No. Acctts (LFA) OA No. 785/2023 (NGT)- 651

OFFICE OF THE DEPUTY COMMISSIONER
SOLAN, DISTRICT SOLAN, HIMACHAL PRADESH
✆: 01792-220656, **email ID:** dc-sol-hp@nic.in

Dated: Solan-173212 the 23 August, 2024.

To

The Registrar General
Hon'ble National Green Tribunal,
Faridkot House, Copernicus Marge, New Delhi-110001.

Subject: **OA No. 785 of 2023 in the matter of News item appearing in Tribune dated 15.12.2023 titled as "Kasauli Distillery dumps effluent into water source, supply affected" before NGT (PB) New Delhi- reg.**

Sir,

Kindly refer to the order dated 09.04.2024 & 22.07.2024 passed by the Hon'ble NGT New Delhi in OA No. 785 of 2023 in the matter titled as "Kasauli Distillery dumps effluent into water source, supply affected" on the subject above. In this regard, it is informed that as per the direction of Hon'ble Tribunal the joint inspection was conducted by the Joint Committee on 03.07.2024 and as per order dated 22.07.2024 four weeks time was granted to file the Final report of the Joint Committee.

In compliance, to the directions in the order dated 09.04.2024 & 22.07.2024, report has been submitted by the Joint Committee, which may kindly be taken on record please.

Yours faithfully

(Manmohan Sharma) IAS,
Deputy Commissioner
Solan, District Solan, HP.

Encls: As above.

Copy to the following for information:-

1. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032.
2. The Member Secretary, HP State Pollution Control Board, Phase-III, New Shimla-171009 for information.
3. The Addl. Deputy Commissioner, Solan, District Solan.
4. The District Attorney, H.P. Legal Cell 27 UB, Himachal Bhawan, Sikandara Road Mandi House, New Delhi-110001.
5. Sh. Kamlesh Singh, Scientist "E", Representative, Central Pollution Control Board.
6. Dr. Dharmendra Kumar Gupta, Scientist F, Regional Officer, Chandigarh, Representative Ministry of Environment, Forest & Climate Change, Chandigarh-160030.
7. The Regional Officer, HP State Pollution Control Board, Parwanoo, District Solan.

Deputy Commissioner
Solan, District Solan, HP.

JOINT INSPECTION REPORT

OF

"M/s Mohan Meakin Limited, Kasauli Distillery, Village-Panwa, PO-Kasauli, District-Solan, Himachal Pradesh"

In compliance to

Hon'ble NGT order dated 09.04.2024

in the matter of

News item appearing in the Tribune dated 15.12.2023 titled "Kasauli Distillery dumps effluent into water source, supply affected" [O.A No. 785/2023].

PREPARED BY

JOINT COMMITTEE OF

DEPUTY COMMISSIONER, SOLAN, HIMACHAL PRADESH,
HIMACHAL PRADESH POLLUTION CONTROL BOARD,
CENTRAL POLLUTION CONTROL BOARD (CPCB),
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE (MoEF&CC)

Joint inspection report of "M/s Mohan Meakin Limited, Kasauli Distillery, Village-Panwa, PO-Kasauli, District-Solan, Himachal Pradesh" in compliance to Hon'ble NGT order dated 09.04.2024 in the matter of "In re: News item appearing in the Tribune dated 15.12.2023 titled "Kasauli Distillery dumps effluent into water source, supply affected" [O.A. No. 785/2023].

1.0 INTRODUCTION:

The matter is related to a news article dated 15.12.2023 stating that, *"As per the news item, Mohan Meakin Private Limited, a Kasauli-based plant, has dumped effluents into a natural source of water in the Kasauli Kund. As a result, the water has become polluted. Considering the possibility of disease caused by drinking effluent polluted water, the water supply from that source has been stopped. The report further states that in the sample analysis, the water was not found to be fit for human and cattle consumption."* The Original Application was registered in a suo-moto exercise of powers based on the news item titled "Kasauli Distillery dumps effluent into water source, supply affected" appearing in the Tribune dated 15.12.2023.

The Hon'ble National Green Tribunal directed via an order dated 09.01.2024, as follows:

> *"Considering the nature of the allegation and the issue involved, we deem it proper to form a joint Committee comprising of the representative of the Member Secretary, CPCB, RO, MoEF&CC, Himachal Pradesh, the Member Secretary, HPPCB and District Magistrate, Solan. The District Magistrate will act as nodal agency. The Committee will carry out the spot inspection; ascertain the factual position of the spot, the extent of water pollution in the Kund/water source caused by the project proponent and the remedial measures".*

The joint Committee submitted the report on 05.03.2024 and supplementary report on 05.04.2024 before the Hon'ble NGT. The matter was heard by the Hon'ble NGT on 09.04.2024.

Further, the Hon'ble NGT, Principal Bench, New Delhi during the hearing on 09.04.2024 (**Annexure-1**) stated and directed the following:

> *"6. In the above circumstances, we are of the opinion that a fresh report from an independent joint Committee is required to be obtained. Hence, we form a Joint Committee comprising of the District Magistrate, Solan; Member Secretary, HPPCB; representative of the MoEF&CC not below the rank of Scientist E and a representative of the CPCB from the Delhi Office. The District Magistrate will act as a coordinating agency. The Committee will visit the site, collect all the relevant information relating to compliance of norms by the PP, get the sample analysis done for this purpose and submit the report before the Tribunal at least one week before the next date of hearing by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF. Learned Counsel for the Project Proponent seek four week's time to file the reply.*

In compliance to Hon'ble NGT order dated 09.04.2024, the Deputy Commissioner, Solan requested MoEF&CC, CPCB, HPSPCB to nominate their representatives and following joint Committee was constituted in this regard:

1) Shri Ajay Yadav, IAS, ADM, Solan (Member nominated by Deputy Commissioner, Solan).
2) Dr. Dharmendra Kumar Gupta, Scientist-F, Ministry of Environment, Forest and Climate Change (MoEF&CC), Regional Office, Chandigarh.
3) Shri Kamlesh Singh, Scientist-E, Central Pollution Control Board (CPCB), Head Office, New Delhi.
4) Shri Anil Kumar, Regional Officer, HPSPCB, Parwanoo, District Solan (Member Nominated by HPSPCB).

Subsequently, joint inspection of M/s Mohan Meakin Limited, Kasauli Distillery, Panwa VPO Kasauli, District Solan, H.P. was carried out by the said Committee of MoEF&CC, CPCB, HPSPCB and District Administration of Kasauli on 03.07.2024 and also visited surrounding concerned area outside the industry premises.

2.0 INSPECTION OF M/s MOHAN MEAKIN LIMITED, KASAULI DISTILLERY, PANWA, VPO: KASAULI, DISTRICT: SOLAN, ARKI DISTT. SOLAN PARWANOO, H.P.:

M/s Mohan Meakin Limited (the Unit) is a distillery plant producing Malt Spirit @1500 KL/Annum from the barley malt as raw material.

The joint Committee carried out inspection of M/s Mohan Meakin Limited and the concerned surrounding area including drain and water supply scheme (WSS) at Larah of Jal Shakti Vibhag on July 03, 2024, Which is downstream of distillery unit.

A	General Information	
1.	Name of the unit and Address	M/s Mohan Meakin Limited, Kasauli Distillery, Village-Panwa, PO-Kasauli, District-Solan, Himachal Pradesh-173204
2.	Name of the Proprietor/Contact person– Designation Contact No.	Colonel Govind Singh Rathaur (Retd.) Chief Executive Officer, Mob. No. +91-9816255277
3.	Year of Commissioning	1855
4.	Sector	Distillery (Barley Malt based)
5.	Production capacity	1500 KL/Annum
	• Products	Malt Spirits
	• Consented Production Capacity	1500 KL/Annum
	• Actual production	709060.40 PL or 616574 BL/Annum or 617 KL/Annum (2023-24) (As per data provided by the Unit)

6.	Raw materials requirement/Consumption	Barley Malt - 1115250 KG (For 2023-24)
B	**Water Pollution and its Control**	
1.	Water Supply Source Water Consumption(KLD) a. Industrial (Brew water, washings) Boiler Feed water (only RO permeate is used for boiler feed & make-up water). b. Domestic	Bore well (01 no.) within the distillery premises. The Unit also utilizing the Spring water as water supply source but has not maintain log book for the same. 19.64 KLD (Avg. from logbook data) 9.53 KLD (Avg. from logbook data) 27.22 KLD (Avg. from logbook data) 3 KLD (Avg. from logbook data)
2.	Waste Water Generation (KLD) a. Industrial (last 06 months)	40.64 KLD (Avg. rom logbook data) [Spent wash, Spent Leese, fermenter washing, equipment's washing, Brew House washings, Floor washings, Boiler Blow down].
	b. Domestic	Septic tank & Soak pit.
3.	Details of ETP installed	The Unit has installed ETP of capacity 150 KLD for treatment of process effluent which comprises of Equalization tank (Capacity-30 KL), Primary Clarifier (Capacity- 45 KL), Methane Digester (02 No. of capacity 300 & 320 KL), Tube Settler, Aeration Tank (Capacity-440 KL), Membrane Bio-Reactor Unit (MBR), Dual Stage Reverse Osmosis Plant (R.O.), Activated carbon filters(ACF) + Ultraviolet (UV), and Agitated Thin Film Dryer (ATFD) for R.O. Reject disposal. A real-time online continuous effluent monitoring systems (OCEMS) is installed at ETP outlet.
4.	Flow meter measuring device installed at outlet of ETP.	Yes
5.	Status of Consent under the Water Act-1974.	Valid from upto 31.03.2024-**(Annexure-2)** (Unit has applied for renewal of consent)
C	**Air Pollution and its Control**	
1.	Sources of Air Pollution.	Boiler with capacity– 2.5 TPH
2.	Type of fuel used with consumption, Stack details with APCS.	Coal (Consumption-3912 Kg/day) and methane gas generated approx. 350 Nm^3/day at ETP. During visit, no methane was being used in boiler as no methane gas/biogas was available. Boiler with stack height 30m is equipped with offline pulse jet bag filter as APCS (air pollution control system).
3.	Status of Consent under the Air Act-1981.	Valid upto 31.03.2024 (attached as **Annexure-2)** Applied for renewal for FY 2024-25.
D	**Waste Management**	
1.	Type of Waste Generated	Boiler Ash: 700 Kg/day Used Oil: 40 Liters annually sent to TSDF facility for final disposal. Empty drum/container: Sent to local recycler.

		Spent Grains-2537 Kg/day (sold as cattle feed). Fermenter sludge/Residue: As per information provided by the unit representative, fermenter sludge was mixed with other streams and utilized in anaerobic digester.
2.	Facility of Storage/Disposal.	Boiler Ash-Send to local contractor (Contract is valid upto 31.03.2025). Used Oil: Sent to TSDF facility.
3.	Status of Grant of authorization, if any.	Valid upto 31st March 2028 (Attached as **Annexure-3).**

E	**Waste water generation and Disposal**		
	Stream/section	**Quantity, KLD**	**Disposal/Utilization Point**
1.	Spent wash (12 KLD/brew)	40.64 KLD (Avg.) [Total effluent received as per data provided by the Unit for last 6 months] (Max. three brew in a day)	Treated in ETP through anaerobic process, aerobic process, MBR process and finally passed through duel RO system and RO reject dried in ATFD unit.
2.	Spent lees (3 KLD/brew)		
3.	Fermenter washing (3 KL/brew)		
4.	Distillation equipment washings (3 KL/brew)		
5.	Brew house equipment washing (2 KL/brew)		
6.	Floor washing (2 KL/brew)		
7.	Boiler blow down (8 KLD)		
8.	CIP (by RO permeate)		
9.	Others viz. RO reject etc.	3.36 KLD (as per last 06 months log book data).	Dried at ATFD unit
10.	Total spent-wash generation (KL/KL of production)	7.8 KL/KL of production.	ETP

2.1 Observations during the visit of the distillery Unit on 03.07.2024.

1. The unit engaged in the production of Malt spirits with consented capacity of 1500 KL/Annum using Barley Malt as raw material. During inspection, the Unit was found operational.
2. The Consent to Operate under the "Water (Prevention & Control of Pollution) Act, 1974" and under the "Air (Prevention & Control of Pollution) Act, 1981" issued by HPSPCB is valid up to 31.03.2024 (copy attached as **Annexure-2**) and has applied for the FY year 2024-25 and the same is under process.
3. The Authorization under the "Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016" is valid up to 31.03.2028 and copy of the same is

annexed as **Annexure-3**).

4. The average alcohol production of the Unit is 617 KL/Annum against the consented permitted capacity of 1500 KL/year.
5. The Unit has not installed electromagnetic flow-meter for raw-spent wash line at the process and requires providing its connectivity to CPCB and SPCB server.
6. The Unit has install an environmental data display board at their Effluent Treatment plant (ETP) & but it requires to be installed at the entrance of the main entrance gate of the Unit and the data must be updated by the Unit regularly.

WATER CONSUMPTION:

7. The Unit is meeting its freshwater demand through 01 bore well & two (2) natural springs. Flow-meter is installed at the bore well and log books are maintained by the Unit. However, for the two natural springs, the Unit does not have permission from the Ground water Authority for using water from the natural springs.
8. As per the Himachal Pradesh Ground Water (Regulation and Control of Development and Management) Act, 2005 "ground water" means *the water which exists below the ground surface in the zone of saturation and can be extracted through wells or any other means or emerges as springs and base flows in streams and rivers*. Therefore, the Unit has to take permission from the Himachal Pradesh Groundwater Authority for the use of spring water emerging from its premises.
9. The Unit has obtained NOC dated 06.09.2014 from Himachal Pradesh Groundwater Authority for groundwater abstraction up-to 20 KL/day.
10. The Unit has recently also installed another second bore-well and obtained NOC from Groundwater Authority for the abstraction of 100 KLD ground water. However, the Unit informed that they have yet not started the use of second bore well.

EFFLUENT MANAGEMENT:

11. The Unit has installed ETP of capacity 150 KLD for treatment of process effluent which comprises of Collection tank, Equalization tank (Capacity-30 KL), Primary Clarifier (Capacity-45 KL), Methane Digester (02 No. of capacity 300 & 320 KL), Tube Settler, Aeration Tank (Capacity- 440 KL), Membrane BIO-Reactor Unit (MBR), Dual Stage Reverse Osmosis Plant (R.O.), Activated carbon filters (ACF) + Ultraviolet (UV), and Agitated Thin Film Dryer (ATFD) for disposal of R.O. Reject. The Unit has one biogas

holding tank of 55 Nm^3 capacities and it was informed by the Unit that about 350 Nm^3/day of biogas is generated from the bio digester.

12. The spent grains after meshing process are stored in separate storage area which is further sold to third party vendor for use in cattle feed.

13. During inspection samples were collected from various locations (both by CPCB & HP SPCB), namely, raw spent wash line, Collection tank, Equalization tank, Outlet of Bio-Digester, Aeration tank (for MLSS & MLVSS), Biological tank (for MLSS & MLVSS), MBR outlet and Final outlet/RO permeate. Comparative Statement between HPPCB & CPCB ETP Samples collected during Joint Inspection dated 03.07.2024 are present in below table no.1:

Table 1: Lab analysis results of the ETP samples.

S. No.	Point of sample collection/ sampling Code	HPPCB	CPCB	HPPCB	CPCB	HPPCB	CPCB	HPPCB	CPCB	HPPCB	CPCB	CPCB
		pH		BOD		COD		TSS		Colour (PCU)		TDS
1	Raw Spent Wash (RSW) (KD-1)	3.41	3.5	8000	24400	53440	**52190**	1725.0	2009	6318.7	4300	30196
2	Collection Tank (KD-2)	4.64	5	3100	21050	11040	**44126**	6555.0	6405	2794.2	6800	12788
3	Equalization tank (KD-3)	4.87	5.1	3200	5580	10980	**11751**	1425.0	1638	1744.9	1090	6580
4	Bio-digester outlet (Feed to tube settler) KD-5	8.59	7.8	290	334	696.0	**796**	336.0	262	1180.0	593	3560
5	From MBR outlet (KD-7)	7.82	7.7	18	66	156	**183**	51.0	146	445.8	95	3424
6	Final outlet of ETP(KDFO)	6.03	6.6	4	14	28	**36**	5.0	11	15.373	BDL	444

Note: *All values are in mg/l except pH and Colour.*

The lab analysis result of the CPCB and HPSPCB are placed at **Annexure-4** and **Annexure-5** respectively.

14. It is evident from the comparative statement between HPPCB & CPCB samples collected from ETP during joint inspection; substantial reduction (77-79%) was seen in COD parameter upto equalization tank without any treatment system which indicates possibility of dilution of effluent prior to the treatment. As per the logbook record of the Unit, the COD value at equalization tank is generally between 24000 mg/l to 30000 mg/l, however during the visit the COD at equalization was found 10980 mg/l to 11751 mg/l which also indicates possibility of dilution.

15. The Unit has anaerobic digester/Methane Digester for anaerobic treatment of the effluent and bio-gas generation. During the visit, it was observed that there was no biogas in the gas holding tank (capacity-55 m^3) and during the visit no increment found in biogas meter (installed with gas holding tank) which indicates that no biogas was being generated. During the visit, the Unit was not using any bio gases fuel in the boiler. The Unit has not installed any flow-meter device at the biogas pipeline laid upto the boiler for the transmission of biogas to boiler. No biogas flaring system was found near bio-digester/gas holder tank/ETP area.
16. The sample collected from the outlet of bio-digester showed reduction of 94% BOD (5580 mg/l to 334 mg/l) and 93% COD (11751 mg/l to 796 mg/l) and 46% TDS (6580 mg/l to 3560 mg/l). During the visit, no biogas was found in the gas holder including no increment in biogas meter/marker, however, the lab result is showing reduction of 94% for BOD, 93% for COD and 46% for TDS from bio-digester plant. Such high reduction of BOD, COD in the absence of biogas generation, indicates possible dilution of effluent, by the Unit.
17. The lab analysis result of sample collected from the final outlet of ETP shows pH-6.03 & 6.6, COD – 28 & 36 mg/l, BOD – 4 & 14 mg/l, TSS- 5 & 11 mg/l and Total Dissolved Solid – 444 mg/l. The treated effluent after RO is mixed with steam condensate so as to use as boiler feed and remaining is sent for irrigation purpose.
18. During inspection, sample were collected from Aeration tank (phase-1) & MBR Aeration tank (phase-2). MLSS and MLVSS value is observed as 1663 mg/l and 1294 mg/l respectively, in Aeration Tank & 883 mg/l and 766 mg/l respectively, in MBR aeration tank. The MLSS and MLSS value is low in the Aeration tank.

Picture No. 1: Distillation process.

Picture No. 2: Final Outlet point of ETP near biogas holder tank (behind) of 55m^3 capacity.

19. The Unit representative informed that there is mixing of Raw spent wash with other effluents like Spent Lees, Equipment & Floor washing, and Boiler blow down in collection tank.
20. Housekeeping was found good within the industrial premises.
21. The Unit has installed real –time online effluent monitoring (OCEMS) system at the final outlet of the ETP.
22. The Unit is mixing the RO permeate (32-35 KLD) &process steam condensate (18-20 KLD) at the ETP area to make boiler feed water and collecting it in overhead storage tank (150 KL capacity). This water is used as boiler feed water and remaining water is used as land irrigation purpose. The Unit has maintained log books for the treated water being used for land irrigation within the factory owned land and as per logbook provided the Unit utilises about15 KLD of treated effluent for irrigation purpose.
23. The Unit is transporting the process steam condensate from the process area upto the ETP plant and mixing it with RO permeate at the ETP to make boiler feed water. The Unit should directly transport the process steam condensate (18-20 KLD) from the distillation process to boiler section as it could be misused at ETP for dilution purpose and no proper demarcation & colour coding of pipelines was found at ETP.
24. The Unit has not prepared Irrigation Management Plan (IMP) for the use of treated effluent in land application and requires preparing and implementing the IMP as per the CPCB guidelines on "Utilization of treated effluent in irrigation". The Unit has requested Dr. Y.S Parmar University of Horticulture and Forestry, Solan, Himachal Pradesh for providing technical advice and expertise about preparation Irrigation Management Plan on utilization of treated effluent for irrigation in factory owned land.

AIR POLLUTION CONTROL:

25. The Unit has installed one boiler of 2.5 TPH capacity and utilizing coal (3912 Kg/day) and informed to be using biogas/methane gas generated from Bio-digester (Biogas generation is about 350 Nm^3/day) installed at the ETP as fuel. During the visit, no biogas was being used as fuel in the boiler.
26. As per information provided by the Unit, they have installed Online Emission Monitoring System on boiler stack for Particulate Matter (PM) parameter.
27. The boiler with stack height 30 m is equipped with offline pulse jet bag filter as APCS (air pollution control system).

SOLID WASTE MANAGEMENT:

28. The Unit has made a contract with Sh. Sachin Prajapat, S/o Shri Matadin Prajapat, Dhaulpur, Dholpur, Rajasthan for lifting of Coal Ash from the company's premises and the validity of the contract is upto 01.03.2025.
29. The Unit has not maintained the logbook for quantity of coal ash generated and disposal from the unit premises. However, the logbook is maintained for the trucks used for the disposal of ash but quantity is not mentioned.
30. The Unit has made a contract with Mr. Shahrukh Malik, Proprietor, M/s Sunshine Trading Company, Pasonda, Sahibabad, Ghaziabad for removal of Spent grain @ Rs. 2.80/Kg from the company's premises and validity of the contract is upto 31.03.2025.
31. The Unit sent used Oil to TSDF facility [M/s Shivalik Solid Waste Management Ltd., Village-Majra, Tehsil-Nalagarh, District-Solan, Himachal Pradesh] for recycling and further treatment.
32. The Unit has not maintained the logbook record of the Hazardous waste generated and disposed as prescribed under Hazardous and other Waste Rule, 2016.
33. During the visit at ETP, sludge was found stored in the drying beds and the same need to be disposed of in a scientific manner with proper logbook record w.r.t generation and its disposal.

GROUNDWATER QUALITY:

34. Groundwater samples were collected from the Bore well located within the unit premises. Analysis result is presented below:

Table 2: Ground water analysis result of the bore well within the premises.

Parameters	Bore well Sample within the industrial premises [Code-GWMM]	BISIS 10500:2012 (Acceptable Limit)	BISIS 10500:2012 (Permissible limit in absence of alternative source)
pH	8.6	6.5-8.5	6.5-8.5
Colour	9	05	15
TDS	222	500	2000
Total Suspended Solid	11	--	--
Total Hardness	62	200	600
Total Alkalinity	60	200	600
Conductivity	392	--	--
Chloride as Cl^-	29	250	1000
Fluoride as F^-	BDL	1.0	1.5
Sulphate as SO_4^{2-}	20	200	400
Turbidity	7	1.0	5

Nitrate as NO_3-N	1.89	45	45
Mg^{2+}	5	30	100
PO_4-P	0.07	--	--
Ca_2^+	16	75	200
COD	19	--	--

Note: *All values are in mg/l except pH, colour, turbidity and conductivity.* The lab analysis result of the CPCB is placed at **Annexure-4**.

It is evident from the above analysis report that all the parameters from above sampling locations are within BIS IS 10500:2012 (Acceptable Limit) except the turbidity parameter.

3.0 Monitoring of drain and water supply scheme (WSS) Larah of Jal Shakti Vibhag.

3.1 DRAIN MONITORING:

The Joint committee visited the natural drain passing through the Unit which onwards meets another nallah/Khud known as 'Kasauli Khud' at downstream of village Chachar. The distance between the ETP of the Untu and confluence point is about 400 meter. The water supply scheme i.e. WSS Larah is established approximately 3.5 Km away from this junction point.

The drain/nallah downstream of the Unit upto Village Chachar i.e. around 200-250 meters was found dry during the visit. At village Chachar, there is a small water spring source/"Bawari"(बावड़ी). The overflow from this 'Bawari' is flowing into the nallah and from this point onwards the flow was observed in the nallah. The sample of this nallah before confluence to 'Kasauli Khud' was collected. Further, the sample after confluence into Kasauli Khud was also collected by the team. The Kasauli khud originates from downstream of Garkhal village.

The lab analysis results of drain sampling are presented at table no. 3.

Table 3: Analysis results of samples collected from Drain.

Parameters	**Drain sample location**		
	Drain Downstream of the Unit upto Chachar village	**Drain sample after Chacher village** [Code-MDS-1]	**Drain after confluence into Kasauli Khud** [MDS-2]
pH	The Drain found dry during the visit.	8	8.2
Ca_2^+		81	89
Total Suspended Solid (TSS)		25	29
TDS		220	48
Chloride as Cl^-		66	65

Sulphate as SO_4^{2-}	Therefore no sampling was done.	68	66
Cond.		479	488
TH		242	273
PO_4-P		0.2	0.16
Potassium as K^+		11.4	8
Total Alkalinity		28	114
Mg^{2+}		10	13
COD		20	9
BOD		4	3
Na+		56	48.6
Total Coliform (MPN/100 ml)		$11*10^4$	
Fecal Coliform (MPN/100 ml)		$78*10^2$	
Arsenic		BDL	BDL
Cadmium		BDL	BDL
Chromium		BDL	BDL
Cobalt		BDL	BDL
Copper		BDL	BDL
Iron		0.256	0.283
Lead		BDL	BDL
Manganese		0.005	0.013
Nickel		BDL	BDL
Selenium		BDL	BDL
Zinc		0.057	0.045

It is evident from the lab analysis result of sample collected from Drain after Chacher Village (sampling location 'MDS-1') before confluence to Kasauli Khud that it has higher concentration of Total Coliform and Fecal Coliform. The higher TC & FC reveals mixing of the discharge of sewage/domestic wastewater into the drain.

Picture No. 3: Drain found dry from Unitboundary upto Chachar village.

Picture No. 4: Drain with flow found after Chachar Village.

3.2 Monitoring of Water Supply Scheme (WSS)/Water Treatment Plant of Jal Shakti Vibhag/Department.

The joint Committee visited the Water Supply Scheme Larah. The treatment plant of water supply scheme (WSS) comprises of only physical treatment based on the gravity settling/sedimentation. There was no tertiary treatment system and no chlorination system found at WSS Larah. The water samples were collected from (i) intake point of water supply scheme (WSS) and (ii) outlet of WSS. The Unit informed that chlorination is done at water supply tank before distribution to the villages.

As per the drain map of the HPSPCB about 10 drains/tributaries carrying treated /untreated/natural water leads to the water supply scheme of Jal Shakti Vibhag. These drains/tributaries also carry treated & untreated sewage from Hotels/Tourism Unit located in the catchment of Kasauli Khud.

The representative of the WSS Larah (Jal Shakti Vibhag) informed that final treated water is sent to water supply tank/water distribution tank located at Garkhal, Kasauli above Suhana Resort. Therefore, the joint team also visited the said place and collected the water sample from the said water supply tank which supplies water to different Gram Panchayat, namely, Garkhal Kasauli Panchayat, Garkhal Sanawar Panchayat and Ganoal Panchayat. The lab analysis results of samples collected from treatment plant of WSS Larah and water supply tank are presented at table 4.

Table 4: Lab result of water Supply Scheme (WSS) Larah.

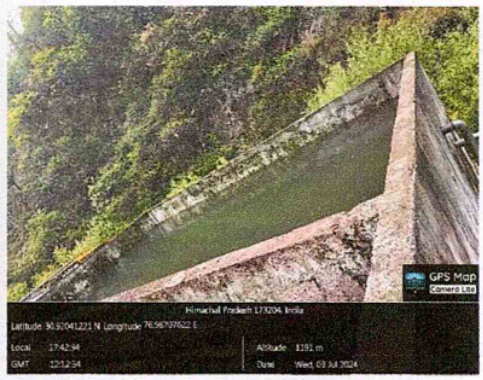
Parameters	Intake point of WSS/ [sample Code-IPWS]	Final outlet of WSS Larah [OPWS]	Water supply tank at Garkhal [CPWS]		BIS IS 10500:2012 (Acceptable limit)	BIS IS 10500:2012 (Permissible limit in absence of alternative source)
			CPCB	HPSPCB		
pH	8.3	8.3	8.4	8.14	6.5-8.5	6.5-8.5
TSS	BDL	BDL	BDL	7	-	--
Conductivity	767	492	433	528	-	--
TDS	60	132	84	311	500	2000
Mg^{2+}	12	12	9	16.03	30	100
Chloride as Cl^-	32	30	32	117.96	250	1000
Sulphate as SO_4^{2-}	56	55	52	75.48	200	400
Total Hardness	230	218	197	324	200	600
Ca^{2+}	72	68	64	103.32	75	200
PO_4-P	BDL	0.11	0.28	0.18	-	--
Na^+	16.3	-	33.3	17.79	-	-
K^+	BDL	-	1.8	1.12	-	-
COD	9	16	15	32	-	-
BOD	5	4	6	2.8	-	-
Total Alkalinity	102	20	40	66	200	600

Total Coliform MPN/100 ml	$54*10^3$	$58*10^2$	$49*10^2$	-	Not to be detectable in any 100 ml sample	
Fecal Coliform MPN/100 ml	$17*10^3$	$58*10^2$	$23*10^2$	-		
Arsenic	BDL	BDL	BDL	BDL	0.01	0.05 mg/l
Cadmium	BDL	BDL	BDL	BDL	0.003	0.003 mg/l
Chromium	BDL	BDL	BDL	BDL	0.05	0.05 mg/l
Cobalt	BDL	BDL	BDL	-	-	--
Copper	BDL	BDL	BDL	BDL	0.05	1.5 mg/l
Iron	0.141	0.022	0.123	BDL	0.3	0.3 mg/l
Lead	BDL	BDL	BDL	BDL	0.01	0.01 mg/l
Manganese	0.004	BDL	0.005	0.102	0.1	0.3 mg/l
Nickel	BDL	BDL	BDL	BDL	0.02	0.02 mg/l
Selenium	BDL	BDL	BDL	-	0.01	0.01 mg/l
Zinc	0.173	0.055	0.025	-	5	15 mg/l

The lab analysis result of the CPCB and HPSPCB are placed at **Annexure-4** and **Annexure-5** respectively.

It is evident from the lab analysis result of sample collected from Intake point of Water Supply Scheme, Outlet of Water Supply Scheme and water supply tank reveals that final treated effluent has presence of Total Coliform & Fecal Coliform therefore efficient dis-infection facility is required at the WSS Larah. The Jal Shakti Vibhag requires to review their treatment system at water supply scheme Larah as in earlier inspection substantial BOD (27 mg/l), COD (101 mg/l) and Oil & Grease (51 mg/l) was found in the sample collected (before WSS Larah) by the joint team.

Picture No. 5: Intake Point of WSS Larah.



Picture No. 6: Sedimentation Tank at WSS.

4.0 Conclusion:

- The Unit is a Barley Malt based distillery with annual production of 1500 KL Malt Spirit. The Unit has applied for the renewal of consent to operate before the Himachal Pradesh State Pollution Control Board. The Unit and its ETP was operational during the visit.
- As per the HP Ground Water (Regulation and Control of Development and Management) Act, 2005 "ground water" means *the water which exists below the ground surface in the zone of saturation and can be extracted through wells or any other means or emerges as springs and base flows in streams and rivers*. The Unit has two natural springs in its premises and the Unit has not taken permission from the groundwater Department for the abstraction of natural's spring water.
- During the visit, it was observed that the reduction in COD parameter upto the equalization tank was very high (77-79%) which indicates possibility of dilution. The reduction of BOD (94%), COD (93%) is high from Bio-digester plant despite the fact that no biogas/methane gas was found in the biogas holding tank including no methane gas generation (as the meter was still) and no methane gas was being used as fuel in the boiler which indicates possible dilution of effluent. The drain at downstream of the Unit upto the Chachar village was found dry therefore no sampling was conducted by the joint team.
- The treatment system of water supply scheme (WSS) of Jal Shakti Vibhag has only physical treatment process i.e. settling/sedimentation in the tanks. The final treated water after physical treatment by the Jal Shakti Department is collected in water supply tank before its distribution to the different villages. No disinfection facility was found at WSS Larah. However, the WSS representative informed that chlorination is done at water supply tank before distribution to villages. The final treated effluent was found having presence of Total Coliform[4900 MPN/100ml] and Fecal Coliform[2300 MPN/100 ml] and as per the Indian Standard of drinking water (IS10500:2012) the *E. coli* or thermotolerant coliform bacteria and total coliform bacteria should not be detectable in any 100 ml sample.
- The Jal Shakti Vibhag requires to review their treatment system at water supply scheme Larah as in earlier inspection substantial BOD (27 mg/l), COD (101 mg/l) and Oil & Grease (51 mg/l) was found in the sample collected (before WSS Larah) by the joint team and the present treatment system has only sedimentation/gravity settling facility at WSS Larah.
- The residential houses, home stays/small commercial entities in the catchment of the Kasauli Khud also discharging wastewater into the drain which onwards meets the water supply scheme of Jal Shakti Vibhag. As per the drain map of the HPSPCB, about 10 drains/tributaries carrying treated /untreated/natural water leads to the water supply scheme of Jal Shakti Vibhag. These drains also carry treated & untreated sewage from residential area, commercial area and also from the Tourism units located in the catchment of Kasauli Khud. There is no common sewage treatment plant (STP) at Kasauli for the treatment of sewage.

5.0 Recommendations of the Committee:

Based on observations made in preceding paras of this report, the following recommendations are made:

1. The Unit does not have the permission for the abstraction of water emerging from the two natural springs located within the Unit premises. The Unit should take necessary permissions from the competent authority for use of natural spring water.
2. The Unit has provided CCTV camera focusing on drain adjacent to the ETP. The Unit should relocate the CCTV cameras with PTZ facility at an appropriate place such as final outlet point of ETP [i.e. RO permeate final tank facing gas holder tank also (refer Picture No. 2)] and at Drain downstream of the ETP (showing the downstream of natural drain not the adjacent ETP drain) and provide screen with live feed of CCTV in public domain near Unit's entrance. Further, the Unit should also connect the same to HPSPCB and CPCB server.
3. The Unit should provide biogas flaring mechanism at Biogas holding tank for safe disposal of surplus methane gas during shutdowns.
4. The Unit should prepare irrigation management plan (IMP) as per the CPCB guidelines titled "Guideline for Utilization of treated effluent in irrigation" and submit the same to SPCB which shall verify and incorporate the recommendations of the Irrigation Management Plan as conditions of Consent to Operate granted to the Unit.
5. The Unit should install electromagnetic flow meter at the raw-spent wash line within the process and maintain the logbook of the same and provide its connectivity to CPCB & HSPCB server.
6. The Unit should provide a color coding with proper demarcation of pipeline carrying spent-wash& other streams i.e. spent lees, equipment washing, floor washing, boiler blow down, process steam condensate etc.
7. The Unit should directly transport the process steam condensate (18-20 KLD) from the distillation process to boiler section and not to the ETP unless the Unit has any sound justification in this regard as it (steam condensate) could be misused at ETP for dilution purpose. No proper demarcation & colour coding of pipelines was found at ETP which may be properly done.
8. The Unit should maintain optimum level of MLSS and MLVSS at Aeration tank (Phase-I) and MBR Aeration Tank (Phase-2).
9. The Unit shall install an environmental data display board at the entrance of main gate instead of effluent treatment plant (ETP) and the data be updated regularly by the Unit.
10. The Unit should maintain proper logbook records of:

    (i) Raw spent-wash generation and inlet effluent of ETP prior to treatment.

    (ii) Quantity of coal ash generated and disposal from the Unit.

(iii) ETP sludge generation, fermenter sludge generation and use/disposal.

11. The Unit should dispose the sludge stored in the drying beds in a scientific manner with proper logbook record w.r.t generation and its disposal.

12. The Jal Shakti Vibhag should review their treatment system at water supply scheme Larah and provide tertiary treatment system and dis-infection system at WSS Larah in order to ensure proper treatment with disinfection of water before distributing to the Gram Panchayat.

13. A common Sewage Treatment Plant (STP) shall be installed in Kasauli area to prevent discharge of untreated domestic/sewage waste into the drains leading to the Water Supply Scheme of Jal Shakti Vibhag which is used to supply drinking water supply to nearby village Panchayats.

1.	**Shri Ajay Yadav,** ADM, Solan, Solan, H.P. (Member nominated by Deputy Commissioner, Solan)	20/08/2024
2.	**Dr. Dharmendra Kumar Gupta,** Scientist 'F', MoEF&CC, RO, Chandigarh	20/08/2024
3.	**Shri Kamlesh Singh,** Scientist 'E', CPCB, New Delhi	20/08/2024
4.	**Shri Anil Kumar,** Regional Officer, HP State Pollution Control Board, Parwanoo, District Solan, H.P. (Member Nominated by HPSPCB)	20/08/2024

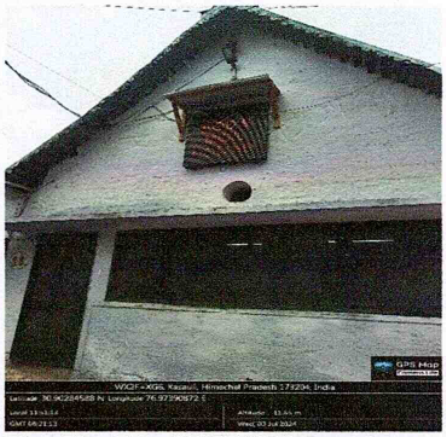
*****

Photographs taken during the Joint inspection of M/s Mohan Meakin Limited, Kasauli Distillery, Village-Panwa, PO-Kasauli, District-Solan, Himachal Pradesh on 03.07.2024.

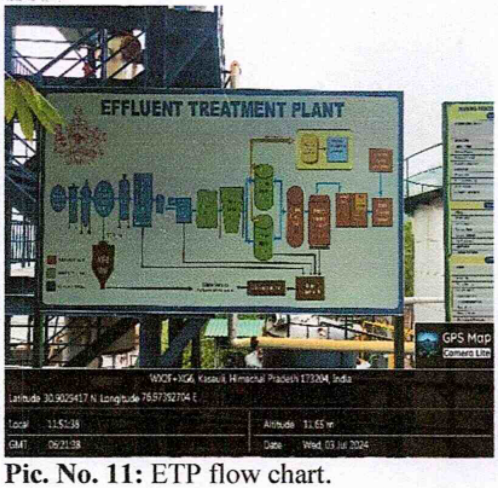
Pic. No. 7: Distillery Main Entrance Gate.

Pic. No. 8: Mashing process.

Pic. No. 9: Data Display Board at ETP.

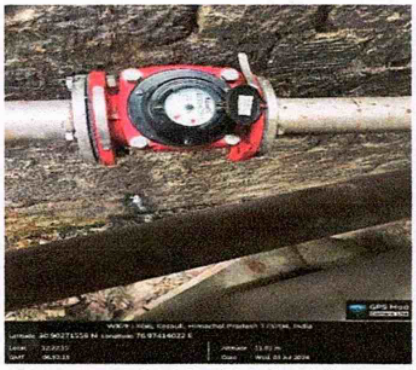


Pic. No. 10: OCEMS Parameters display.

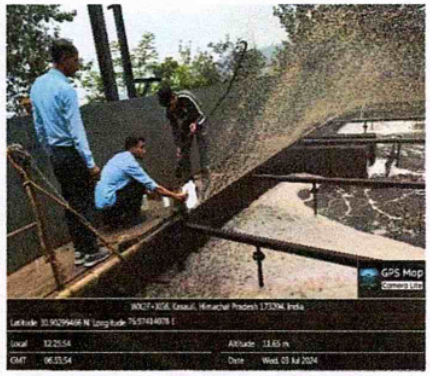


Pic. No. 11: ETP flow chart.

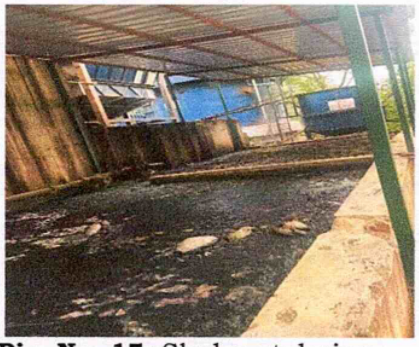
Pic. No.12: Raw Spent Wash at ETP.



Pic. No. 13: Mechanical flow meter installed on RSW line.



Pic. No.14: Sample collection from Aeration tank Phase-I.



Pic. No. 15: Sludge at drying beds.

Pic No.16: Flow meter at final outlet of ETP.

Pic. No. 17: Real-time OCEMS at Final outlet.

Pic. No. 18: Hazardous/solid waste storage area.

Pic. No. 19: Drinking water Supply /Distribution tank for villages.

Annexure - 1

Item No.12 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 785/2023

News Item titled "Kasauli Distillery dumps effluents into water source supply affected" appearing in Tribune dated 15.12.2023

Date of hearing: 09.04.2024

CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER

Respondent(s): Mr. Vikrant Pachnanda, Adv. for CPCB
Mr. Vipul Wadhwa, Ms. Kashika Gera & Ms. Carina Arora, Advs. for Mohan Meakin
Mr. Yudhveer Singh Rawal, Adv. for HP SPCB (Through VC)

ORDER

1. In this Original Application, the issue of dumping of effluents in the natural source of water in the Kasauli Kund at the instance by the Project Proponent, Mohan Meakin Private Limited, Kasauli is involved.

2. The Tribunal by order dated 09.01.2024 had impleaded the Project Proponent and had also formed the Joint Committee comprising of "Representative of the Member Secretary, CPCB; RO, MoEF&CC, Himachal Pradesh; Member Secretary, HSPCB and District Magistrate, Solan with the direction to the Committee to carry out the spot inspection, ascertain the factual position on the spot, the extent of water pollution in the kund/water resource caused by the Project proponent and the remedial measures.

3. The joint Committee has submitted the report on 05.03.2024 and supplementary report on 05.04.2024. A perusal of the report dated 05.03.2024 reveals that the inspection was done and the report has been submitted by the Committee comprising of the Assistant Environmental

Engineer, HPSPCB; Scientist B, Sub-Office Shimla, MoEF&CC; one Dr. Narender Sharma, CPCB, Chandigarh and Sub-Divisional Magistrate, Kasauli. At the bottom of the report, the signature by the above four so called Members are appended and it appears that the signature of Scientist B, Sub-Office Shimla, MoEF&CC were taken on a separate piece of paper and affixed it. Thus, the credibility of the entire report is doubtful. The report is also not by the same Committee which was formed by the Tribunal and the report is lacking in the material particulars.

4. Representative of the PP, present in person, has also disclosed that the PP is using water from three sources, i.e. on source of ground water for which the permission has been taken and two sources of natural spring within the premises of PP, for which no permission exists. The PP is required to disclose as to how it is utilizing the water from two sources of spring existing within the premises without permission.

5. The report also notices certain violations/variations but it says that the PP is generally complying with the prescribed norms. The supplementary report is also by the same so-called Committee. This report states that the analysis result of the final outlet of water supply scheme show presence of fecal coliform, total coliform, biochemical oxygen demand and chemical oxygen demand.

6. In the above circumstances, we are of the opinion that a fresh report from an independent joint Committee is required to be obtained. Hence, we form a Joint Committee comprising of the District Magistrate, Solan; Member Secretary, HPPCB; representative of the MoEF&CC not below the rank of Scientist E and a representative of the CPCB from the Delhi Office. The District Magistrate will act as a coordinating agency. The Committee will visit the site, collect all the relevant information

relating to compliance of norms by the PP, get the sample analysis done for this purpose and submit the report before the Tribunal at lease one week before the next date of hearing by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. Learned Counsel for the Project Proponent seek four week's time to file the reply.

7. List on 22.07.2024.

Prakash Shrivastava, CP

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

April 09, 2024
Original Application No. 785/2023
SN

Annexure - 2

H.P.STATE POLLUTION CONTROL BOARD

HIM PARIVESH, PHASE-III, NEW SHIMLA-171009.
Website:- http://hppcb.nic.in

HPSPCB No : 1-C **Date: 27/09/2021**

Industry Registration ID: *10058* **Application No :** *2950550*

To,

Mohan meakin limited, kasauli distillery
Vpo kasauli, district solan, h.p.kasauli
Kasauli
Solan parwanoo
173204

Subject: Renewal of 'Consent to Operate' u/s 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and u/s 21 of Air (Prevention & Control of Pollution) Act, 1981.

With reference to your application for obtaining Renewal of 'Consent to Operate' u/s 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and u/s 21 of Air (Prevention & Control of Pollution) Act, 1981, you are hereby, authorized to operate an industrial unit subject to the Terms and Conditions as mentioned in this Consent letter.

1.Particulars of Consent to Operate under Water Act, 1974 and Air Act, 1981 granted to the industry

Consent No.	*CTO/BOTH/RENEW/RO/2021/2950550*
Consent valid from:	*01/04/2021*
Consent valid upto:	*31/03/2024*
Certificate Type :	*RENEW*
Previous CTO No. & Validity :	

2. Particulars of the Industry

Name & Designation of the Applicant	*Col G S Rathaur, (Chief Executive Officer)*
Address of Industrial premises	*Mohan meakin limited, kasauli distillery, Vpo kasauli, district solan, h.p.kasauli, Kasauli,Solan parwanoo-173204*
Category of Industry	*Red*
Type of Industry	*1065-Fermentation industry including manufacture of yeast, beer, distillation of alcohol (Extra Neutral Alcohol) having waste water generation 100 KLD and above*
Scale of the Industry	*Medium*
Office District	*Solan parwanoo*
Capacity	*RCTO for manufacturing of Malt Spirit @ 1500 KL/Yr*

Raw Materials (Name with quantity per day)

Raw Materials	Quantiry	Unit
Barley Malt	**198**	**M.T./Month**

Products (Name with quantity per day)

Name of Products	Unit	Quantity	Intermediate Product	Principal Use
Malt Spirit	K.L./Year	1500	NA	Liquor

By-Products, if any,(Name with quantity per day)

Name of By Products	Unit	Installed Capacity	Average Production
NA	K.G./Month	NA	NA

Details of the Effluent Treatment Plant

Type of Effluent	Capacity(KLD)	Quantity(KLD)
Septic Tank	10	3
Septic Tank	5	2
Septic Tank	7	2
ETP	150	58

Mode of Disposal

Description	Quantity(in KLD)	Method of Treatment	Method of Disposal
Industrial Process	56	ETP	Irrigation/Gardening
Boiler Cooling	1.5	ETP	Irrigation/Gardening
Domestic	3.2	Soak Pit/Septic Tank	Other

Quantity of fuel required (in TPD) and capacity of boilers/ Furnace/Thermo heater etc.

Type	No.of Boiler/'Heater/ Evaporator/Incinerator/DG Set/Other	Capacity	Type of Boiler/'Heaters /Evaporators/Incinerator/DG Sets/Others	Type of Fuel	Fuel consumption rate in MT/hour or KL/hour or M3 /hour
Boilers	HP-185	2.5 TPH	Water cum smoke tube	Steam Coal and Methane gas	217 Kg / hour
DG Sets	125 KVA	125 KVA	Sudhir Cummins	Diesel	18 Litre / hour
DG Sets	400 KVA	400 KVA	Kirloskar Cummins	Diesel	50 Litre / hour

Type of Air Pollution Control Devices installed

98

Equipment Type	Equipment Name	Date/proposed date of installation	Efficiency(%reduction)	Final concentration of pollution being emitted
Offline Pulse Jet Bag Filter Unit + Stack	Boilers	Sat Jan 10 00:01:00 IST 2015	95%	PM=124.07 mg/Nm3, SOX= 68.16 mg/Nm3, NOx = 52.90 mg/Nm3
Accoustic Enclosure, Exhaust Muffer & Stack	DG Sets	Mon Jan 14 00:12:00 IST 2019	95%	[FOR 125 KVA PM = 0.00.07 g/kw-hr, NOx = 1.1 g/kw-hr, CO = 1.3 g/kw-hr] and [FOR 400 KVA PM = 0.09 g/kw-hr, NOx = 1.5 g/kw-hr, CO = 1.4 g/kw-hr]

Sources of emissions and type of pollutants

Name and location of the process vessel to which the stack/ vent is attached	Rate of emission in Kg./hr	Concentration of pollution like SO 2 , NOX, H 2 S, Cl, HCl etc. in mg/NM 3	Height of Vent/outlet/stack from ground level in meters
Boiler	0.320 Kg/hr for SOx, 0.249 Kg/hr for NOx	SO2 = 68.16 mg/Nm3, NOx = 52.90 mg/Nm3	30 meters

APOORV DEVGAN
Digitally signed by APOORV DEVGAN
Date: 2021.09.27 21:13:35 +05'30'

Apoorv Devgan (IAS)
Member Secretary
For & on behalf of
(H. P. State Pollution Control Board)

Endst. No.:

Copy To:-

1.The Regional Officer, HPSPCB, Parwanoo for kind information and further necessary action please.

APOORV DEVGAN
Digitally signed by APOORV DEVGAN
Date: 2021.09.27 21:14:07 +05'30'

Apoorv Devgan (IAS)
Member Secretary
For & on behalf of
(H. P. State Pollution Control Board)

TERMS AND CONDITIONS

A. SPECIFIC CONDITIONS

1. This 'Renewal of Consent to Operate' is only for the purpose and under the provision of Water Act, 1974 and Air Act, 1981 as the case may be, and will not construed as substitute for mandatory clearances required for the project under any other law/regulation/direction/order and the applicant shall obtain any such mandatory clearance before taking any steps to establish industry/ industrial plant, operation or process or any treatment and disposal system or an extension or addition thereto.

2. Nothing in this Consent shall be deemed to neither preclude the institution of any legal action nor relieve the applicant from any responsibilities, liabilities or penalties to which the applicant is or may be subjected to under this or any other Act.

3. The unit shall apply for further renewal/extension in the validity of the Consent, before the expiry of this 'Renewal of Consent to Operate'.

4. i) The unit shall ensure compliance of Waste Management Rules i.e. Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016/ Plastic Waste Management Rules, 2016/ E-Waste (Management) Rules, 2016/Construction & Demolition Waste Management Rules, 2016 and Manufacture, Storage & Import of Hazardous Chemical Rules, 1989 and provisions made thereunder, as amended from time to time, without any adverse effect on the environment, in any manner (As Applicable).

   ii) The unit shall made provisions for the compliance Solid Waste Management Rules, 2016 and provisions made thereunder and unit shall also not practice burning activity of solid waste/waste generated from fuel within/outside premises, to avoid public nuisance.

5. This 'Renewal of Consent to Operate' is for:-

i) The emissions from all sources conforming to the norms as prescribed in Schedule-I of Environment (Protection) Rules, 1986 as amended from time to time.

ii) Noise and Ambient Air Quality shall be maintained within Ambient Air Quality Standards for noise as specified in Schedule-III of Environment (Protection) Rules, 1986 and Noise Pollution (Regulation and Control) Rules, 2000, as amended from time to time.

iii) The effluent (Domestic/Industrial) shall conform to the limits as prescribed in Schedule-I or Schedule-VI or Industry specific standards of Environment (Protection) Rules, 1986 as amended from time to time.

iv) Sewage and sullage generated from the unit to be disposed-off in a properly designed septic tank system/Sewage Treatment Plant/ Public Sewer System (as applicable).

6. The unit shall ensure regular operation and maintenance of Pollution Control Devices to achieve the norms as prescribed in Environment (Protection) Act, 1986 and the achievement of the adequacy and efficiency of the effluent treatment plant/pollution control devices/re- circulation system installed shall be the entire responsibility of the unit.

7. The unit shall ensure regular operation and maintenance of separate energy meter/flow meter for running pollution control devices and shall also maintain record with respect to operation of air pollution control device/effluent treatment plant, so as to the satisfy the Board regarding the regular operation of air pollution control device/effluent treatment plant and shall maintain log book for the monthly reading / record.

8. **CONDITIONS UNDER WATER (PREVENTION & CONTROL OF POLLUTION) ACT, 1974.**

a) The unit shall maintain the record regarding the daily water consumption as per flow meter installed.

b) The unit shall ensure that terminal manhole(s) at the end of each collection system and a manhole upstream of final outlet (s) out of the premises of the industry for measurement of flow and for taking samples.

c) The pollution control devices shall be interlocked with the manufacturing process of the industry (if applicable) and the authorized outlet and mode of disposal shall not be changed without the prior written permission of the Board. Unit shall not use any unauthorized outlet(s) for discharging effluents from its premises.

d) Solids, sludge, filter backwash or other pollutant removed from or resulting from treatment or control of waste waters shall be disposed-off in scientific manner.

9. **CONDITIONS UNDER AIR (PREVENTION & CONTROL OF POLLUTION) ACT, 1981.**

a) The unit shall ensure port-holes, platforms and/or other necessary facilities as may be required for collecting samples of emissions from any chimney, flue or duct or any other outlets as per the specifications.

b) The unit shall discharge air emissions through a stack of minimum height as specified in 'Consent to Establish' and shall follow standards laid down from time to time.

c) For industrial furnaces and kilns, the criteria for selection of stack height would be based on fuel used for the corresponding steam generation & as per specification.

d) Unit shall ensure Stack height for diesel generating sets as per specification.

e) The unit shall ensure regular operation and maintenance of installed canopy and stack of the D.G sets so as to control the noise & air pollution in order to comply with the provision of notification No GSR-371 E dated 17-5-2002 or direction as issued by MOEF from time to time, under Environment (Protection) Act, 1986.

f) The unit shall ensure disposal of boiler ash/fuel ash through authorized person or within premises in a scientific manner (as the case may be) and shall maintain proper record for the same, if applicable.

g) The unit shall ensure regular operation and maintenance of air pollution control arrangements for control emission from its coal/fuel handling area and from handling, transportation and processing of raw material & product of the industry.

10. The unit shall ensure valid and approved on-site and off-site emergency plan, approved by the Chief Inspector of Factories, Himachal Pradesh (If applicable).

11. The unit shall ensure regular operation and maintenance of real time online monitoring equipment's and provisions for the un-interrupted transfer of data as per guidelines of CPCB (if applicable).

12. The unit shall provide adequate arrangements for fighting the accidental leakages/ discharge of any air pollutant/gas/liquids from the vessels, mechanical equipment's etc. which are likely to cause environmental pollution.

13. The unit shall plant & maintain minimum three layer of trees so far possible as per plantation guide (may be download from the website http://hppcb.nic.in/plantationguide.pdf) all along the boundary of the industrial premises and check air/water/noise pollution at source.

14. Any guidelines issued by the Central Government/State Government/MoEF/CPCB/SPCB/any other authority concerned, shall be binding.

15. This 'Renewal of Consent to Operate' is subject to orders on any litigation pending in any Court of Law. Any direction/order issued by any court shall be binding (if any).

16. The Board reserves the right to revoke the 'Renewal of Consent to Operate' granted to the industry at any time, in case the industry is found violating the provisions of Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 as amended from time to time.

17. The unit shall comply with any other conditions laid down or directions issued in due course by the Board under the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981.

B. OTHER CONDITIONS

1. The unit shall comply with the conditions imposed by the MoEF/State Level Environment Impact Assessment Authority/ District Level Environment Impact Assessment Authority in the environmental clearance granted to it as required under EIA notification dated 14-9-06, if applicable.

2. The issuance of this consent does not convey any property right in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State or Local Laws or Regulations.
3. Stone Crusher units shall comply with the provisions of guidelines notified by the State Government vide Notification No. STE-E(3)-11/2012, dated 29-05-2014 (If Applicable).
4. Brick Kiln units shall comply with the provisions of guidelines notified by the MoEF vide Notification No. G.S.R.233.(E), dated-15-03-2018 and by the State Government vide Notification No. STE-E(5)-6/2013, dated-07-03-2014 (If Applicable).
5. Hydroelectric Projects shall install Online Real Time Monitoring System for the measurement of 15% of minimum discharge in lean season as per orders of Court/Government. The unit shall also ensure provisions for the regular and uninterrupted transfer of data from the real time online monitoring system for 15% of minimum discharge of flow to SPCB, failing which unit shall be liable for action on account of violation of the directions issued by Court/Government/SPCB in this regard (If Applicable).
6. Unit shall strictly adhere to the capacity approved by the Industries Department/ Department of Tourism & Civil Aviation/any other concerned Authority (As Applicable).
7. The unit shall not cause any nuisance/traffic hazard in vicinity of the area.
8. The unit shall ensure that there will not be significant visible dust emissions beyond the property line.
9. The unit shall obtain and submit Insurance cover as required under the Public Liability Insurance Act, 1991.
10. Unit shall submit all the annual/quarterly returns, as per timeline.
11. The industry shall submit a yearly certificate to the effect that no addition/up-gradation/ modification/ modernization has been carried out during the previous year otherwise the industry shall apply for the varied consent.
12. The unit shall maintain record regarding the operation of effluent treatment plant i.e. record of quantity of chemicals and energy utilized for treatment and sludge generated from treatment so as to satisfy the Board regarding regular and proper operation of pollution control equipment.
13. Any amendments/revisions made by the Board/CPCB/MOEF in the emission/stack height standards shall be applicable to the industry from the date of such amendments/revisions.

APOORV DEVGAN
Digitally signed by APOORV DEVGAN
Date: 2021.09.27 21:14:39 +05'30'

Apoorv Devgan (IAS)
Member Secretary
For & on behalf of
(H. P. State Pollution Control Board)

H.P.STATE POLLUTION CONTROL BOARD

HIM PARIVESH, PHASE-III, NEW SHIMLA-171009.
Ph. No. 0177-2673766,2673276, Fax No. 2673018

HPSPCB/HWMR/10058 **Date : 01/05/2023**

To, **M/s**
Mohan Meakin Limited, Kasauli Distillery
VPO Kasauli, District Solan, H.P.Kasauli
Arki,Distt.Solan Parwanoo(HP)

Subject: **Renewal of Authorization for operating a facility for generation, storage and disposal of Hazardous Wastes.**

1.	(a) Number of authorization	:	SOL-PWN-159
	(b) Period of Authorization	:	5 years
	(c) Valid from	:	01/04/2023
	(d) Date of Expiry	:	31/03/2028

Details Of Authorization

S.No.	Categories/ Waste Streams of Hazardous Waste	Type of Hazardous Waste	Quantity of Hazardous Waste	Mode of Disposal/ recycling/ utilization/ co-processing etc.
1	5. Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1 Used or spent oil	57 Ltr/year	SSWML TSDF, Dabhota

Recyclable hazardous wastes procured per annum

S.No.	Hazardous Wastes Type	Passbook Type	Quantity	Source (Domestic/Imported)

Schedule	Name of Process	Name of Process Waste	Passbook Type	Quantity	Mode Of Disposal	Source of generation of waste)

2. The Authorization/ Renewal of Authorization shall be in force for a period up to 31, March 2028 subject to concurrent validity of the Consent/ Renewal of Consent under Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 or any other authorization required from the State Board.

3. Mohan Meakin Limited, Kasauli Distillery, is hereby granted authorization/ renewal of authorization under Rule 6 of the Hazardous andOther Wastes (Management and Transboundary Movement) Rules, 2016 of Environment (Protection) Act, 1986 to operate a facility for generation and storage of hazardous waste in the premises situated at above mentioned address.

4. The authorization/ renewal of authorization is subjected to the terms & conditions as given in over leaf. You shall maintain the records of hazardous waste handled by you in Form-3 and submit;
i) Annual return in Form-4 on or before the 30th day of June of every year.
ii) Apply for the renewal of authorization on prescribed Form-I through concerned Regional Office before the expiry of this authorization.
iii) The unit shall submit manifest in Form-10 to the concerned Regional Office regularly for the disposal of hazardous waste to the authorized facility.

5. This authorization/ renewal of authorization is without prejudice to any action, which may be due against the unit for violation of any other Environmental Act/ Rule.

6. The occupier, importer/ exporter and operator of TSDF shall be liable for all damages caused to the environment & shall be liable to payfinancial penalities as levied by HP State Pollution Control Board & CPCB for violation of provisions of Hazardous and Other Wastes(Management & Transboundary Movement) Rules, 2016 as per Rule 23 (1) & (2).

7. The industry shall send its waste i.e. Used/ Spent Oil to the authorized recycler through authorized transporter on regular basis along with contaminated containers to the facilities authorized by State Board for its treatment and disposal and shall submit manifest in Form-10regularly to the concerned Regional Office of the State Board.

8. There exists a Common Treatment Storage & Disposal Facility (TSDF) at Village Majra, PO Dhabota, Tehsil Nalagarh, Distt. Solan (HP).The industry shall comply with the provisions of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules,2016 w.r.t. management and handling of hazardous wastes in letter and spirit.

9. The unit shall not store the hazardous waste at their premises for more than the period prescribed as per office order No. HPSPCB/ 63rdBoard Meeting/ Notification/ 11-9907-50 dated 02.08.2011 available in the State Board Websitehttp://hppcb.nic.in/Notification/HWM/HWM_Notification.pdf.

10. The utilization of hazardous and other wastes as a resource or after pre-processing either for co-processing or for any other use, including within the premises of the generator, shall be carried out only after obtaining authorization from the State Pollution Control Board inrespect of waste on the basis of standard operating procedures or guidelines provided by the central Pollution Control Board.

11. Unit shall comply with the provisions of Rule 20(2) of the Hazardous and Other Wastes (Management and Transboundary Movement)Rules, 2016, failing which authorization granted to the unit, shall stand cancelled.

Approved By
Member Secretary
(H. P. State Pollution Control Board)

Copy to:

1. The Consent Branch, Head Office for information please.
2. Case File.
3. The Regional Officer, HP State Pollution Control Board, Parwanoo, Distt. Solan for information in reference to case recommended by you and you are directed to ensure the compliance of conditions of Authorization and assess the quantum of hazardous waste generated by the unit and submit report thereof to this office.
4. M/s Shivalik Solid Waste Management Ltd., Village Majra, P.O. Dhabota, Tehsil Nalagarh Distt. Solan (H.P.) for information and necessary action.

ANIL JOSHI
Digitally signed by ANIL JOSHI
Date: 2023.07.06 18:22:54 +05'30'

Anil Joshi, IFS
Member Secretary
For & on behalf of
(H. P. State Pollution Control Board)

TERMS AND CONDITIONS OF AUTHORISATION

1. The authorized person shall comply with the provisions of the Environment (Protection) Act 1986 and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the H.P. State Pollution Control Board.
3. The pers on authorized shall not rent, lend, sell, dispose, transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Board.
4. Any unauthorized change in personnel, equipment and working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
5. It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.
6. An application for the Renewal of Authorization shall be made as per Rule 6 of the Hazardous and Other Wastes (Management and Transboundary Movement)Rules, 2016 i.e. in Form-I before expiry of authorization.
7. The occupier authorized for generation, handling, collection, reception, treatment, transport, storage, recycling, reprocessing, recovery, reuse and disposal of hazardous wastes and shall maintain records of such operations along with data on environmental surveillance in Form-3 and shall submit Annual Returnsto the Board in Form-4 by on or before the 30th day of June of every year.
8. The authorized person shall report about the accident which occurs at the hazardous waste storage site immediately to HPSPCB
9. Before transferring ownership or operation of a facility/unit during its operating life or of a disposal facility during the post closure period, the owner/ operator of the unit must seek prior permission of the State Board and must notify the near occupier or operator in writing of the requirements of this authorization. An occupier or operator of the requirements of this authorization in no way relieves the new occupier or operator of his obligation to comply with all applicable requirements.
10. Before the hazardous waste is stored or dumped in the facility, he (she) must conduct a detailed physical and chemical analysis of hazardous waste sample collected from the site and to report to the State Board.
11. An occupier/ generator shall not store hazardous wastes in open ground. It must be stored in an isolated site away from plant operational area.
12. The storage tank/container of the hazardous waste should be in good condition and made of (or lined with) an appropriate material which does not react with the waste contained in it and can with-stand the physical and environmental conditions during storage and handling.
13. The occupier generating hazardous waste shall mark each container holding hazardous waste with the marking “HAZARDOUS WASTE” both in English and Hindi.
14. The storage area should be fenced properly and a SIGN/ NOTICE Board indicating “DANGER” and “HAZARDOUS WASTE” sign & nature of the waste with quantum of storage, generation shall be placed at storage site.
15. The occupier generating hazardous waste shall provide the required safety devices like safety mask, goggles, hand-gloves, gumboots etc. to the workers for handling the hazardous waste. The occupier shall impart training to the personnel/ workers for handling and storage of hazardous waste.
16. Non-compatible hazardous waste and material shall not be mixed in the same storage container.
17. The industry shall store the hazardous waste in lined pits provided within the industry premises for the period as prescribed by the State Board. The pit(s) should be covered from the top. The storage area shall be demarcated by a barbed fencing with a “DANGER” and “HAZARDOUS WASTE” sign. The unit shalltransfer the hazardous waste to TSDF at Village Majra, PO Dhabota, Tehsil Nalagarh, Distt. Solan (HP).
18. There should be sufficient & efficient provisions to avoid under ground water contamination due to waste storage and disposal. The quality of ground water where the waste has been stored shall be monitored by the industry.
19. The occupier shall be responsible for any damage of life/or property during storage of his waste and will obtain Public Liability Insurance, wherever applicable.
20. The industry shall take steps wherever feasible, for reduction in hazardous waste generated or recycled or reused and submit the report along with application for renewal of authorization.
21. The occupier who is generating hazardous waste shall draw an Emergency Plan for meeting any emergency due to On Site Storage of Hazardous Waste inside its premises.

22. The occupier shall obtain 'No Objection Certificate' from the State Pollution Control Board of both the States in case of transport of hazardous wastes for finaldisposal to a facility for treatment, storage and disposal existing in a State other than the State where the hazardous waste is generated. The occupier shallintimate the concerned State Pollution Control Boards before he hands over the hazardous wastes to the transporter in case of transportation of hazardous wastes through a State other than the State of origin or destination

23. The hazardous waste should be transported through a transporter having valid authorization of the HPSPCB.

24. No transportation of hazardous wastes shall be under taken unless it is accompanied by five copies of the manifest (Form-10) as per the color codes. Thetransporter shall give a copy of the manifest duly signed with date to the occupier and retain the remaining four copies to be used as prescribed in condition no. 26

25. The occupier shall provide the transporter with six copies of the manifest in Form 10 as per the color codes indicated below:

    Copy 1 (White) To be forwarded by the sender to the State Pollution Control Board after signing all the seven copies.

    Copy 2 (Yellow) To be retained by the sender after taking signature on it from the transporter and rest of the five signed copies to be carried by the transporter.

    Copy 3 (Pink) To be retained by the receiver (actual user or treatment storage and disposal facility operator) after receiving the waste and the remaining four copies are to be duly signed by the receiver.

    Copy 4 (Orange) To be handed over to the transporter by the receiver after accepting waste.

    Copy 5 (Green) To be sent by the receiver to the State Pollution Control Board.

    Copy 6 (Blue) To be sent by the receiver to the sender.

    Copy 7 (Grey) To be sent by the receiver to the State Pollution Control Board of the sender in case the sender is in another State.

26. The occupier shall provide the transporter with relevant information in Form-9, regarding the hazardous nature of the wastes and measures to be taken in case ofan emergency and shall label the hazardous and other wastes containers as per Form-8.

27. The industry shall get registered with MoEF under Battery (M&H) Rules, 2001 along with authorization from HPSPCB under Hazardous and Other Wastes(Management and Transboundary Movement) Rules, 2016 for recycling/ reprocessing the battery scrap, lead dross etc., if applicable.

28. The industry shall ensure that E-waste generate if any, by them is channelized to authorized collection centre/ registered dismantler or recycler or is returned tothe pickup or take back services provided by the producer

29. The occupier generating hazardous waste specified in Schedule-IV may sell it only to recycler having a valid authorization from State Pollution Control Board for recycling or reprocessing.

30. Bulk Consumer & Auctioneer of used lead acid batteries shall file return in Form-VIII & IX respectively of Batteries (M&H) Rules 2001.

31. The unit shall required to display quantum, storage of hazardous wastes on a Sign Board of size 6'x4' at main gate;

32. The occupier, importer, transporter and operator of the facility shall be liable for all the damages caused to the environment or third party due to improper handling of hazardous wastes or disposal of hazardous wastes.

33. The utilization of hazardous and other wastes as a resource or after pre-processing either for co-processing or for any other use, including within the premises of the generator, shall be carried out only after obtaining authorization from the State Pollution Control Board in respect of waste on the basis of standard operatingprocedures or guidelines provided by the central Pollution Control Board.

34. RO rejects, if generated by the industries shall be disposed off to in MEE or to TSDF.

35. Utilization of hazardous waste as a supplementary resource or for energy recovery or after processing shall be carried out by the units only after obtaining approval from CPCB if applicable.

36. Import of hazardous wastes shall be made in accordance to the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

37. The firm shall get the sample of sludge/ slag / or process solid waste, if any, analysed for Hazardous Waste constituents/ leachate properties and inform this office accordingly.

38. The authorization is subjected to the conditions mentioned above and also to such conditions as may be specified in the rules from time to time in force under the Environment (Protection) Act 1986.

By Order

Member Secretary
(H. P. State Pollution Control Board)

CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड
HEAD OFFICE - DELHI
Parivesh Bhavan, East Arjun Nagar, Delhi - 110032

TC-7723

Water Laboratory (ANALYSIS REPORT) जल प्रयोगशाला (विश लेषण आख्या)

Waste Water Samples for Physico-Chemical Analysis Report भौतिक-रासायनिक विश्लेषण रिपोर्ट के लिए नमूने

ULR No: TC772324500000091F

Samples Registration No. & Date नमूने की पंजीकरण सं. एवं तिथि	: **WATER/WW/2425/SR00069, 05/07/2024**	Report No. & Date of Issue आख्या सं एवं जारी करने की तिथि	: **WATER/2425/WW/00091,24/07/2024**
Analysis Request Division/Organization विश्लेषण अनुरोध प्रभाग/संगठन	: **IPC-III**	Report sent to (Name & Address of Indentor) आख्या किसे जारी की गयी (नाम एवं प्रभाग)	: **IPC-III**
Sample Details नमूना विवरण	: **ETP /Treatment plant Samples**	Sample Matrix नमूना मैट्रिक्स	: **Waste Water**
Sample Collected by नमूने एकत्रित करने वाले का नाम	: **Kamlesh Singh,Kamlesh Singh and other members**	Date & Time of Sample Receipt नमूने प्राप्ति की तिथि एवं समय	: **05/07/2024 16:26 PM**
Sampling Plan Preference नमूनाकरण योजना प्राथमिकता	:	Sample Analysis Period नमूने के विश लेषण की अवधि	: **10/06/2024 to 23/07/2024**
Report Status रिपोर्ट स्थिति	: **Final**		

Sr.No	Date of Sample Collection नमूना संग्रहण की तिथि	Field Code नमूना स्थल	pH	COD	BOD	TSS	TDS	Cond.
1	03/07/2024	KD-1	3.5	52190	24400	2009	30196	5900
2	03/07/2024	KD-2	5	44126	21050	6405	12788	5950
3	03/07/2024	KD-3	5.1	11751	5580	1638	6580	6500
4	03/07/2024	KD-5	7.8	796	334	262	3560	8460
5	03/07/2024	KD-7	7.7	183	66	146	3424	4720
6	03/07/2024	KDFO	6.6	36	14	11	444	1132

BDL : Below Deduction Limit कटौती सीमा से नीचे

Remarks (if any) : , , ,

Analyst	Supervisor & Reviewer	Approved By (Lab InCharge)
Vijay Laxmi , Amit Kumar sharma	Syed M Bilal	Dr. K. Ranganathan

CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड
HEAD OFFICE - DELHI
Parivesh Bhavan, East Arjun Nagar, Delhi - 110032

TC-7723

Water Laboratory (ANALYSIS REPORT) जल प्रयोगशाला (विश लेषण आख्या)

Waste Water Samples for Physico-Chemical Analysis Report भौतिक-रासायनिक विश्लेषण रिपोर्ट के लिए नमूने

ULR No: TC772324500000091F

Note: All the concentrations are expressed in mg/l except pH and Conductivity (µmho/cm). नोट : पीएच तथा चालकता (µmho/cm) के अतिरिक्त सभी सांद्रता मिग्रा/ली. में व्यक्त की गई हैं ।

Statement कथन :

1. The results relate only to the samples tested. परिणाम केवल जांचे गए नमूनों से संबंधित है।
2. The report shall not be reproduced except in full without written approval of the laboratory पूर्ण रिपोर्ट के अतिरिक्त प्रयोगशाला के लिखित अनुमोदन के बिना आख्या की आंशिक प्रतिकृति नहीं की जायेगी ।
3. BDL & Test methods are mentioned on back side of this report. बी डी एल एवं परीक्षण विधि आख्या के अंत में दिए गए हैं।
4. Samples will be retained only for one Week after receipt of Report. संबंधित आख्या जारी होने के बाद नमूने केवल प्राप्ति के एक सप्ताह बाद तक ही सुरक्षित रखे जाएंगे।

*** END OF REPORT आख्या समाप्ति ***

Parameter Name	Test Method	Unit	Limit of Detection	Uncertainty of Measurment
pH	APHA 4500 H+ - B, 23rd Ed.: 2017		2	
COD	APHA 5220 B, 23rd Ed.: 2017	mg/l	5	
BOD	APHA 5210 B, 23rd Ed. 2017, 4500 OC (5 days at 20C). IA - 3025 part 44: 1993 BOD (3 days at 27 C): 2017	mg/l	1	
TSS	APHA 2540 D, 23rd Ed.: 2017	mg/l	10	
TDS	APHA 2540 C, 23rd Ed.: 2017	mg/l	10	
Cond.	APHA 2510 - B, 23rd Ed.: 2017	µS/cm	1	

Analyst	Supervisor & Reviewer	Approved By (Lab InCharge)
Vijay Laxmi , Amit Kumar sharma	Syed M Bilal	Dr. K. Ranganathan

CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड
HEAD OFFICE - DELHI
Parivesh Bhavan, East Arjun Nagar, Delhi - 110032

Water Laboratory (ANALYSIS REPORT) जल प्रयोगशाला (विश लेषण आख्या)

Waste Water Samples for Physico-Chemical Analysis Report भौतिक-रासायनिक विश्लेषण रिपोर्ट के लिए नमूने

Samples Registration No. & Date नमूने की पंजीकरण सं. एवं तिथि	: **WATER/WW/2425/SR00069, 05/07/2024**	Report No. & Date of Issue आख्या सं एवं जारी करने की तिथि	: **WATER/2425/WW/00091,24/07/2024**
Analysis Request Division/Organization विश्लेषण अनुरोध प्रभाग/संगठन	: **IPC-III**	Report sent to (Name & Address of Indentor) आख्या किसे जारी की गयी (नाम एवं प्रभाग)	: **IPC-III**
Sample Details नमूना विवरण	: **ETP /Treatment plant Samples**	Sample Matrix नमूना मैट्रिक्स	: **Waste Water**
Sample Collected by नमूने एकत्रित करने वाले का नाम	: **Kamlesh Singh,Kamlesh Singh and other members**	Date & Time of Sample Receipt नमूने प्राप्ति की तिथि एवं समय	: **05/07/2024 16:26 PM**
Sampling Plan Preference नमूनाकरण योजना प्राथमिकता	:	Sample Analysis Period नमूने के विश लेषण की अवधि	: **10/06/2024 to 23/07/2024**
Report Status रिपोर्ट स्थिति	: **Final**		

Sr.No	Date of Sample Collection नमूना संग्रहण की तिथि	Field Code नमूना स्थल	MLSS	MLVSS	Color
1	03/07/2024	KD-1	-	-	4300
2	03/07/2024	KD-2	-	-	6800
3	03/07/2024	KD-3	-	-	1090
4	03/07/2024	KD-5	-	-	593
5	03/07/2024	KD-7	-	-	95
6	03/07/2024	KDFO	-	-	BDL
7	03/07/2024	KD-4	1663	1294	-
8	03/07/2024	KD-6	883	766	-

Analyst	Supervisor & Reviewer	Approved By (Lab InCharge)
Vijay Laxmi , Amit Kumar sharma	Syed M Bilal	Dr. K. Ranganathan

CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड
HEAD OFFICE - DELHI
Parivesh Bhavan, East Arjun Nagar, Delhi - 110032

Water Laboratory (ANALYSIS REPORT) जल प्रयोगशाला (विश लेषण आख्या)

Waste Water Samples for Physico-Chemical Analysis Report भौतिक-रासायनिक विश्लेषण रिपोर्ट के लिए नमूने

BDL : Below Deduction Limit कटौती सीमा से नीचे

Remarks (if any) : , , ,

Note: All the concentrations are expressed in mg/l except pH and Conductivity (µmho/cm). नोट : पीएच तथा चालकता (µmho/cm) के अतिरिक्त सभी सांद्रता मिग्रा/ली. में व्यक्त की गई हैं ।

Statement कथन :

1. The results relate only to the samples tested. परिणाम केवल जांचे गए नमूनों से संबंधित है।
2. The report shall not be reproduced except in full without written approval of the laboratory पूर्ण रिपोर्ट के अतिरिक्त प्रयोगशाला के लिखित अनुमोदन के बिना आख्या की आंशिक प्रतिकृति नहीं की जायेगी ।
3. BDL & Test methods are mentioned on back side of this report. बी डी एल एवं परीक्षण विधि आख्या के अंत में दिए गए हैं।
4. Samples will be retained only for one Week after receipt of Report. संबंधित आख्या जारी होने के बाद नमूने केवल प्राप्ति के एक सप्ताह बाद तक ही सुरक्षित रखे जाएंगे।

*** END OF REPORT आख्या समाप्ति ***

Parameter Name	Test Method	Unit	Limit of Detection	Uncertainty of Measurment
MLSS	APHA 2540 D, 23rd Ed.: 2017	mg/l	10	
MLVSS	APHA 2540 D, 23rd Ed.: 2017	mg/l	10	
Color	APHA 2120 C Spectrophotometric Method, 23rd Ed.: 2017	Hazen	5	

Analyst	Supervisor & Reviewer	Approved By (Lab InCharge)
Vijay Laxmi , Amit Kumar sharma	Syed M Bilal	Dr. K. Ranganathan

CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड
HEAD OFFICE - DELHI
Parivesh Bhavan, East Arjun Nagar, Delhi - 110032

TC-7723

Water Laboratory (ANALYSIS REPORT) जल प्रयोगशाला (विश लेषण आख्या)

Fresh Water Samples for Physico-Chemical Analysis Report भौतिक-रासायनिक विश्लेषण रिपोर्ट के लिए नमूने

ULR No: TC772324500000092F

Samples Registration No. & Date नमूने की पंजीकरण सं. एवं तिथि	: **WATER/FW/2425/SR00064, 05/07/2024**	Report No. & Date of Issue आख्या सं एवं जारी करने की तिथि	: **WATER/2425/FW/00092,24/07/2024**
Analysis Request Division/Organization विश्लेषण अनुरोध प्रभाग/संगठन	: **IPC-III**	Report sent to (Name & Address of Indentor) आख्या किसे जारी की गयी (नाम एवं प्रभाग)	: **IPC-III**
Sample Details नमूना विवरण	: **Groundwater from borewell**	Sample Matrix नमूना मैट्रिक्स	: **Fresh Water**
Sample Collected by नमूने एकत्रित करने वाले का नाम	: **Kamlesh Singh,Kamlesh SIngh and other members**	Date & Time of Sample Receipt नमूने प्राप्ति की तिथि एवं समय	: **05/07/2024 15:41 PM**
Sampling Plan Preference नमूनाकरण योजना प्राथमिकता	:	Sample Analysis Period नमूने के विश लेषण की अवधि	: **05/07/2024 to 10/07/2024**
Report Status रिपोर्ट स्थिति	: **Final**		

Sr.No	Date of Sample Collection नमूना संग्रहण की तिथि	Field Code नमूना स्थल	pH	COD	TDS	Cond.	Cl−	TA	Mg2+	TH
1	03/07/2024	GWMM	8.6	19	222	392	29	60	5	62

Sr.No	Date of Sample Collection नमूना संग्रहण की तिथि	Field Code नमूना स्थल	PO4-P	Ca2+	NO3- N	F−
1	03/07/2024	GWMM	0.07	16	1.89	BDL

BDL : Below Deduction Limit कटौती सीमा से नीचे

Remarks (if any) : , ,

Note: All the concentrations are expressed in mg/l except pH and Conductivity (µmho/cm). नोट : पीएच तथा चालकता (µmho/cm) के अतिरिक्त सभी सांद्रता मिग्रा/ली. में व्यक्त की गई हैं ।

Analyst	Supervisor & Reviewer	Approved By (Lab InCharge)
Pravin Kumar Gupta , Atul Sharma , Inder Mohan	B. Sasi Devi	Dr. K. Ranganathan

CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड
HEAD OFFICE - DELHI
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TC-7723

Water Laboratory (ANALYSIS REPORT) जल प्रयोगशाला (विश लेषण आख्या)

Fresh Water Samples for Physico-Chemical Analysis Report भौतिक-रासायनिक विश्लेषण रिपोर्ट के लिए नमूने

ULR No: TC772324500000092F

Statement कथन :

1. The results relate only to the samples tested. परिणाम केवल जांचे गए नमूनों से संबंधित है।
2. The report shall not be reproduced except in full without written approval of the laboratory पूर्ण रिपोर्ट के अतिरिक्त प्रयोगशाला के लिखित अनुमोदन के बिना आख्या की आंशिक प्रतिकृति नहीं की जायेगी ।
3. BDL & Test methods are mentioned on back side of this report. बी डी एल एवं परीक्षण विधि आख्या के अंत में दिए गए हैं।
4. Samples will be retained only for one Week after receipt of Report. संबंधित आख्या जारी होने के बाद नमूने केवल प्राप्ति के एक सप्ताह बाद तक ही सुरक्षित रखे जाएंगे।

*** END OF REPORT आख्या समाप्ति ***

Parameter Name	Test Method	Unit	Limit of Detection	Uncertainty of Measurment
pH	APHA 4500 H+ - B, 23rd Ed.: 2017		2	
COD	APHA 5220 B, 23rd Ed.: 2017	mg/l	2	
TDS	APHA 2540 C, 23rd Ed.: 2017	mg/l	5	
Cond.	APHA 2510 - B, 23rd Ed.: 2017	µS/cm	1	
Cl–	APHA 4500 - Cl B, 23rd Ed.: 2017	mg/l	2	
TA	2320 B Titration Method, 23rd Ed.: 2017	mg/l	5	
Mg2+	APHA 3500 - Mg B, 23rd Ed.: 2017	mg/l	2	
TH	APHA 2340 C, 23rd Ed.: 2017	mg/L	5	
PO4-P	APHA 4500 - PD, 23rd Ed.: 2017	mg/l	0.05	
Ca2+	2340 EDTA Titrimetric method, 23rd Ed.: 2017	mg/l	2	
NO3- N	APHA 4500 - NO3 B, 23rd Ed.: 2017	mg/l	0.5	
F–	APHA 4500 - F D, 23rd Ed.: 2017	mg/l	0.2	

Analyst	Supervisor & Reviewer	Approved By (Lab InCharge)
Pravin Kumar Gupta , Atul Sharma , Inder Mohan	B. Sasi Devi	Dr. K. Ranganathan

CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड
HEAD OFFICE - DELHI
Parivesh Bhavan, East Arjun Nagar, Delhi - 110032

Water Laboratory (ANALYSIS REPORT) जल प्रयोगशाला (विश लेषण आख्या)

Fresh Water Samples for Physico-Chemical Analysis Report भौतिक-रासायनिक विश्लेषण रिपोर्ट के लिए नमूने

Samples Registration No. & Date नमूने की पंजीकरण सं. एवं तिथि	: **WATER/FW/2425/SR00064, 05/07/2024**	Report No. & Date of Issue आख्या सं एवं जारी करने की तिथि	: **WATER/2425/FW/00092,24/07/2024**
Analysis Request Division/Organization विश्लेषण अनुरोध प्रभाग/संगठन	: **IPC-III**	Report sent to (Name & Address of Indentor) आख्या किसे जारी की गयी (नाम एवं प्रभाग)	: **IPC-III**
Sample Details नमूना विवरण	: **Groundwater from borewell**	Sample Matrix नमूना मैट्रिक्स	: **Fresh Water**
Sample Collected by नमूने एकत्रित करने वाले का नाम	: **Kamlesh Singh,Kamlesh SIngh and other members**	Date & Time of Sample Receipt नमूने प्राप्ति की तिथि एवं समय	: **05/07/2024 15:41 PM**
Sampling Plan Preference नमूनाकरण योजना प्राथमिकता	:	Sample Analysis Period नमूने के विश लेषण की अवधि	: **05/07/2024 to 10/07/2024**
Report Status रिपोर्ट स्थिति	: **Final**		

Sr.No	Date of Sample Collection नमूना संग्रहण की तिथि	Field Code नमूना स्थल	TSS	SO□²□	Color	Turbidity
1	03/07/2024	GWMM	11	20	9	7

BDL : Below Deduction Limit कटौती सीमा से नीचे

Remarks (if any) : , ,

Note: All the concentrations are expressed in mg/l except pH and Conductivity (µmho/cm). नोट : पीएच तथा चालकता (µmho/cm) के अतिरिक्त सभी सांद्रता मिग्रा/ली. में व्यक्त की गई हैं ।

Statement कथन :

1. The results relate only to the samples tested. परिणाम केवल जांचे गए नमूनों से संबंधित है।
2. The report shall not be reproduced except in full without written approval of the laboratory पूर्ण रिपोर्ट के अतिरिक्त प्रयोगशाला के लिखित अनुमोदन के बिना आख्या की आंशिक प्रतिकृति नहीं की जायेगी ।
3. BDL & Test methods are mentioned on back side of this report. बी डी एल एवं परीक्षण विधि आख्या के अंत में दिए गए हैं।
4. Samples will be retained only for one Week after receipt of Report. संबंधित आख्या जारी होने के बाद नमूने केवल प्राप्ति के एक सप्ताह बाद तक ही सुरक्षित रखे जाएंगे।

*** END OF REPORT आख्या समाप्ति ***

Analyst	Supervisor & Reviewer	Approved By (Lab InCharge)
Pravin Kumar Gupta , Atul Sharma , Inder Mohan	B. Sasi Devi	Dr. K. Ranganathan

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CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड

HEAD OFFICE - DELHI

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Water Laboratory (ANALYSIS REPORT) जल प्रयोगशाला (विश लेषण आख्या)

Fresh Water Samples for Physico-Chemical Analysis Report भौतिक-रासायनिक विश्लेषण रिपोर्ट के लिए नमूने

Parameter Name	Test Method	Unit	Limit of Detection	Uncertainty of Measurment
TSS	APHA 2540 D, 23rd Ed.: 2017	mg/l	10	
SO_4^{2-}			0	
Color	APHA 2120 C Spectrophotometric Method, 23rd Ed.: 2017	Hazen	5	
Turbidity	2130 B Nephlometric Method, 23rd Ed.: 2017	NTU	1	

Analyst	Supervisor & Reviewer	Approved By (Lab InCharge)
Pravin Kumar Gupta , Atul Sharma , Inder Mohan	B. Sasi Devi	Dr. K. Ranganathan

CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड
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Water Laboratory (ANALYSIS REPORT) जल प्रयोगशाला (विश लेषण आख्या)

Waste Water Samples for Physico-Chemical Analysis Report भौतिक-रासायनिक विश्लेषण रिपोर्ट के लिए नमूने

ULR No: TC772324500000115F

Samples Registration No. & Date नमूने की पंजीकरण सं. एवं तिथि	: **WATER/WW/2425/SR00070, 05/07/2024**	Report No. & Date of Issue आख्या सं एवं जारी करने की तिथि	: **WATER/2425/WW/00115,13/08/2024**
Analysis Request Division/Organization विश्लेषण अनुरोध प्रभाग/संगठन	: **IPC-III**	Report sent to (Name & Address of Indentor) आख्या किसे जारी की गयी (नाम एवं प्रभाग)	: **IPC-III**
Sample Details नमूना विवरण	: **Drain and treatment plant /water supply scheme**	Sample Matrix नमूना मैट्रिक्स	: **Waste Water**
Sample Collected by नमूने एकत्रित करने वाले का नाम	: **Kamlesh Singh,Kamlesh Singh and other members**	Date & Time of Sample Receipt नमूने प्राप्ति की तिथि एवं समय	: **05/07/2024 16:27 PM**
Sampling Plan Preference नमूनाकरण योजना प्राथमिकता	:	Sample Analysis Period नमूने के विश लेषण की अवधि	: **05/07/2024 to 06/08/2024**
Report Status रिपोर्ट स्थिति	: **Final**		

Sr.No	Date of Sample Collection नमूना संग्रहण की तिथि	Field Code नमूना स्थल	pH	COD	BOD	TSS	TDS	Cond.	Cl−	PO4-P
1	03/07/2024	MDS-1	8	20	4	25	220	479	66	0.2
2	03/07/2024	MDS-2	8.2	9	3	29	48	488	65	0.16
3	03/07/2024	IPWS	8.3	9	5	BDL	60	767	32	BDL
4	03/07/2024	OPWS	8.3	16	4	BDL	132	492	30	0.11
5	03/07/2024	CPWS	8.4	15	6	BDL	84	433	32	0.28

Sr.No	Date of Sample Collection नमूना संग्रहण की तिथि	Field Code नमूना स्थल	NO2-N	NO3- N	SO□²□	Na+	K+
1	03/07/2024	MDS-1	-	-	68	56	11.4

Analyst	Supervisor & Reviewer	Approved By (Lab InCharge)
Vijay Laxmi , Anil P	Syed M Bilal	Dr. K. Ranganathan

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CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड
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TC-7723

Water Laboratory (ANALYSIS REPORT) जल प्रयोगशाला (विश लेषण आख्या)

Waste Water Samples for Physico-Chemical Analysis Report भौतिक-रासायनिक विश्लेषण रिपोर्ट के लिए नमूने

ULR No: TC772324500000115F

Sr.No	Date of Sample Collection नमूना संग्रहण की तिथि	Field Code नमूना स्थल	NO2-N	NO3- N	SO□²□	Na+	K+
2	03/07/2024	MDS-2	-	-	66	48.6	8
3	03/07/2024	IPWS	-	-	56	16.3	BDL
4	03/07/2024	OPWS	-	-	55	-	-
5	03/07/2024	CPWS	-	-	52	33.3	1.8

BDL : Below Deduction Limit कटौती सीमा से नीचे

Remarks (if any) : , , , , , Turbidity instrument not available

Note: All the concentrations are expressed in mg/l except pH and Conductivity (µmho/cm). नोट : पीएच तथा चालकता (µmho/cm) के अतिरिक्त सभी सांद्रता मिग्रा/ली. में व्यक्त की गई हैं ।

Statement कथन :

1. The results relate only to the samples tested. परिणाम केवल जांचे गए नमूनों से संबंधित है।
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3. BDL & Test methods are mentioned on back side of this report. बी डी एल एवं परीक्षण विधि आख्या के अंत में दिए गए हैं।
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*** END OF REPORT आख्या समाप्ति ***

Analyst	Supervisor & Reviewer	Approved By (Lab InCharge)
Vijay Laxmi , Anil P	Syed M Bilal	Dr. K. Ranganathan

CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड
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TC-7723

Water Laboratory (ANALYSIS REPORT) जल प्रयोगशाला (विश लेषण आख्या)

Waste Water Samples for Physico-Chemical Analysis Report भौतिक-रासायनिक विश्लेषण रिपोर्ट के लिए नमूने

ULR No: TC772324500000115F

Parameter Name	Test Method	Unit	Limit of Detection	Uncertainty of Measurment
pH	APHA 4500 H+ - B, 23rd Ed.: 2017		2	
COD	APHA 5220 B, 23rd Ed.: 2017	mg/l	5	
BOD	APHA 5210 B, 23rd Ed. 2017, 4500 OC (5 days at 20C). IA - 3025 part 44: 1993 BOD (3 days at 27 C): 2017	mg/l	1	
TSS	APHA 2540 D, 23rd Ed.: 2017	mg/l	10	
TDS	APHA 2540 C, 23rd Ed.: 2017	mg/l	10	
Cond.	APHA 2510 - B, 23rd Ed.: 2017	µS/cm	1	
Cl–	APHA 4500 - Cl B, 23rd Ed.: 2017	mg/l	5	
PO4-P	APHA 4500 - PD, 23rd Ed.: 2017	mg/l	0.05	
NO2-N	APHA 4500 - NO2, B 23rd Ed., 2017	mg/l	0.01	
NO3- N	APHA 4500 - NO3 D 23rd Ed.: 2017	mg/l	0.5	
SO_4^{2-}			0	
Na+	APHA 3500 Na - B, 23rd Ed., 2017	mg/l	1	
K+	APHA 3500 K - B, 23rd Ed.: 2017	mg/l	1	

Analyst	Supervisor & Reviewer	Approved By (Lab InCharge)
Vijay Laxmi , Anil P	Syed M Bilal	Dr. K. Ranganathan

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CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड

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Water Laboratory (ANALYSIS REPORT) जल प्रयोगशाला (विश लेषण आख्या)

Waste Water Samples for Physico-Chemical Analysis Report भौतिक-रासायनिक विश्लेषण रिपोर्ट के लिए नमूने

Samples Registration No. & Date नमूने की पंजीकरण सं. एवं तिथि	: **WATER/WW/2425/SR00070, 05/07/2024**	Report No. & Date of Issue आख्या सं एवं जारी करने की तिथि	: **WATER/2425/WW/00115,13/08/2024**
Analysis Request Division/Organization विश्लेषण अनुरोध प्रभाग/संगठन	: **IPC-III**	Report sent to (Name & Address of Indentor) आख्या किसे जारी की गयी (नाम एवं प्रभाग)	: **IPC-III**
Sample Details नमूना विवरण	: **Drain and treatment plant /water supply scheme**	Sample Matrix नमूना मैट्रिक्स	: **Waste Water**
Sample Collected by नमूने एकत्रित करने वाले का नाम	: **Kamlesh Singh,Kamlesh Singh and other members**	Date & Time of Sample Receipt नमूने प्राप्ति की तिथि एवं समय	: **05/07/2024 16:27 PM**
Sampling Plan Preference नमूनाकरण योजना प्राथमिकता	:	Sample Analysis Period नमूने के विश लेषण की अवधि	: **05/07/2024 to 06/08/2024**
Report Status रिपोर्ट स्थिति	: **Final**		

Sr.No	Date of Sample Collection नमूना संग्रहण की तिथि	Field Code नमूना स्थल	TA	Mg2+	TH	Ca2+	F−	Color	Turbidity
1	03/07/2024	MDS-1	28	10	242	81	-	-	NA
2	03/07/2024	MDS-2	114	13	273	89	-	-	NA
3	03/07/2024	IPWS	102	12	230	72	-	-	NA
4	03/07/2024	OPWS	20	12	218	68	-	-	NA
5	03/07/2024	CPWS	40	9	197	64	-	-	NA

BDL : Below Deduction Limit कटौती सीमा से नीचे

Remarks (if any) : , , , , , Turbidity instrument not available

Analyst	Supervisor & Reviewer	Approved By (Lab InCharge)
Vijay Laxmi , Anil P	Syed M Bilal	Dr. K. Ranganathan

CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड
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Water Laboratory (ANALYSIS REPORT) जल प्रयोगशाला (विश लेषण आख्या)

Waste Water Samples for Physico-Chemical Analysis Report भौतिक-रासायनिक विश्लेषण रिपोर्ट के लिए नमूने

Note: All the concentrations are expressed in mg/l except pH and Conductivity (µmho/cm). नोट : पीएच तथा चालकता (µmho/cm) के अतिरिक्त सभी सांद्रता मिग्रा/ली. में व्यक्त की गई हैं ।

Statement कथन :

1. The results relate only to the samples tested. परिणाम केवल जांचे गए नमूनों से संबंधित है।
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3. BDL & Test methods are mentioned on back side of this report. बी डी एल एवं परीक्षण विधि आख्या के अंत में दिए गए हैं।
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*** END OF REPORT आख्या समाप्ति ***

Parameter Name	Test Method	Unit	Limit of Detection	Uncertainty of Measurment
TA	2320 B Titration Method, 23rd Ed.: 2017	mg/l	5	
Mg2+	2340 EDTA Titrimetric method, 23rd Ed.: 2017	mg/l		
TH	APHA 2340 C, 23rd Ed.: 2017	mg/l	5	
Ca2+	2340 EDTA Titrimetric method, 23rd Ed.: 2017	mg/l	2	
F–	APHA 4500 - F D, 23rd Ed.: 2017	mg/l	0.20	
Color	APHA 2120 C Spectrophotometric Method, 23rd Ed.: 2017	Hazen	5	
Turbidity	2130 B Nephlometric Method, 23rd Ed.: 2017	NTU	1	

Analyst	Supervisor & Reviewer	Approved By (Lab InCharge)
Vijay Laxmi , Anil P	Syed M Bilal	Dr. K. Ranganathan

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CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड

HEAD OFFICE - DELHI

Parivesh Bhavan, East Arjun Nagar, Delhi - 110032

TC-7723

INSTRUMENTATION LABORATORY (Analysis Report) उपकरणीय प्रयोगशाला (विश लेषण आख्या)

Heavy Metals(Excluding Mercury)

ULR No: TC772324300000086F

Report No. & Date of Issue आख्या सं एवं जारी करने की तिथि	: **INSTR/2425/HM/00086,19/07/2024**	Report sent to (Name,Mobile no. & Address of Indentor) आख्या किसे जारी की गयी (नाम एवं प्रभाग)	: **DH of IPC-III**
Sample Collected by नमूने एकत्रित करने वाले का नाम	: **Kamlesh Singh,Kamlesh SIngh and other members**	Date & Time of Sample Receipt नमूने प्राप्ति की तिथि एवं समय	: **05/07/2024**
Samples Registration No. & Date नमूने की पंजीकरण सं. एवं तिथि	: **INSTR/HM/2425/SR00078, 05/07/2024**	Analysis Request Division/Organization विश्लेषण अनुरोध प्रभाग/संगठन	: **IPC-III**
Sampling Plan Preference नमूनाकरण योजना प्राथमिकता	:	Sample Analysis Period नमूने के विश लेषण की अवधि	: **16/07/2024 to 16/07/2024**
Report Status रिपोर्ट स्थिति	: **Final**	Sample Details नमूना विवरण	: **Drain and treatment plant/WSS**

Sr.No	Date of Sample Collection नमूना संग्रहण की तिथि	Field Code नमूना स्थल	Sample Matrix नमूना मैट्रिक्स	Arsenic	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Nickel	Selenium	Zinc
1	03/07/2024	MDS-1	Waste Water	BDL	BDL	BDL	BDL	BDL	0.256	BDL	0.005	BDL	BDL	0.057
2	03/07/2024	MDS-2	Waste Water	BDL	BDL	BDL	BDL	BDL	0.283	BDL	0.013	BDL	BDL	0.045
3	03/07/2024	IPWS	Waste Water	BDL	BDL	BDL	BDL	BDL	0.141	BDL	0.004	BDL	BDL	0.173
4	03/07/2024	CPWS	Waste Water	BDL	BDL	BDL	BDL	BDL	0.022	BDL	BDL	BDL	BDL	0.055
5	03/07/2024	OPWS	Waste Water	BDL	BDL	BDL	BDL	BDL	0.123	BDL	0.005	BDL	BDL	0.025

*** END OF REPORT आख्या समाप्ति ***

BDL : Below Deduction Limit न्यूनतम विश्लेषण की सीमा

Remarks (if any) : Mam, Result is uploaded for approval.

Statement :

1. The results relate only to the samples tested
2. The report shall not be reproduced except in full. without the written approval of the laboratory.
3. The parameter is under the scope of NABL accreditation, ISO-17025:2017 (Certificate No.TC-7723).
4. The sample will be retained for 30 days from the date of issue of test report.

Analyst	Supervisor & Reviewer	Approved By (DH Inst-Lab)
Maneesh N	Yogita Kharayat	Dr. K. Ranganathan

CENTRAL POLLUTION CONTROL BOARD केंद्रीय प्रदूषण नियंत्रण बोर्ड
HEAD OFFICE - DELHI
Parivesh Bhavan, East Arjun Nagar, Delhi - 110032

INSTRUMENTATION LABORATORY (Analysis Report) उपकरणीय प्रयोगशाला (विश्लेषण आख्या)

TC-7723

Heavy Metals(Excluding Mercury)

ULR No: TC772324300000086F

Parameter Name	Test Method	Unit	Limit of Detection	Uncertainty of Measurment
Arsenic	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.015	
Cadmium	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.0024	
Chromium	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.0033	
Cobalt	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.0016	
Copper	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.006	
Iron	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.002	
Lead	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.006	
Manganese	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.001	
Nickel	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.005	
Selenium	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.019	
Zinc	APHA, ICP-OES, 3120-B, 24th Edition, 2023	mg/L	0.0106	

Analyst	Supervisor & Reviewer	Approved By (DH Inst-Lab)
Maneesh N	Yogita Kharayat	Dr. K. Ranganathan

केंद्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD

HEAD OFFICE - DELHI
Parivesh Bhavan, East Arjun Nagar, Delhi - 110032

TC-7723

जैव-विज्ञान प्रयोगशाला BIO-SCIENCE LABORATORY

Microbiological Analysis Report

यूएलआर नंबर ULR No: TC772324200000076F

1.	रिपोर्ट संख्या और जारी करने की तारीख Report No. & Date of Issue	: BIO/2425/MB/00076,30/07/2024
2.	रिपोर्ट भेज दी गई है (मांगकर्ता का नाम, मोबाइल नंबर और पता) Report Sent To (Name,Mobile no. & Address of Indentor)	: DH of IPC-III
3.	नमूने पंजीकरण संख्या और दिनांक Samples Registration No. & Date	: BIO/MB/2425/SR00084,05/07/2024
4.	विश्लेषण अनुरोध प्रभाग/संगठन Analysis Request Division/Organization	: IPC-III
5.	एकत्रित किया गया नमूना Sample Collected by	: Kamlesh Singh,
6.	नमूनाकरण योजना प्राथमिकता Sampling Plan Reference	:
7.	नमूना प्राप्ति की तिथि एवं समय Date & Time of Sample Receipt	: 05/07/2024 13:02 PM
8.	नमूना विश्लेषण अवधि Sample Analysis Period	: 05/07/2024 09/07/2024
9.	नमूना विवरण Sample Details	: Drain and Water supply scheme
10.	परियोजना का नाम Name of the Project	: In compliance of NGT order
11.	रिपोर्ट स्थिति Report Status	: Final

SR. NO	Field Code	Sample Matrix	Date & Time of Sample Collection	Parameters	Result value	Unit
1	MDS-1	Waste Water	03-07-2024	Faecal Coliform	78*10^2	MPN/100mL
2	MDS-1	Waste Water	03-07-2024	Total Coliform	11*10^4	MPN/100 mL
3	IPWS	Fresh Water	03-07-2024	Faecal Coliform	17*10^3	MPN/100mL
4	IPWS	Fresh Water	03-07-2024	Total Coliform	54*10^3	MPN/100mL
5	OPWS	Fresh Water	03-07-2024	Faecal Coliform	58*10^2	MPN/100mL
6	OPWS	Fresh Water	03-07-2024	Total Coliform	58*10^2	MPN/100mL
7	CPWS	Fresh Water	03-07-2024	Faecal Coliform	23*10^2	MPN/100mL
8	CPWS	Fresh Water	03-07-2024	Total Coliform	49*10^2	MPN/100mL

*** END OF REPORT आख्या समाप्ति ***

Remarks (if any) : ,

Statement :

1.परिणाम केवल परीक्षण किए गए नमूनों से संबंधित हैं।
The results relate only to the samples tested

2.पूरी रिपोर्ट को छोड़कर दोबारा प्रस्तुत नहीं किया जाएगा। सीपीसीबी के सक्षम प्राधिकारी की लिखित मंजूरी के बिना।
The report shall not be reproduced except in full. without the written approval of the Competent authority of CPCB.

3.इस परीक्षण रिपोर्ट के जारी होने की तारीख से एक सप्ताह तक नमूना रखा जाएगा।
The sample will be retained for one week from the date of issue of this test report.

4. डिटेक्शन लिमिट से नीचे (बीडीएल) <1.8 एमपीएन/100 एमएल इंगित करता है।
Below Detection Limit (BDL) indicates <1.8 MPN/100 mL

Parameter Name	Test Method	Unit	Limit of Detection	Uncertainty of Measurment
Faecal Coliform	APHA, 24th Ed., 9221-E	MPN/100mL	1.8	70-440 MPN\100mL @220 MPN\100mL
Total Coliform	APHA, 24th Ed.,9221-A,B,C	MPN/100 mL,MPN/100mL	1.8	100-710 MPN\100mL @280 MPN\100mL

Analyst	Supervisor, Reviewer & Authorized signatory	DH Bioscience Laboratory
Dr. Annu Goel	Dr. Yashpal Yadav	Dr. Z. Changsan

H.P.STATE POLLUTION CONTROL BOARD
FORM X
REPORT BY STATE BOARD ANALYST
(See Rule 26)

Report No: 44260/W-13321 **31/07/2024**

I hereby certify that I **Rama Kant Awasthi , SO**, State Board Analyst duly appointed under sub-section (3) of section 53 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) received on **04/07/2024** from **Punesh Kumar , JEE**, HP State Pollution Control Board **RO Parwanoo** a **Grab** sample of **spent wash** of **Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)**, **Panwa VPO Kasauli, District Solan, H.P.Kasauli**, **Arki** Distt. **Solan Parwanoo**, H.P. **173204** on dated **03/07/2024** for analysis. The sample was in a condition fit for analysis reported below:

I further certify that I have analyzed the aforementioned sample on **04/07/2024** to **31/07/2024** and declare the result of analysis is to be as follows :-

Method of analysis					
IS- 2488(I-V), IS-3025(Part 44): 1933, 'Standard method for examination of water', 23rd edition prepared and published jointly by:-					
1. American Public Health Association 2. American Water Works Association 3. Water Pollution Control Federation					
SAMPLING PARAMETERS					
Sr. No.	**Parameter Name**	**Results**	**Units**	**Permissible Limit**	**Remark/Result Analysis**
1	pH	3.41		5.5-9.0	Not-In Permissible Limit
2	BOD	8000.0	mg/L	30	Not-In Permissible Limit
3	TSS	1725.0	mg/L	100	Not-In Permissible Limit
4	COD	53440.0	mg/L	250	Not-In Permissible Limit
5	Colour	6318.7	PCU	NA	NA

The condition of the seals, fastening and container on receipt was as: sealed as **HPPCB268**

Signed this on **31/07/2024**

Remarks of Lab Head:

-

Rama Kant Awasthi , SO
(State Board Analyst)
CL Parwanoo

From:
H.P. STATE POLLUTION CONTROL BOARD,
CL Parwanoo

To:
Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)
Panwa VPO Kasauli, District Solan, H.P.Kasauli, Arki,
Distt.Solan Parwanoo, H.P.173204

H.P.STATE POLLUTION CONTROL BOARD
FORM X
REPORT BY STATE BOARD ANALYST
(See Rule 26)

Report No: 49428/W-13320 **31/07/2024**

I hereby certify that I **Rama Kant Awasthi , SO**, State Board Analyst duly appointed under sub-section (3) of section 53 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) received on **04/07/2024** from **Punesh Kumar , JEE**, HP State Pollution Control Board **RO Parwanoo** a **Grab** sample of **from collection tank** of **Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)**, **Panwa VPO Kasauli, District Solan, H.P.Kasauli**, **Arki** Distt. **Solan Parwanoo**, H.P. **173204** on dated **03/07/2024** for analysis. The sample was in a condition fit for analysis reported below:

I further certify that I have analyzed the aforementioned sample on **04/07/2024** to **31/07/2024** and declare the result of analysis is to be as follows :-

Method of analysis					
IS- 2488(I-V), IS-3025(Part 44): 1933, 'Standard method for examination of water', 23rd edition prepared and published jointly by:-					
1. American Public Health Association 2. American Water Works Association 3. Water Pollution Control Federation					
SAMPLING PARAMETERS					
Sr. No.	**Parameter Name**	**Results**	**Units**	**Permissible Limit**	**Remark/Result Analysis**
1	pH	4.64		5.5-9.0	Not-In Permissible Limit
2	Colour	2794.2	PCU	NA	NA
3	TSS	6555.0	mg/L	100	Not-In Permissible Limit
4	BOD	3100.0	mg/L	30	Not-In Permissible Limit
5	COD	11040.0	mg/L	250	Not-In Permissible Limit

The condition of the seals, fastening and container on receipt was as: sealed as **HPPCB268**

Signed this on **31/07/2024**

Remarks of Lab Head:

-

Rama Kant Awasthi , SO
(State Board Analyst)
CL Parwanoo

From:
H.P. STATE POLLUTION CONTROL BOARD,
CL Parwanoo

To:
Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)
Panwa VPO Kasauli, District Solan, H.P.Kasauli, Arki,
Distt.Solan Parwanoo, H.P.173204

H.P.STATE POLLUTION CONTROL BOARD
FORM X
REPORT BY STATE BOARD ANALYST
(See Rule 26)

Report No: 12766/W-13323 **31/07/2024**

I hereby certify that I **Rama Kant Awasthi , SO**, State Board Analyst duly appointed under sub-section (3) of section 53 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) received on **04/07/2024** from **Punesh Kumar , JEE**, HP State Pollution Control Board **RO Parwanoo** a **Grab** sample of **from equalization tank** of **Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)**, **Panwa VPO Kasauli, District Solan, H.P.Kasauli**, **Arki** Distt. **Solan Parwanoo**, H.P. **173204** on dated **03/07/2024** for analysis. The sample was in a condition fit for analysis reported below:

I further certify that I have analyzed the aforementioned sample on **04/07/2024** to **31/07/2024** and declare the result of analysis is to be as follows :-

Method of analysis					
IS- 2488(I-V), IS-3025(Part 44): 1933, 'Standard method for examination of water', 23rd edition prepared and published jointly by:-					
1. American Public Health Association 2. American Water Works Association 3. Water Pollution Control Federation					
SAMPLING PARAMETERS					
Sr. No.	**Parameter Name**	**Results**	**Units**	**Permissible Limit**	**Remark/Result Analysis**
1	TSS	1425.0	mg/L	5.5-9.0	Not-In Permissible Limit
2	pH	4.87		30	Within Permissible Limit
3	BOD	3200.0	mg/L	250	Not-In Permissible Limit
4	COD	10980.0	mg/L	NA	NA
5	Colour	1744.9	PCU	100	Not-In Permissible Limit

The condition of the seals, fastening and container on receipt was as: sealed as **HPPCB268**

Signed this on **31/07/2024**

Remarks of Lab Head:

-

Rama Kant Awasthi , SO
(State Board Analyst)
CL Parwanoo

130

From:
H.P. STATE POLLUTION CONTROL BOARD,
CL Parwanoo

To:
Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)
Panwa VPO Kasauli, District Solan, H.P.Kasauli, Arki,
Distt.Solan Parwanoo, H.P.173204

H.P.STATE POLLUTION CONTROL BOARD
FORM X
REPORT BY STATE BOARD ANALYST
(See Rule 26)

Report No: 80444/W-13324 **31/07/2024**

I hereby certify that I **Rama Kant Awasthi , SO**, State Board Analyst duly appointed under sub-section (3) of section 53 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) received on **04/07/2024** from **Punesh Kumar , JEE**, HP State Pollution Control Board **RO Parwanoo** a **Grab** sample of **feed to tube settler after methane digester** of **Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)**, **Panwa VPO Kasauli, District Solan, H.P.Kasauli**, **Arki** Distt. **Solan Parwanoo**, H.P. **173204** on dated **03/07/2024** for analysis. The sample was in a condition fit for analysis reported below:

I further certify that I have analyzed the aforementioned sample on **04/07/2024** to **31/07/2024** and declare the result of analysis is to be as follows :-

Method of analysis					
IS- 2488(I-V), IS-3025(Part 44): 1933, 'Standard method for examination of water', 23rd edition prepared and published jointly by:-					
1. American Public Health Association 2. American Water Works Association 3. Water Pollution Control Federation					
SAMPLING PARAMETERS					
Sr. No.	**Parameter Name**	**Results**	**Units**	**Permissible Limit**	**Remark/Result Analysis**
1	COD	696.0	mg/L	250	Not-In Permissible Limit
2	Colour	1180.0	PCU	NA	NA
3	pH	8.59		5.5-9.0	Within Permissible Limit
4	BOD	290.0	mg/L	30	Not-In Permissible Limit
5	TSS	336.0	mg/L	100	Not-In Permissible Limit

The condition of the seals, fastening and container on receipt was as: sealed as **HPPCB268**

Signed this on **31/07/2024**

Remarks of Lab Head:

-

Rama Kant Awasthi , SO
(State Board Analyst)
CL Parwanoo

132

From:
H.P. STATE POLLUTION CONTROL BOARD,
CL Parwanoo

To:
Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)
Panwa VPO Kasauli, District Solan, H.P.Kasauli, Arki,
Distt.Solan Parwanoo, H.P.173204

H.P.STATE POLLUTION CONTROL BOARD
FORM X
REPORT BY STATE BOARD ANALYST
(See Rule 26)

Report No: 50786/W-13322 **31/07/2024**

I hereby certify that I **Rama Kant Awasthi , SO**, State Board Analyst duly appointed under sub-section (3) of section 53 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) received on **04/07/2024** from **Punesh Kumar , JEE**, HP State Pollution Control Board **RO Parwanoo** a **Grab** sample of **Aeration tank** of **Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)**, **Panwa VPO Kasauli, District Solan, H.P.Kasauli**, **Arki** Distt. **Solan Parwanoo**, H.P. **173204** on dated **03/07/2024** for analysis. The sample was in a condition fit for analysis reported below:

I further certify that I have analyzed the aforementioned sample on **04/07/2024** to **31/07/2024** and declare the result of analysis is to be as follows :-

Method of analysis					
IS- 2488(I-V), IS-3025(Part 44): 1933, 'Standard method for examination of water', 23rd edition prepared and published jointly by:-					
1. American Public Health Association 2. American Water Works Association 3. Water Pollution Control Federation					
SAMPLING PARAMETERS					
Sr. No.	**Parameter Name**	**Results**	**Units**	**Permissible Limit**	**Remark/Result Analysis**
1	COD	532.0	mg/L	5.5-9.0	Not-In Permissible Limit
2	TSS	1495.0	mg/L	30	Not-In Permissible Limit
3	pH	7.05		NA	NA
4	BOD	240.0	mg/L	250	Within Permissible Limit
5	Colour	430.5	PCU	100	Not-In Permissible Limit

The condition of the seals, fastening and container on receipt was as: sealed as **HPPCB268**

Signed this on **31/07/2024**

Remarks of Lab Head:

-

Rama Kant Awasthi , SO
(State Board Analyst)
CL Parwanoo

From:
H.P. STATE POLLUTION CONTROL BOARD,
CL Parwanoo

To:
Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)
Panwa VPO Kasauli, District Solan, H.P.Kasauli, Arki,
Distt.Solan Parwanoo, H.P.173204

H.P.STATE POLLUTION CONTROL BOARD
FORM X
REPORT BY STATE BOARD ANALYST
(See Rule 26)

Report No: 1432/W-13325 **31/07/2024**

I hereby certify that I **Rama Kant Awasthi , SO**, State Board Analyst duly appointed under sub-section (3) of section 53 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) received on **04/07/2024** from **Punesh Kumar , JEE**, HP State Pollution Control Board **RO Parwanoo** a **Grab** sample of **from MBR Tank** of **Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)**, **Panwa VPO Kasauli, District Solan, H.P.Kasauli**, **Arki** Distt. **Solan Parwanoo**, H.P. **173204** on dated **03/07/2024** for analysis. The sample was in a condition fit for analysis reported below:

I further certify that I have analyzed the aforementioned sample on **04/07/2024** to **31/07/2024** and declare the result of analysis is to be as follows :-

Method of analysis					
IS- 2488(I-V), IS-3025(Part 44): 1933, 'Standard method for examination of water', 23rd edition prepared and published jointly by:-					
1. American Public Health Association 2. American Water Works Association 3. Water Pollution Control Federation					
SAMPLING PARAMETERS					
Sr. No.	**Parameter Name**	**Results**	**Units**	**Permissible Limit**	**Remark/Result Analysis**
1	pH	7.23		250	Within Permissible Limit
2	BOD	410.0	mg/L	NA	NA
3	TSS	820.0	mg/L	5.5-9.0	Not-In Permissible Limit
4	COD	960.0	mg/L	30	Not-In Permissible Limit
5	Colour	926.3	PCU	100	Not-In Permissible Limit

The condition of the seals, fastening and container on receipt was as: sealed as **HPPCB268**

Signed this on **31/07/2024**

Remarks of Lab Head:

-

Rama Kant Awasthi , SO
(State Board Analyst)
CL Parwanoo

136

From:
H.P. STATE POLLUTION CONTROL BOARD,
CL Parwanoo

To:
Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)
Panwa VPO Kasauli, District Solan, H.P.Kasauli, Arki,
Distt.Solan Parwanoo, H.P.173204

H.P.STATE POLLUTION CONTROL BOARD
FORM X
REPORT BY STATE BOARD ANALYST
(See Rule 26)

Report No: 74185/W-13326 **31/07/2024**

I hereby certify that I **Rama Kant Awasthi , SO**, State Board Analyst duly appointed under sub-section (3) of section 53 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) received on **04/07/2024** from **Punesh Kumar , JEE**, HP State Pollution Control Board **RO Parwanoo** a **Grab** sample of **MBR outlet** of **Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)**, **Panwa VPO Kasauli, District Solan, H.P.Kasauli**, **Arki** Distt. **Solan Parwanoo**, H.P. **173204** on dated **03/07/2024** for analysis. The sample was in a condition fit for analysis reported below:

I further certify that I have analyzed the aforementioned sample on **04/07/2024** to **31/07/2024** and declare the result of analysis is to be as follows :-

Method of analysis					
IS- 2488(I-V), IS-3025(Part 44): 1933, 'Standard method for examination of water', 23rd edition prepared and published jointly by:-					
1. American Public Health Association 2. American Water Works Association 3. Water Pollution Control Federation					
SAMPLING PARAMETERS					
Sr. No.	**Parameter Name**	**Results**	**Units**	**Permissible Limit**	**Remark/Result Analysis**
1	pH	7.82		5.5-9.0	Within Permissible Limit
2	TSS	51.0	mg/L	100	Within Permissible Limit
3	COD	156.0	mg/L	250	Within Permissible Limit
4	Colour	445.8	PCU	NA	NA
5	BOD	18.0	mg/L	30	Within Permissible Limit

The condition of the seals, fastening and container on receipt was as: sealed as **HPPCB268**

Signed this on **31/07/2024**

Remarks of Lab Head:

-

Rama Kant Awasthi , SO
(State Board Analyst)
CL Parwanoo

138

From:
H.P. STATE POLLUTION CONTROL BOARD,
CL Parwanoo

To:
Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)
Panwa VPO Kasauli, District Solan, H.P.Kasauli, Arki,
Distt.Solan Parwanoo, H.P.173204

H.P.STATE POLLUTION CONTROL BOARD
FORM X
REPORT BY STATE BOARD ANALYST
(See Rule 26)

Report No: 19856/W-13327 **31/07/2024**

I hereby certify that I **Rama Kant Awasthi , SO**, State Board Analyst duly appointed under sub-section (3) of section 53 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) received on **04/07/2024** from **Punesh Kumar , JEE**, HP State Pollution Control Board **RO Parwanoo** a **Grab** sample of **final outlet of ETP** of **Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)**, **Panwa VPO Kasauli, District Solan, H.P.Kasauli**, **Arki** Distt. **Solan Parwanoo**, H.P. **173204** on dated **03/07/2024** for analysis. The sample was in a condition fit for analysis reported below:

I further certify that I have analyzed the aforementioned sample on **04/07/2024** to **31/07/2024** and declare the result of analysis is to be as follows :-

Method of analysis					
IS- 2488(I-V), IS-3025(Part 44): 1933, 'Standard method for examination of water', 23rd edition prepared and published jointly by:-					
1. American Public Health Association 2. American Water Works Association 3. Water Pollution Control Federation					
SAMPLING PARAMETERS					
Sr. No.	**Parameter Name**	**Results**	**Units**	**Permissible Limit**	**Remark/Result Analysis**
1	pH	6.03		5.5-9.0	Within Permissible Limit
2	BOD	4.0	mg/L	30	Within Permissible Limit
3	COD	28.0	mg/L	250	Within Permissible Limit
4	TSS	5.0	mg/L	100	Within Permissible Limit
5	Colour	15.373	PCU	NA	NA

The condition of the seals, fastening and container on receipt was as: sealed as **HPPCB268**

Signed this on **31/07/2024**

Remarks of Lab Head:

-

Rama Kant Awasthi , SO
(State Board Analyst)
CL Parwanoo

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From:
H.P. STATE POLLUTION CONTROL BOARD,
CL Parwanoo

To:
Mohan Meakin Limited, Kasauli Distillery, Kasauli (HP)
Panwa VPO Kasauli, District Solan, H.P.Kasauli, Arki,
Distt.Solan Parwanoo, H.P.173204

Sr. No	Sampling Point	Report No.	Date	Parameters												
				pH	Cond. µS	TSS mg/l	COD mg/l	BOD mg/l	No3 mg/l	Turbidity NTU	T. Alkalinity mg/l	P. Alkalinity mg/l	Cl mg/l	TDS mg/l	TC MPN/ 100ml	FC MPN/ 100ml
1	From Nallah downstream of the Unit	**W-243**	31.07.24	8.42	680.00	14.0	44.00	6.00	22.00	1.00	196.00	0.00	86.97	490.0	>1600	>1600
2	Nallah downstream of unit after Confluence with another water stream	**W-244**	31.07.24	8.35	650.00	33.0	36.00	4.80	16.11	1.00	268.00	0.00	77.97	479.0	--	--
3	Intake point to WSS scheme Larah	**W-245**	31.07.24	8.55	462.00	8.0	24.00	3.40	7.38	1.00	302.00	0.00	47.98	307.0	>1600	>1600
4	Water after treatment in WSS Larah Scheme	**W-246**	31.07.24	8.47	468.00	6.0	20.00	2.40	6.25	1.00	278.00	0.00	44.99	312.0	>1600	350
5	From JSV water supply tank Garkhal above Suhana Resort	**W-247**	31.07.24	8.14	528.00	7.0	32.00	2.80	6.09	1.00	258.00	0.00	117.96	311.0	--	--

Scientific Officer

Pr. Scientific Officer

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Report No.	Parameters																				
	NH3-N mg/l	Boron mg/l	T. Hardness mg/l	Ca as Caco3 mg/l	Mg as Caco2 mg/l	Ca++ mg/l	Mg++ mg/l	F mg/l	So4 mg/l	Na mg/l	K mg/l	T.PO4 mg/l	Cu mg/l	Fe mg/l	Mn mg/l	Cd mg/l	Pb mg/l	Ni mg/l	T.Cr mg/l	Cr6+ mg/l	As mg/l
W-243	0.00	0.15	356.00	216.00	140.00	86.50	34.01	0.86	82.92	18.16	1.27	0.27	ND	ND	ND	ND	ND	ND	ND	ND	ND
W-244	0.00	0.12	290.00	196.00	94.00	78.49	22.84	0.33	83.28	19.26	2.32	0.30	ND	0.296	ND	ND	ND	ND	ND	ND	ND
W-245	0.00	0.09	308.00	194.00	114.00	77.69	27.70	0.24	65.64	18.01	1.21	0.14	ND	ND	ND	ND	ND	ND	ND	ND	ND
W-246	0.00	0.08	278.00	174.00	104.00	69.68	25.27	0.03	66.12	17.85	1.15	0.13	ND	ND	ND	ND	ND	ND	ND	ND	ND
W-247	0.00	0.09	324.00	258.00	66.00	103.32	16.03	0.33	75.48	17.79	1.12	0.18	ND	ND	0.102	ND	ND	ND	ND	ND	ND

ND- Not detectable

Scientific Officer

Pr. Scientific Officer