

Brief Note- NGT Case 1260-2024

Background:

Shri Devrambhai Valabhai Ghoda R/O At: Devpara, Ta: Dwarka, District: Devbhoomi Dwarka, has filed a complaint on dated: 30/10/2023 before Hon'ble National Green Tribunal, Western Zone Bench, Pune regarding alleging therein M/s. Tata Chemicals Limited, Mithapur is rising a cement plant which is causing a huge air pollution due to dust particles emanating from the cement plant. The said pollution is gravely affecting the agriculture land and animals and human habitation and is also adversely impacting on the drinking water source like well, pond which are getting polluted because of dusting.

Considering the facts Hon'ble National Green Tribunal passed an order dated: 02/12/2023 to call for a report from The Member secretary Gujarat Pollution Control Board (GPCB) as to truthfulness of the contents of the aforesaid complain and the action taken at their end., if any, within four weeks.

Gujarat Pollution Control Board has conducted detailed inspections and monitoring of environmental parameters during 21/12/2023 as per requirements given in para no.2 of Hon'ble NGT Order dated 02/12/2023 which is disposed by Hon'ble NGT vide order dated 12/03/2024 indicating " the allegations made by the applicant in the complaint were found to be untrue."

Earlier, Shri Devrambhai Valabhai Charan R/O At: Devpara, Ta: Dwarka, District: Devbhoomi Dwarka, has filed a complaint on dated: 04/05/2023 before Hon'ble National Green Tribunal, Western Zone Bench, Pune regarding pollution caused by M/s. Tata Chemicals Limited, in Devpara (Suraj Karadi), Bhimrana, Padli, Mithapur, Arambhada, Lalpar etc. villages and about dumping toxic chemicals in the sea and also regarding dumped lye heaps. Hon'ble National Green Tribunal passed an order dated: 03/07/2023 to call for a report from The Member secretary Gujarat Pollution Control Board (GPCB) with respect to truthfulness of this complaint made to Hon'ble NGT which shall be verified after visiting the spot by the responsible officers of GPCB. Gujarat Pollution Control Board has conducted detailed inspections and monitoring of environmental parameters during 28/08/2023 and 29/08/2023 as per requirements given in para no.3 of Hon'ble NGT Order dated 03/07/2023 (Annexure-1).

Searched By	Zonal Bench : Western Zone	Case Type : Original Application	Case Number : 218			
Case Year : 2023						
Sr. No.	Zonal Bench	Diary Number	Case Number/Location Code	Party Name	Registration Date	Case Status
1	PUNE (WESTERN ZONE BENCH)	270410529004/2023	Original Application No. 218/2023 / PUNE	DEVRAM VALA GHODA VS STATE OF GUJARAT THROUGH GUJARAT POLLUTION CONTROL BOARD	08-12-2023	DISPOSED

Filing Number	270410529004/2023	Filing Date	08-12-2023
Party Name	DEVRAM VALA GHODA VS STATE OF GUJARAT THROUGH GUJARAT POLLUTION CONTROL BOARD		
Petitioner Advocate(s)		Respondent Advocate(s)	
Act	ENVIRONMENT (PROTECTION) ACT, 1986		
Case Number	Original Application No. 218/2023	Registered On	08-12-2023
Last Listed	12-03-2024		
Case Status	DISPOSED		



Gujarat Pollution Control Board

PCB Id: 17166

(Inspection Report) - Air, Water, Hazardous

(Under Section 23 of The Water Act 1974, Under Section 24 of The Air Act 1981 and Under Section 10 of EP Act 1986)

1 Industry Details Tata Chemicals Ltd Outward No: 30305-18/09/2023

Email : sanjeev.jain@tatachemicals.com
Telephone : 02892675270
PLOT NO: Nos.34 to 49,52,56,57,58/1,59&63of VI, Surajkaradi 23/3 P ,
MITHAPUR, JAMNAGAR,
Mithapur - 361345
DIST : Devbhoomi Dwarka, TAL : Dwarka, SIDC : Not In Gide

Inspection Id : 750352 (Routine Visit) Ro Name : Jamnagar

2 Type / Scale / Sector / Status : RED / LARGE / Chlor Alkali / In Operation

3 Inspection Dt & Time : 28/08/2023 10:00 / Air , Water , Hazd **Person Contacted :** Mr. Sanjeev Jain, Head Env.

4 Env Audit Detail : Sch : 1 , Marwadi Education Foundations's Group of Instituti , Year : 2017 , On Dt :

Commissioned Dt : 01/02/1944 Production Start Dt : 01/02/1944 Applicability of CRZ Rules : No

5 Water Consumption in Kilo Lts Per Day Ind : 276000.000 Dom : 4117.000 **Borewells:** 0

6 Waste Water generation / Discharge (klpd) : Ind : 240000.000 Dom : 2400.000 **Tubewells:** 0

7 Consumer No.(Electric Meter): **Source of Water Supply:** Arabian Sea existing seawater intake point

8 Disposal Mode of Industrial / Domestic : Zero Discharge / Irrigation

9 Discharge Pt / Final Receiving Body (Ultimate): Discharged into Sea / No generation of industrial wastewater

10 Status of water consent Under the Water Act,1974: AWH-123320-11/08/2027 Last Inward:279253-27/06/2023[PRO]

11 Effluent Treatment plant (ETP) : Units, if provided and status :
No Data

12 Whether Industry is a member of CETP ? No

13 Boilers=3 , DG Sets=6 , Flue Gas =9, Process =16 , ETP Cap = 0 , Capacity of All = 240000 KLD

APCM Details : Bag Filter,E.S.P,Scrubber
Fuel Used : Coal,H.S.D,Lignite
Stack Attached to : Boiler,D.G. Sets

14 TSDF Name : Not Regd with any TSDF

15 Lab Charges Pending : NIL **Water Cess Charges Pending : NIL**

16 Last Env. Form V : 2022-2023 **Water Cess Return : 2017-2018** **HW Monthly Return : 2023-99**

17 Last 3 Legal Action :

Insp Dt	Act	Leg Dt	For	Insp ID	IR-Leg	Type	Out No
19/04/2022	NOT	12/05/2022	31A.,	668116	NOT	VIG	672056
19/04/2022	NOT	12/05/2022	31A.,	668116	NOT	VIG	672055
11/02/2021	REV	02/11/2021	PER,	595933	REV	COM	605526

Monthly Patrak Data : Last Return : 202305 **HAZD Waste Disposal : 4.850 (0 Trucks)**

Electricity Units Consumed in month	Water Consumed in month	Effluent Discharged in month
Production - 36520046, ETP - 999274, APCM - 0	Meter Reading - 6059329, Kilo Litre - 6059329	Meter Reading - 6150451, Kilo Litre - 6150451



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One Time Updations

0	- Air - Water - Hazd ACTs Applicability ?	Air, Water, Haz	
e	- Electric Company Name (Power Supply)	PGVCL	
p	- On East Direction of the location of the Company	Gulf of kutchh	
p	- On North Direction of the location of the Company	Okha Town	
p	- On South Direction of the location of the Company	Dwarka Town	
p	- On West Direction of the location of the Company	Arabian Sea	
o	- Production since (Date) or Proposed	01/02/1944	
g	- Nos of Stacks (Flue Gas & Process)	0, 0	
k	- Recycler Registration Valid ??	N.A	
j	- Name & Address of MAIN Re-Cycler	--	
h	- Regd with T.S.D.F	----Not Regd with any TSDF	
i	- Recyclable Hazd Waste Disposal to	Within State	
f	- Display Board Provided at the Entrance ?	Yes	
l	- CETP Name	----NOT a CETP Member	
n	- Nos of Flow-Meters - W.C / W.W.G / ETP =	0, 0, 0	
d	- Is Industry ZERO DISCHARGE Catg (If Yes, HOW ?)	No.	
m	- W.W.G Treatment thru Pri / Sec / Tertiary / N.A :	Primary	

General Observation

a	- R.O File No	JMN-08-Z	
a	- Is the Industry in Operation ??	Yes	
b	- Industry Operating without CCA	No.	
c	- Has Production exceeded (last 3 MTHs) than CCA-Qty	No.	
d	- Any products-NOT in CCA, manufactured-Last 3 MTHs	No.	
e	- Foul Odour/Fugitive Emission/Bye Pass in Premises ??	No.	
f	- Industry Name CHANGED in recent times ??	No.	
g	- Has Regn with CETP or TSDF expired ??	N.A	
h	- Seperate Energy Meter for A.P.C.M ?	N.A	
h	- Provision of any STAND-BY Pump ??	N.A	

Air Related

a	- Fuel Type confirmitive with CCA ?	Yes	
b	- Av. Fuel Consumption EXCEEDING CCA limits	No.	
c	- APC Measures confirmitive with CCA conditions ??	Yes	
d	- ALL APCMs are in operation	Yes	
e	- SMF availability	Provided	
f	- Thick Smoke observed in Flue Gas/Processes ??	No.	
g	- ph of Scrubbing Media as per requirement ??	Yes	
h	- Ultimate Disposal of Scrubbing Media	N.A	
i	- Nos of Samples : Stack & Ambient	9, 3	

GEM

18	- Where Authorization Under BMW Rules 2016 obtained ? Provide Authorization No. / Date	Yes	NA
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Haz Waste Related

a	- Haz waste Catg confirmitive with CCA	Yes	
b	- H.W generation exceeding CCA limits	No.	
c	- Collection, Storage, Treatmnt, Disposal Facility Adequate ??	Yes	
d	- Reusing or Recycling of Haz Waste by Industry ?	OF Others	
e	- LogBook / XGN Manifests / Disposal Records TALLYING ??	Fully	
f	- Stock of Haz-Waste @ premises/Whether EXCESS ?	--	



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g	-	Recycler/ Actual user has valid Authorization under rules 6 or 9 of HOWR-2016?	Yes	NA
h	-	Installed capacity of the plant based on machinery installed (Capacity of Machine, No. of Batch/Day, Annual Capacity)	--	
i	-	Technical capability and equipment complying with the SOP/Guideline?	Yes	
j	-	Is unit complying the conditions given in SOP/Guidelines?	Yes	
k	-	Facility is adequate for the applied process	Yes	
l	-	Passbook is maintained?	Yes	
m	-	Details of PLL, if applicable	--	
n	-	Details of safety specs provided by the facility	--	
o	-	Separate storage area for Haz. Waste for the utilization or generation from the process is provided?	Yes	
p	-	Quantity of Hazardous waste procured as per CCA?	Yes	

Water Parameter

b	-	Source of Water Supply	Arabian Sea existing seawater intake point	
c	-	W.W.G is EXCEEDING the CCA Limits	No.	
d	-	W.W Disposal as per the Consent Conditions ?	Yes	
e	-	Was the ETP in operation ?	Yes	
f	-	Treatment System ADEQUATE to handle existing effluent	Adequate	
g	-	Did u observe ANY ILLEGAL Discharge ??	No.	
h	-	Nos of Samples collected	9	

Remarks :

Note: EIA 2006 / SEIAA / E.C / MOEF Applicable : Yes

Site Observations during Inspection, PCB-ID: (17166)



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Inspection Crux:

General Observation:

This unit is visited with reference to order passed by Hon'ble National Green Tribunal, WZB, Pune, Dated 03/07/2023 With Respect to Complaint made by Shri Devram Valabhai Charan, R/O Devpara, Surajkaradi, Dwarka, dated 04-05-2023 on dated 28/08/2023 and 29/08/2023 as per requirements given in para no.3 of Hon'ble NGT Order dated 03/07/2023. Total – 9 water sample, 3 AAQM for 24 hours and 9 process/flu gas stack sampling is carried out during visit. Sample details are as per data sheets. Detailed Physical report along with photographs and other annexures are sent to HO for approval and further submission. [612]-13/09/2023

Water Observation:

Air Observation:

Hazard Observation:

I recommend : a. Keep on Records + Notings

W.C Notings: -----[612-NRO]~

Specific Instructions given to Industry at the time of visit , for Pt to Pt Compliance

Compliance Observed in this Inspections.

Instructions in Previous Visits and Reply	Insp Det	Instruction Status
એકમમાં સ્થાપિત થયેલ પાવર પ્લાન્ટ બોઈલર સાથેના CPCB guideline મુજબ OCEMS લગાવી GPCB તથા CPCBના server સાથે connect કરી બોર્ડને જાણ કરવી.	746323(27/07/23)	Partial Compliance
એકમમાં powerplantમાં સ્થાપિત કરવામાં આવેલ boilerના APCM સાથે CPCB guidelines મુજબ OCEMS લગાવી તેને GPCB & CPCB server સાથે connect કરવા.	743578(05/07/23)	Partial Compliance
છેલ્લા ત્રણ માસના રોમટીરીયલ વપરાશ, ઉત્પાદન, પાણી વપરાશ, ગંદાપાણીના ઉદ્ભવ અને નિકાલ, જોખમી કચરાના ઉદ્ભવ અને નિકાલની વિગતો બોર્ડને રજૂ કરવી.	743578(05/07/23)	Fully Complied



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Annexure Details - Air, Stack, Hazardous Waste & Samples PCB-ID: (17166)

A Sample Details

Sr	Act	Ph/Temp/Air Sampled	Time	Type	Sampling Point	Col-Cond
1	A-1	60 l for cl2 /	0700-0730	REP	stack attached to chlorine plant ~	--
2	A-1	60 l for br2 /	1215-1245	REP	stack attached to bromine plant ~	--
3	A-1	60 l for hcl /	1115-1145	REP	stack attached to hcl plant ~	--
4	A-3	60 litre for each so2 and nox, 510 l for pm / 148	1000-1030	REP	stack attached to rcc 3 ~	Thimble No. 6
5	A-3	60 litre for each so2 and nox, 540 l for pm / 152	0830-0900	REP	stack attached to rcc1 (boiler - 1,2 &3) ~	Thimble No. 5
6	A-1	540 l for pm / 88	1900-1930	REP	stack attached to cement mill ~	Thimble No. 4
7	A-1	480 l for pm / 164	1730-1800	REP	stack attached to alkali by pass ~	Thimble No. 3
8	A-3	60 litre for each so2 and nox, 510 l for pm / 48	1600-1630	REP	stack attached to coal mill old ~	Thimble No. 2
9	A-3	60 litre for each so2 and nox, 480 l for pm / 137	1430-1500	REP	stack attached to raw mill ~	Thimble No. 1
10	A-3	614,609,619 / 28	1315-1315	REP	# ambient sampling point ~ aaqm on terrace of devpara primary school, vill: devpara	F.P. 28,29,30
11	A-3	624,604,609 / 28	1230-1230	REP	# ambient sampling point ~ aaqm at malara area, vill: surajkaradi	F.P. 25,26,27
12	A-3	619,619,624 / 28	1145-1145	REP	# ambient sampling point ~ aaqm on terrace of mithamahal, tcl	F.P. 22,23,24
13	W-11	@7-8 on ph strip / 28	1300-1300	REP	water sample collected from town supply mithapur of tcl ~	Colourless
14	W-11	@7-8 on ph strip / 28	1230-1230	REP	water sample collected from open well of vill: suraj karadi ~	Colourless
15	W-11	@7-8 on ph strip / 28	1200-1200	REP	water sample collected from open well of vill: bhimrana ~	Colourless
16	W-11	@7-8 on ph strip / 28	1130-1130	REP	water sample collected from open well of vill: lalsingpur ~	Colourless
17	W-11	@7-8 on ph strip / 29	1100-1100	REP	water sample collected from open well of vill: devpara ~	Colourless
18	W-11	@7-8 on ph strip / 28	2000-2000	REP	water sample collected from openwell of vill: hamusar ~	Colourless
19	W-11	@7-8 on ph strip / 28	1930-1930	REP	water sample collected from open well of vill: padli ~	Colourless
20	W-11	@7-8 on ph strip / 29	1900-1900	REP	water sample collected from borewell of bhiyaldada temple, vill: aarambhda ~	Colourless
21	W-6	@8-9 on ph strip / 28	1830-1830	REP	final discharge into sea of tcl [padli] ~	Colorless

B Process Stacks

Sr	Stack attached to	Mts	Remark	Details of APCM	Probable Pollutants.
1	Caustic Chlorine Plant	12	hot br2 plant 2	SCR	br2, cl2
2	Caustic Chlorine Plant	12	hot br2 plant 3	SCR	br2, cl2
3	Caustic Chlorine Plant	12	hot.br2 plant 1	SCR	br2,cl2
4	Caustic Chlorine Plant	12	bottling plant of liq.br2	SCR	br2
5	Caustic Chlorine Plant	20	cl2 plant	SCR	cl2
6	Cooler Exit	55	cement plant	ESP	pm
7	Driers	70	drier crushe of cement pt	ESP	pm
8	Caustic Chlorine Plant	12	cold.br2 plant1,2,3(3-stk)	SCR	br2,cl2
9	Raw Mill Kiln	75	cement plant	ESP	pm,so2,nox
10	Coal Mill	39	2 nos of cement plant	ESP	pm
11	Cement Mill	27		ESP	pm
12	Packer	23	2nos of stack forunit1&2	FIL	pm
13	Caustic Chlorine Plant	26	hcl plant1	SCR	hcl,cl2
14	Driers	0	drying unit monohydrate	FIL	pm
15	Gas Exits	35	alkaly bye pass	ESP	pm
16	Induction Furnace	17		N.A	SPM,SO2 & NOx

C Flue gases Stacks



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Sr	Stack attached to	Mts	Remark	SMF	APCM	Fuel	Consp-Unit	Insp Remk
1	D.G. Sets	13	Bicarb Plant 750kva	YES	N.A	H.S.D	0.775 KI/Hours	
2	D.G. Sets	10	Cement Plant-2 (60 kva)	YES	N.A	H.S.D	0.775 KI/Hours	
3	Boiler	98	common stk at. to RCC-1	YES	ESP	Coal	90 MT/Hours	
4	Boiler	85	stk att.to RCC-2(IBIL)	YES	ESP	Coal	90 MT/Hours	
5	Boiler	101	stk.atta.to RCC3(HPB3	YES	ESP	Lignite	90 MT/Hours	
6	D.G. Sets	20	power plant 1250kva (2nos)	YES	N.A	H.S.D	0.775 KL/Hours for each	
7	D.G. Sets	17	CC Group 500kva	YES	N.A	H.S.D	0.775 KI/Hours	
8	D.G. Sets	10	320kva	YES	N.A	H.S.D	0.775 KI/Hours	
9	D.G. Sets	15	188 kva	YES	N.A	H.S.D	0.775 KI/Hours	

D Details about Hazardous Waste Management :

Sr	Source of Hazardous Waste	Catg	Qty/Year	HW Disposal Management
1	Spent ion exchange resin containing toxic metals	I -35.2	7.000-M.T	COL,DSI,DSS,STO,TRA
2	Used or Spent Oil	I -5.1	36.000-M.T	COL,DSS,STO,RRE,TRA
3	Wastes or residues containing oil	I -5.2	12.000-M.T	COL,DSS,STO,RRE,TRA
4	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	I -33.1	1800.000-M.T	COL,DSS,STO,RRE,TRA

E Products :

Sr	Product Name	NOC Qty	CCA Qty	Applied Qty	Inspection Remark
1	Bromine	0.000	200.000 - M.T	0.000	175 MT(March-2014)
2	Caustic Soda	0.000	3000.000 - M.T	0.000	1103MT(March-2014)
3	Cement	0.000	65583.330 - M.T	0.000	49342MT(March-2014)
4	Clinker	0.000	68750.000 - M.T	0.000	63622MT(March-2014)
5	Desalination water	0.000	180041.500 - KLT	0.000	119301 m3(March-2014)
6	Gypsum	0.000	11241.000 - M.T	0.000	0
7	Hcl	0.000	5400.000 - M.T	0.000	2187MT(March-2014)
8	Hydro Bromic Acid	0.000	3.080 - M.T	0.000	0
9	Liquid Chlorine/Hcl	0.000	1500.000 - M.T	0.000	121MT(March-2014)
10	power plant	0.000	7.000 - MWH	0.000	45040 MWh(March-2014)
11	Soda Ash (Gross)	0.000	90916.600 - M.T	0.000	80158MT(March-2014)
12	Soda Ash Dense (Monohydrate)	0.000	0.000 - M.T	0.000	-
13	Sodium Bicarb	0.000	12500.000 - M.T	0.000	7471MT(March-2014)
14	Vaccum and Pure Salt	66666.660	377083.300 - M.T	66666.660	84003MT(March-2014)

F Raw material :

Sr	Raw Material Name	Capacity - Unit / Month
1	Ammonia	0.000 - M.T
2	Blue Dust/ Iron sludge	0.000 - M.T
3	Brine	0.000 - M.T
4	Caustic Soda	0.000 - M.T
5	Chlorine	0.000 - M.T
6	Clay	0.000 - M.T
7	Coke + Coal	0.000 - M.T
8	ESF Cake	0.000 - M.T
9	Fly Ash for Cement	0.000 - M.T
10	Gypsum for Cement	0.000 - M.T
11	HCl	0.000 - M.T
12	Hydrogen	0.000 - M.T
13	Limestone	0.000 - M.T
14	Limestone (Fines)	0.000 - M.T
15	Liq.Chlorine	0.000 - M.T
16	Marl	0.000 - M.T
17	Potassium Iodate	0.000 - M.T
18	Salt	0.000 - M.T
19	Salt As Such	0.000 - M.T
20	Sod. Sulphide	0.000 - M.T
21	Soda Ash	0.000 - M.T
22	Sulfuric Acid	0.000 - M.T

G Water Consumption & Generation Break up

18/09/2023

6/7 (Through XGN)



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Sr	Water Code (Qty in klpd - Kilo Ltr per Day)	WC : 280117.000	WWG : 242400.000	Water Source	Remark
1	Cooling Water	230083.000	192318.000	Sea Water	
2	Domestic Purpose	3307.000	2400.000	Local Body,Sea Water	
3	Mnfg Process	20093.000	20707.000	Local Body,Sea Water	

H Solid Waste

Inspection Team : K.N.Parmar, ROH - Mr. K H Tanna - MR. JIMIT MUKUNDKUMAR JADAV - MR. CHETAN HIRABHAI CHAUHAN - MS. RADHIKA GORDHANBHAI CHUDASAMA

I hereby affirm, that all the PDF, Data mentioned above, fees paid has been checked & certified.

Signature By(K.N.Parmar, ROH)

REPORT WITH RESPECT TO ORDER OF HON'BLE NATIONAL GREEN TRIBUNAL, WZB, PUNE, DATED 03/07/2023 WITH RESPECT TO COMPLAINT MADE BY SHRI DEVRAM VALABHAI CHARAN, R/O DEVPARA, SURAJKARADI, DWARKA, DATED 04-05-2023.

(1) PREAMBLE

Shri Devrambhai Valabhai Charan R/O At: Devpara, Ta: Dwarka, District: Devbhoomi Dwarka, has filed a complaint on dated: 04/05/2023 before Hon'ble National Green Tribunal, Western Zone Bench, Pune regarding pollution caused by M/s. Tata Chemicals Limited, in Devpara (surajKaradi), Bhimrana, Padli, Mithapur, Arambhada, Lalpar etc. villages and about dumping toxic chemicals in the sea and also regarding dumped lye heaps.

It is alleged in the said complaint/letter of applicant that the said plant is creating lot of pollution through emitting toxic gas, particles, cement dust etc. and also complained about huge toxic chemicals are being poured by the company in marine areas and piles of the fly ash is also lying in the Padli Village.

Hon'ble National Green Tribunal passed an order dated: 03/07/2023 (**Annexure-1**) to call for a report from The Member secretary Gujarat Pollution Control Board (GPCB) with respect to truthfulness of this complaint made to Hon'ble NGT which shall be verified after visiting the spot by the responsible officers of GPCB. Copy of Report shall be submitted by Gujarat Pollution Control Board.

Gujarat Pollution Control Board has conducted detailed inspections and monitoring of environmental parameters during 28/08/2023 and 29/08/2023 as per requirements given in para no.3 of Hon'ble NGT Order dated 03/07/2023. As per the observations made during the above site inspections and analysis results of monitoring/ sampling, Tata Chemicals Limited, Mithapur (Gujarat) is complying with the applicable environmental norms.

(2) APPROACH AND ACTIVITIES CARRIED OUT BY REGIONAL OFFICE, GUJARAT POLLUTION CONTROL BOARD-JAMNAGAR

INSPECTION CUM MONITORING AND SAMPLING AT M/S. TATA CHEMICALS LIMITED

Inspection cum monitoring and sampling is carried out by Regional Office- Gujarat Pollution Control Board (GPCB) Jamnagar at Tata Chemicals Limited (TCL), Mithapur on dated 28/08/2023 and 29/08/2023 to inspect the unit as per para No. 3 of Hon'ble NGT order dated 03/07/2023.

Analysis report of sampling carried during inspection monitoring carried out by Regional Office- GPCB, Jamnagar are enclosed as **Annexure 2**.

(3) ABOUT THE INDUSTRY

A part of the over US\$ 110 billion Tata Group, Tata Chemicals Limited (TCL), is a global company with interests in businesses that focus on Basic Chemistry Products and Specialty Chemistry Products. The story of the company is about harnessing the fruits of science for goals that go beyond business. The company's Basic Chemistry product range provides key ingredients to some of the world's largest manufacturers of glass, detergents and other industrial products. Tata Chemicals currently is the world's third largest producer of soda ash with manufacturing facilities in Asia, Europe, Africa and North America. The company has a strong position in the crop protection business through its subsidiary company Rallis India Ltd. Tata Chemicals has established world class R&D capabilities with a dedicated band of research and scientific personnel working at

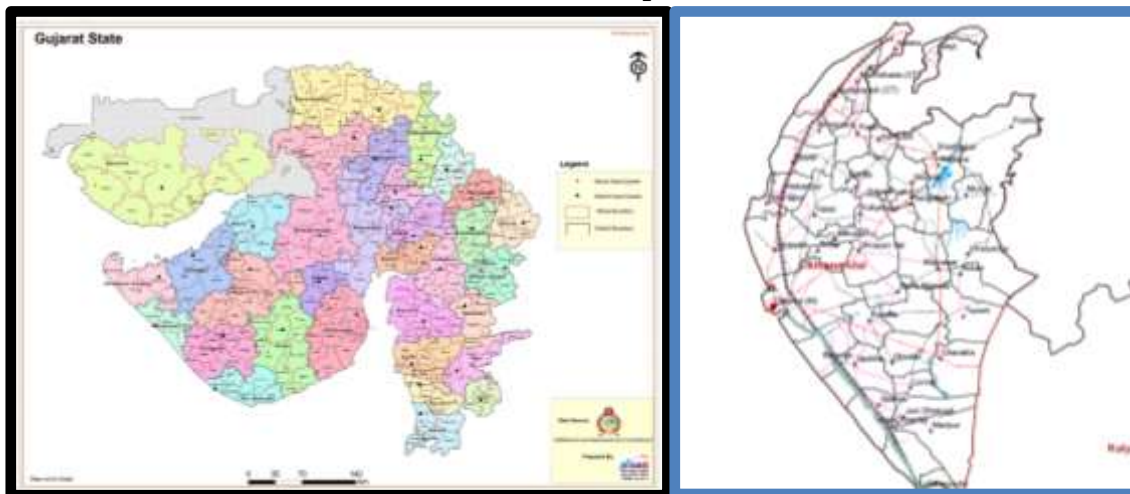
its facilities in Pune and Bangalore in the emerging areas of material sciences, nutritional sciences, nanotechnology, biotechnology and agriculture sciences.

TCL was founded in 1939 and has operated a Soda ash plant at Mithapur complex since 1943. The Mithapur complex consists of various plants that include; manufacturing of Soda Ash and Sodium Bicarbonate, Caustic Soda, Liquid Chlorine, Hydrochloric acid, Bromine, Vacuum Evaporated Salt and Clinker/ Cement. Other supporting infrastructure facilities like; Captive Cogeneration power plant, Reverse osmosis-based Sea Water desalination, a fabrication - machining shop, and facilities to handle materials (Limestone, Coal, Pet coke, Coke, Lignite, and Salt) storage godowns and product packaging unit, laboratories other maintenance shops are established within the premises with well-connected communication systems. Administrative offices for different department are also located within the complex. Mithapur Chemical Complex of Tata Chemicals Ltd. is certified to Quality, Environment and Occupational Health & Safety Management Systems (ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018).

The Complainant has been filing such type of complainants against the Company since 2012 and the present Complaint is nothing but a repetition of old allegations and on the same cause of action which is a matter sub-judice before the Hon'ble Dwarka Court. A case u/s. 133 of the Code of Criminal Procedure ("CrPC") vide Case No. 1119 of 2015 (old Case No. 03 of 2013) was decided by the Court of Ld. Sub-Divisional Magistrate, Dwarka whereby the Complainant's complaints against the Company, alleging pollution through its Cement Plant and Chemical Complex, were decided on merits and evidence and was rejected on 29.09.2021 (**Annexure-3**).

The Complainant by way of a revision application vide Criminal Revision Application No. 24 of 2021 has challenged the said order before the Hon'ble Dwarka Court and sought quashing and setting aside of the impugned order. The same revision application is pending before the Hon'ble Dwarka Court.

Location Map



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Factory- Coordinates

Point 1 22°24'11.26"N, 69° 0'16.47"E

Point 2 22°24'57.20"N, 69° 0'50.57"E

Point 3 22°25'4.82"N, 69° 1'13.99"E

Point 4 22°24'33.01"N, 69° 1'22.61"E

Point 5 22°23'42.03"N, 69° 1'17.59"E

Point 6 22°23'35.69"N, 69° 1'10.47"E

Point 7 22°24'5.68"N, 69° 0'39.37"E

3.1 CONSENT & ENVIRONMENTAL CLEARANCE

M/s. Tata Chemicals Limited is having valid Consolidated Consent for Authorization (CCA) from Gujarat Pollution Control Board (GPCB) which is valid up to dated: 11/08/2027. The copy of CCA is attached as

Annexure:4A

The unit has obtained Environment Clearance Cement Plant: No. J-11011/66/99 IA II(I) dated. 20/11/2000 (amendment dated 17/01/2001), and vide letter No. J-11011/66/1999 IA II(I) dated. 18/06/2019. **Annexure-4B**

Captive Power Plant: No. J-13011/20/2006 IA II (I) dated. 22/05/2006 (amendment dated 30/05/2007), vide letter No. J-13011/20/2006 IA II (I) dated. 22/05/2006 (amendment dated 30/05/2007). **Annexure-4C**

The Industry has obtained Environment Clearance for Soda Ash and Captive Power Plant from MoEF & CC (GoI) vide letter No. J-11011/140/2016 IA II (I) dated. 05/07/2019. **Annexure-4D**

The Industry has obtained CRZ Clearance from MoEF & CC (GoI) vide letter No. F-No.11-34/2016 IA III dated. 10/07/2017. **Annexure-4E.**

3.2 ENVIRONMENTAL MANAGEMENT SYSTEM AT M/S TATA CHEMICALS LIMITED, Mithapur (Gujarat)

3.2.1. Water Balance Diagram

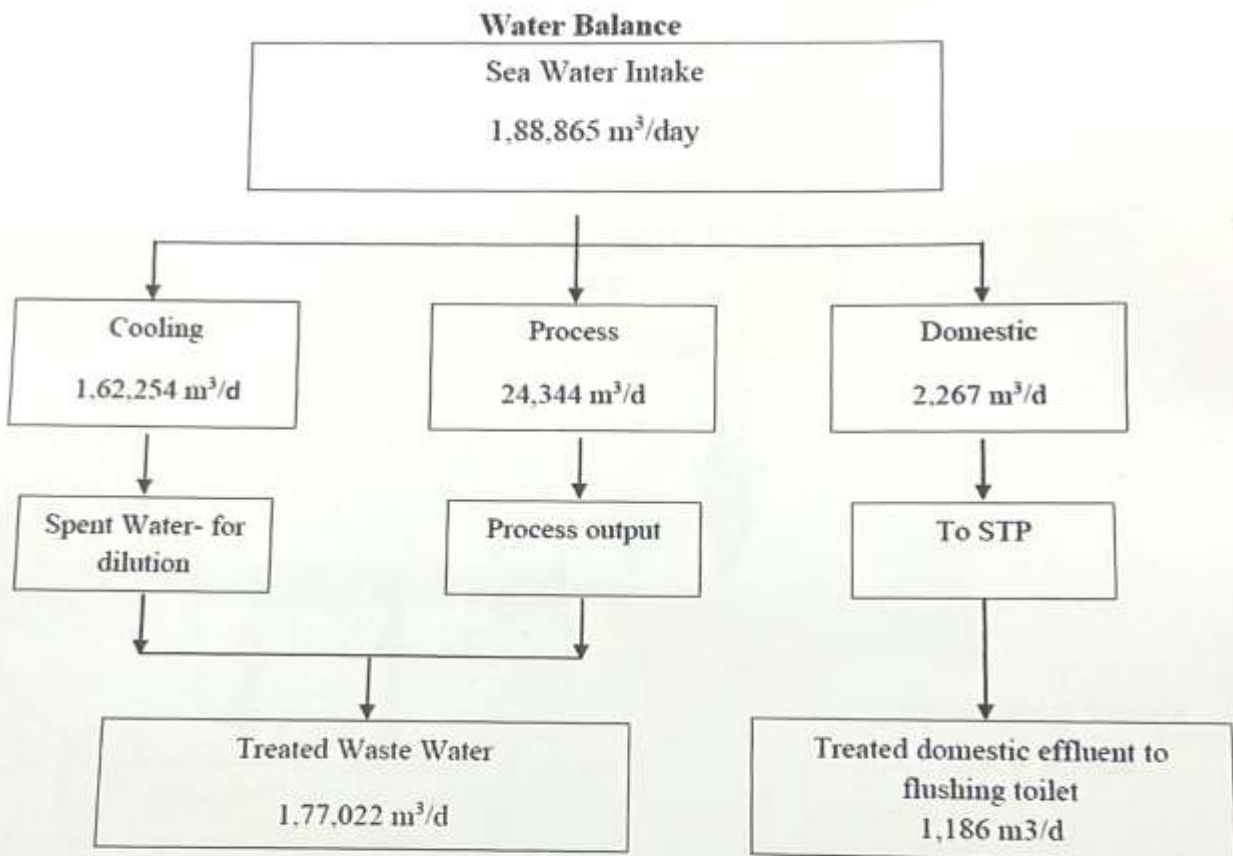


Figure: Water Balance Diagram

3.2.2. Wastewater Management:

TCL has provided Effluent Solid Filtration and settling pond facility for treatment of generated effluent from manufacturing process of Soda Ash plant to ensure compliance of treated waste water quality within limit for prescribed parameters. Following process is implemented to achieve concentration of TSS in Final treated waste water within GPCB norms:

- a. **Effluent solid filtration:** Effluent generated in Soda ash ammonia still process is filtered in effluent solid filtration plant and filtered solids are utilized in cement manufacturing.
- b. **Settling of suspended solids:** Filtered effluent is sent to sedimentation basins through closed pipeline conveying system to settle the suspended solids.

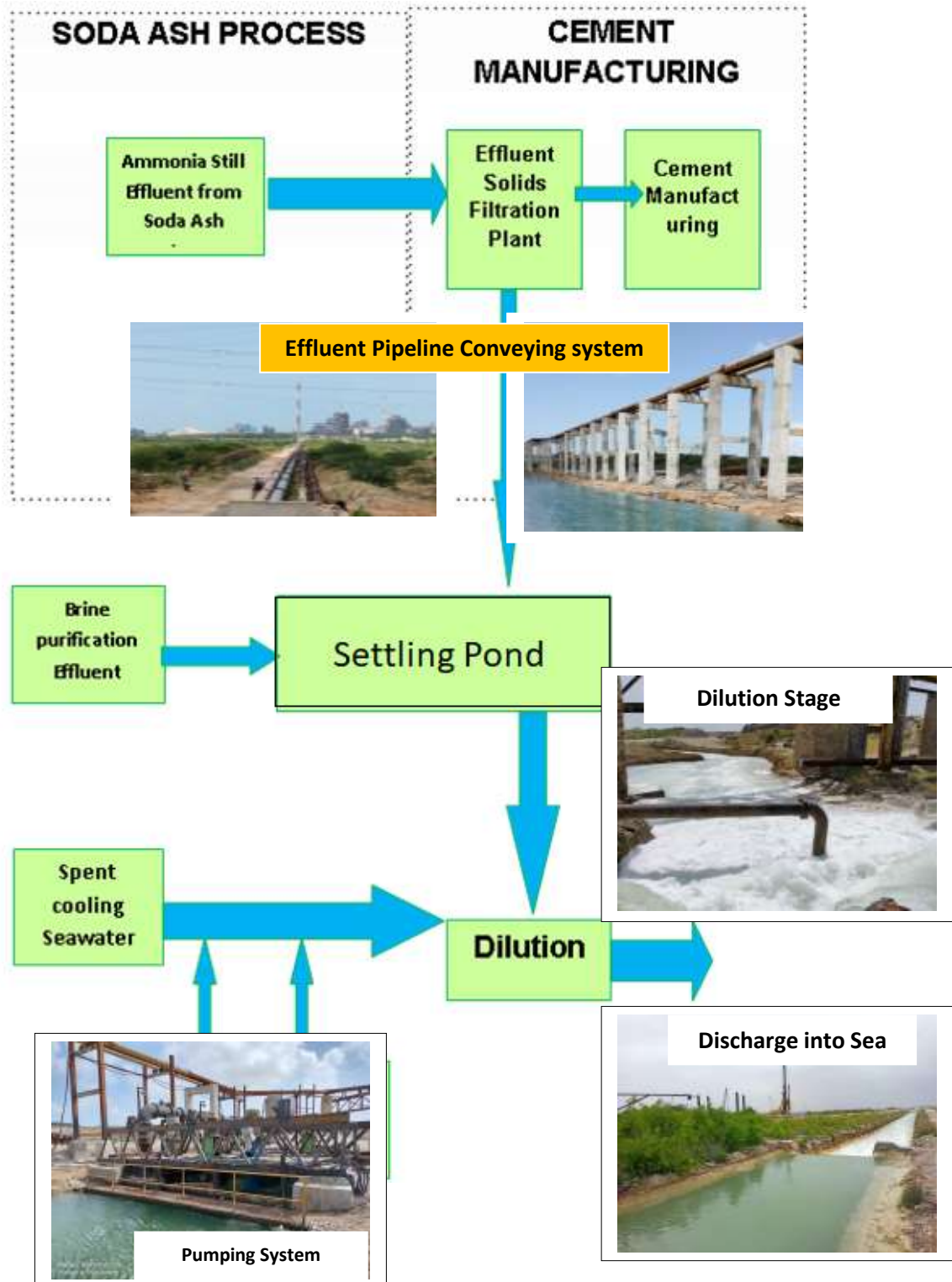
Dilution with spent Sea Water: Clear effluents from the above processes (a. and b.) are mixed with spent cooling sea water (dilution up to @ 8 to 10 times) and final treated waste water is discharged into Sea through open channel length of @ 1.5 km from mixing point to meeting into sea. This open Channel @ 1.5 km length is passing through inter tidal area only. The complex's final effluent is discharged into sea (Gulf of Kutch) is as per prescribed norms:

Parameter	Limit (max)
Temperature (°C)	40
pH	6.5-9.5
Suspended solids (mg/l)	500
Ammonical nitrogen (mg/l)	5
Oil and grease (mg/l)	2
Color (Pt-co scale)	100
Bio-assay (min % survival – 96 h)	90%
Treated Waste water quantity max KL/day	240,000

Sampling of treated waste water from Final Discharge Point by GPCB team on 28/08/2023



FLOW DIAGRAM OF WASTE WATER TREATMENT




Upgradation of Effluent Disposal System: Company has initiated the construction activities for laying of treated wastewater pipeline as per Consent to Establish CTE-70701 dated:01/10/2015 and amended further as CTE-107843 dated: 02/06/2020 validity 16.04.2025. for conversion of open channel discharge into closed pipeline by laying proposed pipeline on a trestle up to disposal point having 1200 mm dia.(3 Nos.) with carrying capacity 240,000 M3/day for disposal of treated wastewater into Gulf of Kutchh having well designed diffuser system at a point as suggested by NIO through pipeline having total length of 3756 meter (2504 meter in marine sanctuary). Unit has obtained CRZ Clearance (**Annexure-4E**) granted by Ministry of Environment, Forest and Climate Change for the same.

Construction activities for Pipeline project



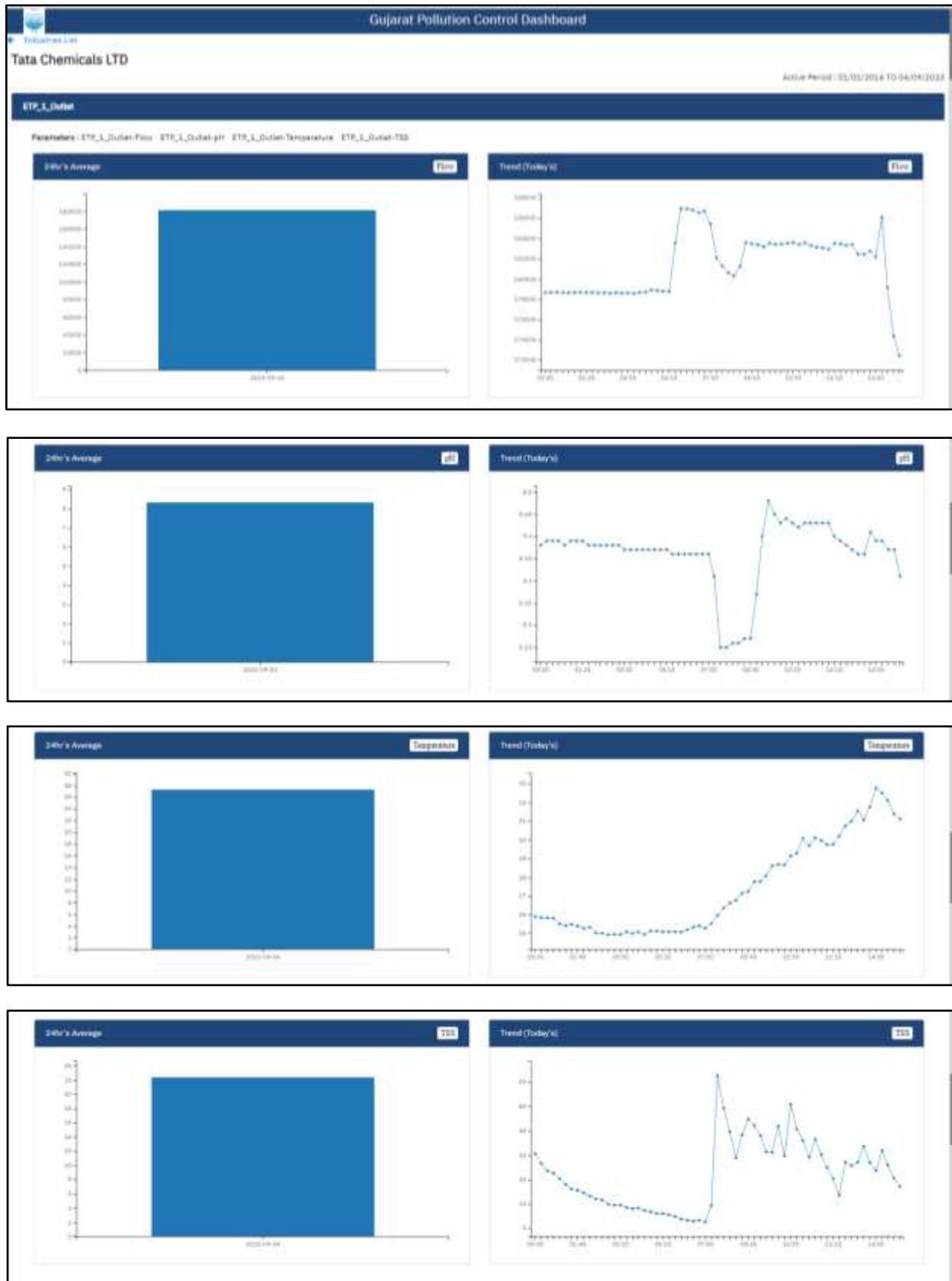
Online Monitoring System for Effluent Quality Monitoring (as per CPCB guidelines)



Real Time Data Acquisition And Monitoring

Site Name: Tata Chemicals LTD
Report: Custom Report
From Date: 2023/08/28 08:00:00 To Date : 2023/08/29 18:01:16

Description	ETP_1_Outlet-Flow - (m3/Day) Raw	ETP_1_Outlet-pH - (pH) Raw	ETP_1_Outlet-Temperature - (Celsius) Raw	ETP_1_Outlet-TSS - (mg/l) Raw
Prescribed Standards	0 - 240000	6.5 - 9.5	0 - 40	0 - 500
Maximum Data	191443.15	8.09	31.49	67.72
Minimum Data	152051.85	7.87	24.89	45.88
Geometric Mean	176710.97	7.96	27.86	54.05
Median	177193.76	7.93	28.06	54.4
Standard Deviation	12054.9	0.07	2.25	5.38
Maximum Value At Time	2023-08-29 12	2023-08-29 09	2023-08-29 17	2023-08-29 09
Minimum Value At Time	2023-08-28 22	2023-08-28 18	2023-08-29 05	2023-08-28 08
Valid Data Points	35	35	35	35
Total Data Points	35	35	35	35
Data Availability %	100.0%	100.0%	100.0%	100.0%



4.2.2 Details of Air Pollution Control Devices

Following details of Flue gas as well as Process gas stack emission of M/s. Tata Chemicals Limited.

(a) Flue Gas stack details:

Sr. No	Stack attached to Boiler/ Process	Stack height	APCM	Parameter	Permissible Limit	Status of OCEMS
1.	Boiler-1(CEHP 1)	98 Meter	Electrostatic Precipitator (ESP)	PM SO ₂ NO _x	100mg/NM ³ 600mg/NM ³ 600mg/NM ³	Working
2.	Boiler-2 (CEHP2)	Common stack (RCC 1)				
3.	Boiler-3(B&W)					
4.	Boiler-4 (IBIL)	85 Meter (RCC 2)	ESP	PM SO ₂ NO _x	100mg/NM ³ 600mg/NM ³ 600mg/NM ³	Working
5.	Boiler-5 (HPB3)	101 Meter	ESP & Desulphurization by Lime Stone addition	PM SO ₂ NO _x	100mg/NM ³ 600mg/NM ³ 600mg/NM ³	Working
6.	Boiler-6 (HPB4)	Common stack (RCC 3)				

(b) Process gas stack details:

Sr. No	Stack attached to Process	Stack height	APCM	Parameter	Permissible Limit	Status of OCEMS
1	HCL Plant	26 Meter (each)	Water Scrubber for each unit	HCL	20 mg/Nm ³	Working
2	Chlorine Plant	20 Meter Common Stack	Alkali Scrubber 2 Nos.	CL ₂	9 mg/Nm ³	Working
3	Bromine Plant	12.2 Meter (Each)	Alkali Scrubber for each unit	Br ₂	2 mg/Nm ³	Working
4	Cement Plant Raw Mill & Kiln	75 Meter	Bag Filter	PM SO ₂ NO _x	30 mg/Nm ³ 100 mg/Nm ³ 1000 mg/Nm ³	Working
5	Cement Plant Coal mill old	39 Meter	Bag Filter	PM SO ₂ NO _x	30 mg/ Nm ³ 100mg/ Nm ³ 1000mg/Nm ³	Working
6	Cement Plant Coal mill new	39 Meter	Bag Filter	PM SO ₂ NO _x	30 mg/ Nm ³ 100 mg/ Nm ³ 1000 mg/ Nm ³	Working
7	Cement Mill	27 Meter	Bag Filter	PM	30 mg/ Nm ³	Working
8	Cement Packers	23 Meter	Bag Filter	PM	30 mg/Nm ³	Working
9	Dryer Crusher	70 Meter	Bag Filter	PM	30 mg/Nm ³	Working
10	Cooler	55 Meter	ESP	PM	30 mg/Nm ³	Working
11	Alkali By Pass	35 Meter	Bag Filter	PM	30 mg/Nm ³	Working

CAAQMS- Continuous Ambient Air Quality Monitoring station:



CCTV showing view of cement plant



4.2.3 HAZARDOUS WASTE MANAGEMENT

Disposal of Hazardous Waste is as per Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016

Quantities for FY 2022-23 (as per Annual Return, Form-4)

Part A. To be filled by hazardous waste generators

1. Total quantity of waste generated category wise	Type of hazardous waste	Quantity (in Tonnes/KL)
	Used/ Spent Oil Category 5.1 (Schedule- I)	28.37 Tons
	Wastes / Residues containing oil Category 5.2 (Schedule- I)	0.30 Tons
	Spent Ion Exchange Resin containing toxic metals – Category 35.2 (Schedule- I)	Nil
	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes - Category 33.1 (Schedule- I)	1211 Nos.
(ii) to recycler or co-processors or pre-processor	Type of hazardous waste	Quantity (in Tonnes/KL)
	Used/ Spent Oil Category 5.1 (Schedule- I)	7.32 Tons (Recycler)
	Wastes / Residues containing oil Category 5.2 (Schedule- I)	0.20 Tons (Recycler)
	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes - Category 33.1 (Schedule- I)	1211 Nos. (Recycler)
3. Quantity utilised in-house, if any -	Co-processing in Cement Plant Used/ Spent Oil Category 5.1 (Schedule- I): 21.05 Tons Wastes / Residues containing oil Category 5.2 (Schedule- I): 0.1 Tons	

(5) OBSERVATION WITH RESPECT TO COMPLAINT DATED: 04/05/2023

(1) Shri Devrambhai Valabhai Charan R/O At: Devpara, Ta: Dwarka, District: DevbhoomiDwarka, has filed a complaint on dated: 04/05/2023. As per complainer’s petition, He is a social worker.

As per records of Regional Office- GPCB Jamnagar, Shri Devarambhai Valabhai Charan has filed several complaints against TCL to GPCB and other government offices repeatedly and from time to time. GPCB has investigated all the previous complaints filed by petitioner, by contacting and meeting with complainer during investigation and prepared report as per applicable environmental laws and regulations. In addition of that a written letter of confirmation of site visit is issued to complainer including actions taken with reference to his complaint, copies of some letters are also enclosed as Annexure-5.

As per petition it can be clearly seen through the photographs that the Officials of GPCB as well as Vehicle of GPCB captured by petitioner himself which proves that GPCB Officials, each and every time, meet the complainer. However, complainer shri habitually highlighting false allegation in his complaints made by him against any government department.

Complainer shri also obtained information by applying RTI application under Right To Information Act -2005.

As per Inspection observation by the GPCB, written instructions were issued to TCL with respect to any improvement that was suggested at the time of inspection. Industry has also submitted compliance reports to the GPCB a confirmation of completing action points suggested by the GPCB, hence allegation of petitioner regarding reports are written in favour of the Industry are false.

GPCB officials have contacted Complainer Shri Devarambhai Valabhai Charan and met him at his resident on 28/08/2023.As complainer belongs to Charan Community he is residing in Hut (Neshda/Bhunga). Photograph of his hut is attached herewith which is captured during meeting at his house on dated 28/08/2023.



Residence of Shree Devrambhai Valabhai Charan



Monitoring team meets with complainer shree Devrambhai Valabhai Charan at his residence, Devpara Area.

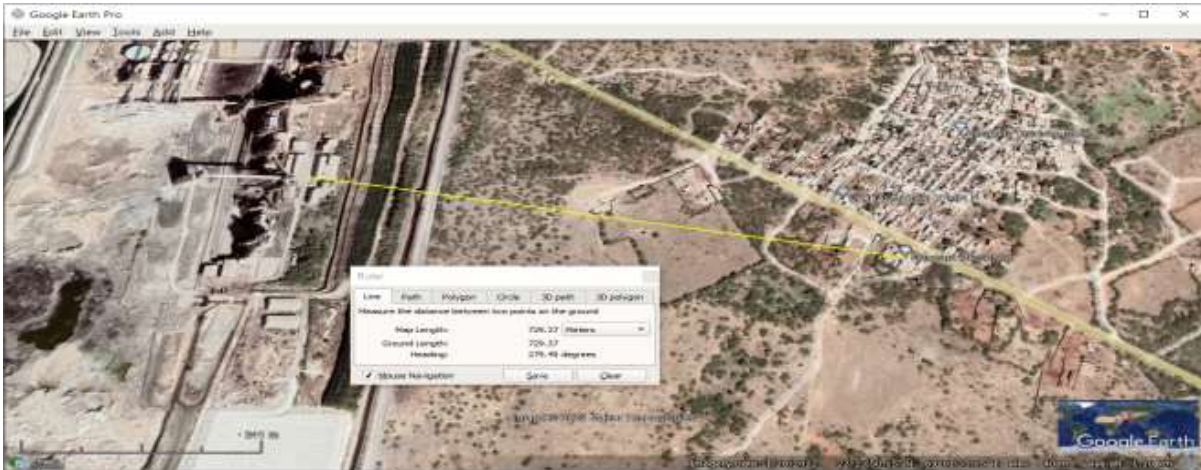
Population of Devpara area is @ 1251 (as per the Medical Officer- Okha survey report dated 07/06/2021. Please refer **Annexure-6a**.

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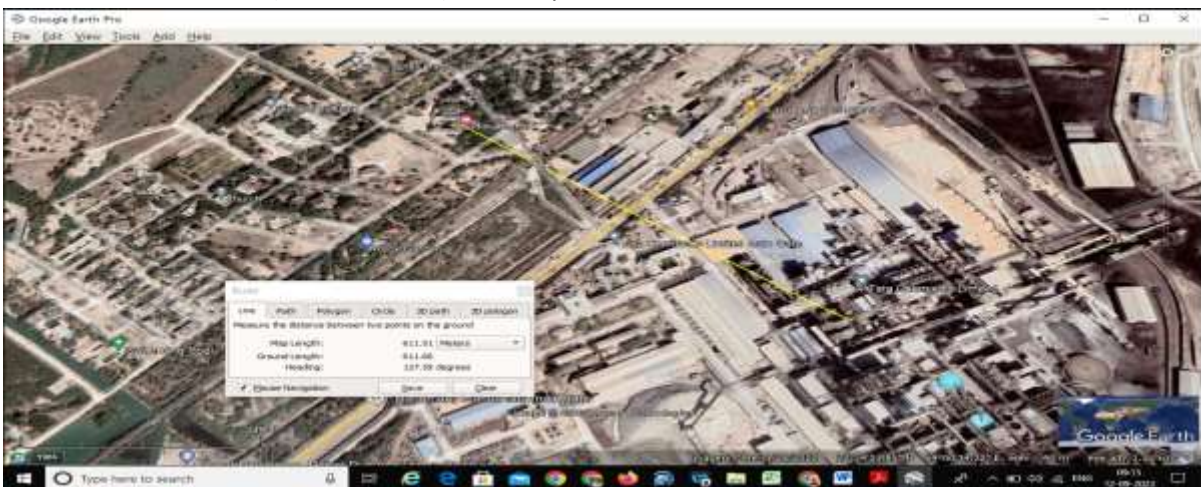
Ambient Air Quality is monitored by GPCB during the inspection on 28/08/2023 and 29/08/2023.

Govt. Primary School, Devpara is appx. @ 700 meter away from the production units of TCL as shown in image of Google earth. One Ambient Air Quality monitoring sampling is carried out for 24 hours on terrace of primary school devpara area. This Respirator Dust Sampler monitoring of Ambient air quality has been started in presence of Complainer shree Devrambhai Valabhai Charan as well as TCL officials. Other two Respirator Dust Sampler monitoring of Ambient air quality monitoring carried out on location mentioned below i.e. Mithamahal, Malara.

(i) Distance- TCL's cement manufacturing units to primary school Devpara



(ii) Distance of Mithamahal (AAQ Location) from Captive Power Plant



(iii) Distance of Malara (AAQ Location) from Material Handling Yard



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Unit has installed 6 nos. of Continuous Ambient Air Quality Monitoring Station (CAAQMS) at different location surrounding area of TCL as under with reference to letter issued by the GPCB, Gandhinagar dated 13/06/2022.

- Malara Green Cap
- Director's Bungalow
- Near Final Effluent Channel – Analyser Room
- Sewage Treatment Plant (Township)
- Settling Pond Area (Near DG set room)
- Settling Pond Area (Near Electrical Substation)

Unit has also provided one additional Mobile Monitoring Van for Ambient Air Quality Monitoring. Google earth image showing above mentioned 6 CAAQMS as below.



Existing and proposed CAAQMS can be separated using different colors

■ Existing CAAQMS- In operation

1. Malara Green Cap
2. Director's Bungalow
3. Mobile Van

■ Proposed CAAQMS

1. Near Final Effluent Channel- Analyser Room
2. Sewage Treatment Plant (Township)
3. Settling Pond Area (Near DG Set Room)
4. Settling Pond Area (Near Electrical Substation)

(2) TCL was established in the year 1939 and has been in operation since year 1943 and cement plant is in operation since year 1992. Unit has valid CCA and cement plant of TCL is included in CCA.

We have observed that the unit has provided adequate Air pollution Control Measures (APCM) with all process and Flue gas emission stacks. Online Continuous Emission Monitoring System (OCEMS) installed in units of Cement plant, Chlor alkali and power plant are connected with online portals of CPCB and GPCB.

As per GPCB Audit scheme, random Schedule- 1 auditor is allotted to the unit and auditor shall have to verify all adequacy and efficacy of provided Environment Management system (EMS). Accordingly, the Unit is regularly audited by Schedule-I auditor appointed by GPCB. Monitoring of environmental parameters including ambient air quality is conducted as per audit schedule. Environment Audit reports are submitted to GPCB from time to time and the same confirm the compliance of environmental norms prescribed in CCA. For ready reference Last three years Environment Audit Report Observations/ Recommendations with Compliance submitted by M/s. Tata Chemicals Limited are enclosed as **Annexure: 7**.

Third party monitoring is also conducted by the Environmental Laboratory accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL). Monitoring reports of Environmental Lab confirm the compliance of norms prescribed in CCA.

Unit has developed a dense greenbelt in periphery of cement plant towards Devpara area. This green belt is developed on appx. 50 meter wide bund within company boundary.

There is no any toxic chemicals are observed being poured / discharged from industry to out side of premises, marine life, sea, land etc. At the time of inspection one treated wastewater sample is collected from final discharge of TCL (Padli) which is being discharge into gulf of kutch as per given CCA to unit.

Shri Devram Valabhai Charan regularly complaints against M/s. Tata Chemicals Limited to Gujarat Pollution Control Board & other Government departments and each and every time Gujarat Pollution Control Board officials do site inspection by first of all meeting with Shri Devram Valabhai Charan and then after investigation is carried out with reference to his complain. As per petition enclosed some photographs Officials of Gujarat Pollution Control Board as well as Vehicle of GPCB clearly seen and this photographs captured by petitioner himself which proves that GPCB Officials each and every time meets complainer however complainer shri habitually highlighting false allegation in his every complain made by him against any government department. In addition of that, after carried out site visit a written letter issued to complainer regarding actions taken with reference to his complain, same some letters are also enclosed as **Annexure:5**. Complainer shri also obtained information by applying RTI application under Right To Information Act -2005. As per Inspection observation written instructions issued to TCL if any non compliance observed at the time of inspection, Gujarat Pollution Control Board also issue actions if any non compliance observed, hence allegation of petitioner regarding reports are written in favour and do not give proper justice are false.

(3). As per petition (Para 2),the complainer has mentioned that Cement dust and toxic gases are emitted from ‘Sardar Cement Plant’ however, there is no such unit of cement plant of Sardar Cement existing in this area.

A medical officer was appointed by the SDM to conduct a door-to door survey (dated 07.06.2021) in order find out of medical ailments prevalent in the people of the village and neighbouring areas of the Complainant. The said medical report is on the record of the original case file of the SDM and the same is annexed herewith and marked as **Annexure – 6A**.

The Medical Officer, Primary Health Centre, Surajkaradi submitted its report dated 01.01.2016 to the Ld. SDM, wherein it was observed that normal diseases have been noted in Devpara during regular surveillance work by health workers and the Medical Officer. A copy of the report of Medical Officer, Primary Health Centre, Surajkaradi dated 01.01.2016 is annexed herewith and marked as **Annexure – 6B**.

(4). Petitioner shri has filed several complain & each and every time investigation carried out by GPCB Officials. As per petitioner's petition he has submitted petition with signature of villagers regarding the pollution of TCL but no any satisfactory action taken by GPCB, however this allegations against GPCB are made false and GPCB officials of Regional Office Jamnagar & Head Office provide written as well as verbal satisfactory reply to petitioner. Other residence of Devpara area and other nearby villagers also submitted letter to GPCB with signature mentioning that Complaints made by Shri Devram Valabhai Charan are false however GPCB each and every time made site inspections on basis of Environmental Rules & Regulations and if any non compliance observed then officials instructed company to comply the same. Letter of other residence of Devpara area and other nearby villagers enclosed as **Annexure:8**.

(5). Petitioner has filed complaint regarding cement dust, toxic gas and health & death issues of people of devpara from cement plant and similar complaints are filed by petitioner from time to time where the GPCB was also made a party. Petitioner has also filed several complaints to Hon'ble Sub Divisional Magistrate for CRPC Act, alleging pollution through its Cement Plant and Chemical Complex.

As per petitioner's petition under section 133 of CRPC act vide **Case No. 1119 of 2015** (old Case No. 03 of 2013) Hon'be SDM directed different departments to visit site of TCL and submit investigation report. GPCB officials also visited TCL site and submitted investigation report. Hon'ble SDM Dwarka rejected and disposed case on merits and evidence on dated 29.09.2021

The petitioner by way of a revision application vide Criminal Revision Application No. 24 of 2021 has challenged the said order before the Hon'ble Dwarka Court and sought quashing and setting aside of the impugned order. The same revision application is pending before the Hon'ble Dwarka Court.

As per petitioner's petition site inspection conducted by Okha Municipal Office on dated 13/06/2012 revealed that clear fact that there is pollution. As per the order passed on 29.09.2021 by the SDM which also stated that GPCB visited the Company's Cement Plant at various times as a part of the process and proceedings in the matter. The analysis reports showed that all samples were well within prescribed norms as set by the GPCB.

GPCB officials not observed any toxic chemicals being poured/ discharged from industry to outside of premises, marine life, sea, land etc.

GPCB officials observed that as a part of Effluent management and norms prescribed by the Board for Suspended solids, Effluent solids are filtered in Effluent Filtration Plant and settled in Settling Ponds. Settling ponds are made in land owned by TCL. Further, boundary wall is provided towards Devpara, Padli and Village Hamosar. There are no any heaps of settled solids in land outside the boundary of industry premises observed in village Hamusar and Devpara area. Hence petitioner's allegations in this regards are false.

Effluent generated is filtered in Effluent solids filtration plant and these solids are Non Hazardous waste as it is not categorized in Hazardous waste (Management & Trans boundary Movement) Rules and TCL also submitted Analysis Report of Settled solids from Schedule II Environment Auditor certify this material is not hazardous waste which is enclosed as **Annexure-9**.

(6). There is no any toxic chemicals are observed being poured / discharged from industry to outside of premises, marine life, sea, land etc. detail brief are also enclosed in point no. 3.2.2 regarding wastewater generation and treatment facility. After verification of company records it is observed that Fly ash Generated from unit is utilized partially into Cement manufacturing and partially disposed as per the Fly Ash Notification [S.O. 5481(E)] dated 31.12.2021. As per petitioner claimed heaps are fly ash but heaps near padli area are made of Settled solids which are generated after treatment of Effluent generated is treated into Effluent solids filtration plant and this Solids are Non Hazardous waste as it is not categorized in Hazardous waste (Management & Trans boundary Movement) Rules-2016 and amended thereafter and TCL also submitted Analysis Report of Settled solids from Schedule II Environment Auditor certify this material is not hazardous waste which is enclosed as **Annexure:9**. TCL has constructed settled solids heaps for bund making as well as they have developed Green Belt by Growing tree plantation for preventing air pollution from settled solids heaps.

Utilization of effluent settled Solids in cement manufacturing: Effluent solids are recovered from soda ash ammonia still Effluent and utilized in Cement manufacturing. The Cement plant of Mithapur chemical complex is serving the purpose of waste utilization by consuming solid wastes generated in the chemical complex.

Unit has also conducted study of Environment Management System (EMS) by Reputed Institute:-Dharmsinh Desai University, College Road, Nadiad- 387001 for compliance of letter dated 13/06/2022 issued by GPCB. **Annexure- 10**.

(6) DETAILS OF INSPECTION CUM MONITORING ON DATED 28/08/2023 & 29/08/2023

1. The unit has obtained CCA Renewal no.: AWH-123320 which is valid up to 11/08/2027.
2. Inspection cum monitoring and sampling is carried out by Regional Office- Gujarat Pollution Control Board (GPCB) Jamnagar at Tata Chemicals Limited (TCL), Mithapur on dated 28/08/2023 and 29/08/2023 to inspect the unit. This industry is continues process unit and during site inspection it has been observed that all the plants are in operation.
3. First of all, monitoring team meets with complainer shree Devram Vala at his residence, Devpara area. Where complainer shree informed that he complaint about the Tata Chemicals Limited as mentioned in written complaint dated 04/05/2023.

4. As per written complaint following ground water samples are collected from nearby villages (as mentioned in complaint) and treated wastewater from final discharge of TCL.

S.No.	Sampling Point	Temp	pH	Color	TDS	SS	NH3-N	Chloride	Sulphate	COD	O&G	BOD
	Unit →	°C	pH Unit	Pt. co.sc	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1	Borewell of Bhiyaldada Temple, Village Arambhada	29	7.33	10	1178	10	0.56	350	88	6	BDL	0.5
2	Open well of Village Padli	28	8.1	10	510	16	0.56	180	52	10	BDL	0.8
3	Open well of Village Hamusar	28	8.01	10	534	18	0.56	120	60	07	BDL	0.5
4	Open well of Village Devpara	29	7.92	10	1658	16	0.56	650	138	10	BDL	0.7
5	Open well of Village Lalsingpur	28	8.2	10	322	08	0.56	90	36	08	BDL	0.6
6	Open well of Village Bhimrana	28	7.76	10	1658	06	0.56	660	144	09	BDL	0.8
7	Open well of Village Surajkaradi	28	7.75	10	1246	08	0.56	460	136	08	BDL	0.7
8	Town supply Mithapur of TCL	28	7.6	10	128	06	0.56	50	18	04	BDL	0.3

Note: Above mentioned ground water samples are collected from villages which are located in coastal area of Gujarat. In Mithapur water supplied by M/s. TCL for daily needs hence water sample is collected in mithapur from town supply by TCL.

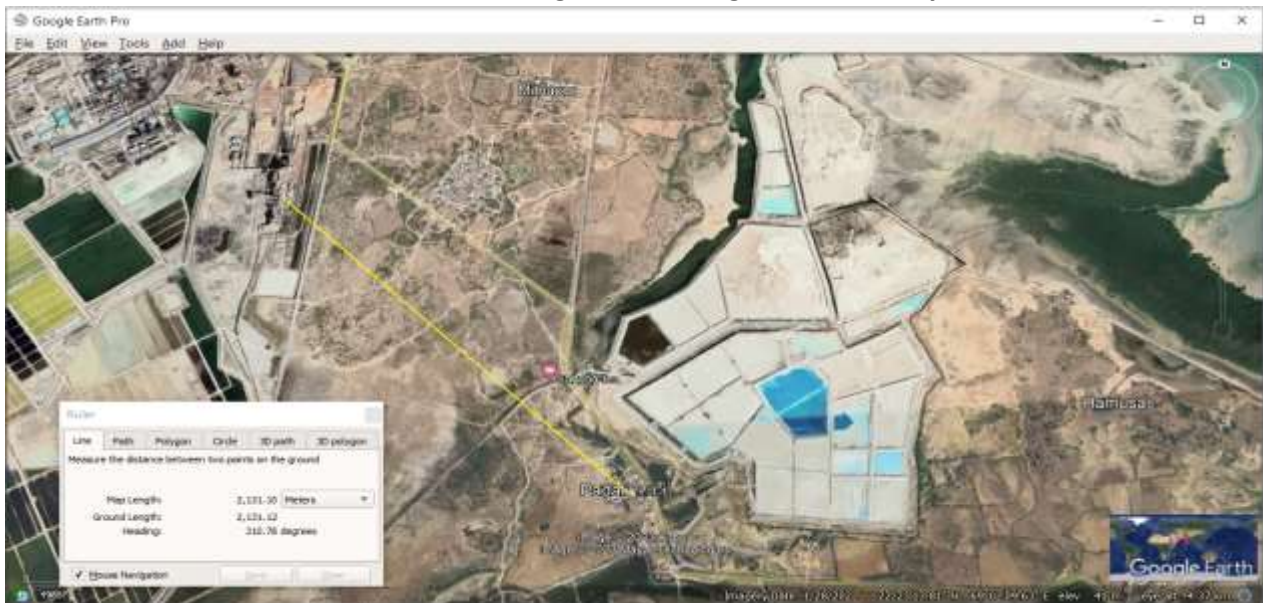
Analysis report of Final Discharge of TCL

Sr. No.	Parameters	Unit	GPCB Permissible Limit	Final discharged of TCL
1	Temp	°C	40	28
2	pH	---	6.5 to 9.5	7.86
3	Colour (pt. Co. scale)	Units	100	10
4	Suspended Solids	mg/L	500	64
5	Oil and Grease	mg/L	02	BDL
6	Ammonical Nitrogen	mg/L	05	0.56

Above Villages Distance from TCL as per Google Map
TCL's cement manufacturing units to primary school Devpara



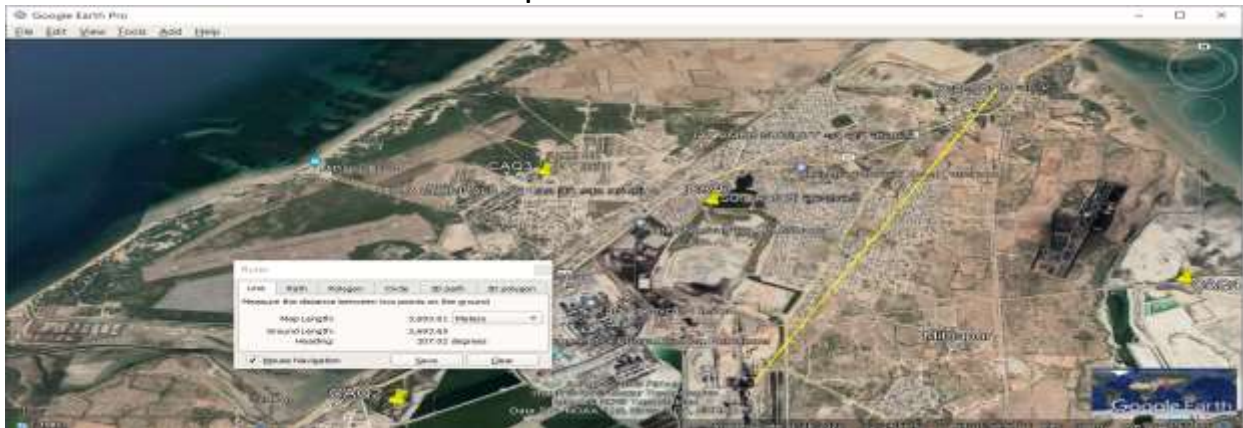
TCL's cement manufacturing units to Village Padli- Panchayat Office



TCL's cement manufacturing units to primary school Village- Hamosar



TCL's cement production units to Arambhada



TCL's cement production units to Lalsinghpur(Primary School)



TCL's cement production units to Bhimrana (Primary School)



TCL's cement production units to Surajkaradi (PHC)



5. At the time of inspection source emission monitoring carried out for following stacks.

Sr. No.	Stack Attached to	Parameter(s)		
		PM (mg/Nm ³)	SO ₂ (mg/Nm ³)	NO _x (mg/Nm ³)
GPCB Permissible Limit →		30	100	1000
1	Stack attached to Raw Mill	07	5.33	141.01
2	Stack attached to Coal Mill (Old)	04	5.33	9.4
3	Stack attached to Alkali bypass	08	----	----
4	Stack attached to Cement Mill	04	----	----
GPCB Permissible Limit →		100	600	600
5	Stack attached to RCC 1 (Boiler- 1, 2 & 3)	11	53.33	150.41
6	Stack attached to RCC 3	23	58.67	22.56
Sr. No.	Stack Attached to	HCl (mg/Nm ³)		
GPCB Permissible Limit →		20		
7	Stack attached to HCl Plant	4.29		
Sr. No.	Stack Attached to	Br ₂ (mg/Nm ³)		
GPCB Permissible Limit →		02		
8	Stack attached to Bromine Plant	00		
Sr. No.	Stack Attached to	Cl ₂ (mg/Nm ³)		
GPCB Permissible Limit →		09		
9	Stack attached to Chlorine Plant	0.17		

6. During visit, Three Ambient Air Quality Monitoring carried out at following location i.e. surrounding area of TCL on 24 hours basis.

Sr. No.	AAQM Station	Parameter(s)		
		PM ₁₀ (Micro g/M ³)	SO ₂ (Micro g/M ³)	NO ₂ (Micro g/M ³)
National Ambient Air Quality Standards(24 Hours) →		100	80	80
1	AAQM carried out on the Terrace of MithaMahel, TCL, Mithapur	34	4.56	10.48
2	AAQM carried out at Malara area, Village Surajkaradi	50	8.80	11.99
3	AAQM carried out on the Terrace of Devpara Primary School, Village Devpara	74	14.70	17.81

7. Unit has provided Online Continuous Emission Monitoring System (OCEMS) for stack emissions was found operational and directly connected with the servers of Central Pollution Control Board and the Gujarat Pollution Control Board. Online Monitoring system for effluent parameters was also found operational and connected to CPCB/ GPCB servers. Results of OCEMS reading of inspection time period are as **Annexure- 11**.
8. Quality of Treated waste water discharge is observed well within the prescribed norms for parameters given in consent order.
9. Quality of Ambient Air and Stack Emission is observed well within the prescribed norms for parameters given in consent order.
10. Unit has provided CCTV camera system for surveillance at Final Discharge of treated waste water.

11. Unit has implemented 100% utilization of the fly ash and per the Fly Ash Notification [S.O. 5481(E)] dated [31.12.2021] issued by MoEFCC.
12. During visit, transportation of material from TCL is observed in covered Truck near Devpara area.



13. Green belt has been developed in periphery of cement plant and settling pond area.



Photographs showing Green cover developed in settling pond area



(7) CONCLUSION:

Hon'ble NGT has passed order to check the truthfulness of complaint made by Shree Devrambhai Valabhai Charan dated: 04/05/2023 and Regional Officer Gujarat Pollution control Board has done a site verification on dated: 28/08/2023 & 29/08/2023 with collective grab sampling of ground water samples from mentioned villages in complaint, Ambient air quality monitoring from near by three locations as well as Process & Flue gas stack monitoring at source. As per Site inspection and observation made from site as well as looking to the Analysis Report M/s. Tata Chemicals Limited is complying with Environmental standards and direction / suggestions given by GPCB as well as Schedule-1 Environmental Auditors from time to time. As per site inspection no any substance found as per allegations made by complainer in written complaint.

Site Inspected By GPCB Regional Office Jamnagar:

Sr. No.	Name	Designation	Signature
1	K. N. Parmar	Regional Officer	
2	K. H. Tanna	Assistant Environmental Engineer	
3	J. M. Jadav	Assistant Environmental Engineer	
4	C. H. Chauhan	Assistant Environmental Engineer	
5	R. G. Chudasama	Senior Scientific Assistant	



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પ્રાદેશિક કચેરી - જામનગર

ગુજરાત પ્રદૂષણ નિયંત્રણ બોર્ડ

સરદાર પટેલ ભવન, રામેશ્વરનગર, જામનગર-૩૬૧ ૦૦૮. ફોન : (૦૨૮૮) ૨૭૫૨૩૬૬
website : www.gpcb.gujarat.gov.in, E-mail : ro-gpcb-jamn@gujarat.gov.inતપાસ માટે દાખલ થવાની સુચના (નોટીસ)

પાણી પ્રદૂષણ (નિવારણ અને નિયંત્રણ) અધિનયમ - ૧૯૭૪ ની કલમ-૨૩, હવા પ્રદૂષણ (નિવારણ અને નિયંત્રણ) અધિનયમ - ૧૯૮૧ ની કલમ-૨૪ અને પર્યાવરણ (સુરક્ષા) અધિનયમ-૧૯૮૬ ની કલમ-૧૦ હેઠળ અમોને મળેલ સત્તાની રૂએ અમો નીચે સહી કરનાર જેની જરૂર જણાય તેની સહાય લઈને તમામ સમયે નીચેના હેતુઓ માટે આપની જગ્યામાં દાખલ થવાનો અને તપાસ કરવાનો અધિકાર ધરાવી છીએ.

- (૧) અમોને સોંપેલ રાજ્ય બોર્ડ/કેન્દ્ર સરકારનાં કાર્ય બજાવવાના હેતુ માટે.
- (૨) આવા કોઈ કાર્યો બજાવવાના છે, કે કેમ અને તેમ હોય તો કઈ રીતે તે બજાવવાના છે, અથવા આ અધિનયમ અથવા તે હેઠળ કરેલ નિયમોની જોગવાઈ અથવા આ અધિનયમ હેઠળ બજાવેલી કોઈ નોટીસની, કરેલા કોઈ હુકમની, આદેશની અથવા આપેલ કોઈ અધિકાર પત્રની કોઈ જોગવાઈનું પાલન કરવામાં આવી રહ્યું છે, કે પાલન કરવામાં આવ્યું છે, કે કેમ તે નક્કી કરવાના હેતુ માટે.
- (૩) કોઈ ઔદ્યોગિક પ્લાન્ટ, રેકર્ડ, રજીસ્ટર, દસ્તાવેજ અથવા અન્ય કોઈ મહત્વની વસ્તુની તપાસ કરવા કે તેની કસોટી કરવાના હેતુ માટે અથવા જે જગ્યામાં તેને એમ માનવાને કારણ હોય કે આ કાયદા કે તે હેઠળ કરેલા નિયમો મુજબ કોઈ ગુનો કરવામાં આવ્યો છે, અથવા કરવામાં આવી રહ્યો છે અથવા થવાની તૈયારીમાં છે, તેવી કોઈ જગ્યાની ઝડતી લેવા માટે અને તેને એમ માનવાને કારણે હોય કે આ કાયદા કે તે હેઠળ કરેલા નિયમો હેઠળ શિક્ષાપાત્ર કોઈ ગુનો કર્યાનો પુરાવો તેવા પ્લાન્ટ, રેકર્ડ, રજીસ્ટર, દસ્તાવેજ અથવા અન્ય મહત્વની વસ્તુમાંથી મળી શકે તેમ છે તો તેનો ઝડતી લેવા માટે અમો નીચે જણાવેલ સમય અને તારીખે દાખલ થઈએ છીએ.

ઉદ્યોગ/કારખાના/એકમમાં દાખલ થવાનો સમય : 10:00hr ક્લક તા: 28 / 08 / 2023

અમારી સાથે મુલાકાત સમયે સહાય માટે નીચેના અધિકારીશ્રી/કર્મચારીશ્રી હાજર રહેલ છે.

ક્રમ અધિકારીશ્રી/કર્મચારીશ્રી નું નામ અને હોદ્દો

(૧) K. H. Tanna - AEP

(૨) J. M. Jadan - AEP

(૩) CH. Chauhan - AEP
R. G. Chudasama - SSA

પ્રતિશ્રી, Mr. Sanjeev Tam - Head
(GPCB ID : 17166) Envpi;

M/s. Tata Chemicals Limited

SINO. 34 to 49, 521, 521/521/521 સહી :

58/59 VIM; Sunaykavadi 23/38, અધિકારીનું નામ : (K. N. Parmar)

Mithapur Tal; Dooanka સહી :

Dist. Durbhumy Dooanka
આ સુચના (નોટીસ) મેળવનારની સહી :

RO



ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE **393**

Gujarat Pollution Control Board, Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394936 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19676

TEST REPORT

Test Report No. : 19676

Date: 05/09/2023

1. Name of the Customer : Tata Chemicals Ltd - 17166
2. Address : Nos.34 to 49,52,56,57,58/1,59&63of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur-361345, Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gidc
3. Nature of Sample : REP-Representative/Grab, (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Quantity of Sample Received : @ 5 lit.
6. Code No. of the Sample : 394936
7. Date & Time of Collection & Inwarding : 28/08/2023 , (1830 to 1830) & 02/09/2023
8. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
9. Sampling Point : Final discharge into Sea of TCL [Padli] ~
10. Flow Details (Remarks) : ongoing
11. Mode of Disposal : Sea
12. Ultimate Receiving Body : No generation of industrial wastewater
13. Temperature on Collection : 28 & pH Range on pH Strip : @8-9 on pH strip
14. Carboys Nos for : Barcode & Color & Appearance :Colorless
15. Water Consumption & W.W.G (KLPD) : Ind :276000.000 , Dom :4117.000 & Ind :240000.000 , Dom :2400.000

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	28
2	pH	pH Units	4500 H+ B APHA Standard Methods 23rd edi.2017	1 – 14 pH value As or	7.86
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 23rd edi. 2017	2 - to 99 Hazen & 1-50	10
4	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	64
5	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standar	1 - 2000 mg/l.	0.56
6	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	BDL

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : -

Note : 1. * - These parameters are NOT covered under the scope of NABL.

2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 23rd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.



ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE **394**

Gujarat Pollution Control Board, Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394938 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19677

TEST REPORT

Test Report No. : 19677

Date: 05/09/2023

1. Name of the Customer : Tata Chemicals Ltd - 17166
2. Address : Nos.34 to 49,52,56,57,58/1,59&63of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR Mithapur-361345, Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gidc
3. Nature of Sample : REP-Representative/Grab, (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Quantity of Sample Received : @ 5 lit.
6. Code No. of the Sample : 394938
7. Date & Time of Collection & Inwarding : 28/08/2023 , (1900 to 1900) & 02/09/2023
8. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
9. Sampling Point : Water sample collected from borewell of bhiyaldada temple, vill: Aarambhda ~
10. Flow Details (Remarks) : --
11. Mode of Disposal : --
12. Ultimate Receiving Body : No generation of industrial wastewater
13. Temperature on Collection : 29 & pH Range on pH Strip :@7-8 on pH strip
14. Carboys Nos for : Barcode & Color & Appearance :Colourless
15. Water Consumption & W.W.G (KLPD) : Ind :276000.000 , Dom :4117.000 & Ind :240000.000 , Dom :2400.000

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	29
2	pH	pH Units	4500 H+ B APHA Standard Methods 23rd edi.2017	1 – 14 pH value As or	7.33
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 23rd edi. 2017	2 - to 99 Hazen & 1-50	10
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Method	10 – 200000 mg/L	1178
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	10
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standar	1 - 2000 mg/l.	0.56
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	350
8	Sulphate	mg/l	APHA(23rd edi) 4500 SO4 E	2-40mg/l	88
9	Chemical Oxygen Demand	mg/l	APHA (23rd Edition)- 5220 B Open Reflux Method-20	5.0- 50000 mg/l	6
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	BDL
11	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirme	05–50000 mg/l	0.5

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : -

Note : 1. * - These parameters are NOT covered under the scope of NABL.

2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 23rd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.



ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE **395**

Gujarat Pollution Control Board, Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394939 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19678

TEST REPORT

Test Report No. : 19678

Date: 05/09/2023

1. Name of the Customer : Tata Chemicals Ltd - 17166
2. Address : Nos.34 to 49,52,56,57,58/1,59&63of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur-361345, Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gidc
3. Nature of Sample : REP-Representative/Grab, (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Quantity of Sample Received : @ 5 lit.
6. Code No. of the Sample : 394939
7. Date & Time of Collection & Inwarding : 28/08/2023 , (1930 to 1930) & 02/09/2023
8. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
9. Sampling Point : Water sample collected from open well of vill: Padli ~
10. Flow Details (Remarks) : --
11. Mode of Disposal : --
12. Ultimate Receiving Body : No generation of industrial wastewater
13. Temperature on Collection : 28 & pH Range on pH Strip :@7-8 on pH strip
14. Carboys Nos for : Barcode & Color & Appearance :Colourless
15. Water Consumption & W.W.G (KLPD) : Ind :276000.000 , Dom :4117.000 & Ind :240000.000 , Dom :2400.000

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	28
2	pH	pH Units	4500 H+ B APHA Standard Methods 23rd edi.2017	1 – 14 pH value As or	8.10
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 23rd edi. 2017	2 - to 99 Hazen & 1-50	10
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Method	10 – 200000 mg/L	510
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	16
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standar	1 - 2000 mg/l.	0.56
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	180
8	Sulphate	mg/l	APHA(23rd edi) 4500 SO4 E	2-40mg/l	52
9	Chemical Oxygen Demand	mg/l	APHA (23rd Edition)- 5220 B Open Reflux Method-2(5.0- 50000 mg/l	10
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	BDL
11	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirme	05–50000 mg/l	0.8

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : -

Note : 1. * - These parameters are NOT covered under the scope of NABL.

2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 23rd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.



ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE **396**

Gujarat Pollution Control Board, Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394942 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19679

TEST REPORT

Test Report No. : 19679

Date: 05/09/2023

1. Name of the Customer : Tata Chemicals Ltd - 17166
2. Address : Nos.34 to 49,52,56,57,58/1,59&63of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR Mithapur-361345, Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gidc
3. Nature of Sample : REP-Representative/Grab, (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Quantity of Sample Received : @ 5 lit.
6. Code No. of the Sample : 394942
7. Date & Time of Collection & Inwarding : 28/08/2023 , (2000 to 2000) & 02/09/2023
8. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
9. Sampling Point : Water sample collected from openwell of vill: Hamusar ~
10. Flow Details (Remarks) : --
11. Mode of Disposal : --
12. Ultimate Receiving Body : No generation of industrial wastewater
13. Temperature on Collection : 28 & pH Range on pH Strip :@7-8 on pH strip
14. Carboys Nos for : Barcode & Color & Appearance :Colourless
15. Water Consumption & W.W.G (KLPD) : Ind :276000.000 , Dom :4117.000 & Ind :240000.000 , Dom :2400.000

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	28
2	pH	pH Units	4500 H+ B APHA Standard Methods 23rd edi.2017	1 – 14 pH value As or	8.01
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 23rd edi. 2017	2 - to 99 Hazen & 1-50	10
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Method	10 – 200000 mg/L	534
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	18
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standar	1 - 2000 mg/l.	0.56
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	120
8	Sulphate	mg/l	APHA(23rd edi) 4500 SO4 E	2-40mg/l	60
9	Chemical Oxygen Demand	mg/l	APHA (23rd Edition)- 5220 B Open Reflux Method-20	5.0- 50000 mg/l	7
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	BDL
11	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirme	05–50000 mg/l	0.5

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : -

Note : 1. * - These parameters are NOT covered under the scope of NABL.

2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 23rd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.



ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE **397**

Gujarat Pollution Control Board, Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394943 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19680

TEST REPORT

Test Report No. : 19680

Date: 05/09/2023

1. Name of the Customer : Tata Chemicals Ltd - 17166
2. Address : Nos.34 to 49,52,56,57,58/1,59&63of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR Mithapur-361345, Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gidc
3. Nature of Sample : REP-Representative/Grab, (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Quantity of Sample Received : @ 5 lit.
6. Code No. of the Sample : 394943
7. Date & Time of Collection & Inwarding : 28/08/2023 , (1100 to 1100) & 02/09/2023
8. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
9. Sampling Point : Water sample collected from open well of vill: Devpara ~
10. Flow Details (Remarks) : --
11. Mode of Disposal : --
12. Ultimate Receiving Body : No generation of industrial wastewater
13. Temperature on Collection : 29 & pH Range on pH Strip :@7-8 on pH strip
14. Carboys Nos for : Barcode & Color & Appearance :Colourless
15. Water Consumption & W.W.G (KLPD) : Ind :276000.000 , Dom :4117.000 & Ind :240000.000 , Dom :2400.000

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	29
2	pH	pH Units	4500 H+ B APHA Standard Methods 23rd edi.2017	1 – 14 pH value As or	7.92
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 23rd edi. 2017	2 - to 99 Hazen & 1-50	10
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Method	10 – 200000 mg/L	1658
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	16
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standai	1 - 2000 mg/l.	0.56
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	650
8	Sulphate	mg/l	APHA(23rd edi) 4500 SO4 E	2-40mg/l	138
9	Chemical Oxygen Demand	mg/l	APHA (23rd Edition)- 5220 B Open Reflux Method-20	5.0- 50000 mg/l	10
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	BDL
11	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirme	05–50000 mg/l	0.7

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : sample collection date: 29/08/2023

Note : 1. * - These parameters are NOT covered under the scope of NABL.

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- Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
- Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 23rd Edition by APHA.
- Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.



ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE **398**

Gujarat Pollution Control Board, Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394944 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19681

TEST REPORT

Test Report No. : 19681

Date: 05/09/2023

1. Name of the Customer : Tata Chemicals Ltd - 17166
2. Address : Nos.34 to 49,52,56,57,58/1,59&63of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR Mithapur-361345, Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gidc
3. Nature of Sample : REP-Representative/Grab, (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Quantity of Sample Received : @ 5 lit.
6. Code No. of the Sample : 394944
7. Date & Time of Collection & Inwarding : 28/08/2023 , (1130 to 1130) & 02/09/2023
8. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
9. Sampling Point : Water sample collected from open well of vill: Lalsingpur ~
10. Flow Details (Remarks) : --
11. Mode of Disposal : --
12. Ultimate Receiving Body : No generation of industrial wastewater
13. Temperature on Collection : 28 & pH Range on pH Strip :@7-8 on pH strip
14. Carboys Nos for : Barcode & Color & Appearance :Colourless
15. Water Consumption & W.W.G (KLPD) : Ind :276000.000 , Dom :4117.000 & Ind :240000.000 , Dom :2400.000

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	28
2	pH	pH Units	4500 H+ B APHA Standard Methods 23rd edi.2017	1 – 14 pH value As or	8.20
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 23rd edi. 2017	2 - to 99 Hazen & 1-50	10
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Method	10 – 200000 mg/L	322
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	08
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standai	1 - 2000 mg/l.	0.56
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	90
8	Sulphate	mg/l	APHA(23rd edi) 4500 SO4 E	2-40mg/l	36
9	Chemical Oxygen Demand	mg/l	APHA (23rd Edition)- 5220 B Open Reflux Method-20	5.0- 50000 mg/l	8
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	BDL
11	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirme	05–50000 mg/l	0.6

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : sample collection date: 29/08/2023

Note : 1. * - These parameters are NOT covered under the scope of NABL.

- The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
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- The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
- Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
- Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
- Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 23rd Edition by APHA.
- Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.



ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE **399**

Gujarat Pollution Control Board, Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394946 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19682

TEST REPORT

Test Report No. : 19682

Date: 05/09/2023

1. Name of the Customer : Tata Chemicals Ltd - 17166
2. Address : Nos.34 to 49,52,56,57,58/1,59&63of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR Mithapur-361345, Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gidc
3. Nature of Sample : REP-Representative/Grab, (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Quantity of Sample Received : @ 5 lit.
6. Code No. of the Sample : 394946
7. Date & Time of Collection & Inwarding : 28/08/2023 , (1200 to 1200) & 02/09/2023
8. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
9. Sampling Point : Water sample collected from open well of vill: Bhimrana ~
10. Flow Details (Remarks) : --
11. Mode of Disposal : --
12. Ultimate Receiving Body : No generation of industrial wastewater
13. Temperature on Collection : 28 & pH Range on pH Strip :@7-8 on pH strip
14. Carboys Nos for : Barcode & Color & Appearance :Colourless
15. Water Consumption & W.W.G (KLPD) : Ind :276000.000 , Dom :4117.000 & Ind :240000.000 , Dom :2400.000

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	28
2	pH	pH Units	4500 H+ B APHA Standard Methods 23rd edi.2017	1 – 14 pH value As or	7.76
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 23rd edi. 2017	2 - to 99 Hazen & 1-50	10
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Method	10 – 200000 mg/L	1658
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	06
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standar	1 - 2000 mg/l.	0.56
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	660
8	Sulphate	mg/l	APHA(23rd edi) 4500 SO4 E	2-40mg/l	144
9	Chemical Oxygen Demand	mg/l	APHA (23rd Edition)- 5220 B Open Reflux Method-20	5.0- 50000 mg/l	9
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	BDL
11	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirme	05–50000 mg/l	0.8

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : sample collection date: 29/08/2023

Note : 1. * - These parameters are NOT covered under the scope of NABL.

- The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
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- Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
- Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
- Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 23rd Edition by APHA.
- Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.



ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE **400**

Gujarat Pollution Control Board, Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394947 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19683

TEST REPORT

Test Report No. : 19683

Date: 05/09/2023

1. Name of the Customer : Tata Chemicals Ltd - 17166
2. Address : Nos.34 to 49,52,56,57,58/1,59&63of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR Mithapur-361345, Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gidc
3. Nature of Sample : REP-Representative/Grab, (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Quantity of Sample Received : @ 5 lit.
6. Code No. of the Sample : 394947
7. Date & Time of Collection & Inwarding : 28/08/2023 , (1230 to 1230) & 02/09/2023
8. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
9. Sampling Point : Water sample collected from open well of vill: Suraj karadi ~
10. Flow Details (Remarks) : --
11. Mode of Disposal : --
12. Ultimate Receiving Body : No generation of industrial wastewater
13. Temperature on Collection : 28 & pH Range on pH Strip :@7-8 on pH strip
14. Carboys Nos for : Barcode & Color & Appearance :Colourless
15. Water Consumption & W.W.G (KLPD) : Ind :276000.000 , Dom :4117.000 & Ind :240000.000 , Dom :2400.000

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	28
2	pH	pH Units	4500 H+ B APHA Standard Methods 23rd edi.2017	1 – 14 pH value As or	7.75
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 23rd edi. 2017	2 - to 99 Hazen & 1-50	10
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Method	10 – 200000 mg/L	1246
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	08
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standai	1 - 2000 mg/l.	0.56
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	460
8	Sulphate	mg/l	APHA(23rd edi) 4500 SO4 E	2-40mg/l	136
9	Chemical Oxygen Demand	mg/l	APHA (23rd Edition)- 5220 B Open Reflux Method-20	5.0- 50000 mg/l	8
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	BDL
11	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirme	05–50000 mg/l	0.7

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : sample collection date: 29/08/2023 from farm of shri mansinghbhai

Note : 1. * - These parameters are NOT covered under the scope of NABL.

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6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 23rd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.



ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE **401**

Gujarat Pollution Control Board, Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394948 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19684

TEST REPORT

Test Report No. : 19684

Date: 05/09/2023

1. Name of the Customer : Tata Chemicals Ltd - 17166
2. Address : Nos.34 to 49,52,56,57,58/1,59&63of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR Mithapur-361345, Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gidc
3. Nature of Sample : REP-Representative/Grab, (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Quantity of Sample Received : @ 5 lit.
6. Code No. of the Sample : 394948
7. Date & Time of Collection & Inwarding : 28/08/2023 , (1300 to 1300) & 02/09/2023
8. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
9. Sampling Point : Water sample collected from town supply Mithapur of TCL ~
10. Flow Details (Remarks) : ongoing
11. Mode of Disposal : --
12. Ultimate Receiving Body : No generation of industrial wastewater
13. Temperature on Collection : 28 & pH Range on pH Strip :@7-8 on pH strip
14. Carboys Nos for : Barcode & Color & Appearance :Colourless
15. Water Consumption & W.W.G (KLPD) : Ind :276000.000 , Dom :4117.000 & Ind :240000.000 , Dom :2400.000

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	28
2	pH	pH Units	4500 H+ B APHA Standard Methods 23rd edi.2017	1 – 14 pH value As or	7.60
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 23rd edi. 2017	2 - to 99 Hazen & 1-50	10
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Method	10 – 200000 mg/L	128
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	06
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standar	1 - 2000 mg/l.	0.56
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	50
8	Sulphate	mg/l	APHA(23rd edi) 4500 SO4 E	2-40mg/l	18
9	Chemical Oxygen Demand	mg/l	APHA (23rd Edition)- 5220 B Open Reflux Method-20	5.0- 50000 mg/l	4
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	BDL
11	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirme	05–50000 mg/l	0.3

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : sample collection date: 29/08/2023

Note : 1. * - These parameters are NOT covered under the scope of NABL.

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7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 23rd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.



ANALYSIS REPORT FOR AIR
TYPE : Ambient

Gujarat Pollution Control Board
Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394868 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19664

1. Name & : Tata Chemicals Ltd - 17166
2. Address of the Unit : Nos.34 to 49,52,56,57,58/1,59&63 of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur - 361345,Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gide
3. Nature of Sample : REP-Representative/Grab , (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Date & Time of Collection & Receipt : 28/08/2023, (1145 to 1145)
6. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
7. Sampling Point : # Ambient Sampling Point ~ AAQM on terrace of Mithamahal, TCL
8. Fuel : --
9. APCM : --
10. Filter No & Weight : F.P. 22,23,24
11. Temperature on Collection : 28 & Volume-Absord Media : 30 ML for Each gases
12. Volume-Gas Passed : 619,619,624
13. Parameters : 3 & Oper Time(Min) : 1440 Minute

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	SOX-Amb	MICROG/M3	IS: 5182 (Part - 2), 2001 (reaffirmed 2006)	5 – 1050 µg/M3	5
2	NOX-Amb *	MICROG/M3	-	-	10
3	PM10-Amb	MICROG/M3	IS: 5182 (Part - XXIII), 2006	1 – 1000 µg/M3	34

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : aaqm is carried out for 24 hours.



ANALYSIS REPORT **403** AIR
TYPE : Ambient

Gujarat Pollution Control Board
Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394871 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19665

1. Name & : Tata Chemicals Ltd - 17166
2. Address of the Unit : Nos.34 to 49,52,56,57,58/1,59&63 of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur - 361345,Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gide
3. Nature of Sample : REP-Representative/Grab , (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Date & Time of Collection & Receipt : 28/08/2023, (1230 to 1230)
6. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
7. Sampling Point : # Ambient Sampling Point ~ AAQM at Malara area, Vill: Surajkaradi
8. Fuel : --
9. APCM : --
10. Filter No & Weight : F.P. 25,26,27
11. Temperature on Collection : 28 & Volume-Absord Media : 30 ML for Each gases
12. Volume-Gas Passed : 624,604,609
13. Parameters : 3 & Oper Time(Min) : 1440 Minute

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	SOX-Amb	MICROG/M3	IS: 5182 (Part - 2), 2001 (reaffirmed 2006)	5 – 1050 µg/M3	9
2	NOX-Amb *	MICROG/M3	-	-	12
3	PM10-Amb	MICROG/M3	IS: 5182 (Part - XXIII), 2006	1 – 1000 µg/M3	50

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : aaqm is carried out for 24 hours.



ANALYSIS REPORT **404** AIR
TYPE : Ambient

Gujarat Pollution Control Board
Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394873 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19666

1. Name & : Tata Chemicals Ltd - 17166
2. Address of the Unit : Nos.34 to 49,52,56,57,58/1,59&63 of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur - 361345,Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gide
3. Nature of Sample : REP-Representative/Grab , (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Date & Time of Collection & Receipt : 28/08/2023, (1315 to 1315)
6. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
7. Sampling Point : # Ambient Sampling Point ~ AAQM on terrace of Devpara Primary School, Vill: Devpara
8. Fuel : --
9. APCM : --
10. Filter No & Weight : F.P. 28,29,30
11. Temperature on Collection : 28 & Volume-Absord Media : 30 ML for Each gases
12. Volume-Gas Passed : 614,609,619
13. Parameters : 3 & Oper Time(Min) : 1440 Minute

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	SOX-Amb	MICROG/M3	IS: 5182 (Part - 2), 2001 (reaffirmed 2006)	5 – 1050 µg/M3	15
2	NOX-Amb *	MICROG/M3	-	-	18
3	PM10-Amb	MICROG/M3	IS: 5182 (Part - XXIII), 2006	1 – 1000 µg/M3	74

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : aaqm is carried out for 24 hours.



ANALYSIS REPORT **405** AIR
TYPE : Stack-Process

Gujarat Pollution Control Board
Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394876 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19667

1. Name & : Tata Chemicals Ltd - 17166
2. Address of the Unit : Nos.34 to 49,52,56,57,58/1,59&63 of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur - 361345,Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gide
3. Nature of Sample : REP-Representative/Grab , (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Date & Time of Collection & Receipt : 28/08/2023, (1430 to 1500)
6. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
7. Sampling Point : Stack attached to Raw mill ~
8. Fuel : --
9. APCM : Bag filter
10. Thimble & Weight (gm) : Thimble No. 1
11. Temperature on Collection : 137 & Volume-Absord Media : 50 ML (0.1 N NaOH) for NOx & 50 ML 3 % H2O2 for
12. Volume-Gas Passed : 60 litre for each SO2 and NOx, 480 L for PM
13. Parameters : 3 & Oper Time(Min) : 30 minutes

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	PM-Stack	MG/NM3	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	1 – 5000 mg/NM3	7
2	SO2-Stack	MG/NM3	IS:11255(Part-2),1985	4-50mg/NM3	5.33
3	NOX-Stack	MG/NM3	ASTM D :1608-98	5-100mg/NM3	141.01

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation :



ANALYSIS REPORT **406** AIR
TYPE : Stack-Process

Gujarat Pollution Control Board
Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394881 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19668

1. Name & : Tata Chemicals Ltd - 17166
2. Address of the Unit : Nos.34 to 49,52,56,57,58/1,59&63 of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur - 361345,Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gide
3. Nature of Sample : REP-Representative/Grab , (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Date & Time of Collection & Receipt : 28/08/2023, (1600 to 1630)
6. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
7. Sampling Point : Stack attached to Coal mill old ~
8. Fuel : --
9. APCM : Bag filter
10. Thimble & Weight (gm) : Thimble No. 2
11. Temperature on Collection : 48 & Volume-Absord Media : 50 ML (0.1 N NaOH) for NOx & 50 ML 3 % H2O2 for
12. Volume-Gas Passed : 60 litre for each SO2 and NOx, 510 L for PM
13. Parameters : 3 & Oper Time(Min) : 30 minutes

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	PM-Stack	MG/NM3	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	1 – 5000 mg/NM3	4
2	SO2-Stack	MG/NM3	IS:11255(Part-2),1985	4-50mg/NM3	5.33
3	NOX-Stack	MG/NM3	ASTM D :1608-98	5-100mg/NM3	9.40

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation :



ANALYSIS REPORT OF AIR
TYPE : Stack-Process

Gujarat Pollution Control Board
Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394887 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19669

1. Name & : Tata Chemicals Ltd - 17166
2. Address of the Unit : Nos.34 to 49,52,56,57,58/1,59&63 of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur - 361345,Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gide
3. Nature of Sample : REP-Representative/Grab , (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Date & Time of Collection & Receipt : 28/08/2023, (1730 to 1800)
6. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
7. Sampling Point : Stack attached to Alkali by pass ~
8. Fuel : --
9. APCM : Bag filter
10. Thimble & Weight (gm) : Thimble No. 3
11. Temperature on Collection : 164 & Volume-Absord Media : --
12. Volume-Gas Passed : 480 L for PM
13. Parameters : 1 & Oper Time(Min) : 30 minutes

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	PM-Stack	MG/NM3	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	1 - 5000 mg/NM3	8

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation :



ANALYSIS REPORT **408** AIR
TYPE : Stack-Process

Gujarat Pollution Control Board
Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394891 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19670

1. Name & : Tata Chemicals Ltd - 17166
2. Address of the Unit : Nos.34 to 49,52,56,57,58/1,59&63 of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur - 361345,Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gide
3. Nature of Sample : REP-Representative/Grab , (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Date & Time of Collection & Receipt : 28/08/2023, (1900 to 1930)
6. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
7. Sampling Point : Stack attached to Cement Mill ~
8. Fuel : --
9. APCM : Bag filter
10. Thimble & Weight (gm) : Thimble No. 4
11. Temperature on Collection : 88 & Volume-Absord Media : --
12. Volume-Gas Passed : 540 L for PM
13. Parameters : 1 & Oper Time(Min) : 30 minutes

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	PM-Stack	MG/NM3	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	1 - 5000 mg/NM3	4

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation :



ANALYSIS REPORT **409** AIR
TYPE : Stack-Flue Gas

Gujarat Pollution Control Board
Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394902 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19671

1. Name & : Tata Chemicals Ltd - 17166
2. Address of the Unit : Nos.34 to 49,52,56,57,58/1,59&63 of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur - 361345,Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gide
3. Nature of Sample : REP-Representative/Grab , (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Date & Time of Collection & Receipt : 28/08/2023, (0830 to 0900)
6. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
7. Sampling Point : Stack attached to RCC1 (Boiler - 1,2 &3) ~
8. Fuel : Coal
9. APCM : ESP
10. Thimble & Weight (gm) : Thimble No. 5
11. Temperature on Collection : 152 & Volume-Absord Media : 50 ML (0.1 N NaOH) for NOx & 50 ML 3 % H2O2 for
12. Volume-Gas Passed : 60 litre for each SO2 and NOx, 540 L for PM
13. Parameters : 3 & Oper Time(Min) : 30 minutes

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	PM-Stack	MG/NM3	IS: 11255 (Part - 1), 1985 (Reaffirmed 1999)	1 - 5000 mg/NM3	11
2	SO2-Stack	MG/NM3	IS:11255(Part-2),1985	4-50mg/NM3	53.33
3	NOX-Stack	MG/NM3	ASTM D :1608-98	5-100mg/NM3	150.41

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : collection date: 29/08/2023



ANALYSIS REPORT FOR AIR
TYPE : Stack-Flue Gas

Gujarat Pollution Control Board
Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394908 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19672

1. Name & : Tata Chemicals Ltd - 17166
2. Address of the Unit : Nos.34 to 49,52,56,57,58/1,59&63 of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur - 361345,Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gide
3. Nature of Sample : REP-Representative/Grab , (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Date & Time of Collection & Receipt : 28/08/2023, (1000 to 1030)
6. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
7. Sampling Point : Stack attached to RCC 3 ~
8. Fuel : Coal
9. APCM : ESP and desulphurization by lime stone addition
10. Thimble & Weight (gm) : Thimble No. 6
11. Temperature on Collection : 148 & Volume-Absord Media : 50 ML (0.1 N NaOH) for NOx & 50 ML 3 % H2O2 for
12. Volume-Gas Passed : 60 litre for each SO2 and NOx, 510 L for PM
13. Parameters : 3 & Oper Time(Min) : 30 minutes

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	PM-Stack	MG/NM3	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	1 – 5000 mg/NM3	23
2	SO2-Stack	MG/NM3	IS:11255(Part-2),1985	4-50mg/NM3	58.67
3	NOX-Stack	MG/NM3	ASTM D :1608-98	5-100mg/NM3	22.56

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : collection date: 29/08/2023



ANALYSIS REPORT FOR AIR
TYPE : Stack-Process

Gujarat Pollution Control Board
Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394918 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19673

1. Name & : Tata Chemicals Ltd - 17166
2. Address of the Unit : Nos.34 to 49,52,56,57,58/1,59&63 of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur - 361345,Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gide
3. Nature of Sample : REP-Representative/Grab , (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Date & Time of Collection & Receipt : 28/08/2023, (1115 to 1145)
6. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
7. Sampling Point : Stack attached to HCl Plant ~
8. Fuel : --
9. APCM : Water Scrubber
10. Thimble & Weight (gm) : --
11. Temperature on Collection : & Volume-Absord Media : Distilled water
12. Volume-Gas Passed : 60 L for HCL
13. Parameters : 1 & Oper Time(Min) : 30 minutes

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	HCL-Stack	MG/NM3	Argentometric	-	4.29

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : collection date: 29/08/2023



ANALYSIS REPORT FOR AIR
TYPE : Stack-Process

Gujarat Pollution Control Board
Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394927 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19674

1. Name & : Tata Chemicals Ltd - 17166
2. Address of the Unit : Nos.34 to 49,52,56,57,58/1,59&63 of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur - 361345,Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gide
3. Nature of Sample : REP-Representative/Grab , (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Date & Time of Collection & Receipt : 28/08/2023, (1215 to 1245)
6. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
7. Sampling Point : Stack attached to Bromine Plant ~
8. Fuel : --
9. APCM : Alkali Scrubber
10. Thimble & Weight (gm) : --
11. Temperature on Collection : & Volume-Absord Media : 0.1 N NaOH for br2
12. Volume-Gas Passed : 60 L for br2
13. Parameters : 1 & Oper Time(Min) : 30 minutes

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	BR2-Stack (Bromine)	MG/NM3	-	-	BDL

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : collection date: 29/08/2023



ANALYSIS REPORT FOR AIR
TYPE : Stack-Process

Gujarat Pollution Control Board
Jamnagar
Sardar Patel Bhavan
Rameshwar Nagar
Jamnagar-361008
Tele:(0288)2752366

Sample ID:394931 - Analysis Completion:05/09/2023

Chlor Alkali / LAB Inward : 19675

1. Name & : Tata Chemicals Ltd - 17166
2. Address of the Unit : Nos.34 to 49,52,56,57,58/1,59&63 of VI,Surajkaradi 23/3 P ,MITHAPUR,JAMNAGAR
Mithapur - 361345,Taluka : Dwarka, District : Devbhoomi Dwarka, GIDC : Not In Gide
3. Nature of Sample : REP-Representative/Grab , (Insp Type : ROU-Routine Visit)
4. Sample Collected By : K.N.Parmar, ROH
5. Date & Time of Collection & Receipt : 28/08/2023, (0700 to 0730)
6. Date of Start & Completion of Analysis : 02/09/2023 & 05/09/2023
7. Sampling Point : Stack attached to Chlorine Plant ~
8. Fuel : --
9. APCM : Alkali Scrubber
10. Thimble & Weight (gm) : --
11. Temperature on Collection : & Volume-Absord Media : 0.005 % methyl orange
12. Volume-Gas Passed : 60 L for cl2
13. Parameters : 1 & Oper Time(Min) : 30 minutes

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Cl2-Stack *	MG/NM3	IS 5182 (Part XIX) 1982 R.1998	145-2900 ug/ m3	0.17

Laboratory Remarks : Approved. By:326-lab_326 Dt.: 05/09/2023


A.G. OZA, ROH

Field Observation : collection date: 29/08/2023