

**Ministry of Environment, Forests and Climate Change,  
Northern Regional Office,  
Chandigarh – 160030  
DATA SHEET**

1.	Project Type	Construction Project
2.	Name of the Project	Indian Institute of Science Education and Research, Sector 81, Mohali.
3.	Clearance letter (s)/O.M. No. & dates	Letter No.189/SEAC(P)/2010-1aA.III dated 08.10.10. Copy of the same is attached along <b>Annexure-1</b> .
4	Location	Mohali
	a) District(s)	SAS Nagar
	b) State (s)	Punjab
	c) Latitudes/ Longitudes	30 <sup>0</sup> 39'N and 76 <sup>0</sup> 43'E
5	Address for correspondence	Indian Institute of Science Education and Research, Sector 81, S.A.S. Nagar, Mohali.
6.	Salient features	
	a) of the Project	The project is designed to provide quality science education at the undergraduate and postgraduate level. The total plot area of the project is 505857 sq. mts. The total proposed built-up area is of 236140.67 sq. mts. The construction work has been completed for DPR approved by Govt. of India.
	b) of the environmental management plans	The total water requirement of the project is purposed as 765 KLD. Earlier a sewage treatment plant of 800 KLD capacity was proposed, common for IISER and Nano Technology campus. But the institute was developed in two phases and due to site conditions i.e. difference in contours, individual STP's have been installed area wise. Presently, 2 STPs of 75 KLD, 3 STPs of 80 KLD and 1 STP of 15 KLD capacity have been installed at site. Treated wastewater is used for irrigation purpose for which 25 Acres of land is developed under green belt including trees, shrubs, grass in open areas. Treated waste water will also be recycled for flushing purpose. As of now, the entire treated water is being used for irrigation purpose. Total solid waste generation will be 2000 kg/day when the entire campus will be fully constructed (for the proposed built up area of 236140.67 sq. mts.). Presently, the total solid waste being generated is 750 kg per day (250 kg per day from kitchen and 500 kg from garden/leaf litter/dry weeds, etc.). The solid waste is segregated at source by providing different colored bins. Vermi-composting site has also been provided to handle biodegradables waste.
7.	Break-up of the project area	
	a) Submergence area:	-NA-
8.	Break-up of project affected	-NA-

	population with enumeration of those losing houses/dwelling units only, agricultural land only both dwelling units and agricultural land and landless labourers/artisans.	
	a) SC/ST/Adivasis	-NA-
	b) Other (please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures. If a survey has been carried out give details and year of survey).	-NA-
9.	Financial details:	
	a) Project cost as originally planned and subsequent revised estimates and the year of price reference	Rs.633.00 Crores (revised) – <i>Capital</i> .
	b) Allocations made for environmental management plans with item wise and year wise break up.	Allocations made for environmental management plans are attached in <b>Annexure-2</b> .
	c) Benefit cost ratio/internal rate of return and the year of assessment	As the project is education-cum-research institute, benefit cost ratio cannot be calculated.
	d) Whether (c) includes the cost of environmental management as shown in b) above.	Yes
	e) Actual expenditure incurred on the project so far.	The actual total expenditure incurred on the project upto the financial year 2018-19 - Rs.623.42 Crores ( <i>Capital</i> ).
	f) Actual expenditure incurred on the environmental management plans so far.	The actual expenditure incurred on the Environmental Management Plan is attached in <b>Annexure-3</b>
10	Forest land requirement:	
	a) the status of approval for diversion of forest land for non-forestry use	-NA-

	b) The status of clear felling	NIL
	c) The status of compensatory afforestation programmer in the light of actual field experience so far.	NIL
11	The status of clear felling in non forest areas (such as submergence area of reservoir, approach road) if any, with quantitative information	-NA-
12	Status of construction:	
	a) Date of commencement (actual and/or planned)	Nov 2008
	b) Date of completion (actual and/or planned)	The construction as per the DPR approved by Govt. of India has been completed in January 2016.
13.	Reasons for the delay, if any project is yet to start	--

**Compliance Status Report of Indian Institute of Science Education and Research  
at Sector-81, SAS Nagar, Punjab**

- I. **CONSTRUCTION PHASE:** Construction for Phase I and II were already completed. Compliance for Phase III will be incorporated whenever the construction for Phase III will begin.

II	OPERATIONAL PHASE	
i)	The installation of the Sewage Treatment Plant STP of relevant capacities have been (STP) should be certified by an independent expert and a report in this regard should be submitted to the Ministry before the project is commissioned for operation. Discharge of treated sewage shall conform to the norms & standards of the Punjab Pollution Control Board, Patiala, Punjab.	STP of relevant capacities have been installed. Wastewater generated from this project is recycled to achieve zero discharge.
ii)	The car washing in the complex/multiplex should not be allowed.	No car washing is allowed within the campus.
iii)	Adequate & appropriate pollution control measures should be provided to control fugitive emissions to be emitted from the shopping and multiplex.	Fugitive emission will not be produced from project.
iv)	Adequate drinking water facility based on the Reverse Osmosis treatment technology to be provided.	RO treatment facility have been provided.
v)	Rain water harvesting for roof run-off and surface run-off, as plan submitted should be implemented. Before Recharging the surface runoff, pre-treatment must be done to remove suspended matter, oil and grease.	Rain water harvesting pits and proper storm water network has been provided at site.
vi)	The solid waste generated should be properly collected & segregated before disposal to the City Municipal Facility. The In-vessel bio-conversion technique should be used for composting the organic waste.	The solid waste is being properly segregated at source, before disposal.
vii)	Any hazardous waste including biomedical waste should be disposed off as per applicable Rules & norms with necessary approvals of the Punjab Pollution Control Board	No biomedical waste is generated as only first aid facility is being provided. Only hazardous waste generated is spent oil from DG sets which will be sold to authorized recyclers approved by

		PPCB.
viii)	The green belt design along the periphery of the plot shall achieve attenuation factor conforming to the day and night noise standards prescribed for residential landuse. The open spaces inside the plot should be suitably landscaped and covered with vegetation of indigenous variety	Proper landscape and green area is provided within the project to attenuate the noise as per day and night standard of residential land use. Photographs are attached at <b>Annexure-4</b> .
ix)	The project proponent should take adequate and appropriate measures to contain the ambient air quality within the prescribed standards. The proposal regarding mitigation measures to be taken at site should be submitted to Ministry of Environment & Forests.	Ambient air quality is monitored regularly and test reports are attached along as <b>Annexure-5</b> .
x)	Incremental pollution loads on the ambient air quality, noise and water quality should be periodically monitored after commissioning of the project	Agreed, Test reports are enclosed along as <b>Annexure-5</b> .
xi)	Application of solar energy should be incorporated for illumination of provision for solar water heating. A hybrid system or fully solar system for a portion of the apartments should be provided.	Solar water heating system and solar electricity generator plant of 100 KV capacity have been provided. Photographs has already been submitted.
xii)	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.	A parking area of 16683 sq.m. has been provided as per layout plan approved by GMADA.
xiii)	A Report on the energy conservation measures confirming to energy conservation norms finalize by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submit to the Ministry in three months time.	Energy conservation measures including solar water heating system, solar lights, no glass façade etc are provided. However, no specific report has been submitted but if the Ministry asks for same, we can prepare and submit the report.

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xiv)	Ozone depleting substances (Regulation & Control) Rules should be followed while designing the air conditioning system of the project.	No ozone depleting substances are being used for air conditioning.
xv)	Environment Management Cell should be formed during operation phase which will supervise and monitor the environment related aspects of the project.	The Environment Management Cell has been set up.
<b>PART -B</b>	<b>GENERAL CONDITIONS</b>	
i.	Six monthly monitoring reports should be submitted to the Ministry and its Regional Office, Chandigarh.	Yes we are regularly submitting the same.
ii.	Officials from the Regional Office of MOEF, Chandigarh who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/ data by the project proponents during their inspection. A complete set of all the documents submitted to MOEF should be forwarded to the CCF, Regional office of MOEF, Chandigarh.	Yes, full cooperation is given to the authorities and the same will be done in future also.
iii.	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.	Agreed.
iv.	The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental(Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.	Agreed.
v.	All other statutory clearances such as the approvals have approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the competent authorities	All the applicable approvals have been obtained.
vi.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/ Municipal Corporation, Urban local body and the local NGO, if any , from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Agreed.

vii.	The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded environmental clearance and copies of clearance letters are available with the Punjab Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forest at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> . The advertisement should be made within 7 days from the day of issue of the clearance letter and a copy of the same should forwarded to the regional office of the Ministry at Chandigarh.	The copy of advertisement has already been submitted.
viii.	These stipulations would be enforced among others under the provision of water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the public Liability (Insurance) Act, 1991 and EIA Notification, 2006.	Agreed.
ix.	Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.	Agreed.
x.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective regional office MOEF, the respective Office of CPCB and the SPCB.	Yes, we are regularly submitting the six monthly compliance reports to concerned office.
xi.	Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in writ petition (Civil) No.460 of 2004 as may be applicable to this project.	Agreed.
xii.	Any appeal against this environmental clearance shall lie with the National Environment Appellate authority, if preferred within a period of 30 days a prescribed under Section 11 of the National Environment Appellate Authorities Act, 1997.	Agreed.

Ambient air quality report (28 October, 2019 – 03 November, 2019):

Date & Time	24 hour average						Max 8 hour average		
	PM <sub>10</sub> (ug/m <sup>3</sup> )	PM <sub>2.5</sub> (ug/m <sup>3</sup> )	SO <sub>2</sub> (ppb)	NO <sub>2</sub> (ppb)	NH <sub>3</sub> (ppb)	CO (ppb)	Ozone (ppb)		
28-10-2019	384.2	239.1	3.7	10.1	28.2	1066.5	64.1		
29-10-2019	285.2	156.0	1.9	11.5	32.1	1291.1	72.4		
30-10-2019	311.1	167.2	2.3	10.1	30.8	1100.1	47.5		
31-10-2019	268.1	140.6	4.2	9.5	30.7	958.0	65.2		
01-11-2019	287.4	159.3	4.1	7.8	27.5	996.2	42.1		
02-11-2019	315.6	170.4	3.5	13.1	41.2	1526.3	45.4		
03-11-2019	409.1	249.6	3.8	11.1	31.6	1398.9	61.8		
Average concentration									

*Shweta*  
27/11/19

EXECUTIVE ENGINEER  
CUM ESTATE OFFICER  
HISER, MOHALI

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# Punjab Biotechnology Incubator

(Established by Govt. of Punjab)

A Component of Agri Food Biotechnology Cluster, Knowledge City, Mohali

An NABL Accredited Facility

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BIS Approved | FSSAI Empanelled | EIC Approved | APEDA Approved | PPCB Approved | Notified State Water Lab - Gur | Notified Under EPA - GOI



No.PBTI/ENV/090519/000559

Dated :

## TEST REPORT

ULR : TC611719000001041F

Sample Registration No.

: PBTI/ENV/090519/000559

Sample code given by customer

: STP Treated Effluent-75 KLD- Site-IISER, Mohali

Issued to:

SR Environ Pvt. Ltd.,

New No 37, Old No 18, Dr. Guruswamy Road, Chetpet

Chennai - 600031

### SAMPLE PARTICULARS

Your Ref. No. : PBTI/SRF No.19265,dt.09/05/19 & Email Dt. 09/05/2019

Date of Receipt : 09/05/2019

Name/Nature of sample : Treated Effluent

Sample code given by customer : STP Treated Effluent-75 KLD- Site-IISER, Mohali

Condition of the sample : Intact coded sample, under unrefrigerated conditions

Brand name : NA

Qty/Pkg. : 4L approx. (2Lx2) in plastic Jars

Batch No.: NA

Date of Manufacture : NA/NM

Sampling Method : Sample not drawn by PBTI

Test Start Date : 09/05/2019

Test Completion Date : 16/05/2019

Report Not Valid for  
Consent Purpose of PPCB  
PBTI, Mohali

16/5/19

Authorized Signatory  
Punjab Biotechnology Incubator  
Employee Code: 16

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 Chief Executive Officer, Punjab Biotechnology Incubator.
- This report cannot be re-produced, except when in full, without the written permission from the Chief Executive Officer, Punjab Biotechnology Incubator.
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Format No : PBTI/F/5.10/02  
Revision No. 00

ULR : TC611719000001041F  
Sample Registration No.  
Sample code given by customer

PBTI/ENV/090519/000559  
STP Treated Effluent-75 KLD- Site-IISER, Mohali

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### Test Results

S.No.	Parameter	Results	Units	Standard / Specification / Method Followed
1	pH	7.51		IS 3025 (Part 11)
2	Total Suspended Solids (TSS)	20	mg/l	IS 3025 (Part 17)
3	Biochemical Oxygen Demand (BOD3 at 27°C)	12	mg/l	IS 3025 (Part 44)
4	Chemical Oxygen Demand (COD) Total	28	mg/l	IS 3025 (Part 58)

*[Signature]*  
16/5/19  
Authorized Signatory  
Punjab Biotechnology Incubator

Report Not Valid for  
Consent Purpose of PPCB  
PBTI, Mohali

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No.PBTI/ENV/090519/000560

Dated :

## TEST REPORT

ULR : TC611719000001042F

Sample Registration No. :

PBTI/ENV/090519/000560

Sample code given by customer :

STP Treated Effluent-80 KLD- Site-IISER, Mohali

Issued to:

SR Environ Pvt. Ltd.,  
New No 37, Old No 18, Dr. Guruswamy Road, Chetpet  
Chennai - 600031

### SAMPLE PARTICULARS

Your Ref. No. : PBTI/SRF No.19265,dt.09/05/19 & Email Dt. 09/05/2019  
Date of Receipt : 09/05/2019  
Name/Nature of sample : Treated Effluent  
Sample code given by customer : STP Treated Effluent-80 KLD- Site-IISER, Mohali  
Condition of the sample : Intact coded sample under unrefrigerated conditions  
Brand name : NA  
Qty/Pkg. : 4L approx. (2Lx2) in plastic Jars  
Batch No.: NA  
Date of Manufacture : NA/NM  
Sampling Method : Sample not drawn by PBTI  
Test Start Date : 09/05/2019  
Test Completion Date : 16/05/2019

Report Not Valid for  
Consent Purpose of PPCB

PBTI, Mohali

MHC  
16/5/19

Authorized Signatory

Punjab Biotechnology Incubator

Employee Code: 16

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Format No : PBTI/F/5.10/02

Revision No. 00

Page No. 1/2

Dated :

(11) (23)

ULR : TC61171900001042F

Sample Registration No.

Sample code given by customer

: PBTI/ENV/090519/000560

: STP Treated Effluent-80 KLD- Site-IISER, Mohali

### Test Results

S.No.	Parameter	Results	Units	Standard / Specification / Method Followed
1	pH	7.55		IS 3025 (Part 11)
2	Total Suspended Solids (TSS)	29	mg/l	IS 3025 (Part 17)
3	Biochemical Oxygen Demand (BOD3 at 27oC)	22	mg/l	IS 3025 (Part 44)
4	Chemical Oxygen Demand (COD) Total	80	mg/l	IS 3025 (Part 58)

*[Signature]*  
16/5/19

Authorized Signatory  
Punjab Biotechnology Incubator

Report Not Valid for  
Consent Purpose of PPCB  
PBTI, Mohali

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No.PBTI/ENV/090519/000561

Dated :

## TEST REPORT

ULR : TC611719000001043F

Sample Registration No.

Sample code given by customer

: PBTI/ENV/090519/000561

: STP Untreated Effluent-Raw Water-IISER, Mohali

### Issued to:

SR Environ Pvt. Ltd.,

New No 37, Old No 18, Dr. Guruswamy Road, Chetpet

Chennai - 600031

### SAMPLE PARTICULARS

Your Ref. No. : PBTI/SRF No.19265,dt.09/05/19 & Email Dt. 09/05/2019

Date of Receipt : 09/05/2019

Name/Nature of sample : Untreated Effluent

Sample code given by customer : STP Untreated Effluent-Raw Water-IISER, Mohali

Condition of the sample : Intact coded sample under unrefrigerated conditions

Brand name : NA

Qty/Pkg. : 4L approx. in plastic jar (2L) & plastic bottle (2L)

Batch No.: NA

Date of Manufacture : NA/NM

Sampling Method : Sample not drawn by PBTI

Test Start Date : 09/05/2019

Test Completion Date : 16/05/2019

Report Not Valid for  
Consent Purpose of PPCB

PBTI, Mohali

*[Signature]*  
16/5/19  
Authorized Signatory  
Punjab Biotechnology Incubator  
Employee Code: 16

### Note:

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Format No : PBTI/F/5.10/02  
Revision No.00

ULR : TC611719000001043F  
Sample Registration No.  
Sample code given by customer

PBTI/ENV/090519/000561  
STP Untreated Effluent-Raw Water-IISER, Mohali

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### Test Results

S.No.	Parameter	Results	Units	Standard / Specification / Method Followed
1	pH	7.50		IS 3025 (Part 11)
2	Total Suspended Solids (TSS)	192	mg/l	IS 3025 (Part 17)
3	Biochemical Oxygen Demand (BOD3 at 27°C)	145	mg/l	IS 3025 (Part 44)
4	Chemical Oxygen Demand (COD) Total	378	mg/l	IS 3025 (Part 58)

16/5/19

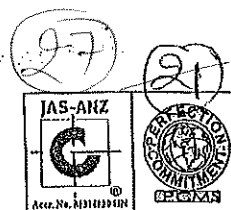
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Punjab Biotechnology Incubator

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Consent Purpose of PPCB  
PBTI, Mohali



# Eco Laboratories & Consultants Pvt. Ltd.

CIN : U74140PB2011PTC034739



[A Govt. Approved, ISO 9001:2015, 14001 & OHSAS-18001:2007 certified & Approved by MOEF, PPCB]

## TEST REPORT STP OUTLET REPORT (BOKLD) Delet



Eco Laboratories & Consultants Pvt. Ltd.  
Gurgaon, Haryana

Test Report No. : EL220419GE005	EL/19-20/13775	Page No. 1/1
Customer	Indian Institute of Science Education and Research Sector -81, Knowledge City, Mohali	
Work Order No. & Date	IISER/18-19/EE-EO/107 dated 04/05/2018	
Type of Sample	Waste Water	
Mode of Collection of Sample	Sample provided by Customer	
Date of Sampling	--	
Sampling Location	--	
Sampling Protocol	--	
Packing, Markings, Seal & Quantity	2 Plastic Bottles Marked 'STP Outlet- IISER' 2 litre + 1litre	
Date of Receipt of Sample	22/04/2019	
Period of Analysis	22/04/2019 To 26/04/2019	
Date of Reporting	26/04/2019	
Sample Observation	Colorless liquid with slight suspended particles.	

### RESULTS

S.No.	Test Parameter	Unit	Results	Standards*	Test Method
1	pH	-	8.08	5.5-9.0	APHA-23 <sup>rd</sup> Ed 2017-4500B
2	Total Dissolved Solids	mg/l	423	-	APHA-23 <sup>rd</sup> Ed 2017- 2540C
3	Total Suspended Solids	mg/l	6	100	APHA-23 <sup>rd</sup> Ed 2017- 2540 D
4	Biochemical Oxygen Demand (BOD)	mg/l	9.1	30	IS: 3025(P-44) 1993 R-1999 Ad.1 BOD 3days at 27°C
5	Chemical Oxygen Demand (COD)	mg/l	32	250	APHA-23 <sup>rd</sup> Ed 2017- 5220B
6	Oil & Grease	mg/l	BDL(DL 3)	10	APHA-23 <sup>rd</sup> Ed 2017- 5520D
7	Faecal Coliforms	MPN/100ml	14	--	APHA-23 <sup>rd</sup> Ed Chapter 9

Remarks (if any) BDL-Below Detection Limit; DL- Detection Limit  
\*as per discharge of environmental pollutants (wastewater) in inland surface water as per The Environment(Protection) Rules, 1986  
Please refer Terms & Conditions overleaf

\*\*End of Report\*\*

*Deepak*  
Lab Incharge

*Simranjit Kaur*  
Authorized Signatory-Biological

*Dr. Roopak Kumar*  
Authorized Signatory, Chemical

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No. PBT/FA0/210219/004232

1324

Dated: 06/03/19

ULR : TC611719000000414F

## TEST REPORT

Sample Registration No.

: FA0/210219/004232

Sample code given by customer

: Drinking Water-Residence

Issued to:

Indian Institute of Science Education & Research (IISER),  
Knowledge City, Sector - 81, P.O. Manauli,  
SAS Nagar, Mohali - 140306

Punjab

Your Ref. No.

: PBT/SRF No.18062, dt. 21/02/2019

### SAMPLE PARTICULARS

Date of Receipt

: 21/02/2019

Name/Nature of sample

: Water

Sample code given by customer

: Drinking Water-Residence

Condition of the sample

: Intact coded sample under unrefrigerated condition

Brand name

: NA

Qty/Pkg.

: 5L approx. in plastic cans

Batch No.:

: NA

Date of Manufacture :

: NA/NM

Sampling Method

: Sample not drawn by PBTI

Test Start Date

: 21/02/2019

Test Completion Date

: 06/03/2019

Note:

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Authorized Signatory

Punjab Biotechnology Incubator

Employee Code: 16

Format No : PBT/F/5.10/03

Revision No. 00

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Dated :

ULR : TC61171900000414F

Sample Registration No. : FA0/210219/004232

Sample code given by customer : Drinking Water-Residence

**Test Results**

S.No.	Parameter	Requirement (Desirable Limit) As per IS 10500 : 2012)	Results	Units	Standard / Specification / Method Followed
1	Color ✓	Max 5	0	Hazen	IS 3025 (Part 4)
2	Odour ✓	Agreeable	Agreeable		IS 3025 (Part 5)
3	pH ✓	6.5-8.5	6.16		IS 3025 (Part 11)
4	Taste ✓	Agreeable	Agreeable		IS 3025 (Part 8)
5	Turbidity	Max 1	0	NTU	IS 3025 (Part 10)
6	Total Dissolved Solids (TDS) ✓	Max 500	20	mg/l	IS 3025 (Part 16)
7	Aluminium (as Al) ✓	Max 0.03	BDL (MDL : 0.01)	mg/l	APHA 3125 B (By ICP-MS)
8	Chloride (as Cl) ✓	Max 250	4.9	mg/l	IS 3025 (Part 32)
9	Fluoride (as F) ✓	Max 1	BDL (MDL 0.1)	mg/l	IS 3025 (Part 60) by Spectrophotometer
10	Residual free chlorine ✓	Min 0.2 (For chlorinated supplies)	BDL (MDL 0.1)	mg/l	IS 3025 (Part 26)
11	Iron (as Fe) ✓	Max 1	BDL (MDL : 0.01)	mg/l	APHA 3125 B (By ICP-MS)
12	Nitrate (as NO <sub>3</sub> ) ✓	Max 45	6.6	mg/l	IS 3025 (Part 34)
13	Selenium (as Se) ✓	Max 0.01	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
14	Alkalinity Total (as CaCO <sub>3</sub> ) ✓	Max 200	9	mg/l	IS 3025 (Part 23)
15	Hardness Total (as CaCO <sub>3</sub> ) ✓	Max 200	5	mg/l	IS 3025 (Part 21)
16	Zinc (as Zn) ✓	Max 5	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
17	Cadmium (as Cd) ✓	Max 0.003	BDL (MDL : 0.001)	mg/l	APHA 3125 B (By ICP-MS)
18	Lead (as Pb) ✓	Max 0.01	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
19	Mercury (as Hg) ✓	Max 0.001	BDL (MDL : 0.0005)	mg/l	APHA 3125 B (By ICP-MS)
20	Molybdenum (as Mo) ✓	Max 0.07	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
21	Nickel (as Ni) ✓	Max 0.02	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
22	Arsenic (As) ✓	Max 0.01	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
23	Chromium (as Cr) ✓	Max 0.05	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
24	Coliform ✓	Absent Per 100ml	Absent	per 100ml	IS 15185:2016
25	E.coli ✓	Absent Per 100ml	Absent	per 100ml	IS 15185:2016

BDL: Below Detection Limit

MDL: Method Detection Limit

16/6/19

Authorized Signatory  
Punjab Biotechnology Incubator

# Punjab Biotechnology Incubator

(Established by Govt. of Punjab)

A Component of Agri Food Biotechnology Cluster, Knowledge City, Mohali  
An NABL Accredited Facility

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Approved / FSSAI Empanelled / ISO Approved / AREDA Approved / PPOB Approved / Notified State Water Lab - GOI / Notified Under EPA - GOI

No.PBTI/FA0/210219/004233

1325

Dated: 06/03/19

## TEST REPORT

ULR : TC611719000000415F

Sample Registration No. : FA0/210219/004233  
Sample code given by customer : Drinking Water-Hostel

### Issued to:

Indian Institute of Science Education & Research (IISER),  
Knowledge City, Sector - 81, P.O. Manauli,  
SAS Nagar, Mohali - 140306

Punjab

### SAMPLE PARTICULARS

Your Ref. No. : PBTI/SRF No.18062,dt. 21/02/2019  
Date of Receipt : 21/02/2019  
Name/Nature of sample : Water  
Sample code given by customer : Drinking Water-Hostel  
Condition of the sample : Intact coded sample under unrefrigerated condition  
Brand name : NA  
Qty/Pkg. : 5L approx.in plastic cans  
Batch No.: : NA  
Date of Manufacture : : NA/NM  
Sampling Method : Sample not drawn by PBTI  
Test Start Date : 21/02/2019  
Test Completion Date : 06/03/2019

6/3/19

Authorized Signatory  
Punjab Biotechnology Incubator  
Employee Code: 16

### Note:

1. The above results pertain only to the sample tested.
2. The report shall not be used for advertising or any legal purpose without written permission from the Chief Executive Officer, Punjab Biotechnology Incubator.
3. This report cannot be re-produced, except when in full, without the written permission from the Chief Executive Officer, Punjab Biotechnology Incubator.
4. Perishable samples will be destroyed after testing, others after one month from the date of issue of the report, unless otherwise agreed with the customer or as required by the applicable regulations.

Format No : PBTI/F/5.10/03  
Revision No. 00

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Dated :

ULR : TC61171900000415F  
 Sample Registration No. : FA0/210219/004233  
 Sample code given by customer : Drinking Water-Hostel

**Test Results**

S.No.	Parameter	Requirement (Desirable Limit) As per IS 10500 : 2012)	Results	Units	Standard / Specification / Metho Followed
1	Color	Max 5	0	Hazen	IS 3025 (Part 4)
2	Odour	Agreeable	Agreeable		IS 3025 (Part 5)
3	pH	6.5-8.5	6.17		IS 3025 (Part 11)
4	Taste	Agreeable	* Not Tested		IS 3025 (Part 8)
5	Turbidity	Max 1	0	NTU	IS 3025 (Part 10)
6	Total Dissolved Solids (TDS)	Max 500	10	mg/l	IS 3025 (Part 16)
7	Aluminium (as Al)	Max 0.03	BDL (MDL : 0.01)	mg/l	APHA 3125 B (By ICP-MS)
8	Chloride (as Cl)	Max 250	6.5	mg/l	IS 3025 (Part 32)
9	Fluoride (as F)	Max 1	BDL (MDL : 0.1)	mg/l	IS 3025 (Part 60) by Spectrophotomet
10	Residual free chlorine	Min 0.2 (For chlorinated supplies)	BDL (MDL : 0.1)	mg/l	IS 3025 (Part 26)
11	Iron (as Fe)	Max 1	0.01	mg/l	APHA 3125 B (By ICP-MS)
12	Nitrate (as NO3)	Max 45	9	mg/l	IS 3025 (Part 34)
13	Selenium (as Se)	Max 0.01	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
14	Alkalinity Total (as CaCO3)	Max 200	7	mg/l	IS 3025 (Part 23)
15	Hardness Total (as CaCO3)	Max 200	3.5	mg/l	IS 3025 (Part 21)
16	Zinc (as Zn)	Max 5	0.007	mg/l	APHA 3125 B (By ICP-MS)
17	Cadmium (as Cd)	Max 0.003	BDL (MDL : 0.001)	mg/l	APHA 3125 B (By ICP-MS)
18	Lead (as Pb)	Max 0.01	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
19	Mercury (as Hg)	Max 0.001	BDL (MDL : 0.0005)	mg/l	APHA 3125 B (By ICP-MS)
20	Molybdenum (as Mo)	Max 0.07	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
21	Nickel (as Ni)	Max 0.02	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
22	Arsenic (As)	Max 0.01	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
23	Chromium (as Cr)	Max 0.05	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
24	Coliform	Absent Per 100ml	Present	per 100ml	IS15185:2016
25	E.coli	Absent Per 100ml	Absent	per 100ml	IS 15185:2016

\* Not tested as the sample was not complying with the requirements of microbiological parameters.  
 BDL: Below Detection Limit MDL: Method Detection Limit

6/3/19

Authorized Signat  
 Punjab Biotechnology Incuba

# Punjab Biotechnology Incubator

(Established by Govt. of Punjab)

A Component of Agri Food Biotechnology Cluster, Knowledge City, Mohali

An NABL Accredited Facility

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ISO 9001:2015 Certified | ISO 14001:2015 Certified | ISO 45001:2018 Certified | NABL Accredited | PAFADA Approved | PFBO Approved | Notified State Water Lab - GOP | Notified Under EPA - GOI

No. PBT/FA0/210219/004234

1326

Dated : 06/03/19

## TEST REPORT

ULR : TC611719000000416F

Sample Registration No. : FA0/210219/004234  
Sample code given by customer : Drinking Water-Academic Block -1 ✓

### Issued to:

Indian Institute of Science Education & Research (IISER),  
Knowledge City, Sector - 81, P.O. Manauli,  
SAS Nagar, Mohali - 140306

Punjab

### SAMPLE PARTICULARS

Your Ref. No. : PBT/SRF No.18062,dl. 21/02/2019  
Date of Receipt : 21/02/2019  
Name/Nature of sample : Water  
Sample code given by customer : Drinking Water-Academic Block -1  
Condition of the sample : Intact coded sample under unrefrigerated condition  
Brand name : NA  
Qty/Pkg. : 5L approx.in plastic cans  
Batch No.: : NA  
Date of Manufacture : : NA/NM  
Sampling Method : Sample not drawn by PBT  
Test Start Date : 21/02/2019  
Test Completion Date : 06/03/2019

6/3/19

Authorized Signatory  
Punjab Biotechnology Incubator  
Employee Code: 16

### Note:

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Format No : PBT/F/5.10/03  
Revision No. 00

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Dated :

ULR : TC61171900000416F  
 Sample Registration No. : FA0/210219/004234  
 Sample code given by customer : Drinking Water-Academic Block -1

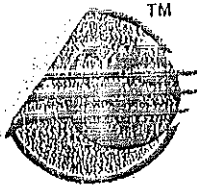
Test Results

S.No.	Parameter	Requirement (Desirable Limit) As per IS 10500 : 2012)	Results	Units	Standard / Specification / Method Followed
1	Color	Max 5	0	Hazen	IS 3025 (Part 4)
2	Odour	Agreeable	Agreeable		IS 3025 (Part 5)
3	pH	6.5-8.5	6.31		IS 3025 (Part 11)
4	Taste	Agreeable	* Not Tested		IS 3025 (Part 8)
5	Turbidity	Max 1	0	NTU	IS 3025 (Part 10)
6	Total Dissolved Solids (TDS)	Max 500	24	mg/l	IS 3025 (Part 15)
7	Aluminium (as Al)	Max 0.03	BDL (MDL : 0.01)	mg/l	APHA 3125 B (By ICP-MS)
8	Chloride (as Cl)	Max 250	4.9	mg/l	IS 3025 (Part 32)
9	Fluoride (as F)	Max 1	BDL (MDL : 0.1)	mg/l	IS 3025 (Part 60) by Spectrophotometer
10	Residual free chlorine	Min 0.2 (For chlorinated supplies)	BDL (MDL : 0.1)	mg/l	IS 3025 (Part 26)
11	Iron (as Fe)	Max 1	BDL (MDL : 0.01)	mg/l	APHA 3125 B (By ICP-MS)
12	Nitrate (as NO3)	Max 45	5.3	mg/l	IS 3025 (Part 34)
13	Selenium (as Se)	Max 0.01	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
14	Alkalinity Total (as CaCO3)	Max 200	8	mg/l	IS 3025 (Part 23)
15	Hardness Total (as CaCO3)	Max 200	3	mg/l	IS 3025 (Part 21)
16	Zinc (as Zn)	Max 5	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
17	Cadmium (as Cd)	Max 0.003	BDL (MDL : 0.001)	mg/l	APHA 3125 B (By ICP-MS)
18	Lead (as Pb)	Max 0.01	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
19	Mercury (as Hg)	Max 0.001	BDL (MDL : 0.0005)	mg/l	APHA 3125 B (By ICP-MS)
20	Molybdenum (as Mo)	Max 0.07	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
21	Nickel (as Ni)	Max 0.02	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
22	Arsenic (As)	Max 0.01	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
23	Chromium (as Cr)	Max 0.05	BDL (MDL : 0.005)	mg/l	APHA 3125 B (By ICP-MS)
24	Coliform	Absent Per 100ml	Present	per 100ml	IS 15185:2016
25	E. coli	Absent Per 100ml	Absent	per 100ml	IS 15185:2016

\* Not tested as the sample was not complying with the requirements of microbiological parameters.  
 BDL: Below Detection Limit MDL: Method Detection Limit

Signature  
6/3/19

Authorized Signat  
Punjab Biotechnology Incubator



# Eco Laboratories & Consultants Pvt. Ltd.

Environment Due-diligence, Monitoring and Analysis Services

ISO-14001:2004 OHSAS-18001:2007 CIIN : U74140PB2011PTC034739

A Government Approved/Accredited Test House



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## TEST REPORT

EL-15-16/	804/05/09/16	Lab No.	EL290216EC002	Page-1/1	
Customer:	IISER Sector-81, Mohali				
Type of Sample:	Noise Levels (Ambient)				
Work Order No. & Date:	Telephonic Order				
Mode of Collection of Sample:	Sampling by Laboratory				
Sampling Location:	Average Noise Level Near Site				
Date of Sampling:	29.02.16				
Sampling Protocol:	IS: 9989:1981 R-2002 and as per customers requirements				
Sampling Team:	Laboratory Representative: Mr. Ram Swaroop & Team Customer Representative: Mr. Vijay				
Date of Receipt of Sample:	29.02.16				
Date of Reporting:	05.03.16				
Testing Protocol:	Ambient Air Quality Standards for Noise				
S.No	Test	Location	Unit	Results	Test Method
1	Ambient Day Time Noise Levels 1 Hour L <sub>eq</sub>	Average Noise Level Near Site	dB(A)	49.8	IS: 9989:1981 R-2002

Note: The Noise-Ambient Air Quality Standards are given for reference.

*S. Anand*  
Lab Incharge

*Vijay*  
Lab Head

### Noise: Ambient Air Quality Standards

Area Code	Category of Area	Limit.dB (A) Leq	
		Day Time (6AM-10PM)	Night Time (10PM-6AM)
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

\*\*End of Report\*\*