GREAT EASTERN ENERGY CORPORATION LTD.

Ref: GEECL/QHSE/2026/May/3742

May 25, 2026

The Director
Impact Assessment, Industry - II,
Monitoring Cell,
Ministry of Environment, Forests and Climate Change
Agni - Block, "Indira Paryavaran Bhawan"
Jor Bagh Road, Aliganj
New Delhi - 110 003

Sub.: Submission of Half Yearly Environmental Clearance Compliance Reports (October-2025 to March-2026) of Great Eastern Energy Corporation Ltd. ("GEECL")

Ref.:

1. Environmental Clearance: F. No. J-11011/264/2007-IA II (I); dated June 28, 2007 (Exploration & Production of Coal Bed Methane ("CBM") in Raniganj (South) Coal Field, West Bengal).
2. Environmental Clearance: F. No. J-11011/352/2010-IA II (I); dated November 24, 2011 (Expansion of Exploration & Production of CBM in Raniganj (South), CBM Block, West Bengal) and Environmental clearance validity extension letter dated May 1, 2019 issued by MOEF&CC for extending the validity till November 24, 2021 and Amendment in Environmental Clearance letter dated November 25, 2020 issued by MOEF&CC. Validity extended due to outbreak of Covid till November, 2022 by Government of India (MOEF&CC) Gazette notification S.O. 221(E) dated January 18, 2021.
3. OM dated April 12, 2022, in the EC vide letter No. J-11011/352/2010- IAII(I) dated November 24, 2011, till November 24, 2023, with all other terms and conditions remaining unchanged.
4. Environmental Clearance Identification. No. EC23B002WB112414, F. No. EN/T-II-1/043/2022, dated April 27, 2023 (Drilling of 20 shale gas exploratory Wells in Raniganj (South) CBM Block, West Bengal) issued by SEIAA West Bengal.
5. Environmental Clearance Identification No. EC25A0303WB5394418A dated October 3,2025 for grant of amendment in prior Environmental Clearance EC Identification No. EC25A0303WB5654084N dated May 09, 2025, F. No J-11011/352/2010-IA II(I) for Expansion of Exploration and Production of 650 nos. of Coal Bed Methane (CBM) gas wells in Raniganj (South) CBM Block, West Bengal.

Dear Sir/ Madam,

We are hereby submitting compliance status for the period of October-2025 to March-2026 for above referenced Environmental Clearances granted to our project including the Expansion of Exploration and Production of 650 nos. of CBM gas wells and Drilling of 20 shale gas exploratory wells in Raniganj (South) CBM Block, West Bengal.

Thanking You,
Yours faithfully,
For **Great Eastern Energy Corporation Ltd.**

Jairam K Shrinivasan
Joint President - Operations & HR

Enclosure: Annexure- I, II, III and IV (Half Yearly EC Compliance Status Reports along with Monitoring Reports as Appendix-A, B, C, D, E, F, G, H, I and J)

Copy to:

1. The IGF & Incharge, GOI, MoEF & CC, Integrated Regional Office, Kolkata, 1B-198, Salt Lake City, Sector III, Kolkata-700 106
2. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032
3. The Member Secretary, West Bengal State Pollution Control Board, Paribesh Bhawan,10A, Block - LA, Sector-III, Salt Lake City, Kolkata - 700 106.
4. The Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (EZ) A/3, Chandrashekharpur, Bhubaneswar -751023.
5. The Member Secretary, SEIAA, Govt. of Bengal, Pranisampad Bhawan,5th Floor LB Block, Sector -III Salt Lake Kolkata,700106

Annexure – I

Compliance Status of conditions of Environmental Clearance
F. NO. J-11011/264/2007-IA II (I) Dated: June 28, 2007
Monitoring Report - 38
Monitoring Period (October-2025 to March-2026)

Part – I

DATA – SHEET

1.	Name of the project	Exploration & Production of Coal Bed Methane
2.	Clearance letter No. & date.	F. NO. J-11011/264/2007-IA II (I); Dated: June 28,2007
3.	Locations:	Raniganj (South) CBM Block
	a. District (s)	Paschim Bardhaman, Bankura, Purulia
	b. State (s)	West Bengal
4.	Address of Contact Person at Registered Office (with pin code) & telephone/fax numbers	Jairam K Shrinivasan Joint President - Operations & HR Great Eastern Energy Corporation Ltd., M-10, ADDA Industrial Estate, Asansol - 713 305, West Bengal. Ph. No. +91-341-662 8818 Cell No. +91-81700-03140 Fax: +91-341-662 8811 Email: jkshrini@geecl.com URL: www.geecl.com

Part – II

Sr. No.	Part A: Specific Conditions	Status of Compliance
I.	The company shall comply with the guidelines for disposal of solid waste, drill cutting, and drill fluids for onshore drilling operation notified vide GSR.546 (E) dated August 30, 2005.	The company is complying with the guidelines for disposal of solid waste, drill cutting and drill fluids as per notified vide GSR.546 (E) dated August 30, 2005.
II.	The company should monitor Non-Methane Hydrocarbons (NMHC).	Online gas chromatograph has been installed in Gas Gathering Station. Methane & Non-Methane Hydrocarbons Report (**Appendix-A**), Ambient Air Quality Report (**Appendix-B**), Gas generator Exhaust (Flue gas) (**Appendix-G**) & Feed Gas Quality Analysis (**Appendix-H**) is attached.
III.	The drilling shall be restricted to the mine free area. The company shall use water-based drilling mud.	The drilling is done in mines free area only. Water based drilling mud is used.
IV.	The surface facilities shall be installed as per applicable codes and standards, international practices, and applicable local regulations.	The surface facilities have been installed as per applicable codes and standards, international practices, and applicable local regulations.
V.	The topsoil removed wherever suitable shall be stacked separately for reuse during restoration process.	Topsoil removed during well site development are stored separately and covered with polythene sheet. After drilling is over, this topsoil is re-used for restoring the area.
VI.	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 onshore disposal.	Waste drilling fluid and separated drill cuttings are stored onsite in impervious HDPE lined pit for natural evaporation and drying. Drill cuttings are evaluated as per US EPA 1311 and have been found to be non-toxic. After completion of operation, dried drill cuttings are covered in place using topsoil stored previously. The surface is graded to prevent water accumulation, and the area is re-vegetated with native species to reduce the potential for erosion and promote full recovery of the area's ecosystem. Drill cutting reports have been submitted previously. No drilling activity since September 11, 2013. After restarting drilling operation, latest drill cutting reports shall be submitted in the compliance report.
VII.	The company shall take necessary measures to prevent fire hazards and soil remediation as needed. At place of ground flaring, the flaring pit shall be lined with refractory bricks, and efficient burning system shall be provided. In case of overhead flare stacks, the stack height shall be provided as per the norms to minimize gaseous emission and heating load during flaring.	Portable fire extinguishers are available at every well site. Gas gathering station has been provided with fire hydrant system and sprinkler system. Automatic gas detection system has also been provided in GGS as stipulated in Oil Mines Regulation 2017 and OISD 189. Overhead stack of 30 meters has been provided at GGS.
VIII.	The produced water during drilling operations shall be collected in the lined waste pits to prevent ground water contamination. The water shall be treated to the prescribed standards before disposal. The treated produced water shall be	Produced water is collected in lined pit and analyzed quarterly as per CPCB guidelines. Analysis reports attached as (**Appendix-C**). The production well water is being re- used in fire hydrants and other operations.

	used for irrigation, pisciculture and ground water recharge etc.	
IX.	The company shall take necessary measures to reduce noise levels at the drill site by providing mitigation measures such as proper acoustic enclosures to the DG set and meet the norms notified by the MoEF&CC. Height of all the stacks/vents shall be provided as per the CPCB guidelines.	DG sets with acoustic enclosures are operated at the drill site. DG set stack monitoring is done on monthly basis. Stack emission report for DG sets operating at GEECL's sites is attached **(Appendix-D)** At production wells gas generators are used to reduce use of fossil fuel. The company has taken the following measures to reduce noise levels: • Provision of silencers & Thermal claddings. • Regular maintenance & inspection of machinery & equipment. • Use of ear plugs/muffs.
X.	The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the oil shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.	GEECL is following the standards for design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the Coal Bed Methane gas: ASME/ANSI B 31.8-Gas Transmission & Distribution Piping System OISD-STD-226-Natural Gas Transmission Pipelines and City Gas Distribution Networks OISD-STD-141-Design and Construction requirements for cross Country Hydrocarbon Pipeline. API 1102-Recommended Practice for Steel Pipelines crossing Rail, Road, and Highways API 1104-Standard for Welding Pipelines and Related facilities API-1107-Recommended Pipeline Maintenance Welding Practices API 5L-Specification for Line Pipes API 6D-Specifications for pipeline valves NACE-SP-01-69-2007 (formerly Known as NACE-RP-01-69-2002)-Recommended Practice Control of External Corrosion on Underground or Submerged Metallic Piping Systems.
XI.	Annual safety audit should be conducted for the initial three years by an independent agency and report submitted to this Ministry of ensuring the strict compliance of safety regulations on operation and maintenance.	This is complied.
XII.	The project authorities should plant a minimum of 10 trees for every cut along the pipeline route in consultation with the local Divisional Forest Officer (s).	Due care is being taken so that felling of trees is prevented. However, the condition will be complied if there is a need for trees to fall in pipeline route.
	The project authorities should install SCADA system with dedicated optical fiber-based telecommunication link for safe operation of pipeline and Leak Detection System. Additional sectionalizing valves in the residential areas and sensitive installations should be provided to prevent the amount of gas going to the	GPRS based SCADA System has been installed at GEECL's Gas Gathering Station for well site flow monitoring, optical fiber-based SCADA system is installed at Gas Gathering Station for operational control and GPRS based SCADA system implemented for custody transfer. A similar system is being extended for SV

XIII.	atmosphere in the event of pipeline system for internal corrosion monitoring. Coating and impresses current cathodic protection system should be provided to prevent external corrosion.	stations. Sectionalizing Valves (SV) has been provided as per codes i.e., OISD 226 and ASME B 31.8. Permanent pigging facility is available for some of the sections of pipeline and temporary pigging arrangement is planned for sections other than above. Additionally, for internal corrosion monitoring GEECL has conducted the pipeline health check-up survey to identify the steel thickness losses and coating in February 2016. As per standard NACE RP-0502 (2002) (Pipeline external corrosion direct assessment methodology and its clause Cl.3.4 selection of indirect inspection tools and sub clause 3.4.1.3) pipeline coating and cathodic protection system has been provided with 'Impressed Current Cathodic Protection' (ICCP) for steel pipelines to prevent external corrosion.
XIV.	The project authorities shall patrol and inspect the pipeline regularly for detection of faults as per OISD guidelines and continuous monitoring of pipeline operation by adopting non-destructive method (s) of testing as envisaged in the EMP. Pearson survey and continuous potential survey should be conducted at regular intervals to ensure the adequacy of cathodic protection system.	GEECL conducts patrolling once in 15 days for downstream pipeline & Once in a month for upstream Pipeline with resolute patrolling staff. Monitoring and maintenance schedule of pipeline has been implemented as per OISD STD-130, 145, 188 & 226. For adequacy of cathodic protection system, CAT/Pearson survey and DCVG/continuous potential survey are being conducted as per the frequency given in OISD 226. The last survey was conducted in FY-2024-25. Next survey is scheduled in 2029-30, Apart from above GEECL takes PSP reading at feeding points on fortnightly basis.
XV.	Proper infrastructure and sanitation facilities shall be provided for the construction workers during construction. All the construction waste shall be managed so that there is no impact on the surrounding environment.	Infrastructure and sanitation facilities have been provided during entire construction jobs and shall be continued for the drilling of remaining wells after restart of drilling activity.
XVI.	The company shall take necessary measures to prevent fire hazards, containing oil spills and soil remediation as need.	Portable fire extinguishers and fire hydrant systems are available to prevent fire hazards. Daily inspection of equipment is done to check oil leaks from equipment. Drip pans are provided to prevent oil spills.
XVII.	The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA/EMP/risk analysis report as well as the recommendations of the public hearing panel.	Being Complied.

Sr. No.	Part B General Conditions	Status of Compliance
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.	GEECL is observing and complying with all the applicable laws and regulations laid down by the West Bengal State Pollution Control Board and the State Government from time to time.
II.	No further expansion or modification in the project shall be conducted 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.	Prior Environmental Clearance has been obtained for an additional 200 Wells and associated facilities for compression and distribution of CBM gas. (Ref F. No. J-11011/352/2010-IA II (I), November 24, 2011, and Environmental clearance validity extension letter dated May 1, 2019, issued by MOEF&CC for extending the validity till November 24, 2021, and Amendment in Environmental Clearance letter dated November 25, 2020, issued by Ministry of Environment, Forest and Climate Change). Furthermore, existing amended EC extended till November 24, 2022, by Government of India (Ministry of Environment, Forest, and Climate Change) Gazette notification S.O. 221(E) dated January 18, 2021. OM dated April 12, 2022, issued towards extension of the validity of the EC No. J-11011/352/2010-IA II (I) by 1 year till November 24, 2023, with all other terms and conditions remaining unchanged. The Half yearly compliance is being submitted for both Environmental Clearances.
III.	The project authorities must comply with the rules and regulations under Manufacture, Storage, and Import of Hazardous Chemicals Rules, 2000 as amended subsequently. Prior approvals from Chief Inspector of Factories, Chief Controller of Explosive, Fire Safety Inspectorate etc. must be obtained, wherever applicable.	This is compiled and shall further be complied during project execution.
IV.	The project authorities must comply with the rules and regulations about handling and disposal of Hazardous Wastes (Management and Handling) Rules, 1989/2003 wherever applicable. Authorization from the State Pollution Control Board must be obtained for collections/ treatment/ storage/ disposal of hazardous wastes.	Being complied.
V.	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 EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Cladding and acoustic enclosures are provided at compressor areas to bring further noise level to acceptable level. Periodic upkeep of the above measures will be taken to mitigate the issue of noise level in specific locations. Further, at the boundary of both GGS we have acceptable level of noise as per EPA rules. Additional measures for providing Earmuffs and earplugs are available close to compressor and GG set area. Noise Monitoring Report is attached (**Appendix–E)**

VI.	A separate Environmental Management Cell equipped with full-fledged laboratory facilities must be set up to conduct the environmental management monitoring functions.	A dedicated Environment Management Cell is formed within the Organization for constant Improvement, Monitoring, Safeguarding, and reporting of environmental Activities. The environment management cell comprises of Assistant General Manager Geology, General Manager -QHSE and Manager- Safety Environmental monitoring and the laboratory facility of Mitra S. K. Private Limited, approved by MoEF&CC & West Bengal State Pollution Control Board is being utilized. However, during Drilling operations a separate laboratory will be made available at site as per requirement for testing and monitoring purpose.
VII.	The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds provided shall not be diverted for any other purposes.	The separate Health, Safety and Environment budget is allocated every year pertaining to implementation of conditions Stipulated by MoEF&CC and State Government and are not diverted for any other purpose.
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.	Being complied/shall further be complied.
IX.	The Project Proponent shall inform the public that the project has been accorded environmental clearance by Ministry and copies of the clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Forests at http:/www.envfor.nic.in. This shall be advertised within seven days of the issues of this letter in at least two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned.	Press advertisement published on July 06, 2007, in Bangla newspaper and The Business Standard (English), copy submitted to MoEF&CC, Regional office Bhubaneswar vide our letter dated November 16, 2009.
X.	The Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and financial approval of the project by the concerned authorities and the date of commencing the land development work.	The same has been complied.
XI.	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management & Handling) Rules, 1989, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	The company is complying with 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 Wastes (Management & Handling) Rules, 1989, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

Annexure - II
Compliance Status of conditions of Environmental Clearance
F. NO. J-11011/352/2010-IA II (I) November 24, 2011
Monitoring Report - 29
Monitoring Period (October-2025 to March-2026)
Part – I
DATA SHEET

1.	Name of the project	Expansion of Exploration & Production of Coal Bed Methane Gas in Raniganj (South) CBM Block, West Bengal by M/s Great Eastern Energy Corporation Ltd.
2.	Clearance letter No. & date.	F. NO. J-11011/352/2010-IA II (I), November 24, 2011, and Environmental clearance validity extension letter dated May 01, 2019, issued by Ministry of Environment, Forests and Climate Change for extending the validity till November 24, 2021, and Amendment in Environmental Clearance letter dated November 25, 2020, issued by Ministry of Environment, Forest, and Climate Change. Furthermore, existing amended EC extended till November 24, 2022, by Government of India (Ministry of Environment, Forest, and Climate Change) Gazette notification S.O. 221(E) dated January 18, 2021. OM dated April 12, 2022, issued towards extension of the validity of the EC No. J-11011/352/2010-IA II (I) by 1 year till November 24, 2023, with all other terms and conditions remaining unchanged.
3.	Locations:	Raniganj (South) CBM Block
	a. District (s)	Paschim Bardhaman, Bankura & Purulia
	b. State (s)	West Bengal
4.	Address of Contact Person at Registered Office (with pin code) & telephone/fax numbers	Jairam K Shrinivasan Joint President- Operations & HR Great Eastern Energy Corporation Ltd., M-10, ADDA Industrial Estate, Asansol - 713 305, West Bengal. Ph. No. +91-341-662 8818 Cell No. +91-81700-03140 Fax: +91-341-662 8811 Email: jkshrini@geecl.com URL: www.geecl.com

Part – II

Sr. No.	Part A: Specific Conditions	Status of Compliance
I.	All the specific conditions and general conditions specified in the earlier environmental clearance letters accorded via the Ministry's letter no. J-11011/264/2007-IA II (I) dated June 28, 2007, shall be complied.	The company is complying with all the specific conditions and general conditions specified in the earlier environmental clearance letter accorded vide Ministry's letter no. J-11011/264/2007-IA II (I) dated June 28, 2007, and half yearly compliance reports are being submitted regularly to MoEF&CC New Delhi, Bhubaneswar, WBPCB and CPCB.
II.	As proposed, only 200 pilot-cum-production wells shall be drilled up to a depth of 1100m. No additional wells shall be drilled without prior permission from this Ministry.	200 pilot-cum-production wells shall be drilled up to a depth of 1100m. In case of additional wells, prior permission from the Ministry shall be taken.
III.	As proposed, no forest land shall be used for the proposed facilities. No Forest land shall be used for the installation of Group Gathering Stations and Pipeline laying in the proposed locations.	No forest land shall be used for the proposed facilities and laying of pipeline.
IV.	Permission and recommendation of the State Forest Department shall be obtained regarding impact of the proposed exploration and production wells on the Biharinath PF and Gourangi Pahar PF, and all the recommendations shall be implemented in a time-bound manner.	Permission and recommendation of the West Bengal Forest Department obtained and submitted on July 12, 2012, along with Monitoring Report 01. No CBM Exploration & Production activity is conducted near Biharinath sector and Poradiha sector which covers Biharinath PF and Gourangi Pahar PF. Recommendation of permission shall be implemented in time bound manner if drilling activity is planned near this sector.
V.	Compensation for the land acquisition to the land oustees, if any, and for standing crops 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 NRRP, 2007.	Lands are purchased from the owner on need basis at the prevailing market price. Forest land will not be acquired. Compulsory land acquisition under the Land Acquisition Act 1984, as amended till date, will not be resorted to.
VI.	All the surface facilities including GGS, CGS, and SV Station shall be as per applicable codes and standard, international practices and applicable local regulations.	Both GGS facilities are as per Oil Mines Regulation 2017 and CGS facility having CNG filling station is as per OISD-STD-179 and pipeline design facility is as per ASME B31.8.
VII.	Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standard (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 should be made to improve the ambient air quality of the area.	Ambient Air Quality is being monitored for existing & expansion project. (**Appendix-B)**
VIII.	The company shall monitor data on methane and non-methane hydrocarbon at the drilling site,	This is complied. Report submitted as **Appendix-A, B, G & H**

	GGS, CGS, and at the SV station from where the gas is supplied to the customer.	
IX.	Mercury shall be analyzed in air, water and drill cutting twice during drilling period.	It is unlikely that there will be any mercury in the emissions, effluents, and drill cuttings from the proposed project during drilling period. Also, in previous monitoring of CBM produced water and drill cutting, mercury has never been reported. However, GEECL monitors mercury in air, water & drill cutting (Ref. **Appendix-B & C**)
X.	The flare system should be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The company shall take 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 an efficient burning system. In case of overhead flare stacks, the stack height shall be provided as per the regulatory requirements and emissions from stacks shall meet the MoEF&CC/CPCB guidelines.	The flare system is designed based API 521 and 537. Measures to prevent fire hazards are in place. Automatic gas detection system has been installed at GGS. Elevated flare system with stack height 30 meters as per CPCB guidelines has been installed at GGS.
XI.	The company shall make the arrangement for control of noise from 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&CC. Height of all the stacks/vents shall be as per the CPCB guidelines.	DGs have acoustic enclosure with stack height in accordance with CPCB guidelines. Compressors have in built systems for control of noise and vibration. Operators at compressor area are provided with earmuffs. DG set stack monitoring is done on monthly basis. Stack emission report for DG sets operating at GEECL's sites is attached (**Appendix-D**). All the DG sets have been replaced with GG sets at all producing well sites to reduce the environment footprint. Gas genset Exhaust report attached as (Flue gas) (**Appendix-G**) The company has taken the following measures to reduce noise levels: • Provision of silencers & Thermal claddings. • Regular maintenance & inspection of machinery & equipment. • Use of ear plugs/muffs.
XII.	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 August 30, 2005.	The Company is complying with the guidelines for disposal of solid waste, drill cutting and drill fluids as per notified vide GSR.546 (E) dated August 30, 2005.
XIII.	Total freshwater requirements from local approved water suppliers shall not exceed $75m^3$/day for each well during drilling phase and $2m^3$/day for each GGS & $1m^3$/day at each CGS during operation phase and prior permission shall be obtained from the concerned Authority and a	GEECL re-uses CBM Produced water in its operation like fire hydrants and other operation.

	copy submitted to the Ministry's Regional Office at Bhubaneswar. No ground water shall be used without permission from CGWA/SGWA.	
XIV.	During drilling and development of wells, wastewater (64 m^3 per well) will be segregated into waste drilling fluid and drill cuttings. Drill cutting shall be stored onsite impervious HDPE lined pit for solar evaporation and drying. Effluent shall be properly treated and treated effluent shall conform to CPCB standards. The produced water @ 25m^3/day/well shall be stored onsite HDPE lined pit for solar evaporation and reuse in drilling of new wells and fire hydrant system. No effluent shall be discharged outside the premises, and 'Zero' discharge concept shall be adopted. Domestic effluent shall be disposed of through septic tank followed by soak pit.	Drill cutting is stored onsite impervious HDPE lined pit for solar evaporation and drying. The produced water is stored onsite HDPE lined pit for solar evaporation and reused in drilling of new wells and fire hydrant system. domestic effluent is disposed of through septic tank followed by soak pit.
XV.	Ground water quality monitoring should be done to assess if produced water storage or disposal has any effect.	Ground water quality monitoring report is attached as **Appendix F.**
XVI.	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 onshore disposal on land. Proper toxicological analysis shall be carried out to ensure there is no hazardous material. The treated wastewater shall be reused in other wells during drilling operations. Copy of toxicological analysis shall be submitted to Ministry's Regional Office at Bhubaneswar.	No drilling activity since September 11, 2013. After restart of drilling operation, latest drill cutting reports shall be submitted in the compliance report.
XVII.	Only water-based drilling mud shall be used. The drilling mud shall be recycled. Hazardous waste shall be disposed of as per Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers/reprocesses.	Water based drilling media is being/shall be used. Hazardous waste, Used Oil, Waste containing oil and Used oil filters is disposed through authorized recyclers.
XVIII.	The company shall conduct long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and its Regional Office at Bhubaneswar.	To date, no surface subsidence has been associated with coal bed methane development in USA. DGH initiated a study on probable land subsidence due to extraction of oil & natural gas from shallow reservoir in Bheema Gas field (Block CB-ONN-2000/2), near Surat Gujarat, where the gas reservoir is at a shallow depth (about 200 meters below the ground surface level), apprehending a possibility of land subsidence. Land subsidence investigation conducted by CMRI from August 2004 to June 2005 led to the conclusion that there is not any land subsidence movement following 1.6 - 4.7

		kg/cm2 pressure depletion at shallow gas reservoirs. Copy of DGH reports submitted with monitoring report - 1 of expansion project. However, as mentioned in certified compliance Report Letter No. 102-157/12/EPE/134 Dated 02.05.2024, We have carried out through IISER, Mohali, the Long-term Land subsidence study for Raniganj South CBM block for 210 sq. Km area since 2019 and assigned them contract for continuation of the study going forward. Report is a**ttached in Appendix -I**
XIX.	The company shall take necessary measures to prevent fire hazards, containing oil spills 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.	System for prevention of fire hazards, containment of oil spill and soil remediation is in place. There is no ground flaring. Overhead flare system is provided with knockout drums and same is adopted for expansion project.
XX.	The project authorities shall install SCADA system with dedicated optical fiber-based telecommunication link for safe operation of pipeline and Leak Detection System. Additional sectionalizing valves in the residential area and sensitive installations shall be provided to prevent the amount of gas going to the atmosphere in the event of pipeline failure. Intelligent pigging facility shall be provided for the entire pipeline system for internal corrosion monitoring. Coating and impressed current Cathodic protection system shall be provided to prevent external corrosion.	GPRS based SCADA system has been installed at GEECL's Gas Gathering Station for well site flow monitoring, optical fiber-based SCADA system is installed at Gas Gathering Station for operational control and GPRS based SCADA system implemented for custody transfer. A similar system is being extended to SV stations. Sectionalizing Valves (SV) has been provided as per codes i.e., OISD 226 and ASME B 31.8. Permanent pigging facility is available for some of the sections of pipeline and temporary pigging arrangement is planned for sections other than above. Additionally, for internal corrosion monitoring GEECL has conducted the pipeline health check-up survey to identify the steel thickness losses and coating in February 2016. As per standard NACE RP-0502 (2002) (Pipeline external corrosion direct assessment methodology and its clause Cl.3.4 selection of indirect inspection tools and sub clause 3.4.1.3) pipeline coating and cathodic protection system has been provided with 'Impressed Current Cathodic Protection' (ICCP) for steel pipelines to prevent external corrosion.
XXI.	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.	These conditions are complied with and shall be complied with for expansion project also. Fire protection measures are available at all well sites as per OISD 189. Flare stack of 30 meters as per CPCB guidelines provided.
	To prevent underground coal fire, preventive measures shall be taken for ingress of ambient air	There will be no underground coal fire during drilling as the drilling media is water

XXII.	during withdrawal inside the coal seams by adopting technologies including vacuum suction. Gas detectors for the detection of CH_4 and H_2S should be provided.	based. Portable gas detectors for methane are available during drilling operation. Coal Bed Methane gas does not contain H_2S.
XXIII.	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.	These conditions are being complied.
XXIV.	Annual safety audit shall be conducted for the initial three years by an independent agency and report submitted to this Ministry to ensure strict compliance of safety regulations on operations and maintenance.	This is complied.
XXV.	The project authorities shall patrol and inspect the pipeline regularly for detection of faults as per OISD guidelines and continuous monitoring of pipeline operation by adopting non-destructive method (s) of testing as envisaged in the EMP. Pearson survey and continuous potential survey should be conducted at regular intervals to ensure the adequacy of Cathodic protection system.	These conditions are being complied.
XXVI.	The company 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.	Coal Bed Methane gas does not contain H_2S.
XXVII.	Adequate well protection systems shall be provided like Blow Out Preventer (BOP), or diverter systems as required based on the geological formation of the blocks.	BOP shall be used in future field development campaigns.
XXVIII.	The topsoil removed shall be stacked separately for reuse during restoration process.	Topsoil excavated from air pits and mud pits are stored separately and covered with plastic and are being re-utilized at well site at floor bed area.
XXIX.	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.	Emergency Preparedness and Response Plan are in place and implemented for existing & expansion project.
XXX.	Project proponent shall comply with the environment protection measures and safeguards recommended in the EIA/EMP/risk analysis report/disaster management plan.	This is being Complied.
	The company shall take measures after completion of drilling process by well plugging	This shall be followed in case any abandonment is required.

XXXI.	and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored in original condition. If no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.	OISD Standard 175 shall be followed in case of abandonment.
XXXII.	Occupational health surveillance of the workers shall be conducted as per the prevailing Acts and Rules.	GEECL has policy for pre-employment medical check-ups. Subsequent periodic examinations are undertaken for those employees who participate in operational work where health problems are likely to occur. All major operational activities for well drilling and completion are outsourced to competent national and international service providers. Occupational Health Surveillance of work force of service provider is ensured in accordance with their company's policy.
XXXIII.	Company shall adopt Corporate Environment Policy as per the Ministry's O.M. No. J-11013/41/2006-IAII (I) dated April 26, 2011, and implemented.	GEECL has implemented and is certified for ISO 14001:2015 (Environment Management System), ISO 45001:2018 (Occupational Health & Safety Management System) and ISO 9001:2015 (Quality Management System). These International Management Systems contain the intent of Corporate Environment Policy as per the Ministry's O.M. No. J-11013/41/2006-IA. II (I) dated April 26, 2011.
XXXIV.	Provision shall be made for the housing of construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, 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.	Local workforces are engaged during site developments which are provided with temporary sanitation arrangement, drinking water etc. during the job.

Sr. No.	Part B General Conditions	Status of Compliance
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.	GEECL is observing and complying with all the applicable laws and regulations laid down by the West Bengal State Pollution Control Board and the State Government from time to time.
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.	No further expansion or modification in the project shall be conducted without prior approval of the Ministry of Environment, Forests and Climate Change.
III.	The project authorities must comply with the rules and regulations under Manufacture, Storage, and Import of Hazardous Chemicals Rules, 2000 as amended subsequently. Prior approvals from the Chief Inspector of Factories, Chief Controller of Explosive, Fire Safety Inspectorate etc. must be obtained, wherever applicable.	This is complied with and shall further be complied during project operation.
IV.	The project authorities must comply with the rules and regulations regarding handling and disposal of Hazardous Wastes (Management and Handling) Rules, 2008 wherever applicable. Authorization from the State Pollution Control Board must be obtained for collections/treatment/storage/disposal of hazardous wastes.	Authorization received from WBPCB.
V.	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 EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Cladding and acoustic enclosures are provided at compressor areas to bring further noise level to an acceptable level. Periodic upkeep of the above measures will be taken to mitigate the issue of noise level in specific locations. Further, at the boundary of both GGS we have acceptable level of noise as per EPA rules. Additional measures for providing Earmuffs and earplugs are available close to compressor and GG set area. Noise Monitoring Report is attached as **Appendix–E**
VI.	A separate Environmental Management Cell equipped with full-fledged laboratory facilities must be set up to conduct environmental monitoring functions.	A dedicated Environment Management Cell is being formed Within the Organization for constant Improvement, Monitoring, Safeguarding, and reporting of Environmental Activities. The environment management cell comprises of an Assistant General Manager Geology, General Manager -QHSE and Manager- Safety

		Environmental monitoring and laboratory facilities of Mitra S. K. Private Limited, approved by MoEF&CC & West Bengal State Pollution Control Board, is being utilized. However, during Drilling operations separate laboratories are made available at site for testing and monitoring purpose.
VII.	The Company shall earmark sufficient funds for environmental protection and pollution control measures shall be used to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds provided shall not be diverted for any other purposes.	Adequate funds have been provided for implementing the conditions stipulated by the MoEF&CC & WBPCB and the State Government and are not diverted for any other purpose.
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 of expansion project is being/shall be submitted to authorities.
IX.	The proponent shall send a copy of clearance letter to Panchayat, Zila Parishad/ Municipal Corporation, Urban Local Body, and the local NGO, if any, from whom suggestions/ representations were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	This is complied.
X.	The project proponent shall upload the status of compliance of 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&CC, the respective Zonal office of CPCB and the WBPCB. The criteria pollutant levels namely PM10, SO2, NOx, HC (Methane and Non-methane), VOCs (ambient level as well as stack emissions) or critical Sectoral parameters indicated for the projects shall be monitored and displayed at convenient location near the main gate of the company in the public domain.	Display of critical sectoral parameters for the project like ambient levels, stack emissions are being displayed at strategic locations.
XI.	The project proponent shall also submit six monthly reports on the status of the compliances 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&CC, the respective Zonal office of CPCB and WBPCB. The Regional Office of	This is being complied.

	this Ministry/CPCB/WBPCB shall monitor the stipulated conditions.	
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 Environmental (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 be sent to the respective Regional offices of the MoEF&CC by e-mail.	This is being complied/shall further be complied.
XIII.	The Project Proponent shall inform the public that the project has been accorded environmental clearance by Ministry and copies of the clearance letter are available with the WBPCB and may also be seen at Website of the Ministry of Forests at http:/www.envfor.nic.in. This shall be advertised within seven days of the issues of this letter in at least 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.	This has been completed. Copy submitted on July 12, 2012, with Monitoring Report - 1 for the EC letter no. F. NO. J-11011/352 /2010-IA II (I) November 24, 2011.
XIV.	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 commencing the land development work.	This has been completed. Copy submitted on July 12, 2012, with Monitoring Report-1 for the EC Letter no. F. NO. J-11011/352/2010-IA II (I) November 24, 2011.
XV.	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (management & Handling) Rules, 1989, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	The company is complying with 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 Wastes (Management & Handling) Rules, 1989, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

Annexure - III

Compliance Status of conditions of Environmental Clearance

F. No. EN/T-II-1/043/2022, EC No. EC23B002WB112414(B2) April 27, 2023

Monitoring Report - 6

Monitoring Period (October-2025 to March-2026)

DATA SHEET

1.	Name of the project	Drilling of 20 Shale gas Exploratory Wells in Raniganj (South) CBM Block, West Bengal by Great Eastern Energy Corporation Limited.
2.	Clearance letter No. & date.	F. No. EN/T-II-1/043/2022 Proposal No. SIA/WB/IND2/278404/2022 June16,2022 and Environmental clearance no.EC23B002WB112414, issued by West Bengal SEIAA on April 27, 2023.
3.	Locations:	Raniganj (South) CBM Block
	a. District (s)	Paschim Bardhaman, Bankura & Purulia
	b. State (s)	West Bengal
4.	Address of Contact Person at Registered Office (with pin code) & telephone/fax numbers	Jairam K Shrinivasan Joint President- Operations & HR Great Eastern Energy Corporation Ltd., M-10, ADDA Industrial Estate, Asansol - 713305, West Bengal. Ph. No. +91-341-662 8818 Cell No. +91-81700-03140 Fax: +91-341-662 8811 Email: jkshrini@geecl.com URL: www.geecl.com

Sr. No.	I. Statutory Compliance	Status of Compliance
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.	No forest land shall be used for the proposed facilities and laying of pipeline.
ii.	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Not Applicable
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)	Not Applicable
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.	The company has obtained Consent to Establish (Memo No. 290-2N-334/2005(E) dated March 02, 2026, valid until 31.12.2032) and maintains a valid Consent to Operate (Ref. No. WBPCB /4783919/ 2024, valid until 31.01.2029) covering all existing operations.
v.	Necessary authorization required under the Hazardous and Other Wastes (Management and Trans- Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.	The company has necessary authorization under the provision of hazardous and other wastes required under the hazardous and other wastes (Management and Trans-Boundary Movement) Rule ,2016. Ref. No. WBPCB/ 3654353/2023.
vi.	The project proponent shall obtain and adhere to statutory clearance under the Coastal Regulation Zone Notification, 2011, as applicable.	The project is not in Coastal Regulation Zone.
Sr. No.	**II. Air quality Monitoring and preservation**	**Status of Compliance**
i.	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R.No.826(E) dated 16th November 2009 shall be complied with.	The company is complying with the National Ambient Air Quality Emission standard issued by the Ministry vide G.S.R.No.826 (E) dated 16th November 2009. Ambient Air Quality Monitoring is being carried out for existing project **(Attached report Appendix-B)**
ii.	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).	Not applicable.

	The gaseous emissions shall be dispersed through stack of adequate height as per CPCB / SPCB guidelines.	
iii.	The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	The location of Ambient air quality monitoring station shall be carried out as per guidelines of SPCB.
iv	Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R.No.826(E) dated 16th November 2009 for PM10, PM2.5, SO2, NOx, CO, CH4, HC, Non-methane HC etc.	Ambient Air Quality is being monitored for existing & expansion projects. (**Appendix-B)**
v.	During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera / appropriate technology.	Gas detection system has been installed in GGS which has infrared technology and connected with SCADA for any methane emission.
vi	The project proponent also to ensure trapping / storing of the CO_2 generated, if any, during the process and handling.	Not applicable.
vii.	Approach road shall be made pucca to minimize generation of suspended dust.	Once the project starts, approach roads shall be made pucca as per requirement to minimize generation of suspended dust.
Sr. No.	**III. Water quality monitoring and preservation**	**Status of Compliance**
i.	As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste / treated water shall be discharged to any surface water body, sea and / or on land. Domestic sewage shall be disposed of through septic tank / soak pit.	Wastewater at well sites shall be collected in an evaporation pit and the pit will be lined with High Density Polyethylene (HDPE) liner to prevent percolation of the water into the ground. After natural evaporation, excess water will be used for our operation during drilling of new wells with zero discharge to any streams.
ii.	The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air / Water Act, whichever is more stringent.	Shall be complied.
iii	Total freshwater requirements shall not exceed the proposed quantity or as specified by the Committee. Prior permission shall be obtained from the regulatory authority concerned / CGWA in this regard.	GEECL re-uses CBM Produced water in its operation like fire hydrant and other operations.
iv.	The company shall construct garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. A separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated, and wastewater shall conform to CPCB standards.	Well pads will be prepared as per regulations/best practices. GEECL is going to drill only exploration wells hence there will not be any generation of oil containing waste and thus there won't be any runoff. Effluent in the form of waste mud will be tested and generated waste will be identified based on HWMH Rules 2016 and will be

		disposed accordingly, and solid waste will be disposed as per CPCB standards.
v.	Drill cuttings separated from drilling fluid shall be adequately washed and disposed of in HOPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed of according to HWMH Rules, 2016. No effluent / drilling mud / drill cutting shall be discharged / disposed of into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste and drill cutting fluids for onshore drilling operation notified vide GSR.545 (E) dated 30th August 2005.	Shall be complied during drilling operation.
Sr. No.	**IV. Noise monitoring and prevention**	**Status of Compliance**
i.	The company 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.	DG sets with acoustic enclosures are operated at the drill site. DG set stack monitoring is done on monthly basis. Stack emission report for DG sets operating at GEECL's sites is attached **(Appendix-D)** At production wells gas generators are used to reduce use of fossil fuel. The company has taken the following measures to reduce noise levels: • Provision of silencers & Thermal claddings. • Regular maintenance & inspection of machinery & equipment. • Use of ear plugs/muffs.
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.	Cladding and acoustic enclosures are provided at compressor areas to bring further noise level to an acceptable level. Periodic upkeep of the above measures will be taken to mitigate the issue of noise level in specific locations. Further, at the boundary of both GGS we have acceptable level of noise as per EPA rules. Additional measures for providing Earmuffs and earplugs are available close to compressor and GG set area. Noise Monitoring Report is attached as **Appendix–E.**
iii.	The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime)	This is compiled and shall further be complied during project operations.
Sr. No.	**V. Energy Conservation measures**	**Status of Compliance**
i	The energy source for lighting purposes should preferably be LED based.	This shall be completed during project execution.
Sr. No.	**VI. Waste management**	**Status of Compliance**
	Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage / contamination, action plans should be prepared to clean the site by adopting proven technology. The	Spill management plan is in place. For oil spillage prevention and mitigation, oil storage areas have concrete bunds or kept with secondary containment available

i.	recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.	underneath to avoid any containment Spill kit and dip trays are also made available. Waste disposal and recycling are being done by authorized agency.
ii.	Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the State Environment Impact Assessment Authority.	Oil content in the drill cutting shall be monitored by NABL agency and reports will be submitted along with compliance reports after starting the Drilling activity. No drilling activity has been conducted since September 11, 2013.
Sr. No.	**VII. Safety, Public hearing and Human Health Issues.**	**Status of Compliance**
i.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan are in place and implemented for exiting & expansion project.
ii	Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.	This shall be followed during drilling of shale exploration wells.
iii.	Company should prepare operating manual with respect to all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manuals 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.	Shall be complied.
iv.	On completion of drilling, the company must plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.	Shall be complied.
v.	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 the area in original condition. If no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.	This shall be followed in case any abandonment is required. OISD Standard 175 shall be followed in case of abandonment.
vi.	The Company shall take necessary measures to prevent fire hazards, containing oil spills and soil remediation as needed. Possibility of using ground flares shall be explored. At the place of ground flaring, the overhead flaring stack with knockout	System for prevention of fire hazards, containment of oil spill and soil remediation is in place. There is no ground flaring. Overhead flare system is provided with knockout drums and same is adopted for expansion project.

	drums shall be installed to minimize gaseous emissions during operation.	
vii.	Training shall be imparted to all employees on the safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training in all employees on handling of chemicals shall be imparted.	Required training is imparted to all employees in the safety and health aspects of chemical handling. GEECL has policy for pre-employment medical check-ups. Subsequent periodic examinations are undertaken for those employees who participate in operational work where health problems are likely to occur.
viii.	The company 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 location of high risk of exposure along with self-containing breathing apparatus.	Coal Bed Methane gas does not contain H2S.
ix.	Provision shall be made for the housing of construction labor 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.	This shall be complied with during project execution.
x.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	GEECL has policy for pre-employment medical check-ups. Subsequent periodic examinations are undertaken for those employees who are involved in operational work where health problems are likely to occur. All major operational activities for well drilling and completion are outsourced to competent national and international service providers. Occupational Health Surveillance of work force of service provider is ensured in accordance with their company's policy.
xi.	The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry of Environment, Forests & Climate Change / State Environment Impact Assessment Authority / State Pollution Control Board.	Drilling operation yet to start, However, we carried out long term subsidence study for CBM wells. Report is attached in **Appendix -I**
Sr. No.	**VIII. Environment Management Plan (EMP)**	**Status of Compliance**
i.	The project proponent should submit the proposed EMP on a six-monthly basis. The Office Memorandum issued by the Mo EF & CC vide F. No. 22-65/2017-IA.III dated 30.09.2020 should be strictly followed.	This is complied and shall further be complied during project operations.
ii.	The project proponent shall install display board for display of all the environmental parameters including sensor-based air, water and noise quality monitoring stations within their premises.	Noted.

iii	Need-based activities for local people are part of the EMP. Details of such activities submitted by the project proponent are given in annexure 2	Need-based activity for local people shall be complied.
iv.	The company should have a well-laid-down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation / violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the Ministry of Environment, Forests & Climate Change / State Environment Impact Assessment Authority / State Pollution Control Board as a part of six-monthly report.	GEECL has implemented and is certified for ISO 14001:2015 (Environment Management System), ISO 45001:2018 (Occupational Health & Safety Management System) and ISO 9001:2015 (Quality Management System). These International Management Systems contain the intent of Corporate Environment Policy as per the Ministry's O.M. No. J-11013/41/2006-IA. II (I) dated April 26, 2011.
v.	A separate Environmental Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions, with qualified personnel shall be set up under the control of Senior Executive, who will directly to the head of the organization.	A dedicated Environmental Management Cell is formed within the Organization for constant Improvement, Monitoring, Safeguarding, and reporting of Environmental Activities. The environment management cell comprises of Assistant General Manager Geology, General Manager -QHSE and Manager- Safety Environmental monitoring and the laboratory facility of Mitra S. K. Private Limited, approved by MoEF&CC & West Bengal State Pollution Control Board is being utilized. However, during Drilling operations a separate laboratory will be made available at site for testing and monitoring purpose if deemed necessary.
vi.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate accounts and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry of Environment, Forests & Climate Change / State Environment Impact Assessment Authority / State Pollution Control Board along with the Six-Monthly Compliance Report.	Shall be complied
vii.	Self-environmental audits shall be conducted annually. Every three years third party environmental audit shall be carried out.	Audit is being conducted on every year and three-year intervals by Third Party agency

		on ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018.
Sr. No.	**IX. Miscellaneous**	**Status of Compliance**
i.	The environmental clearance agreed with shall be valid for a period of 10 years for the proposed project.	Noted.
ii.	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.	Press advertisement published on May 03, 2023, in Bangla newspaper Ananda bazar Patrika and The Telegraph Calcutta (English).
iii.	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.	The copies of the environmental clearance submitted to heads of local bodies, panchayats, and municipal bodies in addition to relevant offices of the Government for display it.
iv.	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.	The company is complying and uploading the Environmental Clearance compliance report on the company website every six-monthly basis.
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, Forests & Climate Change / State Environment Impact Assessment Authority / State Pollution Control Board.	Six monthly compliance report of expansion project is being/shall be submitted to authorities.
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 put on the website of the company.	This is complied.
vii.	The project proponent shall inform the State Environment Impact Assessment Authority/ State Pollution Control Board, 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.	Shall be complied.
viii.	Restoration of the project site shall be carried out satisfactorily and report shall be sent to the State Environment Impact Assessment Authority.	Shall be complied.
ix.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	The company will adhere to the stipulations made by the state pollution Control Board and the State Government.

x.	The project proponent shall abide by all the commitments and recommendations made in the EIA / EMP report, commitments made during Public Hearing and that during their presentation to the State Expert Appraisal Committee.	Shall be complied.
xi.	No further expansion or modifications in the plant shall be carried out without prior approval of the State Environment Impact Assessment Authority.	No further expansion or modification in the project shall be conducted without prior approval of the Ministry of Environment, Forests and Climate Change.
xii.	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.	Noted.
xiii.	The State Environment Impact Assessment Authority may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	Noted.
xiv.	The State Environment Impact Assessment Authority reserves the right to stipulate additional conditions if found necessary. The Company in a time-bound manner shall implement these conditions.	Noted.
xv.	The State Environment Impact Assessment Authority / State Pollution Control Board shall monitor compliance with the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the State Environment Impact Assessment Authority / State Pollution Control Board by furnishing the requisite data / information / monitoring reports.	Noted.
xvi.	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.	The company is complying with 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 Wastes (Management & Handling) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.
xvii.	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.	Noted.
xviii	The contact details of the proponent and the name of the consultant are given in EC.	Noted.

Annexure - IV

Compliance Status of conditions of Environmental Clearance

F. No. J-11011/352/2010-IA II(I), EC No. EC25A0303WB5654084N dated 09.05.2025,

Amendment EC No. EC25A0303WB5394418A dated 03.10.2025.

Monitoring Report - 2

Monitoring Period (October-2025 to March-2026)

1.	Name of the project	EXPANSION OF EXPLORATION AND PRODUCTION OF 650 NOS. OF COAL BED METHANE GAS WELLS IN RANIGANJ (SOUTH) CBM BLOCK, WEST BENGAL BY M/S. GREAT EASTERN ENERGY CORPORATION LIMITED.
2.	Clearance letter No. & date.	EC identification No. EC25A0303WB5394418A dated 03.10.2025, MoEF&CC has granted its approval for the proposal No. IA/WB/IND2/545282/2025 dated 18.07.2025 for grant of an amendment in the prior EC dated 09.05.2025 issued vide EC identification No. EC25A0303 WB 5654084N for proposal No. IA/WB/ IND2/524673/2025 dated 31.03.2025
3.	Locations:	Raniganj (South) CBM Block
	a. District (s)	Paschim Bardhaman, Bankura & Purulia
	b. State (s)	West Bengal
4.	Address of Contact Person at Registered Office (with pin code) & telephone/fax numbers	Jairam K Shrinivasan Joint President- Operations & HR Great Eastern Energy Corporation Ltd., M-10, ADDA Industrial Estate, Asansol - 713305, West Bengal. Ph. No. +91-341-662 8818 Cell No. +91-81700-03140 Fax: +91-341-662 8811 Email: jkshrini@geecl.com URL: www.geecl.com

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

Sr. No.	Specific Conditions	Status of Compliance
1.1	The project proponent submitted conservation plan for Schedule-1 species in the study area with a budget of Rs. 0.27 Crores. The same shall be submitted to Chief Wildlife warden for approval. The recommendations shall be implemented in consultation with the State Forest/Wildlife Department in a time bound manner.	Shall be complied with project execution.
1.2	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.	This shall be complied for.
1.3	Proposed wells P 629, P-630, P-631 and P-632 are dropped from the instant proposal. No drilling activities shall be carried out within 500 m from the forest areas/water bodies/habitation/block boundary. No pipelines or its part shall be laid in the Forest land/Protected Area without prior permission/approval from the Competent Authority.	Because of amended EC granted by MoEF & CC these Proposed wells P-629, P-630, P-631 and P-632 have been incorporated. All well pads shall be located at a minimum distance of 50 meters instead of 500 m from Reserved Forests, human habitations, or riverbeds.
1.4	Total freshwater requirement after expansion will be 75 CMD for Drilling of CBM well (Each) & 25 CMD for GGS & CGS which will be met from Ground water. Prior permission shall be obtained from the concerned regulatory authority.	Shall be complied with project execution.
1.5	The project proponent will treat and reuse the treated water for drilling or mud preparation, and no waste or treated water shall be discharged. Mobile ETP coupled with RO shall be installed to reuse the treated water in drilling system. Size of the waste pit shall be equal to the hole volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rainwater. There shall be separate storm water channel and rainwater shall not be allowed to mix with wastewater. Alternatively, if possible, pit less drilling be practiced instead of above. Produced water generated shall be treated at the drilling site (within the premises) as per the Standards for Liquid Effluent of Oil Drilling and Gas Extraction Industry notified in The Environment (Protection) Rules 1986 and shall not be discharged untreated/ treated anywhere or in any stream.	Noted
	During production, storage and handling, the fugitive emission of methane, if any, shall be	Online gas chromatograph has been installed in Gas Gathering Station. Methane & Non-Methane Hydrocarbons Report (**Appendix-**

1.6	monitored using Infra-red camera/ appropriate technology. No flaring shall be carried out during operation phase. Existing 15 DG sets shall be discarded.	**A**), Ambient Air Quality Report (**Appendix-B**), Gas generator Exhaust (Flue gas) (**Appendix-G**) & Feed Gas Quality Analysis (**Appendix-H**) is attached for existing project. No flaring shall be carried out during operation phase and existing 15 DG sets are at standby on location and stack monitoring being done on periodic basis. These 15 DG sets will be discarded.
1.7	The project proponent shall ensure trapping/ storing of the CO2 generated, if any, during the process and handling.	Not applicable.
1.8	Approach road shall be paved to minimize generation of suspended dust.	Once the project starts, approach roads shall be made pucca as per requirement to minimize generation of suspended dust.
1.9	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 Guideline.	This shall be complied with drilling operations.
1.10	The project proponent shall construct the garland drain to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated.	Well pads will be prepared as per regulations/best practices. GEECL is going to drill only CBM wells hence there will not be any generation of oil containing waste and thus there won't be any runoff.
1.11	Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud shall be discharged/disposed of into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR. 546(E) dated 30th August 2005. Industry shall obtain membership of TSDF site before obtaining CTO and shall dispose the hazardous waste generated at drill site to TSDF approved by SPCB.	This shall be complied with Project execution.
1.12	Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.	Spill management plan is in place. For oil spillage prevention and mitigation, oil storage areas have concrete bunds or kept with secondary containment available underneath to avoid any containment. Spill kit and dip trays are also made available. Waste disposal and recycling are being done by authorized agency.
1.13	Gas produced during testing shall be flared with appropriate flaring device as prescribed by the CPCB. The flare shall be designed as per good oil field practices and OISD guidelines. The stack	Automatic gas detection system has also been provided in GGS as stipulated in Oil Mines Regulation 2017 and OISD 189. Overhead stack of 30 meters has been provided at GGS. The emission from the

	height shall be provided as per the regulatory requirements and emission from the stacks will meet MOEFCC/CPCB guidelines.	stacks will meet MOEFCC/CPCB guidelines.
1.14	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.	Portable fire extinguishers are available at every well site. Gas gathering station has been provided with fire hydrant system and sprinkler system. Automatic gas detection system has also been provided in GGS as stipulated in Oil Mines Regulation 2017 and OISD 189. Overhead stack of 30 meters has been provided at GGS. Further shall be complied for this project.
1.15	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.	Coal Bed Methane gas does not contain H_2S.
1.16	Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.	BOP shall be used during drilling operations.
1.17	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.	This shall be followed in case any abandonment is required. OISD Standard 175 shall be followed in case of abandonment.
1.18	PP proposed to allocate Rs. 16.25 Crores towards extended EMP which shall be spent as submitted as per plan. Further, all the proposed activities under extended EMP shall be completed before the commissioning of the plant in consultation with District Administration.	Noted, shall be complied during the project execution.
1.19	No lead acid batteries shall be utilized in the project/site.	shall be complied during the project execution.
1.20	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.	Noted.
1.21	Oil content in the drill cuttings shall be monitored and report & shall sent to the Ministry's Regional Office.	This shall be compiled during the project execution, and reports shall be sent to the Ministry's Regional Office.
1.22	The project proponent shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be	Noted.

	created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.	
1.23	PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic to ensure the compliance of Notification published by MoEF&CC 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.	Awareness session on "ban of single use plastic"to ensure the compliance of Notification published by MoEF&CC on 12th August 2021 has been carried out to create awareness among the people working within the project area. Session on "ban of single use plastic" at project surrounding area shall also be carried out and photographs shall be sent with six monthly compliance report. **(Appendix – J)**
1.24	Each drilling location shall display a board indicating the well number, as specified in this Environmental Clearance. The implementation status of the project shall be submitted to the Regional Office along with the six-monthly compliance report.	This is being complied with and further shall be complied with.
1.25	The project proponent shall ensure the compliance of the Ministry's OM dated 14th January 2025 w.r.t. streamlining the implementation of Notifications G.S.R. 702 and G.S.R. 703 dated 12th November 2024.	Noted.

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

Sr. No.	General Conditions	Status of Compliance
1.1	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Prior Environmental Clearance has been obtained for an additional 200 Wells and associated facilities for compression and distribution of CBM gas. (Ref F. No. J-11011/352/2010-IA II (I), November 24, 2011, and Environmental clearance validity extension letter dated May 1, 2019, issued by MOEF&CC for extending the validity till November 24, 2021, and Amendment in Environmental Clearance letter dated November 25, 2020, issued by Ministry of Environment, Forest and Climate Change). Furthermore, existing amended EC extended till November 24, 2022, by Government of India (Ministry of Environment, Forest, and Climate Change) Gazette notification S.O. 221(E) dated January 18, 2021. OM dated April 12, 2022, issued towards extension of the validity of the EC No. J-11011/352/2010-IA II (I) by 1 year till November 24, 2023, with all other terms and conditions remaining unchanged. The Half yearly compliance is being submitted for both Environmental Clearances. EC identification No. EC25A0303

		WB5394418A dated 03.10.2025, granted by MoEF&CC for proposal No. IA/WB /IND2/545282/2025 dated 18.07.2025 for grant of an amendment in the prior EC dated 09.05.2025 issued vide EC identification No. EC25A0303WB5654084N for proposal No. IA/WB/IND2/524673/2025.)
1.2	The energy source for lighting purposes should be preferably LED based, or advanced having preference in energy conservation and environment betterment.	This shall be complied with during the project execution.
1.3	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Cladding and acoustic enclosures are provided at compressor areas to bring further noise level to acceptable level. Periodic upkeep of the above measures will be taken to mitigate the issue of noise level in specific locations. Further, at the boundary of both GGS we have acceptable level of noise as per EPA rules. Additional measures for providing Earmuffs and earplugs are available close to compressor and GG set area. Noise Monitoring Report is attached (**Appendix–E).** This shall be complied with this project.
1.4	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and 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.	Noted.
1.5	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.	Adequate funds shall be provided for implementing the conditions stipulated by the MoEF&CC & WBPCB and the State Government and are not diverted for any other purpose.
1.6	A copy of the clearance letter shall be sent by the project proponent to be 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.	The copies of the environmental clearance submitted to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body in all three districts (Paschim Bardhaman, Purulia and Bankura) from dated 09.10.2025 to 14.10.2025.
	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance	This is being complied.

1.7	conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company.	
1.8	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.	This is being complied with and shall further be complied.
1.9	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Press advertisement published on October 08, 2025, in Bangla newspaper Sangbad Pratidin and The Indian Express (English), copy submitted to MoEF&CC, Integrated Regional office (IRO) Kolkata and Regional Office Bhubaneswar vide our letter dated October 16, 2025.
1.10	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Noted, shall be complied during project execution.
1.11	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	Noted

Sr. No.	**Specific Conditions**	**Status of Compliance**
1.1	All well pads shall be located at a minimum distance of 50 meters from Reserved Forests, human habitations, or riverbeds.	This shall be complied with during project execution.
1.2	All GGS facilities shall be equipped with an ETP and maintain the prescribed 500-meter distance criteria as per the "Control of Water Pollution (Grant, Refusal or Cancellation of Consent) Guidelines, 2025," notified on 30th January 2025.	Noted

1.3	None of the proposed wells, GGS facilities, or pipelines shall be located beyond the PML boundary.	Noted
1.4	Risk assessments shall be conducted prior to drilling at each well site, and the corresponding reports shall be submitted to the Regional Office along with six-monthly compliance reports.	No drilling operation yet.

Appendix – A

Methane and Non-Methane Hydrocarbons Report

Total flow Laptop Monthly Report October 2025

Printed date: 11/01/2025

Station ID: ABBNGC
Device ID: T103334224 Location: Location of stream 1

Date/Time: 11/01/2025 00:00:00			Hydrogen Sulphide	:	0.0000
Daily Period Seq #:	:	179	Nitrogen	:	0.9214
Carbon Dioxide	:	0.2563	Methane	:	98.7648
Ethane	:	0.0247	Propane	:	0.0011
Iso Butane	:	0.0003	Butane	:	0.0001
Neo Pentane	:	0.0000	Iso Pentane	:	0.0000
Pentane	:	0.0000	Hexane+	:	0.0315
Hexane	:	0.0315	Heptane	:	0.0000
Octane	:	0.0000	Nonane	:	0.0000
Decane	:	0.0000	Ideal CV	:	8903.5535
Relative Density	:	0.5620	Wet Btu(Inferior CV)	:	8032.4486
Compressibility	:	0.9980	Superior Wobbe	:	11900.7316
Normal Density	:	0.6875	Dry Btu(Superior CV)	:	8921.3135
GPM	:	16.9037	Un Normalized Total	:	99.7776

Methane and Non-Methane Hydrocarbons Report

Total flow Laptop Monthly Report November 2025

Printed date: 12/01/2025

Station ID: ABBNGC
Device ID: T103334224 Location: Location of stream 1

Date/Time: 12/01/2025 00:00:00			Hydrogen Sulphide	:	0.0000
Daily Period Seq #:	:	180	Nitrogen	:	0.9360
Carbon Dioxide	:	0.2252	Methane	:	98.7854
Ethane	:	0.0272	Propane	:	0.0010
Iso Butane	:	0.0004	Butane	:	0.0001
Neo Pentane	:	0.0000	Iso Pentane	:	0.0000
Pentane	:	0.0000	Hexane+	:	0.0248
Hexane	:	0.0248	Heptane	:	0.0000
Octane	:	0.0000	Nonane	:	0.0000
Decane	:	0.0000	Ideal CV	:	8902.9802
Relative Density	:	0.5616	Wet Btu(Inferior CV)	:	8031.8440
Compressibility	:	0.9980	Superior Wobbe	:	11904.0673
Normal Density	:	0.6870	Dry Btu(Superior CV)	:	8920.7155
GPM	:	16.9013	Un Normalized Total	:	100.0129

Methane and Non-Methane Hydrocarbons Report

Total flow Laptop Monthly Report December 2025

Printed date: 01/01/2026

Station ID: ABBNGC
Device ID: T103334224 Location: Location of stream 1

Date/Time: 01/01/2026 00:00:00			Hydrogen Sulphide	:	0.0000
Daily Period Seq #:	:	181	Nitrogen	:	0.9211
Carbon Dioxide	:	0.2110	Methane	:	98.8205
Ethane	:	0.0301	Propane	:	0.0011
Iso Butane	:	0.0004	Butane	:	0.0001
Neo Pentane	:	0.0000	Iso Pentane	:	0.0000
Pentane	:	0.0000	Hexane+	:	0.0158
Hexane	:	0.0158	Heptane	:	0.0000
Octane	:	0.0000	Nonane	:	0.0000
Decane	:	0.0000	Ideal CV	:	8902.7898
Relative Density	:	0.5612	Wet Btu(Inferior CV)	:	8031.5651
Compressibility	:	0.9980	Superior Wobbe	:	11908.0713
Normal Density	:	0.6865	Dry Btu(Superior CV)	:	8920.5074
GPM	:	16.9003	Un Normalized Total	:	100.2631

Methane and Non-Methane Hydrocarbons Report

Total flow Laptop Monthly Report January 2026

Printed date: 02/01/2026

Station ID: ABBNGC
Device ID: T103334224 Location: Location of stream 1

Date/Time: 02/01/2026 00:00:00			Hydrogen Sulphide	:	0.0000
Daily Period Seq #:	:	182	Nitrogen	:	0.9460
Carbon Dioxide	:	0.2137	Methane	:	98.7922
Ethane	:	0.0298	Propane	:	0.0010
Iso Butane	:	0.0004	Butane	:	0.0000
Neo Pentane	:	0.0000	Iso Pentane	:	0.0000
Pentane	:	0.0000	Hexane+	:	0.0168
Hexane	:	0.0168	Heptane	:	0.0000
Octane	:	0.0000	Nonane	:	0.0000
Decane	:	0.0000	Ideal CV	:	8900.6203
Relative Density	:	0.5613	Wet Btu(Inferior CV)	:	8029.6160
Compressibility	:	0.9980	Superior Wobbe	:	11903.5526
Normal Density	:	0.6867	Dry Btu(Superior CV)	:	8918.3301
GPM	:	16.8990	Un Normalized Total	:	99.7306

Methane and Non-Methane Hydrocarbons Report

Total flow Laptop Monthly Report February 2026

Printed date: 03/01/2026

Station ID: ABBNGC
Device ID: T103334224 Location: Location of stream 1

Date/Time: 03/01/2026 00:00:00			Hydrogen Sulphide	:	0.0000
Daily Period Seq #:	:	183	Nitrogen	:	0.9465
Carbon Dioxide	:	0.2252	Methane	:	98.7783
Ethane	:	0.0269	Propane	:	0.0009
Iso Butane	:	0.0005	Butane	:	0.0001
Neo Pentane	:	0.0000	Iso Pentane	:	0.0000
Pentane	:	0.0000	Hexane+	:	0.0217
Hexane	:	0.0217	Heptane	:	0.0000
Octane	:	0.0000	Nonane	:	0.0000
Decane	:	0.0000	Ideal CV	:	8900.9736
Relative Density	:	0.5615	Wet Btu(Inferior CV)	:	8029.9918
Compressibility	:	0.9980	Superior Wobbe	:	11901.7268
Normal Density	:	0.6870	Dry Btu(Superior CV)	:	8918.6956
GPM	:	16.8999	Un Normalized Total	:	99.5580

Methane and Non-Methane Hydrocarbons Report

Total flow Laptop Monthly Report March 2026

Printed date: 04/01/2026

Station ID: ABBNGC
Device ID: T103334224 Location: Location of stream 1

Date/Time: 04/01/2026 00:00:00			Hydrogen Sulphide	:	0.0000
Daily Period Seq #:	:	184	Nitrogen	:	0.8894
Carbon Dioxide	:	0.2272	Methane	:	98.8336
Ethane	:	0.0202	Propane	:	0.0010
Iso Butane	:	0.0003	Butane	:	0.0000
Neo Pentane	:	0.0000	Iso Pentane	:	0.0000
Pentane	:	0.0000	Hexane+	:	0.0283
Hexane	:	0.0283	Heptane	:	0.0000
Octane	:	0.0000	Nonane	:	0.0000
Decane	:	0.0000	Ideal CV	:	8907.6597
Relative Density	:	0.5615	Wet Btu(Inferior CV)	:	8036.0999
Compressibility	:	0.9980	Superior Wobbe	:	11911.6590
Normal Density	:	0.6869	Dry Btu(Superior CV)	:	8925.4187
GPM	:	16.9043	Un Normalized Total	:	99.9140

Appendix-B
Summary Report

Sample Identified As : **AAQM**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Method	Oct-2025	Jan-2026
		Well No-41	WOR-03 (Well No-56)
		MSKGL/ED/2025-26/004127	MSKGL/ED/2025-26/005189
Particulate Matter (<10 micron) in µg/m^3	IS 5182: Part.23,2006	71.37	69.48
Particulate Matter (<2.5 micron) in µg/m^3	USEPA CFR-40,Part-50,Appendix-L	34.17	32.16
Sulphur Dioxide (SO2) in µg/m^3	IS 5182: Part.2,2001	6.8	6.1
Nitrogen Dioxide (NO2) in µg/m^3	IS 5182: Part.6,2006	28.8	26.9
Carbon monoxide (as CO) in mg/m^3	IS 5182 (Part 10)-1999;Rffm:2009 (NDIR)	0.59	0.53
Mercury (as Hg) in µg/m^3	EPA-IO5 .0-June,1999	<6.0	<6.0
Hydrocarbon in ppm	IS 5182 (Part 17): 1979	20.64	19.62
Hydrocarbon (as Methane) in ppm	IS 5182 (Part 17): 1979	20.64	19.62
Hydrocarbon (as Non-Methane) in ppm	IS:5182(Part-11):2006	<1.0	<2.0
Hydrocarbon-Ethane in ppm	IS 5182 (Part 17): 1979	<2.0	<2.0
VOCs in ug/m3	NIOSH-1501 - 15th March,2003	<4.2	<4.2
Benzene in µg/m^3	IS 5182 (PART-11):2006	<4.2	<4.2
Ethyl Benzene in µg/m^3	IS:5182(Part-11):2006 Reaff,2012	<4.2	<4.2
Propene in ppm	IS 5182 (Part 17): 1979	<2.0	<2.0
Toluene in ug/m^3	IS 5182 (PART-11):2006	<4.2	<4.2
m-Xylene in ug/m^3	IS 5182 (PART-11):2006	<4.2	<4.2
n- Butane in ppm	IS 5182 (Part 17): 1979	<2.0	<2.0
o-Xylene in ug/m^3	IS 5182 (PART-11):2006	<4.2	<4.2
p-Xylene in ug/m^3	IS 5182 (PART-11):2006	<4.2	<4.2
Pentene in ppm	IS 3025 (Part 11) -1984 Rffm:2012	<2.0	<2.0
ISO Butane in ppm	IS 3025 (Part 11) -1984 Rffm:2012	<2.0	<2.0

Appendix-C
Summary Report
Month: October 2025

Sample Identified As : **Water (CBM)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Well No-79D	Well No-57D	Well No-61D	Well No-28	Well No-89D
			MSKGL/ED/2025-26/004292	MSKGL/ED/2025-26/004293	MSKGL/ED/2025-26/004294	MSKGL/ED/2025-26/004295	MSKGL/ED/2025-26/004296
Bicarbonate (as HCO_3)	mg/l	APHA22nd Edtn2012,2320 B	960	1210	1443	920	1060
Biochemical Oxygen Demand	mg/l	APHA (23rd Edition) 5210B 2017	5.6	7.8	7.2	6.4	5.4
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	1.98	3.59	3.85	1.98	3.52
Carbonate (as $CaCO_3$)	mg/l	APHA (23rd Edition) 2320B 2017	BDL(DL:2.0)	80	120	BDL(DL:2.0)	140
Chemical Oxygen Demand	mg/l	APHA (23rd Edition) 5220B, 2017	30	40	40	40	34
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B 2017	120.4	210	160	170	180
Conductivity	us/cm	APHA (23rd Edition) 2510B	2280	3380	3260	2130	2630
Copper (as Cu)	mg/l	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Cyanide (as CN)	mg/l	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	3.28	3.48	3.04	2.98	2.08
Hexavalent Chromium (as Cr^{+6})	mg/l	APHA 23rd Edtn-2017, 3500 Cr B	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)
Lead (as Pb)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	BDL(DL:1.0)	1.01	1.03	BDL(DL:1.0)	BDL(DL:1.0)
Mercury (as Hg)	mg/l	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nickel (as Ni)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Oil and Grease	mg/l	APHA (23rd Edition) 5520B 2017	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)
Phenolic Compounds (as C_6H_5OH)	mg/l	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)
Potassium (as K)	mg/l	APHA (23rd Edition) 3500 K B 2017	2.68	5.93	5.12	3.04	4.43
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B 2017	546	858	726	511	618
Sulphate (as SO_4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	60.2	80.4	52.8	48.8	36.8
Sulphide (as S)	mg/l	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Temperature	0C	APHA 23rd EDITION,2550 B	24.5	24.8	24.5	24.5	24.5 deg C
Total Chromium (as Cr)	mg/l	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Total Dissolved Solids	mg/l	APHA(23rd Edition) 2540C	1368	2040	1960	1280	1580
Total Suspended Solid	mg/l	APHA(23rd Edition)2540D	3.2	16.8	6.8	3.6	3.2
Zinc (as Zn)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
pH value	----	APHA(23rd Edition) 4500-H-B	8.32	8.62	8.95	8.12	8.84

Summary Report
Month: October 2025

Sample Identified As : **Water (CBM)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Well No-99D	Well No-29	Well No-16	Well No-22	Well No-S-32
			MSKGL/ED/2025-26/004297	MSKGL/ED/2025-26/004298	MSKGL/ED/2025-26/004335	MSKGL/ED/2025-26/004336	MSKGL/ED/2025-26/004337
Bicarbonate (as HCO_3)	mg/l	APHA22nd Edtn2012,2320 B	890	974	1080	1180	920
Biochemical Oxygen Demand	mg/l	APHA (23rd Edition) 5210B 2017	5.2	8.6	8.5	8.2	5.2
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	2.39	1.97	2.62	2.49	3.23
Carbonate (as $CaCO_3$)	mg/l	APHA (23rd Edition) 2320B 2017	BDL(DL:2.0)	BDL(DL:2.0)	60	80	BDL(DL:2.0)
Chemical Oxygen Demand	mg/l	APHA (23rd Edition) 5220B, 2017	30	44	40	50	30
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B 2017	148	98.6	160	180	98.6
Conductivity	us/cm	APHA (23rd Edition) 2510B	1750	2310	2060	2264	1960
Copper (as Cu)	mg/l	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Cyanide (as CN)	mg/l	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	2.56	1.98	2.98	3.2	1.98
Hexavalent Chromium (as Cr^{+6})	mg/l	APHA 23rd Edtn-2017, 3500 Cr B	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)
Lead (as Pb)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)
Mercury (as Hg)	mg/l	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nickel (as Ni)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Oil and Grease	mg/l	APHA (23rd Edition) 5520B 2017	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)
Phenolic Compounds (as C_6H_5OH)	mg/l	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)
Potassium (as K)	mg/l	APHA (23rd Edition) 3500 K B 2017	3.02	3.84	3.01	3.95	3.48
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B 2017	407	547	487	531	465
Sulphate (as SO_4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	38.4	156	80.6	86.8	48.8
Sulphide (as S)	mg/l	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Temperature	0C	APHA 23rd EDITION,2550 B	24.5	24.5	24.8	24.8	24.8
Total Chromium (as Cr)	mg/l	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Total Dissolved Solids	mg/l	APHA(23rd Edition) 2540C	1080	1380	1240	1360	1160
Total Suspended Solid	mg/l	APHA(23rd Edition)2540D	BDL(DL:2.5)	4.6	3.2	4.2	8.6
Zinc (as Zn)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
pH value	---	APHA(23rd Edition) 4500-H-B	8.35	8.41	8.79	8.85	8.38

Summary Report
Month: October 2025

Sample Identified As : **Water (CBM)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Well No-S-38	Well No-S-12	Well No-38	Well No-S-07	Well No-S-21
			MSKGL/ED/2025-26/004338	MSKGL/ED/2025-26/004339	MSKGL/ED/2025-26/004459	MSKGL/ED/2025-26/004460	MSKGL/ED/2025-26/004461
Bicarbonate (as HCO_3)	mg/l	APHA22nd Edtn2012,2320 B	810	760	960	1080	1160
Biochemical Oxygen Demand	mg/l	APHA (23rd Edition) 5210B 2017	4.2	5.2	4.8	5.6	8.2
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	2.02	2.32	2.66	3.04	13.35
Carbonate (as $CaCO_3$)	mg/l	APHA (23rd Edition) 2320B 2017	BDL(DL:2.0)	BDL(DL:2.0)	60	45	BDL(DL:2.0)
Chemical Oxygen Demand	mg/l	APHA (23rd Edition) 5220B, 2017	20	30	30	30	40
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B 2017	80.4	88.2	158	160	180
Conductivity	us/cm	APHA (23rd Edition) 2510B	1710	1460	2660	2278	2560
Copper (as Cu)	mg/l	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Cyanide (as CN)	mg/l	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	1.56	2.4	3.01	3.02	2.97
Hexavalent Chromium (as Cr^{+6})	mg/l	APHA 23rd Edtn-2017, 3500 Cr B	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)
Lead (as Pb)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	4.78
Mercury (as Hg)	mg/l	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nickel (as Ni)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Oil and Grease	mg/l	APHA (23rd Edition) 5520B 2017	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)
Phenolic Compounds (as C_6H_5OH)	mg/l	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)
Potassium (as K)	mg/l	APHA (23rd Edition) 3500 K B 2017	2.77	2.16	3.81	3.82	5.09
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B 2017	418	329	545	561	594
Sulphate (as SO_4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	38.6	34.6	58.8	60.2	74.6
Sulphide (as S)	mg/l	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Temperature	0C	APHA 23rd EDITION,2550 B	24.8	24.8	24.5 deg C	24.8 DEG C	24.8 DEG C
Total Chromium (as Cr)	mg/l	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Total Dissolved Solids	mg/l	APHA(23rd Edition) 2540C	1020	870	1360	1370	1540
Total Suspended Solid	mg/l	APHA(23rd Edition)2540D	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)	3.2	20
Zinc (as Zn)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
pH value	None	APHA(23rd Edition) 4500-H-B	8.5	8.63	8.61	8.75	8.29

Summary Report
Month: October 2025

Sample Identified As : **Water (CBM)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Well No-S-28	Well No-S-27	Well No-S-17	Well No-45	Well No-92D
			MSKGL/ED/2025-26/004465	MSKGL/ED/2025-26/004466	MSKGL/ED/2025-26/004467	MSKGL/ED/2025-26/004468	MSKGL/ED/2025-26/004469
Bicarbonate (as HCO_3)	mg/l	APHA22nd Edtn2012,2320 B	960	790	1260	1380	980
Biochemical Oxygen Demand	mg/l	APHA (23rd Edition) 5210B 2017	4.2	3.8	8.6	10.8	5.2
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	2.69	1.31	2.37	2.09	2.46
Carbonate (as $CaCO_3$)	mg/l	APHA (23rd Edition) 2320B 2017	BDL(DL:2.0)	80	30	BDL(DL:2.0)	26
Chemical Oxygen Demand	mg/l	APHA (23rd Edition) 5220B, 2017	20	20	40	60	30
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B 2017	98.5	136	180	220	160
Conductivity	us/cm	APHA (23rd Edition) 2510B	2830	1610	2620	3328	1980
Copper (as Cu)	mg/l	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Cyanide (as CN)	mg/l	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	2.11	1.98	3.08	3.58	2.56
Hexavalent Chromium (as Cr^{+6})	mg/l	APHA 23rd Edtn-2017, 3500 Cr B	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)
Lead (as Pb)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	BDL(DL:1.0)	BDL(DL:1.0)	1.04	BDL(DL:1.0)	BDL(DL:1.0)
Mercury (as Hg)	mg/l	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nickel (as Ni)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Oil and Grease	mg/l	APHA (23rd Edition) 5520B 2017	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)
Phenolic Compounds (as C_6H_5OH)	mg/l	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)
Potassium (as K)	mg/l	APHA (23rd Edition) 3500 K B 2017	3.12	2.24	4.18	5.09	2.97
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B 2017	480	389	662	594	478
Sulphate (as SO_4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	48.3	52	80	102	56
Sulphide (as S)	mg/l	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Temperature	0C	APHA 23rd EDITION,2550 B	24.8 DEG C	24.8 DEG C	24.8 DEG C	24.8 DEG C	23.8 DEG C
Total Chromium (as Cr)	mg/l	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Total Dissolved Solids	mg/l	APHA(23rd Edition) 2540C	1134	960	1580	1998	1198
Total Suspended Solid	mg/l	APHA(23rd Edition)2540D	BDL(DL:2.5)	BDL(DL:2.5)	6.8	3.2	2.8
Zinc (as Zn)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
pH value	---	APHA(23rd Edition) 4500-H-B	8.45	8.8	8.67	8.38	8.63

Summary Report
Month: October 2025

Sample Identified As : **Water (CBM)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Well No-05	Well No-23	Well No-21	Well No-10	Well No-S-08
			MSKGL/ED/2025-26/004470	MSKGL/ED/2025-26/004471	MSKGL/ED/2025-26/004472	MSKGL/ED/2025-26/004473	MSKGL/ED/2025-26/004474
Bicarbonate (as HCO_3)	mg/l	APHA22nd Edtn2012,2320 B	2160	980	1080	1610	840
Biochemical Oxygen Demand	mg/l	APHA (23rd Edition) 5210B 2017	14.2	6.2	8.4	8.2	4.8
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	3.25	2.23	2.5	37.06	2.3
Carbonate (as $CaCO_3$)	mg/l	APHA (23rd Edition) 2320B 2017	BDL(DL:2.0)	20	28	BDL(DL:2.0)	45
Chemical Oxygen Demand	mg/l	APHA (23rd Edition) 5220B, 2017	70	30	36	40	20
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B 2017	412	156	180	180	106.2
Conductivity	us/cm	APHA (23rd Edition) 2510B	5068	1890	2630	3342	1590
Copper (as Cu)	mg/l	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Cyanide (as CN)	mg/l	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D,2017	4.2	2.51	2.89	3.98	2.9
Hexavalent Chromium (as Cr^{+6})	mg/l	APHA 23rd Edtn-2017, 3500 Cr B	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)
Lead (as Pb)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	2.24	BDL(DL:1.0)	1.19	5.8	BDL(DL:1.0)
Mercury (as Hg)	mg/l	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nickel (as Ni)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Oil and Grease	mg/l	APHA (23rd Edition) 5520B 2017	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)
Phenolic Compounds (as C_6H_5OH)	mg/l	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)
Potassium (as K)	mg/l	APHA (23rd Edition) 3500 K B 2017	9.4	2.71	5.84	5.09	2.8
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B 2017	1149	473	694	594	369
Sulphate (as SO_4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	160	65	148	98	32.4
Sulphide (as S)	mg/l	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Temperature	0C	APHA 23rd EDITION,2550 B	24.8 DEG C	24.8 DEG C	24.8 DEG C	24.8 DEG C	24.8 Deg C
Total Chromium (as Cr)	mg/l	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Total Dissolved Solids	mg/l	APHA(23rd Edition) 2540C	2080	1140	1578	2010	960
Total Suspended Solid	mg/l	APHA(23rd Edition)2540D	5.6	3.8	3.4	24	BDL(DL:2.5)
Zinc (as Zn)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
pH value	---	APHA(23rd Edition) 4500-H-B	8.3	8.67	8.69	7.62	8.7

Summary Report
Month: January 2026

Sample Identified As : **Water (CBM)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Well No-52	Well No-62D	Well No-29	Well No-54	Well No-22
			MSKGL/ED/2025-26/005139	MSKGL/ED/2025-26/005146	MSKGL/ED/2025-26/005147	MSKGL/ED/2025-26/005148	MSKGL/ED/2025-26/005149
Bicarbonate (as HCO_3)	mg/l	APHA22nd Edtn2012,2320 B	1096	1602	1134	1010	1134
Biochemical Oxygen Demand	mg/l	APHA (23rd Edition) 5210B 2017	3.4	5.2	4.4	3.9	3.2
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	80.16	88.2	72.14	64.13	48.1
Carbonate (as $CaCO_3$)	mg/l	APHA (23rd Edition) 2320B 2017	60	80	90	84	BDL(DL:2.0)
Chemical Oxygen Demand	mg/l	APHA (23rd Edition) 5220B, 2017	12	20	16	16	12
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B 2017	294	196	284	250	226
Conductivity	us/cm	APHA (23rd Edition) 2510B	2438	3060	2560	2380	2310
Copper (as Cu)	mg/l	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Cyanide (as CN)	mg/l	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	3.97	4.21	4.02	3.9	3.85
Hexavalent Chromium (as Cr^{+6})	mg/l	APHA 23rd Edtn-2017, 3500 Cr B	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.05)	BDL(DL:0.03)
Lead (as Pb)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	24.35	19.48	17.05	17.05	24.35
Mercury (as Hg)	mg/l	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nickel (as Ni)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Oil and Grease	mg/l	APHA (23rd Edition) 5520B 2017	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)
Phenolic Compounds (as C_6H_5OH)	mg/l	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)
Potassium (as K)	mg/l	APHA (23rd Edition) 3500 K B 2017	3.7	6.2	4.3	3.6	4.3
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B 2017	556.6	707.57	566.44	533.37	523.13
Sulphate (as SO_4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	76.5	90.2	80.4	66.8	78.2
Sulphide (as S)	mg/l	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Temperature	0C	APHA 23rd EDITION,2550 B	24.8 DEG C	24.8	24.8	24.8	24.8
Total Chromium (as Cr)	mg/l	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Total Dissolved Solids	mg/l	APHA (23rd Edition) 2540C	1480	1840	1540	1420	1380
Total Suspended Solid	mg/l	APHA (23rd Edition)2540D	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)
Zinc (as Zn)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
pH value	None	APHA(23rd Edition) 4500-H-B	8.8	8.86	8.9	8.96	8.77

Summary Report
Month: January 2026

Sample Identified As : **Water (CBM)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Well No-48	Well No-91D	Well No-78D	Well No-51	Well No-13
			MSKGL/ED/2025-26/005171	MSKGL/ED/2025-26/005172	MSKGL/ED/2025-26/005173	MSKGL/ED/2025-26/005174	MSKGL/ED/2025-26/005175
Bicarbonate (as HCO_3)	mg/l	APHA22nd Edtn2012,2320 B	1060	973	1010.4	1257	961
Biochemical Oxygen Demand	mg/l	APHA (23rd Edition) 5210B 2017	3.8	BDL(DL:2.0)	BDL(DL:2.0)	4.8	BDL(DL:2.0)
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	48.1	20.04	32.06	68.14	28.06
Carbonate (as $CaCO_3$)	mg/l	APHA (23rd Edition) 2320B 2017	40	BDL(DL:2.0)	48	140	60
Chemical Oxygen Demand	mg/l	APHA (23rd Edition) 5220B, 2017	16	12	12	20	16
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B 2017	225.3	176.35	186.14	240	156.75
Conductivity	us/cm	APHA (23rd Edition) 2510B	2320	1924	2160	2610	1960
Copper (as Cu)	mg/l	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Cyanide (as CN)	mg/l	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	3.68	3.2	3.8	3.65	3.2
Hexavalent Chromium (as Cr^{+6})	mg/l	APHA 23rd Edtn-2017, 3500 Cr B	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)
Lead (as Pb)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	24.35	7.31	17.05	24.35	12.18
Mercury (as Hg)	mg/l	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nickel (as Ni)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Oil and Grease	mg/l	APHA (23rd Edition) 5520B 2017	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)
Phenolic Compounds (as C_6H_5OH)	mg/l	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)
Potassium (as K)	mg/l	APHA (23rd Edition) 3500 K B 2017	3.5	2.3	4	4.7	2.9
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B 2017	512.54	424.48	495.06	603.79	423.55
Sulphate (as SO_4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	78.4	60.8	72.4	90.5	62.8
Sulphide (as S)	mg/l	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Temperature	0C	APHA 23rd EDITION,2550 B	24.8	24.8	24.8	24.8	24.8
Total Chromium (as Cr)	mg/l	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Total Dissolved Solids	mg/l	APHA(23rd Edition) 2540C	1380	1152	1280	1560	1160
Total Suspended Solid	mg/l	APHA(23rd Edition)2540D	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)
Zinc (as Zn)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
pH value	None	APHA(23rd Edition) 4500-H-B	8.66	8.31	8.78	8.75	8.86

Summary Report
Month: January 2026

Sample Identified As : **Water (CBM)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Well No-40	Well No-88D	Well No-S-28	Well No-S-27	Well No-S-18
			MSKGL/ED/2025-26/005176	MSKGL/ED/2025-26/005177	MSKGL/ED/2025-26/005178	MSKGL/ED/2025-26/005179	MSKGL/ED/2025-26/005180
Bicarbonate (as HCO_3)	mg/l	APHA22nd Edtn2012,2320 B	1220	1158	1060	1121	924
Biochemical Oxygen Demand	mg/l	APHA (23rd Edition) 5210B 2017	4.6	5.4	4.5	3.8	3.2
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	76.15	76.15	64.13	60.12	24.05
Carbonate (as $CaCO_3$)	mg/l	APHA (23rd Edition) 2320B 2017	82	BDL(DL:2.0)	40	BDL(DL:2.0)	40
Chemical Oxygen Demand	mg/l	APHA (23rd Edition) 5220B, 2017	20	24	16	16	12
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B 2017	250	215.53	200.84	196	127
Conductivity	us/cm	APHA (23rd Edition) 2510B	2480	2334	2165	2136	1836
Copper (as Cu)	mg/l	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Cyanide (as CN)	mg/l	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.05	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	3.22	3.94	3.1	3.21	4.83
Hexavalent Chromium (as Cr^{+6})	mg/l	APHA 23rd Edtn-2017, 3500 Cr B	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)
Lead (as Pb)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	24.35	17.05	19.48	19.48	9.74
Mercury (as Hg)	mg/l	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nickel (as Ni)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Oil and Grease	mg/l	APHA (23rd Edition) 5520B 2017	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)
Phenolic Compounds (as C_6H_5OH)	mg/l	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)
Potassium (as K)	mg/l	APHA (23rd Edition) 3500 K B 2017	3.6	3.6	3.5	3.2	3.2
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B 2017	548.94	539.36	494.06	499.78	422.59
Sulphate (as SO_4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	69.5	84.5	73.4	66.5	60.8
Sulphide (as S)	mg/l	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Temperature	0C	APHA 23rd EDITION,2550 B	24.8	24.8	24.8	24.8	24.8
Total Chromium (as Cr)	mg/l	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Total Dissolved Solids	mg/l	APHA(23rd Edition) 2540C	1480	1398	1296	1278	1098
Total Suspended Solid	mg/l	APHA(23rd Edition)2540D	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)
Zinc (as Zn)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
pH value	None	APHA(23rd Edition) 4500-H-B	8.94	8.56	8.75	8.04	8.89

Summary Report
Month: January 2026

Sample Identified As : **Water (CBM)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Well No-S-14	Well No-S-4	Well No-S-2	Well No-S-3	Well No-S-19
			MSKGL/ED/2025-26/005181	MSKGL/ED/2025-26/005182	MSKGL/ED/2025-26/005183	MSKGL/ED/2025-26/005184	MSKGL/ED/2025-26/005185
Bicarbonate (as HCO_3)	mg/l	APHA22nd Edtn2012,2320 B	1121	1010	973	949	1158
Biochemical Oxygen Demand	mg/l	APHA (23rd Edition) 5210B 2017	4.8	4.8	3.2	5.4	4.2
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	60.12	40.1	28.06	20.04	28.06
Carbonate (as $CaCO_3$)	mg/l	APHA (23rd Edition) 2320B 2017	36	56	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)
Chemical Oxygen Demand	mg/l	APHA (23rd Edition) 5220B, 2017	20	16	12	24	18
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B 2017	220	176	142	137	157
Conductivity	us/cm	APHA (23rd Edition) 2510B	2320	1972	1868	1820	2270
Copper (as Cu)	mg/l	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Cyanide (as CN)	mg/l	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	3.84	3.85	3.8	2.98	3.92
Hexavalent Chromium (as Cr^{+6})	mg/l	APHA 23rd Edtn-2017, 3500 Cr B	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)
Lead (as Pb)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	24.35	22	9.74	12.18	14.61
Mercury (as Hg)	mg/l	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nickel (as Ni)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Oil and Grease	mg/l	APHA (23rd Edition) 5520B 2017	BDL(DL:4.0)	BDL(DL:4.0)	DL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)
Phenolic Compounds (as C_6H_5OH)	mg/l	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(DL:0.001)	BDL(DL:0.001)	DL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)
Potassium (as K)	mg/l	APHA (23rd Edition) 3500 K B 2017	3.8	3.3	3	3.1	3.9
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B 2017	533.95	442.82	409.69	413.08	525.54
Sulphate (as SO_4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	76.5	68.9	62.4	59.4	70.4
Sulphide (as S)	mg/l	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Temperature	0C	APHA 23rd EDITION,2550 B	24.8	24.8	24.8	24.8	24.8
Total Chromium (as Cr)	mg/l	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Total Dissolved Solids	mg/l	APHA(23rd Edition) 2540C	1390	1184	1120	1089	1360
Total Suspended Solid	mg/l	APHA(23rd Edition)2540D	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)
Zinc (as Zn)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
pH value	None	APHA(23rd Edition) 4500-H-B	8.75	8.89	8.15	8.5	8.34

Summary Report
Month: January 2026

Sample Identified As : **Water (CBM)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Well No-S-13	Well No-25	Well No-23	Well No-09	Well No-05
			MSKGL/ED/2025-26/005186	MSKGL/ED/2025-26/005187	MSKGL/ED/2025-26/005188	MSKGL/ED/2025-26/005190	MSKGL/ED/2025-26/005191
Bicarbonate (as HCO_3)	mg/l	APHA22nd Edtn2012,2320 B	875	333	431	752	1244
Biochemical Oxygen Demand	mg/l	APHA (23rd Edition) 5210B 2017	3.4	BDL(DL:2.0)	3.6	BDL(DL:2.0)	5.2
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	20.04	12.02	20.04	20.04	60.12
Carbonate (as $CaCO_3$)	mg/l	APHA (23rd Edition) 2320B 2017	44	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)
Chemical Oxygen Demand	mg/l	APHA (23rd Edition) 5220B, 2017	12	12	12	12	20
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B 2017	980	93	122.46	108	265
Conductivity	us/cm	APHA (23rd Edition) 2510B	1640	920	1084	1370	2438
Copper (as Cu)	mg/l	APHA (23rd Edition)3120B 2017 (ICP OES)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Cyanide (as CN)	mg/l	APHA (23rd Edition)4500 CN- F 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	1.82	1.2	1.65	2.22	3.12
Hexavalent Chromium (as Cr^{+6})	mg/l	APHA 23rd Edtn-2017, 3500 Cr B	BDL(DL:0.03)	BDL(DL:0.01)	BDL(DL:0.03)	BDL(DL:0.03)	BDL(DL:0.03)
Lead (as Pb)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	14.61	12.18	17.05	9.74	24.35
Mercury (as Hg)	mg/l	IS 3025(Part 48)-1994; Rffm:2014	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nickel (as Ni)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Oil and Grease	mg/l	APHA (23rd Edition) 5520B 2017	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)	BDL(DL:4.0)
Phenolic Compounds (as C_6H_5OH)	mg/l	APHA (23rd Edition)5530C 2017 (Chloroform Extraction)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)
Potassium (as K)	mg/l	APHA (23rd Edition) 3500 K B 2017	2.5	4.01	3.9	3.79	6.83
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B 2017	349.88	145.57	193.43	259.17	532.11
Sulphate (as SO_4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	52.8	32.8	45.3	56.8	90.2
Sulphide (as S)	mg/l	APHA (23rd Edition)4500 S2- D,2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Temperature	0C	APHA 23rd EDITION,2550 B	24.8	24.8	24.8	24.8	24.8
Total Chromium (as Cr)	mg/l	APHA (23rd Edition)3111 D 2017 (AAS Flame)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Total Dissolved Solids	mg/l	APHA(23rd Edition) 2540C	980	540	645	820	1460
Total Suspended Solid	mg/l	APHA(23rd Edition)2540D	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)	BDL(DL:2.5)
Zinc (as Zn)	mg/l	APHA (23rd Edition)3120B 2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
pH value	None	APHA(23rd Edition) 4500-H-B	8.67	8.24	8.32	7.91	8.38

Appendix-D
Summary Report

Sample Identified As : **Flue Gas (Diesel Genset)**
Customer Name : **Great Eastern Energy Corp. Ltd.**
Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	**Method**	**Oct,25**	**Nov,25**	**Dec,25**	**Jan,26**
		SL- CJXSDG10120208 (Well No-S-37)	SL- CJXSDG11080176 (Well No-S-22)	SL- CJXSDG 10080112 (S-22)	SL- CJXSDG11080175 (Well No- S-23)
		MSKGL/ED/2025-26/004009	MSKGL/ED/2025-26/004595	MSKGL/ED/2025-26/004747	MSKGL/ED/2025-26/005065
Barometric pressure (mm of Hg)	USEPA Part 2 - 25/09/1996	754	754	755	754
Concentration of Carbon Monoxide (g/kw-hr)	IS 13270:1992,Ref:2009	0.311	0.289	0.186	0.220
Concentration of Oxides of Nitrogen (g/kw-hr)	EPA Part-7	0.282	0.246	0.192	0.221
Concentration of Non-methane Hydro Carbon (g/kw-hr)	USEPA 18 - 25/09/1996	<0.005	<0.005	< 0.004	<0.004
a) Concentration of Ethane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0
b) Concentration of Propene (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0
c) Concentration of n-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0
d) Concentration of Iso-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0
e) Concentration of Pentane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0
Temperature of emission (^{0} C)	USEPA Part 2 - 25/09/1996	93	96	Result 121	109
Quantity of gas flow (Nm3/hr)	USEPA Part 2 - 25/09/1996	201	187	202	154
Velocity of gas (m/s)	USEPA Part 2 - 25/09/1996	8.81	8.24	7.63	7.41
Concentration of Sulphur dioxide (mg/Nm3)	USEPA Part 6 - 25/09/1996	<5.0	<5.0	<5.0	<5.0
Concentration of Particulate Matters (g/kw-hr)	USEPA-17 16/08/1996	0.086	0.099	0.058	0.07
Concentration of methane Hydro Carbon (g/kw-hr)	USEPA 18 - 25/09/1996	0.03	0.04	0.02	0.02
Concentration of (NOx + HC) (g/kw-hr)	USEPA 18 - 25/09/1996	0.282	0.286	0.212	0.243

Appendix-E

Noise levels in and around installations													
Sr. No.	**Monitoring Locations**	**October – 2025**		**November – 2025**		**December - 2025**		**January – 2026**		**February - 2026**		**March – 2026**	
		Leq. dB (A)		**Leq. dB (A)**		**Leq. dB (A)**		**Leq. dB (A)**		**Leq. dB (A)**		**Leq. dB (A)**	
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
01	GGS (North)	62.9	53.9	63.3	54.2	64.4	53.1	62.7	53.8	61.9	53.9	62.5	54.1
02	GGS (South)	61.4	53.8	63.0	53.2	62.8	53.7	61.9	54.6	62.7	54.4	63.9	54.5
03	CGS	60.7	NA	60.2	NA	61.1	NA	59.8	NA	61.8	NA	60.1	NA

Noise levels in nearby villages of wells													
Sr. No.	Monitoring Locations	October – 2025		November – 2025		December - 2025		January – 2026		February - 2026		March – 2026	
		Leq. dB (A)		Leq. dB (A)		Leq. dB (A)		Leq. dB (A)		Leq. dB (A)		Leq. dB (A)	
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
1	Koilapur Village (W#01)	50.2	46.3	48.6	43.0	49.1	44.7	47.4	42.3	46.7	43.4	47.6	43.3
2	100m away from well site (W#02)	46.7	43.5	47.5	45.8	46.3	43.5	46.2	43.5	45.8	41.9	46.8	42.5
3	100m away from well site (W#03)	45.9	42.9	47.2	44.1	48.6	44.3	48.3	44.8	47.2	42.3	45.9	41.8
4	100m away from well site (W#04)	47.8	43.0	46.8	43.1	47.0	43.2	46.5	42.0	47.6	43.1	48.0	45.4
5	100m away from well site (W#05)	47.0	44.6	47.1	44.8	47.6	44.9	46.8	42.2	46.9	42.0	47.2	41.8
6	100m away from well site (W#06)	48.3	45.3	47.3	44.0	47.5	45.1	44.7	42.4	47.8	42.2	47.8	44.6
7	Dheka Village (W#07)	46.7	44.1	48.5	45.5	47.4	44.8	44.9	42.7	45.3	42.2	43.5	40.7
8	100m away from well site (W#08)	45.9	43.2	46.2	43.8	45.2	43.1	46.3	43.1	46.7	44.3	45.5	42.8
9	100m away from well site (W#09)	46.7	43.3	46.7	43.5	47.2	44.6	45.2	43.4	46.1	44.7	45.1	42.3
10	Near Ashram (W#10)	46.3	43.8	44.5	41.2	46.7	43.2	46.1	42.8	47.2	45.4	43.5	40.1
11	Shyamdhi Village (W#11)	45.7	42.5	45.3	43.1	45.8	42.7	44.9	42.3	45.7	43.2	46.5	44.3
12	Shyamdhi Village (W#12)	53.8	50.2	55.5	52.4	51.7	48.3	52.7	48.4	53.6	50.7	52.2	49.6
13	100m away from well site (W#13)	47.7	44.3	45.8	42.1	45.9	43.5	48.2	45.8	45.8	43.2	49.2	46.7
14	Dhenwa Village (W#14)	46.8	43.5	47.3	44.2	46.7	43.6	44.8	42.1	46.4	43.4	45.7	43.1
15	100m away from well site (W#15)	48.5	45.4	45.2	42.1	46.6	42.9	45.5	43.2	46.7	44.1	45.2	43.1
16	100m away from well site (W#16)	47.9	44.7	46.6	44.1	45.3	42.4	47.5	44.9	48.3	46.2	45.3	42.8
17	100m away from well site (W#17)	47.2	44.9	46.9	44.3	47.1	44.0	47.9	44.3	46.2	43.7	47.6	44.9
18	Kalajharia Village (W#18)	47.7	44.3	47.0	44.5	46.9	43.0	47.3	45.2	46.1	43.5	46.3	43.1

19	Dhorapada Village (W#19)	48.8	46.1	46.7	43.8	47.7	45.5	45.7	43.9	45.8	43.2	46.5	44.2
20	Kiradi Village (W#20)	45.7	45.2	47.5	45.7	46.3	43.2	47.5	45.2	47.6	45.1	46.5	44.1
21	100m away from well site (W#21)	47.9	44.6	47.2	44.1	47.8	45.1	48.0	45.6	47.7	44.6	47.8	45.2
22	100m away from well site (W#22)	48.3	46.1	46.7	43.2	47.7	45.3	47.7	45.1	46.2	43.9	46.7	43.9
23	100m away from well site (W#23)	47.4	43.3	45.3	43.8	47.9	44.6	48.0	45.1	48.3	45.1	47.7	44.8
24	100m away from well site (W#24)	47.7	44.1	48.7	45.3	47.7	43.3	46.7	43.5	48.2	45.5	46.3	42.9
25	100m away from well site (W#25)	44.3	42.9	47.1	44.9	46.3	44.1	47.4	45.1	47.6	44.9	44.9	42.5
26	Bango Village (W#26)	47.9	43.4	47.8	44.0	47.5	44.8	46.9	44.3	46.8	43.7	46.4	42.9
27	100m away from well site (W#27)	46.5	44.7	45.6	43.8	47.8	45.3	47.1	45.2	47.7	45.2	46.2	44.1
28	100m away from well site (W#28)	47.8	44.6	48.3	45.7	46.2	43.9	47.5	45.1	45.9	42.9	46.9	44.2
29	100m away from well site (W#29)	44.9	42.5	48.5	45.3	46.2	44.1	47.4	45.3	46.7	43.8	47.5	45.9
30	100m away from well site (W#30)	46.2	43.4	44.6	42.1	48.3	46.7	47.1	45.0	45.3	42.2	46.1	43.7
31	100m away from well site (W#31)	45.8	43.3	46.9	44.0	47.7	44.9	46.7	44.1	46.8	43.0	48.2	46.1
32	Mahalipad Village (W#32)	44.9	42.7	46.4	43.2	47.1	45.2	44.9	41.8	47.1	45.2	46.5	43.9
33	100m away from well site (W#33)	45.7	43.9	46.6	43.8	46.9	43.7	47.3	45.6	44.9	42.5	45.1	42.7
34	100m away from well site (W#34)	44.6	41.8	45.3	42.5	46.9	44.1	47.2	45.1	47.0	44.9	46.7	44.3
35	Uperbaluksund Village (W#35)	44.6	42.2	45.3	42.1	42.9	40.7	45.6	43.9	44.2	41.9	44.7	41.8
36	100m away from well site (W#36)	43.7	41.9	45.5	42.9	46.1	44.8	46.7	44.1	46.7	44.1	47.8	44.6
37	100m away from well site (W#37)	45.1	43.2	46.2	43.7	43.2	41.7	42.9	39.8	44.3	41.7	42.3	40.5
38	100m away from well site (W#38)	43.0	41.1	45.3	43.1	44.7	42.8	45.3	43.1	47.4	44.1	46.5	44.2
39	100m away from well site (W#39)	46.9	44.1	44.8	41.4	45.3	43.2	46.5	43.4	45.8	42.6	47.1	45.9
40	100m away from well site (W#40)	44.8	42.2	43.5	41.2	45.7	42.9	45.3	42.9	47.2	44.5	46.3	44.7

41	100m away from well site (W#41)	45.9	43.6	47.6	44.8	46.3	43.8	44.5	42.1	45.4	43.1	43.4	41.2
42	Gudgudpada Village (W#42)	46.1	43.9	46.2	43.7	46.7	44.3	46.2	44.1	47.5	44.9	45.6	43.4
43	100m away from well site (W#43)	44.4	42.1	45.1	42.9	47.3	45.1	44.7	41.9	46.7	43.1	46.4	44.2
44	100m away from well site (W#44)	45.8	43.1	45.2	42.6	45.0	43.1	44.9	42.4	44.1	41.9	44.8	42.9
45	100m away from well site (W#45)	43.4	41.9	44.0	41.8	45.1	42.0	45.2	42.8	46.0	44.1	45.3	43.1
46	Borthal Village (W#46)	46.3	43.9	45.0	43.1	46.5	44.7	47.3	44.9	45.3	42.7	47.1	45.0
47	Borthal Village (W#47)	44.7	42.2	45.8	43.4	44.3	42.6	48.2	45.6	46.9	44.2	45.2	42.3
48	100m away from well site (W#48)	45.2	42.8	44.9	42.5	45.3	43.0	47.9	44.7	45.5	43.4	46.4	43.9
49	100m away from well site (W#49)	46.0	43.6	45.7	43.2	47.1	45.0	46.2	43.6	44.3	42.1	45.0	43.1
50	100m away from well site (W#50)	44.7	41.9	46.4	44.0	45.3	43.1	44.3	42.1	46.6	44.2	46.9	43.8
51	100m away from well site (W#51)	46.2	43.5	44.9	42.1	44.7	41.5	43.2	41.5	45.2	42.3	43.9	41.1
52	Talkudi Village (W#52)	44.4	42.1	46.1	43.8	46.4	43.9	45.2	42.9	44.8	42.9	47.3	45.2
53	100m away from well site (W#53)	46.1	43.4	45.5	42.9	43.9	41.3	46.3	44.1	46.6	44.2	45.6	42.9
54	Talkudi Village (W#54)	44.9	42.1	45.4	43.2	47.2	44.8	44.4	42.5	45.9	43.4	44.4	42.1
55	100m away from well site (W#55)	47.8	44.3	45.8	43.5	46.5	43.2	45.3	43.1	44.7	42.3	47.2	45.2
56	100m away from well site (W#56)	44.3	41.9	46.5	44.1	46.1	43.9	46.8	43.4	44.2	42.1	47.3	45.4
57	100m away from well site (W#102)	47.8	44.8	44.8	42.6	45.6	43.2	44.7	41.9	47.2	45.3	44.3	42.8
58	Salvedia (S-01)	46.3	43.7	43.2	41.1	43.8	41.1	45.3	43.1	46.4	43.8	45.1	42.4
59	100 M away from Well Sites (S-02)	44.2	41.9	47.2	45.1	45.3	42.4	44.5	42.7	47.1	45.2	46.2	43.5
60	Bauntod (S-03)	43.9	40.7	44.3	42.7	46.6	43.2	43.7	41.1	45.7	42.6	44.8	42.2
61	100m away from Well Sites (S-04)	41.3	39.5	44.6	43.5	42.7	40.5	44.5	42.4	43.6	41.8	45.3	43.1
62	100m away from Well Sites (S-05)	44.8	42.4	42.7	40.1	43.6	41.2	44.7	41.9	43.3	40.9	42.6	39.8

63	100 M away from Well Sites (S-07)	43.2	42.9	45.5	44.1	44.9	43.8	43.6	42.9	43.8	40.9	45.2	42.4
64	100 M away from Well Sites (S-08)	45.3	43.1	44.6	41.4	42.8	39.7	44.9	42.6	45.9	43.1	43.9	40.6
65	Raotoda (S-09)	46.1	43.7	43.8	45.0	44.1	43.4	43.5	42.3	44.7	42.0	43.6	42.5
66	100 M away from Well Sites (S-10)	43.6	41.4	44.4	41.8	43.8	42.2	44.9	42.4	45.9	43.5	44.1	41.4
67	Chaukhari (S-11)	43.2	40.9	45.7	42.5	44.8	41.9	45.7	42.0	47.8	45.7	46.2	43.1
68	100 M away from Well Sites (S-12)	46.3	43.6	45.5	42.9	44.6	42.2	43.5	41.3	44.7	41.6	43.9	41.3
69	100 M away from Well Sites (S-13)	44.2	41.6	44.9	42.1	46.4	43.9	44.4	42.1	45.6	43.2	44.7	42.5
70	100 M away from Well Sites (S-14)	46.5	43.3	45.5	41.8	44.7	43.7	41.9	41.8	42.7	41.1	43.9	42.9
71	Narayan Pur (S-15)	44.1	41.9	45.6	42.3	45.3	45.2	43.5	43.6	43.7	42.9	45.6	44.8
72	Bamuntod (S-16)	45.2	42.8	44.9	42.8	44.4	41.9	43.7	41.2	46.3	43.5	44.8	42.5
73	Iswarda (S-17)	47.8	44.9	46.5	43.3	46.9	44.4	45.6	43.3	45.9	42.4	46.4	44.1
74	100 M away from Well Sites (S-18)	45.6	43.1	44.7	42.9	42.8	40.1	46.4	43.7	45.4	42.6	44.8	42.3
75	100 M away from Well Sites (S-19)	44.7	41.8	43.2	40.5	44.7	41.4	45.4	42.9	45.9	44.4	44.6	42.2
76	Borsal (S-20)	42.6	40.7	42.2	39.8	43.4	40.9	44.6	42.5	43.6	41.1	43.5	41.4
77	100 M away from Well Sites (S-21)	41.5	39.4	43.5	40.9	43.8	40.7	42.5	39.6	44.8	42.2	43.6	40.7
78	100 M away from Well Sites (S-22)	44.6	42.1	45.9	43.7	44.2	41.9	45.6	42.8	43.6	41.3	44.5	41.9
79	100 M away from Well Sites (S-23)	46.3	43.9	43.8	41.1	45.9	42.8	44.9	42.4	43.8	41.6	45.8	42.4
80	100 M away from Well Sites (S-24)	43.9	40.8	44.4	41.9	44.7	42.5	41.9	39.7	44.6	42.2	43.6	41.5
81	100 M away from Well Sites (S-25)	44.5	42.1	43.9	41.5	46.2	43.6	43.8	40.9	42.7	40.1	45.1	43.0
82	100m away from Well Site (S-26)	45.6	42.2	45.5	42.9	43.9	41.8	44.7	42.4	43.5	40.9	44.1	41.9
83	100 M away from Well Site (S-27)	45.6	43.4	44.4	42.2	46.7	44.4	43.3	41.1	44.9	42.3	45.6	43.2
84	Anandpur (S-28)	44.7	42.6	43.8	41.7	46.4	44.1	43.6	40.9	44.6	42.3	43.7	40.9

85	100 M away from Well Site (S-29)	42.3	40.1	43.7	41.3	43.8	41.1	45.5	42.9	46.3	44.1	46.4	44.3
86	100 M away from Well Sites (S-30)	43.9	41.8	44.6	42.0	44.9	42.6	45.7	44.7	44.4	43.8	43.5	41.0
87	Kalidaspur, (S-31)	44.5	42.4	43.6	41.2	47.2	44.5	44.2	41.9	46.7	43.9	43.6	41.9
88	Kalidaspur, (S-32)	44.8	42.2	42.7	40.3	46.1	44.0	42.3	40.1	43.9	41.6	42.1	39.7
89	100 M away from Well Sites (S-33)	46.5	44.3	44.5	42.1	43.5	41.1	45.8	43.4	45.6	43.2	45.7	42.9
90	100 M away from Well Sites (S-34)	45.5	42.9	43.5	41.6	45.9	42.7	44.5	42.3	45.7	42.8	45.6	43.4
91	100 M away from Well Sites (S-35)	45.4	43.1	46.2	43.4	44.6	42.3	45.2	43.0	43.3	41.1	46.0	43.8
92	100 M away from Well Sites (S-36)	44.1	42.3	43.5	41.6	44.4	42.1	45.7	42.5	43.6	41.4	44.6	42.7
93	100 M away from Well Sites (S-38)	43.5	41.6	44.7	42.4	45.2	41.9	44.6	42.1	45.2	42.1	43.4	41.6
94	100 M away from Well Sites (S-39)	45.5	43.2	43.5	40.9	44.6	42.1	45.2	42.7	46.2	44.3	44.9	42.1
95	100 M away from Well Sites (S-40)	44.7	41.9	45.7	42.4	46.3	43.5	46.4	43.2	44.9	42.1	45.7	43.2
96	100 M away from Well Sites (S-41)	42.8	40.1	43.7	41.3	44.6	42.3	42.6	40.9	43.3	41.4	44.6	42.1
97	100 M away from Well Sites (S-42)	43.2	40.9	43.6	41.7	44.4	42.1	43.7	41.3	44.4	42.1	42.9	40.4
98	100 M away from Well Sites (S-43)	45.5	42.4	43.4	41.2	44.0	42.7	43.5	40.9	46.7	43.8	45.5	42.9

Noise Monitoring Report – GGS North							
Sr. No.	**Monitoring Locations**	**October – 2025**	**November – 2025**	**December - 2025**	**January – 2026**	**February - 2026**	**March – 2026**
		Leq. dB (A)	**Leq. dB (A)**	**Leq. dB (A)**	**Leq. dB (A)**	**Leq. dB (A)**	**Leq. dB (A)**
1.	Admin Area- Inside Engineer's Room	58.2	59.5	57.6	61.3	60.5	59.4
2.	SCADA Room	59.9	59.4	57.9	60.2	59.5	60.2
3.	Workshop	54.4	52.1	53.4	54.9	52.3	51.8
4.	Outer Corner-1 - Main Gate/Entry Gate	59.6	58.4	58.1	57.3	59.3	58.4
5.	Outer Corner-2 - Gate No.2	57.2	55.9	56.3	55.1	55.4	57.7
6.	Outer Corner-3 -Opposite corner of Main Header	61.5	60.3	60.1	59.3	60.0	59.6
7.	Outer Corner-4- Corner of Flare Area	55.2	56.1	54.8	53.6	54.2	52.8
8.	Well Head Area - 1 meter away from Well Head	60.3	59.9	61.6	60.5	59.8	61.5
9.	D.G/G.G Area- 1 meter away G.G set	72.1	71.2	71.5	73.1	70.3	71.6
10.	Air Compressor Area- 1 meter away from Air Compressor	68.8	69.6	69.2	70.5	69.4	70.1
11.	CBM Compressor Area- between the Level-I & Level-II CBM Compressor	70.6	71.1	70.7	69.1	68.2	69.7
12.	A.G Compressor Area - between both the Compressor	74.9	74.2	73.2	74.0	73.6	73.9
13.	Surge Vessel Area- between Main Header & Surge Vessel.	69.8	68.6	69.5	70.2	68.1	70.2
14.	1 meter away from Flare Stack	54.7	53.9	52.7	53.3	54.2	52.6
15.	Fire Pump House(1 meter away from Fire Diesel Engine)	71.0	72.3	69.9	70.5	69.8	71.2
Noise Monitoring Report – GGS South							
Sr. No.	**Monitoring Locations**	**October – 2025**	**November – 2025**	**December - 2025**	**January – 2026**	**February - 2026**	**March – 2026**
		Leq. dB (A)	**Leq. dB (A)**	**Leq. dB (A)**	**Leq. dB (A)**	**Leq. dB (A)**	**Leq. dB (A)**
1.	SCADA Room	58.1	57.9	58.6	59.5	58.8	57.8

2.	Workshop	48.4	49.6	50.7	49.0	51.1	50.8
3.	Well Head Area - 1 meter away from Well Head	68.7	69.1	68.2	70.3	69.5	70.7
4.	Outer Corner- 1	55.9	56.2	57.8	56.8	55.8	57.6
5.	Outer Corner-2	58.7	58.1	57.2	58.6	57.9	59.7
6.	Outer Corner-3	61.3	62.7	62.1	61.5	60.8	60.4
7.	Outer Corner-4	54.9	54.2	56.1	55.7	56.8	55.6
8.	D.G/G.G Area- 1 meter away G.G set	74.2	73.9	73.0	74.6	72.5	71.4
9.	Air Compressor Area - 1 meter away from Air Compressor	68.3	69.8	67.2	70.1	69.4	68.5
10.	A.G Compressor Area - between both the Compressor	73.9	74.2	74.7	71.8	72.2	74.5
11.	Surge Vessel Area - between Main Header & Surge Vessel.	71.7	70.7	70.3	69.5	68.1	70.2
12.	1 meter away from Flare Stack	55.4	53.9	54.7	53.3	54.0	52.9
13.	Fire Pump House (1 meter away from Fire Diesel Engine)	54.2	55.6	52.2	54.1	56.3	54.7

Noise Monitoring Report - CGS							
Sr. No.	**Monitoring Locations**	**October – 2025**	**November – 2025**	**December - 2025**	**January – 2026**	**February - 2026**	**March – 2026**
		Leq.dB (A)	**Leq.dB (A)**	**Leq.dB (A)**	**Leq.dB (A)**	**Leq.dB (A)**	**Leq.dB (A)**
1.	Near Main Gate	59.7	59.1	57.3	59.8	60.2	58.2
2.	Admin Area- Inside Supervisor Room	56.9	55.8	53.6	54.2	56.7	55.1
3.	Gas Refilling Area - 1 meter away from Gas refilling point	61.7	61.1	59.8	61.4	60.9	61.8
4.	CNG Compressor Area - Between the Compressors	64.1	63.9	62.1	63.3	61.8	62.6
5.	Process Area (Noise monitoring take place at mid-point of the Process Area)	58.7	60.0	59.3	60.4	61.2	58.9

Appendix-F

Summary Report

Month: December-2025

Sample Identified As : **Ground Water**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Borewell Well No-10 (Shyamdihi)	Borewell Well No-12 (Shyamdihi)	Borewell- Well No-26 (Bonogram)	Borewell - Well No-03 (Purushottampur)	Borewell Well No-01 (Kuliapur)
			MSKGL/ED/2025-26/004925	MSKGL/ED/2025-26/004926	MSKGL/ED/2025-26/004927	MSKGL/ED/2025-26/004931	MSKGL/ED/2025-26/004936
Arsenic(as As)	mg/l	APHA (23rd Edition) 3114C (Hydride Generation),2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Bicarbonate	mg/l	APHA23rd Edtn,2320 B,2017	398.57	536.26	326.11	318.86	144.94
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	39.28	110.62	196.39	107.41	44.89
Carbonate	mg/l	TPM/MSK/E/1/X Methods of Analysis Soil Science socity for America Part II ,pg 945	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)
Chemical Oxygen Demand (COD)	mg/l	APHA (23rd Edition) 5220B, 2017	40	20	36	24	12
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B ,2017	48.98	160.67	205.74	115.6	25.47
Colour	Hazen	APHA (23rd Edition) 2120B ,2017	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)
Conductivity	us/cm	APHA (23rd Edition) 2510B,2017	860	1120	2032	1060	410
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	0.93	0.701	0.7	0.785	0.42
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	16.7	18.51	76.36	29.22	9.74
Mercury (as Hg)	mg/l	APHA 22rd Edtn, 3112B,2017	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nitrate (as NO3)	mg/l	APHA (23rd Edition) 4500- NO3-E, 2017	3.65	3.2	3.82	2.35	1.85
Nitrite (as NO2)	mg/l	APHA (23rd Edition) 4500-NO2-B 2017	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Odour	---	APHA(23rd Edition)2150B ,2017	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B, 2017	116	115	26.31	36.2	16.4
Sulphate (as SO4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	36.8	48	86	40.8	16.8
Temperature	^{O}C	APHA 23rd EDITION,2550 B,2017	18 Deg C	18.8 Deg C	19	18.8	19
Total Dissolved Solids (as TDS)	mg/l	APHA(23rd Edition) 2540C,2017	520	772	1220	640	240
pH value	----	APHA(23rd Edition) 4500-H-B ,2017	8.29	7.29	7.7	8.27	8.07 at 19 Deg C
Orthophosphate	mg/l	APHA 22nd Edtn, 4500P-D,2017	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)
Sodium Adsorption Ratio (as SAR)	----	DIAGONISIS AND IMPROVEMENT OF SALINE AND ALKALINE SOIL	3.89	2.66	0.4	0.8	0.58
% Sodium	----	IS 2488 (Part 5)-1976; Rffm:2009	60	40.2	6.5	16.4	18.3

Summary Report
Month: December-2025

Sample Identified As : **Ground Water**
Customer Name : **Great Eastern Energy Corp. Ltd.**
Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters (Units)	Unit	Test Method	Borewell -Well No-07 (Dihika)	Tubewell -Well No-19 (Dwairapara)	Openwell - Well No- S13 (Iswardah)	Tubewell -Well No-S 18 (Anandpur)	Tubewell - Well No-S22 (Pagerbari)
			MSKGL/ED/2025-26/004938	MSKGL/ED/2025-26/004939	MSKGL/ED/2025-26/004944	MSKGL/ED/2025-26/004952	MSKGL/ED/2025-26/004955
Arsenic (as As)	mg/l	APHA (23rd Edition) 3114C (Hydride Generation),2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Bicarbonate	mg/l	APHA23rd Edtn,2320 B,2017	318.86	398.57	422.73	446.89	314.03
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	89.55	39.28	47.13	51.06	39.28
Carbonate	mg/l	TPM/MSK/E/1/X Methods of Analysis Soil Science socity for America Part II ,pg 945	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)
Chemical Oxygen Demand (COD)	mg/l	APHA (23rd Edition) 5220B, 2017	20	28	20	30	30
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B ,2017	109.73	35.27	39.19	45.07	23.51
Colour	Hazen	APHA (23rd Edition) 2120B ,2017	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)
Conductivity	us/cm	APHA (23rd Edition) 2510B,2017	1080	810	856	920	632
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	0.8	0.62	0.45	0.54	0.68
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	38.18	19.09	19.09	23.86	16.7
Mercury (as Hg)	mg/l	APHA 22rd Edtn, 3112B,2017	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nitrate (as NO3)	mg/l	APHA (23rd Edition) 4500- NO3-E, 2017	3.24	2.65	2.8	4.02	3.01
Nitrite (as NO2)	mg/l	APHA (23rd Edition) 4500-NO2-B 2017	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Odour	---	APHA(23rd Edition)2150B ,2017	AGREEABLE	AGREEABLE	AGREEABLE	AGREEABLE	AGREEABLE
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B, 2017	45.15	79.39	43.81	47	15.39
Sulphate (as SO4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	42.6	30.4	40.2	33.4	16.8
Temperature	^{o}C	APHA 23rd EDITION,2550 B,2017	19	19	19	19	19
Total Dissolved Solids (as TDS)	mg/l	APHA(23rd Edition) 2540C,2017	640	480	510	560	380
pH value	----	APHA(23rd Edition) 4500-H-B ,2017	8.04	8.16	8.11	8.18	8.07
Orthophosphate	mg/l	APHA 22nd Edtn, 4500P-D,2017	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)
Sodium Adsorption Ratio (as SAR)	----	DIAGONISIS AND IMPROVEMENT OF SALINE AND ALKALINE SOIL	1	2.59	1.36	1.36	0.52
% Sodium	----	IS 2488 (Part 5)-1976; Rffm:2009	19.6	45.9	30.9	29.6	16

Summary Report
Month: December-2025

Sample Identified As : **Ground Water**
Customer Name : **Great Eastern Energy Corp. Ltd.**
Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Borewell -Well No-S15 (Narayanpur)	Borewell- Well No-S4 (Krishnapur)	Openwell -Well No-S2 (Salbedia)	Openwell -Well No-S29 (Bagjata)	Openwell - Well No-S8 (Kechka)
			MSKGL/ED/2025-26/004985	MSKGL/ED/2025-26/004986	MSKGL/ED/2025-26/004987	MSKGL/ED/2025-26/004988	MSKGL/ED/2025-26/004989
Arsenic(as As)	mg/l	APHA (23rd Edition) 3114C (Hydride Generation),2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Bicarbonate	mg/l	APHA23rd Edtn,2320 B,2017	568	434.81	144.94	410.65	483
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	31.42	157.11	39.28	40.85	117.84
Carbonate	mg/l	TPM/MSK/E/1/X Methods of Analysis Soil Science socity for America Part II ,pg 945	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)
Chemical Oxygen Demand (COD)	mg/l	APHA (23rd Edition) 5220B, 2017	40	32	28	20	20
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B ,2017	587.82	244.92	539	244.92	290
Colour	Hazen	APHA (23rd Edition) 2120B ,2017	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)
Conductivity	us/cm	APHA (23rd Edition) 2510B,2017	3270	2004	2470	3020	2480
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	0.8	0.42	0.36	0.35	0.342
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	11.93	71.59	23.86	47.73	66.82
Mercury (as Hg)	mg/l	APHA 22rd Edtn, 3112B,2017	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nitrate (as NO3)	mg/l	APHA (23rd Edition) 4500- NO3-E, 2017	4.02	3.8	3.66	3.4	3.58
Nitrite (as NO2)	mg/l	APHA (23rd Edition) 4500-NO2-B 2017	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Odour	---	APHA(23rd Edition)2150B ,2017	AGREEABLE	AGREEABLE	AGREEABLE	AGREEABLE	AGREEABLE
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B, 2017	181	97.94	299	218.8	155
Sulphate (as SO4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	120	94	76	110	72
Temperature	^{o}C	APHA 23rd EDITION,2550 B,2017	19	19	19	19	19
Total Dissolved Solids (as TDS)	mg/l	APHA(23rd Edition) 2540C,2017	1960	1198	1480	1810	1420
pH value	----	APHA(23rd Edition) 4500-H-B ,2017	7.58	7.37	8.32	7.88	8.46
Orthophosphate	mg/l	APHA 22nd Edtn, 4500P-D,2017	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)
Sodium Adsorption Ratio (as SAR)	----	DIAGONISIS AND IMPROVEMENT OF SALINE AND ALKALINE SOIL	6.95	1.62	9.25	5.48	2.82
% Sodium	----	IS 2488 (Part 5)-1976; Rffm:2009	68.7	22.7	70.3	55.7	35.1

Summary Report
Month: December-2025

Sample Identified As : **Ground Water**
Customer Name : **Great Eastern Energy Corp. Ltd.**
Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Openwell- Well No-S11 (Ilambazar)	Openwell - Well No-S23 (Singhir)	Openwell - Well No-32 (Damra)	Openwell - Well No-43 (Mohishila)	Openwell - Well No-28 (Talkuri)
			MSKGL/ED/2025-26/004990	MSKGL/ED/2025-26/004991	MSKGL/ED/2025-26/004992	MSKGL/ED/2025-26/004993	MSKGL/ED/2025-26/004994
Arsenic(as As)	mg/l	APHA (23rd Edition) 3114C (Hydride Generation),2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Bicarbonate	mg/l	APHA23rd Edtn,2320 B,2017	374.42	164.26	241.56	207.74	246.39
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	113.91	31.42	97.41	84.84	103.69
Carbonate	mg/l	TPM/MSK/E/1/X Methods of Analysis Soil Science socity for America Part II ,pg 945	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)
Chemical Oxygen Demand (COD)	mg/l	APHA (23rd Edition) 5220B, 2017	10	40	20	10	10
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B ,2017	186.14	30	119.52	82.29	117.56
Colour	Hazen	APHA (23rd Edition) 2120B ,2017	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)
Conductivity	us/cm	APHA (23rd Edition) 2510B,2017	1420	470	1070	946	1170
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	0.38	0.34	0.31	0.26	0.27
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	47.73	18.14	38.18	28.64	40.09
Mercury (as Hg)	mg/l	APHA 22rd Edtn, 3112B,2017	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nitrate (as NO3)	mg/l	APHA (23rd Edition) 4500- NO3-E, 2017	2.86	2.48	2.56	3.14	2.82
Nitrite (as NO2)	mg/l	APHA (23rd Edition) 4500-NO2-B 2017	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Odour	---	APHA(23rd Edition)2150B ,2017	AGREEABLE	AGREEABLE	AGREEABLE	AGREEABLE	AGREEABLE
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B, 2017	29.95	22.23	54.37	41.38	55.47
Sulphate (as SO4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	46	24	56	38	58.02
Temperature	^{o}C	APHA 23rd EDITION,2550 B,2017	19	19	19	19	22
Total Dissolved Solids (as TDS)	mg/l	APHA(23rd Edition) 2540C,2017	820	280	640	560	690
pH value	----	APHA(23rd Edition) 4500-H-B ,2017	7.86	8.33	7.36	7.8	8.18
Orthophosphate	mg/l	APHA 22nd Edtn, 4500P-D,2017	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)
Sodium Adsorption Ratio (as SAR)	----	DIAGONISIS AND IMPROVEMENT OF SALINE AND ALKALINE SOIL	0.59	0.78	1.18	1.18	1.17
% Sodium	----	IS 2488 (Part 5)-1976; Rffm:2009	11.7	23.3	16.6	21.1	20.9

Summary Report
Month: May 2025

Sample Identified As : **Ground Water**
Customer Name : **Great Eastern Energy Corp. Ltd.**
Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	Unit	Test Method	Openwell - Well No-39 (Dhenua)	Openwell - Well No-18 (Kalajharia)	Openwell - Well No-47 (Chasipatti)	Openwell - Well No-46 (Barthol)	Tubewell -Well No-42 (Gutgutpara)
			MSKGL/ED/2025-26/004995	MSKGL/ED/2025-26/004996	MSKGL/ED/2025-26/004997	MSKGL/ED/2025-26/004998	MSKGL/ED/2025-26/004999
Arsenic(as As)	mg/l	APHA (23rd Edition) 3114C (Hydride Generation),2017	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
Bicarbonate	mg/l	APHA23rd Edtn,2320 B,2017	169.09	449.3	381.66	251.22	154.6
Calcium (as Ca)	mg/l	APHA (23rd Edition) 3500 Ca B,2017	36.14	65.99	116.26	42.42	45.56
Carbonate	mg/l	TPM/MSK/E/1/X Methods of Analysis Soil Science socity for America Part II ,pg 945	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)
Chemical Oxygen Demand (COD)	mg/l	APHA (23rd Edition) 5220B, 2017	BDL(DL:4.0)	10	10	BDL(DL:4.0)	BDL(DL:4.0)
Chloride (as Cl)	mg/l	APHA (23rd Edition)4500-Cl B ,2017	33.31	47.03	188.1	27.43	29.39
Colour	Hazen	APHA (23rd Edition) 2120B ,2017	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)
Conductivity	us/cm	APHA (23rd Edition) 2510B,2017	566	997	1446	720	460
Fluoride (as F)	mg/l	APHA (23rd Edition)4500 - F C/D, 2017	0.3	0.57	0.52	0.33	0.43
Magnesium (as Mg)	mg/l	APHA (23rd Edition) 3500 Mg B,2017	18.14	25.77	49.64	18.14	11.45
Mercury (as Hg)	mg/l	APHA 22rd Edtn, 3112B,2017	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Nitrate (as NO3)	mg/l	APHA (23rd Edition) 4500- NO3-E, 2017	2.76	4.38	3.17	2.84	2.04
Nitrite (as NO2)	mg/l	APHA (23rd Edition) 4500-NO2-B 2017	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
Odour	---	APHA(23rd Edition)2150B ,2017	AGREEABLE	AGREEABLE	AGREEABLE	AGREEABLE	AGREEABLE
Sodium (as Na)	mg/l	APHA (23rd Edition) 3500 Na B, 2017	119	51.57	89.31	21.9	17.1
Sulphate (as SO4)	mg/l	APHA (23rd Edition) 4500-SO4 E 2017	28	36.7	49.31	19.44	19.4
Temperature	^{O}C	APHA 23rd EDITION,2550 B,2017	19	21	21	19	19
Total Dissolved Solids (as TDS)	mg/l	APHA(23rd Edition) 2540C,2017	332	592	860	412	266
pH value	----	APHA(23rd Edition) 4500-H-B ,2017	7.41	8.01	8.17	8.14	8.27
Orthophosphate	mg/l	APHA 22nd Edtn, 4500P-D,2017	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)	BDL(DL:0.15)
Sodium Adsorption Ratio (as SAR)	----	DIAGONISIS AND IMPROVEMENT OF SALINE AND ALKALINE SOIL	4.02	1.36	1.74	0.71	0.58
% Sodium	----	IS 2488 (Part 5)-1976; Rffm:2009	54.4	27.9	27.5	19.9	17.3

Appendix-G
Summary Report
Month: October-2025

Sample Identified As : **Flue Gas (Gas Genset)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal - 713305**

Parameters(Units)	**Method**	Gas Generator – Well No-41 (Sl No--DAHM404442)	Gas Generator – Well No-19 (Sl No--62925150)	Gas Generator – Well No-16 (Sl No--DXHM407715)	Gas Generator – Well No-43 (Sl No--69759586)	Gas Generator – Well No-28 (Sl No--63199387)	Gas Generator – Well No-S-12 (Sl No--63242408)	Gas Generator – Well No-45) (Sl No--63180098)	Gas Generator – Well No-05 (Sl No--62877938)
		MSKGL/ED/2025-26/004030	MSKGL/ED/2025-26/004067	MSKGL/ED/2025-26/004068	MSKGL/ED/2025-26/004069	MSKGL/ED/2025-26/004071	MSKGL/ED/2025-26/004072	MSKGL/ED/2025-26/004073	MSKGL/ED/2025-26/004074
Quantity of Gas Flow (Nm3/hr)	EPA Part 2, 25.09.1996	208	167	225	199	195	205	205	178
Velocity of gas (m/sec.)	EPA Part 2, 25.09.1996	9.91	7.63	10.83	8.99	9.0	9.46	9.47	9.58
Concentration of Carbon Monoxide (g/kw-hr)	IS 13270:1992,Ref:2009	0.147	0.230	0.149	0.230	0.243	0.219	0.250	0.232
Concentration of Oxides of Nitrogen (g/kw-hr)	EPA Part-7	0.165	0.277	0.169	0.297	0.272	0.313	0.271	0.261
Concentration of Non-methane Hydro Carbon (g/kw-hr)	USEPA 18 - 25/09/1996	< 0.003	< 0.005	< 0.003	< 0.003	<0.006	< 0.007	<0.007	<0.006
a) Concentration of Ethane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
b) Concentration of Propene (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
c) Concentration of n-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
d) Concentration of Iso-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
e) Concentration of Pentane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Concentration of methane Hydro Carbon (ppm)	USEPA 18 - 25/09/1996	720.16	715.13	694.4	653.05	680.1	604.13	663.44	674.78
Concentration of Nox + NMHC (g/kw-hr)	USEPA 18 - 25/09/1996	0.165	0.277	0.169	0.297	0.272	0.313	0.271	0.261

Summary Report
Month: November-2025

Sample Identified As : **Flue Gas (Gas Genset)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	**Method**	Gas Generator – M10 office (Sl No--DBHM402199)	Gas Generator – M10 office (Sl No--25385432)	Gas Generator – M10 office (Sl No--25385433)	Gas Generator – North GGS (Sl No--25327493)	Gas Generator – Well No 27 (Sl No--DXHM407714)	Gas Generator – Well No 56 (Sl No--63201783)	Gas Generator – Well No S -19 (Sl No--07439585)	Gas Generator – Well No S – 24 (Sl No--75219707)
		MSKGL/ED/2025-26/004596	MSKGL/ED/2025-26/004597	MSKGL/ED/2025-26/004598	MSKGL/ED/2025-26/004599	MSKGL/ED/2025-26/004600	MSKGL/ED/2025-26/004601	MSKGL/ED/2025-26/004602	MSKGL/ED/2025-26/004603
Quantity of Gas Flow (Nm3/hr)	EPA Part 2, 25.09.1996	209	149	211	202	214	184	195	184
Velocity of gas (m/sec.)	EPA Part 2, 25.09.1996	9.59	6.73	9.69	8.95	9.69	8.19	8.75	8.35
Concentration of Carbon Monoxide (g/kw-hr)	IS 13270:1992,Ref:2009	0.162	0.113	0.146	0.120	0.153	0.241	0.266	0.254
Concentration of Oxides of Nitrogen (g/kw-hr)	EPA Part-7	0.152	0.110	0.145	0.109	0.151	0.270	0.281	0.259
Concentration of Non-methane Hydro Carbon (g/kw-hr)	USEPA 18 - 25/09/1996	< 0.003	<0.002	<0.003	<0.002	<0.003	<0.006	<0.006	<0.005
a) Concentration of Ethane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
b) Concentration of Propene (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
c) Concentration of n-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
d) Concentration of Iso-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
e) Concentration of Pentane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Concentration of methane Hydro Carbon (ppm)	USEPA 18 - 25/09/1996	753.26	750.78	757.62	760.28	736.57	708.01	717.87	701.96
Concentration of Nox + NMHC (g/kw-hr)	USEPA 18 - 25/09/1996	0.152	0.110	0.145	0.109	0.151	0.270	0.281	0.259

Summary Report
Month: December 2025

Sample Identified As : **Flue Gas (Gas Genest)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	**Method**	Gas Generator – Well No-47 (Sl No--63127748)	Gas Generator – Well No-43 (Sl No--3010843559)	Gas Generator – Well No-43 (Sl No--3012754443)	Gas Generator – Well No-S-41 (Sl No--70240014)	Gas Generator – Well No-S-2 (Sl No--62925149)	Gas Generator – Well No-55 (Sl No--3012780135)	Gas Generator – Well No-10 (Sl No--3012780147)	Gas Generator – Well No-26 (Sl No--3012780148)
		MSKGL/ED/2025-26/004748	MSKGL/ED/2025-26/004749	MSKGL/ED/2025-26/004750	MSKGL/ED/2025-26/004751	MSKGL/ED/2025-26/004752	MSKGL/ED/2025-26/004753	MSKGL/ED/2025-26/004754	MSKGL/ED/2025-26/004755
Quantity of Gas Flow (Nm3/hr)	EPA Part 2, 25.09.1996	210	170	221	229	200	196	210	208
Velocity of gas (m/sec.)	EPA Part 2, 25.09.1996	8.14	8.15	8.15	7.8	7.83	8.97	8.14	8.97
Concentration of Carbon Monoxide (g/kw-hr)	IS 13270:1992,Ref:2009	0.198	0.115	0.145	0.229	0.180	0.118	0.131	0.136
Concentration of Oxides of Nitrogen (g/kw-hr)	EPA Part-7	0.228	0.141	0.176	0.281	0.213	0.166	0.165	0.165
Concentration of Non-methane Hydro Carbon (g/kw-hr)	USEPA 18 - 25/09/1996	< 0.005	< 0.003	< 0.003	< 0.005	< 0.005	< 0.003	< 0.003	< 0.003
a) Concentration of Ethane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
b) Concentration of Propene (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
c) Concentration of n-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
d) Concentration of Iso-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
e) Concentration of Pentane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Concentration of methane Hydro Carbon (ppm)	USEPA 18 - 25/09/1996	511.69	580	493	517.6	551.25	521.35	542.36	549.75
Concentration of Nox + NMHC (g/kw-hr)	USEPA 18 - 25/09/1996	0.228	0.141	0.176	0.281	0.213	0.166	0.165	0.165

Summary Report
Month: January 2026

Sample Identified As : **Flue Gas (Gas Genset)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	**Method**	Gas Generator – Well No-54 (Sl No--3012754449)	Gas Generator – Well No-S-19 (Sl No--07439585)	Gas Generator – Well No-S-18 (Sl No--62880486)	Gas Generator – Well No-22 (Sl No--69749584)	Gas Generator – Well No-20 (Sl No--3012780130)	Gas Generator – Well No-50 (Sl No--3012780146)	Gas Generator – Well No-52 (Sl No--3012780139)	Gas Generator – Well No-54 (Sl No--3012754449)
		MSKGL/ED/2025-26/005066	MSKGL/ED/2025-26/005067	MSKGL/ED/2025-26/005068	MSKGL/ED/2025-26/005069	MSKGL/ED/2025-26/005070	MSKGL/ED/2025-26/005071	MSKGL/ED/2025-26/005072	MSKGL/ED/2025-26/005073
Quantity of Gas Flow (Nm3/hr)	EPA Part 2, 25.09.1996	211	151	214	205	223	203	194	185
Velocity of gas (m/sec.)	EPA Part 2, 25.09.1996	7.49	7.8	7.66	7.46	8.14	8.97	7.37	7.46
Concentration of Carbon Monoxide (g/kw-hr)	IS 13270:1992,Ref:2009	0.208	0.235	0.218	0.229	0.135	0.112	0.208	0.108
Concentration of Oxides of Nitrogen (g/kw-hr)	EPA Part-7	0.272	0.250	0.269	0.249	0.148	0.129	0.150	0.150
Concentration of Non-methane Hydro Carbon (g/kw-hr)	USEPA 18 - 25/09/1996	< 0.005	< 0.005	< 0.006	< 0.005	<0.003	< 0.003	< 0.003	< 0.003
a) Concentration of Ethane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
b) Concentration of Propene (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
c) Concentration of n-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
d) Concentration of Iso-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
e) Concentration of Pentane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Concentration of methane Hydro Carbon (ppm)	USEPA 18 - 25/09/1996	617.4	674.46	609.3	492.84	555.66	549.9	594	595
Concentration of Nox + NMHC (g/kw-hr)	USEPA 18 - 25/09/1996	0.272	0.250	0.269	0.249	0.148	0.129	0.150	0.150

Summary Report
Month: February -2026

Sample Identified As : **Flue Gas (Gas Genset)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	**Method**	Gas Generator (Well No-25) SL No-3012780138	Gas Generator (Well No-S-25) SL No-63180524	Gas Generator (Well No-53) SL No-70250008	Gas Generator (Well No-23) SL No-63199390	Gas Generator (Well No-21) SL No-3012754459	Gas Generator (Well No-45) SL No-3012754460	Gas Generator (Well No-South GGS) SL No-25374428	Gas Generator (Well No-South GGS) SL No-62925146
		MSKGL/ED/2025-26/005229	MSKGL/ED/2025-26/005230	MSKGL/ED/2025-26/005231	MSKGL/ED/2025-26/005232	MSKGL/ED/2025-26/005233	MSKGL/ED/2025-26/005234	MSKGL/ED/2025-26/005235	MSKGL/ED/2025-26/005236
Quantity of Gas Flow (Nm3/hr)	EPA Part 2, 25.09.1996	199	196	186.04	193	196	222	212	196
Velocity of gas (m/sec.)	EPA Part 2, 25.09.1996	9.27	9.37	8.96	9.15	9.25	10.52	9.85	9.38
Concentration of Carbon Monoxide (g/kw-hr)	IS 13270:1992,Ref:2009	0.216	0.253	0.215	0.238	0.144	0.137	0.045	0.208
Concentration of Oxides of Nitrogen (g/kw-hr)	EPA Part-7	0.315	0.269	0.264	0.259	0.159	0.157	0.061	0.270
Concentration of Non-methane Hydro Carbon (g/kw-hr)	USEPA 18 - 25/09/1996	< 0.006	< 0.006	< 0.006	< 0.006	< 0.004	< 0.004	< 0.001	< 0.006
a) Concentration of Ethane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
b) Concentration of Propene (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
c) Concentration of n-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
d) Concentration of Iso-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
e) Concentration of Pentane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Concentration of methane Hydro Carbon (ppm)	USEPA 18 - 25/09/1996	555.66	607.01	548.37	443.56	500.09	494.91	534.6	552.3
Concentration of Nox + NMHC (g/kw-hr)	USEPA 18 - 25/09/1996	0.315	0.269	0.264	0.259	0.159	0.157	0.061	0.270

Summary Report
Month: March 2026

Sample Identified As : **Flue Gas (Gas Genset)**

Customer Name : **Great Eastern Energy Corp. Ltd.**

Address : **M10 ADDA Industrial Estate Asansol West Bengal – 713305**

Parameters(Units)	**Method**	GG Sl. No.-3012754442 (Well No-07)	GG Sl. No.-3012754462 (Well No-44)	GG Sl. No.-3012780142 (Well No-05)	GG Sl. No.-63199386 (Well No--06)	GG Sl. No.-07399582 (Well No-08)	GG Sl. No.-62877937 (Well No-11)	GG Sl. No.-63201785 (Well No-S-03)	GG Sl. No.-62865723 (Well No-S-27)
		MSKGL/ED/2025-26/005693	MSKGL/ED/2025-26/005694	MSKGL/ED/2025-26/005695	MSKGL/ED/2025-26/005696	MSKGL/ED/2025-26/005697	MSKGL/ED/2025-26/005698	MSKGL/ED/2025-26/005699	MSKGL/ED/2025-26/005700
Quantity of Gas Flow (Nm3/hr)	EPA Part 2, 25.09.1996	199	196	196	128	96	122	132	110
Velocity of gas (m/sec.)	EPA Part 2, 25.09.1996	9.36	9.43	8.97	9.27	12.75	12.75	8.80	9.96
Concentration of Carbon Monoxide (g/kw-hr)	IS 13270:1992,Ref:2009	0.147	0.230	0.149	0.230	0.243	0.219	0.250	0.232
Concentration of Oxides of Nitrogen (g/kw-hr)	EPA Part-7	0.153	0.260	0.148	0.292	0.247	0.335	0.286	0.270
Concentration of Non-methane Hydro Carbon (g/kw-hr)	USEPA 18 - 25/09/1996	< 0.003	< 0.005	<0.003	< 0.007	< 0.006	< 0.007	< 0.007	< 0.006
a) Concentration of Ethane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
b) Concentration of Propene (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
c) Concentration of n-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
d) Concentration of Iso-Butane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
e) Concentration of Pentane (ppm)	USEPA 18 - 25/09/1996	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Concentration of methane Hydro Carbon (ppm)	USEPA 18 - 25/09/1996	708.16	699.13	685.14	672.03	669.53	615.12	632.13	660.32
Concentration of Nox + NMHC (g/kw-hr)	USEPA 18 - 25/09/1996	0.153	0.260	0.148	0.292	0.247	0.335	0.286	0.270

Appendix-H
Feed Gas Quality Analysis Report

Test Report THN25-02905.001

Issue Date: 24-Mar-2025
Customer Name: GREAT EASTERN ENERGY CORPORATION LIMITED
Customer Address: M10 ADDA Industrial Estate
Asansol 713305
INDIA

Customer Provided Information		Lab Provided Information	
Product Description:	Gas - CBM GAS	SGS Order Number:	--
Customer Reference:	WO NO.GEECL/5100010750 DT 26/02/2025	Sampled By:	Sample not drawn by the Laboratory
Customer ID:	GGS NORTH	Received:	20-Mar-2025
Sample Source:	As Supplied	Analysed:	24-Mar-2025
Source Location:	ASANSOL	Completed:	24-Mar-2025
Source ID:	--		
Vessel:	--		
Sample Type:	As submitted		
Sampled:	15-Mar-2025		
Client Comments1:	COAL BED		
Client Comments2:	TIME : 11.00AM		
Client Comments3:	PRESSURE : 7.5 BAR		
Quantity:	2 LTR		

Parameter	Method	Result	Unit
Determination of Nat. Gas Composition by GC using 3 Capillary Columns	ISO 6974 - Part 6		
Helium (He)		<0.01	% mol
Oxygen (O2)		0.381	% mol
Nitrogen (N2)		1.772	% mol
Methane (CH4)		97.493	% mol
Carbon Monoxide (CO)		<0.01	% mol
Carbon Dioxide (CO2)		0.210	% mol
Ethane (C2H6)		0.144	% mol
Propane (C3H8)		<0.001	% mol

Authorised Signatory

Vijay Sankpal
Assistant Manager

20250324163914THN_U0014618173

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Test Report THN25-02905.001

Issue Date: 24-Mar-2025

Customer Name: GREAT EASTERN ENERGY CORPORATION LIMITED

Customer Address: M10 ADDA Industrial Estate
Asansol 713305
INDIA

Customer Provided Information		Lab Provided Information	
Product Description:	Gas - CBM GAS	SGS Order Number:	--
Customer Reference:	WO NO.GEECL/5100010750 DT 26/02/2025	Sampled By:	Sample not drawn by the Laboratory
Customer ID:	GGS NORTH	Received:	20-Mar-2025
Sample Source:	As Supplied	Analysed:	24-Mar-2025
Source Location:	ASANSOL	Completed:	24-Mar-2025
Source ID:	--		
Vessel:	--		
Sample Type:	As submitted		
Sampled:	15-Mar-2025		
Client Comments1:	COAL BED		
Client Comments2:	TIME : 11.00AM		
Client Comments3:	PRESSURE : 7.5 BAR		
Quantity:	2 LTR		

Parameter	Method	Result	Unit	
iso-Butane (C4H10)		<0.001	% mol	
n-Butane (C4H10)		<0.001	% mol	
iso-Pentane (C5H12)		<0.001	% mol	
n-Pentane (C5H12)		<0.001	% mol	
n-Hexane (C6H14)		<0.001	% mol	
Dew Point	ASTM D1142	9.8	°C	#
Sulfur Compounds in Natural Gas and Gaseous Fuels by GC/FPD	ASTM D6228			
Hydrogen sulfide		<1	ppm v/v	
Total Sulfur		<1	ppm v/v	

- Result is outside of test method limits and/or analytical range used in method precision study

Authorised Signatory

Vijay Sankpal
Assistant Manager

20250324163914THN_U0014618173

SGS India Private Limited | Natural Resources - Laboratory Testing Oil, Gas & Chemicals SGS HOUSE, A-77, WAGLE INDUSTRIAL ESTATE, ROAD NO 16, NEAR PASSPORT OFFICE, THANE WEST, 400604, e: ogclab.thane@sgs.com INDIA t +91 22 61517842 www.sgs.com

Member of the SGS Group (SGS SA)

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End of Test Report

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Test Report THN25-02905.002

Issue Date: 24-Mar-2025

Customer Name: GREAT EASTERN ENERGY CORPORATION LIMITED

Customer Address: M10 ADDA Industrial Estate
Asansol 713305
INDIA

Customer Provided Information		Lab Provided Information	
Product Description:	Gas - CBM GAS	SGS Order Number:	--
Customer Reference:	WO NO.GEECL/5100010750 DT 26/02/2025	Sampled By:	Sample not drawn by the Laboratory
Customer ID:	GGS SOUTH	Received:	20-Mar-2025
Sample Source:	As Supplied	Analysed:	24-Mar-2025
Source Location:	ASANSOL	Completed:	24-Mar-2025
Source ID:	--		
Vessel:	--		
Sample Type:	As submitted		
Sampled:	15-Mar-2025		
Client Comments1:	COAL BED		
Client Comments2:	TIME : 12.40PM		
Client Comments3:	PRESSURE : 8.6 KG/CM2		
Quantity:	2 LTR		

Parameter	Method	Result	Unit
Determination of Nat. Gas Composition by GC using 3 Capillary Columns	ISO 6974 - Part 6		
Helium (He)		<0.01	% mol
Oxygen (O2)		0.330	% mol
Nitrogen (N2)		2.033	% mol
Methane (CH4)		97.383	% mol
Carbon Monoxide (CO)		<0.01	% mol
Carbon Dioxide (CO2)		0.106	% mol
Ethane (C2H6)		0.148	% mol
Propane (C3H8)		<0.001	% mol

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Assistant Manager

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Consultancy Project Report

on

Monitoring Land Subsidence and Time-series Analysis over the Raniganj Region of West Bengal Using Satellite Remote Sensing Technique

Submitted to

Great Eastern Energy Corporation Ltd.
M-10 Adda Industrial Area
Asansol-713305

Submitted by

Dr. Chandrakanta Ojha
Assistant Professor
Satellite Remote Sensing Laboratory (SRSLab),
Department of Earth and Environmental Sciences (EES), IISER Mohali
Email ID: chandrakanta@iisermohali.ac.in

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(09 March 2026)

1. Executive Summary

This study extends the analysis of land deformation patterns and displacement time series from the previous assessment (2019–2024) in the Raniganj region of West Bengal (WB) using Synthetic Aperture Radar (SAR) data from the Sentinel-1A satellite provided by the European Space Agency (ESA). The present analysis employs an advanced Small Baseline Subset (SBAS)–based multi-temporal interferometric (MT-InSAR) technique, utilizing 47 C-band Sentinel-1 ascending images acquired between April 2024 and November 2025 to generate deformation velocity maps and displacement time series. The results indicate notable deformation south of the Damodar River, with subsidence rates reaching up to 30 mm/year. In contrast, the northern side of the river exhibits minimal subsidence and localized uplift, with deformation rates also reaching up to 30 mm/year in certain areas. A comparison between the InSAR-derived velocity and well-depth measurements shows no significant deformation signals on either side of the river belt. The southern side, characterized by relatively shallow wells, and the northern side, which contains deeper wells, do not exhibit notable deformation except at a few well locations where deformation rates are less than 10 mm/year.

2. Introduction

Background

The Raniganj in West Bengal is a major coal-producing region in India (Patra et al., 2022). Due to prolonged underground coal mining activities, the region has been experiencing significant land subsidence and downward movement of the ground surface over the last two decades (Ghosh et al., 2024; Karfa and Tah, 2019; Sarkar, 2017). Approximately 80% of land subsidence cases worldwide are due to anthropogenic activities, and 60% of these are caused by groundwater over-extraction (Bagheri-Gavkosh et al., 2021). However, improper water management and monitoring strategies, a lack of early warning mechanisms for groundwater monitoring, and associated land subsidence will have a more significant impact on the region's socio-economic conditions in the near future and may lead to further infrastructure damage. Cities and states in India, such as Kolkata, Delhi NCR, Lucknow, Punjab, Rajasthan, Haryana, and other regions in the Indo-Gangetic Plain (IGP), witnessed groundwater-induced land subsidence in the area (Awasthi et al., 2022; Baweja et al., 2017; Bonsor et al., 2017; Janardhanan et al., 2023; MacDonald et al., 2016; Panda et al., 2021; Singla et al., 2022; CGWB-India, 2002). The study area, Raniganj South CBM block, covering an area of 210 sq. km, has a total of 156 drilled wells since 2007, covering 75 sq. km, with 66 wells actively used. This research survey focused on understanding recent land subsidence in the Raniganj South CBM block by exploring Sentinel-1 data from the European Space Agency using advanced radar interferometry (InSAR) over the period from April 2024 to November 2025.

Objectives

The major objectives of this analysis is outlined as follows:

- Aims to explore and investigate the current surface deformation using more than 1.5 years of Sentinel-1 SAR data archived from April 2024 to November 2025 over the Raniganj region.
- SAR data will be processed using an advanced multi-temporal radar interferometry (MT-InSAR) technique to generate a high-resolution velocity map and displacement time series over the study region and make comparisons with the well depth.

2. Datasets

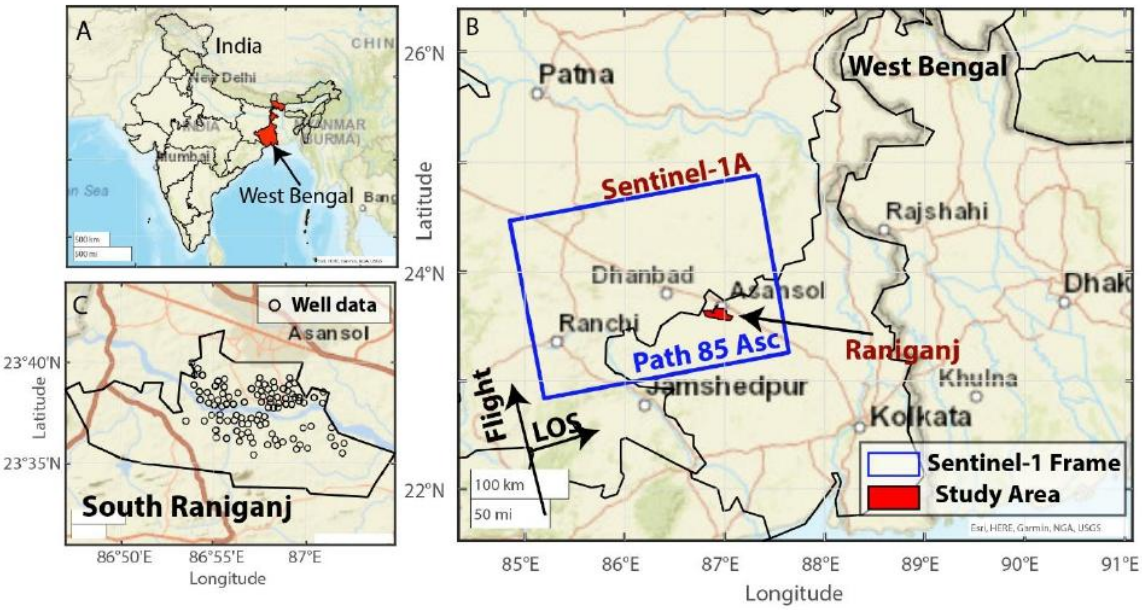

Figure 1. An overview map of the Raniganj region. A) Shows the location of the study on a national scale; B) Displays Sentinel-1 ascending footprint over the Ranging area; C) Highlights the zoomed view of the South Raniganj region. The background overlaid street map is obtained from ESRI.

In this study, we explore 47 C-band Synthetic Aperture Radar (SAR) images from the Sentinel-1A satellite provided by the European Space Agency (ESA) for land subsidence analysis. These images, with ascending orbital geometry, span the observation period from April 2024 to November 2025 (Figure 1). The analysis specifically focuses on sub-swath-3, which covers the study area for multi-temporal InSAR processing. Detailed information on the Sentinel-1 SAR dataset is provided in the table below.

Table-1: C-band Sentinel-1 A data products over the study area

SAR sensors and orbits	Sentinel-1 and Ascending track
Acquisition period	21/04/2024 - 06/11//2025
SAR images and polarization	47 and VV
Selected interferograms	586
Spatial resolution	40 m x 40 m
Multi-look factors (Range x Azimuth)	2 x 8
Incidence angle	37 degree
Satellite revisiting time	12 days
Spatiotemporal baselines thresholds	50 m x 100 days
Total data volume generated	~ 1 Terabytes

Analysed pixels over the study area	1,92,456 (out of total ~1.1 million)

3. Methodology

In this study, we apply an advanced multi-temporal Small Baseline Subset (SBAS)-based InSAR technique to process C-band Sentinel-1 ascending orbit SAR data acquired between April 2024 and November 2025 over the Raniganj region of West Bengal. The SBAS method produces velocity and displacement time series along the line of sight (LOS). To obtain vertical land motion, the LOS velocity is projected along the vertical direction using a unit vector to obtain a vertical displacement time series. The SAR data are processed using the GMTSAR software package, an open-source InSAR processing framework that generates interferograms using Generic Mapping Tools (GMT). Each interferogram includes phase contributions from surface deformation, topography, atmospheric delay, orbital phase, and noise. Several phase correction techniques are applied to the interferogram, followed by co-registration and phase unwrapping to isolate the phase components associated with surface deformation. The Shuttle Radar Topography Mission (SRTM) digital elevation model (DEM) with a 1-arc-second (30-meter) spatial resolution is used to remove topographic phase. The corrected interferogram stack is then analyzed using a least-squares inversion to derive velocity and displacement time series, along with associated error uncertainties. For comparative analysis between the InSAR-derived velocity map and well-depth data, we select a 100-meter radius around each drill station, retrieve the InSAR pixels within this region, and calculate the average velocity for those pixels. The results are discussed in the following section.

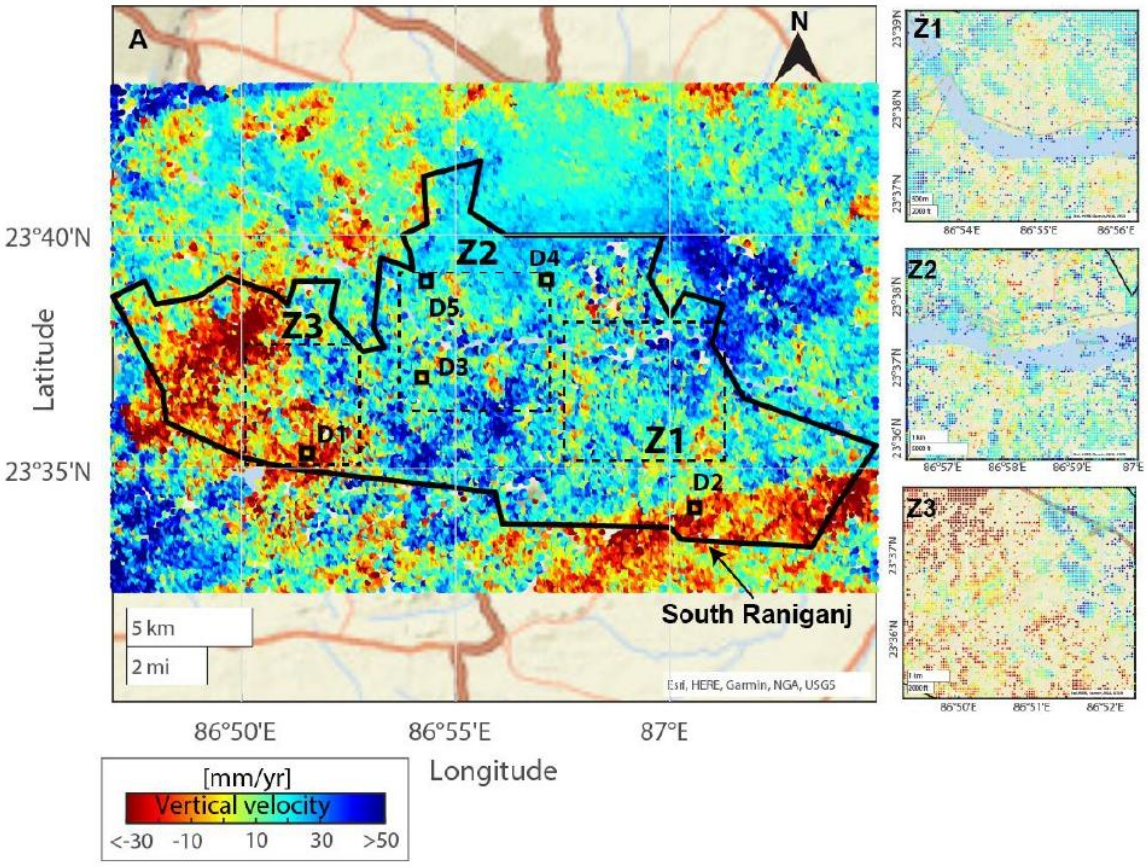

Figure 2. A) InSAR-derived vertical velocity map of Sentine-1A from April 2024 to November 2025 over the Raniganj South block region in West Bengal. The colorbar represents

the maximum and minimum velocity ranges from +50 to -30 mm/year. The positive and negative values correspond to surface upliftment and subsidence, respectively. Z1, Z2, and Z3 are the zoomed view maps of certain locations highlighted by dotted boxes over Fig.2A.

4. Results and Discussion

Figure 2 shows the vertical velocity map of the Ranjiganj area in West Bengal, derived from Sentinel-1 data spanning April 2024 to November 2025. The negative and positive velocity values in the colorbar correspond to subsidence and uplift, respectively, and are represented by red and blue. The velocity map shows subsidence in the southwest and eastern parts of the study area at a rate of ~30 mm/year. In contrast, the northern region shows slight uplift, with rates of 10-20 mm/year. Three zoomed-in areas (Z1, Z2, and Z3) are highlighted in Fig. 2 to better visualize deformation patterns, with Z1 and Z2 along the rivers and Z3 in the western part of the study area.

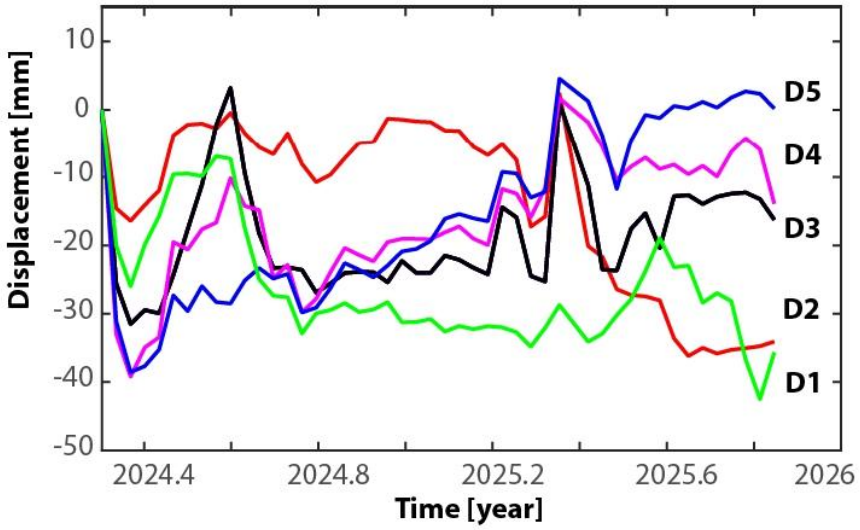

Figure 3. Shows the displacement time series at five locations over the study region, D1 to D5, as highlighted in Fig.2A.

To analyze deformation patterns in the Raniganj region over the past 1.5 years, displacement time series were generated for five selected locations (D1–D5), as shown in Figures 2 and 3. The results indicate that pixels at D1 and D2, located south of the Damodar River, experienced cumulative displacements of less than 40 mm between April 2024 and November 2025. In contrast, the northern locations (D3, D4, and D5) exhibited uplift trends of approximately 20–30 mm during the study period. To evaluate the reliability of the velocity maps, an uncertainty map was generated by calculating the RMSE for each InSAR pixel, as shown in Figure 4. The RMSE histogram indicates mean and median values of less than 2 mm/yr, confirming the reliability of the velocity estimates across the study region.

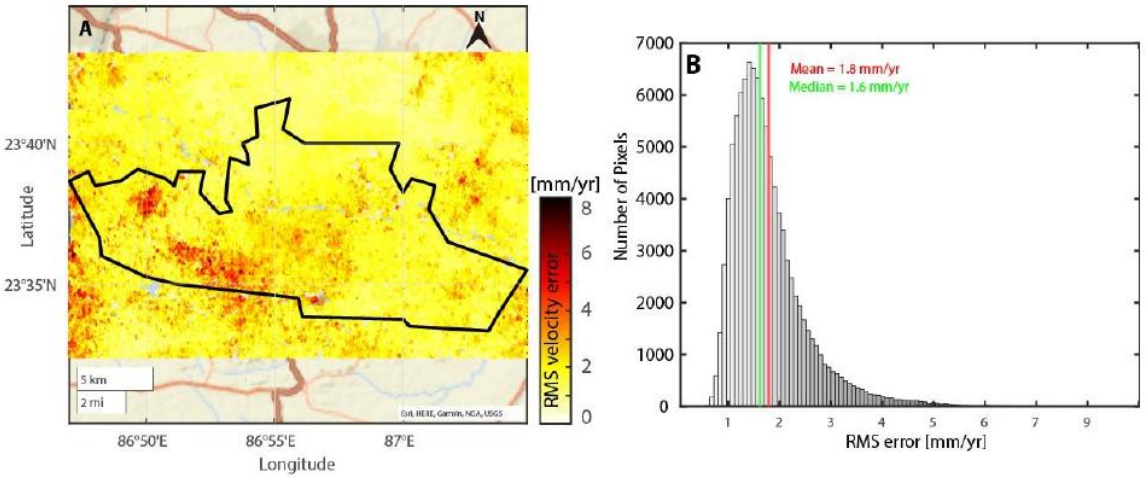

Figure 4. A) Root mean square (RMS) error of the InSAR-derived velocity map; B) Histogram plot shows a mean and median RMS error of less than 2 mm/year over the study region.

Figure 5 shows a comparative analysis between the InSAR-derived deformation results with existing well-depth data (in meters below ground level) for 156 wells across the study region, primarily located on both sides of the river. The northern side of the river contains deeper wells, ranging from 800 to 1400 m, while the southern side features relatively shallower wells, ranging from 700 to 1100 m (see Fig. 5B). The average velocity on the northern side indicates uplift of about 20 mm/year, whereas the southern side shows a maximum subsidence of about 10 mm/year (see Fig. 5A). However, no major deformation is observed at the well locations on either side of the Damodar River except a few.

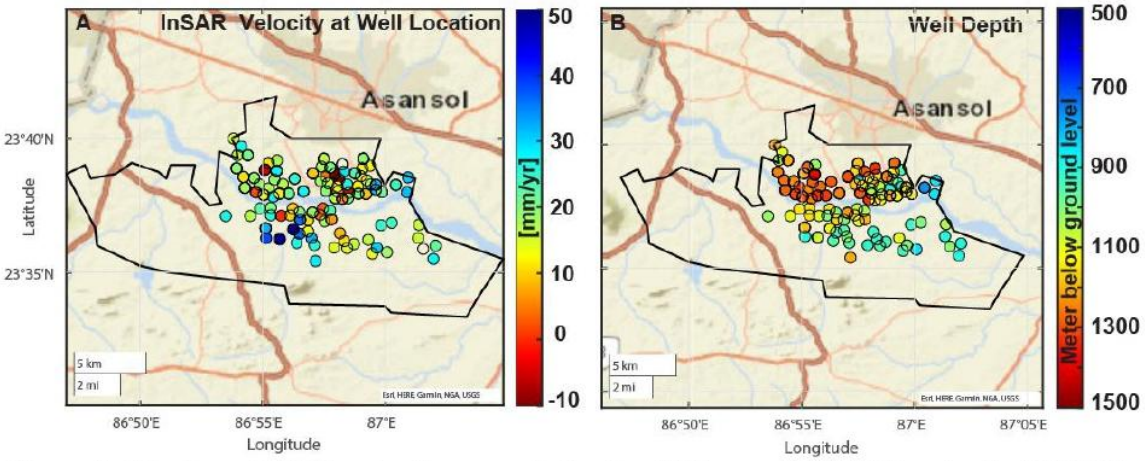

Figure 5. Displays InSAR velocity vs. well depth. A) Shows the InSAR velocity (04/2024-11/2025) at various well locations for a comparative analysis with drilled data; B) Well depth data for 156 stations, measured in meters below ground level (mbgl). Red circles represent deeper wells, while blue circles indicate shallower wells relative to the ground surface.

5. Conclusion

- The study presents a detailed analysis of surface deformation patterns in the Raniganj South CBM Block, West Bengal, using 47 C-band Sentinel-1A SAR images acquired over 1.5 years (April 2024–November 2025).

- The results indicate a maximum subsidence rate of up to 30 mm/year in the southern part of the Damodar River. In contrast, the northern region shows relatively lower subsidence rates, with localized uplift reaching up to 30 mm/year. The velocity error uncertainty analysis shows an average of less than 2 mm/year across the study region.
- A comparison of InSAR-derived deformation data with well-depth measurements indicates no significant deformation at the well locations on either side of the Damodar River. However, a few well locations on the southern side show slow deformation rates of less than 10 mm/year.
- Reports from GEECL indicate the extraction of more than 60 billion cubic feet (cf) of gas over 17 years, with higher recovery rates in the northern part of the block compared to the south. This suggests that CBM extraction may have a relatively lower impact on land subsidence in the northern region.
- The observed subsidence exceeding 30 mm/year in the southern part of the study area requires further investigation, as it may be influenced by multiple factors, including active coal mining, underground resource extraction, and infrastructure development.
- The findings infer that land deformation is influenced by both seasonal and long-term factors. Seasonal deformation is primarily associated with regional rainfall patterns, whereas long-term subsidence may result from natural and anthropogenic activities such as underground resource extraction, infrastructure development, and seismic activity.

References

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Appendix – J
Awareness session on "Ban of single use plastic"