

**NATIONAL MISSION FOR CLEAN GANGA (NMCG)**  
**MINISTRY OF JAL SHAKTI DEPARTMENT OF WATER RESOURCES,  
RIVER DEVELOPMENT & GANGA REJUVENATION, GOVT. OF INDIA**



जल शक्ति मंत्रालय  
जल संसाधन, नदी विकास और गंगा संरक्षण विभाग  
MINISTRY OF JAL SHAKTI  
DEPARTMENT OF WATER RESOURCES,  
RIVER DEVELOPMENT & GANGA REJUVENATION

**DEVELOPMENT OF NEW SEWAGE TREATMENT PLANTS,  
REHABILITATION OF EXISTING SEWAGE TREATMENT  
INFRASTRUCTURE AND O&M FOR 15 YEARS IN KANPUR**

**UNDER**

**ONE CITY ONE OPERATOR CONCEPT THROUGH HYBRID ANNUITY  
BASED PPP MODE (HAM – KANPUR)**

(STC agreement dated 19.04.2019 & LOA: Pr-12012/41/2018-PPP/NMCG dated 04.02.2019)

**Monthly Progress Report**

**Of**

**Project Engineer**

**March - 2021**



**Executing Agency**  
Uttar Pradesh Jal  
Nigam  
Benajhabar Road,  
Kanpur  
Uttar Pradesh -  
208002



**Funding Agency**  
National Mission for  
Clean Ganga  
MoWR, River  
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**ABBREVIATIONS**

ASP	Activated Sludge Process
BEP	Basic Engineering Package
BOD	Biochemical Oxygen Demand
CETP	Common Effluent Treatment Plant
COD	Chemical Oxygen Demand
COD	Commercial Operation Date
CPs	Condition Precedent
CTE	Consent To Establish
CTO	Consent to Operate
DFGs	Dual Fuel Generators
DPR	Detailed Project Report
ESHS	Environment, Social, Health And Safety
GOI	Government of India
HAM	Hybrid Annuity Model
I&D	Interception & Diversion
IPS	Intermediate Pumping Station
KPIs	Key Performance Indicators
KRMPL	Kanpur River Management Private Limited
LOA	Letter of Award
MOM	Minutes of Meeting
MPS	Main Pumping Station
O&M	Operation and Maintenance
PLC	Programmable Logic Control
PMC	Project Management Consultant
PDD	Proposal Due Date
PDMC	Project Development and Monitoring Consultant
PPP	Public Private Partnership
QAP	Quality Assurance Plan
RFP	Request for Proposal
RTU	Remote Terminal Unit
RTOLMS	Real Time Online Monitoring System
TOR	Terms of Reference
SBR	Sequential Batch Reactors
STP	Sewage Treatment Plant
TEPH	Treated Effluent Pump House
UASB	Up-Flow Anaerobic Sludge Blanket Reactor

# MONTHLY PROGRESS REPORT – HAM KANPUR

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## 1 INTRODUCTION

The Govt. of India, recognizing that long-term rejuvenation of the river Ganga will have significant social and economic benefits on the lives of the 500 million people living along its basin, has identified cleaning of the river Ganga as one of its priorities. For this purpose, in May 2015, the GoI approved the flagship Namami Gange programme for cleaning, rejuvenation, and protection of the river Ganga. In January 2016, the GoI approved a hybrid annuity model to implement STP projects under the Namami Gange programme on a PPP basis.

Subsequently, the MoWR issued the River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016 (Ganga 2016 Order) to constitute various authorities to assist the GoI in achieving its aim of effective abatement of pollution in the river Ganga. The Ganga 2016 Order applies to all states in the catchment of the river Ganga basin, including Uttar Pradesh. The Ganga 2016 Order revised the legal status of NMCG (which was initially constituted as a registered society under the Societies Registration Act, 1860) to an authority constituted under the Environment (Protection) Act, 1986 and designated NMCG as the nodal agency for the implementation of the Ganga 2016 Order.

Rapidly increasing population, rising standards of living and exponential growth of industrialisation and urbanisation have exposed water resources, in general, and rivers, in particular, to various forms of degradation. The mighty Ganga is no exception. The deterioration in the water quality impacts the people immediately. Ganga, in some stretches, particularly during lean seasons has become unfit even for bathing. The threat of global climate change, the effect of glacial melt on Ganga flow and the impacts of infrastructural projects in the upper reaches of the river, raise issues that need a comprehensive response.

The Uttar Pradesh Jal Nigam (Jal Nigam) is a statutory body constituted under the Uttar Pradesh Water Supply and Sewerage Act 1975, and has the power to develop, maintain and regulate water supply and sewerage works in Uttar Pradesh. With a view to implement the Namami Gange programme and the Ganga 2016 order in the State of Uttar Pradesh, the Jal Nigam, in association with NMCG has decided to undertake the development of:

- three new STP facilities (30 MLD Pankha, 15 MLD Unnao & 5 MLD Shuklaganj) and their O&M for 15 years;
- rehabilitation of existing 130 MLD Jajmau Phase-I STP facility with O&M for 15 years and;
- O&M for three existing STP facilities (43 MLD Jajmau Phase-II, 210 MLD Bingawan & 42 MLD Sajari) in Kanpur under Hybrid Annuity based PPP mode.

While the Jal Nigam will be the principal executing agency and bidding authority for the Project, NMCG will be responsible for making payments to the Concessionaire and Project Engineer.

## 2 HYBRID ANNUITY MODEL (HAM)

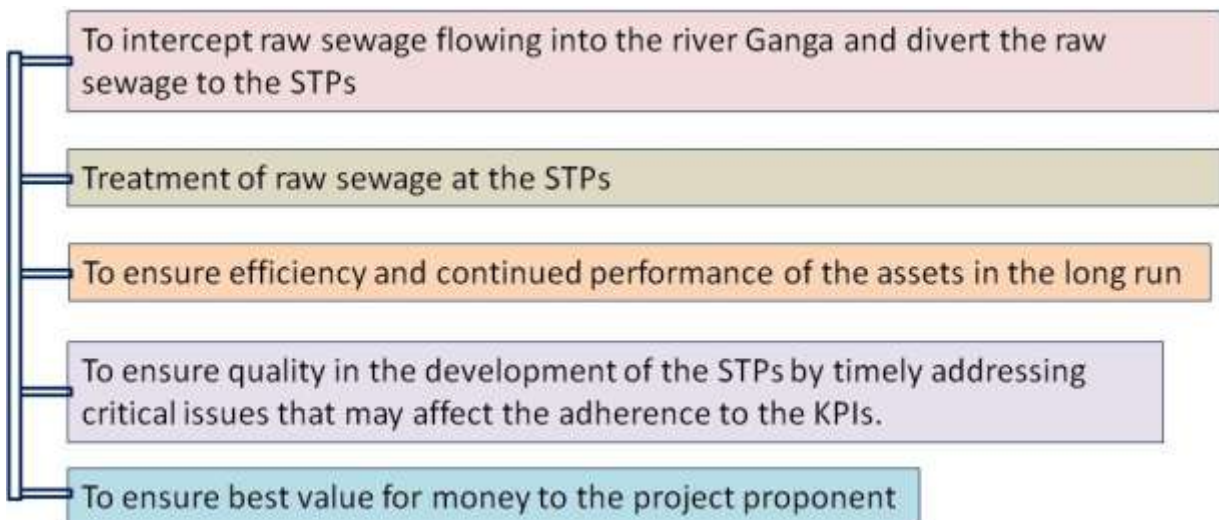
Government of India has approved the Namami Gange program as an integrated approach for effective abatement of pollution in river Ganga and Yamuna. As part of this and to ensure that no untreated domestic sewage flow into the river Ganga and Yamuna, various interventions are planned such as Interception & Diversion works and development & operation of Sewage Treatment Plants (STPs).

Considering various development models in practice for the construction, operation and maintenance of Sewage Treatment Plants, Government of India has approved the Hybrid Annuity based Public Private Partnership (PPP) mode as one of the options for the development & operation of STPs. Under this model, private investor/developer will design, build, finance, construct, rehabilitate, renovate, operate and maintain the asset (STPs, IPS, and MPS) to the Project Executing Agency/Jal Nigam at the end of the Concession Period (15 years). 40% of the Capital cost will be paid to the developer during construction of the STP. Balance 60% along with Operation & Maintenance (O&M) cost will be paid over the Concession Period on achievement of key performance indicators as per the contract. Entire cost of development and operation of the STPs will be 100% funded by the Government of India as central sector scheme.

NMCG & UPJN appointed M/s. Shah Technical Consultant Pvt. Ltd., as third party engineering firm as Project Engineer for this project through tendering process. Letter of Award is issued dated 4<sup>th</sup> February 2019 and agreement signed between the parties on 12<sup>th</sup> April 2019.

## 3 OBJECTIVES

To achieve above objectives effective development of STPs at Unnao, Shuklaganj and Pankha rehabilitation of existing STPs with O&M for 15 years in Kanpur are proposed under this program. The objectives that NMCG and the UP Jal Nigam wish to achieve through the Project are mentioned in Figure 1.



**Figure 1: Objectives of NMCG and UP JAL NIGAM**

#### 4 HAM KANPUR PROJECT AT A GLANCE

Details of HAM Kanpur project are given in the following table:

**Table 2.1: HAM Kanpur Project at a Glance**

<b>Name of Project</b>	: Development of new Sewage Treatment Plants and O&M for 15 years, Rehabilitation of existing Sewage Treatment Infrastructure and O&M for 15 years in Kanpur under One City One Operator concept through Hybrid Annuity based PPP mode. (HAM – Kanpur)
<b>Client</b>	: National Mission for Clean Ganga (NMCG), New Delhi and UP Jal Nigam
<b>Execution Agency</b>	: Uttar Pradesh Jal Nigam (UPJN)
<b>Consultant</b>	: Shah Technical Consultants (P) Ltd. as ‘ <b>Project Engineer</b> ’
<b>Agreement &amp; LOA</b>	: STC Agreement dated 12.04.2019 & LOA: Pr-12012/41/2018-PPP/NMCG dated 04.02.2019
<b>Concessionaire</b>	: Kanpur River Management Private Limited (KRMPL) an SPV of Shapoorji Pallonji & Company Private Limited, Mumbai
<b>Concessionaire’s Agreement</b>	: 14/GM/2018-19 dated 21.12.2018
<b>Cost of Project (CAPEX+OPEX)</b>	: Rs. 816.25 Cr. (CAPEX 255.50 Cr. + OPEX 560.75 Cr.)
<b>Effective Date</b>	: 11.10.2019
<b>Completion date (as per contract)</b>	: 24 Months from effective date (21 months construction + 3 months trial run)
<b>O&amp;M period</b>	: 15 years after last Commercial Operation Date (COD)
<b>Description of Work</b>	: <ul style="list-style-type: none"> <li>➤ Construction of three new STPs (SBR) at different locations (30 MLD at Pankha, 15 MLD at Unnao and 5 MLD STP at Shuklaganj) and related infrastructure with 15 years of O&amp;M;</li> <li>➤ Rehabilitation of 130 MLD (Phase-I) STP at Jajmau with construction of 200 MLD TEPS and 173 MLD CCT at Jajmau with O&amp;M for 15 years;</li> <li>➤ O&amp;M of 43 MLD (Phase-II) Jajmau facilities, O&amp;M of 210 MLD Bingawan facilities and O&amp;M of 42 MLD Sajari facilities for 15 years;</li> </ul>

## 5 PROJECT WISE DETAILS OF COMPONENTS UNDER HAM KANPUR PROJECT

HAM Kanpur project is divided into 5 districts of the Kanpur– Pankha (District –III, Kanpur), Unnao & Shuklaganj – (District Unnao), Jajmau – (District I, Kanpur), Bingawan – (District II, Kanpur) and Sajari – (District IV, Kanpur).

Under this project, development and O&M work of total seven STP facilities are proposed in which three new STP facilities based on SBR technology with associated infrastructure have been proposed for - 30 MLD Pankha (District III, Kanpur), 15 MLD Unnao&5 MLD Shuklaganj.

Rehabilitation and O&M for 15 years is proposed for 130 MLD Jajmau STP facilities (Phase-I) and O&M of 210 MLD USAB based Bingawan STP facilities, 43 MLD Jajmau Phase-II and for 42 MLD ASP based Sajari STP facilities for 15 years.

### 5.1 PANKHA FACILITIES

Project wise components details of Pankha Facilities are given in table 5.1:

**Table 5.1: Pankha Facilities**

SN	STP Facilities	Capacity/dia. /size	No. of units/length
	Date of Start- Effective Date (11.10.2019)		
	Scope of Work- New Construction and O&M		
1.1	STP	30 MLD	1
1.2	MPS	115MLD	1
1.3	ICI Nala IPS	25 MLD	1
1.4	Sundar Nagar IPS	20 MLD	1
1.5	Thermal Nala (A)(tapping)	22 MLD	1
1.6	Thermal Nala (B)(tapping)	8 MLD	1
1.7	ICI Nala (tapping)	7.85 MLD	1
1.8	Common Collection chamber	-	1
1.9	Rising main (ICI Nala IPS to collection chamber)	800mm-φ	6.91km
1.10	Rising main (Sundar Nagar IPS to collection chamber)	800mm-φ	0.651km
1.11	Gravity main (Thermal Nala B Tapping to common collection chamber)		
1.12	Common Gravity main (collection chamber to MPS)	2000mm- φ	1.948Km
1.13	Sewage network	350mm-φ	2.771km
		400 mm-φ	1.359km
		450 mm-φ	1.272km
		500 mm-φ	1.243km
		600 mm-φ	1.778km
		700 mm-φ	1.487km
		800 mm-φ	1.012km



		900 mm-φ	2.170km
		1200 mm-φ	3.634km
		1600 mm-φ	1.596km
		2000 mm-φ	1.948km
<b>1.14</b>	<b>Milestones</b>	<b>Date</b>	<b>Amount in Rs.</b>
	1 <sup>st</sup> Milestone	12-Oct-2019 to 25-Apr-2020	1248,39,750
	2 <sup>nd</sup> Milestone	26-Apr-2020 to 10-Jul-2020	1248,39,750
	3 <sup>rd</sup> Milestone	11-Jul-2020 to 24-Sep-2020	1248,39,750
	4 <sup>th</sup> Milestone	25-Sep-2020 to 09-Dec-2020	1248,39,750
	5 <sup>th</sup> Milestone	10-Dec-2020 to 13-Feb-2021	1248,39,750
	6 <sup>th</sup> Milestone	14-Feb-2021 to 21-Apr-2021	1248,39,750
	7 <sup>th</sup> Milestone	22-Apr-2021 to 22-Jun-2021	1248,39,750
	8 <sup>th</sup> Milestone	23-Jun-2021 to 25-Aug-2021	1248,39,750

## 5.2 UNNAO FACILITIES

Project wise components details of Unnao Facilities are given in table 5.2:

**Table 5.2: Unnao Facilities**

SN	STP Facilities	Capacity/ dia. /size	No. of units/length
	Date of Start- Effective Date (11.10.2019)		
	Scope of Work- New Construction and O&M		
<b>1.1</b>	STP	15 MLD	1
<b>1.2</b>	Sump cum Pump house (MPS)	40 MLD	1
<b>1.3</b>	Trunk Sewer	1200mm φ	3.2Km
<b>1.4</b>	I&D works (Nala tapping)	40 MLD	1
<b>1.5</b>	Trash screen	7m-1.7m x 0.8m	1
<b>1.6</b>	Grit chamber	12m-4m x 1m	2
<b>1.7</b>	Collection chamber	3.4m-6.2m x 3m	1
<b>1.8</b>	Rising main (MPS to STP)	750mm φ	100m
<b>1.9</b>	Rising main (bypass)	750mm φ	100m
<b>1.10</b>	Effluent distribution chamber	-	1
<b>1.11</b>	Effluent gravity channel (STP to discharge point )	1.5m x 1.0m	300m
<b>1.12</b>	Effluent disposal drains	-	500m
<b>1.13</b>	<b>Milestones</b>	<b>Date</b>	<b>Amount in Rs.</b>
	1 <sup>st</sup> Milestone	12-Oct-2019 to 24-Feb-2020	478,36,250
	2 <sup>nd</sup> Milestone	25-Feb-2020 to 15-May-2020	478,36,250
	3 <sup>rd</sup> Milestone	16-May-2020to 30-Jul-2020	478,36,250

4 <sup>th</sup> Milestone	30-Jul-2020to 14-Oct-2020	478,36,250
5 <sup>th</sup> Milestone	15-Oct-2020to 24-Dec-2020	478,36,250
6 <sup>th</sup> Milestone	10-Dec-2020 to 01-Mar-2021	478,36,250
7 <sup>th</sup> Milestone	02-Mar-2021 to 05-May-2021	478,36,250
8 <sup>th</sup> Milestone	06-May-2021to 10-Jul-2021	478,36,250

### 5.3 SHUKLAGANJ STP FACILITIES

Project wise components details of Shuklaganj STP are given in table 5.3:

**Table 5.3: Shuklaganj Facilities\***

SN	STP Facilities	Capacity/dia. /size	No. of units/length
	Date of Start- Effective Date (11.10.2019)		
	Scope of Work- New Construction and O&M		
1.1	STP	5 MLD*	1
1.2	Sump cum Pump house (MPS)	20 MLD	1
1.3	Connecting sewer	-	1
1.4	I&D works (Nala tapping)	-	1
1.5	Collection chamber	-	1
1.6	Rising main (MPS to STP)	500mm $\phi$	50m
1.7	Rising main (bypass)	500mm $\phi$	50m
1.8	Retaining wall		1
1.9	Effluent channel (STP to discharge point )	1.5m x1m	100m
1.10	<b>Milestones</b>	<b>To be submitted*</b>	

\*CTE for new land has been received in July 2020. Geotech survey is in progress

### 5.4 JAJMAU (PHASE I) FACILITIES

Project wise components details of Jajmau are given in table 5.4:

**Table 5.4: Jajmau Facilities**

SN	STP Facilities	Capacity/dia. /size	No. of units/length
<b>A</b>	<b>Phase-I</b>		
	Date of Start- Effective Date (11.10.2019)		
	Scope of Work- Renovation and O&M		
1.1	STP 1 on ASP technology with power Generation	130 MLD	1
1.2	Sump cum Pump house (TEPH)	200 MLD	1
1.3	CCT	173 MLD	1
1.4	Nawabganj IPS	-	1
1.5	Parvat IPS	-	1
1.6	Baba Ghat/Muar mill IPS	-	1

1.7	GuptarGhat IPS	-	1
1.8	Jajmau CSPA	-	1

### 5.5 JAJMAU PHASE II STP FACILITY

Project wise components details of Jajmau Phase II are given in table 5.4:

SN	STP Facilities	Capacity/ dia. /size	No. of units/length
	Schedule Handing Over Date- 01.10.2019		
	Scope of Work- O&M		
1.1	STP 2 on ASP technology with power Generation	43 MLD	1
1.2	Sanjaypuram IPS	-	1
1.3	Khalisa lane IPS	-	1
1.4	Jajmau MPS	-	1

### 5.6 BINGAWAN FACILITIES

Project wise component detail of Bingawan is given in table 5.5:

**Table 5.5: Bingawan Facilities**

SN	STP Facilities	Capacity /dia. /size	No. of units/length
	Schedule Handing Over Date- 01.04.2019		
	Scope of Work- Renovation and O&M for 15 years		
1.1	STP on UASB Technology with power generation	210 MLD	1
1.2	Installation of online monitoring system (RTOLMS)		L.S.
1.3	Bingawan MPS	200 MLD	1
1.4	Rakhimandi IPS	100 MLD	1
1.5	Halwakhanda IPS	20 MLD	1
1.6	Munshipurwa IPS	67 MLD	1
1.7	ShisamauNala (tapping)	8MLD	1

### 5.7 SAJARI FACILITIES

Project wise component detail of Sajari is given in table 5.6

**Table 5.6: Sajari Facilities**

SN	STP Facilities	Capacity/dia. /size	No. of units/length
	Schedule Handing Over Date- 11.10.2019		
	Scope of Work- O&M for 15 years		
1.1	STP on ASP technology	42 MLD	1
1.2	MPS	42 MLD	1
1.3	Chakeri IPS	14 MLD	1
1.4	Sanigawan IPS	14 MLD	1

## 6 PHYSICAL PROGRESS OF WORK

As per the provision of Concessionaire Agreement, effective date of the project was to be declared before 19<sup>th</sup> April 2019. Effective date for work execution under HAM Kanpur project was declared on 11<sup>th</sup> October 2019. Hence, work related to construction / execution of new STP facilities and related infrastructure i.e. Pankha, Unnao & Shuklaganj and renovation of existing facilities i.e. Jajmau 130 MLD started after effective date.

The overall physical progress of the facilities have been taken in the same proportion as financial progress as per milestones in approved Construction Plan. Overall progress can be monitored as project works have been divided in eight milestones each having progress of 12.5%. The scheduled date of project completion is 10<sup>th</sup> October 2021 i.e. 24 months from the effective date.

### 6.1 MILESTONE WISE ACTIVITIES AND PROGRESS: PANKHA STP FACILITIES

Milestone wise activities and their progress of work for Pankha STP are given in table 6.1:

**Table 6.1: Pankha STP Facilities**

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
A	<b>Design &amp; Drawing &amp; STP &amp; Sewer Laying works</b>									
	A. On approval of BEP									
	B. On approval of design & drawings for Civil & Sewerage works									
B	<b>CONSTRUCTION</b>									
	<b>STP (30 MLD)</b>									
1	<b>SBR Basin Area</b>			-			-			-
	<b>CIVIL WORK</b>			-			-			-
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation/Raft			-			-			-
	Wall 50% of total lift work			-			-			-
	Walls (balance 50% of Total Lift work)	60%	60%	147,57,600.00	40%	27%	66,40,920.00			-
	Baffle Walls work			-	75%	75%	92,23,500.00	25%	5%	6,14,900.00
	Walkway/Platform			-			-	50%	10%	12,29,800.00
	Finishing Work			-			-			-
2	<b>Chlorine Contact Tank Area</b>			-			-			-
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation/Raft			-			-			-
	Wall 50% of total lift work			-			-			-
	Walls (balance 50% of Total Lift work)	100%	100%	27,67,050.00			-			-
	Baffle Walls work			-	100%	80%	29,51,520.00			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Finishing Work			-			-	100%		-
3	<b>Chlorination House Area</b>			-			-			-
	<b>CIVIL WORK</b>			-			-			-
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation/Column footing			-			-			-
	Column & Beam	50%	50%	4,61,175.00			-			-
	Ground floor Slab	100%	100%	9,22,350.00			-			-
	Column & Beam			-	100%	100%	9,22,350.00			-
	Roof Slab			-	50%		-	50%		-
	Brickwork & Plaster			-			-	100%	10%	1,84,470.00
	Finishing Work			-			-			-
4	<b>Sludge Thickener Area</b>			-			-			-
	<b>CIVIL WORK</b>			-			-			-
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation wall/base slab			-			-			-
	Wall 50% of total lift work			-			-			-
	Walls (balance 50% of Total Lift work)	60%	60%	16,60,230.00	40%	30%	8,30,115.00			-
	Finishing Work			-			-	100%		-
5	<b>Inlet / Stilling Chamber Area</b>			-			-			-
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	RCC Foundation/Column footing			-			-			-
	Column & Beam	100%	100%	9,22,350.00			-			-
	RCC Slab			-	100%	100%	9,22,350.00			-
	RCC Wall			-			-	100%		-
	Final finishing including Staircases,Railing,Shade,Painting, etc.			-			-			-
6	<b>Manual &amp; Mechanical Fine Bar Screen Chamber Area</b>			-			-			-
	Site Clearance	100%	100%	50,000.00			-			-
	Excavation	100%	100%	2,45,960.00			-			-
	PCC	100%	100%	3,68,940.00			-			-
	RCC Foundation	100%	100%	12,29,800.00			-			-
	Column & Beam			-	100%	100%	18,44,700.00			-
	RCC Slab			-			-	100%		-
	RCC Wall			-			-			-
	Walkway/Platform			-			-			-
	Finishing Work			-			-			-
7	<b>Grit Chamber (Mechanical Cleaned) &amp; (Manually Cleaned)</b>			-			-			-
	Site Clearance	100%	100%	50,000.00			-			-
	Excavation	100%	100%	2,45,960.00			-			-
	PCC	100%	100%	3,68,940.00			-			-
	RCC Foundation	100%	100%	12,29,800.00			-			-
	Column & Beam			-	100%	100%	18,44,700.00			-
	RCC Slab			-	100%		-			-
	RCC Wall			-			-	100%		-
	Walkway/Platform			-			-	100%		-
	Finishing Work			-			-			-
8	<b>Flow Measurement Channel Area</b>			-			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Site Clearance	100%	100%	50,000.00			-			-
	Excavation	100%	100%	2,45,960.00			-			-
	PCC	100%	100%	3,68,940.00			-			-
	RCC Foundation	100%	100%	12,29,800.00			-			-
	Column & Beam			-	100%	90%	16,60,230.00			-
	RCC Slab			-	100%		-			-
	RCC Wall			-			-	100%		-
	Walkway/Platform			-			-			-
	Finishing Work			-			-			-
9	<b>Admin Bldg Area</b>			-			-			-
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	Column footings/Foundation			-			-			-
	Column & Beam	100%	100%	18,44,700.00			-			-
	Ground Floor Slab			-	100%		-			-
	1st Floor Slab			-			-	50%		-
	Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Finishing Work			-			-			-
				-			-			-
10	<b>Air Blower Room Area</b>			-			-			-
	Site Clearance			-	100%	100%	1,00,000.00			-
	Excavation			-	100%	100%	3,07,450.00			-
	PCC			-	100%	100%	4,61,175.00			-
	Column footings/Foundation			-	100%	100%	15,37,250.00			-



SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Column & Beam			-			-	100%	50%	7,68,625.00
	RCC Ground Floor Slab			-			-			-
	RCC Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Finishing Work			-			-			-
11	<b>Staff Quarter Area</b>			-			-			-
	Site Clearance			-	100%	100%	50,000.00			-
	Excavation			-	100%	100%	3,44,344.00			-
	PCC			-	100%	100%	5,16,516.00			-
	RCC Foundation/column footing			-	100%		-			-
	Column & Beam			-			-	100%		-
	RCC Ground Floor Slab			-			-			-
	RCC Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Electrical work			-			-			-
	Finishing Work			-			-			-
12	<b>Guard Room Area</b>			-			-			-
	Site Clearance			-	100%	100%	50,000.00			-
	Excavation			-	100%		-			-
	PCC			-	100%		-			-
	RCC Foundation/column footing			-			-	100%		-
	Column & Beam			-			-	100%		-
	RCC Ground Floor Slab			-			-			-
	RCC Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Electrical work			-			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Finishing Work			-			-			-
13	<b>Sludge Dewatering System Area (Centrifuge Pump House, Sludge sump &amp; Poly dosing tank)</b>			-			-			-
	Site Clearance	100%	100%	1,00,000.00			-			-
	Excavation	100%	100%	6,14,900.00			-			-
	PCC	100%	100%	9,22,350.00			-			-
	RCC Foundation			-	100%	100%	15,37,250.00			-
	1st Column & Beam			-	100%		-			-
	Ground Floor Slab			-			-	100%		-
	2nd Column & Beam			-			-	100%		-
	RCC Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Finishing Work			-			-			-
14	<b>Supernatant Recirculation Sump Area</b>			-			-			-
	Site Clearance			-	100%	100%	50,000.00			-
	Excavation			-	100%	100%	7,37,880.00			-
	PCC			-	100%	100%	11,06,820.00			-
	RCC Foundation wall/base slab			-			-	100%	100%	27,67,050.00
	Wall 50% of total lift work			-			-	100%	100%	27,67,050.00
	Walls (balance 50% of Total Lift work)			-			-			-
	Final finishing including Staircases,Railing,Shade,Painting etc.			-			-			-
				-			-			-
15	<b>Transformer Yard Area</b>			-			-			-
	Site Clearance			-	100%		-			-
	Excavation & PCC			-	100%		-			-
	Foundation Work			-			-	100%		-
	Finishing Work			-			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
16	<b>DG Area</b>			-			-			-
	Site Clearance			-			-	100%		-
	Excavation & PCC			-			-	100%		-
	Foundation Work			-			-	100%		-
	Finishing Work			-			-			-
17	<b>Sludge Storage Platform</b>			-			-			-
	Site Clearance			-			-	100%		-
	Excavation & PCC			-			-	100%		-
	Foundation Work			-			-	100%		-
	Finishing work			-			-			-
18	<b>EXTERNAL DEVELOPMENT</b>			-			-			-
A.	Roads, Storm Water Drain & Miscellaneous work			-			-			-
B.	<b>Compound Wall with Gate (As per Approved Drg)</b>			-			-			-
	Excavation & PCC	20%	20%	12,29,800.00	20%	20%	12,29,800.00			-
	RCC Column footing	20%	20%	12,29,800.00	10%	10%	6,14,900.00	5%	5%	3,07,450.00
	RCC Column & Beam	20%	20%	12,29,800.00	10%	10%	6,14,900.00	5%	5%	3,07,450.00
	Brickwork & Plaster	20%	20%	12,29,800.00	10%	10%	6,14,900.00	20%	20%	12,29,800.00
	Finishing Work			-	20%		-	12%		-
19	<b>MPS-2 ( 115MLD)</b>			-			-			-
	<b>CIVIL</b>			-			-			-
A	<b>Construction of Raw Sewage Sump</b>			-			-			-
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation/Raft	50%	50%	28,76,445.00			-			-
	Wall 50% of total lift work	100%	100%	38,35,260.00			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Column & Beam			-	100%	35%	13,42,341.00			-
	Walls (balance 50% of Total Lift work)			-			-	100%	15%	5,75,289.00
	Ground Floor Slab			-			-			-
	Finishing Work			-			-			-
<b>B</b>	<b>Construction of Inlet Chamber &amp; Screen Channel</b>			-			-			-
	Site Clearance			-			-			-
	Excavation	100%	100%	6,81,824.00			-			-
	PCC	100%	100%	10,22,736.00			-			-
	RCC Foundation/Raft			-	100%	100%	17,04,560.00			-
	Wall 50% of total lift work			-	100%	10%	1,70,456.00			-
	Walls (balance 50% of Total Lift work)			-			-	100%		-
	Walkway/Platform			-			-			-
<b>C</b>	<b>Construction of Raw Sewage Pump House</b>			-			-			-
	Column & Beam			-			-			-
	Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Finishing Work			-			-			-
<b>D</b>	<b>MECHANICAL WORK</b>			-			-			-
20	<b>ICI Nala IPS</b>			-			-			-
	<b>CIVIL</b>			-			-			-
<b>A</b>	<b>Construction of Raw Sewage Sump</b>			-			-			-
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation/Raft	50%	50%	12,78,000.00			-			-
	Wall 50% of total lift work	100%	100%	25,56,000.00			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Column & Beam			-	100%		-			-
	Walls (balance 50% of Total Lift work)			-			-	100%	30%	7,66,800.00
	Ground Floor Slab			-			-			-
	Finishing Work			-			-			-
<b>B</b>	<b>Construction of Inlet Chamber &amp; Screen Channel</b>			-			-			-
	Site Clearance	100%	100%	50,000.00			-			-
	Excavation	100%	50%	1,70,400.00			-			-
	PCC	100%					-			-
	RCC Foundation/Raft			-	100%		-			-
	Wall 50% of total lift work			-	100%		-			-
	Walls (balance 50% of Total Lift work)			-			-	100%		-
	Walkway/Platform			-			-			-
	Finishing work			-			-			-
<b>C</b>	<b>Construction of Raw Sewage Pump House</b>			-			-			-
	Column & Beam			-			-			-
	Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Finishing Work			-			-			-
<b>D</b>	<b>Construction of Office Room</b>			-			-			-
	Site Clearance			-	100%		-			-
	Excavation & PCC			-	100%		-			-
	RCC Foundation/column footing			-			-	100%		-
	Column & Beam			-			-	100%		-
	RCC Ground floor Slab			-			-			-
	RCC Roof Slab			-			-			-
	Brick work & Plaster			-			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Electrification, plumbing, fixtures			-			-			-
	Finishing work			-			-			-
E	<b>Construction of Guard Room</b>			-			-			-
	Site Clearance			-			-	100%		-
	Excavation & PCC			-			-	100%		-
	RCC Foundation/column footing			-			-	100%		-
	Column & Beam			-			-			-
	RCC Ground floor Slab			-			-			-
	RCC Roof Slab			-			-			-
	Brick work & Plaster			-			-			-
	Electrification, plumbing, fixtures			-			-			-
	Finishing work			-			-			-
F	<b>Transformer Yard,DG Yard</b>			-			-			-
	Site Clearance			-			-	100%		-
	Excavation & PCC			-			-	100%		-
	Foundation Work			-			-	100%		-
	Finishing Work			-			-			-
I	<b>Construction of Boundary wall &amp; Internal Road</b>			-			-			-
	Site Clearance	100%	100%	-			-			-
	Excavation & PCC	100%	30%	95,881.50			-			-
	RCC Column footing	100%		-			-			-
	RCC Column & Beam			-	100%		-			-
	Brickwork & Plaster			-			-	100%		-
	Finishing			-			-			-
	Construction of Internal road			-			-			-
21	<b>IPS-6 (Sundar Nagar- 20 MLD)-Pankha Area</b>			-			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	<b>CIVIL</b>			-			-			-
A	<b>Construction of Raw Sewage Sump</b>			-			-			-
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation/Raft	100%	100%	25,56,000.00			-			-
	Wall 50% of total lift work	100%	100%	25,56,000.00			-			-
	Column & Beam			-	100%	40%	10,22,400.00			-
	Walls (balance 50% of Total Lift work)			-			-	100%	25%	6,39,000.00
	Ground Floor Slab			-			-			-
	Finishing Work			-			-			-
B	<b>Construction of Inlet Chamber &amp; Screen Channel</b>			-			-			-
	Site Clearance	100%		-			-			-
	Excavation & PCC	100%	100%	4,26,000.00			-			-
	RCC Foundation/Raft	100%		-			-			-
	Wall 50% of total lift work			-	100%		-			-
	Walls (balance 50% of Total Lift work)			-			-	100%		-
	Walkway/Platform			-			-			-
	Finishing work			-			-			-
C	<b>Construction of Raw Sewage Pump House</b>			-			-			-
	Column & Beam			-			-			-
	Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Finishing Work			-			-			-
D	<b>Construction of Office Room</b>			-			-			-
	Site Clearance	100%	100%	-			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Excavation & PCC	100%	100%	2,13,000.00			-			-
	RCC Foundation/column footing	100%		-			-			-
	Column & Beam	100%		-			-			-
	RCC Ground floor Slab			-	100%		-			-
	RCC Roof Slab			-			-	100%		-
	Brick work & Plaster			-			-	100%		-
	Electrification, plumbing, fixtures			-			-			-
	Finishing work			-			-			-
E	<b>Construction of Guard Room</b>			-			-			-
	Site Clearance	100%		-			-			-
	Excavation & PCC	100%	100%	2,13,000.00			-			-
	RCC Foundation/column footing	100%	100%	6,39,000.00			-			-
	Column & Beam	100%		-			-			-
	RCC Ground floor Slab			-	100%		-			-
	RCC Roof Slab			-			-	100%		-
	Brick work & Plaster			-			-	100%		-
	Electrification, plumbing, fixtures			-			-			-
	Finishing work			-			-			-
F	<b>Transformer Yard,DG Yard</b>			-			-			-
	Site Clearance	100%		-			-			-
	Excavation & PCC	100%		-			-			-
	Foundation Work			-	100%		-			-
	Finishing Work			-	100%		-			-
I	<b>Construction of Boundary wall &amp; Internal Road</b>			-			-			-
	Site Clearance			-	100%		-			-
	Excavation & PCC			-	100%		-			-



SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	RCC Column footing			-			-	100%		-
	RCC Column & Beam			-			-			-
	Brickwork & Plaster			-			-			-
	Construction of Internal road			-			-			-
	Finishing			-			-			-
22	<b>I&amp;D Works</b>			-			-			-
A	<b>ICI Nala</b>			-			-			-
	Construction Work	67%	67%	14,90,080.00	20%	16%	3,55,840.00			-
	Tapping of Nallahs			-	55%		-	45%		-
	Electro-Mechanical work			-			-			-
	Testing			-			-			-
B	<b>Thermal Nala -A</b>			-			-			-
	Construction Work	67%	55%	12,23,200.00	20%		-			-
	Tapping of Nallahs			-	55%		-	45%		-
	Electro-Mechanical work			-			-			-
	Testing			-			-			-
C	<b>Thermal Nala -B</b>			-			-			-
	Construction Work	63%		-	23%		-			-
	Tapping of Nallahs			-	55%		-	45%		-
	Electro-Mechanical work			-			-			-
	Testing			-			-			-
23	<b>Rising Main Works</b>			-			-			-
A	<b>ICI Nala Area</b>			-			-			-
	Site Cleance from Client	50%		-	50%		-			-
	Supply of Pipes			-	25%	6.25%	3,18,750.00	20%	6.25%	3,18,750.00
	Excavation,Laying & backfilling of Pipes			-	18%		-	20%		-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Testing			-			-	15%		-
B	<b>Sundar Nagar IPS Area</b>			-			-			-
	Site Cleance from Client	50%		-	50%		-			-
	Supply of Pipes			-	25%		-	20%		-
	Excavation, Laying & backfilling of Pipes			-	18%		-	20%		-
	Testing			-			-	15%		-
24	<b>Sewer System Area (RCC Pipes-NP3 Types)</b>			-			-			-
	Site Clearance	20%		-	20%		-	10%		-
	Supply of pipes	29%	29%	465,31,738.88	20%		-	7%		-
	Excavation and Laying of pipes including bed preparation & backfilling	35%	18%	18,05,110.56	20%		-	10%		-
	Manholes	35%	16%	16,04,542.72	15%		-	10%		-
	Testing			-			-			-
	Road Restoration work			-			-			-
25	<b>Design, Supply, Testing &amp; Commissioning of Sewer line (crossing National Highway-2 &amp; Railway Track)</b>			-			-			-
	Statutory approvals from Railway & Road dept	50%		-			-			-
	Supply of Carrier & Casing Pipes	50%		-	40%		-	10%		-
	Construction of Pit	55%		-			-			-
	Excavation & Laying of Pipes thru Jack push method	45%		-	30%		-	15%		-
	Testing			-			-			-
26	<b>Design ,Supply,Testing &amp; Commissioning of Treated Effluent line from STP to River Pandu</b>			-			-			-
	Site Clearance			-			-			-
	Construction of Effluent line from STP to River Pandu			-			-			-
	Testing			-			-			-
	<b>TRIAL RUN &amp; COMMISSIONING</b>									
	Trial Run & Commissioning									

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	<b>Total Amount</b>			<b>1074,00,223.6</b>			<b>416,27,917.0</b>			<b>124,76,434.0</b>

Milestone	Target Value	Achieved till 31.03.2021	Remarks
1st milestone	1248,39,750.00	1248,39,750.00	100.00%
2nd milestone	1248,39,750.00	1204,11,721.90	96.00%
3rd Milestone	1248,39,750.00	1074,00,223.66	86.00%
4th Milestone	1248,39,750.00	416,27,917.00	33.00%
5th Milestone	1248,39,750.00	124,76,434.00	10.00%
6th milestone	1248,39,750.00	-	-
7th milestone	1248,39,750.00	-	-
8th milestone	1248,39,750.00	-	-
<b>Overall Progress</b>	<b>9987,18,000.00</b>	<b>4067,56,046.56</b>	<b>41.00%</b>
<b>Total %</b>	<b>100.00%</b>	<b>41.00%</b>	

**\*Note:**

- i. 3<sup>rd</sup> milestone (12.5%) completion was due on 25.01.2021 but due to some hindrances in highway road cutting and sewer laying; it was completed on 22.02.2021.
- ii. Works of sewer laying are lagging behind schedule. There is delay in clearance for road cutting from KDA at some parts;
- iii. 4<sup>th</sup> milestone was due on 25.03.2021. The Concessionaire was asked to complete the milestone by completing other works of 4<sup>th</sup>/5<sup>th</sup> milestones and submit a revised construction plan for the same.
- iv. Total Progress till 31.03.2021 (including works of 4<sup>th</sup> and 5<sup>th</sup> milestone) is 41.00%.

**PHOTOGRAPHS OF PANKHA STP SITE**



**1200 dia pipe laying during GM visit**



**MPS and Receiving chamber**



**Supernatant Sump**



**I&D Thermal Nalla A**



**Tonner (Chlorination) room**



**IPS Sundar Nagar**



**Sludge Thickener**



**IPS & I/D, ICI nala**

**6.2 MILESTONE WISE ACTIVITIES AND PROGRESS: UNNAO STP**

Milestone wise activities and their progress of work for Unnao STP are given in table 6.2.

**TABLE 6.2: UNNAO FACILITIES (DISTRICT UNNAO)**

SN	Description of Items	BOQ Amount	Milestone-1 (Achieved) From 11th Oct. '19 to 25th Sept'20		Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov. '20		Milestone-3 (Achieved) From 26th Nov. '20 to 25th Mar'21		
			%	Amount	%	Amount	% Target	Achieved	Amount
<b>I</b>	<b>Design &amp; Drawing &amp; STP &amp; Sewer Laying works</b>								
1	On approval of BEP	191,34,500.00	100%	191,34,500.00					
2	On approval of design & drawings for Civil & Sewerage works	191,34,500.00	25%	47,83,625.00	75%	143,50,875.00			
<b>II</b>	<b>CONSTRUCTION</b>								
<b>A</b>	<b>UNNAO STP (15 MLD)</b>								
<b>i)</b>	<b>SBR Basin Area</b>								
1	Site Clearance	5,00,000.00	100%	5,00,000.00					
2	Excavation wall footing	22,46,137.60	100%	22,46,137.60					
3	PCC wall footing	27,46,137.60	100%	27,46,137.60					
4	RCC Foundation/Raft of wall	54,92,275.20		-	100%	54,92,275.20			
5	Wall 50% of total upto base slab	54,92,275.20		-	20%	10,98,455.04	80%	80%	43,93,820.16
6	Walls (balance 50% of upto base slab)	54,92,275.20		-		-	100%	100%	54,92,275.20
7	PCC Base Slab	27,46,137.60		-		-	100%	100%	27,46,137.60
8	RCC Foundation base slab	27,46,137.60		-		-	25%	25%	6,86,534.40
9	Wall 50% of total lift work	27,46,137.60		-		-			
10	Walls (balance 50% of Total Lift work)	27,46,137.60		-		-			
11	Walkway/Platform	27,46,137.60		-		-			
12	Piping & fitting works	21,96,910.08		-		-			
13	Testing /Finishing works	36,80,000.00		-		-			
<b>ii</b>	<b>Sludge Thickener Area</b>								
1	Site Clearance	1,50,000.00	100%	1,50,000.00		-			
2	Excavation	3,64,900.80	100%	3,64,900.80		-			
3	PCC	5,14,900.80	50%	2,57,450.40	50%	2,57,450.40			
4	RCC Foundation Wall/base slab	6,86,534.40		-	50%	3,43,267.20	50%	50%	3,43,267.20
5	Wall 50% of total lift work	6,86,534.40		-	100%	6,86,534.40			



SN	Description of Items	BOQ Amount	Milestone-1 (Achieved) From 11th Oct.'19 to 25th Sept'20		Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		
			%	Amount	%	Amount	% Target	Achieved	Amount
6	Walls (balance 50% of Total Lift work)	3,78,534.20		-		-	75%	75%	2,83,900.65
7	Testing /Finishing works	3,08,000.00		-		-			
iii	<b>Supernatant Sump Area</b>								
1	Site Clearance	1,00,000.00	100%	1,00,000.00		-			
2	Excavation	1,14,422.40	100%	1,14,422.40		-			
3	PCC	1,14,422.40	100%	1,14,422.40		-			
4	RCC Foundation wall/base slab	1,28,844.80	100%	1,28,844.80		-			
5	Wall 50% of total lift work	1,43,044.80		-	100%	1,43,044.80			
6	Walls (balance 50% of Total Lift work)	1,71,633.60		-		-	100%	100%	1,71,633.60
7	Testing /Finishing works	85,800.00		-		-			
iv	<b>Chlorination Tank Area</b>								
1	Site Clearance	1,50,000.00	100%	1,50,000.00		-			
2	Excavation	4,22,112.00	100%	4,22,112.00		-			
3	PCC	5,72,112.00	100%	5,72,112.00		-			
4	RCC Foundation/Raft	9,15,000.00	100%	9,15,000.00		-			
5	Wall 50% of total lift work	8,58,168.00		-	100%	8,58,168.00			
6	Walls (balance 50% of Total Lift work)	8,58,168.00		-		-	100%	100%	8,58,168.00
7	Baffle Walls work	3,44,336.00		-		-	100%	100%	3,44,336.00
8	Testing /Finishing works	4,57,000.00		-		-			
v	<b>Air Blower Room Area</b>								
1	Site Clearance	2,50,000.00	100%	2,50,000.00		-			
2	Excavation	3,43,267.20	100%	3,43,267.20		-			
3	PCC	3,43,267.20	100%	3,43,267.20		-			
4	RCC Foundation/column footing	6,86,534.40		-	100%	6,86,534.40			
5	Column & Beam	6,29,801.60		-	100%	6,29,801.60			
6	RCC Ground floor Grade Slab	6,86,534.40		-		-			
7	Cable Trench Work	6,86,534.40		-		-			
8	RCC Roof Slab	8,29,801.60		-		-			
9	Brick work	6,25,168.00		-		-			
10	Plaster	1,71,633.60		-		-			
11	Testing/Finishing work	5,83,000.00		-		-			

SN	Description of Items	BOQ Amount	Milestone-1 (Achieved) From 11th Oct.'19 to 25th Sept'20		Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		
			%	Amount	%	Amount	% Target	Achieved	Amount
vi	<b>Staff Quarter Area (G+1)</b>								
1	Site Clearance	50,000.00	100%	50,000.00		-			
2	Excavation	71,000.00	100%	71,000.00		-			
3	PCC	71,000.00	100%	71,000.00		-			
4	RCC Foundation/column footing	92,000.00	100%	92,000.00		-			
5	Column & Beam	92,000.00		-	100%	92,000.00			
6	RCC Ground floor Slab	92,000.00		-	100%	92,000.00			
7	RCC 1st floor Slab	92,000.00		-		-	100%	100%	92,000.00
8	RCC Roof Slab	92,000.00		-		-	100%	100%	92,000.00
9	Brick work	67,000.00		-		-			
10	Plaster	67,000.00		-		-			
11	Plumbing, fixtures , sanitary works, AC work	67,000.00		-		-			
12	Electrification work	33,500.00		-		-			
13	Finishing works	33,500.00		-		-			
vii	<b>Guard Room Area</b>								
1	Site Clearance	50,000.00	100%	50,000.00		-			
2	Excavation	82,211.20	100%	82,211.20		-			
3	PCC	82,211.20	100%	82,211.20		-			
4	RCC Foundation/column footing	1,14,422.40	100%	1,14,422.40		-			
5	Column & Beam	1,14,422.40	100%	1,14,422.40		-			
6	RCC Ground floor Slab	1,14,422.40	100%	1,14,422.40		-			
7	RCC Roof Slab	1,14,422.40		-	100%	1,14,422.40			
8	Brick work	1,14,422.40		-	100%	1,14,422.40			
9	Plaster	1,14,422.40		-		-	100%	100%	1,14,422.40
10	Plumbing, fixtures	1,14,422.40		-		-			
11	Sanitary works, AC work	64,422.40		-		-			
12	Electrification work	32,211.00		-		-			
13	Finishing works	32,211.00		-		-			
viii	<b>Chlorination Room Area</b>								
1	Site Clearance	1,50,000.00	100%	1,50,000.00		-			
2	Excavation	4,57,689.60	100%	4,57,689.60		-			

SN	Description of Items	BOQ Amount	Milestone-1 (Achieved) From 11th Oct.'19 to 25th Sept'20		Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		
			%	Amount	%	Amount	% Target	Achieved	Amount
3	PCC	4,57,689.60	50%	2,28,844.80	50%	2,28,844.80			
4	RCC Foundation/Column footing	4,57,689.60		-	100%	4,57,689.60			
5	Column & Beam	4,57,689.60		-	100%	4,57,689.60			
6	Ground floor Slab	6,86,534.40		-	18.31 %	1,25,672.96	81.69%	81.69%	5,60,861.44
7	Roof Slab	4,86,534.40		-		-	50%	50%	2,43,267.20
8	Brickwork	2,96,689.60		-		-			
9	Plaster	2,57,689.60		-		-			
10	Testing/Finishing works	4,11,000.00		-		-			
ix	<b>Admin Bldg Area (G+1)</b>								
1	Site Clearance			-		-	100%	100%	-
2	Excavation	78,958.70		-		-	100%	100%	78,958.70
3	PCC	78,958.70		-		-	100%	100%	78,958.70
4	Column footings/Foundation	1,18,438.05		-		-	50%	50%	59,219.03
5	Column & Beam up to First Floor	1,18,438.05		-		-			
6	Ground Floor Slab	1,35,357.77		-		-			
7	1st Floor Slab	1,35,357.77		-		-			
8	Column & Beam First Floor to Roof Slab	1,18,438.05		-		-			
9	Roof Slab	1,35,357.77		-		-			
10	Brickwork	1,35,357.77		-		-			
11	Plaster	1,06,594.69		-		-			
12	Electrification, plumbing, fixtures , sanitary works, AC work	94,750.00		-		-			
13	finishing works	1,39,000.00		-		-			
x	<b>Sludge Dewatering System Area (Centrifuge Pump House, Sludge sump &amp; Poly dosing tank)</b>								
1	Site Clearance	1,50,000.00		-	100%	1,50,000.00			
2	Excavation	1,84,788.00		-		-	100%	100%	1,84,788.00
3	PCC	1,84,788.00		-		-	100%	100%	1,84,788.00
4	RCC Foundation	3,69,576.00		-		-	100%	100%	3,69,576.00
5	Column & Beam Upto First Floor	3,69,576.00		-		-	100%	100%	3,69,576.00
6	Ground Floor Slab	3,69,576.00		-		-			
7	First Floor Slab	3,19,576.00		-		-			

SN	Description of Items	BOQ Amount	Milestone-1 (Achieved) From 11th Oct.'19 to 25th Sept'20		Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		
			%	Amount	%	Amount	% Target	Achieved	Amount
8	Column & Beam First Floor to Roof Slab	3,38,576.00		-		-	100%	100%	3,38,576.00
9	Roof Slab	3,19,576.00		-		-			
10	Brickwork	1,84,788.00		-		-			
11	Plaster	1,84,788.00		-		-			
12	Piping & fittings Work	1,84,364.00		-		-			
13	Testing/Finishing works	3,51,000.00		-		-			
xi	<b>Inlet Chamber Area</b>								
1	Site Clearance	1,50,000.00		-	100%	1,50,000.00			
2	Excavation & PCC	2,09,217.60		-		-	50%	50%	1,04,608.80
3	RCC Foundation/Column footing	4,18,435.20		-		-			
4	Column & Beam	3,13,826.40		-		-			
5	RCC Slab	3,13,826.40		-		-			
6	RCC Wall	2,89,652.40		-		-			
7	Testing/Finishing works	1,88,000.00		-		-			
xii	<b>Manual &amp; Mechanica Fine Bar Screen Chamber AreaArea</b>								
1	Site Clearance	1,50,000.00		-	100%	1,50,000.00			
2	Excavation	1,21,633.60		-		-	100%	100%	1,21,633.60
3	PCC	1,57,450.40		-		-			
4	RCC Foundation	1,82,450.40		-		-			
5	Column & Beam	1,82,450.40		-		-			
6	RCC Slab	2,57,450.40		-		-			
7	RCC Wall	1,71,633.60		-		-			
8	Walkway/Platform	1,67,633.60		-		-			
9	Testing/Finishing works	1,54,000.00		-		-			
xiii	<b>Grit Chamber Area</b>								
1	Site Clearance	1,50,000.00		-	100%	1,50,000.00			
2	Excavation	2,23,844.80		-		-	100%	100%	2,23,844.80
3	PCC	2,68,267.20		-		-			
4	RCC Foundation	2,68,267.20		-		-			
5	Column & Beam	2,43,267.20		-		-			
6	RCC Slab	2,43,267.20		-		-			

SN	Description of Items	BOQ Amount	Milestone-1 (Achieved) From 11th Oct.'19 to 25th Sept'20		Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		
			%	Amount	%	Amount	% Target	Achieved	Amount
7	RCC Wall	2,28,844.80		-		-			
8	Walkway/Platform	2,28,844.80		-		-			
9	Testing/Finishing works	1,85,400.00		-		-			
xiv	<b>Parshall Flume Channel Area</b>								
1	Site Clearance	1,50,000.00		-	100%	1,50,000.00			
2	Excavation	2,43,267.20		-		-	100%	100%	2,43,267.20
3	PCC	2,93,267.20		-		-			
4	RCC Foundation	3,43,267.20		-		-			
5	Column & Beam	3,43,267.20		-		-			
6	RCC Slab	3,43,267.20		-		-			
7	RCC Wall	3,43,267.20		-		-			
8	Walkway/Platform	3,43,267.20		-		-			
9	Piping & fitting Work	1,71,633.60		-		-			
10	Testing	2,57,400.00		-		-			
xv	<b>Sludge Storage Platform Area</b>								
1	Site Clearance	1,00,000.00		-	100%	1,00,000.00			
2	Excavation	1,00,000.00		-		-			
3	PCC	2,50,000.00		-		-			
4	Foundation Work	3,00,000.00		-		-			
5	Finishing work	1,50,000.00		-		-			
xvi	<b>Transformer Yard Area</b>								
1	Site Clearance			-		-			
2	Excavation	3,88,045.00		-		-			
3	PCC	3,88,045.00		-		-			
4	Foundation Work	3,88,045.00		-		-			
xvii	<b>DG Shed Area</b>								
1	Site Clearance			-		-			
2	Excavation	4,36,555.00		-		-			
3	PCC	4,36,555.00		-		-			
4	Foundation Work	4,36,555.00		-		-			
xviii	<b>EXTERNAL DEVELOPMENT</b>								

SN	Description of Items	BOQ Amount	Milestone-1 (Achieved) From 11th Oct.'19 to 25th Sept'20		Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		
			%	Amount	%	Amount	% Target	Achieved	Amount
	<b>Boundary Wall with Gate</b>								
1	Site Clearance		100%	-		-			
2	Excavation	3,34,750.00	40%	1,33,900.00	50%	1,67,375.00	10%	10%	33,475.00
3	PCC	5,02,125.00	40%	2,00,850.00	45%	2,25,956.25			
4	RCC Column footing	5,02,125.00	40%	2,00,850.00	45%	2,25,956.25			
5	RCC Column & Beam	5,02,125.00	40%	2,00,850.00	25%	1,25,531.25	19%	19%	95,631.70
6	Brickwork	5,02,125.00	15%	75,318.75	35%	1,75,743.75	20%	20%	1,00,425.00
7	Plaster	5,02,125.00		-		-	20%	20%	1,00,425.00
8	Retaining wall	16,02,550.00		-		-			
9	Finishing Work	5,02,125.00		-		-			
	<b>Earthfilling, Internal Roads ,Landscaping</b>			-		-			
1	Earthfilling, Internal Roads ,Landscaping	17,48,800.00		-		-			
<b>C</b>	<b>MPS-40 MLD</b>								
	<b>Civil Work</b>								
<b>i</b>	<b>Construction of Raw Sewage Sump</b>								
1	Site Clearance	5,00,000.00	100%	5,00,000.00		-			
2	Excavation	15,91,480.00		-	30%	4,77,444.00	70%	70%	11,14,036.00
3	PCC	5,91,480.00		-		-	100%	100%	5,91,480.00
4	RCC Foundation/Raft	6,87,220.00		-		-			
5	Wall 50% of total lift work	6,87,220.00		-		-			
6	Walls (balance 50% of Total Lift work)	8,87,220.00		-		-			
7	Column & Beam	7,87,220.00		-		-			
8	Ground Floor Slab	5,91,480.00		-		-			
9	Testing/Finishing work	5,91,480.00		-		-			
<b>ii</b>	<b>Construction of Raw Sewage Pump House</b>								
1	Column & Beam	9,24,187.50		-		-			
2	Roof Slab	9,24,187.50		-		-			
3	Brickwork	9,24,187.50		-		-			
4	Plaster	9,24,187.50		-		-			
<b>iii</b>	<b>Construction of Inlet Chamber &amp; Screen Channel</b>								
1	Site Clearance	1,50,000.00	100%	1,50,000.00		-			

SN	Description of Items	BOQ Amount	Milestone-1 (Achieved) From 11th Oct.'19 to 25th Sept'20		Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		
			%	Amount	%	Amount	% Target	Achieved	Amount
2	Excavation	1,84,837.50		-		-	100%	100%	1,84,837.50
3	PCC	1,84,837.50		-		-			
4	RCC Foundation/Raft	1,84,837.50		-		-			
5	Wall 50% of total lift work	1,84,837.50		-		-			
6	Walls (balance 50% of Total Lift work)	1,84,837.50		-		-			
7	Column & Beam	1,51,504.17		-		-			
8	Ground Floor Slab	1,84,837.50		-		-			
9	Walkway/Platform	1,84,837.50		-		-			
10	Testing/Finishing work	1,59,500.00		-		-			
<b>D</b>	<b>SEWER SYSTEM AREA (3.2 Km)</b>								
1	Site Clearance		100%	-		-			
				-		-			
2	Supply of pipes	553,11,702.00	20%	110,60,057.85	35%	193,59,095.70	43%	43%	237,83,650.91
3	Excavation and Laying of pipes including bed preparation & backfilling	<b>55,31,170.20</b>		-		-	6.0%	6.0%	3,31,870.21
4	Manholes	<b>36,87,446.80</b>		-		-			
5	Flow/Hydraulic Testing	<b>73,74,893.60</b>		-		-			
6	Road restoration work	<b>18,43,723.40</b>		-		-			
<b>E</b>	<b>RISING MAIN PIPING WORK (100 m)</b>								
1	Site Clearance			-		-			
2	Supply of pipes	5,48,000.00		-		-			
3	Cutting,Excavtion,Laying of Pipes, backfilling	<b>68,500.00</b>		-		-			
4	Testing	<b>68,500.00</b>		-		-			
<b>F</b>	<b>EFFLUENT DISPOSAL SYSTEM</b>								
1	Site Clearance			-		-			
2	Construction of Effluent Channel from Distribution Chamber to Agriculture Land	<b>15,11,999.97</b>		-		-			
3	Construction of Rectangular Channel from STP to Distribution Chamber	<b>11,33,999.98</b>		-		-			
4	Construction of Distribution Chamber	<b>11,33,999.98</b>		-		-			
<b>G</b>	<b>E&amp;M WORK</b>								

SN	Description of Items	BOQ Amount	Milestone-1 (Achieved) From 11th Oct.'19 to 25th Sept'20		Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		
			%	Amount	%	Amount	% Target	Achieved	Amount
i)	<b>GRIT CHAMBER AREA</b>			-		-			
	A.On supply - Grit Scraper Mechanism	21,60,000.00		-		-	100%	100%	21,60,000.00
	B.On Installation - Grit Scraper Mechanism	5,40,000.00		-		-			
viii)	<b>SBR BASIN AREA</b>			-		-			
	A..On supply - Decanter Equipment	193,00,000.00		-		-			
	B..Installation - Decanter Equipment			-		-			
	C.On supply - Diffuser	193,00,000.00		-		-			
	D.On Installation - Diffuser			-		-			
	E.On supply - RAS Pump, SAS Pump	54,00,000.00		-		-			
	F.On Installation - RAS Pump, SAS Pump			-		-			
	G.On supply - Chain Pulley Block	5,60,000.00		-		-	100%	100%	5,60,000.00
	H.On Installation - Chain Pulley Block	1,40,000.00		-		-			
<b>III</b>	<b>TRIAL RUN &amp; COMMISSIONING</b>								
1	Trial Run & Commissioning								
		<b>3826,90,000.00</b>		<b>478,36,250.00</b>		<b>478,36,250.00</b>			<b>478,36,250.00</b>
	<b>Progress out of target of 12.5% for each milestone</b>			<b>12.5%</b>		<b>12.5%</b>			<b>12.5%</b>
	<b>Total Progress up to 3<sup>rd</sup> Milestone</b>						<b>37.50%</b>		

**\*Note:**

- i. 3<sup>rd</sup> milestone (12.5%) completion was due on 25.01.2021 but due to land acquisition issue of proposed I&D works; it was completed on 25.03.2021;
- ii. The Concessionaire was asked to complete the milestone by completing other works of 4<sup>th</sup>/5<sup>th</sup> milestones and submit a revised construction plan for the same. Revised construction plan submitted and principally approved;
- iii. Total Progress till 31.03.2021 is 37.5% out of target 37.5%.



**PHOTOGRAPHS OF UNNAO STP SITE**



**MPS steel binding work**



**SBR Raft casting work**



**MPS wall 3rd lift RCC**



**SBR floor curing**



**Safety Awareness Drive**



**Staff Quarter**



**CCT Building Roof Slab**



**Sewer laying**

### 6.3 WORK PROGRESS AT SHUKLAGANJ STP

- CTE from the UPPCB has been received on 10.07.2020 (Ref No. - 97724/UPPCB/Unnao (UPPCBRO)/CTE/UNNAO/2020 Dated 07/07/2020).
- Unnao site clearance has been done on 18.01.2020.
- Excavation works related to the boundary wall of proposed STP has been started;
- Boundary wall foundation excavation is in progress;
- Footing marking completed SBR side;
- BEP vetting and approval is in progress.



**Boundary Wall excavation work**



**Fencing of the STP site**



**Geo Tech Survey work**



**Geo Tech Survey work**

## 7 PRESENT STATUS AND ISSUES OF HAM PROJECT KANPUR

### 7.1 PANKHA 30 MLD STP FACILITIES

- Total 50-60 nos. of manpower / workers were deployed at the site. The number of workers should be increased about 100-120 to achieve further targets / milestones on time;
- 1st and 2nd milestone have been completed;
- 3rd milestone was due on 25.01.2021 which was completed on 22.02.2021 (37.5%);
- Works of 4th & 5th milestone are in progress. Till date 41.0% progress has been done.
- The Concessionaire submitted revised construction plan asking 2 months time extension (revised date for completion of 3rd milestone is 25.02.2021 and 8th milestone is 25.10.2021);
- Works of sewer laying were not completed. There delay in clearance for road cutting from KDA at some parts;
- Now permission has been granted from KDA for Road cutting. Total 2.31 kms lines has been laid against 16.62 Kms.
- Progress is slow. KRMPL need to expedite construction works to achieve timely completion of the project.

### 7.2 UNNAO 15 MLD STP FACILITIES

- Total 55-60 nos. of manpower / workers were deployed at the site. The number of workers should be increased about 100-120 to achieve further targets / milestones on time.
- 1st and 2nd milestone have been completed;
- 3rd milestone was due on 25.01.2021 which was completed on 25.03.2021 (due to non availability of I&D land). Total progress up to till date is 38%.
- Acquisition of land for I&D structure is in progress, necessary amount for the purchase has been sanctioned by the competent authority;
- Works of sewer laying started from MPS side. Approx 300m sewer has been laid.
- 4th milestone completion is due on 5th May 2021 (as per revised construction plan);
- KRMPL need to expedite the works to complete the project on time. KRMPL submitted revised construction plan (R2) on 12.03.2021 which has been vetted by PE and in principally approved by UPJN.
- Total 50-55 nos. of workers are deployed at the site which are less. Simultaneous work on more fronts should be opened by KRMPL to achieve targets on time.
- Entrance gates (1 main gate + 1 alternate), Internal roads, staff quarter and labour huts with all basic facilities need to be established by the Concessionaire on urgent basis.
- Number of CCTVs units need to be increased from at present 2 nos. to minimum 4 nos.

### 7.3 JAJMAU (PHASE – 1) 130 MLD STP AND IPS REHABILITATION

All BEPs approved except Control philosophy, which is under review.

#### i. Handover of 130 MLD STP Jajmau Ph-I

130 MLD Jajmau STP has been handed over to KRMPL on 01/03/2021 but as per CA schedule handing over date for Jajmau Facilities is Effective Date. Associated facilities i.e. IPSs have not been taken over by KRMPL yet.

#### ii. Compliance of Inspection Report

UPJN inspected 130 MLD Jajmau on 05.03.2021 and issued Inspection report vide their letter no. 546/w-30/20 dated 05.03.2021 but no compliance has been submitted by KRMPL till the end of month March 2021. Inspection report attached.

PE also inspected 130 MLD STP Jajmau along with UPJN on 16.03.2021 and submitted a draft inspection report to UPJN vide email dated 20.03.2021.

#### iii. Meetings

A meeting regarding the status of 130 MLD STP Jajmau has been held on 22.03.2021 at Jajmau campus under the chairmanship of B.K Garg, General Manager, GPCU, UPJN, Kanpur regarding the status of renovation work of Jajmau 130 MLD STP. In Meeting, KRMPL was directed to submit the renovation action plan and to start renovation work on priority basis. Also KRMPL was directed to submit the plan to treat extra influent during renovation. No water can be discharged into the river without treatment.

#### iv. Treated Effluent Pump

Minimum 08 nos. of Treated effluent pumps should be available / operational in TEPH at all the time at 130 MLD STP but only 6 pumps are operational till the end of March 2021.

### 7.4 43 MLD JAJMAU PHASE II

Handover of the 43 MLD STP Jajmau Ph-II is pending and KRMPL is emphasizing to take over the plant on compliance of Joint inspection report submitted by them vide their letter no. 854 dated 11.01.2021.

43 MLD STP plant should be taken immediately on the basis of CA para 3.8 a) "as is where is" basis.

### 7.5 42 MLD SAJARI STP

42 MLD Sajari facilities were handed over to KRMPL on 29/05/2019 but as per CA schedule handing over date for Sajari Facilities is Effective Date i.e. 11/10/2019. Therefore, ultimate handing over date of Sajari has been treated as effective date i.e. 11.10.2019. Till Dec. 2019 KPIs (especially COD) of treated effluent was not under control and KRMPL was asked by NMCG to suggest improvements for COD to be within prescribed limit. KRMPL proposed to add one additional Aeration Tank. Mr. Madhav Kumar NMCG requested Mr. S. Kamaraju, Process Expert STC to visit the Sajari Plant to give his recommendations. Mr. S. Kamaraju Process Expert visited the Sajari Plant on 27-28 Dec 2019 and concluded that the Sajari Plant is designed for all 12 aerators to run without any standby but the plant was being run with 8 aerators only keeping 4 aerators as stand by. All the 12 aerators got functional on 04/01/2020 in the presence of Mr. J. P. Tripathi, O & M Engineer STC. After that it has been



observed that since 04/01/2020 all the parameters of treated effluent are within prescribed limits except for the days when parameters of raw sewage are above the prescribed limits for which concessionaire is not responsible. Hence there is no need for any improvement in the plant as suggested by KRMPL.

Commercial Operation Date was declare as 20.06.2020 vide UPJN letter no. 1545/w-20/127 dated 17.06.2020, and again revised as 11.10.2019 i.e. effective date of the CA by UPJN vide their letter no. 2574/w-20/267 dated 26.09.2020. O&M charges from 11.10.2019 to sept.2020 have been paid to the concessionaire.

**Following points are to be addressed by the KRMPL:-**

**i. Compliance of Inspection Reports**

Compliance report of Inspection done on 23.02.2021 and inspection report issued on 27.02.2021 has been submitted by the concessionaire on 17.03.2021. PE & UPJN inspected 42 MLD STP Sajari on 23.03.2021 and issued inspection note on 25.03.2021 (Inspection report enclosed). Rectification of defects indicated in different inspection reports from the start of the project has not been done by the KRMPL and they are extending dates continuously every month.

**ii. O&M Manual**

O&M Manual already approved by UP Jal Nigam.

**iii. Insurance Policies**

Even after instructions by ED (Project) NMCG and by SMCG. KRMPL has not submitted Insurance Policies as per article 11.2 except All Risk Industrial Insurance Policy. KRMPL is required to submit all 5 insurance policies as per article 11.2.

**iv. Performance of Plant**

All KPIs are within prescribed limit since 04.01.2020 except the dates when the parameters of raw sewage are beyond prescribed limit for which concessionaire is not responsible. Performance Report of March 2021 enclosed.

**v. Mechanical Screens (Coarse & Fine Screens)**

Auto System of both Mechanical Screens still not repaired.

**vi. Gas Generators**

Out of total 3 no's of Gas Generators installed, 2 nos. are in working condition and remaining 1 no. is still under maintenance.

**vii. Sludge Digester**

Out of 2 nos. sludge digester mixers installed, 01 no. is not in working condition since June 2020. Also, EMF at the outlet of the digester installed is not in working condition.

**viii. Joint Sampling and Testing by IIT Kanpur**

It was decided in the meeting of GM GPCU UPJN on 16-12-2019 (MOM issued vide letter no 3847/M-2A/116 dated 18-12-2019) that atleast once in a month joint sampling of raw sewage and treated effluent will be done by UPJN and KRMPL and testing to be done by IIT Kanpur. KRMPL has took the sample jointly on 18.03.2021 and sent it for testing. Testing reports from NABL accredited Laboratory Spectro Research Lab Ventures (P) Ltd of joint samples taken on 18.08.2020, 15.09.2020, 19.10.2020, 13.02.2021 & 18.03.2021 has not been received yet. Testing report from Spectra research Lab ventures (P) Ltd. of the Joint

sample taken on 21.01.2021 has been submitted by concessionaire vide KRMPL letter no. 987 dated 17.03.2021.(Copy of Test result report is enclosed).

**ix. Power backup and Online Monitoring System**

DG set for power backup has been made operational by UPJN on 14.07.2020. RTOLMS has been installed and calibrated.

Outlet Analyser Panel with sensor installed at site and synchronised with RTOLMS.

**x. Work plan For Sludge Disposal**

KRMPL had submitted the work plan for sludge disposal but not following it on site.

**xi. Submission of Schedule Maintenance Programme**

KRMPL has not done any schedule maintenance works as per approved O&M manual for the first year and submission of schedule maintenance programmes for the next year is still pending from the concessionaire.

**xii. KPIs Adherence Report**

KPIs Adherence Report for the month of January 2021 has been submitted by PE vide letter no.745 dated 17.03.2021. Online Analyser report up to January month has been submitted by concessionaire.

## **7.6 210 MLD BINGAWAN FACILITIES**

The schedule date of handover of 210 MLD Bingawan Facilities as per CA was 01/04/2019 but actually could be handed over on 08/07/2019. From handover date itself it was observed and informed from time to time to Concessionaire that the operation and maintenance of the plant was not up to the mark. Commercial Operation Date of Bingawan facility declared by UPJN as 10.08.2020 vide their letter no. 2324/w-37/100 dated 10.09.2020. O&M bill for Bingawan for 1<sup>st</sup> quarter i.e. from 10<sup>th</sup> Aug. 2020 to Oct. 2020 has been submitted by KRMPL.

Renovation (Installation of RTLOMS and rectification of pumps) completion certificate have been issued by UPJN as 10.08.2020 vide their letter no. 2033/w-37/67 dated 18.08.2020 but calibration certificate with witness certificate is yet to be submitted by KRMPL. Out of 2 nos. electro-magnetic flow meters in inlet, 01 no. has been installed at site and it has been synchronised with RTLOMS. It is not calibrated. Need to be provided calibration report. Another 2<sup>nd</sup> no. electro -magnetic flow meters has not been installed yet.

### **Following points need to be addressed:-**

**i. Compliance of Inspection Reports**

PE inspected 210 MLD Bingawan STP on 21.10.2020, 12.11.2020, 02.01.2021 & 02.02.2021 and issued inspection reports on 23<sup>rd</sup> October 2020, 21<sup>st</sup> November 2020, 19<sup>th</sup> January 2021 & 4<sup>th</sup> February 2021. Compliance reports of inspection reports of 23.10.2020, 21.11.2020, 19.01.2021 and 04.02.2021 have not been submitted by KRMPL. Again Inspection done at 210 MLD Bingawan STP on 03.03.2021 and issued inspection report on 15<sup>th</sup> March 2021. Compliance reports of inspection done on 03.03.2021 have not been submitted by KRMPL.

Since 28<sup>th</sup> January 2020 rectifications of defects indicated in different inspection reports have not been done by the KRMPL and they are extending dates continuously every

month. Copy of Inspection reports submitted in the month of March 2021 of Bingawan site is enclosed.

**ii. O&M Manual**

Revised O&M manual of Bingawan has been approved by UPJN on 24.08.2020.

**iii. Insurance Policies**

Even after instructions by ED (Project) NMCG and by SMCG, KRMPL has not submitted Insurance Policies as per article 11.2 except All Risk Industrial Insurance Policy. KRMPL is required to submit all 5 insurance policies as per article 11.2.

**iv. Cleaning and reactivation of UASB Reactors**

All the KPIs are not being met during the month of March 2021. Out of 16 no's reactors, UASB reactor no. 1, 4 & 8 has been filled for reactivation after cleaning. Reactor no. 2 & 3 has been taken up for cleaning from 04.08.2020 & 20.08.2020 but not completed yet. The present conditions of all the 16 UASB reactors have been explained in detail in the inspection report of inspection done on 15/02/2021 (inspection report issued on 17/02/2021) which clearly indicates that no sludge blanket has been formed in the reactors nos. 1, 4 & 8, cleaned and refilled earlier. Reactors no. 2 & 3 are still open for cleaning since Aug. 2020 and KRMPL assured to get these 2 reactors operational after cleaning by 15.03.2021 & 31.03.2021 resp. Remaining 11 reactors are filled with sludge. The Concessionaire is immediately required to submit the action plan for cleaning and reactivation of remaining UASB reactors and take up the work of cleaning and reactivation on war footing. Performance report of March 2021 is enclosed.

**v. Belt Filter Press**

All 3nos. Belt Filter Press system has been made functional by KRMPL but only 2 nos. BFP are being used at a time. Only 02 nos. trolleys are available at site. Also, atleast 2 more trolleys are required at site. All 3 nos. poly dosing pumps installed, 1 no. is not in working condition due to diaphragm portion is fully damaged. This matter has been pending since 07.10.2020.

**vi. Sludge Disposal**

All the reactors are filled with sludge which means that sludge extraction from the reactors is not proper. Also, Sludge testing arrangement is not available at site Laboratory.

**vii. Joint Sampling and Testing by IIT Kanpur**

It was decided in the meeting of GM GPCU UPJN on 16-12-2019 (MOM issued vide letter no. 3847/M-2A/116 dated 18-12-2019) that at least once in a month joint sampling of raw sewage and treated effluent will be done by UPJN and KRMPL and testing to be done by IIT Kanpur. KRMPL has taken the sample jointly on 18.03.2021 for testing. Testing report from Spectra research Lab ventures (P) Ltd. of the Joint sample taken on 29.09.2020, 16.10.2020, 28.02.2021 and 18.03.2021 has not been submitted by concessionaire. Testing report from Spectra research Lab ventures (P) Ltd. of the Joint sample taken on 26.01.2021 has been submitted by concessionaire vide KRMPL letter no. 986 dated 17.03.2021.(Copy of Test result report is enclosed).

**viii. Gas Holder**

Out of 2 nos. gas holder installed, both are not in working condition. Gas holder no.1 is not properly aligned and gas holder no.2 was under maintenance but during site visit dated 03.03.2021, no manpower was found engaged by concessionaire.

**ix. Schedule Maintenance Works for 1<sup>st</sup> year**

Schedule maintenance works as per approved O&M manual were to be started from 1/08/2020, but not started yet.

**x. KPIs Adherence Report**

A joint sampling for inflow and treated outflow has been carried out on 3<sup>rd</sup> Feb. 2021 and observed that the results are against the lab result submitted by KRMPL for the month of Nov. 2020 to Jan. 2021 and result from KRMPL lab are not reliable. Therefore, KPIs Adherence Report for the month of Nov. 2020 and Dec. 2020 sent by PE may be treated as cancelled and Revised KPIs Adherence report for the month of Nov. 2020 to Feb. 2021 based on the lab results for the month of Feb. 2021 (which seems to be reliable) are submitted by PE vide letter no. 762 dated 24.03.2021.

**xi. Non Availability of plant**

The plant was not available for treating the sewage for consecutive 11 days i.e. 21/03/2021 to 31/03/2021 for the month of March due to disconnection of power (electric) connection because of non payment of power bills by KRMPL to the KESCO.

## 8 STATUS OF BEP & OTHER DETAILS

Status of BEPs & other detail are given in following table 6.2:

**Table 6.2: BEPs and Design & Drawings detail (Civil)**

SN	STP Facility	Status / Remarks				
		BEPs	Structure Design & Drawings	Sewer Network	Construction Plan	O&M
<b>A New Facilities</b>						
i	30 MLD STP - Pankha	Approved	All Approved	Approved	Revised CP (R2) vetted by PE. Under approval at UPJN	-
ii	15 MLD STP - Unnao	Approved	All Approved except I&D	Approved	Revised CP (R2) vetted by PE. Under approval at UPJN	-
iii	05 MLD STP – Shuklaganj	Approved	MPS, Sludge Thickener, Guard Room, Boundary Wall vetted by PE & IIT (R), under approval at UPJN;  Rest design & drawings yet to be submitted by KRMPL	Yet to be submitted	CP vetted by PE. Under approval at UPJN	-
<b>B Rehabilitation and O&amp;M for 15 years</b>						
i	130 MLD STP - Jajmau (Phase I)	Approved except Control philosophy	GA & RCC design & drawing of CCT & TEPH is approved	-	Renovation plan / Action plan yet to be submitted by KRMPL	-
SN	STP Facility	O&M Manual		Schedule Maintenance Programme		Remarks
<b>C O&amp;M for 15 years</b>						
i	43 MLD STP - Jajmau (Phase II)	-		-		Handover pending
ii	42 MLD STP - Sajari	Approved		Under Review		-
iii	210 MLD STP - Bingawan	Approved		Under Review		-

# ANNEXURE

**ANNEXURE 1: Progress of Work – HAM Project Kanpur**

Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/Comment)	No. of day taken	Time as per contract  (days)	Delay if any (No. of days)  [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
01.03.2021	Observation on submission of revised construction plan for 30 MLD STP Pankha.	23.02.2021 k-939	01.03.2021 S-717	8	20	-	-	C.M.Dimri J.P.Tripathi O.P.Asati Satendra Lokesh Lokesh vikas Preetam Ajay Rahul Kapil Mahendra	1+1+1+1+1+1+1+1+1+1+1	-	-	-	Requested UPJN to direct KRMPPL to resubmit the construction plan after compliance.
01.03.2021	Submission of Updated sewer network R-6 for 30 MLD Pankha	03.02.2021 k-908	01.03.2021 S-718	-	20	-	-	C.M.Dimri	1+1+1+1+1+1	-	-	-	Observation has been submitted to UPJN and

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
								O.P.Asati Satendra Vikas Preetam Kapil					requested them to direct KRMPPL to comply on the same.
01.03.2021	Cost implication due to change in FOS for design and drawing of bedding of sewer network for 30 MLD Pankha. (Reminder)	22.12.2021 K-820	01.03.2021 S-719	-	20	-	-	C.M.Dimri  O.P.Asati Priyesh Preetam Pankaj Ajay Kapil	1+1+1+1+1+1+1	-	-	-	Reminder letter has been submitted and requested UPJN to direct KRMPPL to submit the revised submittals after compliance ASAP.



Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
01.03.2021	Reimbursement of Energy expenses from July – Sept. 2020 for Sajari facilities.	24.02.2021 k-941	01.03.2021 S-720	7	20	-	-	J.P.Tripathi O.P.Asati Satendra Preetam Ajay	1+1+1+1+1	-	-	-	Intimating UPJN regarding the misleading statement of KRMPL regarding the said subject.
01.03.2021	Compliance to STC comments on monthly progress report of Bingawan site	25.02.2021 k-947	01.03.2021 S-721	6	20	-	-	O.P.Asati Satendra Pankaj Preetam	1+1+1+1+1	-	-	-	Requested UPJN to instruct KRMPL to check the content of the letters before signing and sending to UPJN, STC,

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Ajay					NMCG & Others
01.03.2021	Resubmission of the boundary wall for 05 MLD Shuklaganj	28.02.2021 K-952	01.03.2021 S-753	3	20	-	-	C.M.Dimri O.P.Asati Satendra Preetam Ajay Kapil Mahendra	1+1+1+1+1+1+1	-	-	-	Requested UPJN to direct KRMPPL to submit the point-wise compliance of STC observations and resubmit the same.
02.03.2021	Regarding Poor Safety management and poor quality of formwork / finished civil structures at 15 MLD	-	02.03.2021 S-725	-	20	-	-	C.M.Dimri O.P.Asati Preetam	1+1+1+1+1+1+1+1+1	-	-	-	Requested UPJN to instruct KRMPPL to take proper safety precautions and upgrade

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Unnao							Vikas lokesh Ajay Kapil Rahul Mahendra					the quality of the formwork and finished civil structures .
02.03.2021	Regarding Site inspection report, inspection done on 02.03.2021 at 15 MLD STP Unnao.	-	02.03.2021 S-726	-	20	-	-	C.M.Dimri J.P.Tripathi O.P.Asati Pankaj Vikas Ajay	1+1+1+1+1	-	-	-	Site inspection done on 02.03.2021 and Inspection report submitted to comply.

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
03.03.2021	Recommendation for Approval of GA, Technical Data sheet & QAP of dosing pumps for 30 MLD STP Pankha.	02.03.2021 K-955			20	-	-	J.P.Tripathi  O.P.Asati Vikas Ajay Rahul	1+1+1+1+1	-	-	-	Under review.
04.03.2021	Performance of the Bingawan Site	26.02.2021 K-950	04.03.2021 S-727	8	20	-	-	C.M.Dimri  J.P.Tripathi O.P.Asati Satendra Pankaj Ajay Rahul	1+1+1+1+1+1+1	-	-	-	Requested UPJN to direct KRMPL to submit a copy of audit report, audit conducted by IITR in April

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
													2019.
04.03.2021	Pending Mechanical / Electrical drawings of 05 MLD STP Shuklaganj	-	04.03.2021 S-728	-	20	-	-	C.M.Dimri J.P.Tripathi O.P.Asati Satendra Preetam Priyesh Vikas Ajay	1+1+1+1+1+1+1+1+1	-	-	-	Requested to direct KRMPL to submit the pending drawings at the earliest.
05.03.2021	Submission of RCC Drawing & Design for MPS at 5 MLD STP Shuklaganj.	KRMPL email dated 04.03.2021	-	-	20	-	-	C.M.Dimri J.P.Tripathi O.P.Asati Satendra Preetam Priyesh Pankaj Vikas Ajay	1+1+1+1+1+1+1+1+1+1+1	-	-	-	Under review.

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Kapil					
06.03.2021	Submission of RCC Drawing & Design for MPS at 5 MLD STP Shuklaganj	KRMPL email dated 04.03.2021	-	-	20	-	-	C.M.Dimri J.P.Tripathi O.P.Asati Satendra Preetam Priyesh Pankaj Vikas Ajay Kapil	1+1+1+1+1+1+1+1+1+1+1	-	-	-	Under review.
07.03.2021	Sunday												
08.03.2021	Recommendation for approval of GA, technical data sheet and QAP of	06.03.2021 K-964	-	-	20	-	-	C.M.Dimri J.P.Tripathi A.K.Seth S. Basutkar	1+1+1+1+1+1+1+1+1	-	-	-	Under review

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	thickener for 30 MLD STP Pankha							Vikas Ajay Rahul Mahendra					
09.03.2021	Submission of GA, technical datasheet & QAP of dosing pumps for 15 MLD STP Unnao	02.03.2021 K-954	09.03.2021 S-729	7	20	-	-	C.M.Dimri J.P.Tripathi Priyesh A.K.Seth Preetam Vikas Ajay Rahul Kapil Mahendra	1+1+1+1+1+1+1+1+1+1+1	-	-	-	Requested UPJN to direct KRMPL to clarify the capacity of poly-dosing pump.
09.03.2021	Submission of GA, technical datasheet & QAP of dosing	02.03.2021 K-954	09.03.2021 S-730	7	20	-	-	C.M.Dimri O.P.Asati Satendra Priyesh Ajay	1+1+1+1+1+1+1+1+1+1+1	-	-	-	Requested UPJN to direct KRMPL to clarify the capacity

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	pumps for 30 MLD STP Pankha							Preetam J.P.Tripathi Vikas Ajay A.K.Seth Rahul Mahendra					of poly-dosing pump.
09.03.2021	Resubmission of BOUNDARY WALL for 5 MLD STP Shuklaganj	04.03.2021 K-963	09.03.2021 S-731	5	20	-	-	C.M.Dimri O.P.Asati Satendra Priyesh Vikas Preetam J.P.Tripathi Kapil Mahendra	1+1+1+1+1+1+1+1+1	-	-	-	Some of the observations from STC expert have been submitted to comply.
09.03.2	Resubmissi	04.03.2021	09.03.2	5	20	-	-	C.M.Dimri	1+1+1+1+1+1+1+	-	-	-	Requeste



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1	2	3	4	5	6	7	8	9	10	11	12	13	14
021	on of BOUNDARY WALL for 5 MLD STP Shuklaganj	K-963	021 S-732					J.P.Tripathi O.P.Asati Satendra Priyesh Pankaj Vikas Preetam Kapil	1+1				d UPJN to direct KRMPL to furnish the fabrication details as early as possible.
10.03.2021	Approval of Equipment specification for 5 MLD STP Shuklaganj.	-	10.03.2021 S-733		20	-	-	C.M.Dimri J.P.Tripathi Priyesh Pankaj Preetam S. Basutkar A.K.Seth Vikas Rahul	1+1+1+1+1+1+1+1+1+1+1	-	-	-	Requested UPJN Lucknow to kindly endorse the letter submitted by KRMPL for early vetting in the interest of the

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Mahendra					project.
10.03.2021	Submission of Mechanical GA, Technical Datasheet & QAP of thickener for 15 MLD Unnao	06.03.2021 K-965	10.03.2021 S-734	4	20	-	-	C.M.Dimri J.P.Tripathi Satendra Priyesh A.K.Seth Vikas Ajay Rahul Kapil Mahendra	1+1+1+1+1+1+1+1+1+1+1	-	-	-	Requested UPJN to direct KRMPL to clarify the exact dia of sludge thickener at Unnao site.
11.03.2021	GAD & RCC drawing for treated effluent channel	06.03.2021 K-966	-	-	20	-	-	C.M.Dimri J.P.Tripathi O.P.Asati S. Basutkar Satendra Priyesh	1+1+1+1+1+1+1+1+1+1+1+1	-	-	-	Under review.

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
								A.K.Seth Vikas Ajay Kapil Mahendra					
12.03.2021	Submission of Revised construction plan for 30 MLD STP Pankha	12.03.2021 K-974	-	-	20	-	-	C.M.Dimri	1+1+1+1+1+1+1+1+1+1+1+1	-	-	-	Under Review
	Submission of Revised construction plan for 15 MLD STP Unnao	12.03.2021 K-973						J.P.Tripathi  O.P.Asati					

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Satendra Preetam S. Basutkar Priyesh A.K.SETH Ajay Vikas Kapil Mahendra					
13.03.2021	Second Saturday												
14.03.2021	Sunday												

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
15.03.2021	Submission of GA, Datasheet & QAP of DG set for 30 MLD STP Pankha.	12.03.2021 K-971	15.03.2021 S-735	3	20	-	-	C.M.Dimri  Satendra A.K.Seth Rahul	1+1+1+1	-	-	-	Requested UPJN to direct KRMPL to submit the DG set drawing of approved make as mentioned in the UPJN vendor list.
15.03.2021	Submission of GA, Datasheet & QAP of DG set for 15 MLD STP Unnao.	11.03.2021 K-970	15.03.2021 S-736	4	20	-	-	C.M.Dimri	1+1+1+1	-	-	-	Requested UPJN to direct KRMPL to submit the DG set drawing of

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Priyesh A.K.Seth Rahul					approved make as mentioned in the UPJN vendor list.
15.03.2021	Monthly activity report of 42 MLD STP Sajari facilities and 210 MLD Bingawan facilities for the month of Feb 2021.	-	15.03.2021 S-737	-	20	-	-	O.P Asati Pankaj A.K.Seth Rahul	1+1+1+1	-	-	-	Requested UPJN to instruct KRMP to submit the performance reports for both Sajari & Bingawan Plant for the month of Feb. 2021.
15.03.2021	Inspection note on	-	15.03.2021 S-	-	20	-	-	C.M.Dimri Satendra	1+1+1+1+1+1+1+1+1	-	-	-	Inspection report of

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Pankha STP facilities dated 18, 20 & 24 <sup>th</sup> Feb. 2021.		738					Priyesh Pankaj A.K.Seth Ajay Kapil Rahul Mahendra					Pankha facility has been submitted for compliance.
16.03.2021	Submission of Revised construction plan for 30 MLD STP Pankha	12.03.2021 K-974	16.03.2021 S-740	4	20	-	-	C.M.Dimri J.P.Tripathi O.P.Asati Satendra Priyesh Pankaj Vikas Ajay Rahul Mahendra	1+1+1+1+1+1+1+1+1+1	-	-	-	Revised construction plan has been vetted and provisionally recommended for approval.
16.03.2021	Submission of Revised	12.03.2021 K-973	16.03.2021 S-	4	20	-	-	J.P.Tripathi	1+1+1+1+1+1+1+1+1	-	-	-	Revised constructi

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	construction plan for 15 MLD STP Unnao		741					O.P.Asati Pankaj Vikas Ajay A.K.SETH Prasoon Rahul					on plan has been vetted and provisionally recommended for approval.
17.03.2021	Submission of Pending Drawing for Renovation of 130 MLD STP Jajmau (Reminder)	-	17.03.2021 S-742	-	20	-	-	J.P.Tripathi  O.P.Asati Satendra Pankaj Vikas Ajay Rahul	1+1+1+1+1+1+1	-	-	-	Requested UPJN to remind KRML to submit all pending drawings.
17.03.2021	Submission of Pending Drawing for	-	17.03.2021 S-743	-	20	-	-	C.M.Dimri J.P.Tripathi	1+1+1+1+1+1+1+1+1	-	-	-	Requested UPJN to remind



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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	30 MLD STP Pankha.							Satendra Priyesh Pankaj Vikas Ajay Kapil Mahendra					KRMPL to submit all pending drawings.
17.03.2021	Submission of Spectro Lab test reports for the month of January & February 2021 for Bingawan & Sajari Facilities				20	-	-	Satendra  Pankaj O.P.Asati A.K.Seth	1+1+1+1	-	-	-	Instruct KRMPL to submit the Spectra Lab test report for the month of Jan. & Feb. 2021 for Bingawan & Sajari.
17.03.2021	KPIs Adherence	-	17.03.2021 S-	-	20	-	-	J.P.Tripathi	1+1+1+1+1	-	-	-	Submit the KPIs

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	report of Sajari for the Jan. 2021.		745					Satendra Pankaj Ajay Rahul					Adherence report for the month of Jan. 2021.
17.03.2021	GAD & RCC drawing for treated effluent channel	06.03.2021 K-966	17.03.2021 S-746	11	20	-	-	C.M.Dimri Satendra Priyesh Pankaj O.P.Asati A.K.Seth  Preetam Vikas  Kapil Mahendra	1+1+1+1+1+1+1+1+1+1+1	-	-	-	Vetted & recommended for approval.
17.03.2021	Submission of RCC Drawing & Design for MPS at 5 MLD STP Shuklaganj.	KRMPL email dated 04.03.2021	17.03.2021 S-747	13	20	-	-	C.M.Dimri Satendra Priyesh Pankaj O.P.Asati A.K.Seth	1+1+1+1+1+1+1+1+1+1+1	-	-	-	Submitted some observation for KRMPL to comply at the

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Vikas Kapil Mahendra					earliest.
18.03.2021	Submission of Revised construction / renovation plan, O&M manual, Schedule maintenance programme and insurance policies.	-	18.03.2021 S-749	-	20	-	-	C.M.Dimri  Priyesh Pankaj O.P.Asati L.K.Rao A.K.Seth Vikas Rahul	1+1+1+1+1+1+1+1+1+1	-	-	-	Requested UPJN to direct KRMPL to furnish the said documents at the earliest.
19.03.2021	Recommendation for Approval of	02.03.2021 K-955	19.03.2021 S-750	17	20	-	-	C.M.Dimri Satendra Priyesh	1+1+1+1+1+1+1+1+1+1+1+1+1+1+1+1	-	-	-	Vetted and recomme

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	GA, Technical Data sheet & QAP of dosing pumps for 30 MLD STP Pankha.							Pankaj O.P.Asati S. Basutkar Prasoon A.K.Seth L.K.Rao Vikas Rahul Kapil Mahendra					ended for approval.
20.03.2021	Inspection notes of Pankha STP and facilities (Pipe line works & IPS Sunder Nagar) on dated 19.03.2021.	-	20.03.2021 S-752	-	20	-	-	C.M.Dimri Satendra Priyesh Pankaj O.P.Asati A.K.Seth S. Basutkar Vikas	1+1+1+1+1+1+1+1+1+1+1+1+1+1+1+1	-	-	-	Inspection report submitted.

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
								L.K.Rao Rahul Kapil Mahendra					
21.03.2021	Sunday												
22.03.2021	Submission of RCC design and drawing for compound wall at 5 MLD STP Shuklaganj.	KRMPL email dated 18.03.2021	22.03.2021 S-753	4	20	-	-	C.M.Dimri J.P.Tripathi O.P.Asati Satendra Priyesh Pankaj Vikas L.K.Rao Ajay Prasoon Rahul Kapil Mahendra	1+1	-	-	-	Observation from Structural Expert of STC has been submitted.

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
22.03.2021	Vetting of Equipment data sheet & mechanical GA for 5 MLD STP and 15 MLD STP Unnao.	09.03.2021 K-967	22.03.2021 S-759	13	20	-	-	C.M.Dimri J.P.Tripathi O.P.Asati Priyesh Pankaj Vikas A.K.seth L.K.Rao Ajay Prasoon Rahul Kapil Mahendra	1+1	-	-	-	Requested UPJN Lucknow to kindly endorse the letter submitted by KRMP L for early vetting in the interest of the project.
22.03.2021	Submission of Mechanical GA, technical Data sheet & QAP of	09.03.2021 K-967	22.03.2021 S-754	13	20	-	-	C.M.Dimri J.P.Tripathi Satendra	1+1	-	-	-	Observations / comments has been submitted by STC to

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Dosing Equipment mentioned below for 5 MLD Shuklaganj.							Priyesh Pankaj Vikas Ajay Kapil Mahendra					comply.
22.03.2021	Pankha STP: Manhole to manhole distance.	-	22.03.2021 S755	-	20	-	-	C.M.Dimri J.P.Tripathi Satendra O.P.Asati Priyesh L.K.Rao Rahul Kapil Mahendra	1+1+1+1+1+1+1+1+1	-	-	-	Request UPJN to instruct KRMPPL for rectification of the previous work and assure the compliance of the CA norms at site works.
22.03.2	Constructio	-	22.03.2	-	20	-	-	C.M.Dimri	1+1+1+1+1+1+1+	-	-	-	Delay

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
021	n of Pankha facilities – Delay Liquidated Damages.		021 S-756					J.P.Tripathi O.P.Asati Satendra Priyesh Vikas L.K.Rao Rahul Kapil Mahendra	1+1+1				damages has been calculated and submitted .
23.03.2021	Submission of BEP (R-5) for 05 MLD STP Shuklaganj STP.	20.03.2021 K-992	23.03.2021 S-757	3	20	-	-	C.M.Dimri J.P.Tripathi L.K.Rao Prasoon A.K.SETH Vikas Rahul Kapil Mahendra	1+1+1+1+1+1+1+1+1	-	-	-	Reminder letter to UPJN Lucknow to submit 1 approved Hard copy of the same to STC office.



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1	2	3	4	5	6	7	8	9	10	11	12	13	14
23.03.2021	Submission of RCC design and drawing for compound wall at 5 MLD STP Shuklaganj	KRMPL email dated 19.03.2021	23.03.2021 S-760	4	20	-	-	C.M.Dimri J.P.Tripathi O.P.Asati Priyesh Pankaj L.K.Rao Rahul Mahendra	1+1+1+1+1+1+1+1	-	-	-	Vetted and recommended for approval
24.03.2021	Recommendation for approval of GA, technical data sheet and QAP of thickener for 30 MLD STP Pankha	06.03.2021 K-964	24.03.2021 S-761	18	20	-	-	C.M.Dimri Satendra Priyesh L.K.Rao Ajay Rahul Kapil Mahendra	1+1+1+1+1+1+1+1	-	-	-	Vetted & Recommended for approval.

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
24.03.2021	KPIs Adherence report of 210 MLD STP for month Nov. 2020 to Feb. 2021.	-	24.03.2021 S-762	-	20	-	-	J.P.Tripathi  O.P.Asati Pankaj Prasoon Ajay Rahul  Mahendra	1+1+1+1+1+1+1	-	-	-	Revised KPIs adherence report of Bingawan STP for the month of Nov. 2020 to Feb. 2021 has been submitted.
24.03.2021	Submission of the construction plan for 05 MLD STP Shuklaganj.	09.03.2021 received on 20.03.2021 K-994	24.03.2021 S-763	4	20	-	-	J.P.Tripathi  O.P.Asati Pankaj Ajay Rahul Mahendra	1+1+1+1+1+1	-	-	-	Vetted and Recommended for approval.

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
24.03.2021	Submission of Mechanical GA, technical Data sheet & QAP of Dosing Equipment mentioned below for 5 MLD Shuklaganj.	09.03.2021 K-967	24.03.2021 S-764	15	20	-	-	C.M.Dimri  Priyesh Pankaj S. Basutkar A.K.SETH Rahul Kapil Mahendra	1+1+1+1+1+1+1+1	-	-	-	Observation / comments has been submitted to comply
25.03.2021	Submission of civil assignment drawing of transformer and DG foundation for 15 MLD STP Unnao	22.03.2021 K-999	25.03.2021 S-765	3	20	-	-	C.M.Dimri  J.P.Tripath Priyesh	1+1+1+1+1+1+1+1+1	-	-	-	Requested UPJN to direct KRMPPL to submit the QAP and datasheet of DG set

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
								A.K.SETH L.K.Rao Pankaj Rahul Kapil Mahendra					and Approved copy of the transformer for early vetting.
25.03.2021	Submission of the compliance report for design and drawing of MPS at 05 MLD STP Shuklaganj.	22.03.2021 K-1008	25.03.2021 S-766	3	20	-	-	C.M.Dimri  Priyesh Pankaj Rahul Kapil Mahendra	1+1+1+1+1+1	-	-	-	Requested UPJN to direct KRMPL to submit the same with official letter.
25.03.2021	Regarding MoM sent by KRMPL for meeting	KRMPL email dated 23.03.2021	25.03.2021 S-767	2	20	-	-	C.M.Dimri J.P.Tripathi Satendra	1+1+1+1+1+1+1+1+1+1	-	-	-	Some observation and points to

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	dated 22.03.2021.							Priyesh Pankaj Rahul Kapil S. Basutkar Mahendra					be consider in MOM.
26.03.2021	Submission of Power cable, control cable schedule & civil assignment drawing of HT VCB room for 130 MLD STP Jajmau.	26.03.2021 K-1110	-	-	20	-	-	C.M.Dimri  Priyesh Pankaj Rahul Kapil Mahendra L.K.Rao	1+1+1+1+1+1	-	-	-	Under vetting.
27.03.2	Submission	KRMPL email	27.03.2	1	20	-	-	C.M.Dimri	1+1+1+1+1+1+	-	-	-	Observati

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
021	of revised RCC Drawing & Design (R-5) for MPS at 15 MLD STP Unnao.	dated 26.03.2021	021 S-769					Satendra Priyesh Preetam Pankaj Rahul Kapil Mahendra L.K.Rao	1+1				ons have been submitted to comply.
28.03.2021	Sunday												
29.03.2021	Holi												
30.03.2021	Local Holiday												
31.03.2021	Regarding extension of the validity for BG.	26.03.2021 K-1115	-	-	20	-	-	C.M.Dimri J.P.Tripathi Satendra Priyesh Preetam	1+1+1+1+1+1+1+1+1	-	-	-	Under review.

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Prasoon Mahendra L.K.Rao					
<b>Total</b>									<b>31+31+31+18+14 +06+08+05+31+31+31+30+30+30+30+30+02</b>				

**Note:** Man-days and respective inputs of experts for the month of March 2021 are:

SN	Name	Designation	Total Man-days	Input
1.	Mr. Chandra Mauleshwar Dimri	Senior Civil Engineer	31	Timesheet attached
2.	Mr. Jai Prakash Tripathi	O&M Engineer	31	Timesheet attached
3.	Mr. O.P Asati	O&M Engineer	31	Timesheet attached
4.	Mr. Anil Kumar	Sr. Electrical Engineer	18	Timesheet attached
5.	Mr. Linga Krishna Rao	Safety expert	14	Timesheet attached
6.	Mr. Preetam Walunjkar	Sr. Structural Engineer	06	Timesheet attached
7.	Mr. Sunil Basutkar	Senior Mechanical Engineer	08	Timesheet attached
8.	Mr. Prasoon Bhardwaj	Instrumentation Engineer	05	Timesheet attached
9.	Mr. S. Kamaraju	Sr. Process Expert	00	-



## Annexure 2: Timesheets of Experts

Mr. C.M. Dimri (Senior Civil Engineer)

Project Engineer		Shah Technical Consultants Pvt Limited	
NMCg-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name :	Chandra Mauleshwar Dimri	Month/Year:	Mar-21
Position:	Senior Engineer Civil / Team Leader i/c	Location	
Date	Description		
1	Discussion / Meeting with GM UPJN and appraisal of BW Shuklaganj	Kanpur	
2	Meeting with GM GPCU UPJN Kanpur	Kanpur	
3	General discussion with staff and on PPT for NMCg Meeting	Kanpur	
4	Correction on PPT and latest PPT sent to NMCg / UPJN etc.	Kanpur	
5	Video Conference of NMCg New Delhi attended at GM UPJN Kanpur office	Kanpur	
6	Discussion with Director STCon insurance policies	Kanpur	
7	S U N D A Y		
8	Video Conference with Director STC about insurances and MoM sent to NMCg of 5th meeting.	Kanpur	
9	Shuklaganj BW appraisal and sent to GM UPJN	Kanpur	
10	GA , Data sheet and QAP of sludge thickener Unnao appraised and discussed with expert	Kanpur	
11	HOLI DAY MAHASHIVRATRI		
12	Discussion / meeting with mr. R. Jha APM KRMPL about construction plan Pankha & Unnao	Kanpur	
13	S E C O N D S A T U R D A Y		
14	S U N D A Y		
15	Meeting with Mr. Randhir Jha APM KRMPL about Construction Plan Pankha and Unnao	Kanpur	
16	Inspection of Pankha STP facilities with UPJN	Kanpur	
17	MPR of January 2021 & QA/QC REPORT appraised and commented on MPS Shuklaganj MPS	Kanpur	
18	Office general work	Kanpur	
19	Discussion with staff about General progress	Kanpur	
20	Meetind with Mr. Gyanendra Chaudhary PM - I, GPCU, UPJN about jajmau STP renovation plan	Kanpur	
21	S U N D A Y		
22	Boundary wall Shuklaganj appraised and MPR February 2021 appraised.	Kanpur	
23	Construction plan of Shuklaganj appraised	Kanpur	
24	GA , Data sheet and QAP of centrifuge Shuklaganj appraised and discussed with expert	Kanpur	
25	GA TDS QAP OF Screens BELT CONVEYOR of 5 MLD Shuklaganj discussed with expert.	Kanpur	
26	office general work	Kanpur	
27	Discussion with PM KRMPL and P. Walunkar about problems in Unnao MPS - Sinking method	Kanpur	
28	S U N D A Y		
29	H O L I H O L I D A Y		
30	Pankha Sewer Network and Shuklaganj engineering refill appraised	/HOLI DAY Kanpur	
31	Discussion with Mr. Rajat K Gupta NMCg NewDelhi about Bingwan STP payments and reports.	Kanpur	

I hereby certify that the time report above is a true and complete statement of my working time for the payroll period.

Signature of Employee 14/04/21

Signature of Team Leader 14/04/21

Mr. J. P. Tripathi (O&M Engineer)

Project Engineer		Shah Technical Consultants Pvt Limited	
NMCG-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name :	JAI PRAKASH TRIPATHI	Month/Year:	Mar-21
Position:	O & M ENGINEER	Location	
Date	Description		
1	Wrote two letters to GM GPCU UPJN Kanpur regarding reimbursement of energy bills for 42 MLD Sajari facilities for July to Sep 2020 & comments on monthly activity report of Bingawan facilities	Kanpur	
2	Prepared draft PPT of HAM Project Kanpur for proposed NMCG review meeting dated 05/03/2021	Kanpur	
3	Corrected and finalized PPT of HAM Project Kanpur for proposed NMCG review meeting dated 05/03/2021	Kanpur	
4	Wrote letter to GM GPCU UPJN Kanpur regarding performance of Bingawan STP	Kanpur	
5	Attended NMCG review zoom meeting in the office of GM GPCU UPJN Kanpur	Kanpur	
6	Finalized inspection report for the inspection done of Bingawan STP on 03/03/2021	Kanpur	
7	Sunday		
8	Attended zoom meeting with Mr. Prasanna STC Mumbai and KRMPL regarding Insurance during O & M period for Sajari and Bingawan	Kanpur	
9	Corrected and finalized MOM of the NMCG review meeting dated 05/03/2021	Kanpur	
10	Received reply submitted by KRMPL regarding Insurance policies discussed with Mr. Prasanna STC Mumbai	Kanpur	
11	Maha Shivaratri		
12	Discussed with PM (E&M) GPCU UPJN regarding performance of Bingawan and Sajari STP	Kanpur	
13	Second Saturday		
14	Sunday		
15	Wrote letter to GM GPCU UPJN Kanpur regarding monthly activity reports of Bingawan and Sajari for the month of Feb 2021	Kanpur	
16	Prepared draft notice under article 8.12 on behalf of GM GPCU UPJN Kanpur for non availability of Bingawan Plant	Kanpur	
17	Forwarded KPIs adherence report of Sajari for the month of Jan- 2021	Kanpur	
18	Received monthly activity report of Sajari for the month of Feb 2021 submitted by KRMPL	Kanpur	
19	Received monthly activity report of Bingawan for the month of Feb 2021 submitted by KRMPL	Kanpur	
20	Attended meeting in UPJN office regarding progress of HAM project Kanpur	Kanpur	
21	Sunday		
22	Discussed with PM III GPCU UPJN regarding performance of Bingawan STP	Kanpur	
23	corrected and finalized KPIs adherence report of Bingawan for the months of Nov-2020 to Feb 2021	Kanpur	
24	Wrote letter to GM GPCU UPJN regarding KPIs adherence report of Bingawan for the months of Nov-2020 to Feb-2022	Kanpur	
25	Discussed with PM (E & M) GPCU UPJN regarding deduction of penalty on energy bill of Bingawan Facilities	Kanpur	
26	Forwarded finalized draft inspection report of Sajari for inspection done on 23/03/2021 to UPJN to be issued	Kanpur	
27	Discussed with PM III GPCU UPJN regarding notice under Article 8.12 for performance of Bingawan STP	Kanpur	
28	Sunday		
29	Holi		
30	Holi	Kanpur	
31	Sent KPIs adherence report of Bingawan for Jan 2020 to Oct 2020 to Mr. Rajat Gupta NMCG as desired by him	Kanpur	

I hereby certify that the time report above is a true and complete statement of my working time for the payroll period

Signature of Employee Signature of Team Leader

Mr. A. K. Seth (Senior Electrical Engineer)

Project Engineer		Shah Technical Consultants Pvt Limited	
NMSG-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name:	A.K. Seth	Month/Year:	Mar-21
Position:	Sr. Electrical Engineer	Location:	Kanpur
Date	Description	Location	
1		Kanpur	
2		Kanpur	
3	W AH for O/M Hardwar. Electromechanical	Kanpur	3 days W AH Hardwar
4	W AH for O/M Hardwar. Electromechanical.	Kanpur	
5	W AH for O/M Hardwar. Electromechanical	Kanpur	
6	work connected with MPR and Electrical pending sub.	Kanpur	
7	Sunday	Kanpur	
8	Review of the progress of Electrical Submissions clearances	Kanpur	
9	Helped in updating Electrical Progress for MPR of STP(S)	Kanpur	
10	Helped in updating Electrical Progress for MPR of STP(S)	Kanpur	
11	Mahashiv Ratri	Kanpur	
12	Review of DG set drawing for Unnao STP, 15 MLD.	Kanpur	
13	Second Saturday	Kanpur	
14	Sunday	Kanpur	
15	Review of DG Set drawing for Pankha STP 30 MLD	Kanpur	
16	Letter prepared for UPJN regarding D.G. Sets Submissions.	Kanpur	
17	Technical discussion related to Jajman.	Kanpur	
18	Annexure prepared regarding MPR Feb.21.	Kanpur	
19	Discussion regarding Dosing pump set Unnao, 15 MLD.	Kanpur	
20	Discussion regarding Dosing pump set Pankha 30 MLD.	Kanpur	
21	Sunday	Kanpur	
22	Helped in preparing SA/CC report for MPR.	Kanpur	
23	Helped in preparing SA/CC report for MPR.	Kanpur	
24	Prepared Draft for meeting - Jajman 130 MLD STP.	Kanpur	
25	Discussed with UPJN regarding approval of Unnao Submitter	Kanpur	
26		Kanpur	
27		Kanpur	
28	Sunday	Kanpur	
29	HOLI	Kanpur	
30		Kanpur	
31		Kanpur	

I hereby certify that the time report above is a true and complete statement of my working time for the payroll period.


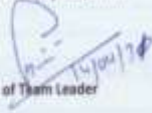
Signature of Employee

Signature of Team Leader

Mr. O.P. Asati (O&M Engineer)

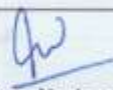
Project Engineer		Shah Technical Consultants Pvt Limited	
NMCg-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name :	O.P. Asati	Month/Year:	Mar-21
Position:	Senior Engineer Civil	Location:	Kanpur
Date	Description	Location	
1	Visit jajmau STP site regarding handover of the 130 MLD Plant in presence of ADM and Police force.	Kanpur	
2	Drafted jajmau issues and review of the CA regarding the clauses for jajmau STP.	Kanpur	
3	Discussion with Team Leader & Support engineers regarding the PPT for the Review Project meeting dated 05.03.2021.	Kanpur	
4	Instruct Support Engineer regarding the reply of comments on issues written in drafted PPT for meeting.	Kanpur	
5	Attended NMCg review meeting dated 05.03.2021 at GM office UPIN regarding status of HAM Project.	Kanpur	
6	Visited Jajmau site regarding the Meteric issues found at site and visited CSPS Jajmau too.	Kanpur	
7	<b>Sunday</b>		Kanpur
8	Input some points in MOM of NMCg review meeting dated 05.03.2020.	Kanpur	
9	Review the Concessionaire Agreement regarding Renovation of 130 MLD Jajmau.	Kanpur	
10	Review CA regarding the Site clearance of the jajmau and new facilities.	Kanpur	
11	<b>Mahashiv Ratri</b>		Kanpur
12	Review the Concessionaire Agreement regarding Renovation of 130 MLD Jajmau.	Kanpur	
13	<b>Second Saturday</b>		Kanpur
14	<b>Sunday</b>		Kanpur
15	Input some points in Jajmau Note for Monthly Progress Report for the month of Feb. 2021 for HAM Kanpur.	Kanpur	
16	Visit jajmau 130 MLD STP with O&M Incharge and UPIN officials for Plant Inspection.	Kanpur	
17	Review of QA/QC report of new construction facilities.	Kanpur	
18	Drafted a letter regarding submission of some docs for 130 MLD Jajmau & drafted letter on behalf of Mr. Prasanna shah sir for request to release the withheld payment of Sept.2018 to Dec. 2018 of Haridwar.	Kanpur	
19	Drafted a letter to furnish necessary docs related to 130 MLD jajmau STP & input some points in MPR for the month of Feb.2021 for 82 MLD STP Project Haridwar with enclosed inspection report.	Kanpur	
20	Prepared a draft inspection report for the visit of 130 MLD STP jajmau and visited PM-I office, UPIN regarding the discussion of worse condition of the jajmau plant.	Kanpur	
21	<b>Sunday</b>		Kanpur
22	Attend the meeting with GM regarding the status of 130 MLD at jajmau and drafted MoM for UPIN.	Kanpur	
23	Review the MPR of HAM Kanpur for the month of Feb.2021.	Kanpur	
24	Review CA regarding Renovation period and O&M manual for 130 MLD STP jajmau.	Kanpur	
25	Review of submission of Civil assignment drawing of transformer and DG foundation for 15 MLD STP Unnao.	Kanpur	
26	Review CA regarding Renovation period and O&M manual for 130 MLD STP jajmau.	Kanpur	
27	Review CA regarding Renovation period and O&M manual for 130 MLD STP jajmau.	Kanpur	
28	<b>Sunday</b>		Kanpur
29	<b>HOLI</b>		Kanpur
30	<b>Holiday (WFH)</b>		Kanpur
31	Review CA regarding Renovation period and O&M manual for 130 MLD STP jajmau.	Kanpur	


I hereby certify that the time report above is a true and complete statement of my working time for the payroll period.

 Signature of Employee
 
 Signature of Team Leader

Mr. L.K. Rao (Safety Expert)

Project Engineer		Shah Technical Consultants Pvt Limited	
NMCg-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name :	Linga Krishna Rao	Month/Year:	Mar-21
Position:	Safety Expert		
Date	Description	Location	
18	Office work attended, Review of pending works related to Pankha, Unnao, Shuklagung, Sajari, Bingawan and Jajmau plants.	Kanpur	
19	Office work attended, Review of pending works related to Pankha, Unnao, Shuklagung, Sajari, Bingawan and Jajmau plants. Pankha 30 MLD Project site inspection along with civil support engineers Mr. Salendra kumar sharma	Kanpur	
20	Office work attended, Pankha 30 MLD Project inspection report prepared and sent to the concerned NMCg, UPJN and KRMPPL personnel.	Kanpur	
21	SUNDAY	Kanpur	
22	Office work attended, Review of Project ESHS (Environmental, Safety and Health System ) Plan of Jajmau 130 MLD (O&M) & 43 MLD (O&M) Plants	Kanpur	
23	Office work attended, Sajari 42 MLD (O&M) Plant inspection done along with other Support Engineers (Mr. Goel, Mr. Rahul and Mr. Pankaj)	Kanpur	
24	Office work attended, Sajari 42 MLD (O&M) Plant inspection report prepared and sent to the concerned NMCg, UPJN and KRMPPL personnel.	Kanpur	
25	Office work attended, Pankha 30 MLD Project site inspection along with civil support engineers Mr. Salendra kumar sharma & Mr. Mahendra Dubey.	Kanpur	
26	Office work attended, Pankha 30 MLD Construction Project EHS Plan reviewd.	Kanpur	
27	Office work attended, Pankha 30 MLD Project inspection report prepared and sent to the concerned NMCg, UPJN and KRMPPL personnel.	Kanpur	
28	SUNDAY	Kanpur	
29	HOLI (HOLIDAY)	Kanpur	
30	HOLI (HOLIDAY)	Kanpur	
31	Office work attended, Unnao 15 MLD Project site inspection done.	Kanpur	

  
Signature of Employee

  
Signature of Team Leader

Mr. P Walunjkar (Structure Engineer)

Project Engineer		Shah Technical Consultants Pvt Limited	
NMCG-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name :	Preetam Walunjkar		Month/Year:
Position:	Senior Structural Engineer		Mar-21
Date	Description	Location	
9	Review Structural design & Drawing with Staad file of Shuklaganj STP Boundary Wall	Kanpur	
10	Review SBC Report & Staad file of MPS Sullaganj STP	Kanpur	
11	Mahashivrata Holiday	Kanpur	
12	Review structural Design & Drawing with calculations of MPS Sullaganj STP	Kanpur	
13	Leave	Kanpur	
14	Leave	Kanpur	
15	Leave	Kanpur	
16	Leave	Kanpur	
17	Review Structural Design & Drawing of treated effluent channel for 30 MLD STP at Panina. KRMPL Structural Engg (discussion on Uraao STP MPS & Shuklaganj) Boundary wall	Kanpur	
18	Leave	Kanpur	
19	Leave	Kanpur	
20	Leave	Kanpur	
21	Leave	Kanpur	
22	Leave	Kanpur	
23	Leave	Kanpur	
24	Leave	Kanpur	
25	Leave	Kanpur	
26	Leave	Kanpur	
27	Review the Rev. RCC Dwg of Uraao MPS & put Comments on well sinking method	Kanpur	
28	Sunday	Kanpur	
29	Holi Holiday	Kanpur	
30	Holi Holiday	Kanpur	
31	Review Comments by IIT on Structural Design and Drawings of 13MLD STP MPS Uraao	Kanpur	

I hereby certify that the time report above is a true and complete statement of my working time for the payroll period.


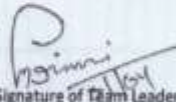
Signature of Employee

Signature of Team Leader

Mr. Prason Bhardwaj (Instrumentation Engineer)

Project Engineer		Shah Technical Consultants Pvt Limited	
NMCg-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name :	Prason Bhardwaj	Month/Year:	Mar-21
Position:	Instrumentation Engineer	Location	
Date	Description	Location	
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16	Review and verification of RTOLMS data on web portal and discussions with the analytical instrument manufacturer for rectification of the mismatch of values at the web portal and at the local display for 210 MLD STP at Bingawan.	Jaipur(W/H)	/KWP
17			
18			
19	Review of Operation and Control philosophy for rehabilitation of 130 MLD STP at Jajmau, Kanpur.	Jaipur(W/H)	/KWP
20			
21			
22	Review of Operation and Control philosophy for rehabilitation of 130 MLD STP at Jajmau, Kanpur.	Jaipur(W/H)	/KWP
23	Review of Piping and instrumentation drawings for rehabilitation of 130 MLD STP at Jajmau, Kanpur.	Jaipur(W/H)	/KWP
24			
25			
26			
27			
28			
29			
30			
31	Review of Piping and instrumentation drawings for rehabilitation of 130 MLD STP at Jajmau, Kanpur.	Jaipur(W/H)	/KWP


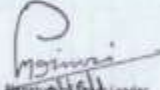
I hereby certify that the time report above is a true and complete statement of my working time for the payroll period.


  
Signature of Employee
 

  
Signature of Team Leader

Mr. Sunil Basutkar (Mechanical Expert)

Project Engineer		Shah Technical Consultants Pvt Limited	
NMCG-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name	Sunil Basutkar	Month/Year:	Mar-21
Position	Mechanical Expert	Location	
Date	Description		
1			
2			
3			
4			
5			
6			
7			
8			
9	Review of Mechanical submittals of 15 MLD STP UNNAO & 30 MLD STP PANKHA		*PUNE / KNP
10			
11	Review of Mechanical submittals of 15 MLD STP UNNAO		*PUNE / KNP
12	Review of Mechanical submittals of 5 MLD STP SUKLAGANJ, 15 MLD STP UNNAO & 30 MLD STP PANKHA		*PUNE / KNP
13	Review of Mechanical submittals of 5 MLD STP SUKLAGANJ		*PUNE / KNP
14			
15			
16			
17			
18			
19	Review of Mechanical submittals of 5 MLD STP SUKLAGANJ, 15 MLD STP UNNAO & 30 MLD STP PANKHA		*PUNE / KNP
20	Review of Mechanical submittals of 5 MLD STP SUKLAGANJ		*PUNE / KNP
21			
22			
23			
24	Review of Mechanical submittals of 5 MLD STP SUKLAGANJ		*PUNE / KNP
25	Review of Mechanical submittals of 5 MLD STP SUKLAGANJ		*PUNE / KNP
26			
27			
28			
29			
30			
31			

I hereby certify that the time report above is a true and complete statement of my working time for the payroll period.

Signature of Employee Signature of Engineer

NOTE - \* Home Office Input



### Annexure 3: Monthly Performance Report of Sajari for March. 2021

42 MLD SEWAGE TREATMENT PLANT, SAJARI, KANPUR																		
MONTHLY FLOW & LAB REPORT																		
Mar-2021																		
Date	INLET FLOW in MLD	Plant Run in HRS	RAW SEWAGE						FINAL OUTLET						FC (<500)	Aeration DO	POWER SHUTDOWN HRS	REMARK
			Temp	TDS	PH	COD	BOD	TSS	Temp	TDS	PH	COD	BOD	TSS				
			%	ppm	(7-9)	(450)	(150)	(600)	%	ppm	(7-8)	(<100)	(<30)	(<50)				
01 Mar 2021	19.47	24.00	24	1360	7.6	432	156	286	24	902	7.9	92	22	30		1.6	0.00	2 STREAM IS UNDER OPERATION
02 Mar 2021	19.14	24.00	24	1296	7.5	416	160	291	24	882	7.9	96	23	33		1.4	0.00	2 STREAM IS UNDER OPERATION
03 Mar 2021	18.73	24.00	24	1315	7.5	496	174	305	24	902	7.9	104	25	36	180	1.2	0.00	2 STREAM IS UNDER OPERATION
04 Mar 2021	18.89	24.00	24	1266	7.5	408	158	292	24	822	7.9	88	22	32		1.5	0.00	2 STREAM IS UNDER OPERATION
05 Mar 2021	18.56	24.00	24	1270	7.5	440	162	302	24	830	7.9	96	24	34		1.3	0.00	2 STREAM IS UNDER OPERATION
06 Mar 2021	17.90	24.00	24	1350	7.5	608	185	320	24	926	7.9	104	26	37		1.2	0.53	2 STREAM IS UNDER OPERATION
07 Mar 2021	19.31	24.00	24	1356	7.5	448	164	308	24	816	7.8	92	23	32	330	1.5	0.00	2 STREAM IS UNDER OPERATION
08 Mar 2021	18.07	24.00	24	1380	7.6	540	172	315	24	929	7.9	110	25	36		1.3	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
09 Mar 2021	18.32	24.00	24	1305	7.5	432	158	297	24	831	7.9	96	23	35		1.6	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
10 Mar 2021	17.99	24.00	24	1420	7.6	512	175	305	24	911	7.9	104	24	37		1.4	0.17	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
11 Mar 2021	17.74	24.00	24	1460	7.6	724	188	328	24	927	7.9	112	26	38	310	1.2	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
12 Mar 2021	17.16	24.00	24	1395	7.6	590	176	312	24	938	7.9	110	24	36		1.3	10.03	2 STREAM IS UNDER OPERATION
13 Mar 2021	17.07	24.00	25	1340	7.5	512	180	310	25	916	7.9	104	25	34		1.4	11.05	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
14 Mar 2021	17.83	24.00	25	1405	7.5	608	182	324	25	922	7.9	112	23	38		1.2	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
15 Mar 2021	17.16	24.00	25	1360	7.5	548	186	315	25	857	7.9	104	24	33	260	1.5	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
16 Mar 2021	17.66	24.00	25	1282	7.6	416	158	294	25	810	7.9	96	22	31		1.7	0.00	2 STREAM IS UNDER OPERATION
17 Mar 2021	17.33	24.00	25	1319	7.6	512	185	316	25	829	7.9	104	25	34		1.4	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
18 Mar 2021	17.07	24.00	25	1262	7.5	448	162	307	25	812	7.9	92	23	32		1.5	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
19 Mar 2021	16.34	24.00	25	1257	7.5	432	166	297	25	823	7.9	96	24	34	280	1.7	0.00	2 STREAM IS UNDER OPERATION
20 Mar 2021	16.17	24.00	25	1397	7.5	624	192	322	25	918	7.9	104	26	36		1.4	13.17	2 STREAM IS UNDER OPERATION
21 Mar 2021	16.40	24.00	25	1260	7.6	428	160	295	25	887	7.9	95	23	32		1.6	24.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
22 Mar 2021	16.58	24.00	25	1397	7.6	556	178	321	25	915	7.9	110	24	37		1.2	24.00	2 STREAM IS UNDER OPERATION
23 Mar 2021	16.25	24.00	25	1286	7.5	440	165	292	25	882	7.8	96	22	34	320	1.5	24.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
24 Mar 2021	16.74	24.00	25	1340	7.6	512	172	305	25	902	7.9	104	23	36		1.3	24.00	2 STREAM IS UNDER OPERATION
25 Mar 2021	17.16	24.00	25	1420	7.5	576	185	322	25	980	7.9	112	25	37		1.2	24.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
26 Mar 2021	17.66	24.00	25	1370	7.5	512	166	315	25	923	7.9	110	23	34		1.3	24.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
27 Mar 2021	17.33	24.00	25	1310	7.5	480	162	298	25	886	7.9	104	21	32	340	1.5	24.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
28 Mar 2021	18.40	24.00	25	1384	7.6	528	184	312	25	916	7.9	112	24	36		1.3	24.00	2 STREAM IS UNDER OPERATION
29 Mar 2021	17.66	24.00	25	1380	7.5	484	165	305	25	894	7.9	102	22	33		1.5	24.00	2 STREAM IS UNDER OPERATION
30 Mar 2021	19.39	24.00	25	1408	7.5	544	188	327	25	905	7.9	104	25	35		1.2	24.00	2 STREAM IS UNDER OPERATION
31 Mar 2021	18.15	24.00	25	1360	7.5	476	156	310	25	864	7.8	96	23	33	260	1.5	22.00	2 STREAM IS UNDER OPERATION
<b>TOTAL</b>	<b>549.50</b>																	
<b>AVG</b>	<b>17.73</b>	<b>24.00</b>	<b>24.61</b>	<b>1,345.48</b>	<b>7.54</b>	<b>503.94</b>	<b>171.35</b>	<b>308.00</b>	<b>24.61</b>	<b>885.71</b>	<b>7.89</b>	<b>101.97</b>	<b>23.68</b>	<b>34.35</b>	<b>297.50</b>	<b>1.4</b>	<b>296.95 Hrs</b>	

Note : There is ingress of Industrial Waste water (coloured) at STP from Sanigawan area, which was experienced on dates of 8,9,10,11,13,14,17,18,21,23,24,25,26,27 MAR. 2021.



KRMPL

**Annexure 4: Site Inspection Report for the Month of March. 2021 (Sajari)****Inspection report of 42 MLD STP, Sajari**

The Operation & Maintenance works of 42 MLD STP Sajari Kanpur were inspected on dated 23.03.2021 & following officers/Employee were present during the inspection :

1. Mr. Mohd Maaz, P.M. (E&M), GPCU, Kanpur.
2. Mr. Rajesh Kumar, P.E. (E&M), GPCU, Kanpur.
3. Mr. Ankit Singh, A.P.E. (E&M), GPCU, Kanpur.
4. Mr. Linga Krishna ,Expert safety, STC
5. Mr. Ajay Kumar Goyal , Support Engineer (Mech.), STC
6. Mr. Rahul, Support Engineer (Ele.), STC
7. Mr. Pankaj Rawat,Support Supervisor (Civil), STC
8. Mr. Ram Khilawan, lab Chemist, KRMPL

**42 MLD STP Sajari/MPS Jointly inspected on 23.03.2021 and following points are observed :**

1. It was informed that separate Plant in -charge for Sajari facilities has been appointed and expected to join shortly. But still separate plant in-charge for Sajari facilities is not available at site after more than 9 months.
2. **Collection chamber**
  - 2 nos. of Manual screen are in working condition.
  - 2 nos. of Mechanical screens are in working condition. But Auto system of both mechanical screens is not rectified.
  - **Electrical Defects:-**
  - Mechanical screen panel no.02 indicator is not in working. And voltmeter, Ammeter missing in the panel.
3. **Main Pumping Station**
  - All 5 sewage transfer pumps in working condition.
  - 3 nos. of discharge line pressure gauge are not in working condition. Need to be replaced.
  - Pump No.5 discharge pipe line leakage found from valve joint. Rectify immediately.
  - 1 no. of Electro-Magnetic Flow meter is installed at site.
  - KRMPL has not been submitted EOT crane load test certificate yet.
  - Temporary plastic cover arrangement (Fig 01) to be replaced by permanent shed as required..



*Russ*

4. **Inlet Chamber**
  - 2 nos. of Manual screen are found in working condition.
  - 2 nos. of Mechanical fine screens are in working condition.
  - Oil leakage found in mechanical Screen. Rectify immediately
  - Both Pressure gauges are not in working condition.
  - Auto systems of both mechanical screens are not rectified.
  - Screen panel earthing not done.
5. **Grit Separator**
  - 2 no's of Mechanical grit removal system are in working condition.
6. **Primary clarifier**
  - 2 no's of Primary clarifier mechanism are in working condition.
7. **Aeration system**
  - All 12 nos. of aerators are in working condition. And submergence of aerators is to be increased as per design.
  - Stenciling is required for all aerators.
8. **Secondary clarifier**
  - 2 nos of Secondary clarifier mechanism are in working condition.
9. **Chlorination system**
  - Out of 6 no's of tonners 3 nos has been installed, 2 nos tonners are not connecting with supply line of chlorine and remaining 3 nos has been sent to refilling of chlorine gas.
10. **Primary Sludge pump**
  - 02 nos. of screw pump checked and found in running condition.
11. **Thickener Sludge pump**
  - 2 no's screw pump checked and found in running condition.
12. **Return Sludge pump**
  - Out 3 nos. of submersible pumps installed, 01 no. Submersible pump is in working condition.
  - 1no. pressure gauge is not working condition. Display glass of all pressure gauges to be changed with glasses for proper visibility. This matter is pending from the last inspection on 21.09.2020.
  - Electrical Defects:-
    - Panel no. 2 main door damage.
    - Panel no.01 is found defective.
13. **Digester**
  - Out of 2 nos. of Sludge digester mixers installed, 01 no is not in working condition. This matter is pending since June 2020. KRMPL had promised they are starting the maintenance from 20.03.2021(ref. KRMPL Letter no.988 dated 17.03.2021) but not started yet.
  - EFM at outlet of digester was installed, but not working due to calibration.
14. **Gas Holder/Gas Scrubber/Gas flaring units**
  - Out of 3 nos. of Gas engine installed, 02 nos. have been rectified and now are in working condition but following works are still to be completed.
    - All pressure Gauge to be tighten properly..
    - Log book for each gas engine to be maintained for working.
    - Self flame torch is not available at flare unit.
    - Controller display not working properly at Gas Gen set all control panels.
    - Control monitor not working on the Gas Gen set control panel-A.
    - Synchronization work of all Gas Gen Set control panel.

**15. On-Line Monitor System (Done by UPJN)**

- Inlet Analyzer panel with Sensor installed at site. It has been synchronized with RTOLMS. Analyzer results are found at site (PH-7.96 COD-537 mg/l, BOD-164 mg/l, TSS- 288 mg/l).
- Out let Analyzer panel with Sensor installed at site. It has been synchronized g/l with RTOLMS. Analyzer results are found at site (PH-8.24, COD-77.7 mg/l, BOD-16.8 mg/l, TSS- 25.4 mg/l).

**16. DG Set for Power Backup**

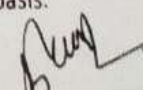
- DG set has been procured, installed and put to use by UPJN .Handover to KRMPL on 18.10.2020 for operation.

**17. Sludge drying Beds:-**

- Out of 18 sludge drying beds, 02 nos (Sludge bed no.9 & 2) sludge drying are empty by KRMPL. And other are filled ,Sludge drying beds are to be emptied on rotation basis regularly and sludge to be disposed of daily.

**18. EHS Points:-**

- **COVID 19 precautions followed at site:** availability of thermal screening, Sanitizer and Face masks is followed. Disinfection spray fogging is being done in labour camps; personal screening and awareness programme are implemented.
- In plant area number of safety caution boards and safety slogans to be increased.
- Dry grass and long wet grass to be removed from site open land area for avoiding any fire hazard.
- In this plant fire hydrant system is required for preventing and controlling fires like dry Grass and also to safe guard from fire risk in running STP plant.
- Chlorine mock drills to be conducted at chlorine plant to all the workers in batch wise, such Mock drills with photos to be submitted to STC/UPJN/NMCG. Once in a month one mock drills to be conducted example: Chlorine mock drills, fire mock drills and environmental mock drills, fall from height, snake bite etc., SCBA (Self contained breathing apparatus) to be cleaned daily once with soft form and sanitizer. In case of any chlorine leakage the neutralization pit to be kept ready with NAOH mix solution for neutralize of chlorine gas.
- PTU (Primary Treatment Unit) area lubrication oil leakage to be avoided, so that slippery area can be avoided and good housekeeping can be maintained and environmental damage can be avoided.
- Since starting of work it was observed & instructed verbally and in writing to KRMPL and through UPJN about the mobilization of separate site safety officer in Sajari and Bingawan.
- At present one safety officer is acting as in charge of both sites. Now it is requested to KRMPL through UPJN to mobilize the one more new site safety officer.
- Potable cool drinking water to be arranged for workers, staff and visitors during this hot weather.
- STOP mobile for all workers in safety point of view. May be allowed only for key persons.
- Hand tools condition to be maintained in safe, it condition to be updated by periodical safety checks and replacement of spare parts.
- Electrical safety, welding and Cutting safety to be maintained well.
- Workers health checks up to be done by qualified doctor immediately and such report copies to be sent to client and consultant.
- Plant area housekeeping and hygienic to be improved.
- EHS trainings to be conducted regularly and periodically. Tool box talks and EHS Induction to be given to all the workers regularly and periodically and such report copies to be submitted to Client and Consultant. Covid-19 awareness training to be given to workers on regular basis.



- It was told by few workers snakes are roaming in the plant. So it is required to arrange carbolic acid in different places of site area, also the grass has to be removed periodically for avoiding snakes and other insects. Anti snake venom to be arranged in refrigerator and one first aid persons to be available during working hours.
- In case of emergency purpose hotter/siren to be arranged at the security area or administrative building area and chlorine building area. It is also required to conduct mock drills periodically (once in a month).
- Periodical safety check lists checking, safety audits and safety inspections by KRMP site in charge along with KRMP site safety officer to be done and such reports of compliance to be sent to Jal Nigam and STC.

#### 19. Miscellaneous

- Stenciling is required for all Equipments and Pipe Lines as required.
- Plant area housekeeping and grass cutting work are in progress.
- Monthly performance report of Sajari Facilities not being sent by KRMP by 7<sup>th</sup> date of every month regularly.
- Transformer Breather silica gel in pink colour to be replace.
- All locations cable tray found rusted.
- All street light pole junction box found rusted.
- Voltmeter/Ammeter not working in Gas gen set panel.

(Mohd. Maaz)  
Project Manager (E/M)

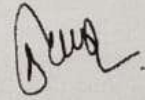
OFFICE OF THE PROJECT MANAGER (E&M), GANGA POLLUTION CONTROL UNIT, U.P. JAL NIGAM, KANPUR

Letter No. : 812 / W-30 / 39

Date : 25/03/21

#### Copy to the following for information & necessary action please

1. Chief Engineer (Kanpur Zone), U. P. Jal Nigam, Kanpur.
2. General Manager, Ganga Pollution Control Unit, U.P. Jal Nigam, Kanpur.
3. Mr. Madhava Kumar R, Sr. Eco. Fin. Expert, NMCG, New Delhi.
4. Project Manager (II), Construction Unit, Munsipurwa SPS, U.P. Jal Nigam, Kanpur.
5. Project Engineer, Mr. C. M. Dimri, Shah Technical Consultant, Kanpur.
6. M/S Kanpur River Management Private Limited, Flat no 101, 1st Floor, 3/83, Vishnupuri, Kanpur.
7. Project Engineer Shri Rajesh Kumar.

  
Project Manager (E&M)

## Annexure 5: Test Result of Joint Sampling Report of Influent & Treated Effluent (Sajari)

**SPECTRO<sup>®</sup>**  
Research Lab Ventures (P) Ltd.  
CIN:U73200DL2006PTC355036

Format No SRL/TRF/GEN  
Issue No 01, Issue Date 01-04-2017  
Page 1 of 2

### TEST REPORT

<p>Test Report Issued To</p> <div style="border: 1px solid black; padding: 5px;"> <p><b>KANPUR RIVER MANAGEMENT PVT. LTD.</b> SHAPOORJI PALLONJI AND CO. PVT. LTD., U.P. JAL NIGAM, BENAJHABAR ROAD, KANPUR, UTTAR PRADESH - 208002, INDIA</p> </div>	<p>Test Report No: <b>K210127018/K210127018-11</b></p> <p>Date of Issue: <b>06-Feb-2021</b></p> <p>Sample Booking/Receipt Date: <b>27-Jan-2021</b> Date of Start of Testing: <b>28-Jan-2021</b> Date of Completion of Test: <b>02-Feb-2021</b></p>
<p>Customer Relationship Number: <b>56524</b></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Sample Description : SAJARI - TREATED SEWAGE</p> </div>	
<p>Customer Reference No KRMPL/20-21/SPECTRO/JAN 21-1</p>	
<p>Kind Attention : <b>MR. AMIT BHARAMBE</b> E-Mail: <b>amit.bharambe@shapoorji.com</b>      Contact No: <b>9833373179</b></p>	
<p>Sample Condition : <b>AS PER RECEIVED</b> Sample Quantity (Approx): <b>1</b>      Sample Size (Approx): <b>-</b> <small>SAMPLE NOT DRAWN BY OUR LABORATORY. THE RESULTS RELATE ONLY TO THE ITEMS TESTED</small></p>	

Report issued By  
**ULR-TC784521000001310F**

Authenticity of report can be verified by mail at [verification@spectrolab.in](mailto:verification@spectrolab.in)  
This is a Digitally Signed Report and hence doesn't require Physical Signature.

**Spectro Research Lab Ventures (P) Ltd**, G-3, Bajrang Bali Industrial Area, Near Panki Site-IV, Kanpur-208020(India)  
Phone :+91-9235503984/85 || Web: [www.spectroresearchlabs.com](http://www.spectroresearchlabs.com) || Email: [knp@spectro.in](mailto:knp@spectro.in)  
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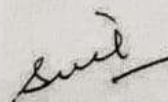
ID- K210127018-1

Date of start of testing: 28.01.2021

Date of completion of testing: 04.02.2021

S. No.	Test Parameter	Observed Value	Test Method
1.	Total Suspended Solids, mg/l	32	IS:3025(P-15)-1984 (RA-2019)
2.	C.O.D, mg/l	83	IS:3025(P-58)-2006 (RA-2017)
3.	B.O.D (5 days) at 20°C, mg/l	25	APHA 5210-B (23rd Edition): 2017

\*\*\*\*\*End of report\*\*\*\*\*

  
Analyst Signature



Testing(TC-7845)



-- End of Test Report --

ULR-TC784521000001310F



Authorised Signatory

Spectro Research Lab Ventures (P) Ltd, G-3, Bajrang Bali Industrial Area, Near Panki Site-IV, Kanpur-208020(India)

Phone :+91-9235503984/85 || Web: www.spectroresearchlabs.com|| Email: knp@spectro.in

ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Laboratory

CIN:U74220DL1998PLC092698

**TEST REPORT**

Test Report Issued To:

**KANPUR RIVER MANAGEMENT PVT. LTD.**

SHAPOORJI PALLONJI AND CO. PVT. LTD., U.P. JAL  
NIGAM,  
BENAJHABAR ROAD,  
KANPUR, UTTAR PRADESH - 208002,  
INDIA

Test Report No: K210127018/K210127018-20

Date of Issue: 03-Feb-2021



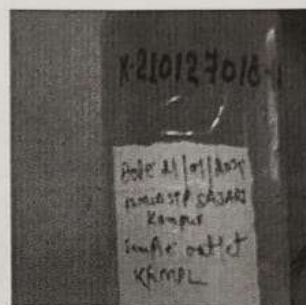
Sample Booking/Receipt Date: 27-Jan-2021

Date of Start of Testing: 27-Jan-2021

Date of Completion of Test: 31-Jan-2021

Customer Relationship Number **56524**

Sample Description :  
SAJARI - TREATED SEWAGE



Customer Reference No

KRMPL/20-21/SPECTRO/JAN 21-1

Kind Attention : MR. AMIT BHARAMBE

E-Mail: amit.bharambe@shapoorji.com

Contact No: 9833373179

Sample Condition : AS PER RECEIVED

Sample Quantity (Approx) : 1

Sample Size (Approx) : -

SAMPLE NOT DRAWN BY OUR LABORATORY, THE RESULTS RELATE ONLY TO THE ITEMS TESTED

**SPECTRO ANALYTICAL LABS LTD**  
Digitally signed  
by **VIKAS MALIK**  
Date: 2021.02.03  
16:50:05+05:30  
Report Issued By

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Issue No: 01, Issue Date: 01.04.17

Page 2 of 2

Report No. K210127018/K210127018-20

ID- K210127018-2

### Microbiological Testing

S. No.	Test Parameters	Observed Results	PROTOCOL
1.	Faecal coliform, MPN/100 ml	456	IS:1622:1981

– End of Test Report –

*Mahesh Bano*  
Analyst Signature



Authorised Signatory

Spectro Analytical Labs Limited, E-41, Okhla Indl. Area, Phase-II, New Delhi-110020(India)

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CIN: U74220DL1998PLC092698

**TEST REPORT**

Test Report Issued To:

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SHAPOORJI PALLONJI AND CO. PVT. LTD., U.P. JAL  
NIGAM,  
BENAJHABAR ROAD,  
KANPUR, UTTAR PRADESH - 208002,  
INDIA.

Test Report No: K210127018/K210127018-30

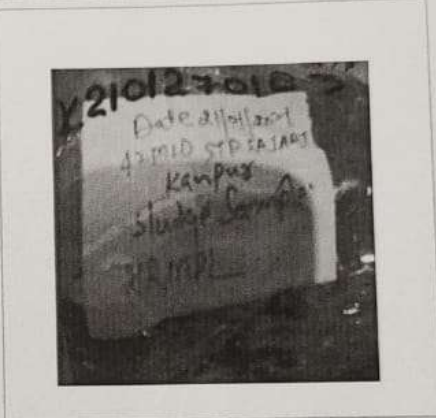
Date of Issue: 03-Feb-2021



Sample Receipt Date: 27-Jan-2021  
Date of Start of Testing: 27-Jan-2021  
Date of Completion of Test: 03-Feb-2021

Customer Relationship Number: 56524

Sample Description :  
SAJARI - DEWATER SLUDGE



Customer Reference No  
KRMP/20-21/SPECTRO/JAN 21-1

Kind Attention : MR. AMIT BHARAMBE  
E-Mail: amit.bharambe@shapoorji.com Contact No: 9833373179

Sample Condition : AS PER RECEIVED  
Sample Quantity (Approx) : 1 Sample Size (Approx) : -  
SAMPLE NOT DRAWN BY OUR LABORATORY. THE RESULTS RELATE ONLY TO THE ITEMS TESTED

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Issue No: 01, Issue Date: 01.04.17

Page 2 of 3

Report No K210127018/K210127018-30

ID- K210127018-3

Microbiological Testing

S. No.	Test Parameters	Observed Results	PROTOCOL
1.	Faecal coliform, MPN/100 ml	35000	IS:1622:1981

*Mahish Bano*

Analyst Signature



Authorised Signature

Spectro Analytical Labs Limited, E-41, Okhla Ind. Area, Phase-II, New Delhi 110020  
Phone :+91-11-40522000, 41611000 || Web: www.spectro.in | Email: info@spectro.in  
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# TEST REPORT

ID- K210127018-3

TEST PARAMETER	OBSERVED RESULT	TEST METHOD
Total solid concentration, % w/w	95.90	FAO guidelines

End of the page

-- End of Test Report --

Analyst Signature



Authorised Signatory

Spectro Analytical Labs Limited S-1, GNEPIP, Surajpur Industrial Area, Phase-V, Kasna, Greater Noida-201308 (India)

Phone : +91-120-2341250,2341251 || URL : [www.spectro.in](http://www.spectro.in) || Email: [care@spectro.in](mailto:care@spectro.in)

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### Annexure 6: Monthly Performance Report of Bingawan for March 2021

210 MLD SEWAGE TREATMENT PLANT, BINGAWAN, KANPUR																	
MONTHLY FLOW & LAB REPORT																	
Date	INLET FLOW in MLD	Plant Run in HRS	RAW SEWAGE							FINAL OUTLET					MONTH		REMARK
			Temp	TDS	PH	COD	BOD	TSS	Temp	TDS	PH	COD	BOD	TSS	POWER SHUTDOWN	Mar-2021	
			°C	PPM	(7-9)	(520mg/l)	(320mg/l)	(400mg/l)	°C	PPM	(7-9)	(<100mg/l)	(<30mg/l)	(<50mg/l)	HRS		
1-Mar-21	133.60	24.0	23	1018	7.2	640	190	535	23	1036	7.3	200	49	75	0.00		
2-Mar-21	134.70	24.0	23	1000	7.2	604	170	515	23	1040	7.3	185	55	60	0.00		
3-Mar-21	143.27	24.0	23	1020	7.2	512	180	515	23	1050	7.2	240	50	70	0.00		
4-Mar-21	131.74	24.0	23	990	7.1	712	210	380	23	1070	7.3	200	48	60	0.00		
5-Mar-21	145.84	24.0	24	1050	7.2	680	205	365	23	1070	7.3	184	46	53	0.00		
6-Mar-21	130.02	24.0	24	1040	7.2	656	175	425	24	1070	7.3	196	49	60	0.00		
7-Mar-21	144.24	24.0	24	1050	7.1	592	180	390	24	1080	7.3	192	49	66	0.00		
8-Mar-21	143.20	24.0	24	1040	7.2	544	160	405	24	1090	7.2	176	51	66	0.00		
9-Mar-21	141.90	24.0	24	1044	7.1	560	175	460	24	1030	7.3	192	47	66	0.00		
10-Mar-21	141.99	24.0	24	1020	7.1	576	185	475	24	1070	7.2	144	49	63	0.00		
11-Mar-21	143.01	24.0	24	1010	7.0	576	180	430	24	1040	7.2	176	46	53	0.00		
12-Mar-21	133.31	24.0	24	1050	7.2	560	175	405	23	1090	7.2	144	48	55	0.00		
13-Mar-21	133.47	24.0	24	1040	7.2	592	200	390	24	1060	7.3	180	51	46	0.00		
14-Mar-21	142.80	24.0	24	1050	7.1	600	190	452	24	1010	7.2	176	48	60	0.00		
15-Mar-21	120.45	24.0	24	1000	7.1	672	180	430	24	1070	7.2	200	50	60	4.50		
16-Mar-21	149.10	24.0	25	1000	7.2	704	180	415	24	1060	7.3	200	48	53	0.00		
17-Mar-21	141.44	24.0	25	1030	7.1	720	190	400	24	1060	7.3	224	51	53	0.00		
18-Mar-21	137.31	24.0	25	960	7.0	944	185	565	24	1030	7.2	224	49	56	0.00		
19-Mar-21	151.62	24.0	25	1020	7.1	592	150	365	24	1060	7.2	192	43	46	0.00		
20-Mar-21	74.82	24.0	25	1050	7.2	656	160	395	25	1050	7.3	200	46	57	13.17		
21-Mar-21	45.87	24.0	25	1030	7.2	680	175	460	25	1040	7.3	224	48	53	24.00		
22-Mar-21	44.26	24.0	25	1060	7.2	560	170	452	25	1070	7.5	192	43	48	24.00		
23-Mar-21	44.26	24.0	25	1020	7.1	656	165	405	24	1030	7.3	144	44	56	24.00		
24-Mar-21	45.65	24.0	25	1010	7.1	560	175	380	25	1070	7.2	144	45	47	24.00		
25-Mar-21	44.95	24.0	25	1035	7.1	544	170	425	25	1050	7.2	160	47	53	24.00		
26-Mar-21	44.61	24.0	25	1040	7.1	592	180	430	25	1070	7.2	160	47	58	24.00		
27-Mar-21	45.30	24.0	25	1030	7.2	576	175	415	24	1060	7.3	176	46	52	24.00		
28-Mar-21	43.75	24.0	25	1010	7.1	680	165	430	25	1020	7.2	160	47	48	24.00		
29-Mar-21	45.82	24.0	25	1040	7.1	592	160	425	25	1080	7.2	176	45	53	24.00		
30-Mar-21	44.26	24.0	26	1050	7.1	624	175	430	24	1090	7.3	192	49	52	24.00		
31-Mar-21	43.39	24.0	24	990	7.1	680	170	405	24	1030	7.3	160	48	56	24.00		
TOTAL	3211.90																
AVG	103.61	24.00	24.5	1026.3	7.1	626.3	177.4	418.4	24.2	1057.5	7.3	184.9	47.8	56.5	18.47		



KRMPL

**Annexure 7: Site Inspection Reports for the Month of March. 2021 (Bingawan)**

To,

**The Project Manager/Project Engineer**

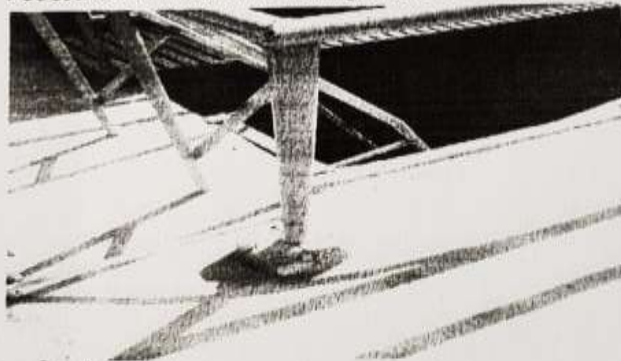
Dear Sir,

The Operation & Maintenance works of 210 MLD STP Bingawan, Kanpur were jointly inspected by under signee on dated 03.03.2021 in presence of following officers/Employee :

- 1 Mr. Ajay Kumar Goyal , Support Engineer (Mech.)
- 2 Mr. Rahul, Support Engineer (Elect.)
- 3 Mr. Pankaj Rawat, Support Supervisor (Civil)
- 4 Mr.Amit Bhambray , KRMPL
- 5 Mr.Shriram Saste ,KRMPL
- 6 Mr. Ashwin , Mech. Engineer, KRMPL
- 7 Mr. Laxhman, Elect. Engineer, KRMPL

**During the inspection, observations/deficiencies are found as follows :****1. Collection Chamber**

- Out of 2 nos. of Manual screens both are in working condition.
- Out of 2 nos. of mechanical screens installed 1no. Mechanical screen is found in working condition and other 1 no. Mechanical screen is out of order since 28.01.2019(Since last visit of CE, UPJN Kanpur) .
- Pedestrian of handrail is having cracks at our visit on 03/03/21.

**Electrical Defects:-****Bar Screen Panel**

- Voltmeter / Ammeter and phase light indicator of Bar Screen has been found not in working condition.
- Panel Earthing has been found damaged.
- Panel indoor light not fixed.
- Some items are missing from panels and panel door has been found damaged.
- Bar Screen panel mounting bolt and fasteners has been found not fixed .

## 2. Main Pumping Station

- Out of 12 nos. sewage transfer pumps installed, 01 no. (pump no.9) pump is not in working condition since 12/02/2021. At the time of visit, running speed not proper (Slower than 740 rpm) for Pump no.5, 6, 7 & 8.
- EOT Crane load test was done on date 23.12.2020 but test certificate not submitted By KRMPL as on date.
- 1 no. Inlet flow meter is not working condition and 2<sup>nd</sup> flow meter is not installed yet
- Butter fly valve chamber has tilled and a crack has been developed in the approach road of the MPS. This has not been rectifying yet.
- Leakage in walls (Near pump no. 6&12) in pumping station.(fig 1)

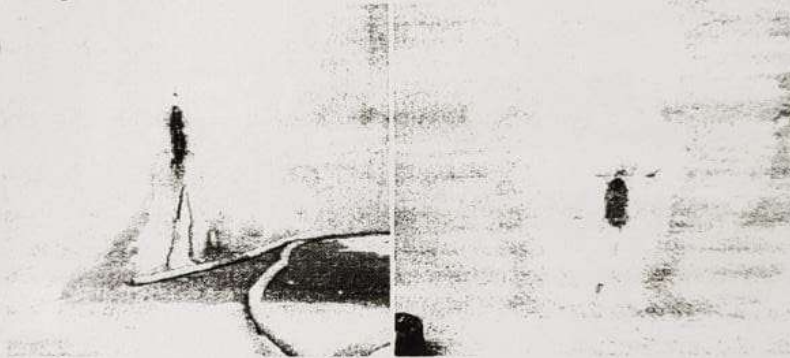


Figure :01

- In MPS Stair case are not proper welded.(fig 2)

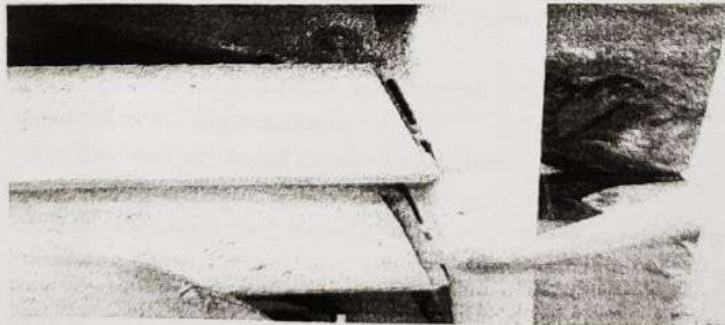


Figure: 02

### Electrical Defects:-

#### In Main MCC Panel MEP-2

- ACB Ammeter has been found not in working condition (Outgoing).
- ACB-7 & 11 Ammeter has been found not in working condition (Outgoing).
- Cable tray has been found in rusted condition.

*Signature*

- Ammeter of pump no.2 has been found not in working condition.
3. **Inlet chamber:-**
- Out of 03 nos. installed 2nos of Mechanical fine screens are in working condition. Mechanical screen no.2 not in working from 02/03/2021.
  - 01 no. Sampling pump is in working condition. Cabin/cover for sampling pump is not available since 28.01.2019.
  - Auto systems of all mechanical screens are not rectified. This matter is pending from handover date.
  - Existing flow meter not in working condition.
  - Leakage found in civil structure.(fig:03)

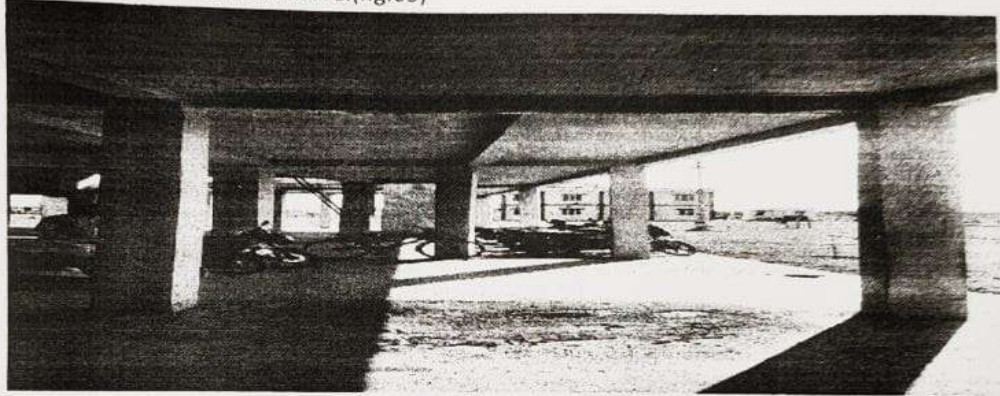


Fig:03

- -
- Electrical defects:-**
- In Inlet Control Panel indicators have been found not in working condition.
  - Incomer panel Voltmeter and Ammeter has been found not in working condition.
  - Classifier Drive –MCC Panel (Main drive -2) Ammeter has been found not in working condition
  - In Inlet control panel ON/OFF push button, Rotary switch of screen no.2 has been found not in working condition.
  - Cable tray has been found in rusted condition.
  - 8 nos. lights have been found in damaged condition.
  - Organic pump main drive-4 ammeter has been found not working condition.
  - Bar screen display belt conveyor ammeter has been found not in working condition.
4. **Grit removal assembly**
- Out of 4 nos. of Mechanical grit removal systems installed, 01 no. Mechanical grit removal system is not in working condition.
  - Out of 04 agitators installed, 01 no. agitator is not in working condition.
  - All Coupling guards & Chain covers are to be provided as per specification. This matter is pending since 28.01.2019.

*Signature*



- Leakage found in Civil Structure.(fig 4)

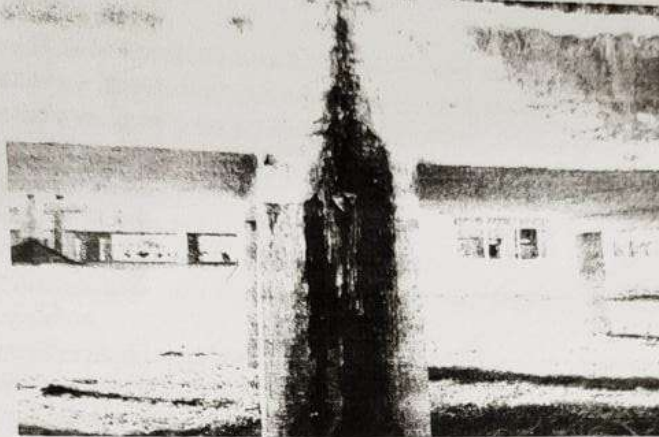


Fig: 04

- **Electrical defects:-**
- In Inlet Control Panel indicators have been found not working in condition.
- Grit separator main drive -2 ammeters has been found not in working condition.

#### 5. UASB reactor

- Out of 16 nos. reactors, only Reactors 3 nos. (Reactor no. 1, 4 & 8) had been cleaned and filled for reactivation from 19.12.2019 till date. Reactor no. 2&3 are open for cleaning from 04.08.2020 and 20.08.2020 respectively. There is no any improvement in cleaning & reactivation activity of reactors since 20.08.2020.
- The current status of all the 16 reactors has been explained in detail in the inspection report done on 23.1.2021 (inspection report sent on 29.1.2021) indicating that the UASB process is completely collapse but KRMPL has not submitted schedule Programme for cleaning & reactivation of remaining 11nos. reactors yet. KRMPL is required to take-up the work of cleaning of remaining reactors at war footing. This matter is pending since 28.01.2019.
- Reactor inlet pipes are not fixed on Concrete block in Reactor no.02
- Reactor no. 9 to 16 inlet pipes have broken from joint and flanged joints.
- Leakage found in Inlet sump of UASB.(refer fig : 05)



*Sh*

Fig:05

**6. Aeration pond.**

- Out of 18 nos. aerators installed, 2 nos. (Aerator no.-8 & 18) are not in working condition.
- Painting of panels and hand railing is required to be taken up immediately.
- Most of the cable trays are in corroded condition. Need to be replaced.
- CC Road damaged by KRMPL.

**Electrical defects:-**

- **Aerator Panel Room**
- APFC meter showing alarm error.
- Capacitor bank no.9 Push button cover missing & Ammeter has been found not working condition.
- Panel of Alarm Annunciators has been found not working condition.
- Main Light Distribution box ammeter has been found not working condition.
- Aerator no.3 ammeter has been found not working properly.
- Out of 35 nos. Aeration Area Lights, 25 nos. are in working and other 10 Aeration Area Lights are found defective.

**7. Chlorination Building**

- Out of 20 nos. chlorine tonners, only 17 nos. tonners are available in the chlorine room KRMPL people could not reply about 3nos. missing chlorine tonner. should be arrange properly,
- Only 2 nos. chlorine tonners found connected with the system.
- 1 no. tonner has been found in filled condition.
- 1 week stock is required to be available all the time.
- 1 no. pressure gauge is not in working condition.
- **Electrical defects:-**
- Halogen light lamp damage 2 no. in Chlorination room.
- RTU Power supply Panel earthing not done.

**8. Gas holder**

- Both gas holders are not in working condition. Alignment of 01 no. Gas holder is not proper as per below fig.06. Gas holder no.02 is under repair work but at the time of visit no manpower was found engaged by KRMPL.
- No gas flaring at the time of inspection.

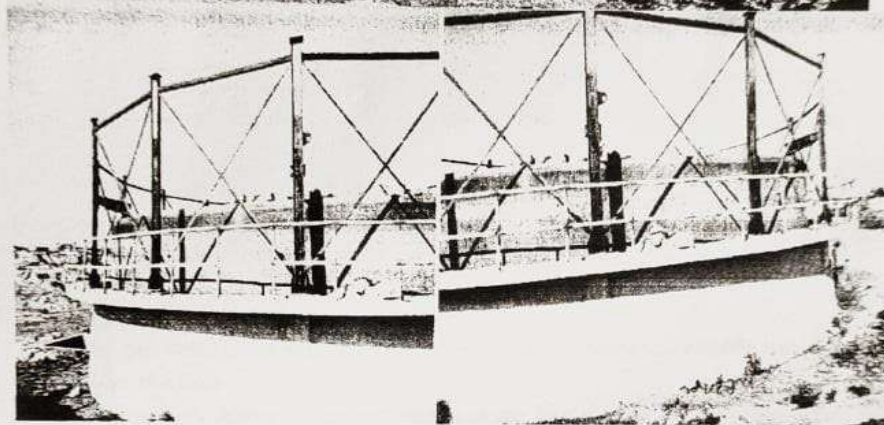
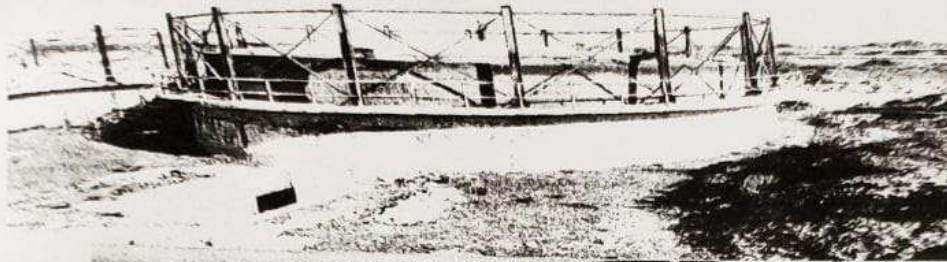


Figure: 6. Gas Holder No.01

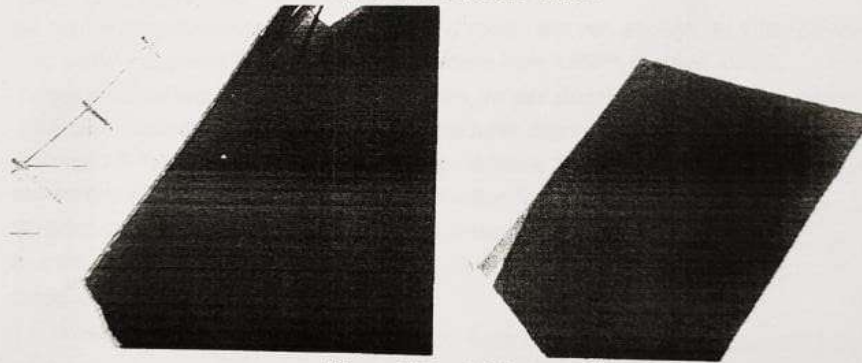


Figure: 7 Gas Holder No. 2

- **Electrical defects:-**
- Bio gas flair Panel has been found in damaged condition.

9. **DFG**

- Out of 2 nos. DFG installed, 1 no. has been repaired by UPJN and is under trail run. Bio Gas System is not working properly, Bio gas is not reaching to DFG with sufficient pressure. Quality of Bio gas is not analyzed yet by KRMPL has promised in the NMCG review meeting

*af*

held on 01.02.2021 that gas will be supply to DFG for trail run on 07.02.2021 but it is still pending.

**10. Thicken sludge transfer pump house**

- All 3 nos. sludge transfer pump installed & in working condition.
- Build supports for all 3 nos. Discharge pipe line.(fig 8)

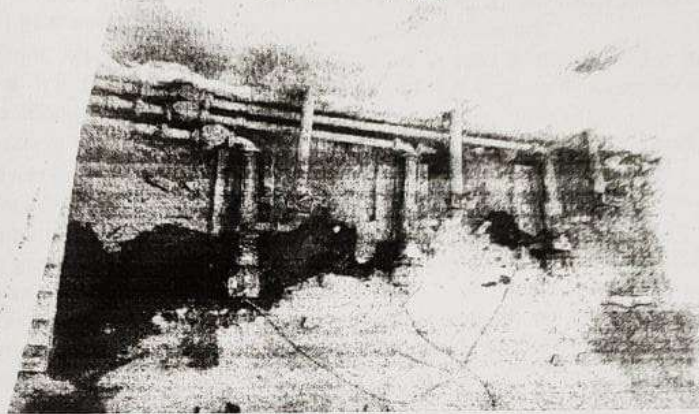


Figure : 8

**11. Belt filter press system**

- All 3 nos. Belt filter press systems have been made functional by KRMPL but only 2 BFP are being used at a time.
- Out of 3 nos. poly dosing pump installed, leakage found from inbuilt diaphragm portion of 1no. Dosing pump. This matter pending since 07.10.2020.
- 02 Nos. trolley Available at site for sludge disposal but not enough, as site requirement 04 nos. trolleys required for sludge disposal (Action from KRMPL needed ASAP).
- Sludge disposal record has been found at site. As per sludge disposal record available at site it has been found that 20 trolleys sludge has been disposed on 01.2.2021.weight per trolley is about 1.5 MT ,thus 30 MT/ per day sludge is being disposed of, which is not adequate for the current in flow it shows that sludge extraction from the reactors is not proper
- Sludge testing arrangement is not available in the Laboratory.
- Belt filter press no.1& 2 fan blade, cover of motors has been found damaged.
- **Electrical defects:-**
- Belt filters Press panel no.3, Voltmeter & EM Push button; Panel door cover has been found damaged.
- Belt filter press hydra pump ammeter has not been found in working condition.

**14. Online Monitoring System:-**

- Calibration certificate along with witness certificate is still not submitted by KRMPL. On 02.02.2021 it was found that there is difference in the reading of RTLOMS and laboratory results of produced data as shown below:-

Analyser Inlet Reading	COD =738.9 mg/l	TSS =648.4 mg/l
Analyser outlet Reading	COD=185.3 mg/l	TSS =48.9mg/l

*Signature*

Laboratory Inlet Reading	COD=512 mg/l	TSS= 515 mg/l
Laboratory outlet reading	COD=240 mg/l	TSS= 70 mg/l

The above results shown in the table show that lab outlet results are much on lower side.

- Out of 2 no's Electro-Magnetic Flow meters in inlet, 1 no. has been installed at site and it has been synchronised with RTOLMS. It is not calibrated. Another 2<sup>nd</sup> no. Electro-Magnetic Flow meters has not been installed yet. Need to provide calibration report.
- Online monitoring system, RTU, DNP & UPS installed at Inlet & Outlet, and it has been synchronised with RTOLMS and testing results (COD, BOD & TSS) are changing for every 15 minutes. Calibration certificates (Inlet & Outlet analyser) are not found yet.
- It is also necessary to update the proper power consumption and timing of both Power supply and Power backup (DG set) in RTOLMS.
- The Cable lying and termination of sampling pumps has been found in haphazard manner.
- The internal panel wiring has not been dressed properly.
- The sampling pumps are not maintained properly and cooling fan of pumps has also been broken condition.
- The parameter value shown on the local display of the analyzer do not match with the parameter value as shown on the IOT portal and beyond the limit as specified in the concessionaire agreements.

#### 15. Miscellaneous:-

- Total Sludge is dumped in the Plant itself .It's not a Good Practice by KRMPPL.
- Balance boundary wall work is to be completed by UPJN.
- MPS outlet valve chamber wall has been found collapsed due to earth pressure. Cracks have been also developing in the road leading to MPS this to be repaired urgently.
- In Main LT Panel capacitor bank 800KVAR Transformer 1, no. voltmeter not working
- Sodium Light lamp 9 no. & some street lighting not fixed.
- Street Light Junction boxes have loose mounting & are damage, some junction box is missing.
- All Rusted junction boxes & Panels are to be painted.
- Daily, Monthly /Quarterly and Annual Maintenance record not maintained in register.
- Admin. Building Light Distribution box has been found damaged.
- Street light around the substation has been found damaged.
- HT power cable laying work not done.
- Transformer -1 incomer panel Voltmeter/Ammeter has not been found in working condition in MCC-1 Room.

Your Faithfully

(Mahipal Singh)

Asst. Project Engineer (E&M)

## Annexure 8: Test Result of Joint Sampling Report of Influent & Treated Effluent (Bingawan)

**SPECTRO<sup>®</sup>**  
Research Lab Ventures (P) Ltd.  
CIN:U73200DL2006PTC355036

Format No: SRL/TRF/GEN  
Issue No:01, Issue Date:01-04-2017  
Page 1 of 2

### TEST REPORT

Test Report Issued To:

**KANPUR RIVER MANAGEMENT PVT. LTD.**

SHAPOORJI PALLONJI AND CO. PVT. LTD., U.P. JAL NIGAM,  
BENAJHABAR ROAD,  
KANPUR, UTTAR PRADESH - 208002,  
INDIA

Test Report No: **K210127019/K210127019-11**

Date of Issue: **06-Feb-2021**

Sample Booking/Receipt Date: **27-Jan-2021**  
Date of Start of Testing: **28-Jan-2021**  
Date of Completion of Test: **02-Feb-2021**

Customer Relationship Number: **56524**

Sample Description :

BINGAWAN TREATED SEWAGE

Customer Reference No

KRMPL/20-21/SPECTROJAN 21-2

Kind Attention : **MR. AMIT BHARAMBE**

E-Mail: **amit.bharambe@shapoorji.com**

Contact No: **9833373179**

Sample Condition : **AS PER RECEIVED**

Sample Quantity (Approx) : **1**

Sample Size (Approx) : **-**

SAMPLE NOT DRAWN BY OUR LABORATORY. THE RESULTS RELATE ONLY TO THE ITEMS TESTED

**ULR-TC784521000001311F**

Authenticity of report can be verified by mail at [verification@spectrolab.in](mailto:verification@spectrolab.in)

This is a Digitally Signed Report and hence doesn't require Physical Signature.

Report Issued By

**Spectro Research Lab Ventures (P) Ltd.**, G-3, Bajrang Bali Industrial Area, Near Panki Site-IV, Kanpur-208020 (India)

Phone :+91-9235503984/85 || Web: [www.spectroresearchlabs.com](http://www.spectroresearchlabs.com) || Email: [knr@spectro.in](mailto:knr@spectro.in)

ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Laboratory

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ID- K210127019-1

Date of start of testing: 28.01.2021  
Date of completion of testing: 04.02.2021

S. No.	Test Parameter	Observed Value	Test Method
1.	Total Suspended Solids, mg/l	58	IS:3025(P-15)-1984 (RA-2019)
2.	C.O.D, mg/l	125	IS:3025(P-58)-2006 (RA-2017)
3.	B.O.D (5 days) at 20°C, mg/l	29	APHA 5210-B (23rd Edition): 2017

\*\*\*\*\*End of report\*\*\*\*\*

*[Signature]*  
Analyst Signature



-- End of Test Report --

ULR-TC784521000001311F



Authorised Signatory

Spectro Research Lab Ventures (P) Ltd, G-3, Bajrang Bali Industrial Area, Near Panki Site-IV, Kanpur-208020 (India)  
Phone : +91-9235503984/85 || Web: www.spectroresearchlabs.com || Email: knp@spectro.in  
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Analytical Labs Limited

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Page 1 of 2

CIN: U74220DL1998PLC092698

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Test Report Issued To:

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SHAPOORJI PALLONJI AND CO. PVT. LTD., U.P. JAL  
NIGAM,  
BENAJHABAR ROAD,  
KANPUR, UTTAR PRADESH - 208002,  
INDIA.

Test Report No: K210127019/K210127019-20

Date of Issue: 03-Feb-2021



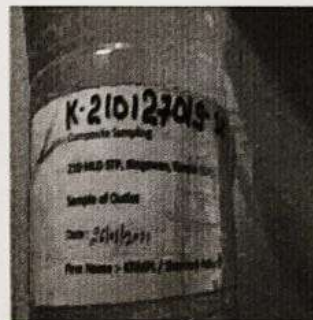
Sample Booking/Receipt Date: 27-Jan-2021

Date of Start of Testing: 27-Jan-2021

Date of Completion of Test: 31-Jan-2021

Customer Relationship Number: 56524

Sample Description :  
BINGAWAN TREATED SEWAGE



Customer Reference No:  
KRMP/20-21/SPECTRO/JAN 21-2

Kind Attention : MR. AMIT BHARAMBE  
E-Mail: amit.bharambe@shapoorji.com Contact No: 9833373179

Sample Condition : AS PER RECEIVED  
Sample Quantity (Approx) : 1 Sample Size (Approx) : -  
SAMPLE NOT DRAWN BY OUR LABORATORY. THE RESULTS RELATE ONLY TO THE ITEMS TESTED

Digitally signed  
by YOGESH  
MALIK  
Date: 2021.02.08  
10:18:56 +05:30  
Report Issued By

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Analytical Labs Limited **TEST REPORT**  
J74220DL1998PLC092698

Format No: SALL/TRF/IGEN  
Issue No: 01, Issue Date: 01.04.17

Page 2 of 2

Report No. K210127019/K210127019-20

ID- K210127019-2

### Microbiological Testing

S. No.	Test Parameters	Observed Results	PROTOCOL
1.	Faecal coliform, MPN/100 ml	900	IS:1622:1981

-- End of Test Report --

*Mahesh Bano*  
Analyst Signature



Digitally signed  
by YOGESH  
MALIK  
Date: 2021.03.03  
10:18:58 +05:30

Authorised Signatory

Spectro Analytical Labs Limited, E-41, Okhla Indl. Area, Phase-II, New Delhi-110020(India)  
Phone :+91-11-40522000, 41611000 || Web: www.spectro.in|| Email: care@spectro.in  
ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Laboratory

CIN: U74220DL1998PLC092698

**TEST REPORT**

Test Report Issued To:

**KANPUR RIVER MANAGEMENT PVT. LTD.**

SHAPOORJI PALLONJI AND CO. PVT. LTD., U.P. JAL  
NIGAM,  
BENAJHABAR ROAD,  
KANPUR, UTTAR PRADESH - 208002,  
INDIA

Test Report No: **K210127019/K210127019-30**

Date of Issue: **03-Feb-2021**



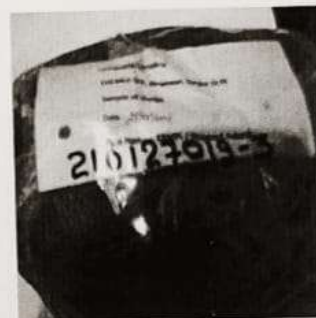
Sample Receipt Date: **27-Jan-2021**

Date of Start of Testing: **27-Jan-2021**

Date of Completion of Test: **03-Feb-2021**

Customer Relationship Number **56524**

Sample Description :  
BINGAWAN - DEWATERED SLUDGE



Customer Reference No:  
KRMP/20-21/SPECTRO/JAN 21-2

Kind Attention : **MR. AMIT BHARAMBE**  
E-Mail: **amit.bharambe@shapoorji.com**

Contact No: **9833373179**

Sample Condition : **AS PER RECEIVED**

Sample Quantity (Approx) : **1**

Sample Size (Approx) : **-**

SAMPLE NOT DRAWN BY OUR LABORATORY. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Report Issued By

Authenticity of report can be verified by mail at [verification@spectrolab.in](mailto:verification@spectrolab.in)

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## Analytical Labs Limited TEST REPORT

J74220DL1998PLC092698

Format No: SALLTRF/GEN  
Issue No: 01, Issue Date: 01.04.17

Page 2 of 3  
Report No K210127019/K210127019-30

ID- K210127019-3

### Microbiological Testing

S. No.	Test Parameters	Observed Results	PROTOCOL
1.	Faecal coliform, MPN/100 ml	24000	IS:1622:1981

*Mahesh Bano*  
Analyst Signature



Authorised Signatory

**Spectro Analytical Labs Limited, E-41, Okhla Indl. Area, Phase-II, New Delhi-110020(India)**  
Phone :+91-11-40522000, 41611000 || Web: www.spectro.in|| Email: care@spectro.in  
ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Laboratory

# TEST REPORT

ID- K210127019-3

TEST PARAMETER	OBSERVED RESULT	TEST METHOD
Total solid concentration, % w/w	28.83	FAO guidelines

End of the page

-- End of Test Report --

Analyst Signature



Authorised Signatory

Spectro Analytical Labs Limited

S-1, GNEPIP, Surajpur Industrial Area, Phase-V, Kasna, Greater Noida-201308 (India)

Phone : +91-120-2341250,2341251 || URL : [www.spectro.in](http://www.spectro.in) || Email: [care@spectro.in](mailto:care@spectro.in)

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