

हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड

(भारत सरकार का उपक्रम) रजिस्टर्ड ऑफिस : 17, जमशेदजी टाटा रोड़, मुम्बई-400020

HINDUSTAN PETROLEUM CORPORATION LIMITED

(A Government of India Enterprise) REGISTERED OFFICE: 17, JAMSHEDJI TATA ROAD, MUMBAI-400 020

CIN-L23201MH1952GOI008858 বুংশাষ / TELEPHONE : 0141-2554958, 2724718 GSTIN NO. 08AAACH1118B1ZC

एम.डी.पी.एल. परिचालन मुख्य कार्यालय, M.D.P.L. OPNS. - HEAD OFFICE डी-7, लालबहादुर नगर (पूर्व) जे.एल.एन. मार्ग, D-7, Lal Bhadur Nagar (E), J.L.N. Marg. मालवीय नगर, जयपुर- 302017 Malviya Nagar, Jaipur - 302017

June 03, 2022

Ref: HPCL/MDPL-PVPL/EC/2021-22/003

Additional Principal Conservator of Forest (C)
Ministry of Environment & Forest
Northern Regional Office
Bays No. 24-25, Sector-31-A,
Dakshin Marg,
Chandigarh – 160030.

Sub.: Environment Clearance from Ministry of Environment & Forests for expansion of system capacity of Mundra Delhi Pipeline (5 MMTPA to 8 MMTPA) and extension pipeline (280 KM) from Palanpur to proposed marketing Terminal near Vadodara by M/s. Hindustan Petroleum Corporation Ltd (HPCL).

Ref: EC Letter received vide Letter F.No. J-11011/18/2016-IA.II (I) dated 07.06.2017.

Dear Sir,

Reference is made to letter No. J-11011/18/2016-IA.II(I) dated 07.06.2017 from Ministry of Environment & Forests according environmental clearance to our subject project. As per clause xiii of General conditions, we are enclosing herewith a CD containing the following documents:

- Status of Point wise compliance of the stipulated environmental conditions as of 31.03.2022.
- II. Environment Monitoring Data for Quarter ending March 2022 for the Pipeline.

Since, above documents are to be submitted on half-yearly basis, in line with clause xiii of General conditions of EC letter, we will submit the next report by November'2022. Further, please note that in line with the mail from Monitoring Team of MoEF & CC, Compliance report has also been submitted on PARIVESH Web portal of MoEF & CC.

Thanking you,

Very truly yours,

Arvind Narula
Chief Manager-Safety & Security
MDPL-HO, Jaipur

Encl. As aboves

Name of the Project: MDPL Capacity Expansion & Palanpur Vadodara Extension Pipeline Project

Clearance Letter No.: F No.J-11011/18/2016-IA. II (I) dated 07.06.2017

Period of Compliance Report: October'21 to March'22

A. Specific Conditions:

SI No.	Condition	Compliance Status		
t.	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.	been provided for all the DG sets as per CPCB standards & Acoustic enclosure is also provided		
II.	The project authority i.e. M/s Hindustan Petroleum Corporation Ltd. (HPCL) shall ensure restoration of the Right of Way to preconstruction level as soon as construction activity completed. To ensure prevention of soil erosion, backfilled areas should be properly compacted.	We confirm that we have restored the Right of the way to preconstruction level. Further compaction of backfilled area has also been ensured.		
III.	The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the natural gas shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.	We confirm that same has been complied with during design & would is being complied with since commissioning of pipeline in November'19.		
iv.	Annual safety audit shall be carried out for the initial three years by an independent agency and report submitted to this Ministry for ensuring the strict compliance of safety regulations on operation and maintenance.	It would be complied with strictly in Toto.		
V.	The construction of pipeline particularly at the river and stream crossing shall be done during dry seasons to avoid disturbance of breeding seasons and soil erosion. The riverbed, embankments and dykes shall be restored adequately after installation of crossings.	We confirm that we have completed construction of crossings across river and streams i.e, Saraswati River at Chainage 34.309 Km, Sabarmati River at Ch. 106.358 Km, Mahi river at Ch. 218.847 Km, Narmada Main Canal at Ch. 160.236 Km & Sujlam Suflam Spreading Line Canal at Ch. 101.833 Km during dry season to avoid disturbance of breeding seasons and soil		



		erosion. Further, the riverbed, embankments and dykes have also been restored adequately after completion of crossings.
vi.	Pipeline wall thickness and minimum depth of burial at river crossings and casings at rails, major road crossings should be in conformity with ANSI/ASME requirements.	We confirm that we have complied with it during design as well as during construction at river/rail/major road crossings.
vii.	The company should follow Horizontal Drilling technique for laying of pipeline while passing through major rivers.	We confirm that we have complied with it during design & have employed the Horizontal drilling technique (HDD) during laying of pipeline while passing through major rivers, i.e, Saraswati River at Chainage 34.309 Km, Sabarmati River at Ch. 106.358 Km, Mahi river at Ch. 218.847 Km, Narmada Main Canal at Ch. 160.236 Km & Sujlam Suflam Spreading Line Canal at Ch. 101.833 Km.
vIII.	The project authorities shall install SCADA system with dedicated optical fiber based telecommunication link for safe operation of pipeline and Leak Detection System. Additional sectionalizing valves in the residential areas and sensitive location shall be provided to prevent the leaking of gas going to the atmosphere in the event of pipeline failure. Intelligent pigging facility shall be provided for the entire pipeline system for internal corrosion monitoring. Coating and impressed current cathodic protection system shall be provided to prevent external corrosion.	We confirm that we have complied with the same during design as well as during construction of the pipeline. Additional 5 nos. of sectionalizing valve Stations have been constructed to prevent the leaking of finished petroleum products going to the atmosphere in the event of pipeline failure. Intelligent pigging facility has been provided for the entire pipeline system for internal corrosion monitoring. Cathodic protection system has also been provided to prevent external corrosion.
ix.	The project authorities shall patrol and inspect the pipeline regularly for detection of faults as per OISD guidelines and continuous monitoring of pipeline operation by adopting non-destructive method(s) of testing as envisaged in the EMP. Pearson survey and continuous potential survey shall be carried out at regular intervals to ensure the adequacy of cathodic protection system.	We confirm that it is being complied with by us regularly since the commissioning of Pipeline in November'19.
x.	Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented. It is necessary that integrated DMP should be in place as the pipeline is passing through four Districts.	PESO Construction approval obtained for laying PVPL on 06.04.17, for IPS at Pindwara on 10.11.17, IPS at Bhachau on 09.01.18, Palanpur on 09.01.18, IPS at Ghadkan on 16.01.18 & for Vadodara terminal on 23.01.18.



		PESO Storage Licence for IPS, Ghadkan. IPS, Bachau & Amendment in Storage Licence for Palanpur Dispatch Station obtained on 14.05.19, 25.09.19 & 13.09.19 respectively. PESO Hook-up Commissioning approval for IPS, Bachau & IPS, Pindwara with MDPL obtained on 24.07.19. Commissioning approval for PVPL pipeline was obtained from PESO on 23.10.19. Storage Licence for Vadodara Terminal was obtained on 06.12.19. Storage License for Pindwara was obtained on 13.12.19 On-site and Off-site DMP has been prepared and are being submitted to respective Authorities.
xi.	The acoustic chambers/barriers should be provided for individual units wherever feasible in the compressor stations.	There are no Compressor Stations as part of this project. Hence, N/A.
xii.	The workers camp should have arrangement for safe drinking water, hygienic kitchen and sanitation facilities. The wastewater should be properly treated before disposal.	We confirm that we are providing safe drinking water, hygienic kitchen and sanitation facilities to the workers.
xiii.	The company shall obtain all requisite clearances for fire safety and explosives and shall comply with the stipulation made by the respective authorities.	We confirm that we have obtained all requisite clearances for fire safety and explosives and shall comply with the stipulation made by the respective authorities.
xiv.	PP shall spend 2% of project cost under Enterprises Social Commitment (ESC) activities for drinking water (RO) to schools, computer facility the school/colleges and solar panel to school/college/health centres, in the villages where the pipeline passing. PP shall also maintain the facilities.	We confirm that we have implemented ESC plan @ 2% of project cost for provision of drinking water (RO) to schools, computer facility for the school/colleges and solar panel to school/college/health centers. During 2017-18, we have set up Computer labs at 8 schools in Kutch, Patan & Mehsana districts with total 30 nos. of Computers covering 1200 children in Gujarat, total expenditure of approx. Rs 31 Lakhs. MOU Signed with National Institute of Information Technology Foundation (NIIT Foundation) for digital literacy in Mehsana and Banaskantha districts with total 25 nos. of Computers covering 1000 students in Gujarat till March 2020, entire allocated Rs 26 Lakhs have been spent till 31.03.20.



MOU Signed with Confederation of Indian Industry (CII) for Skill Development in Kheda, Anand and Vadodara districts with total of 500 beneficiaries to be covered till March 2020 & entire allocated Rs 50 lakhs have been spent till 31.03.20. We have also spent Rs 3.62 Lakhs for Drinking Water & Toilet facilities at Govt. Primary School No. 2, Chandisar, Banskantha during Apr-Sept'19. We spent Rs. 8.87 Lakhs for Potable drinking water, water storage tank, White boards, tables, cupboards, equipment of
boards, tables, cupboards, equipment of Sports/Play, Music equipment, Computer, etc in Government Schools in Siyavada and Vandariyapara in Gandhinagar District.

B. General Conditions:

SI No.	Condition	Compliance Status		
i.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Boards, State Governments and any other statutory authority.	stipulations made by the State Pollution		
II.	No further expansion or modification in the pipeline shall be carried out without prior approval of the Ministry of Environment Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required. if any.	We confirm that we would strictly comply with the same.		
111.	The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station is installed in the upwind and downwind direction as well as where	We confirm that we have been complying with the same. M/s Ecosystem Resource Management Pvt Ltd, a reputed MOEF &CC approved Agency has been appointed to carry out ambient air quality management in		



	maximum ground level concentrations are anticipated.	consultation with SPCB's. We are also enclosing herewith the Monitoring Data for 4 rd Quarter of 2021-22 along with this report.	
iv.	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R.No. 826(E) dated 16 th November, 2009 shall be followed.	We confirm that we have been strictly complying with the same.	
V.	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules,1989 viz 75 dBA (daytime) and 70 dBA (nighttime).	We confirm that we have been strictly complying with Ambient noise levels as mandated.	
vi.	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Preemployment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemical shall be imparted.	We confirm that Training has been imparted to all employees on safety and health aspects of chemicals handling. Preemployment and routine periodical medical examinations for all employees are being undertaken on regular basis.	
vii.	The company shall also 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.	We confirm that we have been strictly complying with the same. All the recommendations made in the EIA/EMP in respect of environmental management and risk mitigation measures relating to the project are being implemented.	
vIII.	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. ESC activities shall be undertaken by involving local villages and administration.	We confirm that we have been complying with the same by implementing ESC plan as indicated above in point xiv of Specific conditions.	
ix.	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	We confirm that we have been complying with the same by implementing ESC plan as indicated above in point xiv of Specific condition.	
х.	A Separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Environment management cell is set up at Pipeline Projects office at Delhi headed by Ch. Manager-Co-ordination which carries out Environmental management and monitoring functions. M/s Ecosystem Resource Management Pvt Ltd, a reputed MOEF &CC approved Agency, having full-fledged laboratory facilities, for environment	



		monitoring & Data collection at our project sites on a quarterly basis has been appointed to carry out environment monitoring for the Project. Environment Monitoring data for the last quarter is enclosed with this report.
xi.	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.	We confirm that we have earmarked 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. Further, we confirm that the funds so earmarked for environment management/pollution control measures will not be diverted for any other purpose
xii.	A copy of clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parishad / Municipal Corporation. Urban Local Body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal.	N/A, as we have not received any suggestions/representations from the mentioned Authorities while processing the proposal.
xiii.	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 the SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Complied. As part of the same, this compliance report is being sent to the respective Authorities. Regarding Environment monitoring, PO has been placed on M/s Ecosystem Resource Management Pvt Ltd, a reputed MOEF & CC approved Agency to carry out environment monitoring for the Project and the test results is being sent to the respective Authorities along with this report. A copy of Environmental Clearance and six monthly compliance status report has been posted on the website of the company.
xiv.	The environmental statement for each financial year ending 31 st 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.	We confirm that the Environment statement for the year ending 31.03.2022 for the operating location Palanpur and Vadodara has been Submitted. (Copy attached)

XV.	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 at http://moef.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office of the Ministry.	Copy of the advertisements published in Times of India, Ahmedabad in English, Gujrat Samachar (Ahmedabad, Vadodara, Surat, Bhavnagar, Kutch & Rajkot editions) in Gujrati, Rajasthan Patrika (Jaipur & Pali editions) in Hindi and Hindustan Times, Delhi in English, Mint, Delhi in English, Dainik Bhaskar (Panipat & Hisar editions) in Hindi on dated 11.06,17 have already been forwarded to the Regional offices vide our letter HPCL/MDPL-PVPL/EC/2017/001, 002 & 002 dated 22.06.17.
xvi.	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.	The date of financial Closure & final approval of the project: 16.09.16. Date of start of construction for the project: 20.06.17.
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TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/AMBIENT/HPCL-PVPL/Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur Pumping & Receiving Station, GIDC- Chandisar- Mota Road,

Village- Chandisar, Tal-Palanpur, Dis-Banaskantha, Gujarat.

Sample Description : Ambient Air Quality Monitoring

Sample Location : Nr. Substation
Sample Collected On : 07/03/2022
Sample Received on : 09/03/2022

Sample Analyzed & Completion : 09/03/2022 to 11/03/2022 Sample Id No. : ERM/EXT/2022/03/1335-A

Quantity/No. of Sample : 1-1 No. filter papers for PM₁₀ & PM_{2.5} (each), 1-1 No. of polyethelene bottle

having approx. 30 ml exposed scrubbing media for SO₂ & NO_x (each), gas in

bladder for HC & CO and Charcoal tube for VOC/ 6 Nos.

Packing/ Seal : Packed

Protocol (Purpose) : As per work order

Instrument used : Combo Sampler (Tag No. S-4)

Instrument Calibration status : Valid
Average Ambient Temperature (°C) : 27.1
Average Wind speed (Km/hr) : 3.3
Average Humidity (%) : 43.0
Dominant wind direction : N

Height from Ground Level (m) : Approx. 3 m

Sampling Method : As per the below table described for test method

Sample Collected & Provided By : ERM- Mr. Bhavesh Patel and Team

Sr. No.	Parameters	Unit	Result	Standard Limit as per NAAQS	Test Method
1.	Particulate Matter (PM ₁₀)	μg/m³	92.6	100	IS 5182 (Part 23) : 2006 (Reaffirmed 2012)
2,	Particulate Matter (PM _{2.5})	μg/m³	40.1	60	WI/5.4/02-B/03, Issue No.1: 2010
3.	Sulphur Dioxides (SO ₂)	μg/m	18.0	80	IS 5182 (Part 2) : 2001 (Reaffirmed 2017)
4.	Nitrogen Dioxides (NO _x)	μg/m³	26.9	80	IS 5182 (Part 6): 2006 (Reaffirmed 2017)
5.	Hydrocarbon (as CH ₄)	μg/m³	342	-	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA (GC)
6.	Carbon Monoxide (CO)	mg/m³	1.0	4	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA
7.	Volatile Organic Compound as BTX	μg/m³	127		Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA (GC)

Remark: NAAQS-National Ambient Air Quality Standards: Schedule-VII, [Rule 3 (3B)] [Part-II sec.-3(i)] 16.11.2009 Note: (1) These results relate to the sample tested only.

(2) The report shall not be reproduced except in full without written approval of the laboratory.

S. Ofutel CHEMIST

CHECKED BY (Haresh Ahir) AUTHORISED SIGNATORY (Sunilkumar Pandey)

Regd. Off.: Office Floor, Ashoka Pavillion-A, Opp. Kapadia Health Club, New Civil Road, SURAT-395 001.

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Bharuch Branch: Shop No. 7/8, Saffron City, Opp. Bharat Petrol Pump, Vill. Jolwa, Dahej - Bharuch Road, Bharuch. Mo.: 98250 94443 Vapi Branch: 131, Ashapura Complex, Near New Telephone Exchange Road, GIDC Vapi-396 195 Tel.: 0260-2970305 / 94262 63805



Issue Date: 17/03/2022

TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/AMBIENT/HPCL-PVPL/Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur Pumping & Receiving Station, GIDC- Chandisar-Mota Road,

Village- Chandisar, Tal- Palanpur, Dis- Banaskantha, Gujarat.

Sample Description : Ambient Air Quality Monitoring

Sample Location : Nr. PVPL Building Sample Collected On : 07/03/2022

 Sample Collected On
 : 07/03/2022

 Sample Received on
 : 09/03/2022

Sample Analyzed & Completion : 09/03/2022 to 11/03/2022 Sample Id No. : ERM/EXT/2022/03/1335-B

Quantity/No. of Sample : 1-1 No. filter papers for PM₁₀ & PM_{2.5} (each), 1-1 No. of polyethelene bottle

having approx. 30 ml exposed scrubbing media for SO₂ & NO_x (each), gas in

bladder for HC & CO and Charcoal tube for VOC/ 6 Nos.

Packing/ Seal : Packed

Protocol (Purpose) : As per work order

Instrument used : Combo Sampler (Tag No. S-5)

Instrument Calibration status : Valid
Average Ambient Temperature(°C) : 27 1
Average Wind speed (Km/hr) : 3.3
Average Humidity (%) : 43.0
Dominant wind direction : N

Height from Ground Level (m) : Approx. 3 m

Sampling Method : As per the below table described for test method

Sample Collected & Provided By : ERM Mr. Bhavesh Patel and Team

Sr. No.	Parameters	Unit	Result	Standard Limit as per NAAQS	Test Method
1.	Particulate Matter (PM ₁₀)	μg/m³	86.4	100	IS 5182 (Part 23): 2006 (Reaffirmed 2012)
2.	Particulate Matter (PM _{2.5})	μg/m³	43.1	50	WI/5.4/02-B/03, Issue No.1: 2010
3.	Sulphur Dioxides (SO ₂)	μg/m	Idia	80	15 5182 (Part 2): 2001 (Reaffirmed 2017)
4.	Nitrogen Dioxides (NO _x)	μg/m³	28.3	80	IS 5182 (Part 6): 2006 (Reaffirmed 2017)
5.	Hydrocarbon (as CH ₄)	μg/m³	282		Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA (GC)
6.	Carbon Monoxide (CO)	μg/m³	1,12	4	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA
7.	Volatile Örganic Compound as BTX	μg/m	110	7	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA (GC)

Remark: NAAQS-National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (38)] [Part-II sec. 3(i)] 16.11.2009 Note: (1) These results relate to the sample tested only.

(2) The report shall not be reproduced except in full without written approval of the laboratory

S.D. Petel CHEMIST

CHECKED BY (Haresh Ahir) AUTHORISED SIGNATORY (Sunilkumar Pandey)

Regd. Off.: Office Floor, Ashoka Pavillion-A, Opp. Kapadia Health Club, New Civil Road, SURAT-395 001.

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Bharuch Branch: Shop No. 7/8, Saffron City, Opp. Bharat Petrol Pump, Vill. Jolwa, Dahej - Bharuch Road, Bharuch. Mo.: 98250 94443 Vapi Branch: 131, Ashapura Complex, Near New Telephone Exchange Road, GIDC Vapi-396 195 Tel.: 0260-2970305 / 94262 63805

TEST REPORT

AMBIENT NOISE LEVEL MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/NOISE /HPCL-PVPL/Rev.0-01/03-2022

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur Pumping & Receiving Station, GIDC- Chandisar-Mota Road,

Village- Chandisar, Tal- Palanpur, Dis- Banaskantha, Gujarat.

Sample Description

: Ambient Noise Level Monitoring

Sample Location

: Nr. PVPL Building

Date of Monitoring

: 07/03/2022

Sample ID. No.

: ERM/EXT/2022/03/1335-C

Average Ambient Temperature (°C)

: 27.1

Surrounding activity Protocol (Purpose) : Man movement : As per work order

Sampling Method

: IS 9989-1981(Reaffirmed 2001)

Noise Level Monitored by

: ERM- Mr. Bhavesh Patel and Team

Sr. No	Parameters	Unit	Test Results During Day Time	Test Method
1.	Lmax	dB(A)	74.1	IS 9989 : 1981 (Reaffirmed 2001)
2.	Lmin	dB(A)	60.9	IS 9989 : 1981 (Reaffirmed 2001)
3.	Leq	dB(A)	67.6	IS 9989 : 1981 (Reaffirmed 2001)
4.	CPCB Limits In dB(A) Leq (Industrial area)	dB(A)	75	1
5.	CPCB Limits in dB(A) Leq (Commercial area)	dB(A)	65	-
6.	CPCB Limits in dB(A) Leq (Residential area)	dB(A)	55	
7.	CPCB Limits in dB(A) Leq (Silence Zone)	dB(A)	50	18180-1911

Remark: Day time- 7:00 am to 10:00 pm.

Note: The report shall not be reproduced except in full without written approval of the laboratory.

S.S.fatel CHEMIST CHECKED BY (Haresh Ahir) AUTHORISED SIGNATORY (Sunilkumar Pandey)

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Bharuch Branch: Shop No. 7/8, Saffron City, Opp. Bharat Petrol Pump, Vill. Jolwa, Dahej - Bharuch Road, Bharuch. Mo.: 98250 94443 Vapi Branch: 131, Ashapura Complex, Near New Telephone Exchange Road, GIDC Vapi-396 195 Tel.: 0260-2970305 / 94262 63805

TEST REPORT STACK ANALYSIS REPORT

TEST REPORT NO:QF/7.8/01 A/STACK /HPCL-PVPL/Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur Pumping & Receiving Station, GIDC- Chandisar-Mota Road,

Village- Chandisar, Tal-Palanpur, Dis-Banaskantha, Gujarat

 Sample Description
 : Stack Monitoring

 Stack Attached to
 : DG Set (320 KVA)

 Date of Sampling
 : 07/03/2022

 Sample Received on
 : 09/03/2022

Sample Analyzed & Completion : 09/03/2022 to 11/03/2022 Sample ID No. : ERM/EXT/2022/03/1335-D

Quantity/No. of Sample : 1 No. Thimble for PM, Approx.50 ml exposed absorbing solution (in

Polyethylene Bottle) for SO₂ approx. 50ml. exposed absorbing solution In PDA

flask for NOx, 1 no. of detector tube for CO / 4 Nos.

Protocol (Purpose) : As per work order

Packing/ Seal : Packed Type of Fuel : Diesel

Height of Stack (m) : 11 (From ground level)

Dia. of stack (m) ; 0.10

Sampling Procedure : As Per the below table described for Test Method

Sample Collected By ERM - Mr. Bhavesh Patel and Team

Sr. No.	Parameters	Unit	Result	CC&A Limit	Test Method
1.	Temperature	°C	122		16 44 255 (D. + 2), 2000
2.	Velocity	m/s	11.0		IS 11255 (Part 3): 2008
3.	Particulate of Matter (PM)	mg/Nm³	86.1	150	IS 11255 (Part 1) 1985/Reaffirmed 2014
	Sulphur Dioxide (50 ₂)	ррпі	20.7	100	16 11255 (Part 2) 1985/Replfirmed 2014
5.	Oxides of Nitrogen (NO _x)	ppm	28.6	50	is 11255 (Part 7) : 2005
6.	Carbon monoxide (CO)	mg/Nm ³	4.8	- 1-	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA-Detector Tubes

Note: The report shall not be reproduced except in full without written approval of the laboratory.

S.E Patel

CHECKED BY (Haresh Ahir) AUTHORISED SIGNATORY (Sunilkumar Pandey)

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TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/AMBIENT/HPCL-SV-01/Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, SV-01 Village- Meloj, Tehsil- Siddipur,

District- Patan, Gujarat.

Sample Description

: Ambient Air Quality Monitoring

Sample Location

: Nr. Security Office

Sample Collected On

: 04/03/2022

Sample Received on

: 09/03/2022

Sample Analyzed & Completion Sample Id No. : 09/03/2022 to 11/03/2022

Quantity/No. of Sample

: ERM/EXT/2022/03/1314

having approx. 30 n

: 1-1 No. filter papers for PM₁₀ & PM_{2.5} (each), 1-1 No. of polyethelene bottle

having approx. 30 ml exposed scrubbing media for SO₂ & NO_x (each), gas in

bladder for HC & CO and Charcoal tube for VOC/ 6 Nos.

Packing/ Seal

: Packed

Protocol (Purpose)

: As per work order

Instrument used

: Combo Sampler (Tag No. 5-7)

Instrument Calibration status

: Valid

Average Ambient Temperature (°C)

: 25.6

Average Wind speed (Km/hr)

: 6.0

Average Humidity (%)

: 39.0

Dominant wind direction

: NNE

Height from Ground Level (m)

: Approx. 3 m : As per the below table described for test method

Sampling Method Sample Collected & Provided By

: ERM- Mr. Bhavesh Patel and Team

Sr. No.	Parameters	Unit	Result	Standard Limit as per NAAQS	Test Method
1.	Particulate Matter (PM ₁₀)	μg/m³	82.0	100	IS 5182 (Part 23) : 2006 (Reaffirmed 2012)
2.	Particulate Matter (PM _{2,5})	μg/m ²	39.6	60	WI/5.4/02-B/03, Issue No.1 : 2010
3.	Sulphur Dioxides (SO ₂)	μg/m	18.1	80	IS 5182 (Part 2) : 2001 (Reaffirmed 2017)
4.	Nitrogen Dioxides (NO _x)	μg/m³	24.0	80	IS 5182 (Part 6): 2006 (Reaffirmed 2017)
5.	Hydrocarbon (as CH ₄)	μg/m³	193	-	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA (GC)
6.	Carbon Monoxide (CO)	mg/m³	1.6	4	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA
7.	Volatile Organic Compound as BTX	μg/m³	76	-	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA

Remark: NAAQS-National Ambient Air Quality Standards: Schedule-VII, [Rule 3 (3B)] [Part-II sec.-3(i)] 16.11.2009

Note: (1) These results relate to the sample tested only.

(2) The report shall not be reproduced except in full without written approval of the laboratory.

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Issue Date: 17/03/2022

TEST REPORT

AMBIENT NOISE LEVEL MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/NOISE /HPCL-SV-01/Rev.0-01/03-2022

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, SV-01 Village- Meloi, Tehsil- Siddipur.

District-Patan, Gujarat.

Sample Description

: Ambient Noise Level Monitoring

Sample Location

: Nr. Security Office

Date of Monitoring

: 04/03/2022

Sample ID. No.

: ERM/EXT/2022/03/1315

Average Ambient Temperature (°C)

. 25 6

Surrounding activity

: Man movement

Protocol (Purpose) Sampling Method

: As per work order : IS 9989-1981 (Reaffirmed 2001)

Noise Level Monitored by

: ERM- Mr. Bhavesh Patel and Team

Sr. No	Parameters	Unit	Test Results During Day Time	Test Method
1.	Lmax	dB(A)	67.8	IS 9989 : 1981 (Reaffirmed 2001)
2.	Lmin	dB(A)	53.6	IS 9989 : 1981 (Reaffirmed 2001)
3.	Leq	dB(A)	61.2	IS 9989 : 1981 (Reaffirmed 2001)
4.	CPCB Limits in dB(A) Leq (Industrial area)	dB(A)	75	1
5.	CPCB Limits in dB(A) Leq (Commercial area)	dB(A)	65	
6.	CPCB Limits in dB(A) Leq (Residential area)	dB(A)	55	
7.	CPCB Limits in dB(A) Leq (Silence Zone)	dB(A)	50	

Remark: Day time- 7,00 am to 10:00 pm.

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Page 1 of 2

Issue Date: 17/03/2022

TEST REPORT

DRINKING WATER SAMPLE ANALYSIS REPORT

TEST REPORT NO:QF/7.8/01 A/DRINKING WATER/HPCL-SV-01 /Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, SV-01 Village- Meloj, Tehsil- Siddipur,

District- Patan, Gujarat.

Sample Description

: Drinking water

Sampling Point

: SV-01 Village-Meloj

Mode of sampling

Grah

Sample Collected on

: 04/03/2022

Sample Received on

: 09/03/2022

Sample Analyzed & Completion Sample ID No. : 09/03/2022 to 14/03/2022

Quantity/No. of Sample

: ERM/EXT/2022/03/1315

Quantity/No. or Sample

: 2+2+1 Liters in polyethylene carboys and 250 ml in sterilized bottle/4 Nos.

Protocol (Purpose)

: As per work order

Packing/ Seal

: Packed

Sampling Method

: APHA 23rd Edition- 2017

Sample Collected By

: ERM- Mr. Bhavesh Patel and Team

Sr.	da maxo	5.5	Result	Standard Limit As Per IS 10500:2012		Test Method
No.	Parameters	Unit		Acceptable Limit	Permissible Limit	Test Method
1.	pH at 25 °C	pH Unit	7.12	6.5-8.5	No relaxation	IS 3025 (Part 11):1983 (Reaffirmed 2017)
2.	Color	Pt-Co Scale	BDL (DL- 5)	5	15	APHA, 23 rd Ed 2017, Part - 2000 Section : 2120-C Spectrophotometric -Single Wavelength Method)
3.	Odour	100	Agreeable	Agreeable	Agreeable	IS 3025 (Part-5):1983 (Reaffirmed 2012)
4.	Taste		Agreeable	Agreeable	Agreeable	IS 3025(Part-8):1984 (Reaffirmed 2002)
5.	Conductivity at 25 °C	μS/cm	60	-		APHA 23 rd Edition- 2017, Part-2000 Section:2510-B
6.	Turbidity	NTU	BDL (DL- 0.1)	1	5	APHA 23 rd Ed 2017, Part 2000 Section: 2130-B
7.	Total dissolved solids at 180 °C	mg/L	42	500	2000	IS 3025 (Part 16):1984 (Reaffirmed 2017)
8.	Total Hardness as CaCO ₃	mg/L	12	200	600	IS 3025 (Part 21):2009 (Reaffirmed 2014)
9.	Calcium	mg/L	2.0	75	200	IS 3025 (Part 40):1991 (Reaffirmed 2014)
10.	Magnesium	mg/L	2	30	100	IS 3025 (Part 46):1994 (Reaffirmed 2014)
11.	Total Alkalinity (as CaCO3)	mg/L	BDL (DL- 25)	200	600	IS 3025 (Part 23):1986 (Reaffirmed 2014)

Remark: BDL - Below Detection Limit, DL - Detection Limit.

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Page 2 of 2

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Sample Collected on

: 04/03/2022

Sample ID No.

: ERM/EXT/2022/03/1315

Sr.		11-14	Decul	Standard Lin 10500	The state of the s	Took Mathed
No.	Parameters	Unit	Result	Acceptable Limit	Permissible Limit	Test Method
12.	Chloride	mg/L	10	250	1000	IS 3025 (Part 32):1988 (Reaffirmed 2014) Argentometric Method
13.	Sulphate	mg/L	8DL (DL-1)	200	400	APHA 23 rd Ed 2017, Part-4000 Section : 4500-E SO ₄ ⁻² (Turbidity Method)
14.	Sodium	mg/L	8	-	-	IS 3025 (Part 45):1993 (Reaffirmed 2014) Flame Photometric Method
15.	Fluoride	mg/L	BDI (DL- 0.1)	1.0	1.5	APHA 23 rd Ed 2017, Part 4000 Section: 4500-F-D,
16.	Ammonia (as NH ₃ -N)	mg/L	BDL (DL - 0.1)	0.5	No relaxation	IS 3025 (Part 34)-1988 (Reaffirmed 2014) Nesselerization Method
17.	Nitrite Nitrogen	mg/L	BDL (DL-0.01)	-		IS 3025 (Part 34): 1988 (Colorimetric Method)
18.	Nitrate Nitrogen (as NO ₃)	mg/L	BDL (DL- 2.0)	45	No relaxation	IS 3025 (Part 34) – 1988 (Devadra Alloy Method) (Reaffirmed 2014)
19.	Iron as Fe	mg/L	BDL (DL- 0.05)	0.3	No Relaxation	IS 3025 (Part 53):2003 (Reaffirmed 2014)1,10 Phenanthrolein method
20.	E-Coli (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section : 9221 B & C
21.	Total Coliform (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section: 9221 B & C

Remark: BDL Below Detection Limit DL - Detection Limit

Note: (1) These results relate to the sample tested only.

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(Haresh Ahir)

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Page 1 of 2

Issue Date: 17/03/2022

TEST REPORT

WATER SAMPLE ANALYSIS REPORT

TEST REPORT NO:QF/7.8/01 A/WATER/HPCL-SV-01/Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, SV-01 Village- Meloj, Tehsil- Siddipur,

District- Patan, Gujarat.

Sample Description : Ground water

Sampling Point : SV-01, Village-Meloj

Mode of sampling : Grab

 Sample Collected on
 : 04/03/2022

 Sample Received on
 : 09/03/2022

Sample Analyzed & Completion : 09/0

: 09/03/2022 to 14/03/2022 : ERM/EXT/2022/03/1316

Quantity/No. of Sample

: 2+2+1 Liters in polyethylene carboys and 250 ml in sterilized bottle/4 Nos.

Protocol (Purpose)

: As per work order

Packing/ Seal

Sample ID No.

: Packed

Sampling Method

: APHA 23rd Edition - 2017

Sample Collected By

: ERM- Mr. Bhavesh Patel and Team

Sr.		11-14	Decute	Standard Limit 10500:20		Test Method
No.	Parameters	Unit	Result	Acceptabl e Limit	Permissible Limit	Test Method
1.	pH at 25 °C	pH Unit	7.29	6.5-8.5	No relaxation	IS 3025 (Part 11):1983 (Reaffirmed 2017)
2.	Calar	Pt-Co Scale	BDL (DL-5)	5	15	APHA, 23 rd Ed 2017, Part - 2000 Section: 2120-C Spectrophotometric - Single Wavelength Method)
3.	Odour		Agreeable	Agreeable	Agreeable	IS 3025 (Part-5):1983 (Reaffirmed 2012)
1	Taste		Agregable	Agreeable	Agreeable	IS 3025(Part-8):1984 (Reaffirmed 2002)
5.	Conductivity at 25 °C	μS/cm	1286		-	APHA 23 rd Edition- 2017, Part-2000 Section:2510-B
6.	Turbidity	NTU	0.5	1	5	APHA 23 rd Ed 2017, Part 2000 Section: 2130-B
7.	Total dissolved solids at 180 °C	mg/L	842	500	2000	IS 3025 (Part 16):1984 (Reaffirmed 2017)
8.	Total Hardness as CaCO ₃	mg/L	328	200	600	IS 3025 (Part 21):2009 (Reaffirmed 2014)
9.	Calcium	mg/L	72	75	200	IS 3025 (Part 40):1991 (Reaffirmed 2014)
10.	Magnesium	mg/L	36	30	100	IS 3025 (Part 46):1994 (Reaffirmed 2014)
11.	Total Alkalinity (as CaCO3)	mg/L	296	200	600	IS 3025 (Part 23):1986 (Reaffirmed 2014)

Remark: BDL - Below Detection Limit, DL - Detection Limit.

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Page 2 of 2

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Sample Collected on

: 04/03/2022

Sample ID No.

: ERM/EXT/2022/03/1316

Sr.	Parameters	Unit	Result	Standard Limit As Per IS 10500:2012		
No.	Forameters	Onic	Result	Acceptable Limit	Permissible Limit	Test Method
12.	Chloride	mg/L	278	250	1000	IS 3025 (Part 32):1988 (Reaffirmed 2014) Argentometric Method
13.	Sulphate	mg/L	56	200	400	APHA 23 rd Ed 2017, Part-4000 Section : 4500-E SO ₄ ⁻² (Turbidity Method)
14.	Sodium	mg/L	166	-		IS 3025 (Part 45):1993 (Reaffirmed 2014) Flame Photometric Method
15.	Fluoride	mg/L	0.7	1.0	1.5	APHA 23 rd Ed 2017, Part 4000 Section: 4500-F-D,
16.	Ammonia (as NH ₃ -N)	mg/L	BDL (DL - 0.1)	0.5	No relaxation	IS 3025 (Part 34)-1988 (Reaffirmed 2014) Nesselerization Method
17.	Nitrite Nitrogen	mg/L	BDL (DL- 0.01)	**		IS 3025 (Part 34): 1988 (Colorimetric Method)
18.	Nitrate Nitrogen (as NO ₃)	mg/L	3.5	45	No relaxation	IS 3025 (Part 34) – 1988 (Devadra Alloy Method) (Reaffirmed 2014)
19.	tron as Fe	mg/L	0.26	0.3	No Relaxation	IS 3025 (Part 53):2003 (Reaffirmed 2014)1,10 Phenanthrolein method
20.	E-Coli (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 mi sample	APHA 23 rd Edition, 2017 Part-9000 Section: 9221 B & C
21.	Total Coliform (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section: 9221 B & C

Remark: 951 - Bolow Potestion Limit Dt. Plotestian Limit

Note: (1) These results relate to the sample tested only.

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TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/AMBIENT/HPCL-SV-02/Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, SV-02, Village- Gunchhali,

District- Mehsana, Gujarat.

Sample Description : Ambient Air Quality Monitoring

Sample Location : Nr. Security Office

Sample Collected On : 04/03/2022 Sample Received on : 09/03/2022

Sample Analyzed & Completion : 09/03/2022 to 11/03/2022 Sample Id No. : ERM/EXT/2022/03/1317

Quantity/No. of Sample : 1-1 No. filter papers for PM₁₀ & PM_{2.5} (each), 1-1 No. of polyethelene bottle

having approx. 30 ml exposed scrubbing media for SO2 & NOx (each), gas in

bladder for HC & CO and Charcoal tube for VOC/ 6 Nos.

Packing/ Seal : Packed

Protocol (Purpose) : As per work order

Instrument used : Combo Sampler (Tag No. S-8)

Instrument Calibration status : Valid Average Ambient Temperature (°C) : 25.6 Average Wind speed (Km/hr) : 6.0 Average Humidity (%) : 39.0 Dominant wind direction : NNE

Height from Ground Level (m) : Approx. 3 m

Sampling Method : As per the below table described for test method

Sample Collected & Provided By : ERM- Mr. Bhavesh Patel and Team

Sr. No.	Parameters	Unit	Result	Standard Limit as per NAAQS	Test Method
1.	Particulate Matter (PM ₁₀)	μg/m³	84.0	100	IS 5182 (Part 23): 2006 (Reaffirmed 2012)
2.	Particulate Matter (PM _{2.5})	μg/m³	39.6	60	WI/5.4/02-B/03, Issue No.1: 2010
3.	Sulphur Dioxides (SO ₂)	μg/m	15.2	80	IS 5182 (Part 2): 2001 (Reaffirmed 2017)
4.	Nitrogen Dioxides (NO _x)	μg/m³	23.9	80	IS 5182 (Part 6): 2006 (Reaffirmed 2017)
5.	Hydrocarbon (as CH ₄)	μg/m³	188	-	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA (GC)
6.	Carbon Monoxide (CO)	mg/m³	1.2	4	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA
7.	Volatile Organic Compound as BTX	μg/m³	98		Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA

Remark: NAAQS-National Ambient Air Quality Standards: Schedule-VII, [Rule 3 (3B)] [Part-II sec.-3(i)] 16.11.2009 Note: (1) These results relate to the sample tested only.

(2) The report shall not be reproduced except in full without written approval of the laboratory.

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TEST REPORT

AMBIENT NOISE LEVEL MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/NOISE /HPCL-SV-02/Rev.0-01/03-2022

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, SV-02, Village- Gunchhali,

50

District- Mehsana, Gujarat.

Sample Description

: Ambient Noise Level Monitoring

Sample Location

: Nr. Security Office

Date of Monitoring

: 04/03/2022

Sample ID. No.

: ERM/EXT/2022/03/1318

Average Ambient Temperature (°C)

: 25.6

Surrounding activity

: Man movement

Protocol (Purpose) Sampling Method

: As per work order

Noise Level Monitored by

: IS 9989-1981(Reaffirmed 2001) : ERM- Mr. Bhavesh Patel and Team

Sr. No	Parameters	Unit	Test Results During Day Time	Test Method
1.	Lmax	dB(A)	65.2	IS 9989 : 1981 (Reaffirmed 2001)
2.	Lmin	dB(A)	51.6	IS 9989 : 1981 (Reaffirmed 2001)
3.	Leq	dB(A)	61.0	IS 9989 : 1981 (Reaffirmed 2001)
4.	CPCB Limits in dB(A) Leq (Industrial area)	dB(A)	75	
5.	CPCB Limits in dB(A) Leq (Commercial area)	dB(A)	65	(he (
6.	CPCB Limits in dB(A) Leq (Residential area)	dB(A)	55	_
7	CPCB Limits in dB(A) Leq	dp(A)		

Remark: Day time- 7.00 am to 10:00 pm.

(Silence Zone)

Note: The report shall not be reproduced except in full without written approval of the laboratory.

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CHECKED BY

(Haresh Ahir)

dB(A)

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Page 1 of 2

Issue Date: 17/03/2022

TEST REPORT

DRINKING WATER SAMPLE ANALYSIS REPORT

TEST REPORT NO:QF/7.8/01 A/DRINKING WATER/HPCL-SV-02 /Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, SV-02, Village- Gunchhali,

District- Mehsana, Gujarat.

Sample Description : Drinking water

Sampling Point : SV-02, Village- Gunchhali

Sampling Type : Grab

 Sample Collected on
 : 04/03/2022

 Sample Received on
 : 09/03/2022

Sample Analyzed & Completion : 09/03/2022 to 14/03/2022 Sample ID No. : ERM/EXT/2022/03/1319

Quantity/No. of Sample : 2+2+1 Liters in polyethylene carboys and 250 ml in sterilized bottle/4 Nos.

Protocol (Purpose) : As per work order

Packing/ Seal : Packed

Sampling Method : APHA 23rd Edition- 2017

Sample Collected By : ERM- Mr. Bhavesh Patel and Team

Sr.		11-2	David.	Standard Lir 10500	112301 1021 02	Test Method
No.	Parameters	meters Unit	Result	Acceptable Limit	Permissible Limit	rest Method
1.	pH at 25 °C	pH Unit	7.40	6.5-8.5	No relaxation	IS 3025 (Part 11):1983 (Reaffirmed 2017)
2.	Color	PtCo Scale	BDL (DL-5)	5	15	APHA, 23 rd Ed 2017, Part - 2000 Section: 2120-C Spectrophotometric -Single Wavelength Method)
3.	Odour	7	Agreeable	Agreeable	Agreeable	IS 3025 (Part-5):1983 (Reaffirmed 2012)
1	Tasto		Agreeable	Agreeable	Agreeable	IS 3025(Part-8):1984 (Reaffirmed 2002)
5.	Conductivity at 25 °C	μS/cm	69	(- ,	75	APHA 23 rd Edition- 2017, Part-2000 Section:2510-B
6.	Turbidity	NTU	BDL (DL-0.1)	1	5	APHA 23 rd Ed 2017, Part 2000 Section: 2130-B
7,	Total dissolved solids at 180 °C	mg/L	42	500	2000	IS 3025 (Part 16):1984 (Reaffirmed 2017)
8.	Total Hardness as CaCO ₃	mg/L	16	200	600	IS 3025 (Part 21):2009 (Reaffirmed 2014)
9.	Calcium	mg/L	3	75	200	IS 3025 (Part 40):1991 (Reaffirmed 2014)
10.	Magnesium	mg/L	2	30	100	IS 3025 (Part 46):1994 (Reaffirmed 2014)
11.	Total Alkalinity (as CaCO3)	mg/L	BDL (DL-25)	200	600	IS 3025 (Part 23):1986 (Reaffirmed 2014)

Remark: BDL - Below Detection Limit, DL - Detection Limit.

(P.T.O)

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Page 2 of 2

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Sample Collected on

: 04/03/2022

Sample ID No.

: ERM/EXT/2022/03/1319

Sr.	Parameters	Unit	Posult	Standard Limit As Per IS 10500:2012		*
No.	Parameters	Unit	Result	Acceptable Limit	Permissible Limit	Test Method
12.	Chloride	mg/L	12	250	1000	IS 3025 (Part 32):1988 (Reaffirmed 2014) Argentometric Method
13.	Sulphate	mg/L	BDL (DL-1)	200	400	APHA 23 rd Ed 2017, Part-4000 Section : 4500-E SO ₄ ⁻² (Turbidity Method)
14.	Sodium	mg/L	8	44.	4	IS 3025 (Part 45):1993 (Reaffirmed 2014) Flame Photometric Method
15.	Fluoride	mg/L	BDL (DL-0.1)	1.0	1.5	APHA 23 rd Ed 2017, Part 4000 Section: 4500-F-D,
16.	Ammonia (as NH ₃ -N)	mg/L	8DL (DL - 0.1)	0.5	No relaxation	IS 3025 (Part 34)-1988 (Reaffirmed 2014) Nesselerization Method
17.	Nitrite Nitrogen	mg/L	BDL (DL- 0.01)			IS 3025 (Part 34): 1988 (Colorimetric Method)
18.	Nitrate Nitrogen (as NO ₃)	mg/L	BDL (DL- 2.0)	45	No relaxation	IS 3025 (Part 34) – 1988 (Devadra Alloy Method) (Reaffirmed 2014)
19.	Iron as Fe	mg/L	BDL (DL- 0.05)	0.3	No Relaxation	IS 3025 (Part 53):2003 (Reaffirmed 2014)1,10 Phenanthrolein method
20.	E-Coli (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section: 9221 B & C
21.	Total Coliform (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section : 9221 B & C

Remark: BDL - Below Detection Limit DL - Detection Limit

Note: (1) These results relate to the sample tested only.

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SAMULE CHEMIST

(Haresh Ahir)

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Page 1 of 2

(P.T.O)

Issue Date: 17/03/2022

TEST REPORT

WATER SAMPLE ANALYSIS REPORT

TEST REPORT NO:QF/7.8/01 A/WATER/HPCL-SV-02/Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, SV-02, Village- Gunchhali,

District- Mehsana, Gujarat.

Sample Description : Ground water

Sampling Point : SV-02 Village- Gunchhali

Mode of sampling : Grab Sample Collected on : 04/03/2022 Sample Received on : 09/03/2022

Sample Analyzed & Completion : 09/03/2022 to 14/03/2022 Sample ID No. : ERM/EXT/2022/03/1320

Quantity/No. of Sample : 2+2+1 Liters in polyethylene carboys and 250 ml in sterilized bottle/4 Nos.

Protocol (Purpose) : As per work order

Packing/ Seal : Packed

Sampling Method : APHA 23rd Edition – 2017

Sample Collected By : ERM- Mr. Bhavesh Patel and Team

Sr.	27000000		Result	Standard Limit As Per IS 10500:2012		Test Method
No.	Parameters	Unit		Acceptable Limit	Permissible Limit	Test Method
1.	pH at 25 °C	pH Unit	7.06	6.5-8.5	No relaxation	IS 3025 (Part 11):1983 (Reaffirmed 2017)
2.	Color	PtCo Scale	BDL (DL-5)	5	15	APHA, 23 rd Ed 2017, Part - 2000 Section : 2120-C Spectrophotometric Single Wavelength Method)
3.	Odour		Agreeable	Agreeable	Agreeable	IS 3025 (Part-5):1983 (Reaffirmed 2012)
4.	Taste		Agreeable	Agreeable	Agreeable	i5 3025(Part-8):1984 (Reaffirmed 2002)
5.	Conductivity at 25 °C	μS/cm	1118	-	-	APHA 23 rd Edition- 2017, Part-2000 Section:2510-B
6.	Turbidity	NTU	BDL (DL- 0.1)	1	5	APHA 23 rd Ed 2017, Part 2000 Section: 2130-B
7.	Total dissolved solids at 180 °C	mg/L	721	500	2000	IS 3025 (Part 16):1984 (Reaffirmed 2017)
8.	Total Hardness as CaCO ₃	mg/L	276	200	600	IS 3025 (Part 21):2009 (Reaffirmed 2014)
9.	Calcium	mg/L	61	75	200	IS 3025 (Part 40):1991 (Reaffirmed 2014)
10.	Magnesium	mg/L	30	30	100	IS 3025 (Part 46):1994 (Reaffirmed 2014)
11.	Total Alkalinity (as CaCO3)	mg/L	268	200	600	IS 3025 (Part 23):1986 (Reaffirmed 2014)

Remark: BDL - Below Detection Limit, DL - Detection Limit.

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Page 2 of 2

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Sample Collected on

: 04/03/2022

Sample ID No.

: ERM/EXT/2022/03/1320

ampi	E ID NO.	L IVIV	1/ [] / 2022/	03/1320		
Sr.		Standard Limit As Per IS 10500:2012		*		
No.	Parameters	Unit	Result	Acceptable Limit	Permissible Limit	Test Method
12.	Chloride	mg/L	216	250	1000	IS 3025 (Part 32):1988 (Reaffirmed 2014) Argentometric Method
13.	Sulphate	mg/L	52	200	400	APHA 23 rd Ed 2017, Part-4000 Section : 4500-E SO ₄ ⁻² (Turbidity Method)
14.	Sodium	mg/L	129	#		IS 3025 (Part 45):1993 (Reaffirmed 2014) Flame Photometric Method
15.	Fluoride	mg/L	0.7	1.0	1.5	APHA 23 rd Ed 2017, Part 4000 Section: 4500-F-D,
16.	Ammonia (as NH ₃ -N)	mg/L	BDL (DL - 0.1)	0.5	No relaxation	IS 3025 (Part 34)-1988 (Reaffirmed 2014) Nesselerization Method
17.	Nitrite Nitrogen	mg/L	BDL (DL-0.01)	1991		IS 3025 (Part 34): 1988 (Colorimetric Method)
18.	Nitrate Nitrogen (as NO ₃)	mg/L	3.2	45	No relaxation	IS 3025 (Part 34) – 1988 (Devadra Alloy Method) (Reaffirmed 2014)
19.	Iron as Fe	mg/L	0.21	0.3	No Relaxation	IS 3025 (Part 53): 2003 (Reaffirmed 2014)1,10 Phenanthrolein method
20.	E-Coli (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section: 9221 B & C
21.	Total Coliform (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section: 9221 B & C

Remark: 801 - Below Detection Limit D1 - Detection Limit

Note: (1) These results relate to the sample tested only.

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.. (Haresh Ahir)

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TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/AMBIENT/HPCL-VRS/Rev.0-01/03-2022

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED. Name of the Industry

Vadodara Receiving Station, Palanpur-Vadodara Pipeline, GIDC- Manjusar,

Village- Asoj, Tal- Savli, Vadodara-391775, Gujarat.

Sample Description

: Ambient Air Quality Monitoring

Sample Location

: Nr. MCC Control Room

Sample Collected On

: 01/03/2022

Sample Received on

: 03/03/2022

Sample Analyzed & Completion

: 03/03/2022 to 05/03/2022

Sample Id No.

: ERM/EXT/2022/03/1266

Quantity/No. of Sample

: 1-1 No. filter papers for PM₁₀ & PM_{2.5} (each), 1-1 No. of polyethelene bottle

having approx. 30 ml exposed scrubbing media for SO₂ & NO_x(each), gas in

bladder for HC & CO and Charcoal tube for VOC/ 6 Nos.

Packing/ Seal

: Packed

Protocol (Purpose)

: As per work order

Instrument used

: Combo Sampler (Tag No. S-4)

Instrument Calibration status

: Valid

Average Ambient Temperature (°C)

: 25.8

Average Wind speed (Km/hr)

: 5.0

Average Humidity (%) Dominant wind direction : 48.8 : NNW

Height from Ground Level (m)

: Approx. 3 m

Sampling Method

: As per the below table described for test method

Sample Collected & Provided By

: ERM- Mr. Krishna Patel and Team

Sr. No.	Parameters	Unit	Result	Standard Limit as per NAAQS	Test Method
1,	Particulate Matter (PM ₁₀)	μg/m³	78.1	100	IS 5182 (Part 23) : 2006 (Reaffirmed 2012)
2.	Particulate Matter (PM _{2.5})	μg/m³	46.2	60	WI/5.4/02-B/03, Issue No.1 : 2010
3.	Sulphur Dioxides (SO ₂)	μg/m³	24.6	80	IS 5182 (Part 2): 2001 (Reaffirmed 2017)
4.	Nitrogen Dioxides (NO _x)	μg/m³	27.0	80	IS 5182 (Part 6): 2006 (Reaffirmed 2017)
5.	Hydrocarbon (as CH ₄)	μg/m³	176		Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA (GC)
6.	Carbon Monoxide (CO)	mg/m³	0.86	4	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA
7.	Volatile Organic Compound as BTX	μg/m³	90		Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA

Remark: NAAQS-National Ambient Air Quality Standards: Schedule-VII, [Rule 3 (3B)] [Part-II sec.-3(i)] 16.11.2009 Note: (1) These results relate to the sample tested only.

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TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/AMBIENT/HPCL-VRS/Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Vadodara Receiving Station, Palanpur-Vadodara Pipeline, GIDC- Manjusar,

Village- Asoj, Tal- Savli, Vadodara-391775, Gujarat.

Sample Description : Ambient Air Quality Monitoring

Sample Location : Nr. Process Area
Sample Collected On : 01/03/2022
Sample Received on : 03/03/2022

Sample Analyzed & Completion : 03/03/2022 to 05/03/2022
Sample Id No. : ERM/EXT/2022/03/1267

Quantity/No. of Sample : 1-1 No. filter papers for PM10 & PM2.5 (each), 1-1 No. of polyethelene bottle

having approx. 30 ml exposed scrubbing media for SO₂ & NO_x (each), gas in

bladder for HC & CO and Charcoal tube for VOC/ 6 Nos.

Packing/ Seal : Packed

Protocol (Purpose) : As per work order

Instrument used : Combo Sampler (Tag No. 5-5)

Instrument Calibration status : Calibrated Average Ambient Temperature(°C) : 25.8

Average Wind speed (Km/hr) : 5.0

Average Humidity (%) : 48.8

Dominant wind direction : NNW

Height from Ground Level (m) : Approx. 3 m

Sampling Method : As per the below table described for test method

Sample Collected & Provided By : ERM- Mr. Krishna Patel and Team

Sr. No.	Parameters	Unit	Result	Standard Limit as per NAAQS	Test Method
1.	Particulate Matter (PM ₁₀)	μg/m³	77,6	100	IS 5182 (Part 23) : 2006 (Reaffirmed 2012)
2	Particulate Matter (PM,)	ug/m³	150	60	WI/5.4/02 B/03, Issue No.1 : 2010
3.	Sulphur Dioxides (SO ₂)	μg/m³	23.8	80	IS 5182 (Part 2): 2001 (Reaffirmed 2017)
4.	Nitrogen Dioxides (NO _x)	μg/m³	29.2	80	IS 5182 (Part 6): 2006 (Reaffirmed 2017)
5.	Hydrocarbon (as CH ₄)	μg/m³	186	-	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA (GC)
6.	Carbon Monoxide (CO)	μg/m³	0.80	4	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA
7.	Volatile Organic Compound as BTX	μg/m³	94	14	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA

Remark: NAAQS-National Ambient Air Quality Standards: Schedule-VII, [Rule 3 (3B)] [Part-II sec.-3(i)] 16.11.2009 Note: (1) These results relate to the sample tested only.

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TEST REPORT STACK ANALYSIS REPORT

TEST REPORT NO:QF/7.8/01 A/STACK /HPCL-VRS/Rev.0-01/03-2022

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Vadodara Receiving Station, Palanpur-Vadodara Pipeline, GIDC- Manjusar,

Village- Asoj, Tal- Savli, Vadodara-391775, Gujarat.

Sample Description

: Stack Monitoring

Stack Attached to

: DG Set (160 KVA)

Date of Sampling

: 01/03/2022

Sample Received on

: 03/03/2022

Sample Analyzed & Completion

: 03/03/2022 to 05/03/2022

Sample ID No.

: ERM/EXT/2022/03/1268

Quantity/No. of Sample

: 1 No. Thimble for PM, Approx.50 ml exposed absorbing solution (in Polyethylene

Bottle) for SO2 approx. 50ml. exposed absorbing solution In PDA flask for NOx, 1

no. of detector tube for CO / 4 Nos.

Protocol (Purpose)

: As per work order

Packing/ Seal

: Packed

Type of Fuel

: Diesel

Height of Stack (m)

: 10 (From ground level)

Dia. of stack (m)

: 0.15

Sampling Procedure

: As Per the below table described for Test Method

Sample Collected By

: ERM - Mr. Krishna Patel and Team

Sr. No.	Parameters	Unit	Result	CC&A Limit	Test Method
1,	Temperature	°c	112		15 44955 (04.2), 2000
2.	Velocity	m/s	12.1	-	IS 11255 (Part 3): 2008
3.	Particulate of Matter (PM)	mg/Nm3	92.9	150	IS 11255 (Part 1) 1985/Reaffirmed 2014
4.	Sulphur Dioxide (SO ₂)	ppm	30.1	100	IS 11255 (Part 2) 1985/Reaffirmed 2014
5.	Oxides of Nitrogen (NOx)	ppm	26.0	50	IS 11255 (Part 7) : 2005
6.	Carbon monoxide (CO)	mg/Nm³	5.6	-	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA-Detector Tubes

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Issue Date: 17/03/2022

TEST REPORT

AMBIENT NOISE LEVEL MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/NOISE /HPCL-VRS/Rev.0-01/03-2022

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Vadodara Receiving Station, Palanpur-Vadodara Pipeline, GIDC- Manjusar,

Village- Asoj, Tal- Savli, Vadodara-391775, Gujarat.

Sample Description

: Ambient Noise Level Monitoring

Sample Location

: Nr. D.G Set

Date of Monitoring

: 01/03/2022

Sample ID. No.

: ERM/EXT/2022/03/1269

Average Ambient Temperature (°C)

: 25.8

Surrounding activity

: Man movement

Protocol (Purpose)
Sampling Method

: As per work order : IS 9989-1981(Reaffirmed 2001)

Noise Level Monitored by

: ERM- Mr. Krishna Patel and Team

Sr. No.	Parameters	Unit	Test Results	Test Method
1.	Lmax	dB(A)	69.1	IS 9989 : 1981 (Reaffirmed 2001)
2.	Lmin	dB(A)	62.6	IS 9989 : 1981 (Reaffirmed 2001)
3.	Leq	dB(A)	65.1	IS 9989 : 1981 (Reaffirmed 2001)
4.	CPCB Limits in dB(A) Leq (Industrial area)	dB(A)	75	-
5.	CPCB Limits in dB(A) Leq (Commercial area)	dB(A)	65	-
6.	CPCB Limits in dB(A) Leq (Residential area)	dB(A)	55	
7.	CPCB Limits in dB(A) Leq (Silence Zone)	dB(A)	50	

Remark: Day time- 7:00 am to 10:00 pm.

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TEST REPORT

AMBIENT NOISE LEVEL MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/NOISE/HPCL-VRS/Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Vadodara Receiving Station, Palanpur-Vadodara Pipeline, GIDC- Manjusar,

Village- Asoj, Tal- Savli, Vadodara-391775, Gujarat.

Sample Description : Ambient Noise Level Monitoring

Sample Location : Nr. Process area
Date of Monitoring : 01/03/2022

Sample ID. No. : ERM/EXT/2022/03/1269

Average Ambient Temperature (°C) : 25.8

Surrounding activity : Machine operation
Protocol (Purpose) : As per work order

Sampling Method : IS 9989-1981(Reaffirmed 2001)
Noise Level Monitored by : ERM- Mr. Krishna Patel and Team

Sr. No	Parameters	Unit	Test Results During Day Time	Test Method
1.	Lmax	dB(A)	65.4	IS 9989 : 1981 (Reaffirmed 2001)
2.	Lmin	dB(A)	54.9	IS 9989 : 1981 (Reaffirmed 2001)
3.	Leq	dB(A)	62.0	IS 9989 : 1981 (Reaffirmed 2001)
4.	CPCB Limits in dB(A) Leq (Industrial area)	dB(A)	75	-
5.	CPCB Limits In dB(A) Leq (Commercial area)	dB(A)	65	
6.	CPCB Limits in dB(A) Leq (Residential area)	dB(A)	55	-
7.	CPCB Limits in dB(A) Leq (Silence Zone)	dB(A)	50	

Remark: Day time- 7:00 am to 10:00 pm.

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Page 1 of 2

Issue Date: 01/03/2021

TEST REPORT

WATER SAMPLE ANALYSIS REPORT

TEST REPORT NO:QF/7.8/01 A/WATER/HPCL-VRS/Rev.0-01/12-2021

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Vadodara Receiving Station, Palanpur-Vadodara Pipeline, GIDC- Manjusar,

Village- Asoj, Tal- Savli, Vadodara-391775, Gujarat.

Sample Description : Ground water

Sampling Point : Bore well- Outside Control Room

Mode of sampling : Grab

Sample Collected on : 01/03/2022 Sample Received on : 03/03/2022

Sample Analyzed & Completion : 03/03/2022 to 04/03/2022

Sample ID No. : ERM/EXT/2022/03/1270

: 2+2+1 Liters in polyethylene carboys and 250 ml in sterilized bottle/4 Nos. Quantity/No. of Sample

Protocol (Purpose) : As per work order

Packing/ Seal Sampling Method : APHA 23rd Edition - 2017

Sample Collected By : ERM- Mr. Krishna Patel and Team

: Packed

Sr.	Parameters	Unit	Result	The state of the s	nit As Per IS :2012	
No.	Parameters	Unit	Result	Acceptable Limit	Permissible Limit	Test Method
1.	pH at 25 °C	pH Unit	7.62	6.5-8.5	No relaxation	IS 3025 (Part 11):1983 (Reaffirmed 2017)
2.	Color	PtCo Scale	BDL (DL-5)	5	15	APHA, 23 rd Ed 2017, Part - 2000 Section: 2120-C Spectrophotometric Single Wavelength Method)
3.	Odour		Agreeable	Agreeable	Agreeable	IS 3025 (Part-5):1983 (Reaffirmed 2012)
4	Toch	1	åq m (SI)	Agreeable	Agreeable	IS 3025(Part-8):1984 (Reaffirmed 2002)
5.	Conductivity at 25 °C	μS/cm	1892	l a.	-	APHA 23 rd Edition- 2017, Part-2000 Section:2510-B
6.	Turbidity	NTU	0.6	1	5	APHA 23 rd Ed 2017, Part 2000 Section: 2130-B
7.	Total dissolved solids at 180 °C	mg/L	1202	500	2000	IS 3025 (Part 16):1984 (Reaffirmed 2017)
8.	Total Hardness as CaCO ₃	mg/L	389	200	600	IS 3025 (Part 21):2009 (Reaffirmed 2014)
9.	Calcium	mg/L	74	75	200	IS 3025 (Part 40):1991 (Reaffirmed 2014)
10.	Magnesium	mg/L	50	30	100	IS 3025 (Part 46):1994 (Reaffirmed 2014)
11.	Total Alkalinity (as CaCO3)	mg/L	396	200	600	IS 3025 (Part 23):1986 (Reaffirmed 2014)

Remark: BDL - below Detection Limit, DL - Detection Limit.

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Page 2 of 2

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Sample Collected on

: 01/03/2022

Sample ID No.

: ERM/EXT/2022/03/1270

Sr.	Parameters	Unit	Result	Standard Lin 10500		Test Method
No.	Parameters	Onic	Result	Acceptable Limit	Permissible Limit	Test Method
12.	Chloride	mg/L	403	250	1000	IS 3025 (Part 32):1988 (Reaffirmed 2014) Argentometric Method
13.	Sulphate	mg/L	106	200	400	APHA 23 rd Ed 2017, Part-4000 Section : 4500-E SO ₄ ² (Turbidity Method)
14.	Sodium	mg/L	256			IS 3025 (Part 45):1993 (Reaffirmed 2014) Flame Photometric Method
15.	Fluoride	mg/L	0.6	1.0	1.5	APHA 23 rd Ed 2017, Part 4000 Section: 4500-F-D,
16.	Ammonia (as NH ₃ -N)	mg/L	BDL (DL - 0.1)	0.5	No relaxation	IS 3025 (Part 34)-1988 (Reaffirmed 2014) Nesselerization Method
17.	Nitrite Nitrogen	mg/L	BDL (DL- 0.01)	-		IS 3025 (Part 34): 1988 (Colorimetric Method)
18.	Nitrate Nitrogen (as NO ₃)	mg/L	3.2	45	No relaxation	IS 3025 (Part 34) – 1988 (Devadra Alloy Method) (Reaffirmed 2014)
19.	Iron as Fe	mg/L	0.28	0.3	No Relaxation	IS 3025 (Part 53):2003 (Reaffirmed 2014)1,10 Phenanthrolein method
20.	E-Coli (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section : 9221 B & C
21.	Total Coliform (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section : 9221 B & C

Remark: BDL - below Detection Limit, DL - Detection Limit.

Note: (1) These results relate to the sample tested only.

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Page 1 of 2

Issue Date: 17/03/2022

TEST REPORT

DRINKING WATER SAMPLE ANALYSIS REPORT

TEST REPORT NO:QF/7.8/01 A/DRINKING WATER/HPCL-VRS /Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Vadodara Receiving Station, Palanpur-Vadodara Pipeline, GIDC- Manjusar,

Village- Asoj, Tal- Savli, Vadodara-391775, Gujarat.

Sample Description : Drinking water

Sampling Point : Pantry building

Mode of sampling : Grab

 Sample Collected on
 : 01/03/2022

 Sample Received on
 : 03/03/2022

Sample Analyzed & Completion : 03/03/2022 to 08/03/2022 Sample ID No. : ERM/EXT/2022/03/1271

Quantity/No. of Sample . 2+2+1 Liters in polyethylene carboys and 250 ml in sterilized bottle/4 Nos.

Protocol (Purpose) : As per work order

Packing/ Seal : Packed

Sampling Method : APHA 23rd Edition- 2017

Sample Collected By : ERM- Mr. Krishna Patel and Team

Sr.	Parameters	Unit	Result		mit As Per IS 0:2012	4224
No.	Parameters	Onit	Result	Acceptable Limit	Permissible Limit	Test Method
1.	pH at 25 °C	pH Unit	7.80	6.5-8.5	No relaxation	IS 3025 (Part 11):1983 (Reaffirmed 2017)
2.	Color	PtCo Scale	BDL (DL- 5)	5	15	APHA, 23 rd Ed 2017, Part - 2000 Section : 2120-C Spectrophotometric —Single Wavelength Method)
3.	Odour	- 6- +	Agreeable	Agreeable	Agreeable	IS 3025 (Part-5):1983 (Reaffirmed 2012)
7	TOSTE		Michiga	Agreeable	Agreeable	IS 3025(Part-8):1984 (Reaffirmed 2002)
5.	Conductivity at 25 °C	μS/cm	138	,	1-0	APHA 23 rd Edition- 2017, Part-2000 Section: 2510-B
6.	Turbidity	NTU	BDL (DL- 0.1)	1	5	APHA 23 rd Ed 2017, Part 2000 Section: 2130-B
7.	Total dissolved solids at 180 °C	mg/L	-86	500	2000	IS 3025 (Part 16):1984 (Reaffirmed 2017)
8.	Total Hardness as CaCO ₃	mg/L	32	200	600	IS 3025 (Part 21):2009 (Reaffirmed 2014)
9.	Calcium	mg/L	10	75	200	IS 3025 (Part 40):1991 (Reaffirmed 2014)
10.	Magnesium	mg/L	2	30	100	IS 3025 (Part 46):1994 (Reaffirmed 2014)
11.	Total Alkalinity (as CaCO3)	mg/L	30	200	600	IS 3025 (Part 23):1986 (Reaffirmed 2014)

Remark: BDL - below Detection Limit, DL - Detection Limit.

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Vadodara Branch: 216, Race Course Tower, Gotri Road, Vadodara-390007. Tel.: 0265-2321215, 2331215

(P.T.O)



Page 2 of 2

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Sample Collected on

: 01/03/2022

Sample ID No.

: ERM/EXT/2022/03/1271

Sr.	Parameters	Unit	Result	Standard Limit As Per IS 10500:2012		4
No.	Parameters	Unit	Kesuit	Acceptable Limit	Permissible Limit	Test Method
12.	Chloride	mg/L	24	250	1000	IS 3025 (Part 32):1988 (Reaffirmed 2014) Argentometric Method
13.	Sulphate	mg/L	8	200	400	APHA 23 rd Ed 2017, Part-4000 Section : 4500-E SO ₄ -2 (Turbidity Method)
14.	Sodium	mg/L	16	-		IS 3025 (Part 45):1993 (Reaffirmed 2014) Flame Photometric Method
15.	Fluoride	mg/L	BDL (DL- 0.1)	1.0	1.5	APHA 23 rd Ed 2017, Part 4000 Section: 4500-F-D,
16.	Ammonia (as NH ₃ -N)	mg/L	BDL (DL - 0.1)	0.5	No relaxation	IS 3025 (Part 34)-1988 (Reaffirmed 2014) Nesselerization Method
17.	Nitrite Nitrogen	mg/L	BDL (DL- 0.01)	- 4	- 4	IS 3025 (Part 34): 1988 (Colorimetric Method)
18.	Nitrate Nitrogen (as NO ₃)	mg/L	BDL (DL- 2.0)	45	No relaxation	IS 3025 (Part 34) – 1988 (Devadra Alloy Method) (Reaffirmed 2014)
19.	Iron as Fe	mg/L	BDL (DL- 0.05)	0.3	No Relaxation	IS 3025 (Part 53):2003 (Reaffirmed 2014)1,10 Phenanthrolein method
20.	E-Coli (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section: 9221 B & C
21.	Total Coliform (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section: 9221 B & C

Remark: BDL - below Detection Limit, DL - Detection Limit.

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TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/AMBIENT/HPCL-IPS/Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, Ghadkan-Intermediate Pigging

Station, Survey NO: 83, 84,85, Village- Ghadkan Tal- Prantij

District- Sabarkantha, Gujarat.

Sample Description : Ambient Air Quality Monitoring

Sample Location : Nr. Security cabin
Sample Collected On : 03/03/2022
Sample Received on : 04/03/2022

Sample Analyzed & Completion : 04/03/2022 to 07/03/2022 Sample Id No. : ERM/EXT/2022/03/1292

Quantity/No. of Sample : 1-1 No. filter papers for PM₁₀ & PM_{2.5} (each), 1-1 No. of polyethelene

bottle having approx. 30 ml exposed scrubbing media for SO_2 & NO_x (each), gas in bladder for HC & CO and Charcoal tube for VOC/ 6 Nos.

Packing/ Seal : Packed

Protocol (Purpose) : As per work order

Instrument used : Combo Sampler (Tag No. S-4)

Instrument Calibration status : Valid
Ambient Temperature (°C) : 27.3
Average Wind speed (Km/hr) : 6.3
Average Humidity (%) : 36.5
Dominant wind direction : NW

Height from Ground Level (m) : Approx. 3 m

Sampling Method : As per the below table described for test method

Sample Collected & Provided By : ERM- Mr. Bhavesh Patel and Team

Sr. No.	Parameters	Unit	Result	Standard Limit as per NAAQS	Test Method
1.	Particulate Matter (PM ₁₀)	µg/m³	80.6	100	IS 5182 (Part 23) : 2006 (Reaffirmed 2012)
2.	Particulate Matter (PM _{2.5})	μg/m³	44.1	60	WI/5.4/02-B/03, Issue No.1 : 2010
3.	Sulphur Dioxides (SO₂)	μg/m³	32.9	80	IS 5182 (Part 2): 2001 (Reaffirmed 2017)
4.	Nitrogen Dioxides (NO _x)	μg/m³	41.2	80	IS 5182 (Part 6): 2006 (Reaffirmed 2017)
5.	Hydrocarbon (as CH ₄)	μg/m³	176	-	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA (GC)
6.	Carbon Monoxide (CO)	mg/m³	0.40	4	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA
7.	Volatile Organic Compound as BTX	μg/m³	72	12 1	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA

Remark: NAAQS-National Ambient Air Quality Standards: Schedule-VII, [Rule 3 (3B)] [Part-II sec.-3(i)] 16.11.2009

Note: (1) These results relate to the sample tested only.

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TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/AMBIENT/HPCL-IPS/Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, Ghadkan-Intermediate Pigging

Station, Survey NO: 83, 84,85, Village- Ghadkan Tal- Prantij

District- Sabarkantha, Gujarat.

Sample Description : Ambient Air Quality Monitoring

Sample Location : Nr. Process Area
Sample Collected On : 03/03/2022
Sample Received on : 04/03/2022

Sample Analyzed & Completion : 04/03/2022 to 07/03/2022 Sample Id No. : ERM/EXT/2022/03/1293

Quantity/No. of Sample : 1-1 No. filter papers for PM₁₀ & PM_{2.5} (each), 1-1 No. of polyethelene bottle

having approx. 30 ml exposed scrubbing media for SO₂ & NO_x(each), gas in

bladder for HC & CO and Charcoal tube for VOC/ 6 Nos.

Packing/ Seal : Packed

Protocol (Purpose) : As per work order

Instrument used : Combo Sampler (Tag No. S-5)

Instrument Calibration status : Valid
Ambient Temperature(°C) : 27.3
Average Wind speed (Km/hr) : 6.3
Average Humidity (%) : 36.5
Dominant wind direction : NW

Height from Ground Level (m) : Approx. 3 m

Sampling Method : As per the below table described for test method

Sample Collected & Provided By : ERM- Mr. Bhavesh Patel and Team

Sr. No.	Parameters	Unit	Result	Standard Limit as per NAAQS	Test Method
1.	Particulate Matter (PM ₁₀)	μg/m³	74.3	100	15 5182 (Part 23) : 2006 (Reaffirmed 2012)
2.	Particulate Matter (PM _{2.5})	μg/m	Hili, L	00	WI/5.4/02-B/03, Issue No.1 - 2010
3.	Sulphur Dioxides (SO ₂)	μg/m³	33,9	80	IS 5182 (Part 2) : 2001 (Reaffirmed 2017)
4.	Nitrogen Dioxides (NO _x)	μg/m³	44.0	80	IS 5182 (Part 6): 2006 (Reaffirmed 2017)
5.	Hydrocarbon (as CH ₄)	μg/m³	201	-	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA (GC)
6.	Carbon Monoxide (CO)	μg/m³	0.49	4	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA
7.	Volatile Organic Compound as BTX	μg/m³	98	-	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA

Remark: NAAQS-National Ambient Air Quality Standards: Schedule-VII, [Rule 3 (38)] [Part II sec. -3(i)] 16.11.2009

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TEST REPORT

STACK ANALYSIS REPORT

TEST REPORT NO:QF/7.8/01 A/STACK /HPCL-IPS/Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, Ghadkan-Intermediate Pigging

Station, Survey NO: 83, 84,85, Village- Ghadkan Tal- Prantii

District- Sabarkantha, Gujarat.

Sample Description : Stack Monitoring Stack Attached to : DG Set (320 KVA) Date of Sampling : 03/03/2022

Sample Received on : 04/03/2022

Sample Analyzed & Completion : 04/03/2022 to 07/03/2022 Sample ID No. : ERM/EXT/2022/03/1294

Quantity/No. of Sample : 1 No. Thimble for PM, Approx.50 ml exposed absorbing solution (in

Polyethylene Bottle) for SO₂ approx. 50ml. exposed absorbing solution In PDA

flask for NOx, 1 no. of detector tube for CO / 4 Nos.

Protocol (Purpose) : As per work order

Packing/ Seal : Packed Type of Fuel : Diesel

Height of Stack (m) : 11 (From ground level)

Dia. of stack (m) : 0.08

Sampling Procedure : As Per the below table described for Test Method

: ERM - Mr. Bhavesh Patel and Team Sample Collected By

Sr. No.	Parameters	Unit	Result	CC&A Limit	Test Method
1.	Temperature	°c	101		IS 11355 (Post 3), 3000
2.	Velocity	m/s	13.1	-	IS 11255 (Part 3): 2008
3.	Particulate of Matter (PM)	mg/Nm3	89.7	150	IS 11255 (Part 1) 1985/Reaffirmed 2014
4.	Sulphur Dioxide (50 ₂)	ррт	30.3	100	IS 11255 (Part 2) 1985/Reaffirmed 2014
5.	Oxides of Nitrogen (NOx)	ppm	26.0	50	IS 11255 (Part 7) : 2005
6.	Carbon monoxide (CO)	mg/Nm ³	4.9	-	Methods of Air Sampling & Analysis 3 rd Edition AWMA, APHA-Detector Tubes

Note: (1) These results relate to the sample tested only.

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Issue Date: 17/03/2022

TEST REPORT

AMBIENT NOISE LEVEL MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/NOISE /HPCL-IPS/Rev.0-01/03-2022

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, Ghadkan-Intermediate Pigging

Station, Survey NO: 83, 84,85, Village- Ghadkan Tal- Prantii

District- Sabarkantha, Gujarat.

Sample Description

: Ambient Noise Level Monitoring

Sample Location Date of Monitoring : Nr. D.G Set

: 03/03/2022

Sample ID. No.

: ERM/EXT/2022/03/1295

Ambient Temperature (°C)

Surrounding activity Protocol (Purpose)

: Man movement : As per work order

Sampling Method

Noise Level Monitored by

: IS 9989-1981(Reaffirmed 2001)

: ERM- Mr. Bhavesh Patel and Team

Sr. No	Parameters	Unit	Test Results During Day Time	Test Method
1.	Lmax	dB(A)	67.8	IS 9989 : 1981 (Reaffirmed 2001)
2.	Lmin	dB(A)	52.1	IS 9989 : 1981 (Reaffirmed 2001)
3.	Leq	dB(A)	63.6	IS 9989 : 1981 (Reaffirmed 2001)
4.	CPCB Limits in dB(A) Leq (Industrial area)	dB(A)	75	
5.	CPCB Limits in dB(A) Leq (Commercial area)	dB(A)	65	
6.	CPCB Limits in dB(A) Leq (Residential area)	dB(A)	55	1-
7.	CPCB Limits in dB(A) Leq (Silence Zone)	dB(A)	50	-

Remark: Day time- 7:00 am to 10:00 pm

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Vadodara Branch: 216. Race Course Tower, Gotri Road, Vadodara-390007, Tel.: 0265-2321215, 2331215

MoEF & CC Recognised Laboratory under EPA 1986

Issue Date: 17/03/2022

TEST REPORT

AMBIENT NOISE LEVEL MONITORING REPORT

TEST REPORT NO:QF/7.8/01 A/NOISE/HPCL-IPS/Rev.0-01/03-2022

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, Ghadkan-Intermediate Pigging

Station, Survey NO: 83, 84,85, Village- Ghadkan Tal- Prantij

District- Sabarkantha, Gujarat.

Sample Description

: Ambient Noise Level Monitoring

Sample Location

: Nr. Process area : 03/03/2022

Date of Monitoring

: ERM/EXT/2022/03/1296

Sample ID. No. Ambient Temperature (°C)

: 27.3

Surrounding activity Protocol (Purpose)

: Machine operation : As per work order

Sampling Method Noise Level Monitored by : IS 9989-1981(Reaffirmed 2001)

: ERM- Mr. Bhavesh Patel and Team

Sr. No	Parameters	Unit	Test Results During Day Time	Test Method
1.	Lmax	dB(A)	64.8	IS 9989 : 1981 (Reaffirmed 2001)
2.	Lmin	dB(A)	52.0	IS 9989 : 1981 (Reaffirmed 2001)
3.	Leq	Leq dB(A)		IS 9989 : 1981 (Reaffirmed 2001)
4.	CPCB Limits in dB(A) Leq (Industrial area)	dB(A)	75	-
5.	CPCB Limits in dB(A) Leq (Commercial area)	dB(A)	65	
6.	CPCB Limits in dB(A) Leq (Residential area)	dB(A)	55	-
7.	CPCB Limits in dB(A) Leq (Silence Zone)	dB(A)	50	

Remark: Day time- 7:00 am to 10:00 pm.

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Bharuch Branch: Shop No. 7/8, Saffron City, Opp. Bharat Petrol Pump, Vill. Jolwa, Dahej - Bharuch Road, Bharuch. Mo.: 98250 94443 Vapi Branch: 131, Ashapura Complex, Near New Telephone Exchange Road, GIDC Vapi-396 195 Tel.: 0260-2970305 / 94262 63805

Vadodara Branch: 216. Race Course Tower, Gotri Road, Vadodara-390007. Tel.: 0265-2321215, 2331215

Page 1 of 2

Issue Date: 17/03/2022

TEST REPORT

DRINKING WATER SAMPLE ANALYSIS REPORT

TEST REPORT NO:QF/7.8/01 A/DRINKING WATER/HPCL-IPS /Rev.0-01/03-2022

Name of the Industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, Ghadkan-Intermediate Pigging

Station, Village- Ghadkan Tal- Prantij District- Sabarkantha, Gujarat.

Sample Description : Drinking water

Sampling Point : IPS- Ghadkan

Mode of sampling Grab

 Sample Collected on
 : 03/03/2022

 Sample Received on
 : 04/03/2022

Sample Analyzed & Completion : 04/03/2022 to 09/03/2022 Sample ID No. : ERM/EXT/2022/03/1297

Quantity/No. of Sample : 2+2+1 Liters in polyethylene carboys and 250 ml in sterilized bottle/4 Nos.

Protocol (Purpose) : As per work order

Packing/ Seal : Packed

Sampling Method : APHA 23rd Edition - 2017

Sample Collected By : ERM- Mr. Bhavesh Patel and Team

Sr.		Standard Limit As Per IS 10500:2012		70 77 77 77 77 77		
No.	Parameters	Unit	Result	Acceptable Limit	Permissible Limit	Test Method
1.	pH at 25 °C	pH Unit	7,23	6.5-8.5	No relaxation	IS 3025 (Part 11):1983 (Reaffirmed 2017)
2.	Color	PtCo Scale	8DL (DL- 5)	5	15	APHA, 23 rd Ed 2017, Part - 2000 Section: 2120-C Spectrophotometric -Single Wavelength Method)
3.	Odeur	**	Agreeable	Agreeable	Agreeable	IS 3025 (Part-5):1983 (Reaffirmed 2012)
	72-10-		4g or 196	Agrecable	Agreeable	iS 3025(Part-8): 1984 (Reaffirmed 2002)
5.	Conductivity at 25 °C	μS/cm	52		-	APHA 23 rd Edition- 2017, Part-2000 Section: 2510-8
6.	Turbidity	NTU	BDL (DL 0.1)	1	5	APHA 23 rd Ed 2017, Part 2000 Section: 2130-B
7.	Total dissolved solids at 180 °C	mg/L	36	500	2000	IS 3025 (Part 16):1984 (Reaffirmed 2017)
8.	Total Hardness as CaCO ₃	mg/L	8	200	600	IS 3025 (Part 21):2009 (Reaffirmed 2014)
9.	Calcium	mg/L	2	75	200	IS 3025 (Part 40):1991 (Reaffirmed 2014)
10.	Magnesium	mg/L	2	30	100	IS 3025 (Part 46):1994 (Reaffirmed 2014)
11.	Total Alkalinity (as CaCO3)	mg/L	BDL (DL- 25)	200	600	IS 3025 (Part 23):1986 (Reaffirmed 2014)

Remark: BDL - Below Detection Limit, DL - Detection Limit.

(P.T.O)

Regd. Off.: Office Floor, Ashoka Pavillion-A, Opp. Kapadia Health Club, New Civil Road, SURAT-395 001.

Telefax: 91 - 261 - 2236223 Phone: 84605 45050

e-mail: eco@ecoshripad.com Website: www.ecosystemindia.com CIN No.: U72200GJ2000PTC038265

Bharuch Branch: Shop No. 7/8, Salfron City, Opp. Bharat Petrol Pump, Vill. Jolwa, Dahej - Bharuch Road, Bharuch. Mo.: 98250 94443 Vapi Branch: 131, Ashapura Complex, Near New Telephone Exchange Road, GIDC Vapi-396 195 Tel.: 0260-2970305 / 94262 63805

Vadodara Branch: 216, Race Course Tower, Gotri Road, Vadodara-390007. Tel.: 0265-2321215, 2331215



MoEF & CC Recognised Laboratory under EPA 1986

Page 2 of 2

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Sample Collected on

: 03/03/2022

Sample ID No.

: ERM/EXT/2022/03/1297

	ile ID No.		VI, EXI, EUE	Standard Lin		
Sr. Parameters	Parameters	Unit	Result	10500:2012		Test Method
No.	, arameters	5	,,esa,,	Acceptable Limit	Permissible Limit	
12.	Chloride	mg/L	10	250	1000	IS 3025 (Part 32):1988 (Reaffirmed 2014) Argentometric Method
13.	Sulphate	mg/L	BDL (DL-1)	200	400	APHA 23 rd Ed 2017, Part-4000 Section : 4500-E SO ₄ -2 (Turbidity Method)
14.	Sodium	mg/L	8		#	IS 3025 (Part 45):1993 (Reaffirmed 2014) Flame Photometric Method
15.	Fluoride	mg/L	BDL (DL-0.1)	1.0	1.5	APHA 23 rd Ed 2017, Part 4000 Section: 4500-F-D,
16.	Ammonia (as NH ₃ -N)	mg/L	BDL (DL - 0.1)	0.5	No relaxation	IS 3025 (Part 34)-1988 (Reaffirmed 2014 Nesselerization Method
17.	Nitrite Nitrogen	mg/L	BDL (DL- 0.01)	4	12	IS 3025 (Part 34): 1988 (Colorimetric Method)
18.	Nitrate Nitrogen (as NO ₃)	mg/L	BDL (DL- 2.0)	45	No relaxation	IS 3025 (Part 34) – 1988 (Devadra Alloy Method) (Reaffirmed 2014)
19.	Iron as Fe	mg/L	BDL (DL- 0.05)	0.3	No Relaxation	IS 3025 (Part 53):2003 (Reaffirmed 2014)1,10 Phenanthrolein method
20.	E-Coli (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section: 9221 B & C
21.	Total Coliform (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section : 9221 B & C

Remark: BDL - Below Detection Limit, DL - Detection Limit

Note: (1) These results relate to the sample tested only.

(2) The report shall not be reproduced except in full without written approval of the laboratory.

CHEMIST

CHECKED BY (Haresh Ahir) AUTHORISED SIGNATORY
(Sunilkumar Pandey)

Regd. Off.: Office Floor, Ashoka Pavillion-A, Opp. Kapadia Health Club, New Civil Road, SURAT-395 001.

Telefax: 91 - 261 - 2236223 Phone: 84605 45050

e-mail: eco@ecoshripad.com Website: www.ecosystemindia.com CIN.No.: U72200GJ2000PTC038265

Bharuch Branch: Shop No. 7/8, Saffron City, Opp. Bharat Petrol Pump, Vill. Jolwa, Dahej - Bharuch Road, Bharuch. Mo.: 98250 94443 Vapi Branch: 131, Ashapura Complex, Near New Telephone Exchange Road, GIDC Vapi-396 195 Tel.: 0260-2970305 / 94262 63805

Vadodara Branch: 216. Race Course Tower, Gotri Road. Vadodara-390007. Tel.: 0265-2321215, 2331215

Page 1 of 2

Issue Date: 17/03/2022

TEST REPORT

WATER SAMPLE ANALYSIS REPORT

TEST REPORT NO:QF/7.8/01 A/WATER/HPCL-IPS/Rev.0-01/03-2022

Name of the industry : M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Palanpur-Vadodara Pipeline Project, Ghadkan-Intermediate Pigging

Station, Survey NO: 83, 84,85, Village- Ghadkan Tal- Prantij

District- Sabarkantha, Gujarat.

Sample Description : Ground water Sampling Point : IPS- Ghadkan

Mode of sampling : Grab

 Sample Collected on
 : 03/03/2022

 Sample Received on
 : 04/03/2022

Sample Analyzed & Completion : 04/03/2022 to 09/03/2022 Sample ID No. : ERM/EXT/2022/03/1298

Quantity/No. of Sample : 2+2+1 Liters in polyethylene carboys and 250 ml in sterilized bottle/4 Nos.

Protocol (Purpose) : As per work order

Packing/ Seal Packed

Sampling Method : APHA 23rd Edition – 2017

Sample Collected By : ERM- Mr. Bhavesh Patel and Team

Sr.	Parameters	Unit	Result	Standard Limit As Per IS 10500:2012		
No.	Parameters	Unit	Result	Acceptable Limit	Permissible Limit	Test Method
1.	pH at 25 oC	pH Unit	7,68	6.5-8.5	No relaxation	IS 3025 (Part 11):1983 (Reaffirmed 2017)
2.	Color	PtCo Scale	BD1 (DL-5)	5	15	APHA, 23 rd Ed 2017, Part - 2000 Section: 2120-C Spectrophotometric -Single Wavelength Method)
3.	Odour		Agreeable	Agreeable	Agreeable	IS 3025 (Part-5):1983 (Reaffirmed 2012)
4.	Taste	3+6	Agreeable	Agreeable	Agreeable	IS 3025(Part-8):1984 (Reaffirmed 2002)
5.	Conductivity at 25 °C	μS/cm	1261		43	APHA 23 rd Edition- 2017, Part-2000 Section: 2510-B
6.	Turbidity	NTU	0,6	1	5	APHA 23 rd Ed 2017, Part 2000 Section: 2130-8
7.	Total dissolved solids at 180 °C	mg/L	812	500	2000	IS 3025 (Part 16):1984 (Reaffirmed 2017)
8,	Total Hardness as CaCO ₃	mg/L	304	200	600	IS 3025 (Part 21):2009 (Reaffirmed 2014)
9,	Calcium	mg/L	58	75	200	IS 3025 (Part 40):1991 (Reaffirmed 2014)
10.	Magnesium	mg/L	39	30	100	IS 3025 (Part 46):1994 (Reaffirmed 2014)
11.	Total Alkalinity (as CaCO3)	mg/L	279	200	600	IS 3025 (Part 23):1986 (Reaffirmed 2014)

Remark: BDL - Below Detection Limit, DL - Detection Limit.

Regd. Off.: Office Floor, Ashoka Pavillion-A, Opp. Kapadia Health Club, New Civil Road, SURAT-395 001.

Telefax: 91 - 261 - 2236223 Phone: 84605 45050

e-mail: eco@ecoshripad.com Website: www.ecosystemindla.com CIN No.: U72200GJ2000PTC038265

Bharuch Branch: Shop No. 7/8, Saffron City, Opp. Bharat Petrol Pump, Vill. Jolwa, Dahej - Bharuch Road, Bharuch. Mo.: 98250 94443 Vapi Branch: 131, Ashapura Complex, Near New Telephone Exchange Road, GIDC Vapi-396 195 Tel.: 0260-2970305 / 94262 63805

Vadodara Branch: 216. Race Course Tower, Gotri Road, Vadodara-390007, Tel.: 0265-2321215, 2331215

(P.T.O)



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Page 2 of 2

Name of the Industry

: M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED.

Sample Collected on

: 03/03/2022

Sample ID No.

: ERM/EXT/2022/03/1298

Sr.	Parameters	Unit	Result	Standard Limit As Per IS 10500:2012		Tara Marahard
No. Parameters	Unit Resu	Result	Acceptable Limit	Permissible Limit	Test Method	
12.	Chloride	mg/L	252	250	1000	IS 3025 (Part 32):1988 (Reaffirmed 2014) Argentometric Method
13.	Sulphate	mg/L	52	200	400	APHA 23 rd Ed 2017, Part-4000 Section : 4500-E 5O ₄ ⁻² (Turbidity Method)
14.	Sodium	mg/L	145	-2		IS 3025 (Part 45):1993 (Reaffirmed 2014) Flame Photometric Method
15.	Fluoride	mg/L	0.3	1.0	1.5	APHA 23 rd Ed 2017, Part 4000 Section: 4500-F-D,
16.	Ammonia (as NH ₃ -N)	mg/L	BDL (DL - 0.1)	0.5	No relaxation	IS 3025 (Part 34)-1988 (Reaffirmed 2014) Nesselerization Method
17.	Nitrite Nitrogen	mg/L	BDL (DL- 0.01)	4		IS 3025 (Part 34): 1988 (Colorimetric Method)
18.	Nitrate Nitrogen (as NO ₃)	mg/L	3.8	45	No relaxation	IS 3025 (Part 34) – 1988 (Devadra Alloy Method) (Reaffirmed 2014)
19.	Iron as Fe	mg/L	0.20	0.3	No Relaxation	IS 3025 (Part 53):2003 (Reaffirmed 2014)1,10 Phenanthrolein method
20.	E-Coli (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section : 9221 B & C
21,	Total Coliform (MPN)	Present/ Absent	Absent	Shall not be detectable in 100 ml sample	Shall not be detectable in 100 ml sample	APHA 23 rd Edition, 2017 Part-9000 Section : 9221 B & C

Remark: BDL - Below Detection Limit, DL - Detection Limit.

Note: (1) These results relate to the sample tested only.

(2) The report shall not be reproduced except in full without written approval of the laboratory.

S DPute/

CHECKED BY (Haresh Ahir) AUTHORISED SIGNATORY (Sunilkumar Pandey)

Regd. Off.: Office Floor, Ashoka Pavillion-A, Opp. Kapadia Health Club, New Civil Road, SURAT-395 001.

Telefax: 91 - 261 - 2236223 Phone: 84605 45050

e-mail: eco@ecoshripad.com Website: www.ecosystemindia.com CIN No.: U72200GJ2000PTC038265

Bharuch Branch: Shop No. 7/8, Saffron City, Opp. Bharat Petrol Pump, Vill. Jolwa, Dahej - Bharuch Road, Bharuch. Mo.: 98250 94443 Vapi Branch: 131, Ashapura Complex, Near New Telephone Exchange Road, GIDC Vapi-396 195 Tel.: 0260-2970305 / 94262 63805

Vadodara Branch: 216, Race Course Tower. Gotri Road, Vadodara-390007. Tel.: 0265-2321215, 2331215



हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड

(भारत सरकार का उपक्रम) रजिस्टर्ड ऑफिस : १७, जमशेदजी टाटा रोड, मुंबई ४०० ०२०

HINDUSTAN PETROLEUM CORPORATION LIMITED

(A GOVERNMENT OF INDIA ENTERPRISE) REGISTERED OFFICE: 17, JAMSHEDJI TATA ROAD, MUMBAI 400 020

एच पी सी एल, पालनपुर वडोदरा पाइपलाइन, वडोदरा रिसिप्ट स्टेशन, गाँव: आसोज-पिलोल,

पिलोल रेखे स्टेशन/सावली-मंजूसर जी आई डी सी के पास, जिला : बडोदरा 391775, गुजरात. फोन : 7069003072, 3073

HPCL-Palanpur Vadodara Pipeline, Vadodara Receipt Station, Village : Asoj-Pilol, Near Pilol Railway Station, Beside Savil-Manjusar GIDC, District : Vadodara 391775, Gujarat. Ph. : 7069003072, 3073

Date: 11.04.2022

To.

The Member Secretary. Guiarat Pollution Control Board, Paryavaran Bhavan, Sector 10A Gandhinagar - 382010

Sub: Submission of Annual Return (PCB ID - 51262) in Form No. 4 for financial year 2021-22

With reference to above subject, in this connection we are herewith submitting Annual Report (form No. 4) along with required details for your ready reference.

Hope the above details are as per your requirements.

Thanking You,

Your Sincerely,

For, HINDUSTAN PETROLEUM CORPORATION LTD,

Delia dired

Authorised Signatory

Encl: अस्टिल लुहाड़ियां Encl: अस्तिक्शकाadiya वरिष्ठ स्टेशन प्रबंधक Sr. Station Manager

चडोदग रिसिन्ट स्टेशन Vadodara Receipt Station पालनपुर-बडोदरा पाइयलाउन Palapur-Vadodara Pipeline हिन्दुस्तान पेटोलियम कॉर्पोश्यन लिपिटेड Hindustan Petroleum Corpration Limiter

FORM 4

[See rules 5(6) and 22(2)]

FORM FOR FILLING ANNUAL RETURNS BY THE OCCUPIER OR OPERATOR OF FACILITY

[to be submitted by occupier/operator of disposal facility to State Pollution Control Board/ Pollution Control Committee by 30th June of every year for the preceding period April to March]

1.	Name and address of the generator/ operator of facility	***	HINDUSTAN PETROLEUM CORPORATION LIMITED Vadodara Receiving Station Palanpur Vadodara Pipeline Village Asoj Near Bombardier, GIDC, Manjusar-Vadodara, Gujarat – 391775					
2.	Name of the authorised person and full address with telephone and fax number		AKHIL LUHADIYA Vadodara Receiving Station Palanpur Vadodara Pipeline Village Asoj Near Bombardier, GIDC, Manjusar-Vadodara, Gujarat – 391775					
Т			Type of Hazardous	s waste	Phys	ical form with desc	ription	Chemical form
3.	Description of hazardous waste	:	a) Nil		Nil			Nil
			b)					
			Type of Hazardous waste Quantity (in Tor		nes / K	L)		
4.	Quantity of hazardous wastes (in	:	a) Nil Nil		Nil			
	MTA)		b)					
5.	Description of Storage	:	Stored in adequat	e storag	e Area	3		
6.	Description of Treatment	:	Nil					
7.	Details of transportation		Name & address of consignee	Mode packin	-	Mode of transportation	Date	of transportation
			Nil	Nil		Nil	Nil	
8.	Details of disposal of hazardous		Name & address Mode of of consignee packing		Mode of transportation	Date of transportation		
٠.	waste		Nil	Nii		Nil	Nil	
	Quantity of useful Materials sent		Name and type of material sent back to				Quan	tity (in Tonnes / KL)
9.		1	manufacturers				Nil	
	others#		Others#				Nil	

*Delete whichever is not applicable # enclose list of other agencies.

Date: 11.04.2022 Place: Vadodara

Designation Seaton Manager Sr. Station Manager

vadodara Receipt Sertion पालनपुर-वडोटरा पाइपलाइन Palapur-Vadodara Pipeline हिन्दुस्तान पेट्रोलियम कपिरिशन लिमिटेड Hindustan Petroleum Corpration Limits



हिन्दुरतान पेट्रोलियम कॉर्पोरेशन लिमिटेड

(भारत सरकार का उपक्रम) रजिस्टर्ड ऑफिस : १७, जमशेदजी टाटा रोड, मुंबई ४०० ०२०

HINDUSTAN PETROLEUM CORPORATION LIMITED

(A GOVERNMENT OF INDIA ENTERPRISE) REGISTERED OFFICE: 17, JAMSHEDJI TATA ROAD, MUMBAI 400 020

एच पी सी एक, पालनपुर बडोदरा पाइपलाइन, वडोदरा रिसिय्ट स्टेशन, गाँव: आसोज-पिकोक,

पिलोल रेल्वे स्टेशन/सावली-मंजूसर जी आई डी सी के पास, जिला : वडोदरा 391775, गुजरात. फोन : 7069003072, 3073 HPCL-Palanpur Vadodara Pipeline, Vadodara Receipt Station, Village : Asoj-Piloi, Near Piloi Railway Station, Beside Savii-Manjusar GIDC, District : Vadodara 391775, Gujarat. Ph. : 7069003072, 3073

Date: 11.04.2022

To,

The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector 10A Gandhinagar - 382010

Sub: Submission of Environmental Statement in Form No. 5 for financial year 2021-22

Sir.

With reference to above subject, in this connection we are herewith submitting Environmental Statement (form No.5) along with required details for your ready reference.

Hope the above details are as per your requirements.

Thanking You,

Your Sincerely,

For, HINDUSTAN PETROLEUM CORPORATION LTD.

Dulid durad

Authorised Signatory आखल लुहाडिया

Enak Mil Albadiya afred Colle velues

Sr. Station Manager वडोदरा तिसप्ट स्टेश Vadodara Receipt Station पालनपुर-वडादरा पाइपलाइन Palapur-Vadodara Pipeline हिन्दुस्तान पेट्रोलियम कॉपोरशन लिमिटेड Hindustan Petroleum Corpration Limited

From,

HINDUSTAN PETROLEUM CORPORATION LIMITED

Vadodara Receiving Station Palanpur Vadodara Pipeline Village Asoj Near Bombardier, GIDC, Manjusar-Vadodara, Gujarat - 391775

To.

Gujarat Pollution Control Board,

Paryavaran Bhavan, Sector 10A Gandhinagar - 382010

Environmental Statement for the financial year ending on 31 March 2022

PART - A

AKHIL LUHADIYA

Name and address of the owner/ occupier of the industry operation or process

Vadodara Receiving Station Palanpur Vadodara Pipeline

Village Asoj Near Bombardier, GIDC, Manjusar-Vadodara, Gujarat - 391775

Industry Category -

2. Primary - (STC Code) Secondary - (STC Code)

3. Production capacity Units

-LS.I--

Receiving of Petroleum Products

4. Year of Establishment

2019

5. Date of the Last Environmental Statement submitted

11.05.2021

Submission of Environmental Statement is in accordance with the provision of Rule - 14 of the Environment (Protection). Amendment Rules, 1993 of the Environment (Protection) Act, 1986 (29 of 1986) published vide Notification dated 22-4-1993 G. S. R. 386 (E) in the Gazette of India - Extraordinary - Part - II Section - 3 Subsection (i), No. 155 dated 28-4-1993 by the Ministry of Environment and Forests, Government of India; Read with the Notification dated 13-2-1993 G. S. R. 329 (E) of the Gazette of India - Extraordinary Part - II Section - 3 Subsection (i) No. 120 dated 13-3-1993.

[&]quot;Every person carrying on an industry, operation or process requiring consent under Section-25 of the water (Prevention & Control of Pollution) Act, 1974 (6 of 1974) or under section- 21 of the Air (Prevention & Control of Pollution) Act, 1981 (14 of 1981) or both authorization under the Hazardous Wastes (Management & Handling) Rules, 1989 Published under the Environ (Protection) Act, 1986 (29 of 1986) shall submit an Environmental Statement for the financial year ending the 31" March in Form V to the concerned State Pollution Control Board on or before the Thirtieth day of September every year, beginning 1993."

Water and Raw Material Consumption

- Water Consumption m³/day
 - a) Process (Other) Nil
 - b) Cooling Nil
 - c) Domestic 0.9 KL/day

Name of Product	Process water consumption per unit of product output				
Name of Froduct	During the Previous Financial Year	During the Current Financial Year			
	NA NA	NA NA			

2) Raw Material Consumption

Name of Raw	Name of	Process water consumption	per unit of product output
Material	Product	During the Previous Financial Year	During the Current Financial Year
NA	NA	NA NA	NA NA

 Industry may use codes if disclosing details of raw material would violate contractual obligation, otherwise all industries have to name the raw materials used.

PART - C

Pollution Discharged to Environment / unit of output (Parameter as specified in the consent issued)

	Pollutants	Quantity of Pollutant Discharged (mass/day)	Concentration of Pollutant Discharges (mass/volume)	Percentage of variation from Prescribed Standards with reasons
a)	Water	NA	NA NA	NA
b)	Air	NA NA	NA	NA

PART - D

HAZARDOUS WASTES

[As specified under Hazardous Wastes (management and handling) Rules, 1989]

	Total Quantity (Kg.)			
Hazardous Wastes	During the Previous Financial Year	During the Current Financial Year		
a) From Process	NIL	NIL		
b) From Pollution Control facilities	NIL	NIL		

PART - E

SOLID WASTES

	Total Quantity (Kg.)					
Hazardous Wastes	During the Previous Financial Year	During the Current Financial Year				
V. Same Process	NIL	NIL				
) From Process) From Pollution Control facilities	NIL	NIL				
(1) Quantity Recycled or re-	NA NA	NA NA				
utilised within the Unit						
(2) Sold	NA NA	NA NA				
(3) Disposed	NA NA	NA NA				

PART - F

Please specify the characterization (in terms of composition and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

■ NIL SOLID WASTE GENERATION.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

NOT APPLICABLE

PART - H

Additional Measures and investment proposal for environmental protection including abatement of pollution / prevention of pollution.

NOT APPLICABLE

PART-I

Any other particulars for improving the quality of environment.

NOT APPLICABLE

Date: 11.04.2022

(Signature of a person carrying out an industry

operation of profession Sr. Station Manager

बडांदरा निराम्ड ग्रेटशन Vadodara Remeijt Statton पालनपुर-बडांद्रा पाइपलाइन Palapur-Vadodara Pipeline

Name : AKHIL LUHADIYA

YA हिन्दुस्तान पेट्रोलियम कांपरिशन लिपिटेड Hindustan Petroleum Corportion Limitat

Designation : Senior Station Manager

Address : Hindustan Petroleum Corporation Limited

Vadodara Receiving Station Palanpur Vadodara Pipeline

Village Asoj Near Bombardier, GIDC, Manjusar-Vadodara, Gujarat – 391775

	Water Consumption in HPCL PVPL Vadodara (2021-22)				
Month	Domestic Water Consumption (KL)	Water Consumed in Fire Fighting (Ki			
April	24.4	NA .			
May	32.8	NA NA			
The state of the s	31.6	NA			
June	30.1	NA NA			
July	32.6	NA			
August	33.5	NA NA			
September	30.8	NA NA			
October	Approx.	NA NA			
November	28.4	NA NA			
December	30.9	NA NA			
January	17.5				
February	16.8	NA			
March	20.8	NA			
Consumption per Day	0.9 KL/day	0			

Date: 05.04.2022



हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड

(भारत सरकार का उपक्रम) रजिस्टर्ड ऑफिस : १७, जमशेदजी टाटा रोड, मुंबई ४०० ०२०

HINDUSTAN PETROLEUM CORPORATION LIMITED

(A GOVERNMENT OF INDIA ENTERPRISE) REGISTERED OFFICE: 17, JAMSHEDJI TATA ROAD, MUMBAI 400 020

एव पी सी एक, पालनपुर बडोदरा पाइपलाइन, बडोदरा रिसिप्ट स्टेशन, गाँव: आसोज-पिलोल, पिलोल रेक्वे स्टेशन/सावली-मंजूसर जी आई डी सी के पास, जिला : बडोदरा 391775, गुजरात. फोन : 7069003072, 3073 HPCL-Palanpur Vadodara Pipeline, Vadodara Receipt Station, Village : Asoj-Piloi, Near Piloi Railway Station, Beside Savil-Manjusar GIDC, District : Vadodara 391775, Gujarat. Ph. : 7069003072, 3073

To,

Gujarat Pollution Control Board Parivesh Bhawan, Aatmajyoti Ashram Road, Opp. VMC Ward Office no. 10, Subhanpura – Vadodara Gujarat – 390023

Sub.: Half Yearly Battery Return (October 2021 - March 2022)

Dear Sir.

Please find attached here with the following return as per Batteries (Management & Handling) Rules 2001.

Half yearly return for half year ending (October 2021 – March 2022) in Form VIII prescribed under Clause 10(2) (ii) of Rule 10 under Batteries (Management & Handling) Rules, 2001.

Kindly acknowledge the same.

Thanking You.

Very Truly Yours.

Akhil Luhadiya

Sr. Station Manager

HPCL, PVPL - Vadodara

Dura duladi

G. P. C. Board
GERI Compound
Race Course, Vadodara

FORM-VIII

[See Rule 10(2)(ii)]

FORM FOR FILING RETURNS FOR BULK CONSUMERS OF BATTERIES

[To be submitted by bulk consumer to the State Board by 30th June (for the period October-March) and 31st December (for the period April-September) every year]

1.	Name and address of the bulk consumer Hindustan Petroleum Corporation Limited Palanpur Vadodara Pipeline – Vadodara Receiv Station, Village Asoj, Near Bombardier, GIDC, Manjusar – Vadodara – 391775 (Gujarat)				
2.	Name of the authorized person and complete address with telephone and fax numbers	Shri Akhil Luhadiya Sr Station Manager -			
3.	Number of new batteries of different categories purchased from the manufacturer/importer /dealer or any other agency during October-March and April-September				
	Category:	(i) No. of Batteries: NIL			
		(ii) Approximate weight			
		(in Metric Tones): NIL			
	(i) Automotive (a) four wheeler (b) two wheeler (ii) Industrial (a) UPS (b) Motive power (c) Stand-by (iii) Others				
4.	Number of used batteries of categories mentioned in Sr. No.3 and Tonnage of scrap sent to manufacturer/importer/dealer/ registered recycler/or any other agency to whom the used battery scrap was sent*	(i) No. of Batteries: NIL (ii) Approximate weight (in Metric Tones): NIL			

*Enclose list of manufacturer/importer/dealer/ registered recycler/or any other agency to whom the used battery scrap was sent. - NIL

Place: Vadodara

Date: 05.04.2022

Details of CSR Avtivities Carried out by HPCL in Pipeline ROU 2021-22

SN	Pipeline	Location Name	CSR Proposed (Village / Place)	No. of CSR Proposals	Title of CSR Proposed (Project / Items)	CSR Completed (Month / Date)	Expenditure (Lakhs)
5	PVPL	Vadodara	Clean Drinking Water Facility, Water Cooler and other amenity / equipment viz. White boards, Computer, Table, Chairs, Storage cupboards, Book Shelves, showcase, Public Announcement system, Sports Equipment, Music equipment at Govt. Schools in Shiyavada and Vandariyapara-Vitthalpura District: Gandhinagar	Ĭ.	Provising necessary equipments & facilities in Govt. Schools	March'2022	8.87
			TOTAL EXPENDITURE				8.87