

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,  
Principal Bench, New Delhi**

I.A. No. 262 of 2022

In

O.A. No. 606 of 2022

Public Action Committee & Ors.

Applicants

Vs.

State of Punjab & Others

Respondents

| S.<br>No. | Particulars   | Page<br>No. |
|-----------|---|-------------|
| 1.        | <b>Reply Affidavit</b> in compliance of Hon'ble NGT order dated 08.12.2022 in I.A. No. 262 of 2022 (In O.A. No. 606 of 2022), Public Action Committee & Ors. Vs. State of Punjab & Others |             |
| 2.        | <b>Annexure-I:</b> Copy of the inspection report of CPCB conducted on 22.02.2023 to 24.02.2023.   |             |
| 3.        | <b>Annexure-II:</b> Copy of the CPCB direction issued vide letter dated 17.05.2023 to Punjab Pollution Control Board (PPCB).  |             |
| 4.        | <b>Annexure-III:</b> Copy of the Hon'ble NGT Order dated 08.12.2022.  |             |

  
**(Kamlesh Singh)**

Scientist E

Central Pollution Control Board

Delhi-110032

Date: 19.05.2023

Place: Delhi

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
AT PRINCIPAL BENCH, NEW DELHI**

**I.A. No. 262 Of 2022**

**In**

**O.A. No. 606 Of 2022**

**Public Action Committee & Ors.**

**..... Applicants**

**VERSUS**

**State of Punjab & Others**

**..... Respondents**

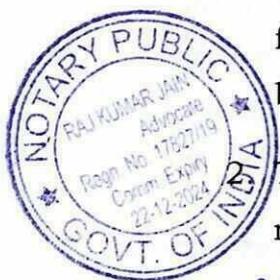
**REPLY AFFIDAVIT ON BEHALF OF RESPONDENT NO. 5, CENTRAL  
POLLUTION CONTROL BOARD, (CPCB)**

I, Kamlesh Singh, S/o Ramesh Chandra Singh, aged 40 years, working as Scientist 'E' in the Central Pollution Control Board, 'Parivesh Bhawan', East Arjun Nagar, Delhi-110032, do hereby solemnly affirm and declare as under:

1. That I, in the capacity of Scientist 'E' of the Central Pollution Control Board (hereinafter referred as CPCB) am fully conversant with the facts of the case and hence, competent to swear this reply affidavit on behalf of the Respondent No. 5 (CPCB).

That in the instant case, the applicants had filed Original Application no.606 of 2022 before this Hon'ble Tribunal being aggrieved with the pollution being caused by "M/s Malbros International Pvt. Ltd." situated at Zira (Punjab), seeking fine of 100 crores and other reliefs.

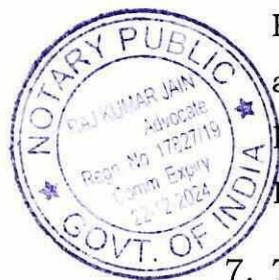
3. That on 30.08.2022, this Hon'ble Tribunal after hearing the plea of the Petitioners had issued directions for the constitution of a joint committee comprising of representative of CPCB, State PCB, State Ground Water Board and Deputy Commissioner, Ferozpur and also directed them to meet within two weeks, to visit the site, to look into



**19 MAY 2023**

the grievances of the applicant and also associate the applicant and representative of the concerned project proponent in order to verify the factual position and to submit their report within one month.

4. That on 21.10.2022, a status report was filed by Punjab Pollution Control Board, Nodal Agency of Joint Committee in this Application for consideration of Hon'ble National Green Tribunal.
5. That the applicant has filed I.A No. 262 of 2022 in OA No. 606/2022 and made prayer before the Hon'ble Tribunal regarding formulation of new Committee comprising of Member (outside Punjab and Chandigarh) with some independent expert like Sh. C. R. Babu with nodal officer from Central Pollution Control Board (CPCB) and several other relief.
6. That in the meantime CPCB received a VIP reference (KS-MOEF-22-1 dated 23.12.2022) forwarded by the Ministry of Environment, Forest & Climate Change (MoEF&CC) regarding complaint against acute pollution of groundwater caused by M/s Malbros International Pvt. Ltd., (Distillery), Village-Mansoorwal, Tehsil-Zira, District-Ferozepur, Punjab (*hereinafter referred to as "the Unit"*);
7. That a team of CPCB visited the Unit on 28.12.2022 to investigate the matter, however the team could not conduct the inspection due to the protest held by the local villagers and farmers Association in front of the main gate of the Unit and entry to the Unit premises without adequate police protection was not possible;
8. That in pursuant to the above complaint, CPCB team revisited the Unit during 22.02.2023 to 24.02.2023 to investigate the matter along with the expert deputed by Central Ground Water Board (CGWB). The Unit was found closed. Copy of the inspection report of CPCB conducted on 22.02.2023 to 24.02.2023 is annexed at **Annexure-I**.
9. That, based on the violations observed in the inspection report dated 13.04.2023, CPCB issued direction vide letter



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dated 17.05.2023 to the Punjab Pollution Control Board (PPCB) under section 18(1)(b) of the Water (Prevention and Control of Pollution) Act, 1974 for their compliance. Copy of the CPCB direction issued vide letter dated 17.05.2023 to PPCB is annexed at **Annexure-II**.

10. That in view of above, it is submitted that this answering Respondent no. 5 shall abide by any/all orders or directions passed by this Hon'ble Tribunal.

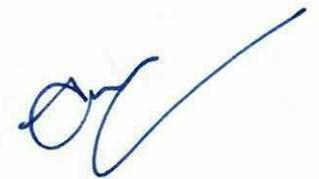


**कमलेश सिंह / Kamlesh Singh**  
**वैज्ञानिक 'ई' / Scientist 'E'**  
**केंद्रीय प्रदूषण नियंत्रण बोर्ड**  
**Central Pollution Control Board**  
 पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार  
 M/o Env. Forest & Climate Change, Govt. of India  
 परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली-110 032  
 Parivesh Bhawan, East Arjun Nagar, Delhi-110032

### VERIFICATION

It is verified that the content of this reply which is based on official record and information available in the office are true and correct. Nothing has been concealed therein.

Signed and verified on 19<sup>th</sup> May, 2023.



**DEPONENT**

**कमलेश सिंह / Kamlesh Singh**  
**वैज्ञानिक 'ई' / Scientist 'E'**  
**केंद्रीय प्रदूषण नियंत्रण बोर्ड**  
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 Parivesh Bhawan, East Arjun Nagar, Delhi-110032



19 MAY 2023

**ATTESTED**

**NOTARY PUBLIC**  
**GOVT. OF INDIA**

**Central Pollution Control Board (CPCB)  
Regional Directorate, Chandigarh**

**Inspection Report of M/s Malbros International Pvt. Ltd (Malbros Distillery),  
Village Mansoorwal, Tehsil Zira, District Ferozepur, Punjab**

**1. Background:**

A copy of the VIP reference (No. KS-MoEF-22-1 dated 23/12/2022) of Shri Jasbir Singh Gill, Hon'ble Member of Parliament (Lok Sabha), Khadoor Sahib, was received from MoEF&CC whereby issue regarding "Case of acute pollution of ground water by **M/s Malbros Distillery in Village Mansoorwal, Tehsil Zira, District Ferozepur, Punjab**, has been raised, highlighting the following points:

- i. The distillery has drilled 25 deep tube-wells in their Compound and dumping toxic water in them leading to high pollution in ground water in radius of 15 Kms, polluting drinking & irrigation water of over dozen villages.
- ii. This pollution has killed cows & other live stock.
- iii. The human population is suffering severely and suffering from serious diseases like cancer and suffering with pain and financial loss."

**In follow up of the complaint/VIP Reference, the site under reference was visited by CPCB Team on December 28, 2022. It was observed by the team that:**

- The local Villagers and Farmers' Association (s) were holding a protest in front of and at the Main Gate of the Industrial Unit (M/s Malbros International Pvt. Ltd) and heavy police force is deployed at the factory gates and the roads leading to the industry.
- The entry into the industry without adequate police protection was not feasible and after seeking advice from the CPCB Authority, the CPCB Team decided not to enter the industry without protection. Therefore, the investigation regarding 25 deep bore-wells installed within the premises, as alleged in the letter of Shri Jasbir Singh Gill, Hon'ble Member of Parliament (Lok Sabha), Khadoor Sahib and ground water sampling from the bore-wells installed in the premises of the industry, could not be conducted by the team.

By  
13/4/23

- With regard to the issue of pollution in ground water in the radius of 15 Kms as mentioned in letter of Shri Jasbir Singh Gill, Hon'ble Member of Parliament (Lok Sabha), Khadoor Sahib, CPCB team alone could not identify the bore-wells/Piezometers installed at various depths.

In view of the above, it was decided to approach Deputy Commissioner, Distt. Ferozepur, for providing adequate police protection to CPCB Team and to Member Secretary, Punjab Pollution Control Board (PPCB), to ask the industry to co-operate with CPCB Team and provide all the details/documents required by CPCB Team during the site visit. It was also decided to seek assistance of an Expert from Central Ground Water Board (CGWB) to establish the water table in the affected area and also to identify the bore-wells installed within 05 kilometres radius of the industry.

**After making arrangements with respective agencies, CPCB Team along with Central Ground Water Board (CGWB) Team revisited the site, as per following schedule:**

| S. No. | Activity/ Programme  | Team members   | Period / Date    |
|--------|--|--|------------------|
| 1.     | Site Inspection for Planning of Monitoring and investigation   | <b>CPCB:</b><br>Dr. Narender Sharma, Additional Director, CPCB<br>Sh. Amit Kumar Sagar, Junior Laboratory Attendant (JLA), CPCB<br>Sh. Shubham, Office Aassistant (Scientific), CPCB<br>Sh. Suraj Guleria, Office Attendant, CPCB<br><br><b>CGWB:</b><br>Sh. K.G. Bhartariya, Sc. B, CGWB<br>Sh. Manish Shrivastav, Assistant Hydrogeologist, CGWB | 22 Feb., 2023    |
| 2.     | Investigation, Monitoring, Sample Collection, Preservation and transportation to CPCB Head Office, Delhi | <b>CPCB:</b><br>Dr. Narender Sharma, Additional Director, CPCB<br>Sh. Amit Kumar Sagar, JLA, CPCB<br>Sh. Shubham, OA (S), CPCB<br>Sh. Suraj Guleria, OA, CPCB  | 23-24 Feb., 2023 |

The representatives of the Zira Sanjha Morcha (**Villagers protesting at the entrance of the factory**) were also associated during the survey of the area with CGWB Team on 22/2/2023 & 23/2/2023 and monitoring of various borewells within and outside the premises by CPCB Team on 23-24 Feb, 2023. The representatives of the industry were also associated during inspection and monitoring inside the factory premises and during monitoring of bore-wells outside the factory premises on 23-24 Feb, 2023.

*Ref/13/4/2023*

## 2. Visit Report:

The matter was investigated by CPCB team from environmental point of view. The approach followed by the CPCB team involved the following:

- i) determination of water table of the area with the assistance of CGWB team by using sounder and preparation of 5 Km Grind map of Zira Block & Water table elevation map of the area around the Malbros Distillery, to decide the number & locations for monitoring of bore-wells w.r.t. ground water quality;
- ii) Investigation regarding number of bore-wells installed by the industry with and without obtaining permission from the Central Ground Water Board (CGWB) and Punjab Water Regulatory and Development Authority (PWRDA);
- iii) Monitoring (Sample Collection) of selected bore-wells by associating the representatives of the villagers and the industry, followed by analysis in the CPCB Head Office Laboratory, Delhi;
- iv) Analysis of the data to arrive at the conclusion based on the analysis results and field observation;
- v) Conclusion and further Course of Action.

*A number of videos and Photographs were also shared by the villagers showing discharge of effluents from the tanks and other areas of the plant on to land within and outside the factory by digging ponds followed by dumping of waste and filling with soil, insisting for sampling of soil contaminated with the sludge and effluent. A sample of the soil (20-25 inch depth) apprehended to be contaminated with the sludge near the UASB tank, in the ETP was also taken by CPCB team, to find out the level of contamination with regard to heavy metals.*

*A sample of surface water from a pond developed in a seasonal drain was also collected to see the concentration of heavy metals.*

19/13/4/23

## 2.1. Determination of the water table of the area:

The field visit in and around M/s Malbros International Pvt. Ltd. was carried out by of CGWB and CPCB Teams on 22<sup>nd</sup> and 23<sup>rd</sup> February, 2023. Ground water level was found to be ranging from 28.44 to 32.07 m bgl in the study area in the monitored bore-wells as tabulated in Table

1.

**Table 1:**

| S.No. | Location   | Lat. Long.          | Source | Water level (mbgl)   |
|-------|--|---------------------|--------|----------------------|
| 1.    | Mansurwal (about 100m from Factory)                | 30.9169<br>74.9558  | TW     | 28.44                |
| 2.    | Rotal Rohi (Vetenary Hospital)                     | 30.9164<br>74.95026 | TW     | Sealed               |
| 3.    | Mahiawala Kalan (Govt. Middle School)              | 30.9397<br>74.9546  | TW     | 32.28                |
| 4.    | Mahiawala Kalan (Gurudwara)                        | 30.9414<br>74.9503  | TW     | Working Motor fitted |
| 5.    | Zira (Sahid GurdasRam memorial govt. girls school) | 30.9635<br>74.9843  | TW     | 33.07                |
| 6.    | Mansurwal (Marlbro Factory)                        | 30.9204<br>74.9598  | TW     | Sealed               |
| 7.    | Mansurwal (Marlbro Factory)                        | 30.9204<br>74.9598  | TW     | Sealed               |
| 8.    | Mansurwal (Marlbro Factory)                        | 30.9206<br>74.9596  | Pz     | 30.35                |
| 9.    | Mansurwal (Marlbro Factory)                        | 30.9207<br>74.9595  | TW     | Working motor fitted |
| 10.   | Mansurwal (Marlbro Factory)                        | 30.9208<br>74.9594  | TW     | Filter Burst         |
| 11.   | Mansurwal (Marlbro Factory)                        | 30.9197<br>74.9588  | Pz     | 30.66                |
| 12.   | Mansurwal (Marlbro Factory)                        | 30.9187<br>74.9601  | TW     | Working              |
| 13.   | Mansurwal (Marlbro Factory)                        | 30.9192<br>74.9602  | Pz     | Sealed               |
| 14.   | Mansurwal (Marlbro Factory)                        | 30.9192<br>74.9605  | Pz     | DWLR fitted          |
| 15.   | Lehra Rohi (House of Sh. Buta Singh)               | 30.9485<br>74.9654  | TW     | Working motor fitted |
| 16.   | Bhandara Purana (Field of Ikloha Singh)            | 30.9376<br>74.9712  | TW     | 30.67                |
| 17.   | Sunher (Govt. Primary School)                      | 30.9241<br>74.9953  | TW     | 32.00                |
| 18.   | Wara Mansurwal (Govt. Primary School)              | 30.8967<br>74.9666  | TW     | 29.52                |
| 19.   | Pandori Khatariya (Govt. Primary School)           | 30.8975<br>74.9824  | TW     | 30.78                |

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On the basis of available data in study area around M/s Malbros International Pvt. Ltd, Elevation Map (Fig. 1) and 5 km grid map was prepared by CGWB and shared with CPCB.

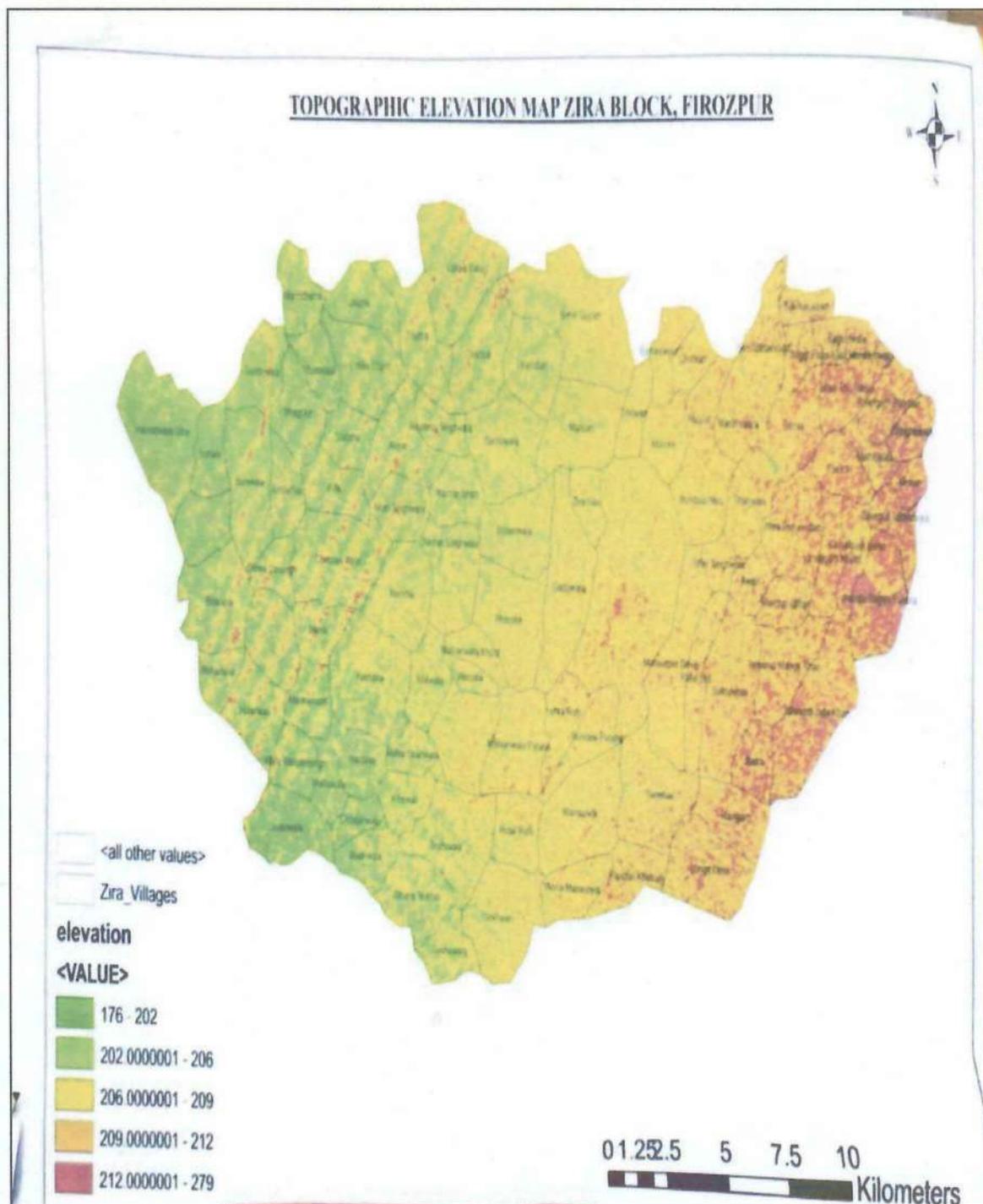


Fig 1. Topographic Elevation Map of Zira Block, Ferozpur

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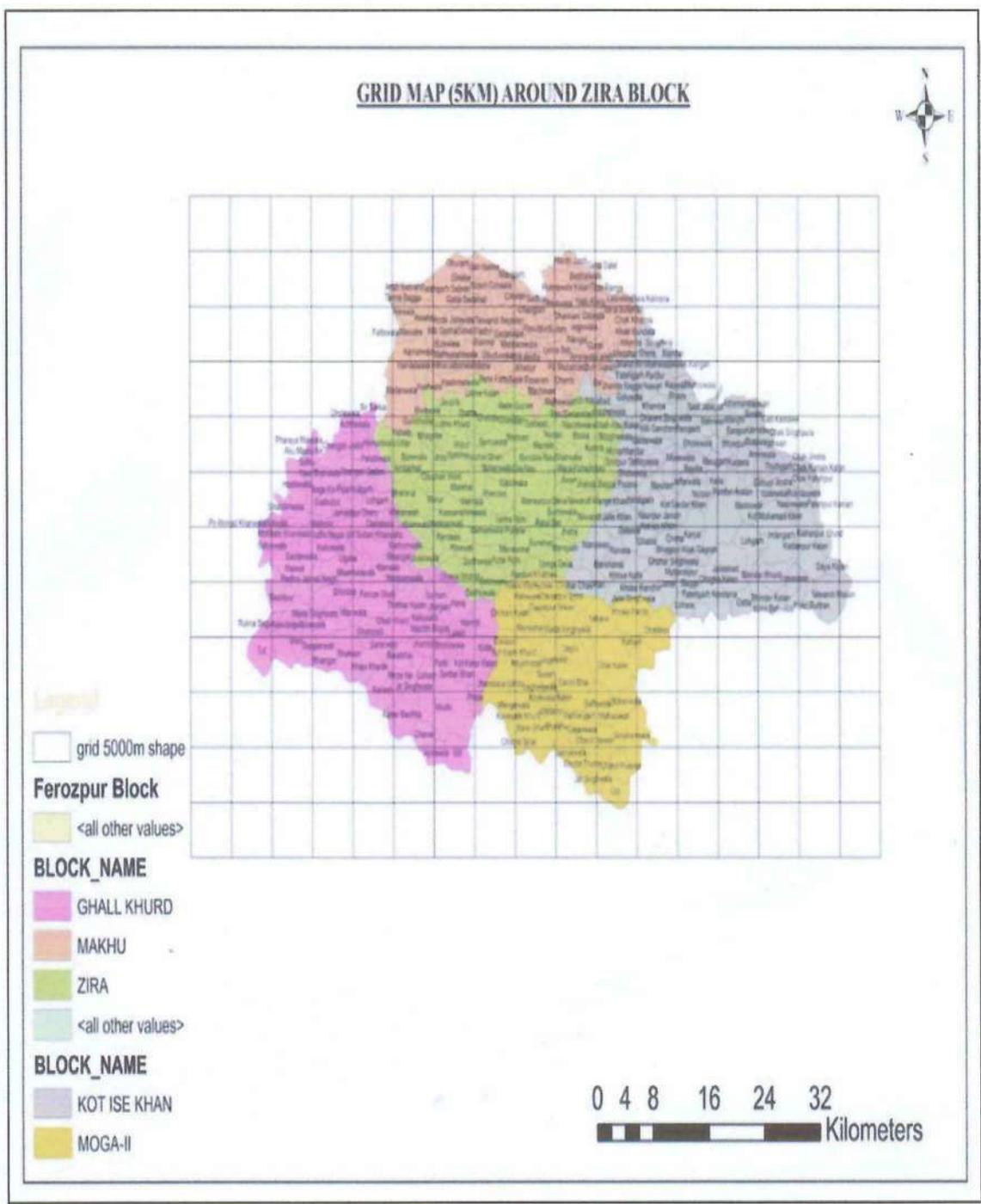
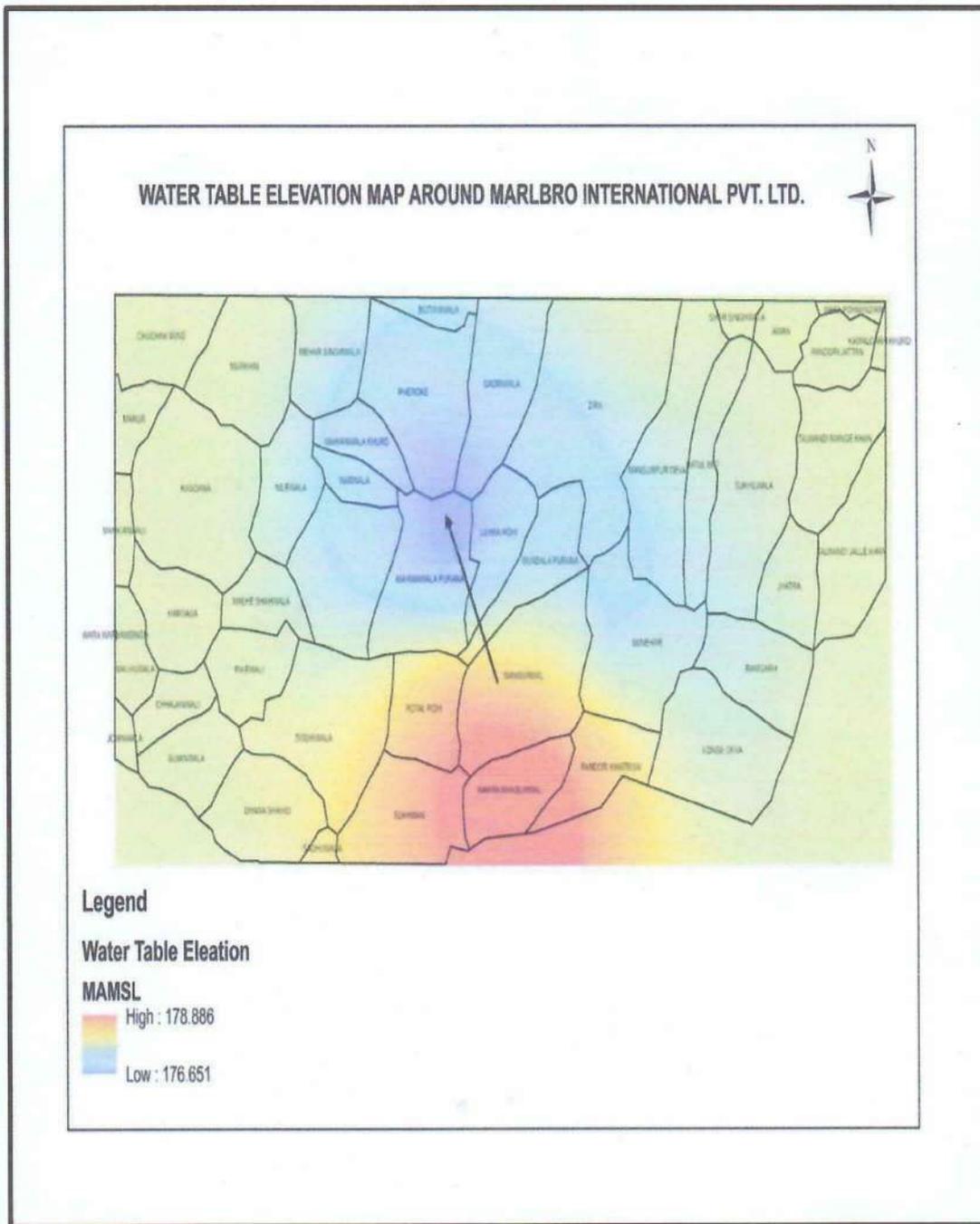


Fig. 2: Grid Map (5 Km) around Zira Block.

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On the basis of field investigation data given above, water table elevation map was prepared. It was observed that the slope of water table is towards NNW as depicted in Map (Fig. 3).



**Fig. 3: Water Table Elevation Map around Malbros International Pvt. Ltd.**

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It was concluded based on the field investigation with CGWB team that:

- i. Ground water level ranges from 28.44 to 32.07 m bgl (below ground level) in the study area in the monitored tube-wells.
- ii. On the basis of water level data and elevation data, water table elevation map has been prepared and it is observed that the slope of water table is towards NNW from the factory area.
- iii. The details about the tube-wells (depth, zone tapped and well assembly) could not be made available to the teams by the farmers, CPCB team members were requested to collect the details of the representative location wells from where the groundwater samples were collected.

The note provided by CGWB team to CPCB team, is attached as **Annexure-2**.

## **2.2. Investigation regarding number of bore-wells installed by the Industry:**

It was alleged in the letter received from Shri Jasbir Singh Gill, Hon'ble Member of Parliament (Lok Sabha), Khadoor Sahib that *"The distillery has drilled 25 deep tube-wells in their Compound and dumping toxic water in them leading to high pollution in ground water in radius of 15 Kms, polluting drinking & irrigation water of over dozen villages."*

The premises of the industry was visited and surveyed by CPCB along with representatives of the Industry and Zira Sanjha Morcha (villagers protesting outside the Industry). CPCB Team physically verified 10 Bore-wells and 06 Piezometers installed in the premises of the Industry as per details provided in the **Table 2**:

*Furter, two bore-wells inside the premises were found to be installed at a distance of few meter from each other, sealed and buried in the soil, despite the fact the 200 mtr distance between two bore-wells is required as per guidelines, thus creating doubts about the intention of the industry.*

*The existence of such a large number of bore-wells without obtaining permission of CGWB and/or PWRDA in the premises of an industry, claiming to Zero Liquid Discharge is an area of further investigation.*

*AJ*  
*7/12/4/23*

**Table 2: Bore-wells and Piezometers installed in the Premises of the Industry**

| S. No    | Borewell/ Piezometer | Latitude and Longitude | Remarks   |
|----------|----------------------|------------------------|---|
| <b>A</b> | <b>Bore-wells</b>    |                        |   |
| 1        | Borewell             | 30.91965; 74.95987     | Buried in the soil                              |
| 2        | Borewell             | 30.91967; 74.95974     | Buried in the soil                              |
| 3        | Borewell             | 30.92033; 74.95981     | In New Plant                                    |
| 4        | Borewell             | 30.91971; 74.95907     | In New Plant                                    |
| 5        | Borewell             | 30.91752; 74.95846     | Near 2nd Entry Gate                             |
| 6        | Borewell             | 30.91875; 74.96022     | Water used for domestic purposes                |
| 7        | Borewell             | 30.92053; 74.96107     | Near raw water collection tank.                 |
| 8        | Borewell             | 30.92056; 74.96344     | In Old DM Plant                                 |
| 9        | Borewell             | 30.91702; 74.95586     | Inside premises (Land acquired by the Industry) |
| 10       | Borewell             | 30.92048; 74.95646     | Near Ash dump                                   |
| <b>B</b> | <b>Piezometers</b>   |                        |   |
| 1        | Piezometer           | 30.92061; 74.96081     | In Old DM Plant                                 |
| 2        | Piezometer           | 30.92083; 74.96134     | In Old DM Plant                                 |
| 3        | Piezometer           | 30.91925; 74.96036     | Near Industry office                            |
| 4        | Piezometer           | 30.92068; 74.95952     | Near ETP  |
| 5        | Piezometer           | 30.91899; 74.96032     | Near Industry office                            |
| 6        | Piezometer           | 30.92116; 74.96342     | In Old DM Plant                                 |

The representatives of the industry informed that they have obtained permission for 04 bore-wells and 02 piezometers from CGWB/PWRDA, however no details were provided. The industry was asked to provide the copy of the permission obtained from Central Ground Water Board (CGWB) and/or PWRDA, for installation and abstraction of ground water at the time of visit, after the visit through email and also through Punjab Pollution Control Board. However,

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no details have been provided by the Industry till date. Further, the industry was also asked to provide the date of installation and the assembly drawing of the bore-wells/piezometers installed in the premises, to know the depth of the bore-well and the zone tapped, but the details are still awaited despite follow up with PPCB and the Industry.

The representatives of the Zira Sanjha Morcha informed that Industry has acquired land from a number of villagers, where the bore-wells were already existing at the time of transfer of land to the industry. According to them, the industry has used/misused these borewells and once contaminated, the bore-wells have been buried in the land. They also shared few locations, whereas per them, bore-wells are located and buried in the land. However, since excavation was required for such investigation, CPCB team could not investigate the same during the visit.

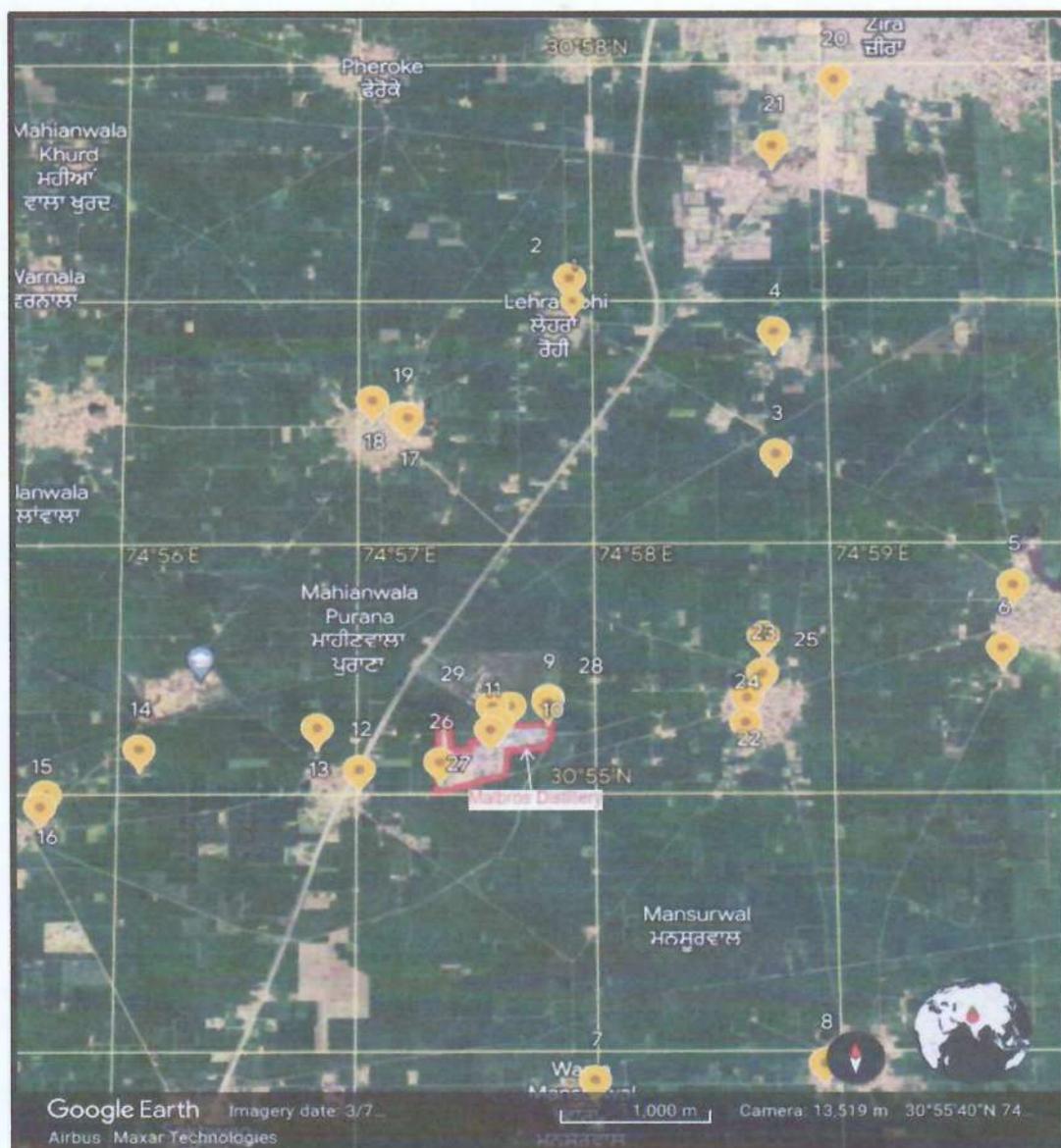
*All the bore-wells whether existing or installed before the CGWB notification, are required to be registered with the CGWB/PWRDA. In view of the fact that most of ground water structures identified by CPCB team have been installed by the Industry without obtaining permission from CGWB/PWRDA, the possibility of having more such structures installed illegally without obtaining permission as apprehended in the letter of Hon'ble Member of Parliament (Lok Sabha), can not be ruled out and thus needs further investigation by involving local revenue department, to know the details of the borewells existing at the time of acquiring the land from the local farmers, by the Industry.*

### **2.3. Monitoring of Bore-Wells and Ground Water Quality:**

CPCB team conducted monitoring of 29 bore-wells in 08 villages within 5 Km radius of Village Mansoorwal, where the industry under reference is located. The location of borewells with respect to Malbros Distillery, monitored by CPCB team are shown in **Figure 4**.

Out of total 29 bore-wells/piezometers monitored by the team, 5 bore-wells and 02 piezometers were located in the premises of the industry and remaining 21 bore-wells were located in the villages outside the industry. The selection of the bore-wells for monitoring was done keeping in view the elevation and slope of water table provided by CGWB team.

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**Figure 4: Location of bore-wells monitored by CPCB Team w.r.t. Industry**

The Observations regarding colour and odour made by CPCB team at the time of sampling from all the borewells is summarized in Table 3.

*Out of 29 bore-well monitored, 12 bore-wells were yielding water with unpleasant odour, whereas 05 Bore-wells were yielding water with unpleasant odour and Grey/blackish colour, which is also evident and confirmed from the high instrumental analysis values for colour and turbidity.*

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Table 3: Observations regarding colour and odour at the sampling from the bore-wells.

| S. No | Borewell Location   | Borewell Depth | Co-ordinates           | Physical Observations made during sampling |
|-------|---|----------------|------------------------|--|
| 1     | Sh. Buta Singh ; 9463245171, Lehra Rohi                                     | 250ft.         | 30.94822 ;<br>74.96539 | Colourless and Odourless                   |
| 2     | Govt High Smart School, Lehra Rohi  | 250ft.         | 30.94967;<br>74.96513  | Unpleasant odour                           |
| 3     | Iqbal Singh; 9417725633, Lehra Rohi Area Bandala Purana (Agriculture Field) | 490ft          | 30.93758;<br>74.97966  | Colourless and Odourless                   |
| 4     | Govt Primary School, Bandala Purana, Zira, Ferozepur.                       | 200ft.         | 30.94596;<br>74.97966  | Colourless and Odourless                   |
| 5     | Sh.Angrej Singh (Sarpanch), 9464207231, Sunehar, Zira, Ferozepur            | 350ft          | 30.92872;<br>74.99614  | Unpleasant odour                           |
| 6     | Govt Primary Sunehar self smart school, Zira, Ferozepur.                    | 200ft          | 30.92449;<br>74.99528  | Colourless and Odourless                   |
| 7     | Govt Primary School, warra Mansoorwal, Zira, Ferozepur.                     | 300ft          | 30.89646;<br>74.96649  | Colourless and Odourless                   |
| 8     | Govt Primary School, Pandori khatrian, Zira, Ferozepur.                     | Not Available  | 30.89754;<br>74.98222  | Greyish Colour and Unpleasant odour        |
| 9     | Inside industry; Old premises Borewell 1                                    | 450ft.         | 30.92093;<br>74.9634   | Colourless and Odourless                   |
| 10    | Inside industry; Borewell 2   | Not Available  | 30.92069;<br>74.96075  | Unpleasant odour                           |
| 11    | Inside industry; Old premises Borewell 3                                    | 650 ft         | 30.92001;<br>74.95966  | Colourless and Odourless                   |
| 12    | Animal Dispensary, Ratol Rohi   | 425ft.         | 30.91652;<br>74.95024  | Unpleasant odour                           |
| 13    | Sh. Gurtej Singh, 9517100096, Ratol Rohi                                    | 300ft.         | 30.91779;<br>74.94774  | Unpleasant odour and Blackish Colour       |
| 14    | Sh. Gurbax Singh s/o Sh. Harbans Singh, 9872266619, Sodhiwala               | Not Available  | 30.91788;<br>74.93491  | Colourless and Odourless                   |
| 15    | Sh. Harpreet Singh, 9781027357 ; Water Works, Sodhiwala.                    | 480ft.         | 30.91413;<br>74.92810  | Colourless and Odourless                   |
| 16    | Govt Middle School, Sodhiwala, Zira, Ferozepur.                             | Not Available  | 30.9149;<br>74.92846   | Unpleasant odour                           |
| 17    | Govt Primary School, Mahian Wala Kalan, Zira, Ferozepur                     | 450ft.         | 30.9401;<br>74.95356   | Unpleasant odour                           |
| 18    | Dhan Dhan Bhagat Baba Duni Chand Ji, Gurudwara, Mahian Wala Kalan.          | Approx 500ft.  | 30.9413;<br>74.95107   | Unpleasant odour                           |
| 19    | Sh. Bhajan Singh s/o Sh. Nail Singh, 8264120297; Mahian                     | 230ft.         | 30.94024;<br>74.95312  | Greyish Colour and Unpleasant odour        |
| 20    | Shaheed Gurdas Ram Memorial Primary Kanahiya Sr. Sec. Smart School, Zira,   | 400ft.         | 30.96362;<br>74.98437  | Unpleasant odour                           |
| 21    | The Truck operator welfare Society, Zira, Ferozepur                         | 300ft.         | 30.95898;<br>74.97977  | Colourless and Odourless                   |
| 22    | Govt Primary Smart School, Mansoorwal Kalan, Zira, Ferozepur.               | 250ft.         | 30.92123;<br>74.9773   | Colourless and Odourless                   |
| 23    | Sh. Meva Singh, 9474104271, Mansoorwal Kalan, Zira, Ferozepur               | 350ft.         | 30.92285;<br>74.97841  | Unpleasant odour                           |
| 24    | Sh. Gurmail Singh Namdhari (Sarpanch), 8237300009, Mansoorwal Kalan, Zira,  | 400ft.         | 30.91959;<br>74.97719  | Colourless and Odourless                   |
| 25    | Sh. Nirmal Singh, Water Works, Mansoorwal Kalan, Zira, Ferozepur            | 550ft          | 30.92533;<br>74.97853  | Unpleasant odour                           |
| 26    | Inside Industry premise, Borewell 4   | Not Available  | 30.91702;<br>74.95586  | Blackish Colour and Unpleasant odour       |
| 27    | Inside industry; Borewell 5   | Not Available  | 30.91967;<br>74.9597   | Blackish Colour and Unpleasant odour       |
| 28    | Inside Industry, Pizeometer-5   | Not Available  | 30.92119;<br>74.96343  | Unpleasant odour                           |
| 29    | Inside Industry, Pizeometer-3   | Not Available  | 30.92069;<br>74.95952  | Unpleasant odour                           |

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The analysis results of 29 bore-wells monitored by CPCB team with regard to general parameters are summarized in **Table 4 (1-15)** and **Table 5 (16-29)**:

**Table 4: Analysis results of samples drawn from bore-wells (1-15) with regard to general parameters**

| S.No | Borewell Location   | Borewell Depth, as informed by the Owner | Co-ordinates   | GENERAL PARAMETERS |                          |            |            |                    |              |                         |                       |           |           |          |           |              |                 |       |              |
|------|---|--|--|--------------------|--------------------------|------------|------------|--------------------|--------------|-------------------------|-----------------------|-----------|-----------|----------|-----------|--------------|-----------------|-------|--------------|
|      |   |  |  | pH                 | Colour (In Colour Units) | COD (mg/l) | TDS (mg/l) | Turbidity (In NTU) | NO3-N (mg/l) | Total Alkalinity (mg/l) | Total Hardness (mg/l) | Ca (mg/l) | Mg (mg/l) | F (mg/l) | Cl (mg/l) | Boron (mg/l) | Sulphate (mg/l) | NH3-N | TOC (mgCl/l) |
|      |   |  | Acceptable Limit                                     | 6.5-8.5            | 5                        |            | 500        | 1                  | 45.0         | 200                     | 200                   | 75        | 30        | 1        | 250       | 0.5          | 200             | 0.5   |              |
|      |   |  | Permissible Limit in the absence of alternate Source | 6.5-8.5            | 15                       |            | 2000       | 5                  | 45.0         | 600                     | 600                   | 200       | 100       | 1.5      | 1000      | 1.0          | 400             | 0.5   |              |
| 1    | Sh. Buta Singh ; 9463245171, Lehra Rohi                                     | 250ft.                                   | 30.94822 ; 74.96539                                  | 7.5                | BDL                      | BDL        | 2104       | 1                  | 4.4          | 533                     | 404                   | 79        | 52        | 0.8      | 188       | 3.2          | 1343            | BDL   | BDL          |
| 2    | Govt High Smart School, Lehra Rohi  | 250ft.                                   | 30.94967; 74.96513                                   | 7.5                | BDL                      | BDL        | 2022       | 1                  | 5.3          | 531                     | 372                   | 99        | 31        | 0.7      | 177       | 2.4          | 1301            | 0.2   | BDL          |
| 3    | Iqbal Singh; 9417725633, Lehra Rohi Area Bandala Purana (Agriculture Field) | 490ft                                    | 30.93758; 74.97966                                   | 8.5                | BDL                      | BDL        | 368        | 2                  | 0.4          | 257                     | 58                    | 16        | 5         | 0.7      | 16        | 2.3          | 100             |       | BDL          |
| 4    | Govt Primary School, Bandala Purana, Zira, Ferozepur.                       | 200ft.                                   | 30.94596; 74.97966                                   | 7.7                | BDL                      | BDL        | 889        | 1                  | 3.3          | 556                     | 144                   | 42        | 10        | 0.8      | 34        | 1.8          | 229             | 0.2   | BDL          |
| 5    | Sh.Angrej Singh (Sarpanch), 9464207231, Sunehar, Zira, Ferozepur            | 350ft                                    | 30.92872; 74.99614                                   | 7.5                | BDL                      | BDL        | 1438       | 2                  | 4.3          | 332                     | 560                   | 97        | 79        | 0.7      | 167       | 2.9          | 910             | 0.3   | BDL          |
| 6    | Govt Primary Sunehar self smart school, Zira, Ferozepur.                    | 200ft                                    | 30.92449; 74.99528                                   | 7.3                | BDL                      | 7          | 1842       | 2                  | 7.3          | 436                     | 622                   | 88        | 100       | 0.5      | 200       | 2.9          | 903             | 0.4   | BDL          |
| 7    | Govt Primary School,warra   | 300ft                                    | 30.89646; 74.96649                                   | 8.1                | BDL                      | BDL        | 1064       | 1                  | 1.3          | 465                     | 144                   | 47        | 7         | 0.6      | 87        | 2.2          | 455             | 0.3   | BDL          |
| 8    | Govt Primary School, Pandori khatrian,Zira, Ferozepur.                      | Not Available                            | 30.89754; 74.98222                                   | 8.0                | BDL                      | 6          | 1068       | 1                  | 3.0          | 539                     | 148                   | 42        | 11        | 0.5      | 69        | 2.0          | 169             | 0.2   | BDL          |
| 9    | Inside Industry, Old premises Borewell 1                                    | 450ft.                                   | 30.92093; 74.9634                                    | 8.1                | BDL                      | BDL        | 1041       | 1                  | 0.5          | 266                     | 124                   | 29        | 13        | 0.5      | 136       | 2.1          | 463             | BDL   | BDL          |
| 10   | Inside industry, Borewell 2   | Not Available                            | 30.92069; 74.96075                                   | 8.4                | BDL                      | BDL        | 619        | 1                  | BDL          | 336                     | 91                    | 16        | 13        | 0.5      | 45        | 1.7          | 229             | BDL   | BDL          |
| 11   | Inside industry, Old premises Borewell 3                                    | 650 ft                                   | 30.92001; 74.95966                                   | 7.8                | BDL                      | 5          | 1250       | 1                  | 1.4          | 577                     | 130                   | 44        | 5         | 0.6      | 144       | 2.1          | 405             | 0.2   | 1.23         |
| 12   | Animal Dispensary, Ratol Rohi   | 425ft.                                   | 30.91652; 74.95024                                   | 7.6                | BDL                      | 6          | 1882       | 1                  | 19.0         | 527                     | 283                   | 73        | 25        | 0.5      | 230       | 2.5          | 730             | 0.3   | BDL          |
| 13   | Sh. Gurtej Singh, 9517100096, Ratol Rohi                                    | 300ft.                                   | 30.91779; 74.94774                                   | 7.9                | 22                       | 39         | 1101       | 168                | 0.8          | 683                     | 121                   | 26        | 14        | 0.4      | 100       | 2.3          | 246             | 2.5   | 3.08         |
| 14   | Sh. Gurbax Singh s/o Sh. Harbans Singh, 9872266619, Sodhiwala               | Not Known                                | 30.91788; 74.93491                                   | 7.6                | BDL                      | BDL        | 982        | 1                  | 4.5          | 527                     | 184                   | 51        | 14        | 0.4      | 50        | 1.8          | 315             | 0.2   | BDL          |
| 15   | Sh. Harpreet Singh, 9781027357 ; Water Works, Sodhiwala.                    | 480ft.                                   | 30.91413; 74.92810                                   | 8.4                | BDL                      | BDL        | 772        | 2                  | 3.2          | 386                     | 136                   | 41        | 8         | 0.4      | 60        | 1.7          | 270             | 0.2   | BDL          |

Ref  
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**Table 5: Analysis results of samples drawn from bore-wells (16-29) with regard to general parameters.**

| S. No | Borewell Location   | Borewell Depth, as Informed by the Owner | Co-ordinates   | GENERAL PARAMETERS |                          |            |            |                    |              |                         |                       |           |           |           |           |              |                 |       |             |
|-------|---|--|--|--------------------|--------------------------|------------|------------|--------------------|--------------|-------------------------|-----------------------|-----------|-----------|-----------|-----------|--------------|-----------------|-------|-------------|
|       |   |  |  | pH                 | Colour (in Colour Units) | COD (mg/l) | TDS (mg/l) | Turbidity (in NTU) | NO3-N (mg/l) | Total Alkalinity (mg/l) | Total Hardness (mg/l) | Ca (mg/l) | Mg (mg/l) | F- (mg/l) | Cl (mg/l) | Boron (mg/l) | Sulphate (mg/l) | NH3-N | TOC (mgC/l) |
|       |   |  | Acceptable Limit                                     | 6.5-8.5            | 5                        |            | 500        | 1                  | 45.0         | 200                     | 200                   | 75        | 30        | 1         | 250       | 0.5          | 200             | 0.5   |             |
|       |   |  | Permissible Limit in the absence of alternate Source | 8.5-9.5            | 15                       |            | 2000       | 5                  | 45.0         | 600                     | 600                   | 200       | 100       | 1.5       | 1000      | 1.0          | 400             | 0.5   |             |
| 16    | Govt Middle School, Sodhivala, Zira, Ferozepur.                                     | Not Available                            | 30.9148; 74.92846                                    | 7.5                | BDL                      | 8          | 1092       | 1                  | 7.9          | 489                     | 323                   | 82        | 28        | 0.5       | 92        | 1.9          | 363             | 0.2   | BDL         |
| 17    | Govt Primary School, Mahian Wala Kalan Zira, Ferozepur                              | 450ft.                                   | 30.9401; 74.95356                                    | 8.3                | BDL                      | 5          | 2386       | 5                  | 8.1          | 407                     | 654                   | 145       | 48        | 0.5       | 240       | 3.0          | 1137            | 0.3   | BDL         |
| 18    | Dhan Dhan Bhagat Baba Duni Chand Ji, Gurudwara, Mahian Wala Kalan.                  | Approx 500ft.                            | 30.9415; 74.95107                                    | 7.6                | BDL                      | 14         | 2399       | 4                  | 9.1          | 722                     | 318                   | 88        | 24        | 0.4       | 355       | 2.9          | 728             | 0.3   | 1.11        |
| 19    | Sh. Bhajan Singh s/o Sh. Nall Singh, 8264120297; Mahian Wala Kalan.                 | 230ft.                                   | 30.94024; 74.95312                                   | 7.5                | BDL                      | 5          | 2284       | 12                 | 7.8          | 461                     | 475                   | 151       | 37        | 0.5       | 219       | 3.4          | 2011            | 0.2   | BDL         |
| 20    | Shaheed Gurdas Ram Memorial Primary Kanahiya Sr. Sec. Smart School, Zira, Ferozepur | 400ft.                                   | 30.96362; 74.98437                                   | 8.6                | BDL                      | BDL        | 321        | 5                  | 0.8          | 257                     | 79                    | 16        | 10        | 0.5       | 17        | 1.8          | 101             | 0.2   | BDL         |
| 21    | The Truck operator welfare Society, Zira, Ferozepur                                 | 300ft.                                   | 30.98898; 74.97977                                   | 8.0                | BDL                      | BDL        | 466        | 1                  | 1.2          | 249                     | 148                   | 48        | 7         | 0.5       | 33        | 1.4          | 124             | 0.2   | BDL         |
| 22    | Govt Primary Smart School, Mansoorwal Kalan, Zira, Ferozepur.                       | 250ft.                                   | 30.92123; 74.9773                                    | 7.7                | BDL                      | 6          | 1452       | 1                  | 4.6          | 681                     | 232                   | 68        | 16        | 0.6       | 138       | 2.2          | 436             | 0.2   | BDL         |
| 23    | Sh. Meva Singh, 9474104271, Mansoorwal Kalan,                                       | 350ft.                                   | 30.92285; 74.97841                                   | 7.9                | BDL                      | 6          | 1268       | 2                  | 1.1          | 311                     | 172                   | 41        | 17        | 0.7       | 187       | 2.4          | 719             | 0.2   | BDL         |
| 24    | Sh. Gurmail Singh Namdhari (Sarpanch), 8237300009, Mansoorwal Kalan Zira, Ferozepur | 400ft.                                   | 30.91958; 74.97719                                   | 7.5                | BDL                      | 7          | 1824       | 2                  | 5.9          | 685                     | 212                   | 72        | 8         | 0.5       | 163       | 3.2          | 795             | 0.2   | BDL         |
| 25    | Sh. Nirmal Singh, Water Works, Mansoorwal Kalan, Zira, Ferozepur                    | 550ft                                    | 30.92653; 74.97853                                   | 8.0                | BDL                      | BDL        | 1041       | 2                  | 2.0          | 398                     | 176                   | 59        | 7         | 0.4       | 102       | 2.3          | 769             | 0.2   | BDL         |
| 26    | Inside Industry premise, Borewell 4   | Not Available                            | 30.91702; 74.95686                                   | 7.8                | 18                       | 101        | 886        | 1323               | 0.2          | 415                     | 230                   | 60        | 27        | 0.5       | 90        | 2.4          | 435             | 0.2   | 8.61        |
| 27    | Inside Industry, Borewell 6   | Not Available                            | 30.91967; 74.9597                                    | 8.0                | 145                      | 105        | 704        | 1191               | 1.0          | 378                     | 143                   | 42        | 10        | 0.2       | 60        | 1.7          | 451             | 1.1   | 1.92        |
| 28    | Inside Industry, Pizeometer-5   | Not Available                            | 30.92119; 74.96343                                   | 7.8                | BDL                      | BDL        | 1905       | 2                  | 6.1          | 573                     | 280                   | 91        | 13        | 0.4       | 195       | 2.8          | 291             | 0.2   | BDL         |
| 29    | Inside Industry, Pizeometer-3   | Not Available                            | 30.92069; 74.95952                                   | 7.6                | BDL                      | BDL        | 1618       | 2                  | 3.4          | 660                     | 266                   | 76        | 19        | 0.4       | 139       | 2.7          | 1008            | 0.2   | BDL         |

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Indian Standard for Drinking Water-Specifications Viz. IS 10500:2012, notified by Bureau of Indian Standards (BIS) has specified two types of limits for drinking water:

1. **Acceptable Limits:** It is recommended by BIS to implement acceptable limits. It further says that values in excess of those mentioned under 'Acceptable' render the water not suitable,
2. **Permissible Limits:** The IS Standards further says that the values in excess of acceptable limits still may be tolerated in the absence of an alternative source upto the limits indicated under "permissible limits in the absence of alternate source" and above which sources will have to be rejected.

*The evaluation of data with regard to analysis results of ground water samples for general parameters, in accordance with acceptable limits and permissible limits specified in Drinking Water Standard: IS 10500: 2012 reveals that water from none of the 29 bore-wells monitored by CPCB Teams comply with the acceptable and permissible limits for one or more parameters, thereby rendering the water unfit for drinking. TDS, Boron and Sulphate were found be present in very high concentration and beyond acceptable and permissible limits in many samples.*

*While high TDS and sulphate concentration may be an outcome of the industrial activity, however, the exceedance of Boron may not be attributed to the industry under reference.*

*In order to compare the existing data with the base line data generated by the industry while conducting Environmental Impact Assessment (EIA) for obtaining Environmental Clearance, Industry was asked to provide the copy of the EIA Report and the location details of the bore-wells monitored for Environmental Impact Assessment. However, no details have been provided so far by the industry.*

*Ref 13/4/27*

All the samples were also analysed for metals and heavy metals (Toxic Parameters) and the analysis results are summarized in Table 6 (1-15) and Table 7 (16-29).

**Table 6: Analysis results of samples drawn from bore-wells (1-15) with regard to metals and Heavy Metals (Toxic) parameters.**

| S. No | Borewell Location   | Borewell Depth | Co-ordinates   | METALS and HEAVY METALS (Toxic Elements) |           |           |           |           |           |           |           |           |           |           |      | Cyanide |
|-------|---|----------------|--|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|---------|
|       |   |                |  | As (mg/L)                                | Cd (mg/L) | Co (mg/L) | Cr (mg/L) | Cu (mg/L) | Fe (mg/L) | Mn (mg/L) | Ni (mg/L) | Pb (mg/L) | Se (mg/L) | Zn (mg/L) |      |         |
|       |   |                | Acceptable Limit                                     | 0.01                                     | 0.003     |           | 0.05      | 0.05      | 0.30      | 0.10      | 0.02      | 0.01      | 0.01      | 5.00      | 0.05 |         |
|       |   |                | Permissible Limit in the absence of alternate source | 0.05                                     | 0.003     |           | 0.05      | 0.05      | 0.30      | 0.10      | 0.02      | 0.01      | 0.01      | 15.00     | 0.05 |         |
| 1     | Sh. Buta Singh ; 9463245171, Lehra Rohi                                     | 250ft.         | 30.94822 ;<br>74.96539                               | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.22      | BDL       | BDL       | BDL       | BDL       | 0.02      |      |         |
| 2     | Govt High Smart School, Lehra Rohi  | 250ft.         | 30.94967;<br>74.96513                                | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.14      | 0.02      | BDL       | BDL       | BDL       | BDL       |      |         |
| 3     | Iqbal Singh; 9417725633, Lehra Rohi Area Bandala Purana (Agriculture Field) | 490ft          | 30.93758;<br>74.97966                                | 0.02                                     | BDL       | BDL       | BDL       | BDL       | 0.54      | 0.01      | BDL       | BDL       | BDL       | 0.02      | BDL  |         |
| 4     | Govt Primary School, Bandala Purana, Zira, Ferozepur.                       | 200ft.         | 30.94596;<br>74.97966                                | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.04      | BDL       | BDL       | BDL       | BDL       | 0.01      |      |         |
| 5     | Sh. Angrej Singh (Sarpanch), 9464207231, Sunehar, Zira, Ferozepur           | 350ft          | 30.92872;<br>74.99614                                | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.05      | 0.04      | BDL       | BDL       | 0.01      | BDL       |      |         |
| 6     | Govt Primary Sunehar self smart school, Zira, Ferozepur.                    | 200ft          | 30.92449;<br>74.99528                                | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.24      | BDL       | BDL       | BDL       | BDL       | 0.03      | BDL  |         |
| 7     | Govt Primary School, warra Mansoorwal, Zira, Ferozepur.                     | 300ft          | 30.89646;<br>74.96649                                | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.14      | 0.01      | BDL       | BDL       | BDL       | 0.02      |      |         |
| 8     | Govt Primary School, Pandori khatrian, Zira, Ferozepur.                     | Not Available  | 30.89754;<br>74.98222                                | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.06      | 0.02      | BDL       | BDL       | BDL       | BDL       |      |         |
| 9     | Inside industry; Old premises Borewell 1                                    | 450ft.         | 30.92093;<br>74.9634                                 | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.14      | 0.01      | BDL       | BDL       | BDL       | 0.01      | BDL  |         |
| 10    | Inside industry; Borewell 2   | Not Available  | 30.92069;<br>74.96075                                | 0.01                                     | BDL       | BDL       | BDL       | BDL       | 0.19      | 0.01      | BDL       | BDL       | BDL       | 0.02      | BDL  |         |
| 11    | Inside industry; Old premises Borewell 3                                    | 650 ft         | 30.92001;<br>74.95966                                | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.14      | 0.10      | BDL       | BDL       | BDL       | 0.07      | BDL  |         |
| 12    | Animal Dispensary, Ratol Rohi   | 425ft.         | 30.91652;<br>74.95024                                | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.04      | 0.03      | BDL       | BDL       | BDL       | 0.01      | BDL  |         |
| 13    | Sh. Gurtej Singh, 9517100096, Ratol Rohi                                    | 300ft.         | 30.91779;<br>74.94774                                | 0.02                                     | BDL       | BDL       | 0.01      | 0.02      | 10.69     | 0.55      | BDL       | 0.03      | BDL       | 0.10      | 0.2  |         |
| 14    | Sh. Gurbax Singh s/o Sh. Harbans Singh, 9872266619, Sodhiwala               | Not Known      | 30.91788;<br>74.93491                                | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.04      | BDL       | BDL       | BDL       | BDL       | BDL       | BDL  |         |
| 15    | Sh. Harpreet Singh, 9781027357 ; Water Works, Sodhiwala.                    | 480ft.         | 30.91413;<br>74.92810                                | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.21      | BDL       | BDL       | BDL       | BDL       | BDL       | BDL  |         |

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**Table 7: Analysis results of samples drawn from bore-wells (16-29) with regard to metals and Heavy Metals (Toxic) parameters.**

| S. No | Borewell Location  | Borewell Depth | Co-ordinates                                  | METALS and HEAVY METALS (Toxic Elements) |           |           |           |           |           |           |           |           |           |           | Cyanide |
|-------|--|----------------|---|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|
|       |  |                |   | As (mg/L)                                | Cd (mg/L) | Co (mg/L) | Cr (mg/L) | Cu (mg/L) | Fe (mg/L) | Mn (mg/L) | Ni (mg/L) | Pb (mg/L) | Se (mg/L) | Zn (mg/L) |         |
|       |  |                | Acceptable Limit                              | 0.01                                     | 0.003     |           | 0.05      | 0.05      | 0.30      | 0.10      | 0.02      | 0.01      | 0.01      | 5.00      | 0.05    |
|       |  |                | Permissible Limit in the absence of alternate | 0.05                                     | 0.003     |           | 0.05      | 0.05      | 0.30      | 0.10      | 0.02      | 0.01      | 0.01      | 15.00     | 0.05    |
| 16    | Govt Middle School, Sodhiwala, Zira, Ferozepur.                                      | Not Available  | 30.9149;<br>74.92846                          | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.05      | BDL       | BDL       | BDL       | BDL       | 0.02      | BDL     |
| 17    | Govt Primary School, Mahian Wala Kalan, Zira, Ferozepur                              | 450ft.         | 30.9401;<br>74.95356                          | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.49      | 0.02      | BDL       | BDL       | 0.01      | 0.01      | BDL     |
| 18    | Dhan Dhan Bhagat Baba Duni Chand Ji, Gurudwara, Mahian Wala Kalan.                   | Approx 500ft.  | 30.9413;<br>74.95107                          | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.41      | 0.14      | BDL       | BDL       | BDL       | 0.07      | BDL     |
| 19    | Sh. Bhajan Singh s/o Sh. Nail Singh, 8264120297; Mahian Wala Kalan.                  | 230ft.         | 30.94024;<br>74.95312                         | BDL                                      | BDL       | BDL       | BDL       | BDL       | 2.23      | 0.15      | BDL       | BDL       | 0.02      | 1.06      | BDL     |
| 20    | Shaheed Gurdas Ram Memorial Primary Kanahiya Sr. Sec. Smart School, Zira, Ferozepur  | 400ft.         | 30.96362;<br>74.98437                         | 0.02                                     | BDL       | BDL       | BDL       | 0.02      | 0.19      | 0.02      | BDL       | 0.01      | BDL       | 0.01      | BDL     |
| 21    | The Truck operator welfare Society, Zira, Ferozepur                                  | 300ft.         | 30.95898;<br>74.97977                         | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.04      | 0.02      | BDL       | BDL       | 0.02      | 0.03      | BDL     |
| 22    | Govt Primary Smart School, Mansoorwal Kalan, Zira, Ferozepur.                        | 250ft.         | 30.92123;<br>74.9773                          | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.06      | 0.01      | BDL       | BDL       | 0.01      | 0.02      | BDL     |
| 23    | Sh. Meva Singh, 9474104271, Mansoorwal Kalan, Zira, Ferozepur                        | 350ft.         | 30.92285;<br>74.97841                         | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.07      | 0.02      | BDL       | BDL       | BDL       | 0.01      | BDL     |
| 24    | Sh. Gurmail Singh Namdhari (Sarpanch), 8237300009, Mansoorwal Kalan, Zira, Ferozepur | 400ft.         | 30.91959;<br>74.97719                         | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.10      | 0.04      | BDL       | BDL       | 0.01      | 0.04      | BDL     |
| 25    | Sh. Nirmal Singh, Water Works, Mansoorwal Kalan, Zira, Ferozepur                     | 550ft          | 30.92533;<br>74.97853                         | 0.01                                     | BDL       | BDL       | BDL       | BDL       | 0.10      | 0.03      | BDL       | BDL       | BDL       | 0.05      | BDL     |
| 26    | Inside Industry premise, Borewell 4  | Not Available  | 30.91702;<br>74.95586                         | 0.14                                     | BDL       | 0.08      | 0.36      | 0.15      | 243.53    | 3.28      | 0.22      | 0.08      | 0.01      | 0.95      | BDL     |
| 27    | Inside industry; Borewell 5  | Not Available  | 30.91967;<br>74.9597                          | 0.10                                     | BDL       | 0.07      | 0.28      | 0.18      | 206.62    | 3.72      | 0.21      | 0.13      | BDL       | 0.98      | BDL     |
| 28    | Inside Industry, Pizeometer-5  | Not Available  | 30.92119;<br>74.96343                         | BDL                                      | BDL       | BDL       | 0.01      | BDL       | 0.20      | 0.08      | BDL       | BDL       | 0.01      | 0.02      | BDL     |
| 29    | Inside Industry, Pizeometer-3  | Not Available  | 30.92069;<br>74.95952                         | BDL                                      | BDL       | BDL       | BDL       | BDL       | 0.14      | 0.05      | BDL       | BDL       | BDL       | 0.02      | BDL     |

Ref / 13/4/23

*The evaluation of data with regard to analysis results of ground water samples for metals and heavy metals (Toxic elements) parameters, in accordance with acceptable limits and permissible limits specified in Drinking Water Standard: IS 10500: 2012 divulges that the ground water is affected with high concentration of metals and heavy metals in three villages namely Mansoorwal, Mahianwala Kalan and Ratol Rohi.*

*The presence of cyanide in the borewell located at Village Ratol Rohi at a concentration of 0.2 mg/l, which is four times higher than the acceptable limit of 0.05 mg/l, as specified in IS 10500: 2012, is an area of concern. Further investigation to pin point the source of this contamination is required in the interest of public health. The same borewell was also found to be having high concentration of Arsenic and very high concentration of lead, as well.*

**One borewell with 250 ft depth monitored at Village Mahianwala was found be having high concentration of Selenium, Manganese and Iron exceeding the acceptable & permissible limits, while the other borewell with approx. 500 ft depth was found to be having high concentration of iron and manganese exceeding both acceptable and permissible limits.**

09 borewells and 02 piezometers located in the village Mansoorwal were monitored by CPCB Team. Out of these 11 bore-wells/Piezometers, 05 bore-wells & 02 piezometers were located in the premises of the industry, whereas remaining 04 bore-wells were located in the village.

**The depth of the borewells monitored in the village Mansoorwal outside the premises of industry ranged between 250 ft to 550 ft, as informed by the owners. In none of these bore-wells, metals and heavy metals were exceeding the limits prescribed in IS 10500:2012.**

The information regarding depth of the bore-wells and piezometers monitored by the team inside the Industry's premises, was not available with the representatives of the Industry.

All the toxic elements in the samples collected from the 02 piezometers and 03 Borewells inside the premises were found to be within the prescribed limits specified in IS 10500:2012.

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12/4/23

*The evaluation of the analysis reports w.r.t. monitoring of remaining 02 borewells located in the premises revealed that metals and toxic metals namely Arsenic, Chromium, Copper, Iron, Manganese, Nickel, Lead and Selenium, are present in very high concentration. The concentration of COD and Colour was also very high in these two bore-wells. The water from both the borewell was having black colour and foul odour. In these borewells, concentration of Arsenic was found to be 2-3 time higher than permissible limits. Similarly, concentration of Chromium, Iron, Manganese, Nickel and Lead were found to be higher by 6-7 times, 650-800 times, 32-37 times, 10-11 times and 8-13 times respectively in comparison to permissible limits specified in IS 10500:2012. Despite the fact that these two borewells were in operational condition, motor, electrical and mechanical connections of one borewells was disconnected, while the other bore-well was sealed and buried in the soil.*

The Industry was asked to provide assembly drawings of the borewells and the piezometers installed by the industry, to know the depth and zone tapped, however, the details are still awaited despite follows up.

The industries are allowed to draw water from the deeper aquifer by the Central Ground Water Board, whereas until the release of recent CGWB Notification, 2020, the piezometers were generally installed at Shallow aquifers to monitor the water table and ground water quality. In view of this, it may be safely assumed that the piezometers installed by Industry are at shallow depth. and the bore-wells have been installed to abstract water from deeper aquifer.

*Since, the samples drawn from the piezometers were found to be free from heavy metal contamination besides no COD and Colour, whereas two bore-wells installed in the same premises are contaminated with high concentration of heavy metals, COD and Colour; it indicates injection of contaminated waste water through reverse boring/pumping into a particular zone tapped in these bore-wells. However, further investigation is required in this regard, to establish the contaminated zone and take remedial action.*

Ref 13/4/23

#### 2.4. Soil and Surface Water Quality:

The sample of the soil contaminated with the sludge as alleged by the representatives of the villagers was collected and analysed for the presence of heavy metals. The evaluation of the analysis report indicates that the heavy metals are present but when compared with the CCME Canadian Environmental Quality Guidelines for the Protection of Environment and Human Health, for Soil Type (Industry), *it was found Zinc is exceeding the Soil Criteria (396.84 mg > 361 mg/Kg), while other elements are within limits.*

However, since the team was assigned the job of addressing the ground water issue and the sample of the soil was drawn only from and upto 20-25 inch, further investigation is required to find the contamination at deeper levels and also outside the premises, where photographic and videographic evidences are available, in the interest of public.

The surface water sample collected by the team was not found to be contaminated for the analysed parameters.

#### 2.5. Conclusion and Further Course of Action:

The following conclusion may be drawn based on the field investigations, observations, monitoring and evaluation of gathered data:

- i. Ground water level ranges from 28.44 to 32.07 m bgl (below ground level) in the study area in the monitored tube-wells and the slope of water table is towards NNW from the factory area.
- ii. It was alleged that "The distillery has drilled 25 deep tube-wells in their Compound and dumping toxic water in them leading to high pollution in ground water in radius of 15 Kms, polluting drinking & irrigation water of over dozen villages". *In this regard, CPCB Team physically verified 10 Bore-wells and 06 Piezometers installed in the premises of the Industry. The representatives of the industry informed that they have obtained permission for 04 bore-wells and 02 piezometers from CGWB/PWRDA, however no details were provided.* The industry was also asked to provide the date of installation and the assembly drawing of the bore-wells/piezometers installed in the

Ref 13/4/23

premises, to know the depth of the bore-well and the zone tapped, but the details are still awaited despite follow up with PPCB and the Industry.

- iii. *The existence of such a large number of bore-wells without obtaining permission of CGWB and/or PWRDA in the premises of an industry, claiming to Zero Liquid Discharge is an area of further investigation.*
- iv. Further, two bore-wells inside the premises were found to be installed at a distance of few meter from each other, sealed and buried in the soil, despite the fact the 200 mtr distance between two bore-wells is required as per guidelines.
- v. *In view of the fact that most of ground water structures identified by CPCB team have been installed by the Industry without obtaining permission from CGWB/PWRDA, the possibility of having more such structures installed illegally without obtaining permission as apprehended in the letter of Hon'ble Member of Parliament (Lok Sabha), can not be ruled out and thus needs further investigation by involving local revenue department, to know the details of the borewells existing at the time of acquiring the land from the local farmers, by the Industry.*
- vi. *Out of 29 bore-well monitored, 12 bore-wells were yielding water with unpleasant odour, whereas 05 Bore-wells were yielding water with unpleasant odour and Grey/blackish colour, which is also evident and confirmed from the high instrumental analysis values for colour and turbidity.*
- vii. *The evaluation of data with regard to analysis results of ground water samples for general parameters, revealed that water from none of the 29 bore-wells monitored by CPCB Teams comply with the acceptable and permissible limits for one or more parameters, thereby rendering the water unfit for drinking. TDS, Boron and Sulphate were found be present in very high concentration and beyond acceptable and permissible limits in many samples. While high TDS and sulphate concentration may be an outcome of the industrial activity, however, the exceedance of Boron may not be attributed to the industry under reference.*
- viii. *The ground water was found to be affected with high concentration of metals and heavy metals (Toxic Elements) in three villages namely Mansoorwal, Mahianwala*

Ag 13/4/23

- Kalan and Ratol Rohi and this finding is in line with the slop of water table in the area, as determined by the CGWB team.*
- ix. *The presence of cyanide in the borewell located at Village Ratol Rohi at a concentration of 0.2 mg/l, which is four times higher than the acceptable limit of 0.05 mg/l, as specified in IS 10500: 2012 is an area of concern. Further investigation to pin points the source of this contamination is required in the interest of public health. The same borewell was also found to be having high concentration of Arsenic and very high concentration of lead, as well.*
  - x. *One borewell with 250 ft depth monitored at Village Mahianwala was found be having high concentration of Selenium, Manganese and Iron exceeding the acceptable & permissible limits, while the other borewell with approx. 500 ft depth was found to be having high concentration of iron and manganese exceeding both acceptable and permissible limits.*
  - xi. *The evaluation of the analysis reports w.r.t. monitoring of 02 borewells located in the premises revealed that metals and toxic metals namely Arsenic, Chromium, Copper, Iron, Manganese, Nickel, Lead and Selenium, are present in very high concentration.*
  - xii. *The concentration of COD and Colour was also very high in these two bore-wells located in the premises of the Industry. The water from both the borewell was having black colour and foul odour, as observed during sampling. In these borewells, concentration of Arsenic was found to be 2-3 time higher than permissible limits. Similarly, concentration of Chromium, Iron, Manganese, Nickel and Lead were found to be higher by 6-7 times, 650-800 times, 32-37 times, 10-11 times and 8-13 times respectively in comparison to permissible limits specified in IS 10500:2012.*
  - xiii. *Despite the fact that these two borewells were in operational condition, motor, electrical and mechanical connections of one borewells was disconnected, while the other bore-well was sealed and buried in the soil.*
  - xiv. *Since, the samples drawn from the piezometers and 03 bore-wells located in the premises of the Industry were found to be free from heavy metal contamination and*

*Aug 13/4/23*

*whereas two bore-wells installed in the same premises are contaminated with high concentration of heavy metals, COD and Colour; it indicates injection of contaminated waste water through reverse boring/pumping into a particular zone tapped in these two bore-wells. However, further investigation is required in this regard, to establish the contaminated zone and take remedial action.*

- xv. *The sample of the soil contaminated with the sludge was found to be exceeding the Soil Criteria of CCME Canadian Environmental Quality Guidelines for the Protection of Environment and Human Health, for Soil Type (Industry) with regard to Zinc (396.84 mg > 361 mg/Kg), while other elements were within limits. However, further investigation is required to find the contamination at deeper levels and also outside the premises, where photographic and videographic evidences are available, in the interest of public.*
- xvi. *Local administration is required to take necessary action to red mark the contaminated bore-wells, to avoid use of contaminated ground water as drinking water, irrespective of the source of contamination, in the interest of public health.*
- xvii. *Bio-magnification studies are required to know the effect of contaminated water on the crops and accumulation of contaminants in the agro crops and the health risk associated with it, so as to ensure corrective action on the basis of the outcome of the study, if required.*
- xviii. *CPCB had requested further details (Annexure-1) from M/s Malbros International Pvt. Ltd, for comparing the outcome with the base-line data, correlation and decide further course of investigation and remediation, which are still awaited despite follow up with PPCB and the Industry (Annexure-2)*

**Name and Designation of the Inspecting Officer:**

*AJ*  
*7.12/4/23*  
Dr. Narender Sharma, Scientist 'E'  
CPCB Regional Directorate, Chandigarh

Date: April 12, 2023

**Annexure-1**

Details requested from M/s Malbros International Pvt. Ltd.

1. Copy of the EIA report prepared by the industry in the year 2006 along with co-ordinates of the locations monitored for the ground water quality.
2. Co-ordinates of the Locations monitored for the ground water quality by the Industry for EIA report in 2016, for the expansion.
3. Date of installation of all the bore-wells (Operational and defunct as on date) located inside the factory premises, including all the bore-wells already existing there in the land purchased from the farmers along with copy of the registration of these bore-wells with CGWB/PWRDA, along with co-ordinates. Site plan indicating location of all the bore-wells and piezometers may be provided.
4. Assembly drawings of the all the bore-wells (Operational and defunct as on date) located in the premises of the industry.
5. Date of installation of all the piezometers installed within and outside the premises, by the industry along with assembly drawing and co-ordinates.
6. Copy of NOC obtained from CGWB for the abstraction of ground water.
7. Copy of the application submitted to PWRDA by the Industry for renewal of NOC issued earlier by CGWB.
8. Copy of NOC issued by PWRDA, for abstraction of ground water.
9. Periodical ground water quality monitoring data generated by the Industry in compliance of NOC of CGWB.
10. Date of Installation and the capacity of the dryer by the industry.
11. Details of the feed (cattle, Poultry and other, if any) generated and sold before and after installation of dryer. Details/summary of the buyers along with quantities supplied before and after installation of the dryer (two years date before and after installation of dryer) may be provided.
12. Copies of the original EC and the EC granted for expansion.
13. Copy of the latest half yearly compliance report of EC Conditions submitted to MoEF&CC.

9/13/4/23



केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
क्षेत्रीय निदेशालय, चण्डीगढ़  
Central Pollution Control Board  
Regional Directorate, Chandigarh  
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार)  
(MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA)  
March 2, 2023

No. CPCB/RD/VIP Ref/2023:

To

Member Secretary  
Punjab Pollution Control Board  
Vatavaran Bhawan, Nabha Road. Patiala-147 001, Punjab

**Sub:** Requirement of documents w.r.t. M/s Malbros International Pvt. Ltd, Village Mansoorwal, Tehsil Zira, District Ferozepur, Punjab.

Sir,

This has reference to the letter dated 23/12/2022 of Shri Jasbir Singh Gill, Hon'ble Member of Parliament (Lok Sabha), Khadoor Sahib, received by Central Pollution Control Board (CPCB) from MoEF&CC, whereby issue regarding "case of acute pollution of ground water by M/s Malbros Distillery in Village Mansoorwal, Tehsil Zira, District Ferozepur, Punjab, has been raised, highlighting that:

- The distillery has drilled 25 deep tube-wells in their Compound and dumping toxic water in them leading to high pollution in ground water in radius of 15 Km, polluting drinking & irrigation water of over dozen villages.
- This pollution has killed cows & other live stock.
- The human population is suffering severely and suffering from serious diseases like cancer and suffering with pain and financial loss.

This is to inform that CPCB team along with CGWB team visited the site on February 22 -24, 2023, for monitoring the ground water quality and investigation of the matter within and outside the premises of the factory.

The industry may be asked to provide the following information documents at the earliest, so as to examine and conclude the matter by CPCB team.

- Copy of the EIA report prepared by the industry in the year 2006 along with co-ordinates of the locations monitored for the ground water quality.
- Co-ordinates of the Locations monitored for the ground water quality by the Industry for EIA report in 2016, for the expansion.
- Date of installation of all the bore-wells (Operational and defunct as on date) located inside the factory premises, including all the bore-wells already existing there in the land purchased from the farmers along with copy of the registration of these bore-wells with CGWB/PWRDA, along with co-ordinates. Site plan indicating location of all the bore-wells and piezometers may be provided.

बीएसएनएल दूरभाष केंद्र, दूसरी मंजिल, सेक्टर 49 -सी, चण्डीगढ़ - 160047  
BSNL Telephone Exchange, 2nd Floor, Sector 49-C, Chandigarh-160047  
दूरभाष / Tel : 0172-2990360  
ई मेल/e-mail : rdchandigarh.cpcb@nic.in

प्रधान कार्यालय / Head Office  
परिवेश भवन, ईस्ट अर्जुन नगर, दिल्ली - 110032  
Parivesh Bhawan, East Arjun Nagar, Delhi -110032  
EPABX दूरभाष / Tel.: 011-43102030, 22305792  
वेबसाइट/Website: http://www.cpcb.nic.in

12/4/23

- Assembly drawings of the all the bore-wells (Operational and defunct as on date) located in the premises of the industry.
- Date of installation of all the piezometers installed within and outside the premises, by the industry along with assembly drawing and co-ordinates.
- Copy of NOC obtained from CGWB for the abstraction of ground water.
- Copy of the application submitted to PWRDA by the Industry for renewal of NOC issued earlier by CGWB.
- Copy of NOC issued by PWRDA, for abstraction of ground water.
- Periodical ground water quality monitoring data generated by the Industry in compliance of NOC of CGWB.
- Date of Installation and the capacity of the dryer by the industry.
- Details of the feed (cattle, Poultry and other, if any) generated and sold before and after installation of dryer. Details/summary of the buyers along with quantities supplied before and after installation of the dryer (two years date before and after installation of dryer) may be provided.
- Copies of the original EC and the EC granted for expansion.
- Copy of the latest half yearly compliance report of EC Conditions submitted to MoEF&CC.

Thanking you,

Yours faithfully,

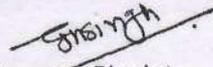
  
(Gurnam Singh)  
Regional Director

Fig 13/4/23



SPEED POST

केन्द्रीय प्रदूषण नियंत्रण बोर्ड 519  
क्षेत्रीय निदेशालय, चण्डीगढ़  
Central Pollution Control Board  
Regional Directorate, Chandigarh  
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार)  
(MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA)

No. CPCB/RD/VIP Ref/2023: 396

March 20, 2023

To,

Member Secretary  
Punjab Pollution Control Board  
Vatavaran Bhawan, Nabha Road, Patiala-147 001, Punjab

**Sub:** Requirement of documents w.r.t. M/s Malbros International Pvt. Ltd, Village Mansoorwal, Tehsil Zira, District Ferozepur, Punjab.

**Ref:** CPCB Letter No. CPCB/RD/VIP Ref/2023: dated March 2, 2023

Sir,

This has reference to the letter No. CPCB/RD/VIP Ref/2023: dated March 2, 2023, whereby it was requested to ask M/s Malbros Distillery in Village Mansoorwal, Tehsil Zira, District Ferozepur, Punjab, to provide the following details/documents:

- Copy of the EIA report prepared by the industry in the year 2006 along with co-ordinates of the locations monitored for the ground water quality.
- Co-ordinates of the Locations monitored for the ground water quality by the Industry for EIA report in 2016, for the expansion.
- Date of installation of all the bore-wells (Operational and defunct as on date) located inside the factory premises, including all the bore-wells already existing there in the land purchased from the farmers along with copy of the registration of these bore-wells with CGWB/PWRDA, along with co-ordinates. Site plan indicating location of all the bore-wells and piezometers may be provided.
- Assembly drawings of the all the bore-wells (Operational and defunct as on date) located in the premises of the industry.
- Date of installation of all the piezometers installed within and outside the premises, by the industry along with assembly drawing and co-ordinates.
- Copy of NOC obtained from CGWB for the abstraction of ground water.
- Copy of the application submitted to PWRDA by the Industry for renewal of NOC issued earlier by CGWB.
- Copy of NOC issued by PWRDA, for abstraction of ground water.

बीएसएनएल दूरभाष केन्द्र, दूसरी मंजिल, सैक्टर 49 -सी, चण्डीगढ़ -160047  
BSNL Telephone Exchange, 2nd Floor, Sector 49-C, Chandigarh-160047  
दूरभाष / Tel : 0172-2990360  
ई मेल/e-mail : rdchandigarh.cpcb@nic.in

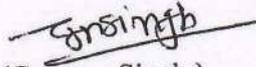
प्रधान कार्यालय / Head Office  
परिवेश भवन, ईस्ट अर्जुन नगर, दिल्ली -110032  
Parivesh Bhawan, East Arjun Nagar, Delhi -110032  
EPABX दूरभाष / Tel.: 011-43102030, 22305792  
वेबसाइट/Website: http://www.cpcb.nic.in

- Periodical ground water quality monitoring data generated by the Industry in compliance of NOC of CGWB.
- Date of Installation and the capacity of the dryer by the industry.
- Details of the feed (cattle, Poultry and other, if any) generated and sold before and after installation of dryer. Details/summary of the buyers along with quantities supplied before and after installation of the dryer (two years date before and after installation of dryer) may be provided.
- Copies of the original EC and the EC granted for expansion.
- Copy of the latest half yearly compliance report of EC Conditions submitted to MoEF&CC.

However, CPCB Regional Directorate is yet to receive the above details from the Industry. It is requested to ask the industry to provide the above details/documents immediately to CPCB Regional Directorate at [rdchandigarh.cpcb@nic.in.](mailto:rdchandigarh.cpcb@nic.in), so as to finalize the report.

Thanking you,

Yours faithfully,

  
(Gurnam Singh)  
Regional Director

Agg  
13/4/23

**From:** "R D Chandigarh, CPCB" <rdchandigarh.cpcb@gov.in>  
**To:** malbros@oasisgrp.in, avpmaalbros@oasisgrp.in, malbros@ymail.com,  
malbrosnikhil@gmail.com  
**Cc:** "Narender Sharma" <narendersharma.cpcb@gov.in>, "gurnam"  
<gurnamsingh.cpcb@nic.in>  
**Sent:** Monday, March 27, 2023 3:07:35 PM  
**Subject:** Re: Reminder Mail: Requirement of documents- reg.

### Reminder

Sir,

With respect to trailing mail the requirement of documents w.r.t M/s Malbros International Pvt. Ltd. Village Mansoorwal, Tehsil Zira, District Ferozepur, Punjab.

Regards  
CPCB, RD Chandigarh  
B.S.N.L. Tel Exchange  
Sector 49-C Chandigarh.

---

*g*  
7/3/23

**From:** "R D Chandigarh, CPCB" <rdchandigarh.cpcb@gov.in>  
**To:** sapan@oasisgrp.in  
**Cc:** "Narender Sharma" <narendersharma.cpcb@gov.in>, "gurnam" <gurnamsingh.cpcb@nic.in>  
**Sent:** Monday, March 20, 2023 6:26:46 PM  
**Subject:** Requirement of documents- reg.

**Through E-Mail**

No. CPCB/RD/VIP  
 Ref/2023:

March 20, 2023

To,

M/s Malbros International Pvt. Ltd.  
 Village Mansoorwal, Tehsil Zira  
 District Ferozepur, Punjab

E-mail: Sapan@Oasisgrp.in

**Sub:** Requirement of documents.

Sir,

This has reference to the visit of the CPCB team in and around your industry during Feb 20-22, 2023. During the visit, you were requested to provide the following details/documents, which are still awaited:

- Copy of the EIA report prepared by the industry in the year 2006 along with co-ordinates of the locations monitored for the ground water quality.
- Co-ordinates of the Locations monitored for the ground water quality by the Industry for EIA report in 2016, for the expansion.
- Date of installation of all the bore-wells (Operational and defunct as on date) located inside the factory premises, including all the bore-wells already existing there in the land purchased from the farmers along with copy of the registration of these bore-wells with CGWB/PWRDA, along with co-ordinates. Site plan indicating location of all the bore-wells and piezometers may be provided.
- Assembly drawings of the all the bore-wells (Operational and defunct as on date) located in the premises of the industry.
- Date of installation of all the piezometers installed within and outside the premises, by the industry along with assembly drawing and co-ordinates.
- Copy of NOC obtained from CGWB for the abstraction of ground water.
- Copy of the application submitted to PWRDA by the Industry for renewal of NOC issued earlier by CGWB.

13/4/23

- Copy of NOC issued by PWRDA, for abstraction of ground water.
- Periodical ground water quality monitoring data generated by the Industry in compliance of NOC of CGWB.
- Date of Installation and the capacity of the dryer by the industry.
- Details of the feed (cattle, Poultry and other, if any) generated and sold before and after installation of dryer. Details/summary of the buyers along with quantities supplied before and after installation of the dryer (two years date before and after installation of dryer) may be provided.
- Copies of the original EC and the EC granted for expansion.
- Copy of the latest half yearly compliance report of EC Conditions submitted to MoEF&CC.

The above documents may be provided immediately to CPCB Regional Directorate at [rdchandigarh.cpcb@nic.in.](mailto:rdchandigarh.cpcb@nic.in), so as to finalize the report.

(Gurnam Singh )  
Regional Director

13/11/22



Speed Post

May 17, 2023

PI-20/50/2022-IPC-III-HO-CPCB-HO

1246

To,

The Chairman,  
Punjab Pollution Control Board,  
Head Office, Vatavaran Bhawan,  
Nabha Road, Patiala-147 001,  
Punjab

**Directions under section 18(1) (b) of the Water (Prevention & Control of Pollution) Act, 1974 in the matter of complaint against acute pollution of groundwater caused by M/s Malbros International Pvt. Ltd., (Malbros Distillery), Village-Mansoorwal, Tehsil - Zira, District - Ferozepur, Punjab**

**WHEREAS**, among others, under section 17 of the Water (Prevention and Control of Pollution) Act, 1974, one of the functions of the State Pollution Control Board (SPCB)/Pollution Control Committee (PCC), constituted under the Water (Prevention & Control of Pollution) Act, 1974 is to plan a comprehensive programme for prevention, control or abatement of pollution of streams, wells and air pollution in the State/UT and to secure the execution thereof; and

**WHEREAS**, under section 16 of the Water (Prevention & Control of Pollution) Act, 1974 and under Section 16 of the Air (Prevention & Control of Pollution) Act, 1981, one of the functions of the Central Pollution Control Board (CPCB), constituted under Water (Prevention & Control of Pollution) Act, 1974 is to coordinate activities of the State Pollution Control Boards and Pollution Control Committees and to provide technical assistance and guidance to SPCBs/PCCs; and

**WHEREAS**, the Central Government has notified the standards for discharge of environmental pollution from various categories of industries under the Environment (Protection) Act, 1986 and the Rule framed there under; and

**WHEREAS**, the CPCB and SPCBs have been pursuing the polluting industries to install effluent treatment plants (ETPs) to comply with the effluent discharge standards as notified under the Environment (Protection) Act, 1986 and the Rules framed there under; and

**WHEREAS**, the SPCBs/PCCs can stipulate more stringent standards for discharge of environmental pollutant from various categories of industries, depending upon the quality of the recipient system, than those notified by the Central Government, under the Environment (Protection) Act, 1986 and Rules framed there under; and

**WHEREAS**, CPCB received a VIP reference (KS-MOEF-22-1 dated 23.12.2022) of Sh. Jasbir Singh Gill, Hon'ble MP (Lok Sabha) forwarded by the Ministry of Environment, Forest & Climate Change (MoEF&CC) regarding complaint against acute pollution of groundwater caused by M/s Malbros International Pvt. Ltd., (Malbros Distillery), Village-Mansoorwal, Tehsil-Zira, District-Ferozepur, Punjab (*hereinafter referred to as "the Unit"*); and

**WHEREAS**, CPCB also received a VIP reference forwarded by MoEF&CC vide its letter dated 18.01.2023 enclosing therewith a copy of Office Memorandum No. ZH/XVIII/X/2022/LSS/TO/302 dated 20.12.2022 received from Lok Sabha Secretariat along with a copy of the matter raised during zero hour by Hon'ble MP, Shri Gurjeet Singh Aujla, regarding pollution caused by M/s Malkos Private Inter-national Liquor company located at Tehsil-Jira, Ferozepur district at Mansoorwal and contamination of water in the villages of Mansoorwal, Rotalrohi, Malyaa, Sodhiwala, Sekwan; and

‘परिवेश भवन’ पर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in

**WHEREAS**, a team of CPCB visited the Unit on 28.12.2022 to investigate the matter, however the team could not conduct the inspection due to the protest held by the local villagers and farmers Association in front of the main gate of the Unit (M/s Malbros International Pvt. Ltd., Village-Mansoorwal, Jira, Ferozepur) and entry to the Unit premises without adequate police protection was not possible; and

**WHEREAS**, in pursuant to the above complaint, CPCB team revisited M/s Malbros International Pvt. Ltd. (Malbros Distillery) located at Village - Mansoorwal, Tehsil-Zira, District - Ferozepur, Punjab during 22.02.2023 to 24.02.2023 to investigate the matter in consultation with the expert deputed by Central Ground Water Board (CGWB). The Unit is presently closed. Following are the observations of the inspection team:

- i. Ground water level ranges from 28.44 to 32.07 m bgl (below ground level) in the study area and the slope of water table is towards NNW from the factory area.
- ii. It was alleged that "The distillery has drilled 25 deep tube-wells in their compound and dumping toxic water in them leading to high pollution in groundwater in radius of 15 Kms, polluting drinking & irrigation water of over dozen villages". CPCB Team physically verified 10 Bore-wells and 06 piezometers installed in the premises of the Unit. The representatives of the Unit informed that they have obtained permission only for 04 bore-wells and 02 piezometers from CGWB/PWRDA, however no details of the permission was provided by the Unit to the inspection team. The inspection team also asked to provide the date of installation and the assembly drawing of the bore-wells and piezometers installed in the premises, but the details are not provided by the Unit.
- iii. The existence of such a large number of bore-wells without obtaining permission of CGWB and/or PWRDA in the premises of an industry, claiming to Zero Liquid Discharge is an area of further investigation.
- iv. Further, two bore-well inside the premises were found to be installed at a distance of few meter from each other, sealed and buried in the soil, despite the fact the 200 meter distance between two bore-wells is required as per guidelines.
- v. In view of the fact that most of ground water structures identified by CPCB team have been installed by the Industry without obtaining permission from CGWB/PWRDA, the possibility of having more such structures installed illegally without obtaining permission as apprehended in the letter of Hon'ble Member of Parliament (Sh. Jasbir Singh Gill) cannot be ruled out and thus needs further investigation by involving local revenue department to know the details of the bore-wells existing the time of acquiring the land from the local farmers, by the Industry.
- vi. Out of 29 bore-wells monitored, 12 bore-wells were yielding water with unpleasant odour, whereas 05 Bore-wells were yielding water with unpleasant odour and Grey/blackish colour, which is also evident and confirmed from the high lab analysis result for colour and turbidity.
- vii. The evaluation of data with regard to analysis results of ground water samples for general parameters, revealed that water from none of the 29 bore-wells monitored by CPCB team comply with the acceptable and permissible limits for one or more parameters, thereby rendering the water unfit for drinking. TDS, Boron and Sulphate were found be present in very high concentration and beyond acceptable and permissible limits in many samples. While high TDS and sulphate concentration may be an outcome of the industrial activity, however, the exceedance of Boron may not be attributed to the industry under reference.
- viii. The groundwater was found to be affected with high concentration of metals and heavy metals (toxic elements) in three villages namely Mansoorwal, Mahianwala Kalan and Ratol Rohi and this finding is in line with the slope of water table in the area, as determined by the CGWB team.

- ix. The presence of cyanide in the bore-well located at village Ratol Rohi at a concentration of 0.2 mg/l, which is four times higher than the acceptable limit of 0.05 mg/l, as specified in IS 10500:2012 is an area of concern. Further investigation to pinpoint the source of this contamination is required in the interest of public health. The same bore-well was also found to be having high concentration of Arsenic and high concentration of lead, as well.
- x. One bore-well with 250 ft depth monitored at Village Mahianwala was found to be having high concentration of Selenium, Manganese and Iron exceeding the acceptable & Permissible limits, while the other borewell with approx. 500 ft depth was found to be having high concentration of iron and manganese exceeding both acceptable and permissible limits.
- xi. The evaluation of the analysis reports w.r.t. monitoring of 02 bore-wells located in the premises of the Unit revealed that metals and toxic metals namely Arsenic, Chromium, copper, Iron, Manganese, Nickel, Lead and Selenium, are present in very high concentration along with high concentration of COD and Colour. The water from both the bore-well was having black colour and foul odour, as observed during sampling. In these bore-wells concentration of Arsenic was found to be 2-3 times higher than permissible limits. Similarly, concentration of chromium, Iron, Manganese, Nickel and Lead were found to be higher by 6-7 times, 650-500 times, 32-37 times, 10-11 times and 08-11 times respectively in comparison to permissible limits specified in IS 10500:2012
- xii. Despite the fact that these two bore-wells were in operational condition, motor, electrical and mechanical connection of one bore-wells was disconnected, while the other bore-well was sealed and buried in the soil.
- xiii. Since, the samples drawn from the piezometers and 03 bore-wells located in the premises of the Industry were found to be free from heavy metal contamination and whereas two bore-wells installed in the same premises are contaminated with high concentration of heavy metals, COD and colour; it indicates injection of contaminated wastewater through reverse boring/pumping into a particular zone tapped in these two bore-wells. However, further investigation is required in this regard, to establish the contaminated zone and take remedial action.
- xiv. The sample of the soil contaminated with the sludge was found to be exceeding the soil Criteria of CCME Canadian Environmental Quality Guidelines for the Protection of Environment and Human Health, for Soil Type (Industry) with regard to Zinc ( $396.84 > 361$  mg/Kg), while other elements were within limits.

**NOW, THEREFORE**, in view of above observations and in exercise of the powers conferred under section 18 (1) (b) of the Water (Prevention and Control of Pollution) Act, 1974, the following directions are issued to Punjab Pollution Control Board (PPCB) for its compliance:

1. Punjab Pollution Control Board (PPCB) considering the violations reported in the CPCB inspection report (Annexure-1) shall issue appropriate direction to the Unit [M/s Malbros International Pvt. Ltd., (Malbros Distillery), Village-Mansoorwal, Zira, Ferozepur, Punjab] with respect to necessary remedial measures for the decontamination of the affected site and compliance with the violations observed in the inspection report.
2. PPCB shall undertake detailed environmental site assessment, as per the CPCB guidelines, by engaging a professional agency/institute having expertise in assessment and remediation of contaminated groundwater & soil and submit the report within 60 days.
3. Based on the detailed site assessment, PPCB shall ensure that the Unit submit a DPR for remediation of groundwater contaminated area in around the premises, and

execute the work in the supervision of PPCB in a time bound manner. The Unit shall bear all the remediation expenses.

4. PPCB shall impose EC (environmental compensation) or initiate legal action for causing injury to the surrounding environment and contamination of groundwater as may be applicable.
5. PPCB shall issue appropriate direction to the water supply department to analyze the parameters for Drinking Water Quality Standards in water of bore-wells installed in the affected area. Depending upon the compliance with the Drinking Water Quality Standards, the use of water from the bore-wells may be prohibited/permitted, as per the case and shall ensure that the Unit provide alternative sources of safe drinking water to the affected villages.
6. PPCB shall issue direction to local authorities & groundwater Department to seal the unauthorized bore-wells.
7. PPCB shall ensure regular monitoring of the groundwater quality in the area and shall ensure no further spread of contamination.

The action taken report shall be sent to the CPCB within 45 days from the date of receipt of this direction. Punjab Pollution Control Board (PPCB) shall also acknowledge the receipt of this direction to CPCB within 15 days from the date of the receipt.



(PRASHANT GARGAVA)  
MEMBER SECRETARY

Enc. As above

Copy To:

1. **The Member Secretary,**  
Punjab Pollution Control Board,  
Head Office, Vatavaran Bhawan, Nabha Road,  
Patiala, Punjab  
*With a request to ensure compliance of the said direction issued u/s 18(1)(b) of the Water Act, 1974, please.*
2. **The Regional Director,**  
Regional Directorate,  
Central Pollution Control Board,  
Second Floor, Telephone Exchange,  
Sector 49, Chandigarh 160047  
*For further follow-up to ensure compliance of the direction, please.*
3. **The Director, (CP Division),**  
Ministry of Environment, Forest & Climate Change,  
Prithvi Block, Indira Paryavaran Bhawan, Jorbagh  
Road, New Delhi – 110 003  
*For information, please.*
4. **The District Collector,**  
District Collector Office,  
Block A, District Administrative Complex,  
Ferozepur Cantt, Punjab 152001  
*For information, please.*
5. The Divisional Head - IT, CPCB, Delhi  
*With a request to upload the direction at CPCB website, please.*



(PRASHANT GARGAVA)  
MEMBER SECRETARY

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Item No.05

(Court No. 2)

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI.**

(By Video Conferencing)  
Original Application No.606/2022  
(I.A No. 262/2022)

Public Action Committee &amp; Ors.

...Applicants

Versus

State of Punjab &amp; Ors.

...Respondents

Date of hearing: 08.12.2022

**CORAM: HON'BLE MR. JUSTICE ARUN KUMAR TYAGI, JUDICIAL MEMBER.  
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER.**

Applicant: Mr. Kapil Dev, Mr. Kuldeep Singh and Dr. Amandeep Singh.

**Application under Section 14 of the National Green Tribunal Act, 2010,  
Article 51A and Article 21 of Constitution of India, Environment  
(Protection) Act, 1974.****ORDER**

1. The applicants- NGO named Public Action Committee and its seven Members have filed the present application under section 14 of the National Green Tribunal Act, 2010 read with Article 51A and Article 21 of the Constitution of India, the Environment (Protection) Act 1986 and the Water (Prevention and Control of Pollution) Act 1974 seeking *inter alia* the reliefs of sealing the industry, namely- M/s Malbros International Pvt. Ltd. (Distillery), situated at Zira (Punjab) for their illegal acts of contaminating soil as well as Ground Water Table and quality in radius of around 4 Km by dumping the effluent after excavating the top earth surface of its adjoining plot as well as by discharging the same into Earth by method of deep reverse boring. Prayer has also been made for imposition of environmental compensation of Rs. 100 crores on the Project Proponent.

2. Vide order dated 30.08.2022, this Tribunal constituted a Joint Committee comprising of CPCB, State PCB, State Ground Water Board and Deputy Commissioner, Ferozpur and directed the same to submit report within one month.

3. Status report has been submitted by Environmental Engineer, Regional Office, PPCB, Faridkot vide letter dated 21.10.2022 sent through email dated 21.10.2022.

4. In the status report the Joint Committee has inter-alia mentioned that the Government agencies as well as the NGT Monitoring Committee have already carried out monitoring on the observations of the Public Action Committee and the industry is lying closed w.e.f 24.07.2022, so no useful purpose will be served by repeating the exercise already conducted by NGT Monitoring Committee. However, the Joint Committee shall carry out visit to the site in case this Tribunal considers so in view of the facts explained in the status report or as and when the industry re-commissions/resume its operations.

5. The applicants have filed Interim Application registered as I.A No. 262/2022 for abolishing the Joint Committee constituted vide orders dated 30.08.2022 and formulation of new Committee comprising of Members (outside Punjab and Chandigarh) with some independent expert like Prof. C. R. Babu with nodal officer from Central Pollution Control Board (CPCB) and the Joint Committee may be directed to join the applicants at the time of visits of the premises and affected areas and besides seeking samples by themselves, samples may be taken on the suggestion of applicants also. The applicants have further prayed for issuance of directions for carrying on all necessary equipment (Plant and Machinery) including efficient bore detection

machines, submersible borehole making machines, soil and water sampling equipment, etc. at the time of inspection of the factory and affected area of Zira (Punjab).

6. In view of the averments made in the original application, facts and circumstances explained in the report of the Joint Committee and prayer made in I.A No. 262/2022, we consider it appropriate to have response of respondent no. 1- State of Punjab through Chief Secretary, Government of Punjab; respondent no. 2-the Chairman, Punjab Pollution Control Board; and respondent no. 3-the Executive Engineer, Regional Office, Punjab Pollution Control Board as well as the Principal Secretary, Department of Industries, Government of Punjab; the Member Secretary, Central Pollution Control Board; the District Magistrate, Ferozpur and the Project Proponent-M/s Malbros International Pvt. Ltd., Mansoorwal Kalan, Tehsil Zira, District Ferozpur, who stand impleaded as respondents No. 4 to 7 . The memo of parties to the application be amended accordingly. Notices to respondents No. 1 to 7 be issued requiring them to file their reply/response within two months at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) preferably in the form of searchable PDF/OCR Supported PDF and not in the form of Image PDF.

7. List for further consideration on 23.02.2023.

8. In view of the facts and circumstance of the case, we also consider personal appearance of the Officers duly authorized by the Chief Secretary, Government of Punjab, the Principal Secretary, Department of Industries, Government of Punjab, CPCB, PSPCB, and the District Magistrate, Ferozpur before this Tribunal through VC on the next date of hearing to be essential for producing the relevant record and assisting this Tribunal in just and proper adjudication of the questions involved in the case and they are accordingly directed to remain present before this Tribunal through VC on that date.

9. A copy of this order be sent to the Chief Secretary, Government of Punjab, the Principal Secretary, Department of Industries, Government of Punjab, CPCB, State PCB, and the District Magistrate, Ferozpur by email for requisite compliance.

Arun Kumar Tyagi, JM

Dr. Afroz Ahmad, EM

December 08, 2022  
AG