ENVIRONMENTAL CLEARANCE

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive, and Virtuous Environment Single-Window Hub)

Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The CGM(HSE)
OIL INDIA LIMITED
Safety & Environment Department , Oil India Limited, Duliajan,,Dibrugarh,Assam-786602

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/AS/IND2/212735/2007 dated 20 Nov 2021. The particulars of the environmental clearance granted to the project are as below.

1.	**EC Identification No.**	**EC23A002AS188131**
2.	**File No.**	J-11011/1257/2007- IA II (I)
3.	**Project Type**	Expansion
4.	**Category**	A
5.	**Project/Activity including Schedule No.**	1(b) Offshore and onshore oil and gas exploration, development & production
6.	**Name of Project**	Onshore Oil & Gas development drilling and production in Tengakhat-Kathaloni-Dikom area
7.	**Name of Company/Organization**	OIL INDIA LIMITED
8.	**Location of Project**	Assam
9.	**TOR Date**	14 Jan 2019

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

(e-signed)
A N Singh
Scientist E
IA - (Industrial Projects - 2 sector)

Date: 17/04/2023

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH.Please quote identification number in all future correspondence.

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This has reference to your online proposal no. IA/AS/IND2/212735/2007, dated 20th November, 2021 for environmental clearance to the above-mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal seeking environmental clearance for Onshore Oil & Gas development drilling and production in Tengakhat-Kathaloni-Dikom (TKD) area- located at Villages Ronapuria, Dikom Sessa, Niz Chabua, Mohabir Bari, BamuHiloidhari, Tengakhat, Tamuli Khat, Charaihabi Gaon No.3, Dhomon No. 1, Ghogulani, Dighali Bill No.1, Dhunda Nar etc. District Dibrugarh, Assam by M/s. Oil India Ltd.

3. All Offshore and onshore oil and gas exploration, development & production proposals are listed at S.N. 1(b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

4. The details of products and capacity as under:

S No	Unit	Product/by product	Existing quantity	Proposed Quantity	Total Quantity
1	Wells	Wells	31	167	198
2	Production Installations	Production Installations	0	7	7

The TKD area is located in Dibrugarh district of Assam. Total area of TKD is 828 sq. km. NH 37 is the main road connecting TKD area with rest of Assam. Rig will be used for deep drilling up to the desired depth of 3900 m as planned for the TKD Project.

Coordinates of Proposed wells and production installations

S No	Name of proposed well	Latitude	Longitude
1	CF	27° 27' 0.954" N	95° 11' 58.702" E
2	HSG	27° 25' 53.428" N	95° 6' 33.675" E
3	HSL	27° 26' 35.940" N	95° 6' 31.066" E
4	HSD	27° 26' 35.927" N	95° 6' 30.496" E
5	HSM	27° 25' 53.361" N	95° 6' 34.259" E
6	HSJ	27° 23' 4.566" N	95° 5' 57.270" E
7	HIS	27° 22' 48.105" N	95° 4' 13.548" E
8	HSQ	27° 26' 22.456" N	95° 5' 59.389" E
9	HSN	27° 26' 22.815" N	95° 5' 59.778" E
10	HSE	27° 26' 35.896" N	95° 6' 29.969" E
11	HSF	27° 26' 36.185" N	95° 6' 29.967" E
12	HTX	27° 25' 41.341" N	95° 9' 42.736" E
13	HTI	27° 24' 31.355" N	95° 4' 22.624" E

S No	Name of proposed well	Latitude	Longitude
14	HTJ	27° 25' 3.112" N	95° 5' 8.705" E
15	HOR	27° 25' 49.317" N	95° 7' 5.792" E
16	HTY	27° 25' 41.620" N	95° 9' 42.751" E
17	HTH	27° 22' 29.651" N	95° 3' 35.008" E
18	CS	27° 15' 59.529" N	95° 1' 42.425" E
19	CN	27° 27' 23.324" N	95° 11' 56.839" E
20	CP	27° 28' 29.228" N	95° 12' 54.498" E
21	CR	27° 27' 26.273" N	95° 12' 52.531" E
22	HUQ	27° 26' 5.301" N	95° 10' 10.233" E
23	HWL	27° 23' 37.130" N	95° 5' 20.310" E
24	HWH	27° 24' 52.565" N	95° 6' 12.689" E
25	HWK	27° 24' 29.642" N	95° 7' 35.675" E
26	HWJ	27° 25' 4.608" N	95° 7' 4.427" E
27	HUP	27° 26' 2.682" N	95° 9' 28.399" E
28	HSW	27° 25' 41.527" N	95° 9' 43.316" E
29	HSH	27° 26' 36.811" N	95° 7' 18.275" E
30	HXK	27° 26' 35.911" N	95° 7' 17.156" E
31	HSW	27° 25' 41.527" N	95° 9' 43.316" E
32	CW	27° 28' 58.278" N	95° 7' 29.021" E
33	CX	27° 28' 57.383" N	95° 7' 29.062" E
34	HTM	27° 26' 0.033" N	95° 8' 23.637" E
35	HXL	27° 26' 37.081" N	95° 7' 18.717" E
36	HXJ	27° 26' 14.602" N	95° 7' 22.413" E
37	HWG	27° 24' 52.978" N	95° 6' 11.042" E
38	CU	27° 28' 57.913" N	95° 7' 29.197" E
39	CAC	27° 29' 0.858" N	95° 14' 39.593" E
40	HZC	27° 23' 3.288" N	95° 11' 52.100" E
41	DIC-H	27° 15' 49.618" N	95° 7' 15.767" E
42	HWF	27° 25' 16.620" N	95° 6' 44.819" E
43	HWI	27° 24' 35.437" N	95° 5' 46.413" E
44	HWM	27° 23' 38.269" N	95° 4' 31.059" E
45	HXM	27° 26' 18.227" N	95° 7' 19.060" E
46	CAB	27° 29' 11.559" N	95° 7' 2.573" E
47	801	27° 25' 59.612" N	95° 9' 54.925" E
48	802	27° 21' 17.069" N	95° 7' 6.615" E
49	803	27° 27' 52.409" N	95° 6' 29.069" E
50	804	27° 25' 12.910" N	95° 5' 57.242" E
51	805	27° 24' 1.021" N	95° 6' 44.713" E
52	806	27° 22' 16.424" N	95° 11' 5.393" E
53	807	27° 25' 40.744" N	95° 13' 59.389" E
54	808	27° 16' 41.600" N	95° 5' 46.159" E
55	809	27° 27' 1.353" N	95° 7' 44.319" E
56	810	27° 25' 30.208" N	95° 8' 28.454" E
57	811	27° 24' 42.839" N	95° 10' 6.841" E
58	812	27° 22' 12.775" N	95° 5' 30.919" E
59	813	27° 29' 12.839" N	95° 12' 8.083" E

S No	Name of proposed well	Latitude	Longitude
60	814	27° 30' 13.935" N	95° 9' 6.381" E
61	815	27° 31' 18.254" N	95° 3' 14.661" E
62	816	27° 22' 27.998" N	95° 9' 39.208" E
63	925	27° 19' 26.469" N	95° 2' 2.928" E
64	926	27° 17' 24.297" N	95° 3' 12.498" E
65	927	27° 19' 40.097" N	95° 3' 29.945" E
66	928	27° 20' 6.170" N	95° 1' 42.623" E
67	929	27° 20' 29.887" N	95° 1' 35.355" E
68	930	27° 20' 27.337" N	95° 1' 36.430" E
69	931	27° 19' 19.590" N	95° 7' 6.551" E
70	932	27° 16' 49.138" N	95° 4' 12.904" E
71	933	27° 29' 47.349" N	95° 9' 18.344" E
72	934	27° 19' 34.174" N	95° 7' 24.237" E
73	935	27° 28' 40.245" N	95° 8' 40.307" E
74	936	27° 19' 51.593" N	95° 7' 34.718" E
75	937	27° 17' 23.689" N	95° 7' 20.097" E
76	938	27° 17' 16.941" N	95° 6' 42.276" E
77	939	27° 16' 42.420" N	95° 6' 57.740" E
78	940	27° 29' 53.402" N	95° 7' 53.062" E
79	941	27° 29' 44.656" N	95° 8' 42.932" E
80	942	27° 16' 18.289" N	95° 6' 26.449" E
81	943	27° 19' 54.376" N	95° 8' 2.101" E
82	944	27° 28' 30.862" N	95° 13' 27.474" E
83	945	27° 20' 44.046" N	95° 9' 19.737" E
84	946	27° 28' 17.216" N	95° 12' 34.755" E
85	947	27° 25' 13.249" N	95° 8' 35.001" E
86	948	27° 25' 6.302" N	95° 9' 12.443" E
87	949	27° 28' 34.943" N	95° 8' 17.047" E
88	950	27° 25' 43.999" N	95° 9' 5.721" E
89	951	27° 16' 54.674" N	95° 7' 25.162" E
90	952	27° 28' 53.632" N	95° 6' 58.721" E
91	953	27° 25' 59.762" N	95° 6' 56.377" E
92	954	27° 25' 37.413" N	95° 6' 53.318" E
93	955	27° 25' 26.495" N	95° 6' 44.450" E
94	956	27° 24' 55.166" N	95° 5' 35.933" E
95	957	27° 27' 48.388" N	95° 13' 27.540" E
96	958	27° 28' 5.838" N	95° 13' 24.637" E
97	959	27° 25' 1.910" N	95° 5' 57.235" E
98	960	27° 28' 58.465" N	95° 6' 21.857" E
99	961	27° 28' 51.866" N	95° 12' 56.996" E
100	962	27° 28' 43.612" N	95° 7' 55.353" E
101	963	27° 27' 53.690" N	95° 12' 20.896" E
102	964	27° 25' 25.341" N	95° 6' 23.427" E
103	965	27° 28' 42.873" N	95° 7' 31.856" E
104	966	27° 25' 25.690" N	95° 7' 7.466" E
105	967	27° 28' 25.229" N	95° 11' 58.842" E

S No	Name of proposed well	Latitude	Longitude
106	968	27° 29' 20.449" N	95° 8' 5.661" E
107	969	27° 29' 37.620" N	95° 6' 51.602" E
108	970	27° 29' 41.021" N	95° 9' 45.545" E
109	971	27° 24' 53.565" N	95° 9' 29.423" E
110	972	27° 29' 8.142" N	95° 9' 27.338" E
111	973	27° 28' 40.769" N	95° 9' 16.310" E
112	974	27° 25' 51.325" N	95° 9' 10.239" E
113	975	27° 26' 2.389" N	95° 9' 14.923" E
114	4	27° 25' 41.488" N	95° 9' 19.726" E
115	103	27° 16' 49.187" N	95° 6' 36.398" E
116	106	27° 22' 12.666" N	95° 8' 44.755" E
117	107	27° 17' 54.792" N	95° 11' 19.564" E
118	108	27° 19' 24.615" N	95° 5' 28.801" E
119	112	27° 22' 22.531" N	95° 7' 2.561" E
120	113	27° 16' 9.705" N	95° 4' 21.864" E
121	116	27° 17' 32.828" N	95° 3' 46.276" E
122	206	27° 19' 36.471" N	95° 7' 33.434" E
123	207	27° 18' 15.980" N	95° 11' 21.417" E
124	301	27° 19' 17.754" N	95° 11' 33.421" E
125	306	27° 17' 25.388" N	95° 4' 9.378" E
126	107	27° 31' 19.093" N	95° 7' 25.079" E
127	102	27° 22' 41.897" N	94° 59' 4.453" E
128	103	27° 27' 30.875" N	95° 0' 19.310" E
129	104	27° 22' 30.841" N	95° 1' 4.180" E
130	105	27° 20' 6.892" N	95° 2' 6.109" E
131	106	27° 18' 32.881" N	95° 2' 10.027" E
132	106D	27° 19' 30.404" N	95° 3' 1.561" E
133	107	27° 23' 45.939" N	95° 3' 8.582" E
134	110	27° 19' 43.285" N	95° 7' 6.145" E
135	403	27° 17' 19.283" N	95° 4' 0.515" E
136	403D	27° 20' 8.119" N	95° 5' 34.735" E
137	CAA	27° 28' 11.753" N	95° 5' 59.676" E
138	CI	27° 27' 16.847" N	95° 8' 23.236" E
139	DYB	27° 16' 49.696" N	95° 6' 21.849" E
140	DYD	27° 17' 19.283" N	95° 4' 0.515" E
141	HXQ	27° 19' 58.690" N	95° 1' 57.250" E
142	HXR	27° 19' 43.285" N	95° 7' 6.145" E
143	HXS	27° 22' 30.841" N	95° 1' 4.180" E
144	TBC	27° 30' 37.990" N	95° 7' 15.200" E
145	HZF	27° 24' 53.995" N	95° 14' 5.205" E
146	HSK	27° 25' 41.273" N	95° 9' 43.485" E
147	HSB	27° 21' 39.592" N	95° 3' 25.170" E
148	HTN	27° 23' 3.276" N	95° 11' 51.254" E
149	HQF	27° 26' 0.209" N	95° 8' 22.563" E
150	HSC	27° 22' 38.644" N	95° 2' 22.323" E
151	HWA	27° 21' 35.969" N	95° 13' 54.642" E

S No	Name of proposed well	Latitude	Longitude
152	HVY	27° 21' 22.861" N	95° 12' 52.979" E
153	HVV	27° 21' 7.839" N	95° 8' 22.522" E
154	HVX	27° 21' 0.540" N	95° 3' 59.933" E
155	HVT	27° 19' 42.147" N	95° 11' 56.528" E
156	NLB	27° 20' 46.640" N	95° 14' 28.060" E
157	HVS	27° 20' 53.000" N	95° 11' 48.845" E
158	HVU	27° 21' 30.474" N	95° 9' 38.007" E
159	CH	27° 28' 59.347" N	95° 7' 29.111" E
160	HVZ	27° 18' 3.440" N	95° 12' 34.260" E
161	CG	27° 29' 59.081" N	95° 4' 4.504" E
162	CJ	27° 27' 1.879" N	95° 10' 2.862" E
163	HXN	27° 26' 21.638" N	95° 12' 25.304" E
164	HZE	27° 26' 21.415" N	95° 12' 24.895" E
165	DEW	27° 15' 52.480" N	95° 3' 8.060" E
166	DIBC	27° 19' 10.375" N	94° 59' 49.566" E
167	DIBB	27° 19' 7.493" N	94° 58' 17.865" E

S No	Name of proposed production installation	Latitude	Longitude
1	HSX	27° 22' 30.605" N	95° 1' 12.008" E
2	HXQ	27° 19' 57.966" N	95° 1' 59.457" E
3	CI	27° 27' 16.667" N	95° 8' 25.563" E
4	HXR	27° 19' 42.359" N	95° 7' 6.578" E
5	DYD	27° 17' 19.185" N	95° 4' 11.805" E
6	Sologuri	27° 19' 8.096" N	94° 59' 53.404" E
7	Nadua	27° 29' 0.663" N	95° 8' 54.784" E

5. Ministry has issued Environmental Clearance to the existing capacity of 31wells vide J-11011/1257/2007-IA-II(I); dated 1st November 2011. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Guwahati vide RO-NE/E/IA/AS/MI/57/1106-1108 dated 9thSeptember 2021. Action Taken Report has been submitted to IRO, MOEFCC, by Oil India dated 27.10.2021 for partial compliances or Certified Action Taken Report has been obtained by IRO, MOEFCC, No. RO-NE/E/IA/AS/MI/57/1866-1888 dated 25th January 2022.

6. The ToR has been issued by Ministry vide F. no. J-11011/1257/2007-IA.II (I); dated 14th January 2019. PP was informed that there is no litigation is Pending against the proposal.

7. Public Hearing for the proposed project had been conducted by the Pollution Control Board of Assam on 5th September 2019 at Tengakhat Public Hall, Dibrugarh district, which was chaired by Additional Deputy Commissioners of Dibrugarh district. The main issues raised during the public

hearing and their action plan to address the issues are as given below:

Dibrugarh District

Issue in Brief	Action Plan in brief	Budget allocated and timeline
Installation of soundless DG sets	DG sets complaint to CPCB norms will be procured at site Regular monitoring of the DG sets will be conducted.	-
Movement of OIL hired vehicles and concerns on safety	Adequate training on traffic and road safety operations is being imparted to the drivers of project vehicles. Road safety awareness programs organized in coordination with concerned authorities to sensitize target groups *viz*. School children, commuters on traffic safety rules and signage. Signage will be provided at transport route. Traffic personnel will be deployed near sensitive areas	Signage in the transport route & its maintenance per well (@Rs. 100,000 + Rs. 10,000 Deployment of traffic personnel in sensitive area – 5 persons (@ Rs. 6000 per month x 6 months) for each well Safety related training for OIL drivers (@ 1 lakh per year for 7 years)
Development of the area	• Fund for flood protection • Mobile health services • Providing scholarships to economically backward students for pursuing higher education • Infrastructure improvement work across schools in 50 schools • Sponsoring for local sports and cultural events • Plantation at abandoned drill sites • Repair of local roads	• 70 lakhs (@ 10 lakhs per year 7 years) or flood protection to district administration • Mobile health services-Rs. 2 lakhs per year for 7 years= Total 14 lakhs • Rs. 0.1 lakh per student x 20 students per year x 7 years= Total Rs. 14 lakhs • Rs. 1 lakh per school x 50 schools= Total Rs. 50 lakhs • Rs. 1 lakh per year for 7 years= Total Rs. 7 lakhs • Rs. 2 lakh per year for 7 years= Total Rs. 14 lakhs

Issue in Brief	Action Plan in brief	Budget allocated and timeline
	• Provision for solar street light in the area	• Rs. 50 lakhs • Rs. 5 lakhs per year for 7 years= Total 35 lakhs
Environmental monitoring to be conducted in the area	OIL will engage NABL/PCBA approved laboratory in consultation with PCBA for testing of water samples	Surface Water Quality Monitoring (@ Rs. 8000 x 4 samples from natural drainages once during site construction, once during drilling, once after decommissioning)= Total 0.96 lakh per well Ground Water Quality Monitoring (@ Rs. 8000 x 3 sites, once during site construction, once during drilling, once after decommissioning)= Total 0.72 lakh per well ETP Treated water quality (@ Rs. 8000 x 2 samples of ETP treated water per month for 3 months))= Total 0.48 lakh per well Sample from Oily water separator(Rs. 5000 per samples x 1 sample after drilling)= Total 0.05 lakhs per well
Exposed pipeline of OIL often cause accidents	OIL have dedicated team for management of safety issues of pipeline operations Regular patrols and inspections of pipelines conducted. Pressure testing and inspection of equipment and pipelines conducted regularly.	-
Grant fund for the repair of the Tengakhat Public Hall	Funds for repair of Tengakhat Public Hall	INR 6.0 lakhs

Issue in Brief	Action Plan in brief	Budget allocated and timeline
Concerned authorities to keep the pollution levels to the minimum.	Environmental Management Plan will include • Air Quality Management Plan • Noise Management Plan • Soil Quality Management Plan • Surface Water Quality Management Plan • Ground Water Quality Management Plan • Waste Management Plan • Greenbelt Plan • Wildlife Conservation Plan • Road Safety & Traffic Management Plan • Occupation Health & Safety Management Plan • Blowout Management Plan • Emergency Response Plan Regular monitoring of environmental parameters will be conducted.	Detail of cost breakup of implementation of Environmental Conservation measures for each well would be INR 14.185 lakhs and for each production installation would be INR 6.30 lakhs per annum.

8. Total area after expansion will be 643 Ha (existing plant area 93 Hectares and additional land required 550 Hectares for proposed capacity). Land for the drill sites will be procured prior to drilling. Oil India Ltd. will develop greenbelt at the proposed production installations having total area of 122500 m^2.The estimated project cost is Rs 5655 Crores. Capital cost of EMP would be Rs. 2.11 Crores and recurring cost for EMP would be Rs. 3.94 Crores per annum (which includes CER budget also). Industry proposes to allocate Rs. 2.60 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 180 persons as direct & indirect.

9. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of proposed wells and production installations. Namdang RF and Telpani RF located within the Block, however, no wells or production installation are located in forest land. It is reported that Dibru Saikhowa National Park (DSNP) is located approx. 4 km from the north eastern corner of the Block. Podumoni section of Bherjan-Borjan-Podumoni Wildlife Sanctuary (BBPWLS) is located approximately 5 km from the northeastern corner of the TKD area. PP confirmed that Podumoni segment of Bherjan-Borjan Podumoni Wildlife Sanctuary is located at a distance of 10.1 km of nearest proposed well. The notified ESZ of Dibru-Saikhowa National Park (DSNP) is approximately 9.7 km from the nearest well. Conservation plan for Schedule I species has been submitted to PCCF & Chief Wildlife Warden Assam dated 22.07.2020 and a budget of 0.195 Crores has been earmarked for the same. Buri Dehing River is present within the Block, however, the nearest well is located at a distance of 0.04 km from Burhi Dehing River. Brahmaputra River is located within the Block, nearest well is located at a distance of 1.5 km from Brahmaputra River.

10. Ambient air quality monitoring was carried out at 8 locations during 05.10.2017 to 31.12.2017 and the baseline data indicates the ranges of average concentrations as: PM_{10} (59.21 - 81.38 µg/m^3), $PM_{2.5}$ (29.88-43.50 µg/m^3), SO_2 (5.44-6.14 µg/m^3) and NO_2 (17.72-21.73 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 6.73 µg/m^3, 0.64 µg/m^3, 0.009 µg/m^3 and 0.12 µg/m^3 with respect to NO_x, SO_2, PM_{10} and HC. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

11. Total fresh water requirement after expansion will be 50 CMD for each well which will be met from groundwater. NOC has been obtained from CGWA vide letter no. CGWA/NOC/MIN/ORIG/2021/11459 dated 26.03.2021. Existing effluent generation is 21.8 CMD (8 CMD domestic wastewater and 13.8 CMD drilling and wash wastewater). Drilling and wash wastewater will be treated through effluent treatment plant. Domestic waste water will be treated in STP. The project will be based on Zero Liquid discharge system.

12. Power requirement of the drill sites will be met through two Diesel Generator Sets of 1250 kVA each. Another 1250 kVA DG set will be kept as standby. Stack height of 7 m will be provided as per CPCB norms to the proposed DG sets.

13. Details of Process emissions generation and its management:

- Operation of DG sets,
- Movement of vehicles and machineries during construction and drilling,
- Flaring of natural gas will result in the generation of air pollutants,
- Stacks will be used with DG sets and flare system as per CPCB norms.

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

- Drill cuttings and spent drilling mud will be disposed to HDPE lined pit within the drill site.
- The kitchen waste will be disposed in nearest municipal/village dumping site on a daily basis through approved waste handling contractors.
- Recyclable wastes will be periodically sold to local waste recyclers.
- Hazardous waste (waste and used oil) will be managed in accordance with Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2016.

15. During deliberations, EAC discussed following issues:

S NO.	Issues discussed by EAC Industry-2 on 09.03.2023	Response
1.	As baseline data provided is for 2017. Baseline monitoring data conducted for	Air quality monitoring conducted by OIL in Dibrugarh district, including monthly AAQ

S NO.	Issues discussed by EAC Industry-2 on 09.03.2023	Response
	last 1 year at Dibrugarh district to be provided	monitoring carried out at 8 no of Installations (namely GCS Kathaloni, OCS Jaipur, Power Station Duliajan, OCS Bhogpara, OCS Kathaloni, GCS Ushapur, GCS Tengakhat, OCS Tengakhat) located in Dibrugarh District during the year 2022 were analyzed and compared with the 2017 data collected as part of the EIA study. The comparative data is presented below. The maximum values collected during 2017 were higher for PM compared to 2022. However, only 4 samples out of 192 samples collected during 2017 showed values beyond 100 µg/m^3. As mentioned earlier, the higher values were recorded at 2 stations *viz*. Daman Tiniali (in proximity to Tingkong Road) and Tingrai NC/Bosajan (in proximity to Dibrugarh-Duliajan Road). Both the roads at certain stretches are in bad condition and dust generated from plying of vehicles could had resulted in higher PM values at the aforementioned stations. Maximum and minimum NO_x values in NDBN area were recorded as 28.6 µg/m^3 and 10.2 µg/m^3 respectively. Existing sources of NOx emissions in the NDBN area are represented below: i. Vehicular emission ii. Emission from household cooking (within semi-urban/rural habitats) iii. There are other industrial /commercial activities in the area, though limited in number, but contributing to air emissions in the area viz. OIL exploration and production facilities, small & medium scale industries, tea gardens etc.
2.	Photographs of restored area in the Block to be provided	Photographs submitted
3.	Design of HDPE lined pits to be provided	Design details of HDPE lined drill pits shared Drilling cuttings are disposed in HDPE lined pits. Specifications of the pit and liner used in the pits is given below: o **Size of Pit :** 30 Mtr X 35 Mtr o **Depth of Pit :** 1.5 Mtr to 1.8 Mtr o **Size of HDPE lining :**45 Mtr X 50 Mtr
4.	Modelling results indicate that NOx values are very high. Modelling values to be rechecked	The 24 hourly values, when averaged across the 90-day prediction period, shows an incremental value of 6.73 µg/m3 which is significantly lesser than the max value of 16.71 µg/m3 and is therefore anticipated to result in much lesser adverse impact on local air quality in the vicinity of the drill site, over the drilling period - as a result, the impact on

S NO.	Issues discussed by EAC Industry-2 on 09.03.2023	Response
		air quality has been rated as 'moderate'
5.	Undertaking to be provided as no activity for the projects will be undertaken within forest areas or within 10 km of ESZ of national parks or wildlife sanctuaries	PP informed that no drilling will be carried out in forest land and protected area.
6.	Details of the production facilities to be provided	The details are given below
7.	Nearest water body from the wells	• Nearest well is located 0.04 km from Burhi Dehing River • Nearest production installation is more than 0.5 km from water body
8.	CER plans to be implemented within 2 years from the date of commencement of the project	PP has submitted the Undertaking
9.	Modified PH action plans with details of management plans to be shared	Details are given below
10.	New CTO to be shared	PP has shared latest CTO dated 13 Feb 2023 of the existing production set up.

Comparison of AAQ monitoring value recorded during 2017 and 2022

Criteria Pollutants	Unit	Baseline Data		Monthly AAQ monitoring carried out at 8 no of Installations (namely GCS Kathaloni, OCS Jaipur, Power Station Duliajan, OCS Bhogpara, OCS Kathaloni, GCS Ushapur, GCS Tengakhat, OCS Tengakhat) located in Dibrugarh District during the year 2022	
		2017 data		2022 data	
		Maximum	Minimum	Maximum	Minimum
PM_{10}	$\mu g/m^3$	133	34	95	48.1
$PM_{2.5}$	$\mu g/m^3$	69	16	52.8	23.6
SO_2	$\mu g/m^3$	9.6	4	11.3	6
NO_2	$\mu g/m^3$	28.6	10.2	27.8	14.2
CO	mg/m^3	1.06	0.12	1.04	0.36

Public Hearing Action Plan and budgetary allocation at Dibrugarh District

S. No	Raised by Public	Comments/Suggestion by Public	Response	Action Items	Responsibility	Tentative Budget (INR)
1.	Ranjit Tamuli,	Adverstisement and bannering of this	Mr. Dipen Deka, ADC,	-	-	-

S. No	Raised by Public	Comments/Suggestion by Public	Response	Action Items	Responsibility	Tentative Budget (INR)
	Tengakhat Tailokhetro Surakhsa Samity	meeting has not been upto satisfaction. He wished more public could attend this hearing so that locals could express their views to the authorities	president of the hearing requested Mr. Tamuli to give his opinions and suggestions or complaints if any to PCBA, RO Dibrugarh in writing			
2.	Arjun Chetry, Tengakhat AASU	Installation of soundless DG sets Kathaloni and Tengakhat wells as its noise disturbs students during exam.	DG sets as per CPCB norms will be used at sites.	DG sets complaint to CPCB norms will be procured at site Regular monitoring of the DG sets will be conducted.	CGM-Drilling; CGM-Safety& Environment	Ambient noise monitoring and workplace monitoring budget provided in section 10.3 of the EIA report
3.		Hired vehicles drivers of OIL have became unruly and requested them to give strict instructions to the drivers	OIL will implement Road Safety and Traffic Management Plan for management of the issue	Adequate training on traffic and road safety operations will be imparted to the drivers of project vehicles. Road safety awareness programs will be organized in coordination with concerned authorities to sensitize target groups *viz*. school children, commuters on traffic safety rules and signage. Road Safety and Traffic Management Plan included in section 10.1.10. Signage will be provided at transport route. Traffic personnel	CGM-Safety& Environment	Training programs for drivers; traffic Signage: devlopment; salary of traffic personnel salary-budget provided in section 10.3 of the EIA report

S. No	Raised by Public	Comments/Suggestion by Public	Response	Action Items	Responsibility	Tentative Budget (INR)
				will be deployed near sensitive areas Signage in the transport route & its maintenance Deployment of traffic personnel in sensitive area		
4.		Thanked OIL for the developmental projects they have undertaken for the well being of the locals. There could be other grounds too which requires OIL support like for the flood affected areas. Welcomed OIL for the new projects which they have taken in these new sites	OIL will implement social development programs which will aid in social development of the area	Funds will be provided to the District Administration for Flood protection. Other social development activities will be undertaken in the Block	GM-CSR	**Fund for flood protection** 70 lakhs (@ 10 lakhs per year 7 years) or flood protection to district administration **Health Initiatives** Mobile health services= Rs. 2 lakhs per year for 7 years= Total 14 lakhs **Educational Initiatives** Providing scholarships to economically backward students for pursuing higher education Rs. 0.1 lakh per student x 20 students per year x 7 years= Total Rs. 14 lakhs Infrastructure improvement work across schools in 50 schools Rs. 1 lakh per school x 50 schools= Total Rs. 50

S. No	Raised by Public	Comments/Suggestion by Public	Response	Action Items	Responsibility	Tentative Budget (INR)
						lakhs **Social Initiatives** Sponsoring for local sports and cultural events Rs. 1 lakh per year for 7 years= Total Rs. 7 lakhs **Plantation Initiatives** Plantation at abandoned drill sites Rs. 2 lakh per year for 7 years= Total Rs. 14 lakhs **Other initiatives** Repair of local roads=Rs. 50 lakhs for 7 years Provision for solar street light in the area Rs. 5 lakhs per year for 7 years= Total 35 lakhs
5.	Anut Bora, Tengakhat Tribal Development	PCBA to collect water samples from few locations in Kathaloni for test as he doubts that pumps or wells in these areas were affected due to OIL OCSs.	Regular testing of water samples as per the Environnemental monitoring programme of OIL	OIL will engage NABL/PCBA approved laboratory in consultation with PCBA for testing of water samples	CGM-Safety& Environment	Surface Water Quality Monitoring; Ground Water Quality Monitoring Treated water quality- budget provided in section 10.3 of the EIA report
6.		Exposed pipeline of OIL often cause accidents	OIL have dedicated team for management of safety issues of	Regular patrols and inspections of pipelines conducted. Pressure testing and inspection of	CGM-Safety& Environment	Only management time required. Details presented in

S. No	Raised by Public	Comments/Suggestion by Public	Response	Action Items	Responsibility	Tentative Budget (INR)
			pipeline operations	equipment and pipelines conducted regularly.		7.1.5 Disaster Management Plan and Annexure 7.1
7.		He expressed happiness about the fact that many development and pre-caution measures undertaken by OIL and PCBA. He thanked for the Public Hearing which gave platform for expression to the locals.	-	-	-	-
8.	Pranab Phukan, local resident	Grant fund for the repair of the Tengakhat Public Hall	Funds for repair of Tengakhat Public Hall	Funds will be provided for repair of Tengakhat Public Hall	GM-CSR; GM- Civil	6.0
9.	Dipu Deka, ADC, Dibrugarh	Concerned authorities to keep the pollution levels to the minimum.	OIL has EMP for managing the environmental pollution related issues at the drill sites and production facilities.	Environmental Management Plan will include ***Air Quality Management Plan*** Vehicles delivering raw materials like fine aggregates will be covered to prevent fugitive emissions. Sprinkling of water on earthworks, material haulage and transportation routes on a regular basis during construction and decommissioning phase of the wells. Flare stacks of	CGM-Safety& Environment	Budget for EMP for each drill site and for each production installation for 1 year provided in Section 10.3

S. No	Raised by Public	Comments/Suggestion by Public	Response	Action Items	Responsibility	Tentative Budget (INR)
				adequate height would be provided. DG/GG set stacks would have adequate height, as per statutory requirements, to be able to adequately disperse exhaust gases Periodic monitoring of DG/GG set stack emission will be carried out in accordance with the Environmental Monitoring Plan to assess compliance with CPCB DG set exhaust standards. ***Noise Management Plan*** Selection and use of low noise generating equipment with in-built engineering controls viz. mufflers, silencers, etc. All DG/GG sets would be provided with acoustic enclosures. Appropriate PPEs (e.g. ear plugs) will be used for by workers while working near high noise		

S. No	Raised by Public	Comments/Suggestion by Public	Response	Action Items	Responsibility	Tentative Budget (INR)
				generating equipment. All vehicles utilized in transportation of raw materials and personnel will have valid Pollution under Control Certificates (PUC). ***Soil Quality Management Plan*** Drip trays to be used during vehicular/equipment maintenance and during re-fuelling operations. Spill kits will be made available at all fuel and lubricant storage areas. All spills/leaks contained, reported and cleaned up immediately. Dedicated paved storage area will be identified for the chemicals, fuel, lubricants and oils within the drill sites and production facilities. 1.5 mm HDPE lined pits will be considered for the disposal of unusable drilling mud cuttings. ***Surface Water Quality***		

S. No	Raised by Public	Comments/Suggestion by Public	Response	Action Items	Responsibility	Tentative Budget (INR)
				Management Plan During site preparation and construction, surface water run-off will be channelized through appropriately designed drainage system. Sediment filters and oil-water separators will be installed to intercept run-off and remove sediment before it enters water courses. Domestic wastewater generated from drill sites and production facilities will be treated through septic tank and soak pit system. Process wastewater would be treated in Effluent Treatment Plant (ETP) at drill sites and production facilities. ***Ground Water Quality Management Plan*** Water based mud would be used as a drilling fluid for the proposed project. Eco-friendly synthetic based		

S. No	Raised by Public	Comments/Suggestion by Public	Response	Action Items	Responsibility	Tentative Budget (INR)
				mud if required for deeper sections, will be used after providing intimation to the Pollution Control Board; The drill cutting along with spent mud will be stored in HDPE lined pit. ***Waste Management Plan*** Use of low toxicity chemicals for the preparation of drilling fluid. Management of drill cuttings, waste drilling mud, waste oil and domestic waste, wastewater in accordance with CPCB Standards. The hazardous waste (waste and used oil) will be managed in accordance with Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2016. The kitchen waste will be disposed in nearest municipal/village dumping site on a daily basis through approved waste		

S. No	Raised by Public	Comments/Suggestion by Public	Response	Action Items	Responsibility	Tentative Budget (INR)
				handling contractors. The sewage generated will be treated through septic tank and soak pit system. Used batteries will be recycled through the vendors supplying lead acid batteries as required under the Batteries (Management & Handling) Rules, 2001. The drill cuttings pit will be bunded and kept covered using tarpaulin sheets during monsoon. ***Wildlife Conservation Plan*** Contributing Forest Departments habitat improvement program Capacity building of forest department staffs Awareness Generation Meetings at villages Engaging a NGO for Identification of Hoolock Gibbon Roosting sites. ***Road Safety & Traffic Management Plan***		

S. No	Raised by Public	Comments/Suggestion by Public	Response	Action Items	Responsibility	Tentative Budget (INR)
				The condition of roads and bridges identified for movement of vehicles and drilling rig will be assessed and if required strengthened by OIL to ensure their safe movement. Precautions will be taken by the contractor to avoid damage to the public access routes including highways during vehicular movement. Traffic flows will be scheduled wherever practicable during period of increased commuter movement. ***Occupation Health & Safety Management Plan*** All machines to be used in the construction will conform to the relevant Indian Standards (IS) codes, will be kept in good working order, will be regularly inspected and properly maintained as per IS provisions and to the satisfaction of the site		

S. No	Raised by Public	Comments/Suggestion by Public	Response	Action Items	Responsibility	Tentative Budget (INR)
				Engineer. Hazardous and risky areas, installations, materials, safety measures, emergency exits, etc. shall be appropriately marked. ***Blowout Management Plan*** In case of blowout, OIL will engage its own resource along with hired services from organizations of National repute to control blowout related environmental impacts. Actions planned by OIL to mitigate the environmental impacts in case of blowout include: i) Environmental Assessment, ii) Spillage cleaning and bio-remediation, iii) Picking up of spilled oil manually and by turbo pump, iv) Assessment of Environmental Contamination, v) Assessment of impact/ damage to the biodiversity, vi) Assessment of Health Hazard for local		

S. No	Raised by Public	Comments/Suggestion by Public	Response	Action Items	Responsibility	Tentative Budget (INR)
				public, vii) Vibration assessment. ***Emergency Response Plan*** Drilling rig and related equipment to be used for drilling will be conformed to international standards specified for such equipment. Blow-out preventers and related well control equipment shall be installed, operated, maintained and tested generally in accordance with internationally recognized standards. Appropriate gas and leak detection system will be made available at each of the drill sites and production facility. Adequate fire-fighting equipment shall be provided at each site. Regular monitoring of environmental parameters will be conducted.		

Details of production installation:

- Seven new production installations are planned within the Block. Each production installation will have approximate 7ha. Area The production installation will include the following facilities.
- Considering the size of the oil field and the number of oil/gas wells in the area, it is necessary to have certain facilities at various central locations to collect and handle oil /gas coming from the wells before pumping to the Central Tank Farm(CTF)/Central Processing Facility (CPF)for storage and processing of hydrocarbons. Production installations are built to serve the above purpose. A production installation also facilitates to monitor the flow of oil/gas from wells and the conditions of wells and the flow-lines.
- A production installation has a number of oil/gas wells connected to it depending upon the oil / gas handling capacity of the production installation and techno-economics of laying flow-lines from the well to the production installation. Producing fluids from the neighboring wells are collected in a production installation through well flow lines. Fluid from the wells enters the LP manifold and passes through the steam jacket to the Three Phase Separator(TPS). Gas, oil and free water (if any) are separated here. Then the wet crude is taken to the Emulsion Treater (ET). In the Emulsion Treater, the wet crude is heated up to 600°C and a chemical called 'Oil Soluble Demulsifier is added to it continuously. Inthis process oil and water are separated from each other. Oil from the Emulsion Treater is then taken to the Stabilizer and from the stabilizer it goes. To the crude oil storage tanks. The stored crude oil is dispatched to CTF from time to time with the help of reciprocating pump. Water is collected in formation water storage tanks. There after it is disposed in water disposal wells with the help of centrifugal pumps.
- Gas separated in TPS and ET goes to the 30psi Low Pressure Master Separator (LPMS) and then to Booster suction at GCS. The excess gas is flared in the flare pit. Gas separated in the Stabilizer goes to the 10 psi Low Pressure Master Separator (LPMS) from where it is flared in the flare pit.

Storage Facilities

In general, following storage facilities are provided at the production installation

- Two production tanks (795 KL capacity) for storage of crude oil. Height of the tanks are approximately 10 m with safe storage height of 5.7m. Crude is generally stored at 1 atmospheric pressure and at 60°C.
- One test tank (160KLcapacity) for storage of hydrocarbons at the time of testing
- Two formation water tanks (160 KL and 40KL) for storage of formation

water (produced water)
- One skimming tank (40KL capacity).

Effluent treatment system (ETP)-An ETP of capacity 50KLD will be installed for each production installation.

Water injection wells

Water injection wells will be planned within a production facility to inject excess ETP treated water from the production installation. It is planned to develop 3 new water injection wells at 3 production installations (out of 7 production installation). Water injection wells will be drilled once the installations are in operation.

Formation/Produced water

Formation/produced water will be treated in the production installation to meet the parameters as per MoEF&CC standards for Effluent disposal and the treated formation/ produced water will be disposed off in disposal wells located in the vicinity of the production installation.
Formation/produced water will be treated through:

a) Mobile ETP(s).
b) Central ETP of capacity 5000 KLD at Tengakhat.
c) ETP of capacity 7200 KLD at Madhuban.

Flaring System

- Flaring management: In normal conditions, flaring won't be carried out at drilling locations. Hydrocarbon produced/extracted will be sent to nearby production installations/ Group Gathering stations with adequate facility for flaring of the Low Pressure gas like enclosed ground flare/ Non-luminous flare systems as per the prevailing norms of OMR-2017 & OISD guidelines.
- DG sets at the drilling locations and Production Installations will be provided with adequate acoustic enclosure and stack height based on the capacity of the DG sets as per the CPCB guidelines and regular monitoring of the stack gas emissions will be carried out.

The committee was satisfied with the response provided by PP on above information.

16. The proposal was considered in 45th EAC meeting held on 29th – 30th November, 2021 and in EAC Meeting ID: IA/IND2/13456/09/03/2023 held on 09th - 10th March, 2023 in the Ministry, wherein the project proponent and their accredited Consultant M/s. ERM India Pvt. Ltd. (NABET certificate no. NABET/EIA/1922/RA 0177_Rev 01 and validity 30.06.2024), presented the case. The Committee **recommended** the project for grant of environmental clearance.

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

18. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

20. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the **On shore Oil & Gas development drilling and production in Tengakhat-Kathaloni-Dikom area, Dibrugarh Assam by M/s. Oil India Limited,** under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under:-

A. <u>Specific Condition:</u>

(i). 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 (Annexure-I).

(ii). No pipelines or its part shall be laid in the Forest land/Protected Area without prior permission/approval from the Competent Authority.

(iii). PP shall ensure that safe distance is maintained between proposed drilling well location and HFL of river.

(iv). PP shall conduct third party audit of compliance of EC condition at an interval one year and its report shall be submitted to IRO, MoEF&CC.

(v). Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing.

(vi). The project proponent will treat and reuse the treated water within the drilling site location including at processing location and no waste or treated water shall be discharged outside the premises under any condition. Mobile ETP coupled with RO and mobile STP shall be installed to treat the waste water and sewage waste respectively.

(vii). During production, storage and handling, the fugitive emission of methane, if any, shall be monitored using appropriate technology.

(viii). The project proponent also to ensure trapping/storing of the CO_2 generated, if any, during the process and handling.

(ix). Approach road shall be made pucca to minimize generation of suspended dust.

(x). The project proponent shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.

(xi). Total fresh water requirement shall be 39 KLPD which will be met from ground water. Extraction of ground water shall not be done without obtaining prior permission of CGWA/concerned authority.

(xii). Formation/produced water shall be treated in the production installation through Mobile ETP(s)/ Central ETP of capacity 5000 KLD at Tengakhat/ ETP of capacity 7200 KLD at Madhuban to meet the parameters as per MoEF&CC standards for Effluent disposal and the treated formation/ produced water will be disposed off in disposal wells located in the vicinity of the production installation.

(xiii). The company shall construct the garland drain to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated.

(xiv). 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 off 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.

(xv). 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.

(xvi). 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.

(xvii). The project proponent shall develop a contingency plan for H_2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H_2S detectors in locations of high risk of exposure along with self-containing breathing apparatus.

(xviii). Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.

(xix). 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.

(xx). PP shall obtain approval from the Chief Wildlife Warden on conservation plan for Schedule-I Species and recommendations shall be complied. Compliance report shall be submitted to IRO.

(xxi). As proposed, PP shall allocate funds for extended EMP (CER) as per plan submitted in Annexure-II.

(xxii). No lead acid batteries shall be utilized in the project/site.

(xxiii). 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.

(xxiv). Oil content in the drill cuttings shall be monitored if oil-based mud is used and report shall be sent to the Ministry's Regional Office.

(xxv). The project proponent shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.

B. <u>General Condition</u>:

(i) 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.

(ii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

(iii) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

(iv) 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.

(v) 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.

(vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

(vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

(viii) 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.

(ix) 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.

(x) 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.

(xi) 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.

21. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

22. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

23. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

24. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

25. This issues with the approval of the competent authority.

(A. N. Singh)
Scientist-'E'

Copy to: -

1. The Secretary, Environment & Forest, H-Block, 2ndFloor, Janata Bhawan, Disupr, Guwahati - 781006 (Assam)
2. The Regional Officer, Ministry of Env., Forest and Climate Change, Integrated Regional Office, Guwahati, 4th Floor, HOUSEFED Building, G.S. Road Rukminigaon, Guwahati - 781022
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi - 32

4. The Member Secretary, Pollution Control Board Assam, Bamunimaidam, Guwahati - 21 (Assam)
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi – 3
6. District Collector, Dibrugarh, Assam
7. Guard File/Monitoring File/ Parivesh Portal /Record Fil.

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ANNEXURE-I

Details of capital and recurring cost of EMP:

Sl. No.	Particulars of Work	Budget for 1 well (in lakh Rs.)	Cumulative Budget for 167 wells
1	Air Quality Management Plan		
a.	Dust suppression through water sprinkling in the internal unpaved roads	4.575	764.025
	Cost of water sprinkling		
	- One truck hiring charge (Rs. 1,00,000 per month X 9 months=Rs. 9,00,000);		
	- Diesel charge (50 km travel per day @ Rs. 35/km X 270 days = Rs. 4,72,500);		
	- Total cost for one year Rs.13,72,500		
	Total cost for 7 years= Rs. 96,07,500		
b.	Maintenance of paved internal road and transport route (budgetary provision is included in operational cost of drilling)	0	0
c.	Ambient Air Quality Monitoring -3 monitoring locations x 2 weeks per location x Once during site development, twice during drilling and once during decommissioning (@ Rs.7500 x 24 samples)	1.8	300.6
d.	Stack emission monitoring (@ Rs. 5000 per sample x 3 DG sets x twice during drilling)	0.3	50.1

2	Noise Management Plan		
a.	Ambient Noise Monitoring – 3 locations, once during site development, twice during drilling and once during decommissioning (@Rs. 2500 X 12 samples)	0.3	50.1
b.	Workplace noise monitoring -5 locations per well, twice during drilling (@Rs.2500 per location x 5 locations x 2 times)	0.25	41.75
c.	All DG sets would be provided with acoustic enclosures (All DG sets will be procured with in-built acoustic enclosures budget included in drilling budget)		
3	Water Quality Management Plan		
a.	Construction and maintenance of double chambered sedimentation tank and oily-water separator ETP (Budget included in drilling budget)	0	0
b.	Surface Water Quality Monitoring (@ Rs. 8000 x 4 samples from natural drainages once during site construction, once during drilling, once after decommissioning)	0.96	160.32
c..	Ground Water Quality Monitoring (@ Rs. 8000 x 3 sites, once during site construction, once during drilling, once after decommissioning)	0.72	120.24
d.	ETP Treated water quality (@ Rs. 8000 x 2 samples of ETP treated water per month for 3 months)	0.48	80.16
e..	Sample from Oily water separator	0.05	8.35
	(@Rs. 5000 per sample X 1 sample after drilling)		
4	Soil Quality Management Plan		
a.	Soil quality monitoring(@ Rs. 8000 x 2 samples x once before site preparation; once after decommissioning/restoration)	0.32	53.44
b.	Procurement of spill kits at drill sites	0.6	100.2
	(Rs 20,000 per kit X 3 spill kits per site)		
5	Road Safety & Traffic Management		
a.	Signage in the transport route & its maintenance (@Rs. 100,000 + Rs. 10,000)	1.1	183.7
b.	Deployment of traffic personnel in sensitive area – 5 persons (@ Rs. 6000 per month x 6 months)	1.8	300.6
6	Surface Runoff & Soil Erosion Control		
a.	Two chamber sedimentation tank at each drill site (Budgetary provision is already	0	0

	included in the infrastructure development cost)		
7	Municipal Solid Waste		
a.	Provision of two chambered covered collection bins at well site – 2 nos	0.2	33.4
b.	Transport arrangement of waste from well sites to dumping area	0.25	41.75
8	Hazardous waste management		
a.	Construction of dedicated hazardous storage area and record maintenance (construction included under TKD Project cost; only maintenance included in this budget)	0.1	16.7
b.	Drill Cutting, waste mud and wash water pits; HDPE lined (budgetary provision in operation cost of drilling)	0	0
c.	Analysis of drill cutting and waste drilling mud	0.3	50.1
	(Drill cutting @Rs. 5000 per sample x 1 sample per month x 3 months drilling time;		
	Waste drilling mud @Rs. 5000 per sample x 1 sample per month x 3 months drilling time)		
9	Surface and Ground Water Protection and Management		
a.	Surface runoff control measures for chemical storage area, fuel storage area (budgetary provision is already taken care in earlier section)	0	0
b.	Paved /impervious storage area for chemical storage area, fuel & lubricant storage area (Budgetary provision is already included in the infrastructure development cost)	0	0
c.	Domestic waste water treatment facility through septic tank & soak pits at the drill sites (budgetary provision in operation cost of drilling)	0	0
10	Occupational Health & Safety Management		
a.	Provision of appropriate PPE to all workers and its maintenance (budgetary provision is included in operational cost of drilling)	0	0
b.	Provision of drinking water, sanitation facility for all workers (budgetary provision is included in operational cost of drilling)	0	0
c	Provision First aid facility (budgetary provision is included in operational cost of drilling)	0	0
d	Provision of Ambulance facility OIL has its own ambulance facility)	0	0

e	Regular health checkup facility provided by OIL for workers)	0	0
f	Regular occupational health & safety training (@ 1 lakh per year for 7 years)	0.04**	7
g.	Safety related training for OIL drivers (@ 1 lakh per year for 7 years)	0.04**	7
	Total Cost of Implementation of EMP	**14.185**	**2369.535**

*** Budget is for overall drilling programme for 167 wells in the Block. Budget for 1 well has been calculated from the cumulative budget for 167 wells*

Budget for Environmental Conservation Measures for Production Installation

Sl. No.	Particulars of Work	Budget (in lakh Rs.) per installation per year	Budget (in lakh Rs.) for 7 production installation for 7 years
1	**Air Quality Management Plan**		
a.	Dust suppression through water sprinkling in the internal unpaved roads (Budget at the drilling budget)	0.00	0.00
b.	Maintenance of paved internal road and transport route (budgetary provision is included in operational cost of production installations)	0.00	0.00
c.	Ambient Air Quality Monitoring -3 monitoring locations x twice per week x 2 weeks per location x 2 times per year (@ Rs.7500 x 24 samples)	1.80	12.60
d.	Stack emission monitoring (@ 5000 per sample x 2 GG sets x twice a year) @5000 X 4 samples	0.20	1.40
2	**Noise Management Plan**		
a.	Ambient Noise Monitoring – 3 locations, 2 times a year (@Rs. 2500 X 6 samples)	0.15	1.05
b.	Workplace noise monitoring -5 locations per facility, twice a year (@Rs.2500 per location x 5 locations x 2 times)	0.25	1.75
	All GG sets would be provided with acoustic enclosures (budget included in production budget)	0.00	0.00
3	**Water Quality Management Plan**		0.00
a.	Surface Water Quality Monitoring (@ Rs.	0.48	3.36

Sl. No.	Particulars of Work	Budget (in lakh Rs.) per installation per year	Budget (in lakh Rs.) for 7 production installation for 7 years
	8000 x 3 samples from natural drainages twice a year)		
b.	Ground Water Quality Monitoring (@ Rs. 8000 x 3 samples from local villages twice a year)	0.48	3.36
c.	Treated water quality (@ Rs. 8000 x 2 samples of ETP treated water ; @ Rs. 5000 one sample from oily water separator; twice a year)	0.42	2.94
4	**Soil Quality Management**		
a.	Soil Quality Monitoring (@Rs. 8000 x 3 samples x twice a year)	0.48	3.36
b.	Procurement of spill kits (@Rs. 20000 per kit x 3 spill kit per year)	0.60	4.20
6	**Surface Runoff & Soil Erosion Control**		
a.	Two chamber sedimentation tank at each facility (Budgetary provision is already included in the infrastructure development cost)	0.00	0.00
7	**Municipal Solid Waste**		0.00
a.	Provision of two chambered covered collection bins at each site – 2 nos.	0.20	1.40
b.	Transport arrangement of waste from production installation to dumping area	1.00	7.00
8	**Hazardous waste management**		
a.	Construction of dedicated hazardous storage area and record maintenance (construction included under TKD Project cost; only maintenance included in this budget)	0.10	0.70
9	**Surface and Ground Water Protection and Management**		0.00
a.	Surface runoff control measures for chemical storage area, fuel storage area (budgetary provision is already taken care in earlier section)	0.00	0.00
b.	Paved /impervious storage area for chemical storage area, fuel & lubricant storage area (Budgetary provision is already included in the infrastructure development cost)	0.00	0.00

Sl. No.	Particulars of Work	Budget (in lakh Rs.) per installation per year	Budget (in lakh Rs.) for 7 production installation for 7 years
c.	Domestic waste water treatment facility through septic tank & soak pits at the production sites (budgetary provision in operation cost of operations)	0.00	0.00
10	**Occupational Health & Safety Management**		
a.	Provision of appropriate PPE to all workers and its maintenance (budgetary provision is included in operational cost of operation)	0.00	0.00
b.	Provision of drinking water, sanitation facility for all workers (budgetary provision is included in operational cost of operation)	0.00	0.00
c	Provision First aid facility (budgetary provision is included in operational cost of operation)	0.00	0.00
d	Provision of Ambulance facility OIL has its own ambulance facility)	0.00	0.00
e	Regular health checkup facility provided by OIL for workers)	0.00	0.00
f	Regular occupational health & safety training (@ 1 lakhs per year for 7 years)	0.14**	7.00
	Total cost of implementation of EMP	**6.30**	**308.84**

*** Budget is for calculated for 7 production installation for 7 years. Budget for 1 production installation for 1 year been calculated from the cumulative budget 7 production installation for 7 years*

ANNEXURE-II

Details of Extended EMP (CER) activities:

S No.	Proposed Activity	Proposed Budget
1.	Fund for flood protection	70 lakhs (@ 10 lakhs per year 7 years) or flood protection to district administration
2.	Mobile health services	Mobile health services-Rs. 2 lakhs per year for 7 years= Total 14 lakhs

3.	Providing scholarships to economically backward students for pursuing higher education	Rs. 0.1 lakh per student x 20 students per year x 7 years= Total Rs. 14 lakhs
4.	Infrastructure improvement work across schools in 50 schools	Rs. 1 lakh per school x 50 schools= Total Rs. 50 lakhs
5.	Sponsoring for local sports and cultural events	Rs. 1 lakh per year for 7 years= Total Rs. 7 lakhs
6.	Plantation at abandoned drill sites	Rs. 2 lakh per year for 7 years= Total Rs. 14 lakhs
7.	Repair of local roads	Rs. 50 lakhs
8.	Provision for solar street light in the area	Rs. 5 lakhs per year for 7 years= Total 35 lakhs
9.	Funds for repair of Tengakhat Public Hall	Rs. 6 lakhs
	Total	**260 lakhs**