

#### **7.1.4 Waste Water Recycling-*documents attached***

1. Bill for Purchase and Technical Details of Sewage Treatment Plant
2. Bills for maintenance of Waste Water Recycling System

STP

VAT INVOICE

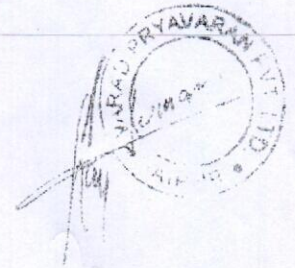
Buyer's Copy

VARAD PRYAVARAN Pvt. Ltd. 308, Radhika Complex Loha Mandi, S.C. Road Jaipur-01	Invoice No. <b>035</b>	Dated <b>05-09-2011</b>
	Delivery Note	Mode/Terms of payments <b>As per contract</b>
	Supplier's ref	Other Reference(s)
Buyer <b>JAGNNATH UNIVERSITY</b> Chaksu Jaipur	Buyers order No.	Dated <b>25-04-2011</b>
	Dispatch Through <b>Truck</b>	Destination JNIT, Sitapura
	Term Of Delivery <b>On Site.</b>	

Description of Goods	Rate	Quantity	Amount
Supply of Equipment for Sewage Treatment Plant Capacity-100KLD	1130000.00	One	1130000.00
	VAT@5%		56500.00
Installation & Commissioning of S.T.P.	70000/-	One No.	70000.00
Total			1256500.00

Amount Chargeable(In words)  
Rs. Twelve Lakh Fifty Six Thousand Five Hundred Only

Company's VAT TIN :08681666493  
 Company's CST No. :08681666493  
 Buyer's CST No.  
 Buyer's LST No.



Declaration  
We declared that this invoice shows the actual price of the goods described and that all particulars are true and correct

For VARAD PRYAVARAN Pvt. Ltd.

*[Signature]*  
Authorized Sign.

This is computer Generated Invoice

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Registrar  
Jagan Nath University, Jaipur

STP of 100 KLD  
for treatment of sewage  
*[Signature]*



**WORK/PURCHASE ORDER**

**M/s** Varad Pryavaran Pvt. Ltd,  
308, Radhika Complex,  
Loha Mandi, Sansar Chand Raod  
Jaipur-01

Date-25/04/11

Kind Attn:-Mr. Ajay Kumar Nunia

Sub:-Work/Purchase order for supply and installation and commissioning of STP  
capacity-100 KLD

Project:-Construction of STP at Jagannath University, Chaksu, Jaipur

Dear Sir,

With reference to your quotation and further discussions held with us. We would like to place the order for following.

S.No	Name	Qty	Unit	Rate	Amount
1	Supply of Equipment for sewage treatment Plant of capacity-50 KLD as per annexure attached	1	Nos	13,00,000	11,30,000
2	Installation & Commissioning of STP of above supply	1	Nos	70,000	70,000/-
<b>TOTAL AMOUNT</b>					<b>Rs 12,00,000/-</b>

**Terms & Condition: -**

1. **Delivery:** - 5 to 6 weeks
2. **Payment condition:** - Rs 3,00,000 Advance, Rs 6,00,000 after supply of equipments and remaining after installation and commissioning
3. **Taxes:** - 5 % Vat on mechanical equipments (on Rs.11,30,000/-)
4. **Cartage:** Cartage would not be paid extra.
5. **Warranty:** -One year onsite warranty of all items.
6. Bill of Material is attached

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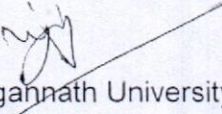
**OTHER WORKS:**

- Training to client's operators for 3 Months.
- Erection and Commissioning of the plant.
- All civil drawings
- Operation and Maintenance menu

You are requested to sign with stamp the duplicate of this order in token of your acceptance


Thanking you

Yours faithfully

  
For Jagannath University

Received & Accepted

M/s Varad Pryavaran Pvt. Ltd

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## ANNEXURE

### INPUT DESIGN DATA

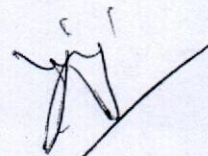
Items	Unit	Values
Design flow	Mt <sup>3</sup> /day	100
Peak flow	Mt <sup>3</sup> /Hr.	20
Average pump flow in sewerage treatment plant	Mt <sup>3</sup> /Hr.	4.5
BOD	mg/Lt.	250
COD	mg/Lt.	200
TSS	mg/Lt.	150
Oil & Grease	mg/Lt.	50
Coliform Count	Counts/100ml	1 X 10 <sup>7</sup>

### TREATED WASTE WATER QUALITY

BOD	mg/Lt.	<30
COD	mg/Lt.	<70
TSS	mg/Lt.	<20
Oil & Grease	mg/Lt.	<10
Coli form Count	Counts/100ml	<1000
pH		7.0-8.0

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### SCOPE OF WORK

Your scope of work includes procurement of components engineering, supply and super vision of erection and commissioning of one Sewage Treatment Plant of capacity **100 KL/Day**. As per the system description comprising of various units under listed as mechanical, electrical and instrumentation, however, excluding civil work.

#### **CIVIL COMPONENT**

Oil and Grease chamber base on peak flow having 0.2Hr. (On Kitchen Discharge)

Collection cum equalization tank : 60KL.

MOC : RCC. M-25

Treated water tank : 50KL

MOC : RCC. M-25

Sludge beds

MOC : Stone /Brick.

**Foundation and platform for Mechanical Equipment:** Lot (as required)



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MECHANICAL COMPONENT

**BAR SCREEN**

Description

Number

2 No.

Material of construction

MS Epoxy

Type

Coarse

Bar size

5mmthick

Clear spacing (mm)

20 & 10.

**RAW SEWAGE PUMP**

Description

Quantity

1Working +1Standby

Flow

4.5M<sup>3</sup>/Hr.

Head

12mwc

Type

Submersible.

Make

CRI



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## MOVING BED BIO REACTOR

Description

System Proposed

**Bio-Reactor**

Reactor MOC

Free Board

**Media Type**

Material of construction

Fluidized Bed Bio Reactor

M.S. Epoxy Coated.

0.5Mt.

PP

**Air Grid in bioreactor**

Type

Coarse bubble, header & lateral type

Material of construction

SS-304

**Aeration Grid in collection Tank**

Material of construction

HDPE

Type

Coarse bubble Type

**Air Blower**

No. of Air Blower

2(1W + 1S)

MOC

CI

Type

Positive displacement (Roots Type)

Make

Everest/ Equivalent.

Power

4.1 bhp.

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(B/g)



**CLARIFIER**

Description

Type of Clarifier

Tube settler

Hydraulic loading

2M/Hr. Rising velocity

MOC

M.S. Epoxy.

Free Board mm

300

**Over flow weirs**

Type proposed

U notch

Material of construction

MS Epoxy

**Graded Filtration or Pressure Sand Filter**

No. of Units

1 No.

Diameter

1000mm.

Height

1500mm

MOC

MS-Epoxy

Make

AVS (As IS Specification

-Duty for PSF


To remove suspended matter up to 30 micron size.

Accessories

The unit will be complete with frontal piping and Valving, lot of media.

Operating Pressure

2.0 + 0.50 Kg/cm<sup>2</sup>

  
A handwritten signature in black ink, consisting of stylized initials, is written above a diagonal line that extends from the bottom right towards the center of the page.

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**Activated Carbon Filter**

No. of Units	1 No.
Diameter	1000mm.
Height	1500mm
Make	AVS (As IS Specification)
Duty for ACF	To remove Oil & Grease and specific Colour causing molecules.
Accessories	The unit will be complete with frontal piping and Valving

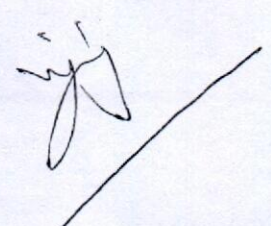
**Pressure Feed Pump**

No. of Units	Two
Capacity	10M3/Hr. * 26M head
MOC	C.I.
Make	Kirlosker/Equivalent
Power	2HP.

**COLIFORM REMOVE SYSTEM**

Description	
Type	Chlorine dosing
Process	Chlorine dosing
Quantity	No additional equipment required
Parameter required	<1000counts/100ml.

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**DISINFACTIONS**

Description

Disinfectant Hypo chlorite 6%-Cl2  
Chlorine dosage 4ppm  
Process of dosing Sodium Hypo solution through Gravity.

**Chlorine Contact tank**

Retention time, min.(minimum) 30  
Tank volume M3 05KL+0.5KL.  
Tank material of construction HDPE  
Size As per design

**ELECTRICAL COMPONENTS**

**Motor Control Center**

No. of units 1No.  
Type Self standing vermin proof  
Make VPPL/Others.

**Cabling**

Lot, Within in Battery Limit only earth wire joint with client existing

**Piping & Valving**

**Piping**

Interconnecting within Battery Limits

Quantity

Lot, within Battery limit for a single site

Layout i.e.,

MOC

MS welded joints

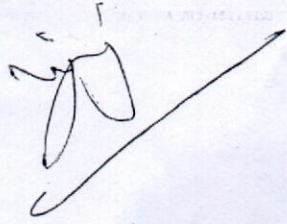
**Valving**

Within Battery limit for a single site layout

Quantity

Lot.

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# Shankar Lal Raigar

Address:- Gram Sawaliya Th. Chaksu, Jaipur

Bill & Voucher  
for installation of  
STP

Date: 20/11/19

① 245 टॉक @ 4/sqft x 1130 - 4520/-

② 1130 sqft @ 100 - 113000/-

③ 4222 यॉक 245 टॉक  
(15x15) @ 100 x 55125 - 55125/-

④ 20 टॉक @ 350 - 7000/-

⑤ 3 टॉक @ 2350 - 7050/-

⑥ 735 ft @ 58/ft - 5075/-

⑦ 4154 8" PVC - 1870/-

⑧ 4900/-

⑨ 6000/-

Note: STP & Boundary & fencing work.

204540 / -  
less - 24540 / -

180000 / -

Jagannath University  
Jaipur, Jaipur  
Inward/Outward  
20 NOV 2019  
S. No. 885

Jagannath University  
Paid By Check No. 5706107  
Date: 25/11/19 for Rs. 576200/-

Accounts Officer  
JAGANATH UNIVERSITY  
JAIPUR

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Jagan Nath University, Jaipur



# JAGANNATH UNIVERSITY

(ESTABLISHED UNDER SECTION 2(f) OF UGC ACT, 1956)  
University Campus : Village Rampura , Tehsil Chaksu, Jaipur  
Ph. : 0141-3020500-555, 4071551-552 Fax No. 0141-3020538

*am*

Date : 21-11-19

## CASH / BANK / JOURNAL VOUCHER

PARTICULARS	CODE	DEBIT		CREDIT	
		Rs.	P.	Rs.	P.
Repair & Maints Bd		180,000			
To Ids Payable on Contractor				1300	
to Shankar Lal Rajgar				178200	
Remy Amt credited to m/s Shankar Lal Rajgar Agt On 21/11/19 for STP side Boundary & Repairing work					
		180,000		180,000	

Prepared By

Received by

Authorized Signatory

*[Signature]*

Accounts Officer  
JAGANNATH UNIVERSITY  
JAIPUR

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of STP Plant

HUMAN WATER TECH

ISO 9001-20

2-1A Rs - 1,77,690 without bill (bill by individual)

QUOTE Advance - max - 15%

For STP W.

Date - 29.12.2020

Quote To - JNIT Chaksu

Name :- Bhawani Singh

Bank :- Bank of Baroda

IFSC :- ~~BARB0000000~~

BARBODEOLIX

No	Description	Quantity	Rate	Amount
1	Sand 16-32	900 Kg	12	10800
2	Activated Carbon	500 Kg	54	27000
3	Complete Air Blower Servicing with Bearing and oil changing	2	17200	34400
4	MS Pipe 2.5 Inch Pipe with fitting charge, maintenance work and color	25 Mtr	680	17000
5	Butterfly Valve 2.5 Inch	7	2220	15540
6	Electrical Panel Work with new MCB, Contactor and Relay Work	1	14500	14500
7	Loading Unloading charge for media changing	1	18000	18000
8	Submersible pump 20 meter head Make Kirloskar, Wilo with electrical panel	1	21250	21250
9	PVC piping Work for sludge transfer pump header	1	9700	9700
10	Freight charge for Material Delivery Work	1	9500	9500

177690

-29000

Total Amount

177690

157690/- Pending

Terms and Conditions -

1. GST 18% Extra.
2. Delivery at Site.
3. 50% Payment before start the work 50% after complete the work.
4. If any system found damage during checking, then replacement and repairing will be chargeable.
5. On call service, in case of emergency will be charge free of cost.
6. Guarantee for one year.

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Accounts Officer  
JAGANATH UNIVERSITY  
JAIPUR