

Date: 14.11.2024

Ref.: AA-ONHP-2017/4/EC/Dec-24/1

Head of Office,
Integrated Regional Office, Guwahati
Ministry of Env., Forest and Climate Change,
4th Floor, HOUSEFED Building, G.S. Road Rukminigaon,
Guwahati – 781022 (Assam)

Dear Sir,

Subject: Six-Monthly Report on progressive compliance to Environmental Clearance (EC) conditions for Onshore Oil & Gas Exploration & Appraisal and Early production in AA-ONHP-2017/4 block (839 sq.km) in Jorhat, Assam.

References:

1. EC letter no. SEIAA.1252/2020/EC/1209 dated 5.12.2020
2. EC letter no. SEIAA.1252/2020 EC /1383 dated 06.03.2021
3. File no. SEIAA. 3247/2022 dated 05.01.2023, EC identification no. EC23B000AS171446 – (for Additional Wells)
4. Expansion of EC vide EC identification no. EC23C0302AS5758198N, SEIA File no.: SEIAA. 3711/2024 dated 01.06.2024

We are pleased to submit a point wise compliance status report of the conditions stipulated in the Environmental Clearance accorded by SEIAA, Assam for AA-ONHP-2017/4 Block for the period of April 2024 to September 2024.

Thanking You,

Yours faithfully,
For Vedanta Limited (Div.: Cairn Oil & Gas)


Dilip Kumar Bera
DGM- Environment



Enclosures: As above

Copy to:

1. The Member Secretary, Pollution Control Board, Assam
2. Regional Office, Central Pollution Control Board, Nongthymmai, Shillong, Meghalaya.
3. The Chairman, SEIAA, Assam

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**SIX MONTHLY REPORT
ON PROGRESSIVE COMPLIANCE TO ENVIRONMENTAL CLEARANCE CONDITIONS**

Project name:	Onshore Oil & Gas Exploration & Appraisal and Early Production in AA-ONHP-2017/4 block (839 sq.km) in Jorhat, Assam.
Environmental Clearance letter no.:	1. SEIAA.1252/2020/EC/1209 dated 5.12.2020 for 21 nos. of Exploration & Appraisal wells 2. SEIAA.1252/2020/ EC /1383 Dated 06.03.2021 for setting up of 6 EPU/QPU for Early Production of 12000 BOPD Crude Oil and 2.4 MMSCFD Natural Gas. 3. SEIAA. 3247/2022 dated 05.01.2023, EC identification no. EC23B000AS171446 – for additional 6 nos. of E&A wells & 4 nos. of EPU/QPU for Early Production of 8000 BOPD crude oil & 4 MMSCFD Natural gas.
Reporting Period	April 2024 – September 2024
Project activity during reporting period:	No exploratory & appraisal well drilling and early production activities carried out in the reporting period.
Overall status of activities w.r.t. project defined in EC:	<p>Project defined in EC:</p> <ol style="list-style-type: none"> Drilling of Exploratory & Appraisal Wells: 27 Nos. Early Production: 20000 BOPD Crude oil and 6.4 MMSCFD Natural gas. <p>Overall Status:</p> <p>Two (02) exploratory well have been drilled till date:</p> <ol style="list-style-type: none"> Well Pad# FW-001, Vill. 160 No. Grant, Mouza Hulungapara of Teok Revenue Circle, District: Jorhat. Latitude- 26° 45' 54.35" N, Longitude - 94° 23' 33.75" E. Duration from 12.04.21 to 15.05.21 Well Pad# FW-008, Vill. Bailung & Chulia, Mouza Hulungapara, Teok Revenue Circle, District: Jorhat. Latitude- 26° 47' 06.214" N, Longitude - 94° 24' 58.880" E. Duration from: 07.07.21 to 22.08.21 <p>Both wells FW-001 & FW-008 were found to be dry & NO commercially viable discovery of hydrocarbons. Subsequently, the wells had been 'plugged and abandoned' as per the requirements of OISD Standards and drill sites have been restored.</p>

S. No.	EC Conditions	Compliance Status/ Remarks
i.	Land Acquisition documents as per office memorandum of MoEF, GO Impact Assessment Division date. 7 th Oct 2014(F.No.22-76/2014-IA-III) for Govt. land and private land to be furnished. The PP to submit detailed land comments of individual location to SEIAA, 15 (fifteen) days prior to start of drilling in that location and to obtain official acknowledgment of the same from the authority.	Complied. Relevant land document submitted to SEIAA vide letter no. AA-4/Land Doc/FW-008/SEAC/01 dated 06.05.2021 for FW-008 and AA4/Land Doc/SEAC/01 dated 16.12.2020 for FW-001.
ii.	Noise level should be kept to a level as per O.M. of MoEF, GOI Impact Assessment Division date 29 th Oct 2014 in the habitation or nearby habitation area during drilling operations.	Complied. Ambient noise monitoring was carried out for pre-drilling, during drilling and post-drilling. Monitoring reports were submitted vide letter no. AA-ONHP-2017/4/EC/Dec-21/1 dated. 24.11.2021. All parameters were found within prescribed limits of CPCB. No activity was carried out during the reporting period.
iii.	The exploratory well in the geographic locations as given in Table 2.2 (details of proposed well locations) are recommended for approval. Well nos. 3,7,8,12,14, 15,18,21,22,23,24,25,26,27,28,29,30,31,33,34 & 35 (Total 21 nos.)	Noted. No activity was carried out during the reporting period.
I.	Statutory Compliance	

S. No.	EC Conditions	Compliance Status/ Remarks
i.	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.	Not Applicable. No well drill sites/ project activities are in forest land.
ii.	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Not Applicable. No well drill site/ project activities are in wildlife area.
iii.	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of Schedule-I species in the study area)	Complied. Wildlife conservation plan was prepared and submitted to PCCF-WL on 12.06.2021 vide letter no. WLCP/AA-4/1 dated. 05.06.2021. Following measures were adopted: <ul style="list-style-type: none"> • Fencing was done around the well pads and campsite to stop any encounter with wild animals. • Awareness programs were carried out among working personnel involved in the project activity. • Road signage was provided along the roadside indicating the maximum speed limit near the project site.
iv.	The Project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/Committee.	Complied. CTE was obtained from PCB, Assam vide letter no. WB/SVR/T-881/20-21/40/1171 dated 12.01.2021. CTO was obtained for two well/ wellpad locations FW-001 & FW-008 at which drilling was carried out vide letter WB/SVR/T-880/20-21/163/402 dated 19/7/2021 and WB/SVR/T-881/20-21/111/461 dated 27/7/2021 respectively. Post site restoration, request for closure of CTO file has been submitted for Wellpad-FW-001 vide letter no. AA-4/CTO/2024/1 dated. 18.01.2024. and for Wellpad-FW-001 vide letter no. AA-4/CTO/2024/1 dated. 18.01.2024.
v.	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.	Complied. HWA was obtained vide letter no. WB/ OTWA/ HW-353/ 20-21/ 204/15 dated. 16.07.2021. Post site restoration request for closure of HWA file has been submitted for Wellpad-FW-001 vide letter no. AA-4/CTO/2024/1 dated. 18.01.2024. and for Wellpad-FW-001 vide letter no. AA-4/CTO/2024/1 dated. 18.01.2024.
vi.	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989	Not Applicable.
II. Air quality monitoring and preservation		
i.	The project proponent shall install 24X7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards	Complied. AAQ monitoring was carried out for pre-drilling, during drilling and post drilling stages on wellpads #

S. No.	EC Conditions	Compliance Status/ Remarks
	prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate this system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	FW-001 & FW-008. Monitoring reports were submitted vide letter no. AA-ONHP-2017/4/EC/Dec-21/1 dated. 24.11.2021. All parameters were found in prescribed limits of NAAQS. No activity was carried out during the reporting period.
ii.	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under environment (Protection) Act, 1986.	Complied. No activity was carried out during the reporting period.
iii.	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM25 in reference to PM emission, and SO2 and NOX in reference to SO2 and NOX emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120 each), covering upwind and downwind directions.	Complied. AAQ monitoring report for pre-drilling, during drilling and post drilling stages was carried out for both wellpads (FW-001 & FW-008). Monitoring reports were submitted vide letter no. AA-ONHP-2017/4/EC/Dec-21/1 dated. 24.11.2021. All parameters were found within prescribed limits of NAAQS. No activity was carried out during the reporting period.
iv.	To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. Sulphur content should not exceed 0.5% in the coal for use in coal fired boilers to control particulate emissions within permissible limits (as applicable). The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.	Complied. Adequate stack height was provided with the DG sets installed at both the wellpads (FW-001 & FW-008). No activity was carried out during the reporting period.
v.	Storage of raw materials, coal etc shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.	Complied. Raw material used for drilling such as Barite, was kept in bags under the shed. No activity was carried out during the reporting period.
vi.	National Emissions Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21 st July, 2010 and amended from time to time shall be followed.	Not Applicable Not relevant to the oil & gas exploration & production projects. No activity was carried out during the reporting period.
vii.	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 th November, 2009 shall be complied with.	Complied. AAQ monitoring report for pre-drilling, during drilling and post drilling stages was carried out on both wellpads (FW-001 & FW-008). Monitoring reports were submitted vide letter no. AA-ONHP-2017/4/EC/Dec-21/1 dated. 24.11.2021. All parameters were found within prescribed limits of NAAQS. No activity was carried out during the reporting period.
III.	Water quality monitoring and preservation	
i.	The project proponent shall provide online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the	Complied. Wastewater generated during drilling was collected and monitored. Flow meters were installed at inlet and outlet point. Environmental Monitoring was

S. No.	EC Conditions	Compliance Status/ Remarks
	channel/drain carrying effluent within the premises (applicable in case of the projects achieving ZLD)	done for inlet & outlet water for both wellpads (FW-001 & FW-008). Monitoring reports were submitted vide letter no. AA-ONHP-2017/4/EC/Dec-21/1 dated. 24.11.2021. No activity was carried out during the reporting period.
ii.	As already committed by the project proponent, Zero Liquid Discharge shall be ensured, and no waste/treated water shall be discharged outside the premises (applicable in case of the projects achieving the ZLD).	Complied. ETP with physiochemical treatment was installed (Oil & grease trap, skimmer cum clarifier, PSF, ACF, treated storage tank, filter press). Treated effluent was reused for various purposes like mud preparation, dust suppression, floor washing etc. No activity was carried out during the reporting period.
iii.	The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air Act/ Water Act, whichever is more stringent.	Complied. Environmental monitoring was done for treated and untreated effluent for both wellpads (FW-001 & FW-008). Treated effluent was reused within the drill site/ wellpad in various purposes such as mud preparation, water sprinkling on approach road, nearby plantation, floor washing etc. No activity was carried out during the reporting period.
iv.	Total freshwater requirement shall not exceed the proposed quantity or as specified by the Committee. Prior permission shall be obtained from the concerned regulatory authority/ CGWA in this regard.	Complied. No ground water was extracted for this project. No activity was carried out during the reporting period.
v.	Process effluent/ any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.	Complied. Wastewater was collected in separate pit. No mixing with storm water. No activity was carried out during the reporting period.
vi.	The company harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilized the same for different industrial operations within the plant.	Drilling was for 2-3 months only. Rainwater Harvesting is not feasible.
vii.	The DG sets shall be equipped with suitable Pollution control devices and the adequate stack height so that the emissions are in conformity with the extant regulations and the guidelines in this regard.	Complied. Adequate stack height was provided with the DG sets on both wellpads (FW-001 & FW-008). No activity was carried out during the reporting period.
IV.	Noise monitoring and preservation	
i.	Acoustic enclosure shall be provided to DG set for controlling the noise pollution.	Complied. DG sets were installed with acoustic enclosures on both wellpads (FW-001 & FW-008). No activity was carried out during the reporting period.
ii.	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc, on all sources of noise generation.	Complied. DG sets were provided with acoustic enclosures, silencers and monitoring was done. Noise levels were found within the limits.

S. No.	EC Conditions	Compliance Status/ Remarks
		No activity was carried out during the reporting period.
iii.	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz, 75 dB(A) during daytime and 70 dB(A) during night-time.	Complied. Noise monitoring was carried out pre-drilling, during drilling and post drilling stages. Monitoring reports were submitted vide letter no. AA-ONHP-2017/4/EC/Dec-21/1 dated. 24.11.2021. All parameters were found in prescribed limits. No activity was carried out during the reporting period.
V.	Energy conservation measures	
i.	The energy sources for lighting purposes shall preferably be LED based	Complied. LED bubs/ tube lights were provided at on both wellpads (FW-001 & FW-008). No activity was carried out during the reporting period.
VI.	Waste management	
i.	Hazardous chemical shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.	Not Applicable Not relevant to the oil & gas exploration & production projects, therefore not applicable.
ii.	Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.	Not applicable.
iii.	The Company shall undertake waste minimization measures as below: -	
	a. Metering and Control of quantities of active ingredients to minimize waste.	Not applicable
	b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.	Not applicable
	c. Use of automated filling to minimize spillage.	Not applicable
	d. Use of Close Feed system into batch reactors.	Not applicable
	e. Venting equipment through vapors recovery system.	Not applicable
	f. Use of high pressure hoses for equipment clearing to reduce waste water generation.	Not applicable
VII.	Greenbelt	
i.	The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along roadsides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.	Complied. Drilling is a short time process hence not feasible for the project. Wells have been plugged and abandoned and drill sites have been restored, as no commercially viable discovery. To be complied with, in case of commercially viable discovery of hydrocarbons and during production phase.
VIII.	Safety, public hearing and human health issues	
i.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Complied. ERP was prepared and made available at drill site. No activity was carried out during the reporting period.
ii.	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in	Complied. Adequate fire protection provisions were made at both the wellpads.

S. No.	EC Conditions	Compliance Status/ Remarks
	material handling. Firefighting system shall be as per the norms.	No activity was carried out during the reporting period.
iii.	The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.	Complied. PPEs were provided at both the drill sites. No activity was carried out during the reporting period.
iv.	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Preemployment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Complied. Regular trainings and awareness program were conducted at both the wellpads. No activity was carried out during the reporting period.
v.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied. No housing for construction workers was provided at both the wellpads since construction workers were hired from the local areas. No activity was carried out during the reporting period.
vi.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Complied. Regular health check-up was done for workers at both the wellpads. No activity was carried out during the reporting period.
vii.	There shall be adequate space inside the plant premises ear marked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.	Complied. Adequate space for parking of vehicles was provided inside the plant premises. No activity was carried out during the reporting period.
IX.	Corporate Environment Responsibility	
i.	The project proponent shall comply with the provisions contained in this Ministry's IOM vide F.No. 22-65/2017-1A.III dated 1 st May 2018, as applicable, regarding Corporate Environment Responsibility.	Complied. Various programs/ activities were undertaken to the nearby community.
ii.	The company shall have a well laid down environment policy duly approve by the Board of Directors. The environment policy should prescribe for standards operating procedures to have proper checks and balances and to bring into focus any infringements/ violation of the environmental/ forest/ wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental/ forest/ wildlife norms/ conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MOEF& CC as a part of six-monthly report.	Complied. Health, Safety, Environmental & Sustainability Policy is made and implemented, duly signed by the Dy. CEO of the company.
iii.	A separate environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	Complied. Environment team with qualified & experienced professional is working in the company. Head of the Environment reports to SBU president, who reports to Dy. CEO.
iv.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved	Complied. EMP was prepared and implemented at both the wellpads.

S. No.	EC Conditions	Compliance Status/ Remarks
	by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.	An expenditure of INR 2.30 Crores has been incurred for the various environment management activities in FY: 2021-22 including waste management, environment monitoring etc.
v.	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Complied. During drilling, audits/ inspections were carried out by HSE department. No activity was carried out during the reporting period.
X.	Miscellaneous	
i.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Complied. Advertisement was published in 'Assam Tribune' and 'Dainik Janambhumi' on 04.09.2022 & 03.09.2022 respectively.
ii.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Complied. Copies of the environmental clearance has been submitted to the Heads of Local and Municipal Bodies in addition to the relevant government offices vide letter dated 03/01/2023.
iii.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Complied. Environmental Compliance is being prepared and uploaded on website on regular basis.
iv.	The project proponent shall monitor the criteria pollutants level namely; PM 10, SO ₂ , NO _x (ambient levels as well as stack emissions) or criteria sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Complied. Environmental Monitoring was done for pre-drilling, during drilling and post drilling stages for both wellpads (FW-001 & FW-008). Monitoring reports were submitted vide letter no. AA-ONHP-2017/4/EC/Dec-21/1 dated. 24.11.2021.
v.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	Complied. Six-monthly compliance report is being prepared and submitted regularly.
vi.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and out on the website of the company.	Complied. Form-V was prepared and submitted to PCB, Assam for both the wellpads vide letter AA-4/FW-001/Form-V/22/1 & AA-4/FW-008/Form-V/22/1 dated 30.09.2022.
vii.	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Noted for Compliance.

S. No.	EC Conditions	Compliance Status/ Remarks
viii.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	<u>Complied.</u> Conditions stipulated in CTE & CTO were strictly followed towards prevention & control of environment.
ix.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	<u>Complied.</u>
x.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment Forest and Climate Change (MoEF&CC).	<u>Complied.</u>
xi.	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	<u>Noted.</u>
xii.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	<u>Noted.</u>
xiii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	<u>Noted.</u>
xiv.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	<u>Noted.</u>
xv.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.	<u>Noted.</u>
xvi.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010	<u>Noted.</u>

**SIX MONTHLY REPORT
ON PROGRESSIVE COMPLIANCE TO ENVIRONMENTAL CLEARANCE CONDITIONS**

Project name:	Onshore Oil & Gas Exploration & Appraisal and Early Production in AA-ONHP-2017/4 block (839 sq.km) in Jorhat, Assam.
Environmental Clearance letter no.:	1. EC identification no. EC23C0302AS5758198N, SEIA File no.: SEIAA.3711/2024 dated 01.06.2024 for additional 7 nos. Exploration & Appraisal wells and 5 Nos. of EPU/QPUs.
Reporting Period	April 2024 – September 2024.
Project activity during reporting period:	Drilling of Exploratory & Appraisal activities for one well carried out during the reporting period.
Overall status of activities w.r.t. project defined in EC:	Project defined in EC: 1. Drilling of Exploratory & Appraisal Wells: 07 Nos. 2. Early Production: 14000 BOPD Crude oil and 5 MMSCFD Natural gas.
	Overall Status: 1. Well Pad # NGJN - W1 Vill. Napam Borgaon, Mariani, Teok Revenue Circle, District: Jorhat Latitude- 26° 42' 30.4636" N, Longitude - 94° 25' 52.8248" E. Duration from: Drilling activities started from July'24.

S. No.	General Conditions	Compliance Status/ Remarks
1.	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA/SEAC, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Complied.
2.	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	Complied. LED bubs/ tube lights were provided at well site during drilling activities.
3.	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Complied. DG sets have been provided with acoustic enclosures for control of noise. Work zone noise and ambient Noise monitoring have been carried out at drill sites. Monitoring reports for the reporting period are enclosed as Annexure-1 . Parameters are found within the prescribed standards.
4.	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Complied. Various programs, activities have been undertaken for the benefits of nearby community, villagers.

S. No.	General Conditions	Compliance Status/ Remarks
5.	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.	<u>Complied.</u> EMP including environmental monitoring had been prepared and implemented at well site.
6.	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/ Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	<u>Complied.</u> Copies of the environmental clearance has been submitted to the Heads of Local and Municipal Bodies in addition to the relevant government offices vide letter dated 16/01/2024.
7.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company.	<u>Complied.</u> Six-monthly compliance report is being prepared and submitted regularly.
8.	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.	<u>To be Complied.</u>
9.	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/ . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	<u>Complied.</u> Advertisement was published in 'Assam Tribune' and 'Dainik Janambhumi' on 25.04.2024 & 25.04.2024 respectively.
10.	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	<u>Noted for Compliance.</u>

S.No	Specific Conditions	Compliance Status/ Remarks
1.	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.	Complied. EMP including environmental monitoring had been prepared and implemented at well site.
2.	Total fresh water requirement shall not exceed 39 m ³ /day will be met from groundwater. Prior permission shall be obtained from the concerned regulatory authority.	Complied. No ground water extracted for this project.
3.	The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. Mobile ETP coupled with RO shall be installed to reuse the treated water in drilling system. Size of the waste shall be equal to the hole volume+ volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.	Complied ETP has been installed at site to treat the effluent during drilling. The treated effluent has been used for drilling mud preparation, dust suppression and other misc. uses within the operational areas. Logbooks for ETP operation have been maintained. Provision for septic tank and soak pit has been made considering the small volume of domestic effluent and very short-term operation. ETP with physiochemical treatment was installed (Oil & grease trap, skimmer cum clarifier, PSF, ACF, treated storage tank, filter press).
4.	Approach road shall be made pucca to minimize generation of suspended dust.	Complied.
5.	The project proponent shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.	Complied. DG sets have been provided with acoustic enclosures for control of noise. DG sets installed at site during drilling phase were provided with adequate stack heights. Stack monitoring has been done at site & all parameters are found within limit. Monitoring reports for the reporting period are enclosed as Annexure-1
6.	The company shall construct the garland drain to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated.	Complied. No runoff of any oil containing waste into the nearby water bodies. Separate drainage is provided to prevent any mixing of storm water with any effluent and oil containing waste.
7.	Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud shall be discharged/disposed of into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.	Complied. No discharge of effluent. The effluent from drilling activities has been collected in HDPE lined pits and treated in ETP and the treated effluent has been reused for drilling mud preparation, dust suppression and other misc. uses. Environmental monitoring was done for treated and untreated effluent for the well pads. Parameters are found within the limit.
8.	Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste	Complied. Oil spill prevention and mitigation measures have been integrated into the Emergency Preparedness Plan (ERP).

S.No	Specific Conditions	Compliance Status/ Remarks
	(oily sludge) and spent oil shall be disposed of to the authorized recyclers.	The ERP has been developed and made available at the drill site. Regular mock drills are conducted at drill sites to ensure preparedness and effective response.
9.	The project proponent shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At fixed installations or plants use of ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.	Complied. Adequate fire protection/ fighting provision have been made at the drill sites during drilling.
10.	The project proponent shall develop a contingency plan for H2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H2S detectors in locations of high risk of exposure along with self-containing breathing apparatus.	Complied.
11.	Blow Out Preventor system shall be installed to prevent well blowouts during drilling operations.	Complied. Blow out preventor has been installed at site during drilling.
12.	On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable DGH / Indian Petroleum Regulations.	Complied.
13.	As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.	Complied. Various programs, activities have been undertaken for the benefits of nearby community, villagers.
14.	No lead acid batteries shall be utilized in the project/site.	Not Applicable.
15.	Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules. All workers & employees shall be provided with required safety kits/mask for personal protection.	Complied. Pre-employment and Periodic medical examination conducted for all the operational staff, & PPEs kit has been provided to all workers & employees at site.
16.	Oil content in the drill cuttings shall be monitored and report & shall sent to the Ministry's Regional Office.	Noted.

S.No	Specific Conditions	Compliance Status/ Remarks
17.	The project proponent shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.	Complied. Operating manual prepared and made available covering environment and safety related issues. Awareness sessions with the drilling crew and operational staff have been carried out on various topics such as Waste Management, Spillage Control, Importance of PPE etc. Environmental Monitoring has been carried out for the Pre-drilling, during drilling, post-drilling phases and reports are available at the site. Parameters are found to be within the prescribed limits.
18.	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.	To be complied with.
A)	CSR activities:	
I)	CSR activities shall be carried out in terms of the approved EMP and compliance of the shall be uploaded in the PARIVESH portal.	Complied. EMP has been implemented towards pollution prevention & control and safeguard of environment and ecology.
B)	ECR (Environment Corporate Responsibility): Green Belt:	
I)	The proponent shall develop Green Belt around the Wells comprising 33% of the area of the project area and shall ensure planting of indigenous species of plants as are prescribed. For the purpose, the concerned DFO (preferably Social Forestry Division) may be consulted to have the quality planting materials ready in advance in the Departmental Nursery and requisite fund for the purpose should be made available to the DFO in advance.	Exploratory drilling is a very short term & temporary activity. In case of commercially viable discovery of hydrocarbons and during development & production greenbelt will be developed.
II)	The recommended species of plants in the area could be of species like Nahor (<i>Mesua ferrea</i>), Siris (<i>Albizia procera</i>), Hollock (<i>Terminalia myriocarpa</i>), Amlokhi (<i>Phyllanthus emblica</i>), Hilikha (<i>Terminalia chebula</i>), Jamun (<i>Syzygium cuminii</i>), Cham (<i>Artocarpus chaplasha</i>), Dimaru (<i>Ficus spp</i>), Ow Tenga (<i>Dillenia indica</i>), Thekera (<i>Garcinia spp</i>), Bhomora (<i>Terminalia bellirica</i>) etc etc.	Noted.
III)	Density of plantations shall be 1,250 plants per Hectare and the Proponent is required to raise plantations in 33% of the area against the Well as prescribed.	Noted.
IV)	The proponent shall take all requisite measures to maintain natural environment in the oil fields and its surroundings are to be maintained in healthy and environment friendly conditions. All necessary measures and precautions must have to be taken by the proponent to prevent any probable / random oil spillage, discharge of effluents in the surroundings.	Noted.

ANNEXURE - 1

Summary of Environmental Monitoring - AA-ONHP-2017/4 Block
(Reporting Period April' 2024 – Sept' 2024)

Environmental Monitoring for Ambient Air, DG Stack emissions, and Noise level are carried out for **Well Pad # NGJN-W 1 in AA-ONHP-2017/4 Block.**

All parameters are under the standards as prescribed by CPCB and no deviations were observed.

Ambient Air Quality Monitoring Results in the Well Pad

Three locations were selected around the operational areas for AAQ monitoring. The graphical interpretation of the results is provided below.

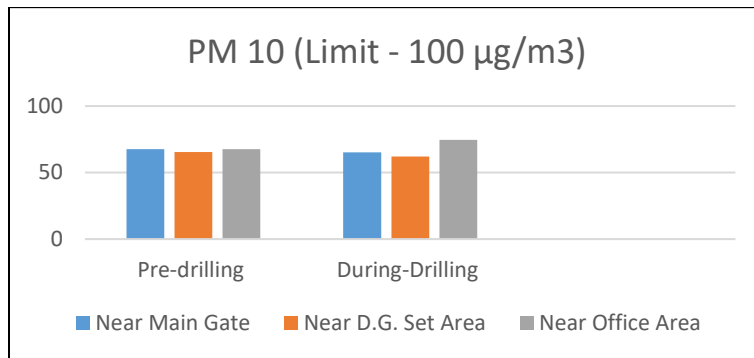


Figure 1: Graphical representation of average trend of PM₁₀ in Well Pad

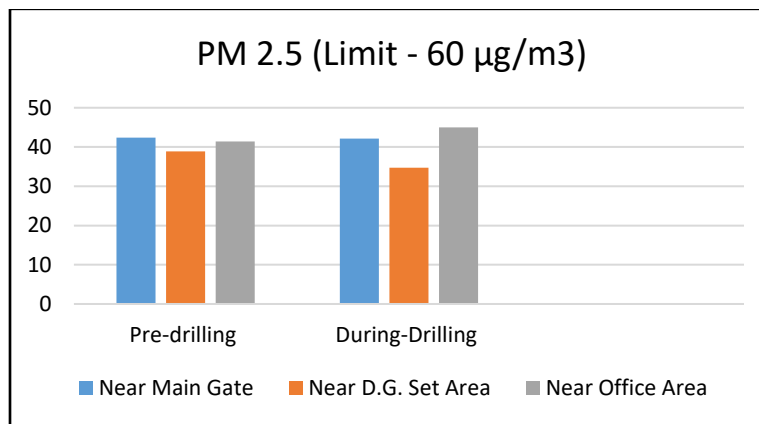


Figure 2: Graphical representation of average trend of PM_{2.5} in Well Pad

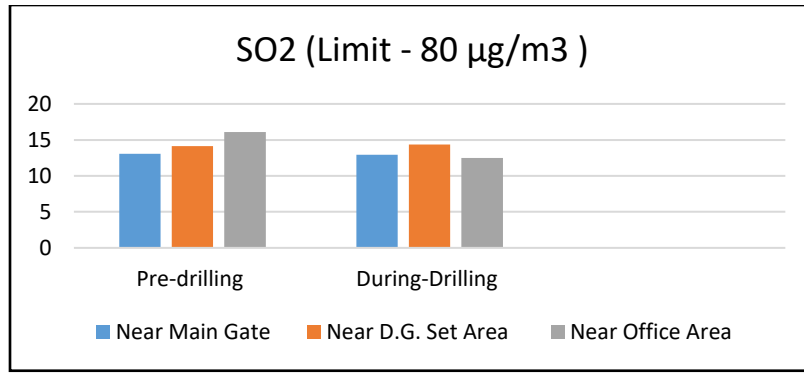


Figure 3: Graphical representation of average trend of SO₂ in Well Pad

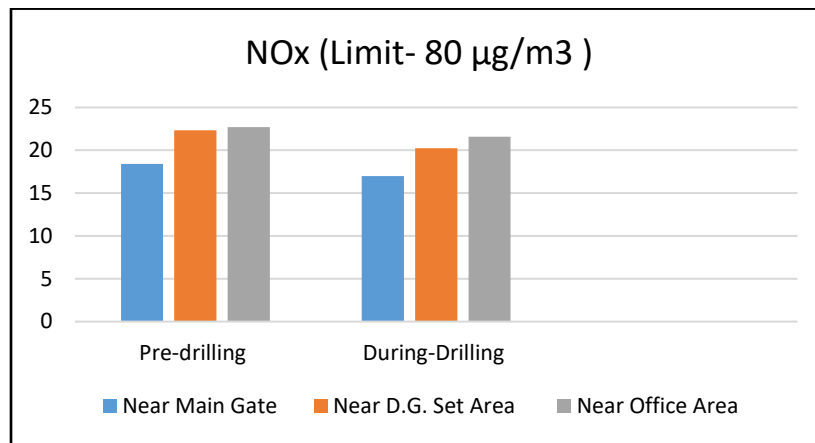


Figure 4: Graphical representation of average trend of NO_x in Well Pad

VOC (as BTX)			
Location	Pre-drilling	During-Drilling	
Near Main Gate	<0.05	<0.05	
Near D.G. Set Area	<0.05	<0.05	
Near Office Area	<0.05	<0.05	

Figure 5: Graphical representation of Volatile Organic Carbons in Well Pad

Ambient Noise Quality Monitoring Results in Well Pad

Three locations were selected around the operational area for noise monitoring. The graphical interpretation of the results is provided below.

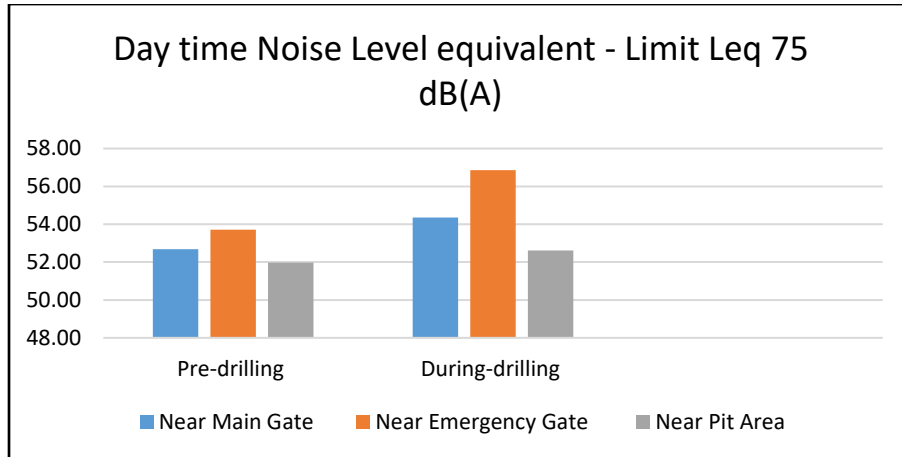


Figure 6: Graphical representation of Noise Level in Leq dB(A) in the Day Time

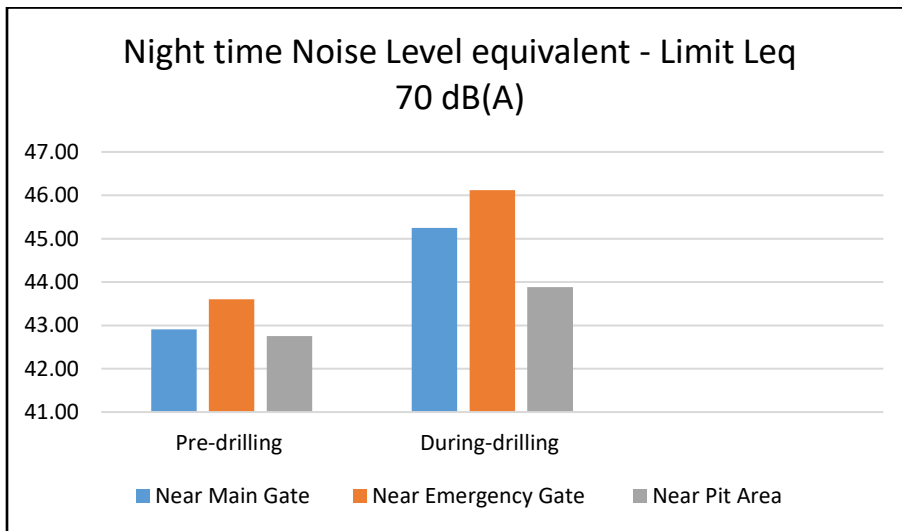


Figure 7: Graphical representation of Noise Level in Leq dB(A) in the Night-time

Stack Monitoring Results in Well Pad

Stack Monitoring was carried out for stacks attached to the exhaust stacks of various equipment across the operational site.

Graphical representation of average emission monitoring results during the reporting period is as follows:

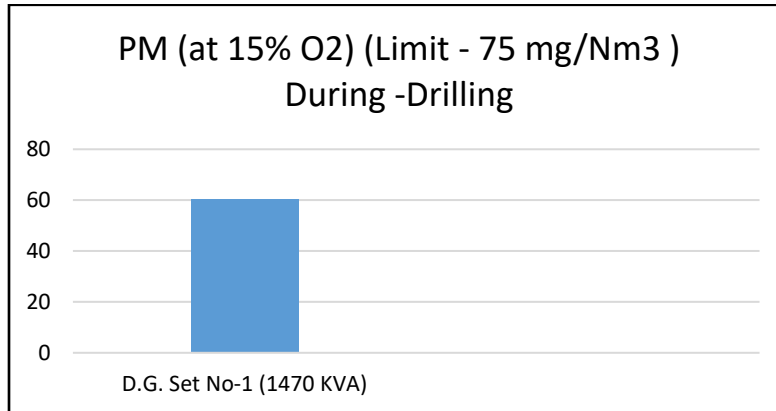


Figure 8: Graphical representation of average emission of Particulate Matter in mg/Nm³

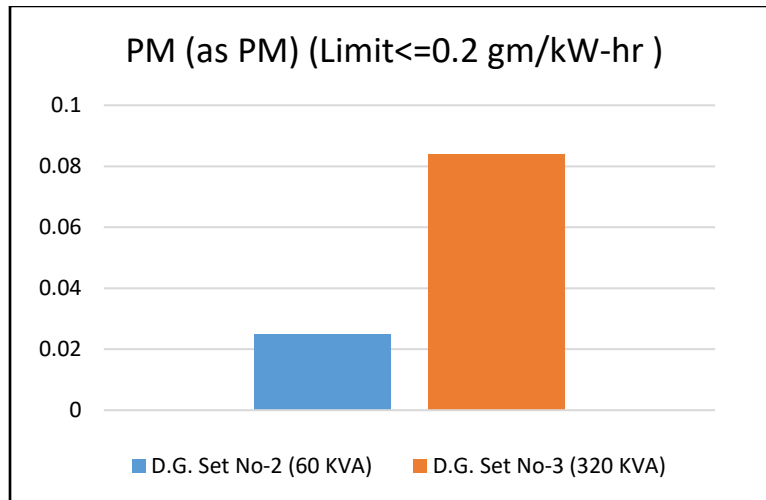


Figure 9: Graphical representation of avg. emission of Particulate Matter in gm/kW-hr

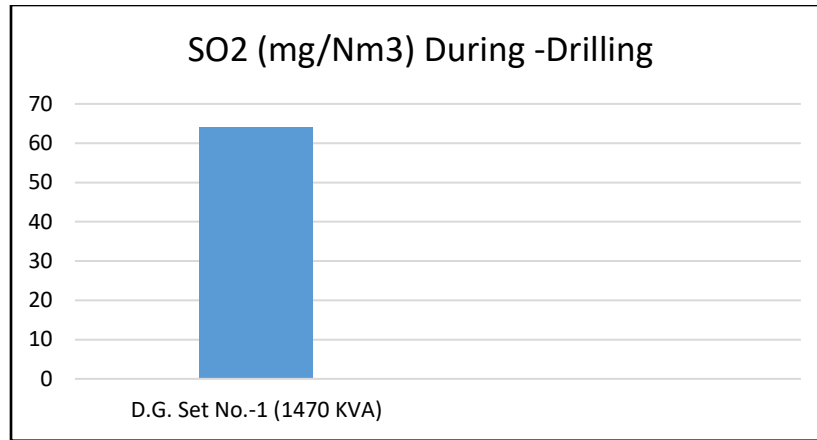


Figure 10: Graphical representation of average emission of Sulphur di-oxides (SO₂) in mg/Nm³

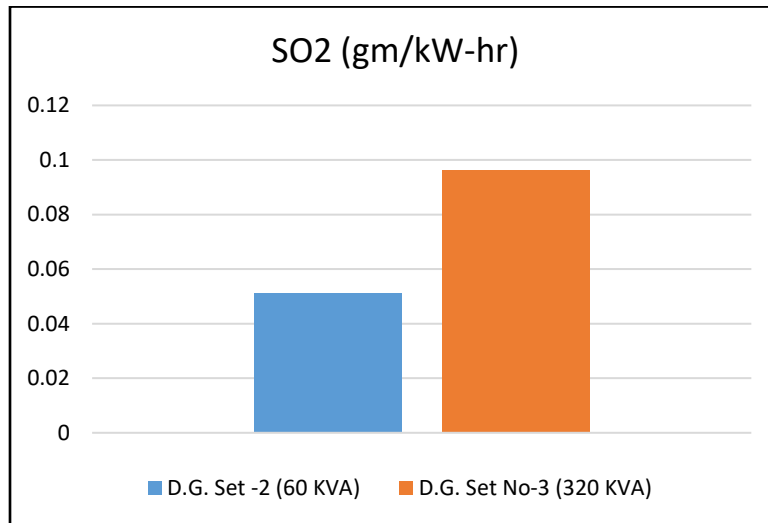


Figure 11: Graphical representation of average of Sulphur di-oxides (SO₂) in gm/kW-hr

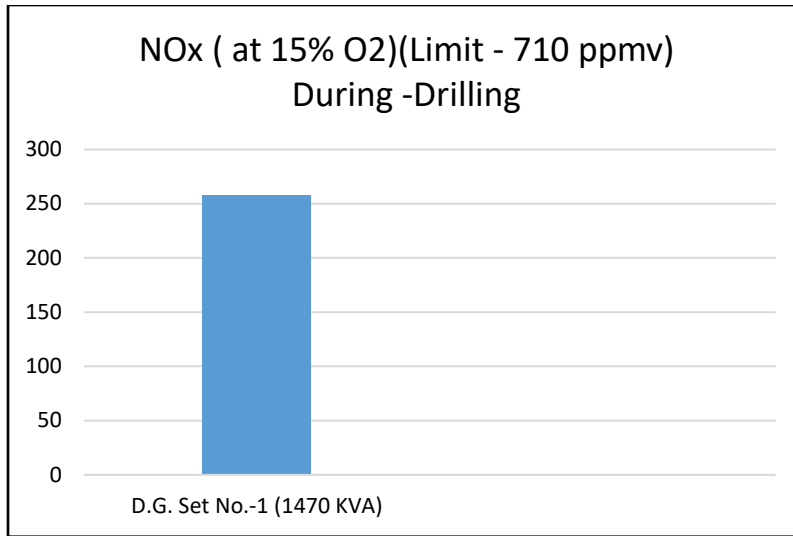


Figure 12: Graphical representation of average emission of Oxides of Nitrogen (NOx) in ppmv

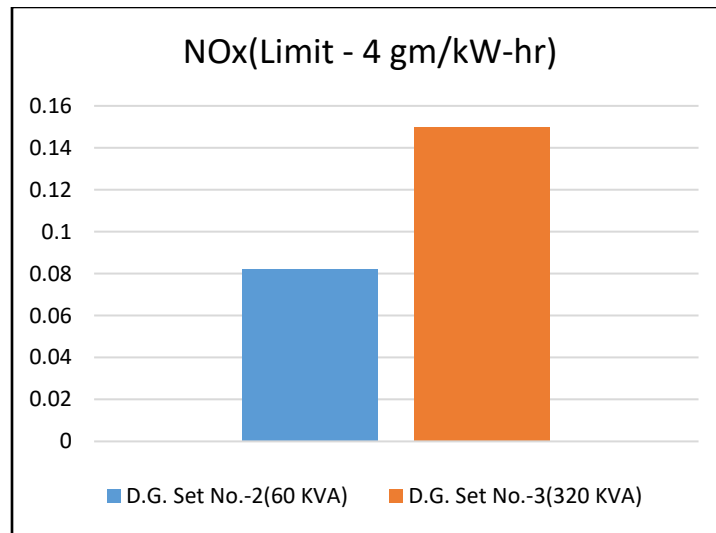


Figure 13: Graphical representation of average emission of Oxides of Nitrogen (NOx) in gm/Kwh

Work Zone Noise Monitoring Results in Well Pad

Two locations were selected around Well Pad in the operational area for work zone noise monitoring. The graphical interpretation of the results is provided below.

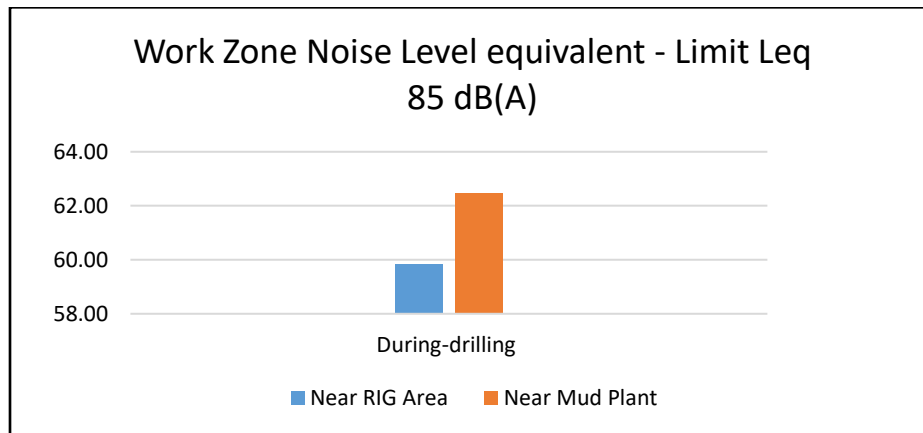


Figure 14: Graphical representation of trend of Work Zone Noise Level in Leq dB(A)