



NORTH KARANPURA CBM PROJECT
(CONSORTIUM OF ONGC, IOCL AND PEPL)

PEPL/NKCBM/HSE/MOEF/2021/5

04th June 2021

To,
The Ministry of Environment, Forest and Climate Change
Regional Office, Ranchi;
Bungalow No. A-2, Shyamali Colony;
Doronda, Ranchi - 834002

Subject: Six Monthly Compliance Report of "Development of North Karanpura CBM Block NK-CBM-2001/1 in Jharkhand" for the period ending 31st March 2021.

Ref: MoEF F.No. J-11011/228/2012-IAII (I) dated 12th May 2015

Dear Sir,
Kindly find attached here with the six monthly compliance report with respect to the above EC for favor of your kind information.

Thanking you.

Yours truly,
For Prabha Energy Private Limited

(Dr S.K. Singh)
Project Manager

Enclosure: Six Monthly Compliance Report (Period ending 31st March 2021) along with

- 1) Annexure 1- Ambient Air Quality report
- 2) Annexure 2- Noise report
- 3) Annexure 3- Ground water report
- 4) Annexure 4- Drilling cuttings report
- 5) Annexure 5- Effluent water report

CC:

1. The Member Secretary, Jharkhand State Pollution Control Board, T.A Division Building, HEC Complex, Dhurva, Ranchi - 834004
2. Scientist 'E' & Incharge, Zonal Office Kolkata, Central Pollution Control Board, Southern Enclave, Block 502, 5th & 6th Floor, 1582 - Rajdanga Main Road, Kolkata - 700107

PRABHA ENERGY PRIVATE LIMITED (CONSORTIUM JOINT OPERATOR)

Ranchi Office: 4th Floor, Rishab Complex, Opp Ashoknagar Road No 4, Landmark: Above Bank of India, Ranchi - 834 002

Regd Office: 12 A, Abhishree Corporate Park, Opp. Swagat BRTS Bus Stop, Ambli - Bopal Road, Ahmedabad - 380 015

Tel: (02717)298510, 9909009898 Fax:(02717)298520, Email: info@prabhaenergy.com, CIN:U 40102 GJ2009 PTC 057716



EC Compliance Report - Development of North Karanpura Coalbed Methane (CBM) Block NK-CBM-2001/1 of ONGC/PEPL/IOCL Located in Hazaribagh District of Jharkhand State		
Name of the Project: Development of North Karanpura Coalbed Methane (CBM) Block NK-CBM-2001/1 - Environment Clearance		
Clearance Letter : J-11011/228/2012-IAII (I) Dated 12th May 2015 from MoEFCC		
Period of Compliance Report: Progressive : Six monthly compliance report for the period October 2020 to March 2021		
SL.NO.	Conditions/ Guide lines	Status of Compliance
Specific Conditions		Page - 1
1	Compensation for the land acquisition to the land ousters, if any, and also for standing crop shall be paid as per the National Resettlement and Rehabilitation Policy (NRRP) 2007 or State Government norms. It may be ensured that compensation provided shall not be less than the norms of the NRRP, 2007.	Land is being acquired through proper procedure and applicable laws through district administration. Since only small patches of land are required, the land acquisition process does not cause any displacement and therefore no RR is required.
2	The surface facilities shall be installed as per the applicable codes and standards, international practices and applicable local regulations.	Surface facilities under installation are as per the OMR 2017 and OISD codes and standards and international practices.
3	Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards (NAAQES) issued by the ministry vide GSR NO 826(E) dated 16 th November 2009 for PM10, PM2.5, SO2, NOX, CO, CH4, VOCs, HC, Non-Methane HC etc. Efforts shall be made to improve the ambient air quality of the area.	<ul style="list-style-type: none"> • NABL accredited lab for monitoring of ambient air quality has been commissioned for periodic monitoring. • Air quality monitoring has been carried out at 3 locations. Previously reports were shared with JSPCB and reports of the same is enclosed as Annexure-1. • All efforts shall be made to improve the ambient air quality of the area.
4	The flare shall be designed as per good oilfield practices and Oil Industry Safety Directorate (OISD) guidelines. The company shall take necessary measures to prevent fire hazards and soil remediation as needed. At the place of ground flaring, the fire pit shall be lined with refractory bricks and efficient burning system. In case of overhead flare stacks, the stack height shall be provided as per the regulatory requirements and emission from stacks shall meet the MoEF/CPCB guidelines.	<ul style="list-style-type: none"> • The flare is designed as per good oilfield practices and OISD guidelines • Fire-fighting equipments are provided at the site as per the provisions of OISD-189 • Soil remediation is not required as there is no oil spillages associated with CBM gas extraction • The overhead flare stacks are installed as per the MOEFCC/CPCB guidelines.

SL.NO.	Conditions/ Guide lines	Status of Compliance
Specific Conditions (Contd.)		
5	The company shall make the arrangement for control of noise from drilling activity and DG/GG sets by providing necessary mitigation measures such as proper acoustic enclosures to DG/GG sets and meet the norms notified by the MoEFCC. Height of all the stacks/vents shall be as per the CPCB guidelines.	<ul style="list-style-type: none"> • M/S NETEL India, a NABL accredited laboratory has been commissioned for periodic noise monitoring. Results of noise monitoring are given in Annexure - 2. • All DG/GG sets have proper acoustic enclosures and meet the norms notified by MOEFCC. • Height of all the stacks/vents is kept as per the CPCB guidelines. • Ambient noise data shows that day and night levels are within the permissible limits as per Noise Rules and Regulations.
6	The company shall comply with the guidelines for disposal for solid waste, drill cuttings and drilling fluids for onshore drilling operation notified vide GSR, 546(E) dated 30th August 2005.	<ul style="list-style-type: none"> • CBM drill cuttings do not carry any oil traces and are non-hazardous. • The drill cuttings are inert material and are being used for construction activities like back filling of low lying areas, construction of well pads, road filling etc. • The drilling fluid after solid-liquid separation is recycled or evaporated in HDPE lined pits.
7	Total fresh water requirement shall not exceed (25 cum/day) for each well during drilling phase and prior permission shall be obtained from the competent authority and a copy submitted to the Ministry's Regional office at Bhubaneswar/Ranchi.	Total fresh water requirement does not exceed 25 cum/day for each well during drilling phase.
8	During well drilling waste water shall be segregated into waste drilling fluid and drill cuttings. Drill cuttings 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 shall be stored onsite HDPE lined pit for solar evaporation and reuse in drilling of new wells and fire hydrant system. Domestic effluent shall be disposed off through septic tank followed by soak pit.	<ul style="list-style-type: none"> • Drill cuttings are stored onsite in impervious HDPE lined pits for solar evaporation and drying. • The produced water conforms to CPCB norms and is either stored onsite in HDPE lined pits for solar evaporation and reuse in drilling of new wells and fire hydrant systems. • Effluents shall be properly treated, if required, as per the CPCB standards. • Domestic effluents are disposed off through septic tanks followed by soak pit.

SL.NO.	Conditions/ Guide lines	Status of Compliance
Specific Conditions (Contd.)		
9	Ground water monitoring shall be done to assess if produced water storage or disposal has any effect.	Ground water is being regularly monitored to ensure that the produced water storage or disposal has no effect. Reports attached in Annexure 3.
10	Drilling waste water including drill cuttings, wash water shall be collected in disposal pits lined with HDPE lining, evaporated or treated and shall comply with the notified standards for onshore disposal on land. Proper toxicological analysis shall be done to ensure there is no hazardous material. Copy of toxicological analysis shall be submitted to Ministry's Regional Office at Bhubaneswar.	<ul style="list-style-type: none"> • Drilling waste water including drill cuttings, wash water are collected in disposal pits lined with HDPE lining and naturally evaporated. • Drill cuttings are analysed and the toxicological analysis report is attached as Annexure 4. • Produced water analysis is given in Annexure 5. • The analysis report shows that the drill cuttings and waste water complies with the standards set forth in " Standards for Onland Disposal"
11	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/re-processors.	In CBM drilling process, only water based drilling mud (WBM) is used. The mud so used is recycled for further drilling. No Hazardous wastes are generated in the process However, water is recycled for drilling.
12	The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At places of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.	<ul style="list-style-type: none"> • Fire fighting equipments are provided as per the provision of OISD-189 • Soil remediation is not required as there is no oil spillages associated with CBM gas extraction • Overhead flaring of sufficient height is provided at well sites where required.
13	To prevent underground coal fire, preventive measures shall be taken for ingress of ambient air during withdrawal inside the coal seams by adopting technologies including vacuum suction. Gas detectors for the detection of CH ₄ and H ₂ S shall be provided.	There is no possibility of ingress of air into coal seams during CBM operations

SL.NO.	Conditions/ Guide lines	Status of Compliance
Specific Conditions (Contd.)		
14	The design, material of construction, assembly, inspection, testing and safety aspect of operation and maintenance of pipeline and transporting the natural gas/oil shall be governed by ASME/ANSI B 31.8/B 31.4 and OISD standard 141. Pipeline wall thickness and minimum depth of burial at river crossing and casing at rails, major road crossing should be in conformity with ANSI/ASME requirement.	All suggested specifications have been included in the tender document and company shall ensure it is followed.
15	The company should develop a contingency plan for H ₂ S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H ₂ S detectors in locations of high risk of exposure along with self containing breathing apparatus.	There is absolutely no chance of H ₂ S emission in CBM operations.
16	Adequate well protection system shall be provided like blow out preventer (BOP) or diverter systems as required based on the geological formation of the blocks.	BOP is used during drilling operations as per OMR-2017
17	The top soil removed shall be stacked separately for reuse during restoration process.	<ul style="list-style-type: none"> • Top soil will not be removed during any activity of CBM exploration in North Karanpura CBM block • However, whenever laying of pipeline in ROU will be carried out, the top soil (if available) will be preserved and re-used after pipeline laying work is completed.
18	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 Response Plan is based as per the guidelines given by OMR 2017, OISD and Govt of India.
19	Project proponent shall comply with the environment protection measures and safeguards recommendation in the EIA/EMP/risk analysis report/disaster management plan.	The environmental protection and risk mitigation measures and safeguards recommended in the various studies viz. EIA/EMP/Disaster Management Plan/Crisis Management Plan are implemented during the Project and Operations stages. Recommendations mentioned in these reports are followed and practiced through periodic drills.

SL.NO.	Conditions/ Guide lines	Status of Compliance
Specific Conditions (Contd.)		
20	The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.	Shall be followed as suggested
21	Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.	Occupational health surveillance of the workers is being carried out as per prevailing Acts and Rules.
22	All the commitments made to the public during the public hearing / public Consultation meeting held on 25.02.2014 for Chatra District and on 26.02.2014 for Hazaribagh District shall be satisfactorily implemented.	The commitments made during public hearing are being implemented.
23	At least 5% of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.	<ul style="list-style-type: none"> • 5% of the total cost of the project shall be spent on CSR activities over the life of the project. • CSR plan is to cover the promotion of education, medical facilities, road development, skill development of local people is under way. • Recently CSR activity was done at project site.
General Conditions		
1	The project authorities must strictly adhere to stipulation made by the Jharkhand State Pollution Control Board (JSPCB), State Government and any other statutory authority.	All stipulations made by JSPCB and other statutory authorities are strictly adhered to.

SL.NO.	Conditions/ Guide lines	Status of Compliance
General Conditions (Contd.)		
2	No further expansion or modification in the plant shall be carried out without prior approval of the ministry of Environment and Forests. In case of deviation 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 condition imposed and to add additional environmental protection measures required, if any.	Prior approval will be obtained in case of any modification in the project proposal.
3	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 stations is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	The locations of ambient air quality monitoring stations will be made/ decided in consultation with the state pollution control board (SPCB). It is ensured that at least one stations will be installed in the upwind & down- wind direction as well as where maximum ground level concentrations will anticipated.
4	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 Environment (Protection) Act, 1986; Rules, 1969 viz. 75 dBA(day time) and 70 dBA (night time).	The overall noise levels in and around the plant area are kept well within the standards. The Monitoring of Noise is done on quarterly basis by third party and reports are enclosed as Annexure-2.
5	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling chemicals shall be imparted.	Training programs are integral part of our project execution plan. Training like fire drill, safety meetings are properly held on site on monthly basis.

6	The company shall also comply with all the environment protection measures and safeguards proposed in the documents submitted to the ministry. All the recommendations made in the EIA/EMP in respect of environment management, risk mitigation measures and public hearing relating to the project shall be implemented.	The company has complied with all the environment protection measures and safeguards proposed in the documents submitted to the ministry. All the recommendations made in the EIA/EMP in respect of environment management, risk mitigation measures and public hearing relating to the project are implemented. Project specific HSE Manual, Disaster Management Plan, Crisis Management Plan, Contingency Plan and Emergency Response Plan is prepared and available at site, Recommendations made therein are usually practiced through mock drills.
---	--	--

SL.NO.	Conditions/ Guide lines	Status of Compliance
General Conditions (Contd.)		
7	The company shall undertake all relevant measures for improving the socio-economic condition of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.	<ul style="list-style-type: none"> • Separate fund is fixed for CSR activities and recently CSR activity was done at project site for the welfare of nearby areas. • CSR activities was undertaken by involving local villages and administration.
8	The company shall undertake eco-development measures including community welfare measures in the project area for the overall improvement of the environment.	Proper Plantation and waste disposal techniques are implemented in project so that eco-development can be done.
9	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring function.	<ul style="list-style-type: none"> • A separate Environment Management Cell will be set up to carry out the EMP and Monitoring functions when the Gas Gathering Stations (GGS) will be established. • A reputed NABL laboratory is hired to carry out periodic monitoring of all environmental parameters.
10	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environmental and Forests as well as the state Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environmental management/pollution control measures shall not be diverted for any other purpose.	<ul style="list-style-type: none"> • Sufficient fund is fixed to implement the MoEFCC as well as State Government stipulated conditions and it will be available whenever required.
11	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parisad/Municipal Corporation, urban local body and the local NGO, if any, from whom suggestions/representation, if any, were received while processing the proposal.	Copy of the clearance letter is given to all concerned.

SL.NO.	Conditions/ Guide lines	Status of Compliance
General Conditions (Contd.)		
12	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated Environmental clearance conditions including results of the monitored data(both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and JSPCB. A copy of Environmental clearance and six monthly compliance status report shall be posted on the website of the company.	<ul style="list-style-type: none"> • Six Monthly Compliances of Environmental clearance was submitted to JSPCB and MoEFCC on regular basis. • Copies of the EC and six monthly compliance reports are posted on the web site of PEPL at www. prabhaenergy.com
13	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 by e-mail.	Form - V for financial year ending 31st March 2020 was submitted to the JSPCB and Regional office of MoEF at Ranchi. Form-V for financial year ending 31st March 2021 is being submitted. The earlier statements have been put on the web site of PEPL, which can be accessed at www. prabhaenergy.com
14	The project proponent shall inform the public that the project has been accorded environmental clearance by the ministry and the copy of the clearance by the ministry and the copies of the clearance letter are available with the SPCB/Committees and may also be seen at website of the Ministry at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of Ministry.	<ul style="list-style-type: none"> •Local people were informed that the project has been accorded environmental clearance by the Ministry by advertising in local papers. • The EC order is available on the website of the Ministry and ONGC.
15	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.	<ul style="list-style-type: none"> • The project Field Development Plan was approved by DGH Steering Committee, MOPNG w.e.f. 25-09-2012 • The Development Drilling of NK CBM Project started on 7th June 2018

Annexure I



Netel (India) Limited

Name & Address of the Customer : M/s Prabha Energy Pvt. Ltd, 4th Floor, Rishabh Complex, Opposite to gate No. 4 Ashok Nagar (Above Bank of India), Ranchi, Jharkhand-834002 Sample Particulars: Ambient Air Quality	Test Report No.: NIL /PEPL/19-20/AAQ-1	
	Issue Date : 12.12.2019	Ref : Your LOA
Test Method : IS:5182 & CPCB Guidelines Test Required : As given below	Date of Registration	03.12.2019
	Date of commencement of testing	03.12.2019
	Date of completion of testing	12.12.2019
	Sample condition at receipt	Found ok
Sampling Method: Sample collected by our representative on 29-11-2019(NK#6) 30.11.2019 (NK#9) 01-12-2019(NK#8)		

S. No	Parameter	Unit	Result			CPCB Limit
			NK#6	NK#9	NK#8	
1	PM10	µg/m3	189	142	156	100(24hr)
2	PM2.5	µg/m3	126	89	115	60(24hr)
3	Sulphur Dioxide	µg/m3	53.5	46.5	48.9	80(24hr)
4	Nitrogen Dioxide	µg/m3	64.0	57.5	55.0	80(24hr)
5	Ozone	µg/m3	38.0	29.5	20.0	100(8hr)
6	Lead	µg/m3	ND	ND	ND	1(24hr)
7	Carbon Monoxide	mg/m3	0.45	0.38	0.40	2(1hr)
8	Ammonia	µg/m3	28.5	22.5	26.0	400(24hr)
9	Benzene	µg/m3	ND	ND	ND	05(1yr)
10	Benzo(a)Pyrene	ng/m3	ND	ND	ND	01(1yr)
11	Arsenic	ng/m3	ND	ND	ND	06(1hr)
12	Nickel	ng/m3	ND	ND	ND	20(1hr)

For Netel India Limited



Annexure II



Netel (India) Limited

Name & Address of the Customer : M/s Prabha Energy Pvt. Ltd, 4th Floor, Rishabh Complex, Opposite to gate No. 4 Ashok Nagar (Above Bank of India), Ranchi, Jharkhand-834002 Sample Particulars: Noise Monitoring	Test Report No.: NIL /PEPL/20-21/Noise-1 Issue Date : 05.09.2020 Ref : Your LOA
Test Method : IS 9876:1981 & User Manual Test Required : As given below	Date of Registration 02.09.2020
Sampling Method: Sample collected by our representative on 01-09-2020	

NOISE MONITORING REPORT

Location	Unit	Result	
		Day Time	Night Time
CPCB Standard Limit	dB(A)	55	45
Residential area near NK # 5	dB(A)	38.9	26.8
Residential area near NK # 8	dB(A)	32.1	23.5
Residential area near NK # 35	dB(A)	33.6	24.1

For Netel India Limited



Annexure III



Netel (India) Limited

Name & Address of the Customer : M/s Prabha Energy Pvt. Ltd, 4th Floor, Rishabh Complex, Opposite to gate No. 4 Ashok Nagar (Above Bank of India), Ranchi, Jharkhand-834002 Sample Particulars: Ground water		Test Report No.: NIL/PEPL/20-21/GW-1 Issue Date : 26.09.2020 Ref : Your LOA	
Qty : 1No. × 1Litre each Test Method : IS:3025 & APHA 23 rd Edition Packing : Plastic Bottle Test Required : As given below		Date of Registration	04.09.2020
		Date of commencement of testing	04.09.2020
		Date of completion of testing	25.09.2020
		Sample condition at receipt	Found ok
		Sample tested as received	
Sampling Method: Sample collected by our representative on 01.09.2020			Page: 1 of 2

S. No.	PARAMETER	UNIT	Water hand pump near to NK#9	Water hand pump near to NK#5	Water hand pump near to NK#35	Water hand pump near to NK#19	Acceptable Limit as per IS:10500;2012
1	pH	-----	7.2	7.4	7.1	7.5	6.5-8.5
2	Temperature	°C	31.6	32.5	30.6	31.7	-
3	Colour	Hazen	1.0	1.2	1.2	1.1	5(max)
3	Total suspended solids	mg/l	03	04	06	04	-
4	Total solids	mg/l	169	174	185	162	-
5	Total Dissolved solids	mg/l	294	312	285	301	500 (max.)
6	Conductivity	µsm/cm	452	460	443	459	
7	Dissolved Oxygen	mg/l	6.6	6.3	6.5	6.6	-
8	Zinc as Zn	mg/l	1.5	1.8	1.2	1.4	5(max.)
9	Iron as Fe	mg/l	0.14	0.10	0.13	0.14	0.3(max)
10	BOD (3 days @ 27°C)	mg/l	1.3	1.5	1.0	1.8	-
11	COD	mg/l	6.5	5.9	6.0	7.0	-
12	Chloride as Cl	mg/l	79.5	76.4	78.5	82.0	250(max.)
13	Sulphate as SO ₄	mg/l	29.6	31.8	32.5	40.6	200(max.)
14	Total Hardness	mg/l	123	128	139	142	200(max.)
15	Calcium as Ca	mg/l	42.6	43.8	41.1	45.2	75(max.)
16	Magnesium as Mg	mg/l	26.3	25.9	27.4	29.5	30(max.)
17	Sodium as Na	mg/l	0.31	0.43	0.26	0.25	-



Netel (India) Limited

18	Oil and Grease	mg/l	ND	ND	ND	ND	-
19	Phenolic compounds as C ₆ H ₅ OH	mg/l	ND	ND	ND	ND	0.001(max.)
20	Cyanide as CN	mg/l	ND	ND	ND	ND	0.05(Max)
21	Fluoride as F	mg/l	0.03	0.02	0.03	0.04	1(max.)
22	Sulphide as H ₂ S	mg/l	ND	ND	ND	ND	0.05(max.)
23	Chromium as Cr	mg/l	ND	ND	ND	ND	-
24	Hexavalent Chromium as Cr ⁺⁶	mg/l	ND	ND	ND	ND	0.05(max.)
25	Copper as Cu	mg/l	ND	ND	ND	ND	0.05(max.)
26	Lead as Pb	mg/l	ND	ND	ND	ND	0.01(max.)
27	Mercury as Hg	mg/l	ND	ND	ND	ND	0.001(max.)
28	Nickel as Ni	mg/l	ND	ND	ND	ND	0.02(max.)
29	Arsenic as As	mg/l	ND	ND	ND	ND	0.01(max)
30	Manganese as Mn	mg/l	ND	ND	ND	ND	0.1(max)
31	Vanadium as V	mg/l	ND	ND	ND	ND	-

ND: Not Detected

For Netel India Limited



Page 2 of 2

Annexure IV



Netel (India) Limited

Name & Address of the Customer : M/s Prabha Energy Pvt. Ltd, 4th Floor, Rishabh Complex, Opposite to gate No. 4 Ashok Nagar (Above Bank of India), Ranchi, Jharkhand-834002 Sample Particulars: Drilling Cuttings	Test Report No.: NIL/PEPL/19-20/F-1 Issue Date : 13.12.2019 Ref : Your LOA	
Qty : 1No. × 200g each Test Method : IBM Manual /ICPOES Packing : Plastic Bottle Test Required : As given below	Date of Registration	03.12.2019
	Date of commencement of testing	03.12.2019
	Date of completion of testing	13.12.2019
	Sample condition at receipt	Found ok
	Sample tested as received	
Sampling Method: Sample collected by our representative on 30.11.2019		

S. No	Parameter	Unit	Result	
			NK#25 (Between 469-474m)	NK#29 (Between 957-962m)
1	Chromium as Cr	%	0.009	0.010
2	Copper as Cu	%	0.003	0.005
3	Lead as Pb	%	0.002	0.001
4	Zinc as Zn	%	0.007	0.005
5	Nickel as Ni	%	0.003	0.003
6	Mercury as Hg	%	ND	ND
7	Iron as Fe	%	3.06	2.41
8	Oil & Grease	%	0.008	0.012
9	Cyanide as CN	%	ND	ND
10	Fluoride as F	%	ND	ND

For Netel India Limited



Annexure V



Netel (India) Limited

Name & Address of the Customer : M/s Prabha Energy Pvt. Ltd, 4th Floor, Rishabh Complex, Opposite to gate No. 4 Ashok Nagar (Above Bank of India), Ranchi, Jharkhand-834002 Sample Particulars: Effluent water		Test Report No.: NIL/PEPL/20-21/EW-1 Issue Date : 26.09.2020 Ref : Your LOA	
Qty : 1No. × 1Litre each Test Method : IS:3025 & APHA 23 rd Edition Packing : Plastic Bottle Test Required : As given below	Date of Registration		04.09.2020
	Date of commencement of testing		04.09.2020
	Date of completion of testing		26.09.2020
	Sample condition at receipt		Found ok
	Sample tested as received		
Sampling Method: Sample collected by our representative on 01.09.2020			

S. No.	PARAMETER	UNIT	NK#19	NK#20	NK#21	NK#24	CPCB std Limit
1	pH	-----	8.3	7.9	8.4	8.6	5.5-9.0
2	Temperature	°C	46	48	45	47	40(max)
3	Total suspended solids	mg/l	12	18	16	15	100(max)
4	Total solids	mg/l	735	714	695	724	-
5	Total Dissolved solids	mg/l	723	696	679	709	2100(max)
6	Zinc as Zn	mg/l	3.9	4.6	3.5	3.7	5.0(max)
7	BOD (3 days @ 27°C)	mg/l	3.2	2.8	2.6	2.0	30(max)
8	COD	mg/l	13.0	9.0	8.0	7.0	100(max)
9	Chloride as Cl	mg/l	136	122	114	120	600(max)
10	Sulphate as SO ₄	mg/l	56	52	48	50	1000(max)
11	Sodium as Na	mg/l	23.5	22.3	20.7	21.6	60(max)
11	Oil and Grease	mg/l	14	12	15	16	10(max)
12	Phenolic compounds as C ₆ H ₅ OH	mg/l	ND	ND	ND	ND	1.2(max)
13	Cyanide as CN	mg/l	ND	ND	ND	ND	0.2(max)
13	Fluoride as F	mg/l	0.13	0.17	0.12	0.15	1.5(max)
14	Sulphide as H ₂ S	mg/l	ND	ND	ND	ND	2.0(max)
15	Chromium as Cr	mg/l	0.03	0.01	0.02	0.02	1.0(max)
16	Hexavalent Chromium as Cr ⁺⁶	mg/l	ND	ND	ND	ND	0.1(max)
17	Copper as Cu	mg/l	ND	ND	ND	ND	0.2(max)
18	Lead as Pb	mg/l	ND	ND	ND	ND	0.1(max)
19	Mercury as Hg	mg/l	ND	ND	ND	ND	0.01(max)
20	Nickel as Ni	mg/l	ND	ND	ND	ND	3.0(max)

ND: Not Detected

For Netel India Limited

