'No Objection Certificate' for transfer of environmental clearance granted vide letter dated 26th February, 2013 in the name of M/s Essar Oil and Gas Exploration and Production Limited.</td><td>Noted.</td></tr>
<tr><td>5</td><td>M/s Essar Oil and Gas Exploration and Production Limited has submitted an affidavit to abide by the terms and conditions stipulated in the environment clearance dated 26th February, 2013 issued in the name of M/s Essar Oil Limited (E&P Division).</td><td>Noted.</td></tr>
<tr><td>6</td><td>As per the relevant provisions of the EIA Notification, 2006, the environmental clearance to the project 'Development & Production Wells along with Surface Facilities, Phase-III of CBM Block RG(E)-CBM-2001/1, Raniganj CBM Block, West Bengal granted by the Ministry vide letter No. J-11011/491/2011-IA-II dated 26th February, 2013 is hereby transferred from M/s Essar Oil Limited (E&P Division) to M/s Essar Oil and Gas Exploration and Production Limited, on the same terms and conditions under which prior environmental clearance was initially granted and for the same validity period.</td><td>Noted.</td></tr>
<tr><td>7</td><td>This issues with the prior approval of the Competent Authority.</td><td>Noted.</td></tr>
<tr><td colspan="3">Ref.: Amendment of EC vide F. No. J-11011/491/2011-IA-II (I) dated 9th May ,2019</td></tr>
<tr><td>2</td><td>The proposal has been submitted for extension of validity of the said environmental clearance for a period of 3 years, and also amendment therein, with the details as under: -
<table>
<tr><th>S. No</th><th>Para of EC</th><th>Details as per the EC</th><th>To be revised/read as</th></tr>
<tr><td>1</td><td>2 (i)</td><td>Total no. of wells- 650 nos.</td><td>Out of total 650 wells. 20 wells proposed for exploration of shale gas</td></tr>
<tr><td>2</td><td>2 (i)</td><td>With the target depth of ~ 2000 m</td><td>With the target depth of ~ 2000 m of CBM wells and ~3000 m of Shale Gas Well</td></tr>
</table></td><td>Noted.</td></tr>
</table>

<table>
<tr><td>3</td><td>The proposal was considered by the Expert Appraisal Committee (Industry-2) in the Ministry in its meeting held on 29-31 January, 2019. The Committee has recommended for the proposed amendment as above, and also extension of validity of the environmental clearance for a period of three years i.e. up to 26th February, 2023.</td><td>Noted.</td></tr>
<tr><td>4</td><td>Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval to the proposed amendment in the environmental clearance dated 26th February, 2013, and extension of its validity for a period of three years i.e. up to 26th February, 2023.</td><td>Noted.</td></tr>
<tr><td>5</td><td>All other terms and conditions stipulated in the environmental clearance dated 26th February, 2013 shall remain unchanged.</td><td>Noted.</td></tr>
<tr><td colspan="3">Ref.: Amendment of EC vide F. No. IA- J-11011/491/2011-IA-II(I) dated 14th August, 2023</td></tr>
<tr><td>2</td><td>The Ministry of Environment, Forest and climate change has considered the above proposal for amendment in the environmental clearance granted by the Ministry vide F. No. J-11011/491/2011-IA-II(I) dated 26th February, 2013 for the project titled “Development & Production Wells along with Surface Facilities, Phase- III of CBM Block RG (E)–CBM-2001/1 located at Raniganj CBM Block, Durgapur, West Bengal by M/s Essar Oil and Gas Exploration and Production Limited”. The project was given extension vide letter dated F. No. J-11011/491/2011-IA-II(I) dated 9th May, 2019 for three years which was valid up to 26th February, 2023.</td><td>Noted</td></tr>
<tr><td>3</td><td>The Project proponent requested to amendment for extension in the validity of EC with the details is as under.
<table>
<tr><th>S. No</th><th>Para of EC issued by MoEF&CC</th><th>Details as per the EC</th><th>To be revised/read as</th><th>Justification /Reason</th></tr>
<tr><td>01</td><td>Para-4 of EC vide F. No. J11011/491/2011-IA-II(I) dated 9th May ,2019</td><td>Based on the recommendation of the EAC, the Ministry of Environment, Forest and climate Change hereby accords approval to the</td><td>Extension of validity of the Environment Clearance (EC) vide F. No. J-11011/491/2011-IA-II(I) dated 9th May, 2019 for a period of another 01 year i.e. up to</td><td><u>Lagging Indicator</u>:

EOGEPL has drilled only 193 CBM wells out of the planned 630 CBM wells under phase III development.

Drilling campaign was temporarily stopped in 2017, due to delay in pipeline connectivity poising a significant constrain to evacuate the CBM gas produced.

The pipeline commissioning timeliness further got extended due</td></tr>
</table></td><td>Noted.</td></tr>
</table>

			proposed amendment in the environment clearance dated 26th February ,2013, and extension of its validity for a period of 3 years i e. up to 26th February ,2023.	25th February ,2024, under the notification–S.O. 1807 (E), dated 12th April 2022 of the Ministry.	the pandemic situation created by COVID 19 Coronavirus and the nation-wide lockdown. Non availability of the evacuation pipeline and the pandemic has badly affected our operations and delayed the planned development activities **Leading Indicator:** Urja Ganga Pipeline (UGPL) was commissioned and connectivity to our CBM block was established. Connectivity with the national gas grid has ensured seamless evacuation of the entire CBM gas Produced from the block since June 2021. EOGEPL is now geared up to commence major developmental activities to enhance gas production from the Raniganj CBM block. ML valid till May, 2032. CBM contract valid till May, 2041.	
4	During deliberations, EAC discussed following issues: • EAC noted that the extension has been already been given to the project vide letter dated F. No. J-11011/491/2011-IA-II (I) dated 9th May, 2019 which was valid up to 26th February, 2023.						Noted.
5.	After detailed deliberations EAC found the justification for amendment sought satisfactory and recommended for extension of EC till 25th February, 2024 as proposed by the project proponent with the following Additional condition: i. 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 MOEFCC on 12th 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.						EOGEPL conducted the awareness campaign "Ban of Single Use Plastic" for the period of. Oct-24 to Mar-25 refers to **Annexure XX**.

6	Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval to the proposed amendment for extension in the validity of environmental clearance dated 26th February, 2013 as stated above, for the project Development and Production Wells along with Surface Facilities Phase - III of CBM Block RG (East) - CBM- 2001/1, Raniganj CBM Block, West Bengal by M/s. Essar Oil and Gas Exploration and Production Ltd.	Noted.
7	Upon examination in the Ministry, it is concluded that as per S.O. 1807 (E), dated 12th April 2022, the validity of EC of instant project shall be 10 years and as per SO 221 (E) dated 18.01.2021 the period from the 1st April, 2020 to the 31st March, 2021 shall not be considered for the purpose of calculation of the period of validity of EC granted under the provisions of this notification in view of outbreak of Corona Virus (COVID-19) and subsequent lockdowns. Hence the validity of EC is till 25th February, 2024. Further, as per S.O. 1807 (E), dated 12th April 2022 the validity of EC can be extended for one more year. As per request for extension made by PP and recommendation of EAC, the validity of EC shall be till 25th February, 2025. However, all other terms and conditions mentioned in EC issued vide. F No. J-11011/491/2011-IA-II (I) dated 26th February, 2013 shall remain unchanged.	Noted.
8	This issues with approval of the competent authority.	Noted.

ANNEXURE I

Ambient Air Quality Monitoring Report of CBM Raniganj Project of Essar Oil and Gas Exploration and Production Ltd.
(Period: Oct.-24 to Mar-25)

ANNEXURE I

Name of Location			MCS						GGS- 01					
Month			Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
Parameter	UoM	NAAQS LIMIT												
$PM_{2.5}$	$\mu g/m^3$	60	30.51	33.59	51.69	48.48	47.70	46.25	33.50	32.15	39.76	47.38	47.58	50.34
PM_{10}	$\mu g/m^3$	100	68.78	75.08	89.64	93.73	87.57	88.94	70.51	72.81	78.73	89.68	90.89	95.64
Nitrogen Dioxide	$\mu g/m^3$	80	29.33	32.10	33.17	34.07	34.52	32.89	28.51	33.13	32.83	35.20	33.51	32.44
Sulphur Dioxide	$\mu g/m^3$	80	4.18	4.25	4.36	4.86	4.80	4.72	4.25	4.47	4.58	5.18	5.08	4.92
Carbon Monoxide	mg/m^3	2	0.412	0.464	0.460	0.504	0.492	0.504	0.430	0.472	0.476	0.498	0.524	0.522
Hydrocarbon	mg/m^3	NIL	1.58	2.48	2.28	2.18	1.89	1.89	1.64	1.87	1.76	2.14	1.62	2.14
Mercury	mg/m^3			< 0.002			< 0.002			< 0.002			< 0.002	
Hydrocarbon as Non Methane	mg/m^3	NIL	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
VOC's	$\mu g/m^3$			3.52			3.39			3.08			3.18	
Benzo(a)Pyrene	ng/m^3	1		0.36			0.42			0.32			0.36	
Ammonia	$\mu g/m^3$	400		36.23			32.34			29.08			29.12	
Ozone	$\mu g/m^3$	180		34.28			38.45			33.19			34.78	
Lead	$\mu g/m^3$	1		0.10			0.11			0.09			0.08	
Nickel	ng/m^3	20		8.72			11.32			8.24			8.49	
Arsenic	ng/m^3	6		1.76			1.89			1.76			1.62	
Benzene	$\mu g/m^3$	5		2.06			1.98			1.93			1.76	

Name of Location			GGS- 02						PARULIA				
Month			Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
Parameter	UoM	NAAQS LIMIT											
$PM_{2.5}$	$\mu g/m^3$	60	31.52	42.31	41.90	51.30	47.64	56.67	49.96	43.59	46.91	45.42	48.02
PM_{10}	$\mu g/m^3$	100	64.18	84.59	81.47	95.75	91.37	95.40	90.31	75.61	91.79	85.88	93.28
Nitrogen Dioxide	$\mu g/m^3$	80	30.66	32.70	32.17	34.24	33.55	32.34	32.15	32.77	34.55	32.59	33.26
Sulphur Dioxide	$\mu g/m^3$	80	4.45	4.28	4.23	5.08	4.78	4.86	4.72	4.81	5.04	5.10	4.81
Carbon Monoxide	mg/m^3	2	0.422	0.454	0.462	0.492	0.512	0.518	0.458	0.442	0.494	0.496	0.504
Hydrocarbon	mg/m^3	NIL	1.68	1.81	1.90	2.08	1.87	2.20	2.28	1.70	2.02	1.58	1.98
Mercury	mg/m^3			< 0.002			< 0.002		< 0.002			< 0.002	
Hydrocarbon as Non Methane	mg/m^3	NIL	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
VOC's	$\mu g/m^3$			3.58			3.30		4.13			3.04	
Benzo(a)Pyrene	ng/m^3	1		0.36			0.41		0.50			0.34	
Ammonia	$\mu g/m^3$	400		28.57			31.38		33.17			28.72	
Ozone	$\mu g/m^3$	180		32.19			37.39		37.31			34.13	
Lead	$\mu g/m^3$	1		0.11			0.10		0.16			0.08	
Nickel	ng/m^3	20		9.08			10.28		11.47			8.27	
Arsenic	ng/m^3	6		1.72			1.82		2.15			1.60	
Benzene	$\mu g/m^3$	5		1.89			1.95		2.34			1.73	

Name of Location			SARASWATIGUNJ						PRATPPUR					
Month														
Parameter	UoM	NAAQS LIMIT	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
$PM_{2.5}$	$\mu g/m^3$	60	37.39	39.26	42.65	46.25	48.77	46.37	40.22	38.33	52.14	49.32	50.46	55.60
PM_{10}	$\mu g/m^3$	100	71.57	78.31	83.74	90.09	92.52	90.38	84.91	78.61	91.60	92.79	92.94	97.46
Nitrogen Dioxide	$\mu g/m^3$	80	28.74	31.79	31.05	33.14	33.28	32.43	31.49	31.57	32.28	33.75	33.13	33.43
Sulphur Dioxide	$\mu g/m^3$	80	4.20	4.55	4.56	4.72	4.82	4.73	4.73	4.40	4.55	4.93	4.98	4.91
Carbon Monoxide	mg/m^3	2	0.408	0.456	0.462	0.492	0.504	0.526	0.462	0.458	0.484	0.502	0.502	0.496
Hydrocarbon	mg/m^3	NIL	1.52	1.90	2.02	1.92	1.85	1.93	1.74	2.39	2.36	2.04	1.70	2.07
Mercury	mg/m^3			< 0.002			< 0.002			< 0.002			< 0.002	
Hydrocarbon as Non Methane	mg/m^3	NIL	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
VOC's	$\mu g/m^3$			3.18			3.21			3.62			3.13	
Benzo(a)Pyrene	ng/m^3	1		0.40			0.41			0.36			0.38	
Ammonia	$\mu g/m^3$	400		29.87			31.23			33.79			29.58	
Ozone	$\mu g/m^3$	180		33.44			36.78			37.41			35.26	
Lead	$\mu g/m^3$	1		0.12			0.10			0.11			0.09	
Nickel	ng/m^3	20		8.89			10.69			9.48			9.08	
Arsenic	ng/m^3	6		1.68			1.85			1.76			1.66	
Benzene	$\mu g/m^3$	5		1.88			1.93			2.48			1.79	

Name of Location			BANSIA						JAMGORA					
Month														
Parameter	UoM	NAAQS LIMIT	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
$PM_{2.5}$	$\mu g/m^3$	60	42.10	42.72	42.92	49.17	50.42	47.92	30.24	42.92	40.49	48.47	45.76	44.12
PM_{10}	$\mu g/m^3$	100	80.67	87.18	82.21	94.32	95.75	86.48	68.67	88.70	79.76	90.51	95.02	90.30
Nitrogen Dioxide	$\mu g/m^3$	80	31.27	31.07	32.08	34.37	32.59	32.84	30.39	32.12	32.93	34.42	32.75	32.39
Sulphur Dioxide	$\mu g/m^3$	80	4.62	4.59	4.86	5.10	5.21	4.86	4.61	4.64	4.45	5.22	4.93	4.87
Carbon Monoxide	mg/m^3	2	0.456	0.460	0.452	0.486	0.488	0.496	0.434	0.468	0.478	0.514	0.502	0.498
Hydrocarbon	mg/m^3	NIL	1.68	2.18	1.94	1.98	1.95	1.85	1.64	2.32	1.79	1.98	1.73	1.95
Mercury	mg/m^3			< 0.002			< 0.002			< 0.002			< 0.002	
Hydrocarbon as Non Methane	mg/m^3	NIL	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
VOC's	$\mu g/m^3$			3.54			3.47			3.98			3.24	
Benzo(a)Pyrene	ng/m^3	1		0.44			0.43			0.48			0.39	
Ammonia	$\mu g/m^3$	400		34.18			33.59			35.12			30.02	
Ozone	$\mu g/m^3$	180		38.24			39.88			39.37			35.83	
Lead	$\mu g/m^3$	1		0.14			0.12			0.14			0.09	
Nickel	ng/m^3	20		10.58			12.47			10.68			9.37	
Arsenic	ng/m^3	6		2.24			1.93			2.08			1.68	
Benzene	$\mu g/m^3$	5		2.41			2.02			2.54			1.81	

Name of Location			KULDIHA						JATGORIA					
Month														
Parameter	UoM	NAAQS LIMIT	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
$PM_{2.5}$	$\mu g/m^3$	60	30.38	47.02	48.14	45.42	50.57	50.83	31.30	48.43	41.25	46.97	46.67	47.30
PM_{10}	$\mu g/m^3$	100	69.18	84.46	87.96	85.59	94.03	96.24	65.58	92.59	82.34	88.28	90.68	91.85
Nitrogen Dioxide	$\mu g/m^3$	80	29.04	31.61	32.03	34.16	34.58	33.61	28.95	31.44	31.83	33.90	34.12	33.75
Sulphur Dioxide	$\mu g/m^3$	80	4.29	4.43	4.46	4.64	4.97	4.86	4.19	4.17	4.75	4.60	4.86	4.84
Carbon Monoxide	mg/m^3	2	0.424	0.432	0.448	0.486	0.492	0.502	0.432	0.454	0.466	0.496	0.502	0.512
Hydrocarbon	mg/m^3	NIL	1.60	2.06	2.19	1.86	1.79	2.04	1.74	2.03	1.98	2.12	1.92	1.97
Mercury	mg/m^3			< 0.002			< 0.002			< 0.002			< 0.002	
Hydrocarbon as Non Methane	mg/m^3	NIL	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
VOC's	$\mu g/m^3$			3.42			3.32			3.94			3.51	
Benzo(a)Pyrene	ng/m^3	1		0.47			0.39			0.48			0.43	
Ammonia	$\mu g/m^3$	400		30.37			30.72			31.62			33.41	
Ozone	$\mu g/m^3$	180		34.22			36.04			35.81			39.53	
Lead	$\mu g/m^3$	1		0.12			0.09			0.15			0.12	
Nickel	ng/m^3	20		9.54			9.68			10.38			12.25	
Arsenic	ng/m^3	6		1.97			1.73			1.96			1.90	
Benzene	$\mu g/m^3$	5		2.08			1.86			2.18			2.01	

Name of Location			Gopalpur Warehouse						KANTABERIA					
Month														
Parameter	UoM	NAAQS LIMIT	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
$PM_{2.5}$	$\mu g/m^3$	60	37.46	37.71	37.92	49.06	48.95	43.42	30.42	31.49	40.42	48.63	43.75	40.22
PM_{10}	$\mu g/m^3$	100	74.23	74.11	79.91	93.60	96.93	86.38	68.63	70.32	80.76	95.25	84.97	87.63
Nitrogen Dioxide	$\mu g/m^3$	80	29.37	31.23	31.68	34.96	33.10	34.32	29.71	31.58	32.15	34.98	33.38	33.96
Sulphur Dioxide	$\mu g/m^3$	80	4.22	4.24	4.28	4.98	4.56	4.81	4.28	4.37	4.16	4.87	4.95	4.92
Carbon Monoxide	mg/m^3	2	0.428	0.470	0.462	0.488	0.496	0.522	0.432	0.456	0.467	0.512	0.514	0.514
Hydrocarbon	mg/m^3	NIL	1.56	1.78	2.12	2.24	1.97	1.82	1.74	2.29	1.82	2.04	1.82	1.90
Mercury	mg/m^3			< 0.002			< 0.002			< 0.002			< 0.002	
Hydrocarbon as Non Methane	mg/m^3	NIL	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
VOC's	$\mu g/m^3$			2.98			3.55			3.34			3.35	
Benzo(a)Pyrene	ng/m^3	1		0.38			0.44			0.34			0.40	
Ammonia	$\mu g/m^3$	400		31.62			34.55			33.28			31.29	
Ozone	$\mu g/m^3$	180		35.81			40.27			37.35			36.44	
Lead	$\mu g/m^3$	1		0.10			0.13			0.09			0.10	
Nickel	ng/m^3	20		8.68			13.26			8.68			10.04	
Arsenic	ng/m^3	6		1.76			1.91			1.74			1.80	
Benzene	$\mu g/m^3$	5		2.18			2.04			2.14			1.94	

Name of Location			NACHAN						SARENGA					
Month														
Parameter	UoM	NAAQS LIMIT	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
PM $_{2.5}$	µg/m^3	60	39.76	32.16	46.36	51.67	50.83	57.58	29.58	35.33	49.37	46.64	52.01	40.40
PM $_{10}$	µg/m^3	100	74.67	70.52	80.86	95.54	93.13	95.93	64.49	70.12	86.27	93.14	88.86	83.79
Nitrogen Dioxide	µg/m^3	80	29.89	31.44	32.73	33.14	31.65	33.56	29.53	32.76	31.74	34.83	32.77	33.05
Sulphur Dioxide	µg/m^3	80	4.57	4.39	4.57	5.06	4.95	4.93	4.40	4.38	4.66	5.24	4.69	4.67
Carbon Monoxide	mg/m^3	2	0.442	0.464	0.464	0.50	0.498	0.502	0.426	0.462	0.458	0.484	0.508	0.532
Hydrocarbon	mg/m^3	NIL	1.58	1.98	1.87	2.16	1.89	2.28	1.56	2.01	2.13	1.96	1.77	1.74
Mercury	mg/m^3			< 0.002			< 0.002			< 0.002			< 0.002	
Hydrocarbon as Non Methane	mg/m^3	NIL	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
VOC's	µg/m^3			3.44			3.46			3.75			3.21	
Benzo(a)Pyrene	ng/m^3	1		0.34			0.42			0.36			0.40	
Ammonia	µg/m^3	400		32.05			32.77			30.47			30.97	
Ozone	µg/m^3	180		36.28			38.05			34.78			35.14	
Lead	µg/m^3	1		0.09			0.11			0.09			0.09	
Nickel	ng/m^3	20		8.62			11.19			7.84			9.92	
Arsenic	ng/m^3	6		1.68			1.87			1.54			1.77	
Benzene	µg/m^3	5		2.23			1.99			1.92			1.89	

Name of Location			LABNAPARA					
Month			Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
Parameter	UoM	NAAQS LIMIT						
PM $_{2.5}$	µg/m^3	60	36.78	38.75	43.64	44.21	48.33	43.63
PM $_{10}$	µg/m^3	100	77.78	74.18	84.69	89.76	90.86	84.35
Nitrogen Dioxide	µg/m^3	80	28.89	32.08	32.62	34.74	32.86	33.59
Sulphur Dioxide	µg/m^3	80	4.15	4.28	4.47	5.15	5.10	4.94
Carbon Monoxide	mg/m^3	2	0.418	0.468	0.474	0.492	0.492	0.508
Hydrocarbon	mg/m^3	NIL	1.68	1.97	2.09	1.98	2.05	1.80
Mercury	mg/m^3			< 0.002			< 0.002	
Hydrocarbon as Non Methane	mg/m^3	NIL	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
VOC's	µg/m^3			2.84			3.61	
Benzo(a)Pyrene	ng/m^3	1		0.38			0.46	
Ammonia	µg/m^3	400		30.19			34.72	
Ozone	µg/m^3	180		34.21			40.68	
Lead	µg/m^3	1		0.10			0.14	
Nickel	ng/m^3	20		7.82			13.51	
Arsenic	ng/m^3	6		1.80			1.98	
Benzene	µg/m^3	5		2.05			2.07	

ANNEXURE II

ANNEXURE II

R.O. Treated Water Analysis Report of CBM Project, Raniganj East operated by Essar Oil and Gas Exploration and Production Ltd., (Period: Oct-24 to Mar-25)

Month					Oct-24			
S. No.	Parameter	Unit	Onshore Discharge Standards	CPCB Limit for Discharge	EDN-99 R.O. Treated Water Analysis	EDD 50 R.O. Treated Water Analysis	EDH-64 R.O. Treated Water Analysis	GGS-001 R.O. Treated Water Analysis
1	pH		5.5-9.0	5.5 to 9.0	7.41	7.54	7.53	7.68
2	Temperature	deg. C	40 deg. C		32.1°C	29.8°C	28.2°C	31.2°C
3	Suspended Solids	mg/L	100	100	<2	<2	<2	<2
4	Total Dissolved Solids	mg/L	2100	---	678	312	482	942
5	Chlorides	mg/L	600	---	205	85	105	213
6	Sulphates	mg/L	1000	---	4	<2.5	6	3.8
7	BOD, 3 Days at 27ºC	mg/L	30	30	<2	<2	<2	<2
8	COD	mg/L	100	250	<8	<8	<8	<8
9	Oil & Grease	mg/L	10	10	<5.0	<5.0	<5.0	<5.0
10	Phenolic Compounds	mg/L	1.2	1	<0.002	<0.002	<0.002	<0.002
11	Sulphides	mg/L	2	2	<0.5	<0.5	<0.5	<0.5
12	Fluorides	mg/L	1.5	2	0.95	0.62	0.82	0.55
13	Chromium (Total)	mg/L	1	2	<0.05	<0.05	<0.05	<0.05
14	Zinc	mg/L	2	5	0.018	0.012	0.017	0.016
15	Copper	mg/L	0.2	3	<0.05	<0.05	<0.05	<0.05
16	Nickel	mg/L	3	3	<0.05	<0.05	<0.05	<0.05
17	Lead	mg/L	0.1	0.1	<0.1	<0.1	<0.1	<0.1
18	Mercury	mg/L	0.01	0.01	<0.001	<0.001	<0.001	<0.001
19	Cyanide	mg/L	0.2	0.2	<0.02	<0.02	<0.02	<0.02
20	Chromium (Cr+6)	mg/L	0.1	0.1	<0.01	<0.01	<0.01	<0.01
21	% Sodium	mg/L	60	---	53.8	54.1	55.8	58.9

ANNEXURE II

R.O. Treated Water Analysis Report of CBM Project, Raniganj East operated by Essar Oil and Gas Exploration and Production Ltd., (Period: Oct-24 to Mar-25)

Month					Nov-24			
S. No.	Parameter	Unit	Onshore Discharge Standards	CPCB Limit for Discharge	GGS-001 R.O. Treated Water Analysis	EDD 50 R.O. Treated Water Analysis	EDH-64 R.O. Treated Water Analysis	EDN-99 R.O. Treated Water Analysis
1	pH		5.5-9.0	5.5 to 9.0	7.33	7.58	7.41	7.5
2	Temperature	deg. C	40 deg. C		29.3°C	28.1°C	27.8°C	29.6°C
3	Suspended Solids	mg/L	100	100	3	<2	<2	6
4	Total Dissolved Solids	mg/L	2100	---	462	442	710	802
5	Chlorides	mg/L	600	---	41	70	216	390
6	Sulphates	mg/L	1000	---	4.3	4.9	7.1	8.6
7	BOD, 3 Days at 27ºC	mg/L	30	30	<2	<2	<2	<2
8	COD	mg/L	100	250	<8	<8	<8	<8
9	Oil & Grease	mg/L	10	10	<5.0	<5.0	<5.0	<5.0
10	Phenolic Compounds	mg/L	1.2	1	<0.002	<0.002	<0.002	<0.002
11	Sulphides	mg/L	2	2	<0.5	<0.5	<0.5	<0.5
12	Fluorides	mg/L	1.5	2	0.58	0.41	0.63	0.85
13	Chromium (Total)	mg/L	1	2	<0.05	<0.05	<0.05	<0.05
14	Zinc	mg/L	2	5	0.014	0.011	0.015	0.019
15	Copper	mg/L	0.2	3	<0.05	<0.05	<0.05	<0.05
16	Nickel	mg/L	3	3	<0.05	<0.05	<0.05	<0.05
17	Lead	mg/L	0.1	0.1	<0.1	<0.1	<0.1	<0.1
18	Mercury	mg/L	0.01	0.01	<0.001	<0.001	<0.001	<0.001
19	Cyanide	mg/L	0.2	0.2	<0.02	<0.02	<0.02	<0.02
20	Chromium (Cr+6)	mg/L	0.1	0.1	<0.01	<0.01	<0.01	<0.01
21	% Sodium	mg/L	60	---	57.4	56.3	54.5	58.3

ANNEXURE II

R.O. Treated Water Analysis Report of CBM Project, Raniganj East operated by Essar Oil and Gas Exploration and Production Ltd., (Period: Oct-24 to Mar-25)

Month					Dec-24			
S. No.	Parameter	Unit	Onshore Discharge Standards	CPCB Limit for Discharge	GGS-001 R.O. Treated Water Analysis	EDD 50 R.O. Treated Water Analysis	EDH-64 R.O. Treated Water Analysis	EDN-99 R.O. Treated Water Analysis
1	pH		5.5-9.0	5.5 to 9.0	7.6	7.34	7.42	7.63
2	Temperature	deg. C	40 deg. C		23.2°C	25.1°C	25.8°C	27.3°C
3	Suspended Solids	mg/L	100	100	3	<2	<2	5
4	Total Dissolved Solids	mg/L	2100	---	1062	996	1124	1318
5	Chlorides	mg/L	600	---	109	260	410	560
6	Sulphates	mg/L	1000	---	3.7	3.3	4.7	10.6
7	BOD, 3 Days at 27ºC	mg/L	30	30	<2	<2	<2	2
8	COD	mg/L	100	250	<8	<8	<8	10
9	Oil & Grease	mg/L	10	10	<5.0	<5.0	<5.0	<5.0
10	Phenolic Compounds	mg/L	1.2	1	<0.002	<0.002	<0.002	<0.002
11	Sulphides	mg/L	2	2	<0.5	<0.5	<0.5	<0.5
12	Fluorides	mg/L	1.5	2	0.58	0.41	0.76	0.70
13	Chromium (Total)	mg/L	1	2	<0.05	<0.05	<0.05	<0.05
14	Zinc	mg/L	2	5	0.014	0.017	0.015	0.018
15	Copper	mg/L	0.2	3	<0.05	<0.05	<0.05	<0.05
16	Nickel	mg/L	3	3	<0.05	<0.05	<0.05	<0.05
17	Lead	mg/L	0.1	0.1	<0.1	<0.1	<0.1	<0.1
18	Mercury	mg/L	0.01	0.01	<0.001	<0.001	<0.001	<0.001
19	Cyanide	mg/L	0.2	0.2	<0.02	<0.02	<0.02	<0.02
20	Chromium (Cr+6)	mg/L	0.1	0.1	<0.01	<0.01	<0.01	<0.01
21	% Sodium	mg/L	60	---	57.8	57.9	55.3	56.5

ANNEXURE II

R.O. Treated Water Analysis Report of CBM Project, Raniganj East operated by Essar Oil and Gas Exploration and Production Ltd., (Period: Oct-24 to Mar-25)

Month					Jan-25			
S. No.	Parameter	Unit	Onshore Discharge Standards	CPCB Limit for Discharge	GGS-001 R.O. Treated Water Analysis	EDD 50 R.O. Treated Water Analysis	EDH-64 R.O. Treated Water Analysis	EDN-99 R.O. Treated Water Analysis
1	pH		5.5-9.0	5.5 to 9.0	7.23	7.67	7.27	7.55
2	Temperature	deg. C	40 deg. C		26.1°C	25.2°C	23.2°C	23.6°C
3	Suspended Solids	mg/L	100	100	<2	<2	<2	3
4	Total Dissolved Solids	mg/L	2100	---	612	776	660	1122
5	Chlorides	mg/L	600	---	168	329	345	580
6	Sulphates	mg/L	1000	---	4.8	5.9	7.4	7
7	BOD, 3 Days at 27ºC	mg/L	30	30	<2	<2	<2	<2
8	COD	mg/L	100	250	<8	<8	<8	<8
9	Oil & Grease	mg/L	10	10	<5.0	<5.0	<5.0	<5.3
10	Phenolic Compounds	mg/L	1.2	1	<0.002	<0.002	<0.002	<0.002
11	Sulphides	mg/L	2	2	<0.5	<0.5	<0.5	<0.5
12	Fluorides	mg/L	1.5	2	0.68	0.49	1.02	0.77
13	Chromium (Total)	mg/L	1	2	<0.05	<0.05	<0.05	<0.05
14	Zinc	mg/L	2	5	0.015	0.011	0.018	0.021
15	Copper	mg/L	0.2	3	<0.05	<0.05	<0.05	<0.05
16	Nickel	mg/L	3	3	<0.05	<0.05	<0.05	<0.05
17	Lead	mg/L	0.1	0.1	<0.1	<0.1	<0.1	<0.1
18	Mercury	mg/L	0.01	0.01	<0.001	<0.001	<0.001	<0.001
19	Cyanide	mg/L	0.2	0.2	<0.02	<0.02	<0.02	<0.02
20	Chromium (Cr+6)	mg/L	0.1	0.1	<0.01	<0.01	<0.01	<0.01
21	% Sodium	mg/L	60	---	53.6	58.9	54.6	53.5

ANNEXURE II

R.O. Treated Water Analysis Report of CBM Project, Raniganj East operated by Essar Oil and Gas Exploration and Production Ltd., (Period: Oct-24 to Mar-25)

Month					Feb-25			
S. No.	Parameter	Unit	Onshore Discharge Standards	CPCB Limit for Discharge	GGS-001 R.O. Treated Water Analysis	EDD 50 R.O. Treated Water Analysis	EDH-64 R.O. Treated Water Analysis	EDN-99 R.O. Treated Water Analysis
1	pH		5.5-9.0	5.5 to 9.0	7.52	7.69	7.66	7.88
2	Temperature	deg. C	40 deg. C		23.6°C	21.3°C	26.1°C	28.4°C
3	Suspended Solids	mg/L	100	100	<2	<2	3	<2
4	Total Dissolved Solids	mg/L	2100	---	552	660	542	644
5	Chlorides	mg/L	600	---	110	193	265	282
6	Sulphates	mg/L	1000	---	4.6	7.5	6.8	7.9
7	BOD, 3 Days at 27ºC	mg/L	30	30	<2	<2	<2	2
8	COD	mg/L	100	250	<8	<8	<8	10
9	Oil & Grease	mg/L	10	10	<5.6	<5.9	<5.3	<5.3
10	Phenolic Compounds	mg/L	1.2	1	<0.002	<0.002	<0.002	<0.002
11	Sulphides	mg/L	2	2	<0.5	<0.5	<0.5	<0.5
12	Fluorides	mg/L	1.5	2	0.59	0.60	0.88	0.92
13	Chromium (Total)	mg/L	1	2	<0.05	<0.05	<0.05	<0.05
14	Zinc	mg/L	2	5	0.015	0.017	0.014	0.026
15	Copper	mg/L	0.2	3	<0.05	<0.05	<0.05	<0.05
16	Nickel	mg/L	3	3	<0.05	<0.05	<0.05	<0.05
17	Lead	mg/L	0.1	0.1	<0.1	<0.1	<0.1	<0.1
18	Mercury	mg/L	0.01	0.01	<0.001	<0.001	<0.001	<0.001
19	Cyanide	mg/L	0.2	0.2	<0.02	<0.02	<0.02	<0.02
20	Chromium (Cr+6)	mg/L	0.1	0.1	<0.01	<0.01	<0.01	<0.01
21	% Sodium	mg/L	60	---	55.9	57.6	58.3	58.3

ANNEXURE II

R.O. Treated Water Analysis Report of CBM Project, Raniganj East operated by Essar Oil and Gas Exploration and Production Ltd., (Period: Oct-24 to Mar-25)

Month					Mar-25			
S. No.	Parameter	Unit	Onshore Discharge Standards	CPCB Limit for Discharge	EDH-64 R.O. Treated Water Analysis	EDN-99 R.O. Treated Water Analysis	EDD 50 R.O. Treated Water Analysis	GGS-001 R.O. Treated Water Analysis
1	pH		5.5-9.0	5.5 to 9.0	7.43	7.70	7.67	7.54
2	Temperature	deg. C	40 deg. C		25.1°C	27.8°C	27.7°C	28.6°C
3	Suspended Solids	mg/L	100	100	<2	3	<2	<2
4	Total Dissolved Solids	mg/L	2100	---	1138	924	1014	618
5	Chlorides	mg/L	600	---	470	518	286	94
6	Sulphates	mg/L	1000	---	5.3	8.1	3.3	4.3
7	BOD, 3 Days at 27ºC	mg/L	30	30	<2	<2	<2	<2
8	COD	mg/L	100	250	<8	<8	<8	<8
9	Oil & Grease	mg/L	10	10	<5.3	<5.3	<5.3	<5.3
10	Phenolic Compounds	mg/L	1.2	1	<0.002	<0.002	<0.002	<0.002
11	Sulphides	mg/L	2	2	<0.5	<0.5	<0.5	<0.5
12	Fluorides	mg/L	1.5	2	0.88	0.88	0.54	0.62
13	Chromium (Total)	mg/L	1	2	<0.05	<0.05	<0.05	<0.05
14	Zinc	mg/L	2	5	0.012	0.019	0.015	0.017
15	Copper	mg/L	0.2	3	<0.05	<0.05	<0.05	<0.05
16	Nickel	mg/L	3	3	<0.05	<0.05	<0.05	<0.05
17	Lead	mg/L	0.1	0.1	<0.1	<0.1	<0.1	<0.1
18	Mercury	mg/L	0.01	0.01	<0.001	<0.001	<0.001	<0.001
19	Cyanide	mg/L	0.2	0.2	<0.02	<0.02	<0.02	<0.02
20	Chromium (Cr+6)	mg/L	0.1	0.1	<0.01	<0.01	<0.01	<0.01
21	% Sodium	mg/L	60	---	55.8	50.2	56.4	59

ANNEXURE III

Toxicology Analysis of Drill cutting Sludge of Raniganj East CBM Project,
Operated by Essar Oil and Gas Exploration and Production Ltd.
(Period: Oct-24 to Mar-25)

Annexure III

Well Name					EDH-044-D6A	EDI-071-D8	EDD-242-D4	EDN-161-D4
Date					24.10.2024	23.11.2024	20.01.2025	20.01.2025
Sl. No.	Class	Parameter	Unit	Limit as per G.S.R No. 395 E,dtd- 4th Apr,2016 Schedule-II, Class-A	Result			
1	A1	Arsenic	mg/L	5	<0.05	<0.05	<0.05	<0.05
2	A2	Barium	mg/L	100	0.72	0.15	<0.05	<0.05
3	A3	Cadmium	mg/L	1	<0.05	<0.05	<0.05	<0.05
4	A4	Chromium and/or Chromium(III) Compounds	mg/L	5	<0.05	<0.05	<0.05	<0.05
5	A5	Lead	mg/L	5	<0.05	<0.05	<0.05	<0.05
6	A6	Manganese	mg/L	10	1.55	0.59	<0.05	<0.05
7	A7	Mercury	mg/L	0.2	<0.05	<0.05	<0.05	<0.05
8	A8	Selenium	mg/L	1	<0.05	<0.05	<0.05	<0.05
9	A9	Silver	mg/L	5	<0.05	<0.05	<0.05	<0.05
10	A11	Cyanide	mg/L	20	0.14	<0.05	<0.05	<0.05
11	A14	1,1-Dichloroethylene	mg/L	0.7	<0.01	<0.01	<0.01	<0.01
12	A15	1,2-Dichloroethane	mg/L	0.5	<0.01	<0.01	<0.01	<0.01
13	A16	1,4-Dichlorobenzene	mg/L	7.5	<0.01	<0.01	<0.01	<0.01
14	A17	2,4,5-Trichlorophenol	mg/L	400	<0.05	<0.05	<0.05	<0.05
15	A18	2,4,6-Trichlorophenol	mg/L	2	<0.05	<0.05	<0.05	<0.05
16	A19	2,4-Dinitrotoluene	mg/L	0.13	<0.01	<0.01	<0.01	<0.01
17	A20	Benzene	mg/L	0.5	<0.01	<0.01	<0.01	<0.01
18	A24	Carbontetrachloride	mg/L	0.5	<0.01	<0.01	<0.01	<0.01
19	A25	Chlorobenzene	mg/L	100	<0.01	<0.01	<0.01	<0.01
20	A26	Chloroform	mg/L	6	<0.01	<0.01	<0.01	<0.01
21	A27	Cresol (ortho + meta + para)	mg/L	200	<0.05	<0.05	<0.05	<0.05
22	A29	Hexachlorobenzene	mg/L	0.13	<0.0100	<0.0100	<0.0100	<0.0100
23	A30	Hexachlorobutadiene	mg/L	0.5	<0.01	<0.01	<0.01	<0.01
24	A31	Hexachloroethane	mg/L	3	Absent	Absent	Absent	Absent
25	A32	Methylethylketone	mg/L	200	<0.01	<0.01	<0.01	<0.01
26	A34	Nitrobenzene	mg/L	2	<0.01	<0.01	<0.01	<0.01
27	A35	Pentachlorophenol	mg/L	100	<0.05	<0.05	<0.05	<0.05
28	A36	Pyridine	mg/L	5	<0.01	Absent	<0.01	<0.01
29	A37	Tetrachloroethylene	mg/L	0.7	<0.01	<0.01	<0.01	<0.01
30	A38	Trichloroethylene	mg/L	0.5	<0.01	<0.01	<0.01	<0.01
31	A39	Vinylchloride	mg/L	0.2	<0.01	<0.01	<0.01	<0.01
32	A40	2,4,5-TP (Silvex)	mg/L	1	Absent	Absent	Absent	Absent
33	A41	2,4-Dichlorophenoxyacetic acid	mg/L	10	<0.0100	<0.0100	<0.0100	<0.0100
34	A47	Chlordane	mg/L	0.03	<0.001	<0.001	<0.001	<0.001
35	A51	Endrin	mg/L	0.02	<0.001	<0.001	<0.001	<0.001
36	A53	Heptachlor (& its Epoxide)	mg/L	0.008	<0.001	<0.001	<0.001	<0.001
37	A55	Lindane	mg/L	0.4	<0.001	<0.001	<0.001	<0.001
38	A57	Methoxychlor	mg/L	10	<0.001	<0.001	<0.001	<0.001
39	A61	Toxaphene	mg/L	0.5	Absent	Absent	Absent	Absent
40	A68	Nickel	mg/L	20	<0.05	<0.05	<0.05	<0.05
41	C1	Ignitability	….	……	Non Flamabble	Non Flamabble	Non Flamabble	Non Flamabble
42	C2	Corrositivity	…..	……	Non corrosive	Non corrosive	Non corrosive	Non corrosive
43	C3	Reactivity - [Cyanide (as HCN and H2S)]	…..	….	N0n-reactive	N0n-reactive	N0n-reactive	N0n-reactive

ANNEXURE IV

ANNEXURE IV

Ambient Noise Level Monitoring Report for Raniganj (East) CBM Project by Essar Oil and Gas Exploration and Production Ltd.

[Period: Oct-24 to Mar-25]

Ambient Noise Level Monitoring Result as per the sampling collected in the month of Nov-24				
Location	**DAY TIME**		**NIGHT TIME**	
	Limit as per the EC, dB(A)	**Noise Level [Leq] dB(A)**	**Limit as per the EC, dB(A)**	**Noise Level [Leq] dB(A)**
KULDIHA [EDN # 099]	75	62.18	70	51.23
MCS-MALANDIGHI	75	63.27	70	49.93
SARASWATIGUNJ [EDI # 039]	75	62.53	70	52.78
GOPALPUR WAREHOUSE	75	58.11	70	51.96
GGS#002 NEAR MAIN GATE SECURITY ROOM	75	61.75	70	51.48
JAMGORA [EDP # 406]	75	60.81	70	44.51
NACHAN [EDD – 053]	75	61.09	70	50.63
PRATAPPUR [EDD # 049]	75	59.62	70	48.51
JATGORIA [EDD – 005]	75	61.65	70	51.16
KANTABERIA [EDD-012]	75	61.33	70	47.38
PARULIA [EDC-413]	75	56.98	70	49.62
KHATGORIA [GGS # 001]	75	62.08	70	52.78
BANSIA [EDD – 411]	75	54.28	70	51.15
LABNAPARA [EDH # 064]	75	62.35	70	51.3
SARENGA	75	54.54	70	50.88

ANNEXURE V

Annexure V

FORM 4

[*See Rules 9(3) and 10(5)*]

066520

(EMBLEM OR HOLOGRAM OF THE CONCERNED AUTHORITY)

PERMIT FOR SINKING OF NEW WELL

[U/S 7(3)(b) / 7(4)(b) / 7(5)(a) of the West Bengal Ground Water Resources (Management, Control and Regulation) Act 2005.]

P- 1998

P021603401193000001TSE

PERMIT NO .....

1.	(a) Name of the applicant (user)	:	Shri/Smt. ESSAR OIL & GAS EXPLORATION AND PRODUCTION LIMITED.
	(b) Son / Daughter of	:	
	(c) Address of the applicant	:	BIDHAN NAGAR, DURGAPUR
	(d) Category of farmer (Please tick) (in case of irrigation well)	:	Small Farmer / Marginal Farmer / Others
	(e) Serial No. of application Form and date of submission	:	BP/A0658, SL.NO:93; DT. 02.07.2018
	(f) Specimen signature of the user	:	
2.	Location particulars---		
	(a) District	:	BURDWAN
	(b) Block, Mouza, J. L. No. , Plot No.	:	KANKSA, GOPALPUR, 065, 1193
	(c) Municipality / Corporation Ward No. / Borough No., Holding No.	:	
3.	Particulars of the proposed well and pumping device---		
	(a) Type of the well	:	TUBEWELL
	(b) Approx. depth of the well (m)	:	150 m
	(c) Purpose of the well	:	INDUSTRIAL [CBM EXPL. AND PRODUCTION UNIT]
	(d) Assembly size (for tube well)	:	100 mm. X 150 mm. / 12 m.
	(e) Approx. strainer length (for tube well)	:	m.
	(f) Diameter (for dug well)	:	m.
	(g) Type of pump to be used	:	SUBMERSIBLE
	(h) H. P. of the pump	:	1.5 H.P
	(i) Operational device	:	Electric Motor
	(j) Rate of withdrawal (m3 / hr.)	:	2.5 m^3/hr
	(k) Maximum allowable running hours per day	:	6 Hours Per Day

This permit authorizes the owner applicant (user) to sink a well in the location specified at S1. (2) for extraction of ground water at a rate not exceeding that as shown at S1. (3) (j) and for running hours / day as shown at S1. (3) (K), and is valid subject to the observance of the conditions stated overleaf.

Place : Burdwan

Date : 29/ 08/ 2018

OFFICE OF THE GEOLOGIST * GOVT. OF W.B. * GEOLOGICAL SUB-DIVISION NO.IIA, BURDWAN * OFFICE SEAL

29/08/2018

Signature of the Issuing Authority and Designation

Geologist, SWID &
Member Secretary, District Level
Ground Water Resources Development Authority
Burdwan-713101

SWID GOVT. OF W.B. GEOLOGICAL SUB-DIVISION NO.IIA, BURDWAN OFFICE SEAL

Conditions :

(1) In case of any change of ownership of the proposed well, fresh registration has to be obtained.

(2) No change of location, design, rate of withdrawal and pumping device in respect of the proposed well as indicated at S1. (2) and (3) of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this permit.

(3) In case, any of the particulars / information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.

(4) Any other condition imposed by the concerned Authority.

N:B: Conditionalities are imposed on reverse page of this certificate.

B.C.L./4/50,000/'06

CONDITIONALITIES FOR PACKAGE DRINKING WATER PROJECTS AND INDUSTRIES/ INFRASTRUCTURES:

1. Roof Top Rain Water harvesting for Surface Storage.
2. Excavation of pond of size 150 ft. x 50ft. with 2 m. depth.
3. Chemical Quality Test Report from BIS approved Laboratory in each year to be submitted to the Geologist & Member Secretary, DLA.
4. Arrangement of Water Meter at the outlet of Tube Well discharge to be monitored by Govt. Officials as assigned by DLA.
5. The enhanced rate if any in future (including the rates revised retrospectively) of fees/ charges/ taxes for drawls of ground water on annual basis, should be borne by applications for operating their tube wells in a continuous manner.

29/08/2018

Geologist, SWID &
Member Secretary, District Level
Ground Water Resources Development Authority
Burdwan-713101

FORM 4

[*See Rules 9(3) and 10(5)*]

(EMBLEM OR HOLOGRAM OF THE CONCERNED AUTHORITY)

066521

PERMIT FOR SINKING OF NEW WELL

[U/S 7(3)(b) / 7(4)(b) / 7(5)(a) of the West Bengal Ground Water Resources (Management, Control and Regulation) Act 2005.]

P- 1999

PERMIT NO P02160010004100000001TSE

1. (a) Name of the applicant (user) : Shri/Smt ESSAR OIL & GAS EXPLORATION AND PRODUCTION LIMITED.
   (b) Son / Daughter of :
   (c) Address of the applicant : BIDHAN NAGAR, DURGAPUR
   (d) Category of farmer (Please tick) (in case of irrigation well) : Small Farmer / Marginal Farmer / Others
   (e) Serial No. of application Form and date of submission : BP/A0658, SL.NO:21; DT. 02.07.2018
   (f) Specimen signature of the user :
2. Location particulars---
   (a) District : BURDWAN
   (b) Block, Mouza, J. L. No. , Plot No. : KANKSA, AKANDARA, 047, 41
   (c) Municipality / Corporation Ward No. / Borough No., Holding No. :
3. Particulars of the proposed well and pumping device---
   (a) Type of the well : TUBEWELL
   (b) Approx. depth of the well (m) : 150 m
   (c) Purpose of the well : INDUSTRIAL [CBM EXPL. AND PRODUCTION UNIT]
   (d) Assembly size (for tube well) : 100 mm. X 150 mm.
   (e) Approx. strainer length (for tube well) : 12 m.
   (f) Diameter (for dug well) : m.
   (g) Type of pump to be used : SUBMERSIBLE
   (h) H. P. of the pump : 1.5 H.P
   (i) Operational device : Electric Motor
   (j) Rate of withdrawal (m3 / hr.) : 2.5 m^3/hr
   (k) Maximum allowable running hours per day : 6 Hours Per Day

This permit authorizes the owner applicant (user) to sink a well in the location specified at S1. (2) for extraction of ground water at a rate not exceeding that as shown at S1. (3) (j) and for running hours / day as shown at S1. (3) (K), and is valid subject to the observance of the conditions stated overleaf.

OFFICE OF THE GEOLOGIST * GEOLOGICAL SUB-DIVISION NO.IIA, BURDWAN * OFFICE SEAL SWID GOVT. OF W.B.

29/08/2018

Place : Burdwan

Date : 29/ 08/ 2018

Signature of the Issuing Authority and Designation
Geologist, Grade I
Member Secretary, District Level
Ground Water Resources Development Authority
Burdwan-713101

Conditions :

(1) In case of any change of ownership of the proposed well, fresh registration has to be obtained.
(2) No change of location, design, rate of withdrawal and pumping device in respect of the proposed well as indicated at S1. (2) and (3) of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this permit.
(3) In case, any of the particulars / information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
(4) Any other condition imposed by the concerned Authority.

N.B! Conditionalities are imposed on reverse page of this certificate.

OFFICE OF THE GEOLOGIST * GEOLOGICAL SUB-DIVISION NO.IIA, BURDWAN * OFFICE SEAL GOVT. OF W.B.

B.C.L./4/50,000/'06

CONDITIONALITIES FOR PACKAGE DRINKING WATER PROJECTS AND INDUSTRIES/ INFRASTRUCTURES:

1. Roof Top Rain Water harvesting for Surface Storage.
2. Excavation of pond of size 150 ft. x 50ft. with 2 m. depth.
3. Chemical Quality Test Report from BIS approved Laboratory in each year to be submitted to the Geologist & Member Secretary, DLA.
4. Arrangement of Water Meter at the outlet of Tube Well discharge to be monitored by Govt. Officials as assigned by DLA.
5. The enhanced rate if any in future (including the rates revised retrospectively) of fees/ charges/ taxes for drawls of ground water on annual basis, should be borne by applications for operating their tube wells in a continuous manner.

29/08/2018

Geologist, SWID &
Member Secretary, District Level
Ground Water Resources Development Authority
Burdwan-713101

FORM 4

[See Rules 9(3) and 10(5)]

(EMBLEM OR HOLOGRAM OF THE CONCERNED AUTHORITY)

066522

PERMIT FOR SINKING OF NEW WELL

[U/S 7(3)(b) / 7(4)(b) / 7(5)(a) of the West Bengal Ground Water Resources (Management, Control and Regulation) Act 2005.]

P- 2000

PERMIT NO P020905600427000001TSE

1.	(a) Name of the applicant (user)	:	Shri/Smt. **ESSAR OIL & GAS EXPLORATION AND PRODUCTION LIMITED.**
	(b) Son / Daughter of	:	
	(c) Address of the applicant	:	BIDHAN NAGAR, DURGAPUR
	(d) Category of farmer (Please tick) (in case of irrigation well)	:	Small Farmer / Marginal Farmer / Others
	(e) Serial No. of application Form and date of submission	:	BP/A0660, SL.NO:100; DT. 02.07.2018
	(f) Specimen signature of the user	:	
2.	Location particulars---		
	(a) District	:	BURDWAN
	(b) Block, Mouza, J. L. No. , Plot No.	:	DURGAPUR-FARIDPUR, KHATGORIA, 030, 427
	(c) Municipality / Corporation Ward No. / Borough No., Holding No.	:	
3.	Particulars of the proposed well and pumping device---		
	(a) Type of the well	:	TUBEWELL
	(b) Approx. depth of the well (m)	:	150 m
	(c) Purpose of the well	:	INDUSTRIAL [CBM EXPL. AND PRODUCTION UNIT]
	(d) Assembly size (for tube well)	:	100 mm. X 150 mm.
	(e) Approx. strainer length (for tube well)	:	12 m.
	(f) Diameter (for dug well)	:	m.
	(g) Type of pump to be used	:	SUBMERSIBLE
	(h) H. P. of the pump	:	1.5 H.P
	(i) Operational device	:	Electric Motor
	(j) Rate of withdrawal (m3 / hr.)	:	2.5 m^3/hr
	(k) Maximum allowable running hours per day	:	6 Hours Per Day

This permit authorizes the owner applicant (user) to sink a well in the location specified at S1. (2) for extraction of ground water at a rate not exceeding that as shown at S1. (3) (j) and for running hours / day as shown at S1. (3) (K), and is valid subject to the observance of the conditions stated overleaf.

OFFICE OF THE GEOLOGIST * GEOLOGICAL SUB-DIVISION NO.IIA, BURDWAN * GOVT. OF W.B. OFFICE SEAL

Place : Burdwan

Date : 29/ 08/ 2018

29/08/2018

Signature of the Issuing Authority and Designation

Geologist, SWID &
Member Secretary, District Level
Ground Water Resources Development Authority
Burdwan-713101

Conditions :

(1) In case of any change of ownership of the proposed well, fresh registration has to be obtained.

(2) No change of location, design, rate of withdrawal and pumping device in respect of the proposed well as indicated at S1. (2) and (3) of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this permit.

(3) In case, any of the particulars / information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.

(4) Any other condition imposed by the concerned Authority.

N:B: Conditionalities are imposed on reverse page of this certificate.

OFFICE OF THE GEOLOGIST * GEOLOGICAL SUB-DIVISION NO.IIA, BURDWAN * GOVT. OF W.B. OFFICE SEAL

B.C.L./4/50,000/'06

CONDITIONALITIES FOR PACKAGE DRINKING WATER PROJECTS AND INDUSTRIES/ INFRASTRUCTURES:

1. Roof Top Rain Water harvesting for Surface Storage.
2. Excavation of pond of size 150 ft. x 50ft. with 2 m. depth.
3. Chemical Quality Test Report from BIS approved Laboratory in each year to be submitted to the Geologist & Member Secretary, DLA.
4. Arrangement of Water Meter at the outlet of Tube Well discharge to be monitored by Govt. Officials as assigned by DLA.
5. The enhanced rate if any in future (including the rates revised retrospectively) of fees/ charges/ taxes for drawls of ground water on annual basis, should be borne by applications for operating their tube wells in a continuous manner.

29/08/2018

Geologist, SWID &
Member Secretary, District Level
Ground Water Resources Development Authority
Burdwan-713101

FORM 4

[See Rules 9(3) and 10(5)]

066523

(EMBLEM OR HOLOGRAM OF THE CONCERNED AUTHORITY)

PERMIT FOR SINKING OF NEW WELL

[U/S 7(3)(b) / 7(4)(b) / 7(5)(a) of the West Bengal Ground Water Resources (Management, Control and Regulation) Act 2005.]

P- 2001

PERMIT NO P02160380037400000001TSE

1.	(a) Name of the applicant (user)	:	Shri/Smt. ESSAR OIL & GAS EXPLORATION AND PRODUCTION LIMITED.
	(b) Son / Daughter of	:	
	(c) Address of the applicant	:	BIDHAN NAGAR, DURGAPUR
	(d) Category of farmer (Please tick) (in case of irrigation well)	:	Small Farmer / Marginal Farmer / Others
	(e) Serial No. of application Form and date of submission	:	BP/A0660, SL.NO:99; DT. 02.07.2018
	(f) Specimen signature of the user	:	
2.	Location particulars---		
	(a) District		BURDWAN
	(b) Block, Mouza, J. L. No., Plot No.	:	KANKSA, JAMBAN, 018, 374
	(c) Municipality / Corporation Ward No. / Borough No., Holding No.	:	
3.	Particulars of the proposed well and pumping device---		
	(a) Type of the well	:	TUBEWELL
	(b) Approx. depth of the well (m)	:	150 m
	(c) Purpose of the well	:	INDUSTRIAL [CBM EXPL. AND PRODUCTION UNIT]
	(d) Assembly size (for tube well)	:	100 mm. X 150 mm.
	(e) Approx. strainer length (for tube well)	:	12 m.
	(f) Diameter (for dug well)	:	m.
	(g) Type of pump to be used	:	SUBMERSIBLE
	(h) H. P. of the pump	:	1.5 H.P
	(i) Operational device	:	Electric Motor
	(j) Rate of withdrawal (m3 / hr.)	:	2.5 m^3/hr
	(k) Maximum allowable running hours per day	:	6 Hours Per Day

This permit authorizes the owner applicant (user) to sink a well in the location specified at S1. (2) for extraction of ground water at a rate not exceeding that as shown at S1. (3) (j) and for running hours / day as shown at S1. (3) (K), and is valid subject to the observance of the conditions stated overleaf.

Place : Burdwan

Date : 29/ 08/ 2018

OFFICE OF THE GEOLOGIST * GEOLOGICAL SUB-DIVISION NO.IIA, BURDWAN * OFFICE SEAL SWID GOVT. OF W.B.

29/08/2018

Signature of the Issuing Authority and Designation.

Geologist, SWID &
Member Secretary, District Level
Ground Water Resources Development Authority
Burdwan-713101.

Conditions :

(1) In case of any change of ownership of the proposed well, fresh registration is to be obtained.

(2) No change of location, design, rate of withdrawal and pumping device in respect of the proposed well as indicated at S1. (2) and (3) of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this permit.

(3) In case, any of the particulars / information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.

(4) Any other condition imposed by the concerned Authority.

N:B: Conditionalities are imposed on reverse page of this certificate!

OFFICE OF THE GEOLOGIST * GEOLOGICAL SUB-DIVISION NO.IIA, BURDWAN * OFFICE SEAL SWID GOVT. OF W.B.

B.C.L./4/50,000/'06

CONDITIONALITIES FOR PACKAGE DRINKING WATER PROJECTS AND INDUSTRIES/ INFRASTRUCTURES:

1. Roof Top Rain Water harvesting for Surface Storage.
2. Excavation of pond of size 150 ft. x 50ft. with 2 m. depth.
3. Chemical Quality Test Report from BIS approved Laboratory in each year to be submitted to the Geologist & Member Secretary, DLA.
4. Arrangement of Water Meter at the outlet of Tube Well discharge to be monitored by Govt. Officials as assigned by DLA.
5. The enhanced rate if any in future (including the rates revised retrospectively) of fees/ charges/ taxes for drawls of ground water on annual basis, should be borne by applications for operating their tube wells in a continuous manner.

29/08/2018

Geologist, SWID &
Member Secretary, District Level
Ground Water Resources Development Authority
Burdwan-713101

P-1596

066476

FORM 4

[See Rules 9(3) and 10(5)]

(EMBLEM OR HOLOGRAM OF THE CONCERNED AUTHORITY)

PERMIT FOR SINKING OF NEW WELL

[U/S 7(3)(b) / 7(4)(b) / 7(5)(a) of the West Bengal Ground Water Resources (Management, Control and Regulation) Act 2005.]

PERMIT NO P02160340129600000001PSE

1. (a) Name of the applicant (user) : ~~Shri/Smt.~~ ESSAR OIL LIMITED
   (b) Son / Daughter of : (E&P) DIVISION
   (c) Address of the applicant : Gopalpur, Kanksa, Burdwan
   (d) Category of farmer (Please tick) (in case of irrigation well) : Small Farmer / Marginal Farmer / ~~Others~~
   (e) Serial No. of application Form and date of submission : Sl. No. 080 BP/A0507 dt. 01.09.15
   (f) Specimen signature of the user :
2. Location particulars---
   (a) District : Burdwan
   (b) Block, Mouza, J. L. No. , Plot No. : Kanksa, Gopalpur-065, 1296
   (c) Municipality / Corporation Ward No. / Borough No., Holding No. : N.A.
3. Particulars of the proposed well and pumping device---
   (a) Type of the well : Tubewell
   (b) Approx. depth of the well (m) : 90m
   (c) Purpose of the well : Industrial
   (d) Assembly size (for tube well) : 150 mm. X 100 mm.
   (e) Approx. strainer length (for tube well) : 12 m.
   (f) Diameter (for dug well) : m.
   (g) Type of pump to be used : Submersible
   (h) H. P. of the pump : 1.5 H.P.
   (i) Operational device : Electric Motor
   (j) Rate of withdrawal (m3 / hr.) : 06 m3/hr
   (k) Maximum allowable running hours per day : 01 hr per day

This permit authorizes the owner applicant (user) to sink a well in the location specified at S1. (2) for extraction of ground water at a rate not exceeding that as shown at S1. (3) (j) and for running hours / day as shown at S1. (3) (K), and is valid subject to the observance of the conditions stated overleaf.

Place : Burdwan

Date : 13.10.2015

OFFICE OF THE GEOLOGIST Govt. of W. B Geological Sub Div. No. IIA Burdwan

OFFICE SEAL

13/10/2015

Geologist Member Secretary, District Level Ground Water Resource Development Authority

Signature of the Issuing Authority and Designation.

Conditions :

(1) In case of any change of ownership of the proposed well, fresh registration has to be obtained.
(2) No change of location, design, rate of withdrawal and pumping device in respect of the proposed well as indicated at S1. (2) and (3) of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this permit.
(3) In case, any of the particulars / information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
(4) Any other condition imposed by the concerned Authority.

N.B: Conditions are imposed on the reverse page of the certificate

OFFICE OF THE GEOLOGIST SWID Govt. of W. B Geological Sub Div. No. IIA Burdwan

OFFICE SEAL

B.C.L./4/50,000/'06

CONDITIONALITIES FOR PACKAGE DRINKING WATER PROJECTS AND INDUSTRIES/ INFRASTRUCTURES:

1. Roof Top Rain Water harvesting for Surface Storage.
2. Excavation of pond of size 150 ft. x 50ft. with 2 m. depth.
3. Chemical Quality Test Report from BIS approved Laboratory in each year to be submitted to the Geologist & Member Secretary, DLA.
4. The Certificate of Permit will be reviewed in every year from the date if issuance of Permit-based on local hydrogeological conditions that may prevail afterwards.
5. Arrangement of Water Meter at the outlet of Tube Well discharge to be monitored by Govt. Officials as assigned by DLA.
6. The enhanced rate if any in future (including the rates revised retrospectively) of fees/ charges/ taxes for drawls of ground water on annual basis, should be borne by applications for operating their tube wells in a continuous manner.

13/10/2015.
Geologist Member Secretary,
District level Ground, Water Resource
Development Authority, Burdwan

P-1597

066477

FORM 4

[See Rules 9(3) and 10(5)]

(EMBLEM OR HOLOGRAM OF THE CONCERNED AUTHORITY)

PERMIT FOR SINKING OF NEW WELL

[U/S 7(3)(b) / 7(4)(b) / 7(5)(a) of the West Bengal Ground Water Resources (Management, Control and Regulation) Act 2005.]

PERMIT NO P0216051002520000001TSE

1. (a) Name of the applicant (user) : ~~Shri/Smt.~~ ESSAR OIL LIMITED (E&P) DIVISION
   (b) Son / Daughter of :
   (c) Address of the applicant : Malandighi, Kanksa, Burdwan
   (d) Category of farmer (Please tick) (in case of irrigation well) : Small Farmer / Marginal Farmer / ~~Others~~
   (e) Serial No. of application Form and date of submission : Sl. 09 of BB/A 0507 dt. 01.09.15
   (f) Specimen signature of the user :
2. Location particulars---
   (a) District : Burdwan
   (b) Block, Mouza, J. L. No., Plot No. : Kanksa, Malandighi-048, Plot - 252
   (c) Municipality / Corporation Ward No. / Borough No., Holding No. : N.A.
3. Particulars of the proposed well and pumping device---
   (a) Type of the well : Tubewell
   (b) Approx. depth of the well (m) : 90m
   (c) Purpose of the well : Industrial
   (d) Assembly size (for tube well) : 150 mm. X 100 mm.
   (e) Approx. strainer length (for tube well) : 12 m.
   (f) Diameter (for dug well) : m.
   (g) Type of pump to be used : Submersible
   (h) H. P. of the pump : 1.5 H.P
   (i) Operational device : Electric Motor
   (j) Rate of withdrawal (m3 / hr.) : 06 m3/hr
   (k) Maximum allowable running hours per day : 02 hrs per day

This permit authorizes the owner applicant (user) to sink a well in the location specified at S1. (2) for extraction of ground water at a rate not exceeding that as shown at S1. (3) (j) and for running hours / day as shown at S1. (3) (K), and is valid subject to the observance of the conditions stated overleaf.

Place : Burdwan

Date : 13.10.2015

OFFICE SEAL

Pramanik 13/10/2015.

Signature of the Issuing Authority and Designation.

District level Ground Water Resource Development Authority, Burdwan

Conditions :

(1) In case of any change of ownership of the proposed well, fresh registration has to be obtained.
(2) No change of location, design, rate of withdrawal and pumping device in respect of the proposed well as indicated at S1. (2) and (3) of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this permit.
(3) In case, any of the particulars / information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
(4) Any other condition imposed by the concerned Authority.

N.B. Conditions are imposed on the reverse page of the certificate.

OFFICE SEAL

B.C.L./4/50,000/'06

CONDITIONALITIES FOR PACKAGE DRINKING WATER PROJECTS AND INDUSTRIES/ INFRASTRUCTURES:

1. Roof Top Rain Water harvesting for Surface Storage.
2. Excavation of pond of size 150 ft. x 50ft. with 2 m. depth.
3. Chemical Quality Test Report from BIS approved Laboratory in each year to be submitted to the Geologist & Member Secretary, DLA.
4. The Certificate of Permit will be reviewed in every year from the date if issuance of Permit-based on local hydrogeological conditions that may prevail afterwards.
5. Arrangement of Water Meter at the outlet of Tube Well discharge to be monitored by Govt. Officials as assigned by DLA.
6. The enhanced rate if any in future (including the rates revised retrospectively) of fees/ charges/ taxes for drawls of ground water on annual basis, should be borne by applications for operating their tube wells in a continuous manner.

13/10/2015

Geologist Member Secretary,
District level Ground, Water Resource
Development Authority, Burdwan

ANNEXURE VI

Treated Effluent Quality Analysis Report of Drilling Waste Processing Plant of CBM Project, Raniganj East, operated by Essar Oil and Gas Exploration and Production Ltd., (Period: Oct-24 to Mar-25)

ANNEXURE VI

Month					Oct-24	Jan-25
S. No.	Parameter	Unit	Onshore Discharge Standards	CPCB Limit for Discharge	CDWPP at EDD-028 Treated Water Analysis	CDWPP at EDD-028 Treated Water Analysis
1	pH		5.5-9.0	5.5 to 9.0	7.77	7.86
2	Temperature	deg. C	40 deg. C		29.4°C	21.7°C
3	Suspended Solids	mg/L	100	100	10	9
4	Total Dissolved Solids	mg/L	2100	---	1886	2028
5	Chlorides (as Chlorine)	mg/L	600	---	541	494
6	Sulphates (as SO_4)	mg/L	1000	---	10.0	20.7
7	BOD, 3 Days at 27ºC	mg/L	30	30	15	13
8	COD	mg/L	100	250	92	86
9	Oil & Grease	mg/L	10	10	<5	<5
10	Phenolic Compounds (as C_2H_5OH)	mg/L	1.2	1	<0.001	<0.002
11	Sulphides (as S_2)	mg/L	2	2	<0.5	0.74
12	Fluorides	mg/L	1.5	2	0.90	1.20
13	Chromium (Total)	mg/L	1	2	<0.05	<0.05
14	Zinc	mg/L	2	5	0.043	0.039
15	Copper	mg/L	0.2	3	<0.05	<0.05
16	Nickel	mg/L	3	3	<0.05	<0.05
17	Lead	mg/L	0.1	0.1	<0.1	<0.1
18	Mercury	mg/L	0.01	0.01	<0.001	<0.001
19	Cyanide	mg/L	0.2	0.2	<0.02	<0.02
20	Chromium (Cr+6)	mg/L	0.1	0.1	<0.01	<0.01
21	% Sodium	mg/L	60	---	55.3	57.3

ANNEXURE VII

Ground Water Analysis Report of Villages Sorrounded by CBM Project, Raniganj East operated by Essar Oil and Gas Exploration and Production Limited
(Period: Oct- 24 to Mar-25)

Date of Sampling					15.11.2024	15.11.2024	15.11.2024	15.11.2024	15.11.2024	15.11.2024	15.11.2024
Sample Identification Number					GW-420-2024	GW-421-2024	GW-422-2024	GW-423-2024	GW-424-2024	GW-425-2024	GW-426-2024
Latitude & Longitude					Lat:23°36'38.04"N, Long:87°20'09.0"E	Lat:23°37'34.06"N, Long:87°19'00.1"E	Lat:23°37'46.06"N, Long:87°20'15.07"E	Lat:23°37'15.04"N, Long:87°21'48.09"E	Lat:23°36'97.03"N, Long:87°23'43.02"E	Lat:23°36'31"N, Long:87°22'06"E	Lat:23°35'15.19"N, Long:87°22'08.05"E
S. No.	Parameter	Drinking Water Specification(Second Revision)- IS:10500 -2012 and Amendment No. 4 November 2021		Method of Analysis	Nachan Village near House of Arup Ghatak Tubewell	Bansia Village near ICDS Washpara Tubewell	Kalikapur Village near Durga Mandir Tubewell	Bargoria Village near EDD-003 Bauri Para Tubewell	Jatgoria Village (Near Mosjid-House of Sk Niashar) Tubewell	Kantaberia Village (Near ICDS) Tubewell	Dhabani Village near house of Sapan Bauri house Tubewell
		Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source								
1	Colour, Hazen Units	5	15	APHA 23rd Edition, 2120 B	<5	<5	<5	<5	<5	<5	<5
2	pH Value	6.5-8.5	No relaxation	APHA 23rd Edition, 4500-H^+ B	6.89	6.85	6.81	6.86	6.83	6.81	6.8
3	Turbidity, NTU	1	5	APHA 23rd Edition, 2130B	<1	2.6	<1	<1	18.2	41	<1
4	Total Dissolved Solids, mg/L	500	2000	APHA 23rd Edition, 2540 C	494	366	166	52	112	108	184
5	Total Suspended Solids, mg/L	---	---	APHA 23rd Edition, 2540 D	<2	<2	<2	<2	5	12	<2
6	Aluminium (as Al), mg/L	0.03	0.2	APHA 23rd Edition, 3500 –Al B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7	Ammonia (as total ammonia -N), mg/L	0.5	No relaxation	APHA 23rd Edition, 4500-NH_3 F	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8	Anionic Detergents (as MBAS), mg/L	0.2	1	APHA 23rd Edition, 5540 C	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9	Barium (as Ba), mg/L	0.7	No relaxation	APHA 23rd Edition, 3111 D	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10	Boron (as B), mg/L	0.5	2.4	APHA 23rd Edition, 4500-B C	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
11	Calcium (as Ca), mg/L	75	200	APHA 23rd Edition, 3500-Ca B	91	42	28	6	11	9	29
12	Chloride (as Cl), mg/L	250	1000	APHA 23rd Edition, 4500 –Cl^-B	75	19	32	11	26	28	77
13	Copper (as Cu), mg/L.	0.05	1.5	APHA 23rd Edition, 3111 B	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
14	Fluoride (as F), mg/L	1	1.5	APHA 23rd Edition, 4500 –F^- D	0.18	0.11	<0.05	<0.05	<0.05	<0.05	0.42
15	Free Residual Chlorine ,mg/L	0.2	1	IS 3025 (Part 26)-1986	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
16	Iron (as Fe), mg/L	1	No relaxation	APHA 23rd Edition, 3500-Fe B	0.41	0.48	2.19	0.36	0.40	2.51	0.29
17	Magnesium (as Mg), mg/L	30	100	APHA 23rd Edition, 3500-Mg B	31	14	10	3	5	4	10
18	Manganese (as Mn), mg/L, Max.	0.1	0.3	APHA 23rd Edition, 3111 B	<0.05	<0.05	<0.05	<0.05	0.071	0.161	<0.05
19	Mineral Oil, mg/L, Max	1	No relaxation	IS 3025 (Part 39):1991	<1	<1	<1	<1	<1	<1	<1
20	Nitrate (as NO_3), mg/L	45	No relaxation	APHA 23rd Edition, 4500-NO_3 -B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
21	Phenolic Compounds (as C_6H_5OH) ,mg/L	0.001	0.002	APHA 23rd Edition, 5530 C	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
22	Sulphate (as SO_4), mg/L, Max.	200	400	APHA 23rd Edition, 4500-SO_4^{2-}E	4.9	3.6	<2.5	<2.5	<2.5	<2.5	<2.5
23	Silver (as Ag), mg/L	0.1	No relaxation	APHA 23rd Edition, 3111 B	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
24	Sodium (as Na), mg/L	---	---	APHA 23rd Edition, 3500 –Na B	52	97	21	7	22	27	23
25	Selenium (as Se), mg/L	0.01	No relaxation	APHA 23rd Edition, 3114 C	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
26	Cadmium (as Cd), mg/L	0.003	No relaxation	APHA 23rd Edition, 3111 B	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
27	Cyanide (as CN), mg/L	0.05	No relaxation	APHA 23rd Edition, 4500 –CN^- E	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
28	Lead (as Pb), mg/L	0.01	No relaxation	APHA 23rd Edition, 3111 B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
29	Mercury (as Hg), mg/L	0.001	No relaxation	APHA 23rd Edition, 3112 B	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
30	Total Arsenic (as As), mg/L	0.01	No relaxation	APHA 23rd Edition, 3114 C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
31	Polynuclear aromatic hydrocarbons (as PAH), mg/L	0.0001	No relaxation	APHA 23rd Edition, 6440 B	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
32	Pesticide Residues,µg/L	0.01	No relaxation	APHA 23rd Edition, 6630 B&C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
33	Total Coliform Count, MPN/100 mL	Shall not be detectable in any 100 ml sample		IS 1622 : 1981 (Reaffirmed 2009)	<2	<2	<2	<2	<2	<2	<2
34	E.Coli, CFU/100 mL	Shall not be detectable in any 100 ml sample		IS 1622 : 1981 (Reaffirmed 2009)	<2	<2	<2	<2	<2	<2	<2
35	Total Bacteria Count, CFU/100 mL	Shall not be detectable in any 100 ml sample		IS 1622 : 1981 (Reaffirmed 2009)	Absent	Absent	Absent	Absent	Absent	Absent	Absent
36	Odour	Agreeable	Agreeable	IS: 3025 (Part 5) - 1983	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
37	Polychlorinated Biphenyls, mg/L	0.0005	No relaxation	APHA 23rd Edition, 6630	Not Detectable	Not Detectable	Not Detectable	Not Detectable	Not Detectable	Not Detectable	Not Detectable
38	Chloramines,mg/L	4	No Relaxation	APHA 23rd Edition, 4500 Cl G	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
39	Molybdenum,mg/L	0.07	No Relaxation	APHA 23rd Edition, 3111 D	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
40	Sulphide,mg/L	0.05	No Relaxation	APHA 23rd Edition, 4500-S^{2-} D	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
41	Electrical Conductivity at 25° C, µmhos/cm	---	---	APHA 23rd Edition, 2510 B	835	620	290	85	195	188	330
42	Phosphorus(as P), mgL	---	---	APHA 23rd Edition, 4500 P D	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
43	Nickel, mg/L	0.02	No Relaxation	APHA 23rd Edition, 3111 B	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
44	Total Chromium,mg/L	0.05	No relaxation	APHA 23rd Edition, 3111 B	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
45	Zinc,mg/L	5	15	APHA 23rd Edition, 3111 B	0.016	0.012	<0.01	<0.01	<0.01	<0.01	<0.01
46	Total Alkalinity as $CaCO_3$, mg/L	200	600	APHA 23rd Edition, 2320 B	367	306	114	33	61	53	53
47	Total Hardness,mg/L	200	600	APHA 23rd Edition, 2340 C	353	161	111	27	46	38	115

Ground Water Analysis Report of Villages Sorrounded by CBM Project, Raniganj East operated by Essar Oil and Gas Exploration and Production Limited (Period: Oct- 24 to Mar-25)

Date of Sampling					15.11.2024	15.11.2024	15.11.2024	15.11.2024	15.11.2024	15.11.2024
Sample Identification Number					GW-427-2024	GW-428-2024	GW-429-2024	GW-430-2024	GW-431-2024	GW-432-2024
Latitude & Longitude					Lat:23°34'59.02"N, Long:87°22'23.09"E	Lat:23°34'27.0"N, Long:87°23'00.1"E	Lat:23°35'12.03"N, Long:87°24'55.05"E	Lat:23°34'59.03"N, Long:87°24'27.0"E	Lat:23°31'31.04"N, Long:87°24'59.04"E	Lat:23°30'03.01"N, Long:87°23'56.01"E
S. No.	Parameter	Drinking Water Specification(Second Revision)- IS:10500 -2012 and Amendment No. 4 November 2021		Method of Analysis	Labnapara village near house of Sunil Kisku Tubewell	Akandara Village Near Adibasi Para (House of Kishor Soren)	Saraswatiganj village near Hari Mandir Tubewell	Ghatakdanga Village near Atchala Tubewell	Sarenga Village near Sarenga Primary School Tubewell	Gopalpur near House of Manik Mondal Tubewell
		Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source							
1	Colour, Hazen Units	5	15	APHA 23rd Edition, 2120 B	<5	<5	<5	<5	<5	<5
2	pH Value	6.5-8.5	No relaxation	APHA 23rd Edition, 4500-H^+ B	6.87	6.89	6.88	6.81	6.82	6.84
3	Turbidity, NTU	1	5	APHA 23rd Edition, 2130B	<1	<1	<1	33	<1	<1
4	Total Dissolved Solids, mg/L	500	2000	APHA 23rd Edition, 2540 C	202	130	218	72	88	66
5	Total Suspended Solids, mg/L	---	---	APHA 23rd Edition, 2540 D	<2	<2	<2	9	<2	<2
6	Aluminium (as Al), mg/L	0.03	0.2	APHA 23rd Edition, 3500 –Al B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7	Ammonia (as total ammonia -N), mg/L	0.5	No relaxation	APHA 23rd Edition, 4500-NH_3 F	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8	Anionic Detergents (as MBAS), mg/L	0.2	1	APHA 23rd Edition, 5540 C	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9	Barium (as Ba), mg/L	0.7	No relaxation	APHA 23rd Edition, 3111 D	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10	Boron (as B), mg/L	0.5	2.4	APHA 23rd Edition, 4500-B C	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
11	Calcium (as Ca), mg/L	75	200	APHA 23rd Edition, 3500-Ca B	34	20	28	9	11	14
12	Chloride (as Cl), mg/L	250	1000	APHA 23rd Edition, 4500 –Cl^-B	91	42	81	13	19	9
13	Copper (as Cu), mg/L.	0.05	1.5	APHA 23rd Edition, 3111 B	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
14	Fluoride (as F), mg/L	1	1.5	APHA 23rd Edition, 4500 –F^-D	<0.05	<0.05	<0.05	0.11	<0.05	<0.05
15	Free Residual Chlorine ,mg/L	0.2	1	IS 3025 (Part 26)-1986	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
16	Iron (as Fe), mg/L	1	No relaxation	APHA 23rd Edition, 3500-Fe B	0.24	1.73	0.33	0.63	0.39	1.6
17	Magnesium (as Mg), mg/L	30	100	APHA 23rd Edition, 3500-Mg B	11	7	10	4	4	6
18	Manganese (as Mn), mg/L, Max.	0.1	0.3	APHA 23rd Edition, 3111 B	<0.05	<0.05	<0.05	0.125	<0.05	<0.05
19	Mineral Oil, mg/L, Max	1	No relaxation	IS 3025 (Part 39):1991	<1	<1	<1	<1	<1	<1
20	Nitrate (as NO_3), mg/L	45	No relaxation	APHA 23rd Edition, 4500-NO_3 -B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
21	Phenolic Compounds (as C_6H_5OH) ,mg/L	0.001	0.002	APHA 23rd Edition, 5530 C	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
22	Sulphate (as SO_4), mg/L, Max.	200	400	APHA 23rd Edition, 4500-SO_4^{2-}E	3.3	<2.5	<2.5	<2.5	<2.5	<2.5
23	Silver (as Ag), mg/L	0.1	No relaxation	APHA 23rd Edition, 3111 B	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
24	Sodium (as Na), mg/L	---	---	APHA 23rd Edition, 3500 –Na B	18	27	53	6	16	5
25	Selenium (as Se), mg/L	0.01	No relaxation	APHA 23rd Edition, 3114 C	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
26	Cadmium (as Cd), mg/L	0.003	No relaxation	APHA 23rd Edition, 3111 B	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
27	Cyanide (as CN), mg/L	0.05	No relaxation	APHA 23rd Edition, 4500 –CN^- E	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
28	Lead (as Pb), mg/L	0.01	No relaxation	APHA 23rd Edition, 3111 B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
29	Mercury (as Hg), mg/L	0.001	No relaxation	APHA 23rd Edition, 3112 B	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
30	Total Arsenic (as As), mg/L	0.01	No relaxation	APHA 23rd Edition, 3114 C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
31	Polynuclear aromatic hydrocarbons (as PAH), mg/L	0.0001	No relaxation	APHA 23rd Edition, 6440 B	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
32	Pesticide Residues,µg/L	0.01	No relaxation	APHA 23rd Edition, 6630 B&C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
33	Total Coliform Count, MPN/100 mL	Shall not be detectable in any 100 ml sample		IS 1622 : 1981 (Reaffirmed 2009)	<2	<2	<2	<2	<2	<2
34	E.Coli, CFU/100 mL	Shall not be detectable in any 100 ml sample		IS 1622 : 1981 (Reaffirmed 2009)	<2	<2	<2	<2	<2	<2
35	Total Bacteria Count, CFU/100 mL	Shall not be detectable in any 100 ml sample		IS 1622 : 1981 (Reaffirmed 2009)	Absent	Absent	Absent	Absent	Absent	Absent
36	Odour	Agreeable	Agreeable	IS: 3025 (Part 5) - 1983	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
37	Polychlorinated Biphenyls, mg/L	0.0005	No relaxation	APHA 23rd Edition, 6630	Not Detectable	Not Detectable	Not Detectable	Not Detectable	Not Detectable	Not Detectable
38	Chloramines,mg/L	4	No Relaxation	APHA 23rd Edition, 4500 Cl G	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
39	Molybdenum,mg/L	0.07	No Relaxation	APHA 23rd Edition, 3111 D	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
40	Sulphide,mg/L	0.05	No Relaxation	APHA 23rd Edition, 4500-S^{2-} D	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
41	Electrical Conductivity at 25° C, µmhos/cm	---	---	APHA 23rd Edition, 2510 B	350	228	375	130	160	120
42	Phosphorus(as P), mgL	---	---	APHA 23rd Edition, 4500 P D	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
43	Nickel, mg/L	0.02	No Relaxation	APHA 23rd Edition, 3111 B	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
44	Total Chromium,mg/L	0.05	No relaxation	APHA 23rd Edition, 3111 B	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
45	Zinc,mg/L	5	15	APHA 23rd Edition, 3111 B	0.013	0.014	0.011	0.015	<0.01	<0.01
46	Total Alkalinity as $CaCO_3$, mg/L	200	600	APHA 23rd Edition, 2320 B	61	41	57	45	57	45
47	Total Hardness,mg/L	200	600	APHA 23rd Edition, 2340 C	131	81	111	38	42	58

ANNEXURE VIII

Annexure VIII

SEVA
SANMARG ENGINEERING
VALIDATION & ASSESSMENT

CertificateNo:SEVA/DMP/27/23

SANMARGENGINEERINGVALIDATIONANDASSESSMENTPVT.LTD.

This Certificate is issued to

Essar Oil and Gas Exploration and Production Limited, Durgapur

To certify that ERDMP of Essar Oil & Gas Exploration and Production Limited for its Associated Pipelines upto Customer End at Durgapur has been assessed with respect to the requirements of PNGRB Notification GSR 39(E) PNGRB Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP) Regulations 2010 including Amendment Regulations 2020

ERDMP Certificate Valid from: 20th July 2023

ERDMP Certificate Valid upto: 19th July 2028

Sanmarg Engineering Validation and Assessment Pvt. Ltd.

Audit Date: 26th Apr– 27th Apr 2023
Chapters: 31 Nos.
Annexures: 19 Nos.
Audit report No: SEVA/2023/DMP/01/Essar-Durgapur
Document No: RG-CBM-HSE-PROC-004A Rev 03
Certificate is issued based on Compliance report submitted

ANNEXURE IX

Annexure IX

CITIZEN HOSPITAL
A Superspeciality Hospital

Date:-16th May 2025

To,

Mines Manager

Mines Name-RG(East)-CBM-2001/1

Essar Oil and Gas Exploration and Production Limited.

Sub: Occupational Health Surveillance Report.

In reference to the above subject, this is to certify that 34 employees of Essar Oil and Gas Exploration and Production Ltd., Durgapur have been medically examined under Mine Rule 29B (Form-O) in our Hospital- CITIZEN Hospital (Durgapur) for the period of Sep-2024 to till date.

There are no such Occupational diseases or Occupational health related issues reported in medical examination report.

List of the Employees have been Medically Examined as attached in Annexure-A.

Thanking you and assuring our best services at all time.

Yours Faithfully,

Dr. Subhranil Sur

Reg. No. 97204

Citizen Hospital

Bidhan Nagar

Durgapur

Subhranil Sur
Dr. Subhranil Sur
MBBS
Reg. No.-97204

CITIZEN HOSPITAL * DURGAPUR *

MEDICAL TEST LIST (CITIZEN HOSPITAL) - (PART - A)

Sl.No.	Name of Employee	Employee code	Contact No	Sex	Age	Date of reporting	Reporting time	Location Diagnostic	Report receiving Date
1	Narayan Mishra	30005364	9046007902	Male	30	21-Sep-24	8:00 AM	Citizen Hospital,Near DDA Market,Bidhannagar	2nd Nov 2024
2	Binod Kumar Singh	30005716	9576500096		48				
3	Abhishekk Ganeriwala		9831012340		35				
4	Arvind Gupta	30005751	8518008534		28				

MEDICAL TEST LIST - (PART - B)

Sl.No.	Name of Employee	Employee code	Contact No	Sex	Age	Date of reporting	Reporting time	Location Diagnostic	Report receiving Date
1	Ayushman Banerjee		8013541450	Male	23	28-Sep-24	08:00AM	Citizen Hospital ,Near DDA Market,Bidhannagar	2nd Nov 2024
2	Sagar Dutta		7477797418	Male	22				
3	Sooraj Gupta		9046543843	Male	25				
4	Srijani Pal		8017977521	Female	23				
5	Md Amit Mansoori		9046006608	Male	34				
6	Faisal Ahmed		9460557313	Male	22				
7	Shaini Sinha		7853069794	Female	23				
8	Santanu Ghatak		9735725389	Male	31				
9	Umesh Kumar Sharma		9570201816	Male	29				
10	Rohit Ghosh		8927661689	Male	23				
11	Rishav Sharma		6294099242	Male	32				
12	Aniket Ghoshal		7362997923	Male	24				

MEDICAL TEST LIST - (PART - C)

Sl.No.	Name of Employee	Employee code	Contact Number	Sex	Age	Date of reporting	Reporting time	Location Diagnostic	Report receiving Date
1	Aniket Ghoshal	30005707	7362997923	Male	24	07th Oct 2024	8:30 AM	Citizen Hospital,Near DDA Market,Bidhan nagar	12th Dec 2024
2	Amit Kumar	30005312	9399682215		36				
3	Sanat Das	30005756	9647646440		32				
4	Raushan Kumar	30005768	8797590480		18				
5	Biswajit Mahara	30005866	9474643584		31				
6	Santosh Shah	30005498	8001800908		47				

MEDICAL TEST LIST - (PART - D)

Sl.No.	Name of Employee	Employee code	Contact Number	Sex	Age	Date of reporting	Reporting time	Location Diagnostic	Report receiving Date
1	Santosh Shah	30005498	8001800908	Male	47	19th Oct 2024	8:00 AM	Citizen Hospital, (Near DDA Market) Bidhan nagar	2nd Nov 2024
2	Pratik Didwania	30005943	9163096222		26				2nd Nov 2024
3	Umakanta Tamili	30000335	9932854602		33				
4	Anirban Banerjee	30000396	7001468912		29				
5	Sudipto Chakraborty	30000423	8617396076		30				
6	Aman Kumar	30000659	8847243115		25				2nd Nov 2024 (Audiomettry test pending)
7	Partha sarthi Mahalanobis	30005525	7044380887		58				
8	Gautam Kumar Tibrewal	30005900	7574826742		37				
9	Guru Pada Manna	30000624	8058509508		37				
10	Tapeshwar Soni	30000685	636 7532743		31				

MEDICAL TEST LIST - (PART - E)

Sl.No.	Name of Employee	Employee code	Contact Number	Sex	Age	Date of reporting	Reporting time	Location Diagnostic	Report Receiving Date
1	Gautam Kumar Tibrewal	30005900	7574826742		37				

Dr. Subhranil Sur
MBBS
Reg. No.-97204

2	Apurba Ghosh	30006064	8617321674	Male	22	14th Dec 2024	9:00 AM	Citizen Hospital,Near DDA Market, Bidhan nagar	2nd Jan 2025
3	Suman Ghosh	30006060	7076262448		24				
4	Sumit Ghosh	APR	6295808193		22				
5	Premdeep Sharma	30006265	6202987497		31				

MEDICAL TEST LIST - (PART - F)

Sl.No.	Name of Employee	Employee code	Contact Number	Sex	Age	Date of reporting	Reporting time	Location Diagnostic	Report Receiving Date
1	Shuvojit Basu	30006040	9535143254	Male	38	23rd Jan 2025	9:00AM	Citizen Hospital, Near DDA Market, Bidhannagar	06th Mar 2025
2	Pratik Sisodia	30006341	9046007131		37				

MEDICAL TEST LIST CITIZEN HOSPITAL - (PART - G)

Sl.No.	Name of Employee	Employee code	Contact Number	Sex	Age	Date of reporting	Reporting time	Location Diagnostic	Report Receiving Date
1	Imran Gazi	30006500	8653721609	Male	30	18th Feb 2025	9:00AM	Citizen Hospital, Near DDA Market, Bidhannagar	06th Mar 2025

MEDICAL TEST LIST CITIZEN HOSPITAL - (PART - H)

Sl.No.	Name of Employee	Employee code	Contact Number	Sex	Age	Date of reporting	Reporting time	Location Diagnostic	Report Receiving Date
1	DEEP RATAN BHANDARY	APR	9933959214	Male	28	01at Mar 2025	9:00AM	Citizen Hospital, Near DDA Market, Bidhannagar	27th March 2025

Subhranil Sur

CITIZEN HOSPITAL ★ DURGAPUR ★

Dr. Subhranil Sur
MBBS
Reg. No.-97204

GDHRI
COMPASSION - HOPE - HEALING

GOURI DEVI HOSPITAL AND RESEARCH INSTITUTE

Rajbandh, G. T. Road, Durgapur - 713212, West Bengal
Ph - (0343) 2520036, Mob. : 8001003333, 8001002222
E-mail : gdhri@rahul.ac.in

20th May, 2025

To
The Mines Manager
Mines Name-RG(East)-CBM-2001/1
Essar Oil and Gas Exploration and Production Limited

SUB: Occupational Health Surveillance Report

Greetings from "Gouri Devi Hospital & Research Institute"

In reference to the above subject, this is to certify that 36 employees of Essar oil and gas exploration and production ltd.; Durgapur have been medically examined under Mine Rule 29B (Form-O) in our Hospital –Gouri Devi Hospital & Research Institute for the period of Sep.2024 to till date.
There are no such Occupational Diseases or Occupational Health related issues reported in the medical examination report.

List of the employees have been medically examined as attached in Annexure-A

Thanking you and assuring our best services at all times.

Yours faithfully,
For **Gouri Devi Hospital & Research Institute**

(Dr. Manujit Paul)
M. - 58025 (WBMC)

GOURI DEVI HOSPITAL & RESEARCH INSTITUTE
RAJBANDH
DURGAPUR-12

MEDICAL TEST LIST GOURI DEVI HOSPITAL PART - (A)

Sl.No.	Name of Employee	Employee code	Contact Number	Age	Sex	Date of reporting	Reporting time	Location Diagnostic	Report receiving Date
1	ANUBHAB CHAKRABORTY	APR	7365035279	26	Male	25th Sep 2024	9:00AM	Gouri Devi Hospital (Rajbandh)	7/10/2024 (BILL PAID)
2	RAHUL PRASAD	APR	7001331949	23					
3	SURYA PRATAP SINGHA	APR	6296217848	24					
4	BASUDEB BAURI	APR	9907286716	21					
5	SK SAHADAT ALI	APR	9883723451	28					
6	PRITAM MURMU	APR	7908989470	21					
7	SUSANTA MONDAL	APR	9749847632	22					
8	RAHUL MONDAL	APR	9732057726	22					
9	BUBAI CHANDRA MONDAL	APR	8250500841	20					
10	PRANAY KR. CHOUDHARY	APR	8603555381	22					
11	SUBHAJIT GHOSH	APR	8250296025	20					
12	BAPAN DAS	APR	9641709595	21					
13	KHADIMUL KOUM ANSARI	APR	8918039858	23					
14	SOUVIK LAYEK	APR	7551064032	20					
15	SUDIP MANDI	APR	8348971136	20					
16	PRINCE RAJ	APR	6201301977	23					
17	SUMIT GHOSH	APR	6295808193	22					

MEDICAL TEST LIST GOURI DEVI HOSPITAL - (PHASE - B)

Sl.No.	Name of Employee	Employee code	Contact Number	Age	Sex	Date of reporting	Reporting time	Location Diagnostic	Report receiving Date
1	Sourav Sarkar	30000314	7908605532	32	Male	21st Nov 2024	9:00 AM	**Gouri Devi Hospital (Rajbandh)**	07th Jan 2025
2	Subhojit Dey	30000370	9614913303	27					
3	Vivek Kumar Mishra	30000589	7786030845	33					
4	Anurag Kumar Sinha	30000614	7008489992	31					
5	Vikram Kumar	30000686	8789257911	34					

MEDICAL TEST LIST GOURI DEVI HOSPITAL - (PART - C)

Sl.No.	Name of Employee	Employee code	Contact Number	Age	Sex	Date of reporting	Reporting time	Location Diagnostic	Report Receiving Date
1	Mahamadul Hassan	30000325	8768809995	28	Male	30th Nov 2024	9:00 AM	**Gouri Devi Hospital (Rajbandh)**	27th Dec 2024
2	Ujjwal Kumar Mandal	30000371	6202001541	41					
3	Siddhartha Das	30000392	7407472088	26					
4	Anand Soren	30000590	8340483736	45					
5	Gurupada Manna	30000624	8058509508	37					
6	Tapeshwar Soni	30000685	8927502409	31					
7	Deepak D Pundekar	30000712	7407458457	39					
8	Jitendra Mishra	30006081	8418044817	30					
9	Ganesh Ghosh	APR	8509897556	25					
10	Subham Jha	30006033	8825334873	24					
11	Shikhar Mishra	30006032	8094887397	21					
12	Gautam Kumar Tibrewal	30005900	7574826742	37					
13	Suman Ghosh	30006060	7076262448	24					
14	Apurba Ghosh	30006064	8617321674	22					

MEDICAL TEST LIST GOURI DEVI HOSPITAL - (PART - D)

Sl.No.	Name of Employee	Employee code	Contact Number	Age	Sex	Date of reporting	Reporting time	Location Diagnostic	Report Receiving Date
1	Premdeep Sharma	30006265	6202987497	31					
2	Ramkrishna Mondal	30006273	7708597347	31				Gouri Devi Hospital	

3	Arjit Mondal	APR	7797939236	22	Male	20th Dec 2024	9:00 AM	Gouri Devi Hospital (Rajbandh)	07th Jan 2025
4	Prince Raj	APR	6201301977	23					
5	Md. Tajudin	APR	7718541823	20					

GOURI DEVI HOSPITAL & RESEARCH INSTITUTE
RAJBANDH
DURGAPUR-12

ANNEXURE X

Annexure X

Environment Policy

Essar Oil and Gas Exploration and Production Limited (EOGEPL) reaffirms its commitment to a clean, safe and healthy environment and shall Operate its facilities across the business lifecycle of Exploration, Production, Transportation and distribution to customers and consumers in an environmentally sensitive and socially responsible manner.

To achieve the above obligation, EOGEPL has framed two distinct policies such as " HSE Policy" and "ESG policy" showing commitment towards environmental stewardship and ESG excellence and directing its employees and stakeholders to strive hard to:

- Comply and/or exceed all applicable environmental legislation(s) and standard industry practices and regulatory norms.
- Achieve Excellence in the areas of Health, Safety and Environment and community engagement by ensuring safe and healthy working conditions through following the best operating & HSE practices.
- Conserve natural resources by improving operational efficiency, reducing wastage(s), preventing pollution, and rational and sustainable use of water and other resources.
- Utilize energy resources in a responsible and efficient manner so as to reduce our environmental footprints.
- Integrate environmentally sound technologies and best industry practices for continual improvement in environmental performance by institutionalizing a robust Environment Management System.
- Establish an Administrative order to deal with the environmental issues and for ensuring compliance with the environmental and other statutory clearances
- Minimize land foot prints by adopting multi directional wells from single drilling pad and directional drilling technique.
- Proactively assess risks and opportunities and take business decisions to enable sustained environmental performances across all its operations and supply chain.
- Identify and address the climate change related risks through mitigation and adaptation measures.
- Integrate the conservation, protection and promotion of biodiversity with the principle of achieving "No net loss of biodiversity".
- Communicate this Policy & Inculcate environmental consciousness amongst all its stakeholders.
- Periodically review this policy for applicability, relevance, effectiveness and congruence with the continuously evolving business environment but not lesser than once in three years.

Pankaj Kalra
Chief Executive Officer

Place: Durgapur
Date: 5-July-2023

ANNEXURE XI

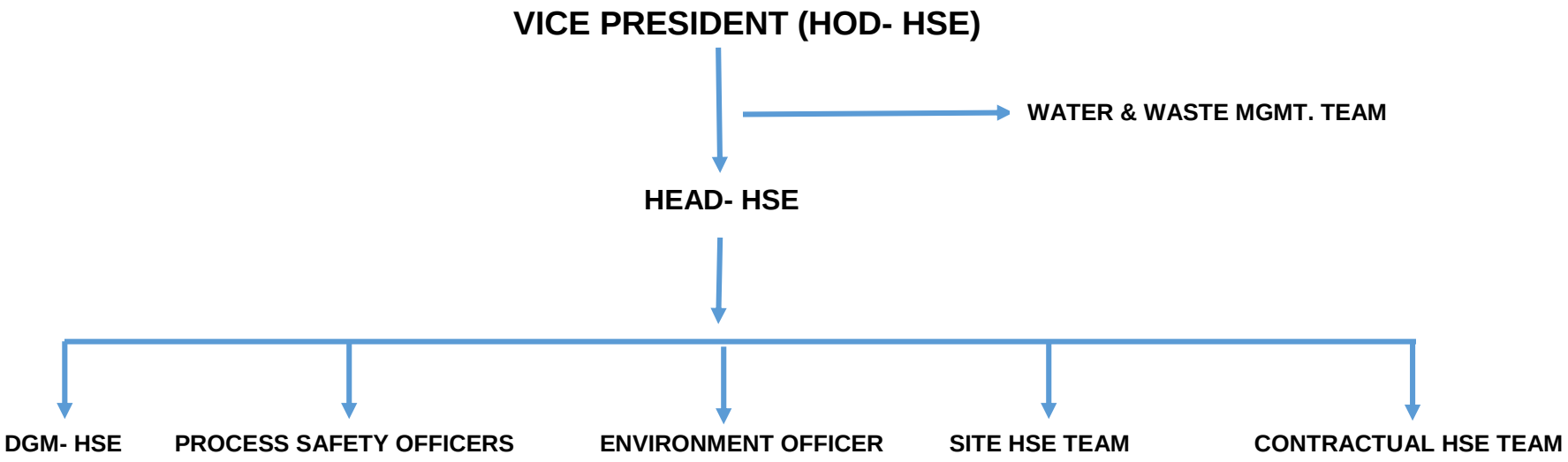
Annexure XI

Expenditure towards Enterprise Social Commitment for CBM Project, Raniganj East operated by Essar Oil and Gas Exploration and Production Ltd.		
Period: Oct-24 to Mar-25		
Thematic Area	**Activities**	**Expenditure (INR)**
HEALTH	Community Health Care Services through Mobile Medical Van	**15,06,972.00**
EDUCATION	Basic Aminities support to 6 anganwari centre under Kanksa Block	**7,07,026**
TRAINING	Apprenticeship Training	**18,38,262**
SPORTS AND CULTURAL EVENT	Support to sport events	**1,65,695.00**
COMMUNITY INFRASTRUCTURE DEVELOPMENT	Support to community infrastructure development	**1,58,01,052.00**
ADMINISTRATIVE OVERHEAD	Administrative overheads are the expenses incurred by the company for general management and administration of CSR function.	**12,78,037.00**
TOTAL		**2,12,97,044.00**

ANNEXURE XII

Annexure XII

ENVIRONMENT MANAGEMENT CELL



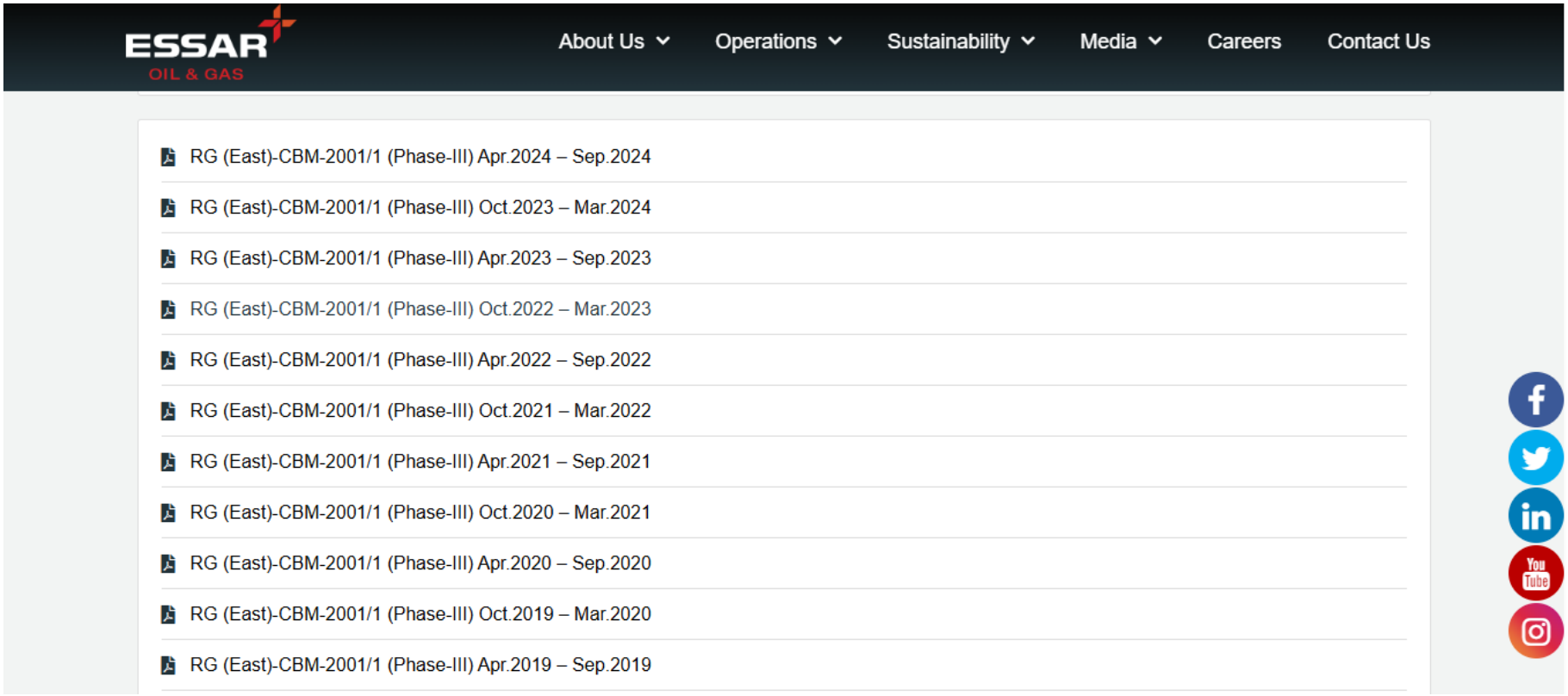
ANNEXURE XIII

Expenditure towards Environment Protection Measures for the CBM Project, Raniganj East operated by Essar Oil and Gas Exploration and Production Ltd.			
Period: Oct-24 to Mar-25			
S. No.	**Particular**	**Expenses (INR)**	
		CAPEX	**OPEX**
1	RO Units along with Pump Operation and Maintenance and Membrane cost	67,30,798.00	1,45,43,797.00
2	Central Drilling Waste Processing Plant and Mobile ETP	1,34,49,660.00	…
3	Regular environment monitoring through NABL & MoEF&CC approved laboratory w.r.t. ambient air, noise level, GG/DG set stack emission, produced water, RO water, surface water, ground water quality, ground water level and soil.	….	6,15,451.00
4	Solid waste segregation, collection and disposal	….	5,42,363.00
5	Toxicology analysis of drill cuttings/effluent	….	48,477.00
6	Green belt development and maintenance	….	4,85,674.00
7	Bio-medical waste disposal	….	49,755.00
8	Hazardous waste disposal	….	5,71,217.00
9	HDPE Lining pit (impervious lined pit) at site to store produced water	….	22,29,650.00
	Grand Total	**2,01,80,458.00**	**1,90,86,384.00**

ANNEXURE XIV

Annexure XIV

The screenshot of EOGEPL portal uploaded with Six-monthly Compliance Report



ANNEXURE XV

Annexure XV

Environmental Information Display Board placed near the Main Gate of the Office/MCS of Essar Oil and Gas Exploration and Production Ltd. (EOGEPL).

Photographs

ANNEXURE XVI

Annexure XVI

Six-monthly Compliance Report submitted to the Sob-Office MoEF&CC, Kolkata and Regional Office-WBPCB, Durgapur

Tue 31-12-2024 17:55

Samanta, Malay K. - EOGEPL - Durgapur

Submission of Six-monthly Compliance Report of EC Phase III and its amendments along with relevant annexures by Essar Oil and Gas Exploration and Production Ltd.

To 'iro.kolkata-mefcc@gov.in'

You forwarded this message on 31-12-2024 18:10.

Message Six-monthly Compliance Report_EOGEPL_Phase III_April-24 - Sep-24.pdf

The Scientist- E
Ministry of Environment, Forest and Climate Change
Integrated Regional Office, Kolkata
IB – 198, Sector-III, Salt Lake City, Kolkata – 700106

Sub: Submission of the Six-monthly Compliance Report of Environment Clearance, Phase- III and its amendments by Essar Oil Gas Exploration and Production Limited (EOGEPL) reg.

Ref:

Environmental Clearance, Phase-III vide F. No. J-11011/491/2011-IA II (I) dated 26th February, 2013 and its amendments dated 27th November, 2017; 9th May 2019 & 14th August, 2023.

Respected Ma'am,

With due respect, we submit herewith the Six-monthly Compliance Report of Environment Clearance (EC), Phase- III as mentioned above for the period of April-24 to September-24.

Kindly acknowledge and oblige.

ESSAR
OIL & GAS

Essar Oil and Gas Exploration and Production Ltd
Essar House - Durgapur
Village & Post Office – Molandighi
Block - Kanksa
Durgapur Sub-Division
Dist. - Paschim Bardhhaman
Durgapur – 713212
West Bengal
India

CIN: U11203GJ2016PLC091903

E eogepl@essarenp.co.in
www.essar.com

EOGEPL/ CBM-RG (E)/ HSE/2025/6405

04-02-2025

The Environment Engineer & In-charge
Durgapur Regional Office
West Bengal Pollution Control Board
Sahid Khudiram Sarani, City Center
Durgapur, Paschim Bardhaman 713216

Sub: Submission Six-monthly Compliance Report of the Environmental Clearance Phase-III and its amendments by Essar Oil Gas Exploration and Production Limited (EOGEPL) reg.

Ref: *Environmental Clearance of Phase-III vide F. No. J-11011/491/2011-IA II (I) dated 26th February 2013 and its amendment dated 27th November 2017, 9th May 2019 & 14th August 2023*

Dear Sir,
Greetings!!

We submit herewith the six-monthly compliance report for the period of April-24 to Sep-24 w.r.t. the stipulated conditions of prior environmental clearance vide F. No. J-11011/491/2011-IA II (I), dated 26th February 2013 and its amendment dated 27th November 2017, 9th May 2019 & 14th August 2023.

Thank you for your continued support

For Essar Oil and Gas Exploration and Production Limited

Warm Regards,

Essar Oil and Gas Exploration and Production Limited
Raniganj East CBM Project Durgapur

Vikram Goday
Vice President & Head- Facilities
Raniganj East, CBM Project-Durgapur

Enclosed:

i) Six-monthly compliance report, Period- April-24 to Sep-24
ii) Annexure I, II, III, IV, V, VI, VII, VIII, IX. X. Annexure (Colly A), Annexure XI, XII, XIII, XIV, XV, XVI, XVII, XVIII, XIX, XX & XXI

ANNEXURE XVII

Annexure XVII

ESSAR
OIL & GAS

Essar Oil and Gas Exploration and Production Ltd
Essar House- Durgapur
Village & Post Office- Molandigi
Block-Kanksa
Durgapur Sub-Division
Dist. Paschim Bardhhaman
Durgapur-713212
West Bengal
India

CIN: U11203GJ2016PLC091903

E eogepl@essarenp.co.in
www.essar.com

EOGEPL/CBM- RG (E)/ HSE/ 2024/6002
02-September-2024

The Environmental Engineer and In-Charge
Durgapur Regional Office
West Bengal Pollution Control Board
Sahid Khudiram Sarani, City Centre
Durgapur, Paschim Bardhaman 713216

Sub: **Submission of Environmental Statement for the Financial Year ending with 31st March 2024.**

Dear Sir,

Greetings from Essar Oil and Gas Exploration and Production Ltd. (EOGEPL)!

Please find attached herewith the Environmental Statement (Form V) for the Financial Year ending with 31st March 2024 for the Raniganj CBM Block- RG (East)- CBM-2001/1, Durgapur, West Bengal, operated by EOGEPL.

Kindly acknowledge and oblige.

Thanking you,

For Essar Oil and Gas Exploration and Production Limited

Vikram Goday
Vice President & Head- Facilities
Raniganj East, CBM Project-Durgapur

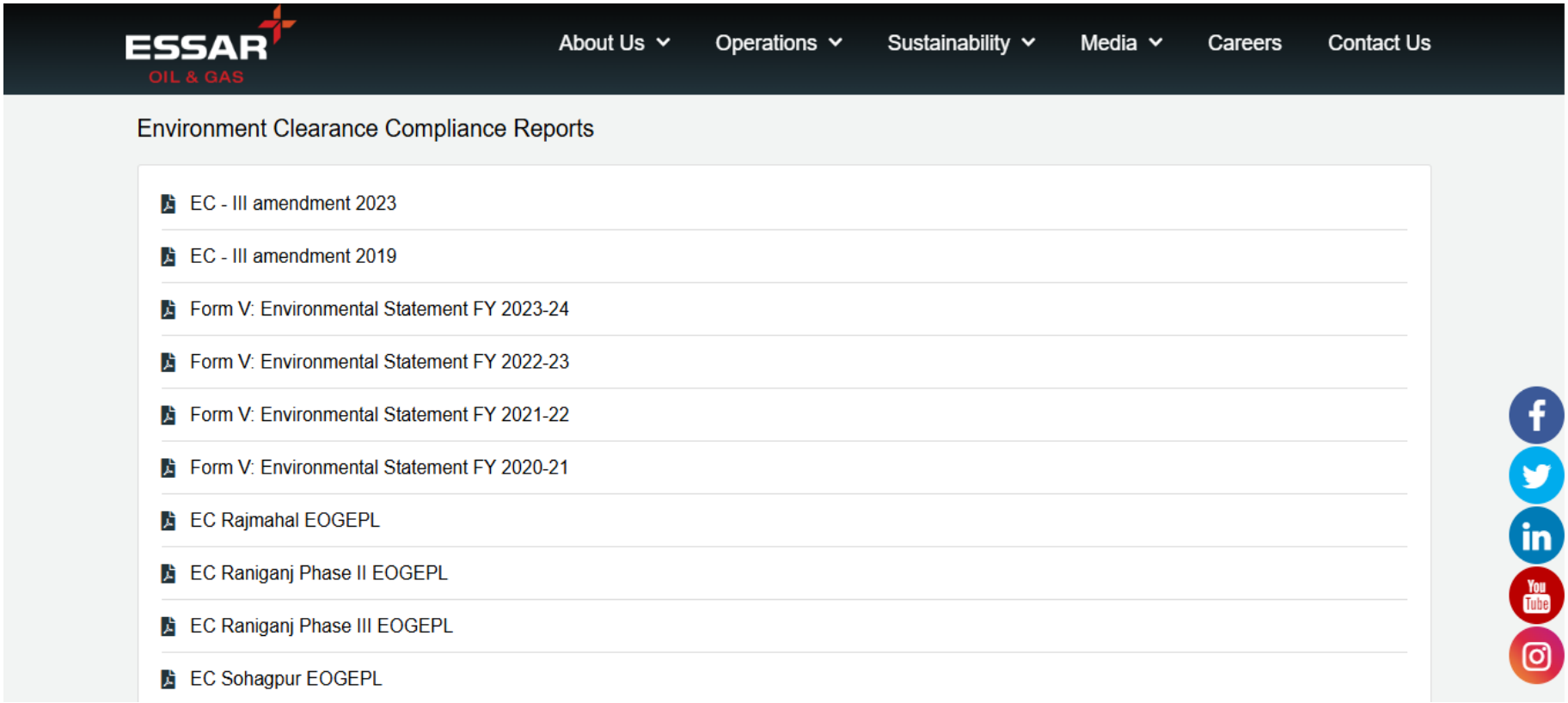
Enclosed: i) Environmental Statement (Form V) for the Financial Year ending with 31st March 2024.
ii) Annexure- I, II, III, IV, V, VI, VII

Copy to:

The Regional Director, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, IB – 198, Sector-III, Salt Lake City, Kolkata – 700106.

ANNEXURE XVIII

Screenshot of EOGEPL portal uploaded with Environmental Statement in Form V for the FY 2023-24.



ANNEXURE XIX

Screenshot of the submission of Environmental Statement in Form V (FY 2023-24) to Sub-office, Kolkata MoEF&CC.

Fri 06-09-2024 12:30

Samanta, Malay K. - EOGEPL - Durgapur

Submission of the Environmental Statement (FORM V) for the Financial Year 2023-24

To 'Sub Office Kolkata'

Message | Form V_FY 2023-24.pdf

Respected Sir/ Madam,

Greetings!!

Ref: *Environment Clearance vide F. No. J-11011/491/2011-IA II(I) dated 26th February, 2013; B General Conditions- xii) and subsequent amendments dated 27th November 2017, 9th May 2019 and 14th August 2023.*

With reference to above, I submitted herewith the Environmental Statement (FORM V) for the Financial Year 2023-24 of the Raniganj East CBM Block, RG(East)-CBM-2001/1 operated by Essar Oil and Gas Exploration and Production Ltd. (EOGEPL).

Kindly acknowledge and oblige.

Thanking you,
With regards,

Malay Samanta,

ANNEXURE XX

Annexure XX

Awareness Campaign on "Ban of Single Use Plastic"

Location : MVT Center at GGS#2, Khatgoria
Date : 28.03.2025
Topic : i) Single use plastic pollution on the Environment and Health Impact
ii) Awareness on restraining the usage of single use plastic
iii) Jute bag distribution to all the participants.

Participants : Representatives from the different stake holders like GAIL, Matix Fertilizer, Shyam Steel Ltd., Local Forest Beat Office, Molandighi Police Station, Faridpur Police Station, Mission Hospital and EOGEPL Employees.

Photographs