

Trade Waste & Effluents Research Unit (TWERU)
Dept. Water Supply & Sanitation, Head Office, Patiala

Email: researchunitpatiala@yahoo.in

To

Principal,
Baba Banda Singh Bahdur Public Sr. Sec. School,
Fatehpur (Samana).

No. 31

Date: 22/01/2021

Subject :- Test report of water sample.

Reference:- Your office Letter No. 527, Dated: 13.01.2021.

As per subject and reference cited above, Please find enclosed here with the report of 1 number water sample received on dated 13.01.2021. You are requested to fill the attached feedback form and send it to Trade Waste and Effluents Research Unit, DWSS, Head Office, Nabha Road, Patiala.

D/A Test Report

Blush 22/1/2021
Deputy Quality Manager
Trade Waste & Effluents Research Unit,
Dept. Water Supply & Sanitation, Patiala

TEST RESULTS

Sample Registration No. : TWERU/2021/02083

Physical and Chemical Analysis (As per IS 10500 : 2012)							
Sr. No.	Parameter	Acceptable limit	Permissible Limit	Method Detection Limit (MDL)	Result	Uncertainty of Measurement (\pm) at Value	Standard / Specification/ Method Followed
1.	Turbidity (NTU)	1.0	5.0	0.02	As per Annexure 1	5.48 \pm 0.15 NTU	IS-3025 (P-10)
2.	pH	6.5-8.5	No relaxation	2.0		7.85 \pm 0.12	IS-3025 (P-11)
3.	TDS (mg/l)	500	2000	10		610 \pm 20mg/l	IS-3025 (P-16)
4.	Total Alkalinity (as CaCO ₃), mg/l	200	600	2		300 \pm 6 mg/l	IS-3025 (P-23)
5.	Total Hardness (as CaCO ₃), mg/l	200	600	2		350 \pm 7 mg/l	IS-3025 (P-21)
6.	Calcium (as Ca), mg/l	75	200	1		80 \pm 4 mg/l	ISO -14911
7.	Magnesium (as Mg), mg/l	30	100	1		35.8 \pm 3.5 mg/l	ISO -14911
8.	Chloride (as Cl), mg/l	250	1000	1		260 \pm 5 mg/l	APHA - 4110
9.	Fluoride (as F), mg/l	1.0	1.5	0.05		1.0 \pm 0.08 mg/l	APHA - 4110
10.	Nitrate (as NO ₃), mg/l	45.0	No relaxation	1.0		5.0 \pm 0.5 mg/l	APHA - 4110
11.	Sulphate (as SO ₄), mg/l	200	400	1.0		10 \pm 0.1 mg/l	APHA - 4110
12.	Iron (as Fe), mg/l	1.0	No relaxation	0.2		0.2 \pm 0.02 mg/l	APHA 3111-B
13.	Residual Chlorine (as Cl), mg/l	0.2	1.0	0.2		3.15 \pm 0.35 mg/l	IS-3025 (P-26)
14.	Arsenic (As), mg/l	0.01	No relaxation	0.005		0.0050 \pm 0.001 mg/l	APHA 3114
15.	Manganese (Mn), mg/l	0.1	0.3	0.1		0.1 \pm 0.01 mg/l	APHA 3111 B
16.	Zinc (Zn), mg/l	5.0	15.0	0.2		0.2 \pm 0.018 mg/l	APHA 3111 B
Note :	TDS = Total Dissolved Solids				mg/l = milligram per litre		
	MDL = Method Detection Limit				BDL = Below Detection Limit		
	APHA = American Public Health Association				IS = Indian Standard		
	NT = Not Tested				NA = Not Applicable		

B. B. Singh
 (Deputy Quality Manager)

Authorized Signatory
 For Trade Waste & Effluents Research Unit,
 DWSS, Patiala.

**Trade Waste & Effluents Research Unit (TWERU)
Water Supply & Sanitation Department, Patiala**

ID No. TWERU/ 4681

Dated 22/01/2021

TEST REPORT

**Chemical Testing
Water**

Sample Registration No. : TWERU/2021/02083

Issued to:-

Principal,
Baba Banda Singh Bahdur Public Sr. Sec. School,
Fatehpur (Samana).

SAMPLE PARTICULARS

Ref. Letter No. : 527, dt. 13.01.2021
Date of Receipt : 13.01.2021
Sample code given by customer : N.A.
Name / Nature of sample : Water
Condition of the sample : Unsealed samples
Qty/Pkg : 2 Litre (1nos.) in Plastic bottle.
Sampling Method : Sample not drawn by TWERU
Test Start Date : 13.01.2021
Test Completion Date : 21.01.2021

Bhushan 22/1/2021

Mr. Brij Bhushan
(Deputy Quality Manager)
Authorized Signatory
For Trade Waste & Effluents Research Unit,
DWSS, Patiala.

Note:

- ☞ The above results pertain only to the sample tested.
- ☞ The report shall not be used for advertising or any legal purpose without written permission from the Head, DWSS.
- ☞ This report cannot be re-produced, except when in full, without the written permission from the Head, DWSS.
- ☞ The sample shall be destroyed after one month from the date of issue of the report.

Trade Waste & Effluents Research Unit (TWERU)
Water Supply & Sanitation Department, Patiala

Annexure 1

ID No. TWERU/ 4681

Dated 22/01/21

Sr. No.	Registration No	District	Block	Name of Place/Village	Sample Receipt Date	Date of Collection	Source	Depth	Turbidity (NTU)	pH	TDS (mg/l)	Total Alkalinity (mg/l)	Total Hardness (mg/l)	Calcium (mg/l)	Magnesium (mg/l)	Chloride (mg/l)	Fluoride (mg/l)	Nitrate (mg/l)	Sulphate (mg/l)	Iron (mg/l)	Residual Chlorine (mg/l)	Arsenic (mg/l)	Manganese (mg/l)	Zinc (mg/l)
As per IS 10500:2012 (Rev 2): Requirement (Acceptable limit - Presmissible limit)									(limit 1.0 - 5.0)	(limit 6.5 - 8.5)	(limit 500 - 2000)	(limit 200 - 600)	(limit 200 - 600)	(limit 75 - 200)	(limit 30 - 100)	(limit 250 - 1000)	(limit 1 - 1.5)	(limit 45 - No relax.)	(limit 200 - 400)	(limit 1.0 - No relax.)	(limit 0.2 - 1.0)	(limit 0.01 - No relax.)	(limit 0.1 - 0.3)	(limit 5.0 - 15.0)
Method detection limit									0.02	2.0	10.0	2.0	2.0	1.0	1.0	1.0	0.05	1.00	1.00	0.2	0.2	0.005	0.1	0.2
1	TWERU/2021/02083	Patiala	Samana	Fatehpur	13-01-2021	13-01-2021	Submersible at Baba Banda Singh Bahadur Public Sr. Sec. School	-	0.65	7.36	240	112	176	32	14	3	1.00	5	37	BDL	BDL	BDL	BDL	BDL

B. Lal Singh
(Deputy Quality Manager)
Authorized Signatory
For Trade Waste & Effluents Research Unit,
DWSS, Patiala.