

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



सत्यमेव जयते

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

AUGUST - 2020



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



Funding Agency
National Mission for
Clean Ganga
MoWR, River
Development & Ganga
Rejuvenation,
New Delhi



Project Engineer
Shah technical Consultar
Pvt. Ltd.
117/426 14-O block,
Geeta Nagar
Kanpur
Uttar Pradesh - 208025



Concessionaire
Kanpur River Management
Pvt. Ltd.
Flat no 101,
1st Floor, 3/83, Vishnupuri,
Kanpur, Uttar Pradesh -
208002

Table of Contents

MONTHLY PROGRESS REPORT – HAM Kanpur	5
1 Introduction.....	5
2 Hybrid Annuity Model (HAM).....	6
3 Objectives	6
4 HAM Kanpur Project at a Glance	7
5 Project wise details of components under HAM Kanpur project.....	8
5.1 Pankha Facilities	8
5.2 Unnao Facilities	9
5.3 Shuklaganj STP Facilities	10
5.4 Jajmau (Phase i) Facilities	10
5.5 Jajmau Phase II STP Facility	11
5.6 Bingawan Facilities	11
5.7 Sajari Facilities	11
6 Physical Progress of work	12
6.1 Milestone wise activities and progress: Pankha STP Facilities	12
6.2 Milestone wise activities and progress: Unnao STP	17
7 Present Status and issues of Ham Project Kanpur	27
7.1 Pankha 30 MLDSTP:.....	27
7.2 Unnao 15 MLD STP facilities:.....	27
7.3 Shuklaganj 5 MLD STP facilities:	27
7.4 Jajmau (PHASE – 1) 130 MLD STP and IPS rehabilitation	27
7.5 43 MLD Jajmau phase ii	28
7.6 210 MLD Bingawan Facilities	28
7.7 42 MLD Sajari STP	29
8 Status Of BEP& OTHER DETAILS	31

LIST OF TABLES

Table 2.1	:	HAM Kanpur Project at a Glance
Table 5.1	:	Pankha Facilities (District-III)
Table 5.2	:	Unnao Facilities
Table 5.3	:	Shuklaganj Facilities
Table 5.4	:	Jajmau Facilities
Table 5.5	:	Bingawan Facilities
Table 5.6	:	Sajari Facilities
Table 6.1	:	Milestone Wise Activities And Progress: Pankha STP Facilities
Table 6.2	:	Milestone Wise Activities And Progress: Unnao STP Facilities
Table 6.3	:	BEPs and other details

LIST OF FIGURES

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

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

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 4th February 2019 and agreement signed between the parties on 12th 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.

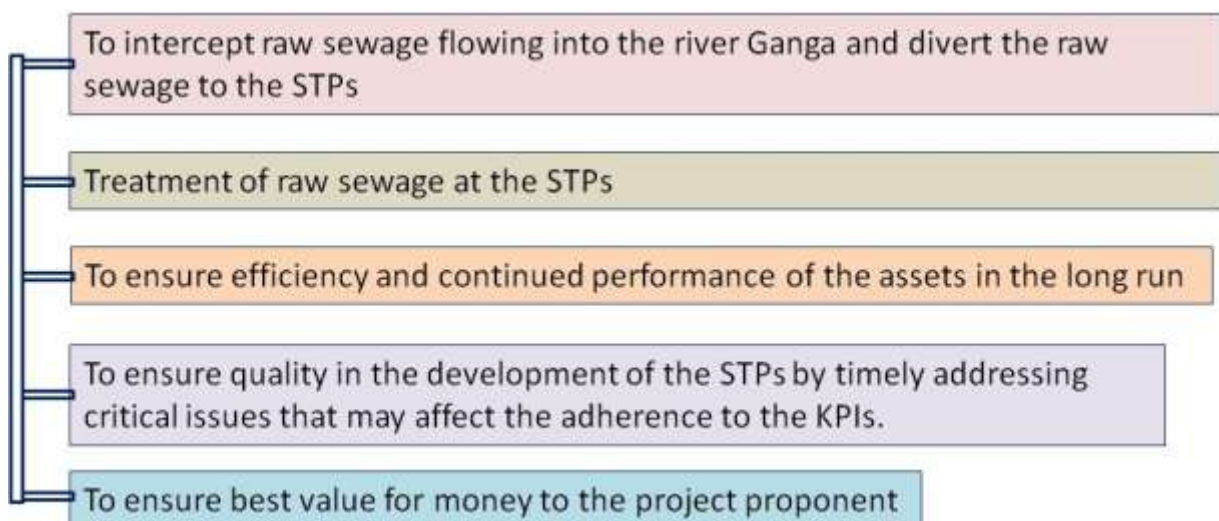


Figure 1: Objectives of NMCG and UP JAL NIGAM

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

Particulars	Description
Name of Project	: 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)
Client	: National Mission for Clean Ganga (NMCG), New Delhi and UP Jal Nigam
Execution Agency	: Uttar Pradesh Jal Nigam (UPJN)
Consultant	: Shah Technical Consultants (P) Ltd. as ‘Project Engineer’
Agreement &LOA	: STC Agreement dated 12.04.2019 & LOA: Pr-12012/41/2018-PPP/NMCG dated 04.02.2019
Concessionaire	: Kanpur River Management Private Limited (KRMPL) an SPV of Shapoorji Pallonji& Company Private Limited, Mumbai
Concessionaire’s Agreement	: 14/GM/2018-19dated 21.12.2018
Cost of Project (CAPEX+OPEX)	: Rs. 816.25 Cr. (CAPEX 255.50 Cr. + OPEX 560.75 Cr.)
Effective Date	: 11.10.2019
Completion date (as per contract)	: 24 Months from effective date (21 months construction + 3 months trial run)
O&M period	: 15 years after last Commercial Operation Date (COD)
Description of Work	: <ul style="list-style-type: none"> ➤ 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&M; ➤ Rehabilitation of 130 MLD (Phase-I) STP at Jajmau with construction of 200 MLD TEPS and 173 MLD CCT at Jajmau with O&M for 15 years; ➤ O&M of 43 MLD (Phase-II) Jajmau facilities, O&M of 210 MLD Bingawan facilities and O&M of 42 MLD Sajari facilities for 15 years;

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
1.14	Milestones	Date	Amount in Rs.
	1 st Milestone	12-Oct-2019 to 25-Apr-2020	1248,39,750
	2 nd Milestone	26-Apr-2020 to 10-Jul-2020	1248,39,750
	3 rd Milestone	11-Jul-2020 to 24-Sep-2020	1248,39,750
	4 th Milestone	25-Sep-2020 to 09-Dec-2020	1248,39,750
	5 th Milestone	10-Dec-2020 to 13-Feb-2021	1248,39,750
	6 th Milestone	14-Feb-2021 to 21-Apr-2021	1248,39,750
	7 th Milestone	22-Apr-2021 to 22-Jun-2021	1248,39,750
	8 th 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		
1.1	STP		15 MLD	1
1.2	Sump cum Pump house (MPS)		40 MLD	1
1.3	Trunk Sewer		1200mm φ	3.2Km
1.4	I&D works (Nala tapping)		40 MLD	1
1.5	Trash screen		7m-1.7m x 0.8m	1
1.6	Grit chamber		12m-4m x 1m	2
1.7	Collection chamber		3.4m-6.2m x 3m	1
1.8	Rising main (MPS to STP)		750mm φ	100m
1.9	Rising main (bypass)		750mm φ	100m
1.10	Effluent distribution chamber		-	1
1.11	Effluent gravity channel (STP to discharge point)		1.5m x 1.0m	300m
1.12	Effluent disposal drains		-	500m
1.13	Milestones	Date	Amount in Rs.	
	1 st Milestone	12-Oct-2019 to 24-Feb-2020	478,36,250	
	2 nd Milestone	25-Feb-2020 to 15-May-2020	478,36,250	
	3 rd Milestone	16-May-2020to 30-Jul-2020	478,36,250	

4 th Milestone	30-Jul-2020to 14-Oct-2020	478,36,250
5 th Milestone	15-Oct-2020to 24-Dec-2020	478,36,250
6 th Milestone	10-Dec-2020 to 01-Mar-2021	478,36,250
7 th Milestone	02-Mar-2021 to 05-May-2021	478,36,250
8 th 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 ϕ	50m
1.7	Rising main (bypass)	500mm ϕ	50m
1.8	Retaining wall		1
1.9	Effluent channel (STP to discharge point)	1.5m x1m	100m
1.10	Milestones	To be submitted*	

*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
A	Phase-I		
	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	Parmat IPS	-	1
1.6	Baba Ghat/Muar mill IPS	-	1

1.7	GuptarGhat IPS	-	1
1.8	Jajmau CPCS	-	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 19th April 2019. Effective date for work execution under HAM Kanpur project was declared on 11th 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 10th 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	1 st Milestone	Amount of	Achieved against Milestone 1		Remaining	Remarks
		(due on 25.09.2020)	1 st Milestone	Physical	Physical		
						%	
A	Design & Drawings of STP Sewer Laying work						
I	On approval of BEP	100%	24967950	100%	24967950	0%	Completed
ii	On approval of Design & Drawings for civil & Sewerage work	100%	24967950	100%	24967950	0%	Completed
B	STP (30 MLD)						
1	SBR Basin Area						
	Site Clearance	100%	250000	95%	237500	5%	Completed
	Excavation	100%	9838400	95%	9346480	5%	work in progress
	PCC	100%	14757600	55%	8116680	45%	work in progress
	RCC Foundation/ Raft	40%	9838400	0%	0	40%	Delay at KRMPPL
2	Chlorine Contact Tank Area						
	Site Clearance	100%	150000	100%	150000	0%	Completed
	Excavation	100%	737880	100%	737880	0%	Completed
	PCC	100%	1106820	80%	885456	20%	work in progress
3	Chlorination House Area						
	Site Clearance	100%	100000	100%	100000	0%	Completed
	Excavation	100%	364940	100%	364940	0%	Completed
	PCC	100.00%	553410	100%	553410	0%	Completed
5	Sludge Thickener Area						
	Site Clearance	100%	100000	100%	100000	0%	Completed
	Excavation	100%	738880	50%	369440	50%	Delayed at KRMPPL
	PCC	100%	1106820	0%	0	100%	Delayed at KRMPPL
9	Admin Building Area						
	Site Clearance	100%	100000	100%	100000	0%	Completed
	Excavation	100%	368940	100%	368940	0%	Delayed at KRMPPL

SN	Description	1 st Milestone	Amount of	Achieved against Milestone 1		Remaining	Remarks
		(due on 25.09.2020)	1 st Milestone	Physical	Physical		
	PCC	100%	553410	77%	426125.7	23%	Delayed at KRMPL
18	External Development						
B	Compound Wall with Gate						
	Excavation & PCC	40%	2459600	100%	2459600	0%	Excavation 698 m completed and 140 nos. PCC Completed
	RCC Column Footing (337No.)	40%	2459600	100%	2459600	0%	109 no. footings completed
	RCC Column & Beam (1010 mt)	40%	2459600	51.34%	12,62,758.64	0%	69 nos. column completed.
19	MPS-2 (115 MLD)						
A	Construction of Raw Sewage Sump						
	Site Clearance	100%	150000	100%	150000	0%	Completed
	Excavation	15%	517760	15%	517760	0%	Completed
B	Construction of Inlet Chamber & Screen channel						
	Site Clearance	100%	50000	100%	50000	0%	Completed
20	ICI Nala IPS						
	CIVIL						
A	Construction of Raw Sewage Sump						
	Site Clearance	100%	150000	100%	150000	0%	Completed
21	IPS-6 (Sundar Nagar- 20 MLD)-Pankha Area						
A	Construction of Raw Sewage Sump						
	Site Clearance	100%	150000	100%	150000	0%	Completed
	Excavation	11%	168696	0%	0	11%	Delayed at KRMPL
24	Sewer System Area (RCC Pipes-NP3 Types)						
	Supply of pipes	16%	256,72,683.52	8.55%	13718840.26	7.45%	Out of 16624 rmt 16% comes 2660. Out of 2660, 1420 rmt received
	Total Amount		124836749.9		92711310.6		Progress up to Aug 2019 = 9.28%

PHOTOGRAPHS OF PANKHA STP SITE



Plinth Beam Boundary Wall work



PCC work of SBR



Boundary Wall Brick Work



Ongoing work of Labour Kitchen

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	Activity	Milestone 1 (12.5%)		Achieved		Remaining	Remarks
		Due on 25.09.2020		Till 31.08.20			
		Physical	Financial (Rs)	Physical	Financial (Rs)		
I	Design & Drawing & STP & Sewer Laying works						
1	On approval of BEP	100%	191,34,500.00	100%	191,34,500.00	0.0%	completed
2	On approval of design & drawings for Civil & Sewerage works	25%	47,83,625.00	25%	47,83,625.00	0.0%	completed
i	SBR Basin Area						
1	Site Clearance	100%	5,00,000.00	40.0%	2,00,000.00	60.0%	work in progress
2	Excavation wall footing	100%	22,46,137.60	20.0%	4,49,227.52	80.0%	work in progress
3	PCC wall footing	100%	27,46,137.60	20.0%	5,49,227.52	80.0%	work in progress
ii	Sludge Thickener Area						
1	Site Clearance	100%	1,50,000.00	0.0%	-	100.0%	delay at KRMPL
2	Excavation	100%	3,64,900.00	0.0%	-	100.0%	delay at KRMPL
3	PCC	50%	2,57,450.00	0.0%	-	50.0%	delay at KRMPL
iii	Supernatant Sump Area						
1	Site Clearance	100%	1,00,000.00	0.0%	-	100.0%	delay at KRMPL
2	Excavation	100%	1,14,422.40	0.0%	-	100.0%	delay at KRMPL
3	PCC	100%	1,14,422.40	0.0%	-	100.0%	delay at KRMPL
4	RCC Foundation wall/base slab	100%	1,28,844.80	0.0%	-	100.0%	delay at KRMPL
iv	Chlorine Contact Tank Area						
1	Site Clearance	100%	1,50,000.00	100.0%	1,50,000.00	0.0%	completed
2	Excavation	100%	4,22,112.00	100.0%	4,22,112.00	0.0%	completed
3	PCC	100%	5,72,112.00	100.0%	5,72,112.00	0.0%	completed

SN	Activity	Milestone 1 (12.5%)		Achieved		Remaining	Remarks
		Due on 25.09.2020		Till 31.08.20			
		Physical	Financial (Rs)	Physical	Financial (Rs)		
4	RCC Foundation/Raft	100%	9,15,000.00	100.0%	9,15,000.00	0.0%	completed
v	Air Blower Room Area						
1	Site Clearance	100%	2,50,000.00	0.0%	-	100.0%	delay at KRMPL
2	Excavation	100%	3,43,267.20	0.0%	-	100.0%	delay at KRMPL
3	PCC	100%	3,43,267.20	0.0%	-	100.0%	delay at KRMPL
vi	Staff Quarter Area (G+1)						
1	Site Clearance	100%	50,000.00	100.0%	50,000.00	0.0%	completed
2	Excavation	100%	71,000.00	100.0%	71,000.00	0.0%	completed
3	PCC	100%	71,000.00	100.0%	71,000.00	0.0%	completed
4	RCC Foundation/column footing	100%	92,000.00	80.0%	73,600.00	20.0%	work in progress
vii	Guard Room Area						
1	Site Clearance	100%	50,000.00	100.0%	50,000.00	0.0%	completed
2	Excavation	100%	82,211.20	100.0%	82,211.20	0.0%	completed
3	PCC	100%	82,211.20	100.0%	82,211.20	0.0%	completed
4	RCC Foundation/column footing	100%	1,14,422.40	100.0%	1,14,422.40	0.0%	completed
5	Column & Beam	100%	1,14,422.40	100.0%	1,14,422.40	0.0%	completed
6	RCC Ground Floor Slab	100%	1,14,422.40	100.0%	1,14,422.40	0.0%	completed
viii	Chlorination Room Area						
1	Site Clearance	100%	150000	0.0%	-	100.0%	delay at KRMPL
2	Excavation	100%	4,57,689.60	0.0%	-	100.0%	delay at KRMPL
3	PCC	50%	2,28,844.80	0.0%	-	50.0%	delay at KRMPL
xviii	EXTERNAL DEVELOPMENT						
	Boundary Wall with Gate						
1	Site Clearance	100%	-				completed
2	Excavation	40%	1,33,900.00	51.0%	68,289.00	0.0%	completed

SN	Activity	Milestone 1 (12.5%)		Achieved		Remaining	Remarks
		Due on 25.09.2020		Till 31.08.20			
		Physical	Financial (Rs)	Physical	Financial (Rs)		
3	PCC	40%	2,00,850.00	71.0%	1,42,603.50	0.0%	completed
4	RCC Column footing	40%	2,00,850.00	71.0%	1,42,603.50	0.0%	completed
5	RCC Column & Beam	40%	2,00,850.00	44.0%	88,374.00	0.0%	completed
6	Brickwork	15%	75,318.75	5.0%	3,765.94	10.0%	work in progress
C	MPS						
	Civil Works						
i	Construction of Raw Sewage Sump						
1	Site Clearance	100%	5,00,000.00	0.0%	-	100.0%	delay at KRMPL
iii	Construction of Inlet chamber & Screen channel				-		
1	Site Clearance	100%	1,50,000.00	0.0%	-	100.0%	delay at KRMPL
ix	SEWER SYSTEM AREA (3.2 Km)						
1	Site Clearance	100%	-	0		100.0%	delay at KRMPL
2	Supply of pipes	20%	110,60,057.85	20%	22,12,011.57	0.0%	completed
	Total achieved out of 12.5%		478,36,248.80	8.0%	306,56,741.15	4.5%	8 % progress till 31.08.20

PHOTOGRAPHS OF UNNAO STP SITE



Hard Barricading in progress



Curing at site



Funny bag wrapping and Curing of BW columns



Brickwork of Boundary Wall

7 PRESENT STATUS AND ISSUES OF HAM PROJECT KANPUR

7.1 PANKHA 30 MLDSTP:

- Approval of design & drawings completed except IPS;
- Revised project schedule submitted by Concessionaire is under vetting. Six months time extension is proposed by the Concessionaire;
- Manpower deployment by the Concessionaire has been done but is not sufficient at all STP facilities. Total no. of workers deployed at site are 30-35 (as on 31.08.20) whereas 100-150 labours are required to speed up the works to attain targets. Construction work for SBR, BW, CCT, MPS and Sundar Nagar IPS works are under progress;
- Electric poles to be shifted;
- Quality analysis report from HBTU to be submitted;

7.2 UNNAO 15 MLD STP FACILITIES:

- Approval of design & drawings completed except MPS and I&D design work. MPS drawing need to be revised and resubmit for vetting/approval after incorporating UPJN comments. Land allotment for I&D works is pending at district administration due to land acquisition;
- Manpower deployment by the Concessionaire has been done but is not sufficient. Total nos. of workers deployed at site 30 (as on 31.08.20) whereas 100-150 labours are required to speed up the works to attain targets.
- Construction work for SBR, BW, labour hutment facilities and lab establishment under progress;
- Electricity connection yet not obtained by Concessionaire;
- Quality analysis report from HBTU to be submitted;
- I&D design and drawings need to be submitted after incorporating the changes discussed with STC.

7.3 SHUKLAGANJ 5 MLD STP FACILITIES:

CTE was not granted by UPPCB on the previously allotted land. Now new site, about 400m away from previous site is selected. CTE has been obtained on 10.07.2020. At present, Geotech investigations and site layout finalization works are in progress.

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

- Handing over is planned by UPJN by 19.07.2020 as agreed by concessionaire but could not materialised due to labour issue.
- CTO received on 10.06.2020
- **Drawing & Datasheet along with QAP for PST, SST, Surface Aerators, Grit Mechanism, Screen & Thickener:**

PE has demanded for some additional documents to review the submittals vide STC letter no. 447 dated 05.08.2020 and reminder letter regarding the same has been submitted by PE vide their letter no.453 dated 12.08.2020. Concessionaire has submitted the compliance report of the submittals except screen vide their letter no. UPJN/KRMPL/Kanpur/2020-21/608 dated 31.08.2020.

- **Control Philosophy (Instrumentation and RTOLMS design) of IPSs and CSPS:**
The submittals has been vetted by PE and recommended for approval vide their letter no.459 dated 14.08.2020.
- **Structural rehabilitation & retrofit for 130 MLD STP:**
Concessionaire has submitted the structural and rehabilitation & retrofit report for 130 MLD STP.

7.5 43 MLD JAJMAU PHASE II

- The plant is ready to be handed over to the Concessionaire. UPJN has written to the Concessionaire to deploy adequate staff for operation of the plant immediately;
- CTO received on 10.08.2020.

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.

Following points need to be addressed:

i. Compliance of Inspection Reports

PE inspected 100 MLD IPS Rakhimandi on 05.08.2020, 67 MLD IPS Munshipurwa on 06.08.2020, 20 MLD IPS Halwakhanda on 06.08.2020 & 210 MLD STP Bingawan on 06.08.2020, 08.08.2020 & 10.08.2020 and issued inspection reports on 13th August 2020. Compliance report on Inspection note at Bingawan facilities on 13.08.2020 has been submitted by KRMPPL on 14.08.2020. Copy of Inspection reports of Bingawan site is enclosed.

ii. O&M Manual

Revised O&M manual of Bingawan incorporating the points decided in the meeting dated 16.12.2019 has been submitted by the Concessionaire on 31.07.2020 which is recommended for approval by PE on 17.08.2020 and approved by UPJN on 24/08/2020.

iii. Insurance Policies

Only All Risk Industrial Insurance Policy has been submitted and remaining policies are not submitted after so many reminders. Comprehensive General Liability Policies submitted by concessionaire is not acceptable. Notarized Industrial all risk policy for Bingawan has been submitted by KRMPPL on 26.08.2020 on which PE submitted the point-wise comments on 28.08.2020.

iv. Performance of Plant

a. Cleaning and reactivation of UASB Reactors:

All the KPIs are not being met during the month of August 2020. UASB reactor no. 8 & 1 has been filled on 30.05.2020 & 27.08.2020 respectively for reactivation after cleaning and reactor no. 4 is also in working condition. Reactor no. 2 & 3 has been taken up for cleaning. The Concessionaire has not submitted the action plan for cleaning and reactivation of UASB reactors but taking randomly for cleaning and reactivation. Performance report of August 2020 enclosed.

- b. **BFP:** Out of 3, only 1 no. Bed filter press is operational during the month of August 2020. The Concessionaire has promised that one more BFP will be operational by 10th Sept. 2020.

v. 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 23.07.2020 & 30.08.2020 for testing. Also, UPPCB Kanpur has taken the sample on 13.08.2020 & 17.08.2020 and testing report submitted by UPJN on 25.08.2020 vide UPJN letter no. 2106/w-37/72. Copy Enclosed. Testing report from IIT Kanpur of the Joint sample taken on 30.05.2020 has been submitted by concessionaire on 27.08.2020. Copy attached.

iv. Renovation Completion Certificate

Renovation (Installation of RTOLMS and Rectification of Pumps) Completion Certificate has been issued by UPJN as 10.08.2020 vide UPJN letter no. 2033/w-37/67 dated 18.08.2020.

7.7 42 MLD SAJARI STP

As per CA, Schedule Handing over date for Sajari is effective date (11.10.2019) but plant was handed over to the KRMPL on 29.05.2019. O&M expenditure from 29.05.2019 until effective date 11.10.2019 has been paid to KRMPL separately which is not covered under CA. 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 on 07.12.2019.

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. He submitted calculations for available aeration on dated 28.12.2019 (in discussion with GM, UPJN Kanpur) and found that sufficient aeration is available to reduce COD from 250 to 100. Therefore there is no need for any improvement as suggested by KRMPL.

Commercial Operation Date of Sajari facility was declared by UPJN on 20.06.2020.

Following Points needs to be addressed:

i) Compliance of Inspection Reports

Compliance report of Inspection held on 23.06.2020 by PE, STC on Sajari 42 MLD STP site and issued inspection report on 04.07.2020 has not been submitted by KRMPL. Compliance report of Inspection held at both 14 MLD Sanigawan IPS and 14 MLD Chakeri IPS on 13.07.2020 and inspection reports issued on 14.07.2020 has submitted by the concessionaire on 10.08.2020.

ii) O&M Manual

O&M Manual already approved by UP Jal Nigam.

iii) Insurance Policies

Only All Risk Industrial Insurance Policy has been submitted and remaining policies are not submitted after so many reminders. Comprehensive General Liability Policies submitted by

concessionaire is not acceptable. Notarized Industrial all risk policy for Sajari has been submitted by KRMPL on 28.08.2020 on which PE submitted the point-wise comments on 31.08.2020.

iv) Performance of Plant:

All KPIs are within prescribed limit for the month of August 2020 except the dates when the parameters of raw sewage are beyond prescribed limit for which concessionaire is not responsible. Performance Report of August 2020 Enclosed.

a) Mechanical Screens

Auto System of Both Mechanical Screens and need to be repaired.

b) Gas Generators

All 3 no's of Gas Generators installed are not operational since handover date. KRMPL had promised previously to get all the 3 gas generators by 30.06.2020 vide KRMPL letter no. 453 dated 11.06.2020, now KRMPL has promised to get the Gas generators operational by 30.09.2020.

v) 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 18.08.2020 and sent it for testing. Testing reports from IIT Kanpur of the Joint sample taken on 20.05.2020 has been received on 27.08.2020 & the test report from NABL accredited Laboratory Spectro Research Lab Ventures (P) Ltd of joint sample taken on 27.06.2020 has been received on 04.08.2020. Both test reports are enclosed.

vi) Power backup and Online Monitoring System

DG set for power backup has been made operational by UPJN on 14.07.2020. Online monitoring system has been installed but to be calibrated and synchronized.

GENERAL ISSUES

- 1) Power Back- up to be provided at all locations as per Article 8.7 (b) which is not being accepted by KRMPL.
- 2) As per Article 8.8 (a): At each STP/Pumping Station (new or existing) of all locations, the Concessionaire shall install and maintain an online monitoring system, in accordance with the Technical Specifications and Applicable Laws (including specifically, the EPA) to monitor the volume, specifications and characteristics of the incoming Sewage and the Treated Effluent, as applicable.
- 3) As per Article 11.2: During the O&M Period of the Facilities, the Concessionaire shall obtain and maintain insurance policies including but not limited to the following:
 - (i) loss, damage or destruction of the Facilities, at replacement value;

- (ii) comprehensive third party liability insurance including injury to or death of personnel of the Jal Nigam or NMCG or others caused by the Project;
- (iii) the Concessionaire's general liability arising out of the Project;
- (iv) liability to third parties for goods or property damage;
- (v) workmen's compensation insurance; and
- (vi) any other insurance that may be necessary to protect the Facilities, the Concessionaire and its employees, including for all Force Majeure Events that are insurable at commercially reasonable premiums and not otherwise covered in items (i) to (v) above.

8 STATUS OF BEP& OTHER DETAILS

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

Table 6.2: BEPs and other details

SN	Particulars	Status	
		Approved	Pending
1.	BEPs (Process, Mechanical & Electrical)	GA, Data Sheet and QAP of centrifuge, submersible pump and mechanical grid collection system, Unnao- reviewed & recommended for approval on 25.02.2020 GA, Data Sheet and QAP of centrifuge, submersible pump and mechanical grid collection system, Pankha- reviewed & recommended for approval on 28.02.2020 130 MLD Jajmau - Control Philosophy (Instrumentation and RTOLMS design) of IPSs and CSPS recommended for approval	130 MLD Jajmau: The Concessionaire has submitted the compliance report of the submittals except screen vide their letter no. UPJN/KRMPL/Kanpur/2020-21/608 dated 31.08.2020. Concessionaire has submitted the structural and rehabilitation & retrofit report for 130 MLD STP
2.	BEP Structure Design & Drawings	SBR Rev Structural design drawing, Unnao- recommended for approval on 30.06.20 Guard Room design, Unnao- recommended for approval on 01.04.20 SBR REV-RCC design drawing, Unnao- recommended for approval on 11.04.20 PTU Rev Structural design drawing, Unnao- recommended for approval on 11.04.20 Staff Quarters Revised RCC design of Unnao STP-recommended for approval on 15.04.20 Rev Structure design of Blower Room of Unnao STP-recommended for approval on 16.04.20 ADMIN build drawing, Unnao- recommended for approval on 10.04.20 Sludge thickener & Sludge re-circulation Sump Rev. Structural	RCC drawing 20MLD, IPS Sundar Nagar, Pankha. Geo tech report is not proper. RCC drawing 25 MLD IPS ICI Nala, Pankha. KRMPL is not complied with STC comments.

		<p>drawing, Unnao- recommended for approval on 11.04.20</p> <p>CCT Rev Structure design drawing, Unnao- recommended for approval on 10.04.20</p> <p>Blower Room Structure drawing and design of Pankha STP- recommended for approval on 30.04.20</p> <p>structure drawing of CCT & TEPH, Jajmau- recommendations for approval on 06.03.2020</p> <p>Electrical drawing, Pankha- recommendations for approval on 17.03.2020</p> <p>Structure drawing, Unnao MPS- recommended for approval on 29.02.2020</p> <p>Revised drawing of boundary wall, Unnao- recommended for approval on 29.02.2020</p>	
3.	Construction Plan	<p>Revised construction plan Pankha- recommended for approval on 18.06.20 & 29.07.20 without extending completion date. Revised construction plan Unnao- recommended for approval on 18.06.20 29.07.20 without extending completion date</p>	
4.	Sewer Network/Line Design	<p>Design and drawings of sewer work Pankha- recommended for approval On 10.02.20</p> <p>Design and drawings of sewer work Unnao- recommended for approval On 20.02.20</p>	
5.	ESHS Plan	<p>ESHS approval-Already vetted by STC. Approved by UPJN on 26.09.19</p>	
6.	O&M	<p>Bingawan RTOLMS - Reviewed & found in order. Recommended for approval on 03.12.19</p> <p>Level transmitter & flow metre - vetted & approved on 27.12.19</p> <p>Bingawan O&M manual - approved</p> <p>Sajari O&M manual – Approved</p>	<p>Only All Risk Industrial Insurance Policy has been submitted and remaining policies are not submitted after so many reminders. Comprehensive General Liability Policies submitted by concessionaire is not acceptable.</p>

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
01.08.20	Submission of GA, Technical data sheet & Qap for centrifuge feed Pump for Pankha, Unnao & Shuklaganj Project.	20.07.20 K-528	-	-	-	-	-	CM Dimri JP Tripathi S.Rajan Satendra Priyesh Kapil Sunil Basutkar	1+1+1+ 1+1+1+ 1	-	-	-	Under review
02.08.20	Sunday												
03.08.20	HAM Project Kanpur: MPR April to June, 2020	-	S-mail dated 03.08.20	-	-	-	-	CM Dimri JP Tripathi Vikas	1+1+1+1+1+ 1+1	-	-	-	Sent the MPR of the months Apr, May and Jun

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
								Priyesh Satendra S. Rajan LingaRao					to NMCG
04.08.20	I&D works for 15 MLD Unnao STP	28.07.20 J-433	04.08.20S-444	7	20	-	-	CM Dimri Priyesh Satendra Kapil	1+1+1+1	-	-	-	Advised UPJN to direct KRMPL to submit the compliance report
04.08.20	Site Visit Pankha STP	-	-	-	-	-	-	CM Dimri Satendra Vikas Linga rao	1+1+1+1	-	-	-	Inspection done by our engineers at Pankha STP
05.08.20	Environmental and social Impact Assessment progress report of OCT 2019 TO JUNE 2020	5.02.20 K-mail	05.08.20 S-445& 10.02.20	-	-			CM Dimri JP Tripathi Satendra	1+1+1+1+1				Advised UPJN to direct KRMPL to submit the updated ESIA report for quarter

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
			S-312 & 29.05.20 S-368					S.Rajan Vikas Linga Rao					ending Dec. 2019 to June. 2020
05.08.20	Submission of drawing & data sheet along with QAP for PST, SST Surface aerator, grid mechanism, Screen , Thicker for 130 MLD STP Jajmau.	30.07.20 K-548	05.08.20S-447	6	20	-	-	JP Tripathi Vikas Priyesh S. Rajan Lokesh Sunil basutkar	1+1+1+1+1+1	-	-	-	Requested UPJN to direct KRMP to comply and hard copies for vetting

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
06.08.20	Comments on bedding calculation and manhole chamber	-	06.08.20S-448	-	20	-	-	CM Dimri JP Tripathi Vikas Satendra	1+1+1+1	-	-	-	Requested UPJN to direct KRMPL to compliance on our Comments on bedding calculation and manhole chamber
06.08.20	Inspection note of Pankha STP facilities.		06.08.20 S-446					CM Dimri Satendra S. Rajan Priyesh Linga rao	1+1+1+1+1				
07.08.20	Submission of GA, Technical data sheet & Qap for centrifuge feed Pump for Pankha, Unnao &	20.07.20	07.08.20S-450	18	20	-	-	CM Dimri	1+1+1+1+1+1	-	-	-	Reviewed and recommended for approval.

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
	Shuklaganj Project.	K-528						S.Rajan Satendra Vikas Kapil Sunil Basutkar					
07.08.20	Environment 3 rd party monitoring and inspection report (Unnao)		07.08.20 S-449					CM Dimri Kapil S.Rajan Lingarao	1+1+1+1				
07.08.20	Submission of GA,technical datasheet and QAP for centrifuge feed pump for pankha, unnao, shuklaganj.	20.07.20 J-528	07.08.20 S-451	17	20			CM Dimri S.Rajan Satendra	1+1+1+1+1				Reviewed and recommended for approval

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 Sunil Basutkar					
08.08.20	Second Saturday												
09.08.20	Sunday												
10.08.20	STP plan layout, Shuklaganj	05.08.20 J-w/s- 97/158	10.08.20S- 452	5	20	-	-	CM Dimri Kapil Satendra Linga rao S.Kamaraju	1+1+1+1+1	-	-	-	Based on the existing condition, the STP plan layout is recommended for approval
11.08.20	Jajmau Renovation design and drawing approval CSPS and IPSS instrumentation and RTOLMS design	29.07.20 K-541	-	-	20	-	-	CM Dimri JpTripathi Vikas Priyesh	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
12.08.20	Note on HAM Project Kanpur	-	S- mail dated 12.08.20	-	-	-	-	CM Dimri JP Tripathi Priyesh Vikas Satendra Lokesh Kapil Lingarao	1+1+1+1+1+1+1+1	-	-	-	Sent a brief Note on HAM Project Kanpur to NMCG
12.08.20	Rehabilitation of 130MLD jajmau:- Submission of drawing & datasheet along with QAP for PST ,SST Surface aerator,grid mechanism, screen and thickener.	11.08.20 J-1430/W-21/12	12.08.20 S-453	1	20			CM Dimri JP Tripathi	1+1+1+1+1				Requested UPJN to direct KRMPL to Submit some additional document related to PST, SST, Surface aerator, grid mechanism.

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
								Vikas Priyesh Lingarao					
13.08.20	Pankha : Submission of GA Data Sheet &Qap of Coarse Screen, Fine Screen	25.07.20 K-531	13.08.20S- 452	19	20	-	-	CM Dimri Satendra Vikas Priyesh Kapil	1+1+1+1+1	-	-	-	Reviewed and recommend ed for approval.
13.08.20	Pankha : Submission of GA Data Sheet &Qap of Coarse Screen, Fine Screen	20.08.20 K-531	13.08.20 S-454					CM Dimri Satendra Priyesh Kapil	1+1+1+1				Recommend ed for approval

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
13.08.20	Unnao : Submission of GA Data Sheet &Qap of Coarse Screen, Fine Screen	20.08.20 K-531	13.08.20 S-455					CM Dimri Priyesh Lokesh Kapil Sunil Basutkar	1+1+1+1+1				Recommended for approval
13.08.20	Inspection Report of 210 MLD Bingawan STP	-	13.08.20S- 456	-	-	-	-	JP Tripathi Lokesh Kapil Lingarao	1+1+1+1	-	-	-	Sent the Inspection Report of 210 MLD Bingawan STP, inspected on 06/08/10.08 .2020 to UPJN
13.08.20	Reminder for 05MLD STP Shuklaganj:- Submission of layout plan and	28.07.20 K-540	13.08.20 S-457 & 10.08.20	12	20			CM Dimri P walunjkar Kapil	1+1+1+1+1+ 1+1				Already vetted and recommended the layout plan

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
	borehole location		S-452					Vikas PriyeshLokesh Lingarao					and borehole
14.08.20	Submission of design & drawing for RCC precast manhole for pankha	08.08.20 K-588	14.08.20 S-458	7	20			CM Dimri P walunjkar Satendra Lokesh Vikas Lingarao	1+1+1+1+1+1				Requested UPJN to direct KRMPL to Submit STAAD PRO file for RCC precast manhole for pankha
14.08.20	Jajmau Renovation design and drawing approval CSPS and IPSs instrumentation and RTOLMS design	29.07.20 K-541	14.08.20S-459	16	20	-	-	CM Dimri JP Tripathi Vikas Priyesh Lokesh	1+1+1+1+1+1+1	-	-	-	Reviewed and recommended for approval.

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
								Lingarao AK Seth					
15.08.20	Submission of drawing & Data sheet along with QAP for PST,SST,Surface aerator, grid mechanism,screen , Thickener for 130 MLD STP Jajmau.	13.08.20 K-566	-	-	20	-	-	CM Dimri JP Tripathi Vikas Priyesh Lokesh Lingarao AK Seth	1+1+1+1+1+1	-	-	-	Is under review
16.08.20	Sunday												
17.08.20	Submission of Sewer Bedding Calculation	08.08.20 K-588	17.08.20S-460	9	20	-	-	CM Dimri Vikas Satendra Lokesh	1+1+1+1	-	-	-	Asked UPJN to direct KRMPL to comply the raised point

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
17.08.20	Approval of O&M manual 210 MLD Bigawan facilities	30.07.20 K-547	18.08.20 S-461	18	20			JP Tripathi Lokesh Priyesh Kapil	1+1+1+				vetted and recommended for approval
18.08.20	Submission of GA ,technical datasheet & QAP of centrifuge feed pump for shuklaganj, Unnao, Pankha,	20.07.20 K-528	18.08.20 S-462 & 07.08.20 S-450	17	20			CM Dimri Priyesh Satendra Kapil Lokesh	1+1+1+1+1				vetted and recommended for approval (Pankha)
18.08.20	Submission of GA ,technical datasheet & QAP of centrifuge feed pump for shuklaganj, Unnao, Pankha,	20.07.20 K-528	18.08.20 S-463 & 07.08.20	17	20			CM Dimri Priyesh Satendra Kapil	1+1+1+1+1+1				vetted and recommended for approval (Unnao)

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
			S-451					Lokesh AK Seth					
18.08.20	O&M manual, Bingawan	18.08.20 K-570	18.08.20S-464	0	20	-	-	JP Trpathi Lokesh Kapil AK Seth	1+1+1+1	-	-	-	Recommended for approval
19.08.20	Site Visit Unnao STP	-	-	-	-	-	-	CM Dimri Priyesh Kapil AK Seth	1+1+1+1	-	-	-	Inspection done by our engineers at Unnao STP
20.08.20	Site Visit Jajmau STP	-	-	-	-	-	-	CM Dlmri JP Tripathi Vikas Priyesh AK Seth	1+1+1+1+1	-	-	-	Inspection done by our engineers at Jajmau STP
18.08.20	O&M Manual for Bingawan	18.08.20 K-570	20.08.20 S-466	2	20			JP Tripathi Lokesh Vikas AK Seth	1+1+1+1				Review and Comment submitted

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
20.08.20	15MLD SBR Based STP Unnao	-	20.08.20 S-467	-	-			CM Dimri Priyesh AK Seth	1+1+1				Expert and client (PM_4,Lucknow office),regarding the construction material of screen to SS-316
21.08.20	Commercial Operation Date for Bingawan Facilities	19.08.20 K-573	21.08.20S-465	3	20	-	-	JP Tripathi Lokesh Vikas	1+1+1	-	-	-	Informed UPJN after Considering the mention point in our said letter Bingawan COD may be issued

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
22.08.20	Submission of drawing & Data sheet along with QAP for PST,SST,Surface aerator, grid mechanism,screen , Thicker for 130 MLD STP Jajmau.	13.08.20 K-566	22.08.20S-468	9	20	-	-	CM Dimri JP Tripathi Vikas Priyesh AK Seth Lokesh	1+1+1+1+1+1	-	-	-	Asked UPJN to direct KRMPL to submit the required additional documents for early vetting
22.08.20	Revised construction plan-pankha	-	22.08.20 S-469					CM Dimri JP Tripathi Satendra Priyesh Lokesh Kapil	1+1+1+1+1+1				Requested UPJN to direct KRMPL to submitted hard copy of revised construction plan-pankha

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
23.08.20	Sunday												
24.08.20	Reminder of Electrical Drawing compliance for 130 MLD STP Jajmau	-	24.08.20S-470	-	20	-	-	JP Tripathi AK Seth Lokesh Vikas	1+1+1+1+1	-	-	-	Reminder sent to UPJN to direct KRMPL to submit the compliance
25.08.20	Issue of Identity card	-	25.08.20 S-471					CM Dimri JP Tripathi Vikas Lokesh	1+1+1+1				Request letter regarding issue of Identity card of STC employees
25.08.20	Commercial Operation Date for 210 MLD Bingawan Facilities	24.08.20 K-573	25.08.20S-472	1	20	-	-	JP Tripathi AK Seth Lokesh	1+1+1+1	-	-	-	Informed UPJN before issuing the COD trial operation as per art.7.14 is necessary

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 Concessioneer	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					
26.08.20	Submission of design and drawing for RCC precast manhole for Pankha sewerage network facilities	08.08.20 K-588	26.08.20S-473 14.08.20S-458	18	20	-	-	JP Tripathi P walunjkar Vikas Satendra Kapil	1+1+1++11	-	-	-	Asked UPJN to direct KRMPL to comply the raised point
27.08.20	Site Visit Pankha STP	-	-	-	-	-	-	CM Dimri JP Tripathi Satendra Priyesh Kapil	1+1+1+1	-	-	-	Inspection done by our engineers at Pankha STP

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
28.08.20	Notarized copy of Industrial All Risk Policy for Bingawan	26.08.20 K-589	28.08.20S-474	2	20	-	-	JP Tripathi Lokesh AK Seth	1+1+1	-	-	-	Asked UPJN to direct KRMPL to submit the all Notarized copy of Industrial All Risk Policy for Bingawan
29.08.20	Submission of drawing & Data sheet along with QAP for PST, SST, Surface aerator, grid mechanism, Screen,	28.08.20 J-2146/W-21/12	29.08.20 S-476					JP Tripathi Ak Seth Vikas Lokesh	1+1+1+1+1				Requested UPJN to direct KRMPL to submit the required additional documents for early vetting

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
								Sunil Basutkar					
29.08.20	Submission of drawing & Data sheet along with QAP for PST, SST, Surface aerator, grid mechanism, Screen, Thickener for 130 MLD Jajmau.	28.08.20 J-w- 20/26	29.08.20S- 474	1	20	-	-	JP Tripathi Ak Seth Vikas Lokesh	1+1+1+1	-	-	-	Asked UPJN to direct KRMPL to submit the required additional documents for early vetting
30.08.20	Sunday												
31.08.20	Notarized copy of Industrial All Risk Policy for Bingawan	28.08.20	31.08.20					JP Tripathi	1+1+1+1				Requested UPJN to direct KRMPL to submit Notarized

Note: Man-days and respective inputs of experts for the month of August 2020 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. Anil Kumar Seth	Senior Electrical Engineer	15	Timesheet attached
4.	Mr. Sunil Basutkar	Senior Mechanical Engineer	06	Timesheet attached
5.	Mr. P Walunjkar	Structure Engineer	03	Timesheet attached
6.	Mr. Satish Kamaraju	Senior Process Expert	01	Timesheet attached
7.	Mr. Linga Krishna Rao	Safety expert	12	Timesheet attached

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 :	Mr. C.M dimri	Month/Year:	
Position:	Senior Civil Engineer/ T.L	Aug-19	
Date	Description	Location	
1	Apraise Bingawan RTOLMS & test certificate.	Kanpur	
2	Sunday	Kanpur	
3	MPR of April to June prepration & checking.	Kanpur	
4	Meeting about HAM Progress CEK UPJN.	Kanpur	
5	Bingawan facilities RTOLMS checking etc.	Kanpur	
6	Layout Plan study of Shuklaganj STP etc.	Kanpur	
7	Aprasial of Pankha STP- GA Data sheet etc.	Kanpur	
8	Aprasial of Shukla ganj STP Layout Plan.	Kanpur	
9	Sunday	Kanpur	
10	Discussion with SE 3rd about shuklaganj STP.	Kanpur	
11	RTOLMS data Checking of Bingawan STP .	Kanpur	
12	Note on HAM Kanpur sent to NMCG.	Kanpur	
13	Compliance of bedding cover discussed with expert.	Kanpur	
14	Jajmau CSPS & IPS vetted and wensite problem.	Kanpur	
15	Independence day	Kanpur	
16	Sunday.	Kanpur	
17	Bedding cover calculation discussed and letter issued.	Kanpur	
18	Unnao Data sheet etcdiscussed with pm-4.	Kanpur	
19	Discussion about Bingawan RTOLMS completion with pm E&M	Kanpur	
20	Labour report sent to NMCG.	Kanpur	
21	Structure design of Pankha I/D works discussed with Mr. Preetam walunjar /Director.	Kanpur	
22	Discussion with CEK about pankha STP progress.	Kanpur	
23	Sunday	Kanpur	
24	Pankha MPR Checked and draft letter sent to CEK ti issue.	Kanpur	
25	Manhole chamber comment discussed.	Kanpur	
26	Bingawan and sajari payment problem discussed with NMCG + Mandays details.	Kanpur	
27	Structural design of Jajmau discussed with expert.	Kanpur	
28	Inspection of Pankha STP facilities with CEK and GM and meeting with CEK at CE office about COD.	Kanpur	
29	Manhole Chamber for Pankha and Unnao Discussed with KRMPL & Expt	Kanpur	
30	Sunday	Kanpur	
31	Vetting of pending structure design discussed with expert and V.P.	Kanpur	

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

Signature of Employee

Signature of Team Leader

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:	Aug-20
Position:	O & M ENGINEER	Location	
Date	Description	Location	
1	Lockdown		
2	Sunday		
3	Rakshabandhan		
4	Prepared Time sheet and Invoice for the Month of July 2020	Kanpur	
5	Attended meeting of CE KNP Zone UPJN in his office with PM 2 GPCU UPJN	Kanpur	
6	Discussed with Mr Amit Bharamve O & M Incharge KRMPL regarding submission of O & M Manual of Bingawan Facilities	Kanpur	
7	Discussed with PM (E & M) GPCU UPJN regarding commissioning of DG set and On Line Monitoring system at Sajari	Kanpur	
8	Second Saturday		
9	Sunday		
10	Corrected and finalized MPR for the Month of July 2020	Kanpur	
11	Krishna Janmashtmi		
12	Reviewed Management Information System for operation & maintenance during renovation period of 130 MLD Jajmau Facilities submitted by KRMPL	Kanpur	
13	Discussed with PM (E & M) GPCU UPJN regarding commissioning of On Line Monitoring system at Bingawan	Kanpur	
14	Reviewed revised O & M Manual submitted by KRMPL	Kanpur	
15	Independence Day		
16	Sunday		
17	Wrote letter to GM GPCU UPJN regarding approval of O & M Manual of 210 MLD Bingawan Facilities	Kanpur	
18	Wrote letter to GM GPCU UPJN regarding O & M Manual of 210 MLD Bingawan Facilities	Kanpur	
19	Discussed with PM III GPCU UPJN regarding report of IIT Kanpur of treated Effluent of Bingawan STP	Kanpur	
20	Discussed with GM GPCU UPJN regarding COD for Bingawan Facilities	Kanpur	
21	Wrote letter to GM GPCU UPJN regarding COD of 210 MLD Bingawan Facilities	Kanpur	
22	Lockdown		
23	Sunday		
24	Received letters received from KRMPL regarding COD of 210 MLD Bingawan Facilities	Kanpur	
25	Wrote letter to GM GPCU UPJN regarding COD of 210 MLD Bingawan Facilities	Kanpur	
26	Reviewed Notarized copy of Industrial All Risk Policy of Bingawan Facilities submitted by KRMPL	Kanpur	
27	Wrote letter to GM GPCU UPJN regarding Notarized Industrial All Risk Policy of Bingawan Facilities	Kanpur	
28	Attended meeting of CE KNP Zone UPJN in his office with GM GPCU UPJN regarding COD of 210 MLD Bingawan Facilities	Kanpur	
29	Lockdown	Kanpur	
30	Sunday	Kanpur	
31	Wrote two letters to GM GPCU UPJN regarding Notarized Industrial All Risk Policy of Bingawan Facilities & Sajari Facilities	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	
NMCg-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name :	ANIL KUMAR SETH		Month/Year:
Position:	Senior Electrical Eng.		Aug-20
Date	Description		Location
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14	work connected with IPS-6, IPS-7 & MPS-2 Pankha.		KANPUR
15	Independence day		"
16	work Connected with unnao STP.		KANPUR
17	work Connected with Pankha & Shuklaganj STP(S)		"
18	monitored the progress of unnao & Pankha STP(S)		"
19	study of work Plan for unnao & Pankha STP(S) Rev-2.		"
20	Procurement Trackers - Pankha & unnao STP		"
21	work Connected with 5 MLD Shuklaganj STP		"
22	work Connected with 30MLD Pankha, FlowChart & duties		"
23	Sunday		
24	Summary preparation of STP Projects Shuklaganj		"
25	Summary preparation of STP(S) unnao, Pankha		"
26	Bill checking of electric Consumption of STP at Rajman (Price schedule), Rajman & Rajari O/M.		"
27	Addition of proposed work summary chart of Pankha, unnao & shuklaganj		"
28	Inspection of CE SE & PM U.P.S.N. at Pankha site. Attached with TL.		"
29	Prepared the inspection report (Draft) for CE U.P.S.N inspection at Pankha site		"
30	Sunday		
31	work Connected with unnao, Pankha & Shuklaganj electrical works.		"

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. S. Kamaraju (Senior Process Expert)

Project		Shah Technical Consultants Pvt Limited			
NMCg- STP Projects at Kanpur under Hybrid Annuity based PPP Mode					
Daily Report for the Year 2020					
Name :	Satish Kamaraju, Process Engineer				
Position:	Office Manager				
Date	Description	Duration (Days)	STP/Nalas	Work Performed Location	
20/01/2020	Review of Sludge Handling System of 130 MLD Jajmau Facility - Responding to the request received via email dated 20/1/20 from TL	0.25	Jajmau STP	Home	
22/01/2020	Review of Sludge Handling System of 130 MLD Jajmau Facility - Responding to the request received via email dated 20/1/20 from TL	0.25	Jajmau STP	Home	
08/03/2020	Review Comments of ICI Nala & Sundernagar Nala - Responding to the request received via email dated 26/2/20 from TL	0.5	Nalas	Home	
19/03/2020	Review Comments of ICI Nala & Sundernagar Nala - Responding to the request received via email dated 18/3/20 from TL	0.5	Nalas	Home	
04/04/2020	Review of TEPs of Jajmau STP - Responding to the request received via email dated 04/04/20 from TL/Support Engineer (Mr. Priyesh Shukla)	1	Jajmau STP	Home	
07/05/2020	Review of Process Calculations based on COD for Sajari STP - Responding to the request received via email dated 03/05/20 from TL	0.5	Sajari STP	Home	
11/05/2020	Response drafted on KRMP L R3 Revision Jajmau STP 130 MLD Renovation	0.5	Jajmau STP	Home	
21/05/2020	Response drafted on KRMP L Letter on Sajari Facilities - Responding to the request received via email dated 21/5/20 from TL	0.25	Sajari STP	Home	
18/07/2020	Review Comments of I&D Work at Thermal Nala, IPS Sundar Nala & ICI Nala	1	Nalas	Home	
20/07/2020	Review of IIT Comments on Jajmau STP 130 MLD and responding the comments by email	1	Jajmau STP	Home	
26/07/2020	Review Comments given on new layout of Shuklaganj STP & Phone calls - Responding to the request received via email dated 25/7/20 from TL	1	Shuklaganj STP	Home	
31/07/2020	Review of Pankha STP CCT Dwg - Responding to the request received via email dated 30/7/20 from TL	0.5	Pankha STP	Home	
10/08/2020	Discussion over the phone with TL on Shuklaganj STP New Layout & Drafting an email response in this regard - Responding to the request received via email dated 10/08/20 from TL	0.5	Shuklaganj STP	Home	
24/09/2020	Review of KRMP L/STC Letters on Shuklaganj BEP CIR Status - Responding to the request received via email dated 23/9/20 from TL	1	Shuklaganj STP	Home	
28/09/2020	Review comments of process calculations for I&D Works at Unnao - Responding to the request received via email dated 26/09/20 from TL	1	Unnao	Home	
29/09/2020	Review comments of process calculations for I&D Works at Unnao - Responding to the request received via email dated 26/09/20 from TL	1	Unnao	Home	
04/10/2020	Detailed summary of the letters on Shuklaganj BEP regarding CRs - Responding to the request received via email dated 03/10/20 from TL	1	Shuklaganj STP	Home	
12/10/2020	Client VC Meeting - NMCg, JN, STC & KRMP L	0.25	All Projects	Home	
16/10/2020	Detailed summary of the letters on Jajmau BEP - Responding to the request received via email dated 14/10/20 from TL	1	Jajmau STP	Home	
19/10/2020	Response given on CA Agreement clauses of CR Compliance for BEPs (Shuklaganj STP Review)	0.5	Shuklaganj STP	Home	
05/11/2020	Review of Letters, drafting a detailed email on letters received on I&D Works for Unnao STP - Responding to the request received via email dated 04/11/20 from TL	1	Unnao I&D	Home	

Mr. P Walunjkar (Structure Engineer)

**RAJASTHAN RURAL WATER SUPPLY & FLUOROSIS MITIGATION PROJECT (NAGOUR)
PMSC: STC-NKI-AECOM JV
MONTHLY ACTIVITY RECORD**

Name: / Preetam Walunjkar (Structural Specialist)

Month/ Year: August 2020

Date	Package	Location	Details of Work
01-08-2020			Saturday Holiday
02-08-2020			Sunday Holiday
03-08-2020			Rakshabandhan Holiday
04-08-2020	Nagaur	Office	Check TM02 Bid Documents for Deshnok CWR VOL I & II & Meeting with CE PHED for new CWR
05-08-2020	Nagaur	Office	Coordination with Deshnok L&T Engg for IIT Professor site visit. Check TM02 Bid Documents VOL II for Deshnok CWR
06-08-2020	Nagaur	Office	Coordination with Deshnok L&T Structural Engg for Deshnok CWR
07-08-2020	Nagaur	Office	Coordination with Deshnok L&T Structural Engg for Deshnok CWR
08-08-2020			Saturday Holiday
09-08-2020			Sunday Holiday
10-08-2020	Nagaur		Study Harsaur ESR Soil Test report & Staad file
11-08-2020	Nagaur		Study Harsaur ESR structural Drawing Btm Dome, Conical Wall & Girder Beam
12-08-2020	Nagaur		Check Septic Tank Drg for CDS 04
13-08-2020	Kanpur	Office	Review Kanpur Unnao SBR & PTU rev drg & Check Concrete Corrosion & NDT , Carbonate & NDT test for Jajmau
14-08-2020	Kanpur	Office	Download & Review manhole 0.9, 1.2, 1.5 & 1.8m Dia drg Pankha
15-08-2020			Saturday Holiday
16-08-2020			Sunday Holiday
17-08-2020	Nagaur	Office	Check UF Chamber Drg for CDS 03
18-08-2020	Nagaur	Office	Discuss the IIT Professor visit to Deshnok issue with SE & CE PHED
19-08-2020	Nagaur	Office	Review RCC Drg and staad Pro File manhole 1.20m Dia drg Pankha . Discuss the IIT Professor visit to Deshnok issue with DTL
20-08-2020	Nagaur	Site	CDS04 Sites Visits ESRs , Pump Houses & PSP
21-08-2020	Nagaur	Office	Preparation of Site Visit Report for CDS04
22-08-2020			Saturday Holiday
23-08-2020			Sunday Holiday
24-08-2020	Nagaur	Office	Meeting with CE PHED for CWR issue & Letter Preparation as per CE instructions
25-08-2020	Nagaur	Office	Meeting with CE PHED for CWR issue & Letter Preparation as per CE instructions
26-08-2020	Kanpur	Office	Prepare review report on manhole 0.9, 1.2, 1.5 & 1.8m Dia drg Pankha &
27-08-2020	Site Visit CDS01	Site	Site Visit CDS01 Parbatsar Site
28-08-2020			Ramdeo ji Jayanti holiday
29-08-2020			Saturday Holiday
30-08-2020			Sunday Holiday
31-08-2020			Leave

SIGNATURE

TL/ DTL
PMSC for RRWS&FMP (Nagaur)

Mr. L.K. Rao (Safety Expert)

Project Engineer		Shah Technical Consultants Pvt Limited	
NMC-G-5TP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name :	Linga Krishna Rao	Month/Year:	Aug-20
Position:	Safety Expert	Location	
Date	Description		
1	KRMPL 3rd party Environmental monitoring (Water test, Air test, SOX, NOX, SPM, O ₃ Stock monitoring and Noise level etc., by "M/s Green Enviro" on 1st August, 2020 witnessed along with KRMPL Safety Officer and Admn. Officer in JAJMAU & UNNAO Construction units. Also site inspection done in the above units along with Support Engineers Mr. Lokesh Khandelwal and Mr. Kapil Barwal	Kanpur	
2	SUNDAY	Kanpur	
3	RAKHI HOLIDAY	Kanpur	
4	Office work attended, Pankha 15 MLD Construction site inspection done along with Support Engineers Mr. Salendra Sharma and Mr. Vikas Sharma	Kanpur	
5	Office work attended, Pankha 15 MLD Construction site inspection report prepared and sent to TL for verification. Unnao & Pankha Construction report of dt. 31st July, 2020 & 1st August, 2020 draft prepared and sent to TL for verification.	Kanpur	
6	Office work attended, Review of ESIA (Environmental and Social Impact Assessment) of new projects and O&M Projects.	Kanpur	
7	Office work attended, Review of old site safety inspection reports compliance by KRMPL in different O&M Plants and construction sites.	Kanpur	
8	Office work attended, Review of Project EHS (Environmental, Health and Safety) of Jajmau 130 MLD O&M Plant, Unnao 30 MLD Construction site	Kanpur	
9	Sunday	Kanpur	
10	Office work attended, Begawan 230 MLD plant site inspection done along with Support Engineers Mr. Lokesh Khandelwal	Kanpur	
11	Sri Krishna Janmashtami	Kanpur	
12	Office work attended, Sajari 42 MLD plant site inspection done along with Support Engineers Mr. Lokesh Khandelwal	Kanpur	
13	Office work attended, Begawan 230 MLD plant site inspection report prepared along with Support Engineers Mr. Lokesh Khandelwal	Kanpur	
14	Office work attended, Sajari 42 MLD plant site inspection report prepared along with Support Engineers Mr. Lokesh Khandelwal	Kanpur	
15	Independence Day	Kanpur	
16	Sunday	Kanpur	


Signature of Employee

Signature of Team Leader

Annexure 3: Monthly Performance Report of Bingawan

210 MLD SEWAGE TREATMENT PLANT, BINGAWAN, KANPUR																	
MONTHLY FLOW & LAB REPORT																	
Date	INLET FLOW in MLD	Plant Run in HRS	RAW SEWAGE						FINAL OUTLET						POWER SHUTDOWN		REMARK
			Temp	TDS	PH (7-8)	COD (523mg/l)	BOD (322mg/l)	TSS (418mg/l)	Temp	TDS	PH (7-8)	COD (<100mg/l)	BOD (<30mg/l)	TSS (<50mg/l)	HRS	MIN	
			°c	ppm	ppm	ppm	ppm	ppm	°c	ppm	ppm	ppm	ppm	ppm			
1-Aug-20	155.66	24.0	31	860	7.3	512	166	384	31	890	7.6	104	31	56			
2-Aug-20	132.60	24.0	31	880	7.4	540	150	382	31	900	7.7	120	31	58			
3-Aug-20	132.00	24.0	31	876	7.3	532	148	386	31	880	7.6	104	31	51			
4-Aug-20	74.79	24.0	31	868	7.2	512	155	388	31	900	7.5	112	31	52	12	50	33kV HT Feeder Fault From KesCO side
5-Aug-20	79.20	24.0	31	860	7.3	544	150	400	31	898	7.7	104	32	54	15	15	33kV HT Feeder Fault From KesCO side
6-Aug-20	89.25	24.0	31	868	7.2	472	144	380	31	910	7.6	96	32	54			
7-Aug-20	149.61	24.0	31	860	7.4	504	148	400	31	899	7.8	104	31	58			
8-Aug-20	144.38	24.0	32	900	7.3	512	150	404	32	896	7.5	112	32	60			
9-Aug-20	133.12	24.0	32	840	7.3	532	160	388	32	890	7.4	104	32	58			
10-Aug-20	120.98	24.0	32	910	7.4	488	146	390	32	899	7.6	112	33	60	4	45	33kV HT Feeder Fault From KesCO side
11-Aug-20	52.34	24.0	31	896	7.3	536	156	400	31	918	7.5	104	32	58	17	20	33kV HT Feeder Fault From KesCO side
12-Aug-20	120.64	24.0	31	880	7.2	408	162	350	31	928	7.5	96	33	60	20	20	33kV HT Feeder Fault From KesCO side
13-Aug-20	102.96	24.0	31	870	7.3	532	166	400	31	900	7.6	104	34	58			
14-Aug-20	143.52	24.0	31	889	7.4	512	170	392	31	910	7.7	112	31	60			
15-Aug-20	128.96	24.0	32	890	7.3	544	168	380	32	900	7.7	104	33	50			
16-Aug-20	152.36	24.0	31	880	7.4	532	170	400	31	910	7.6	120	32	60			
17-Aug-20	141.61	24.0	31	888	7.3	544	174	398	31	900	7.7	104	31	50			
18-Aug-20	142.48	24.0	31	888	7.4	560	170	400	31	963	7.6	112	31	52			
19-Aug-20	149.93	24.0	31	886	7.3	528	177	388	31	900	7.7	104	32	54			
20-Aug-20	152.50	24.0	31	900	7.4	544	178	396	31	920	7.6	104	30	50			
21-Aug-20	157.81	24.0	31	898	7.5	528	170	388	31	908	7.7	112	31	52			
22-Aug-20	142.82	24.0	31	897	7.4	536	176	400	31	900	7.6	104	30	50			
23-Aug-20	127.85	24.0	31	880	7.3	536	180	410	31	920	7.7	104	31	48			
24-Aug-20	124.10	24.0	31	890	7.4	496	178	400	31	910	7.5	96	30	46			
25-Aug-20	132.94	24.0	31	888	7.3	536	180	398	31	908	7.6	104	32	48			
26-Aug-20	149.76	24.0	31	880	7.4	544	188	400	31	920	7.6	120	31	54			
27-Aug-20	146.12	24.0	31	898	7.3	576	186	398	31	910	7.7	112	32	52			
28-Aug-20	136.58	24.0	31	945	7.3	560	175	410	31	950	7.5	128	31	46			
29-Aug-20	132.77	24.0	31	940	7.4	544	170	408	31	940	7.5	112	31	50			
30-Aug-20	126.26	24.0	30	920	7.4	536	174	400	30	948	7.6	120	32	52			
31-Aug-20	125.10	24.0	31	930	7.3	544	196	380	31	933	8	120	33	50	2	10	33kV HT Feeder Fault From KesCO side
TOTAL	4094.20														50	30	
AVG	129.17	24.00	31.1	887.1	7.3	526.6	166.9	395.9	31.1	908.6	7.6	108.4	31.6	53.9			

Annexure 4: Test Result of Joint Sampling Report of Treated Effluent (Bingawan)



Indian Institute of Technology, Kanpur
Environmental Engineering and Management
Department of Civil Engineering
IIT Kanpur - 208016, INDIA

Dr. Vinod Tare
Professor
Mr Amit Bharambe
Water & Utility Infrastructure
Shapoorji Pallonji & Co Pvt Ltd
Mumbai – 401 001
Maharashtra

July 20, 2020

Analysis Report of outlet treated sewage and dewatered sludge for
210 MLD STP at Bingawan

The In-charge, Water & Utility Infrastructure, Shapoorji Pallonji & Co Pvt Ltd, Mumbai vide his email dated May 21, 2020 requested to carryout analysis of outlet sample for certain parameters.

The sample was delivered by representative from Shapoorji Pallonji & Co Pvt Ltd to Environmental Engineering Laboratory, IIT Kanpur on May 30, 2020.

The preservation and analysis of the sample was done as per the Standard Methods (Standard Methods for the Examination of Water and Wastewater, APHA). The analysis of the samples for the requested parameters started immediately after bringing it to laboratory. The results of the analysis are reported in following table.

**Estimated Parameter Values of outlet treated sewage (Wastewater Sample) for
210 MLD STP at Bingawan**

S No.	Parameters	210 MLD STP @Bingawan
1	COD, mg/L	128
2	BOD, mg/L	52
3	TSS, mg/L	44
4	Total Coliform, MPN/100ml	9.00E+06
5	Fecal Coliform, MPN/100ml	2.20E+05

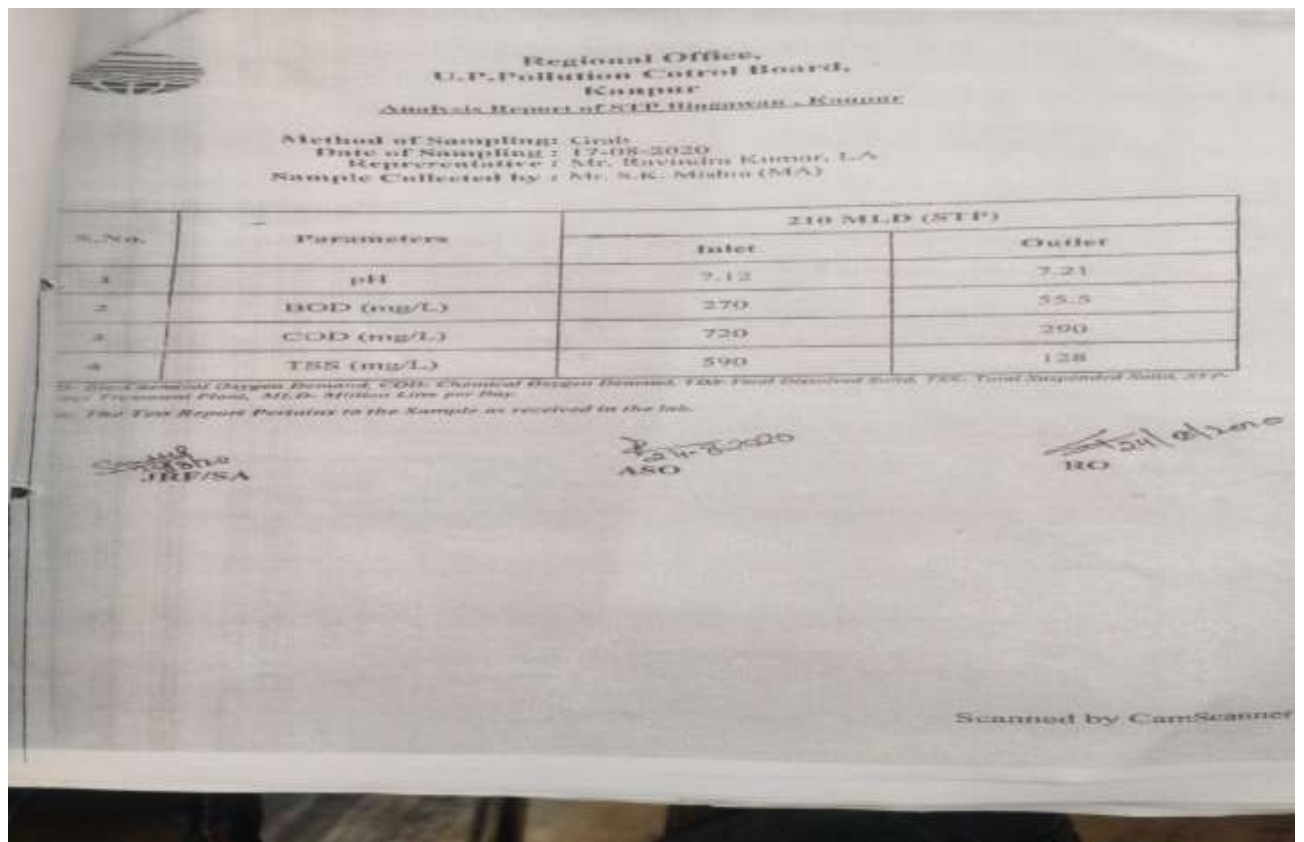
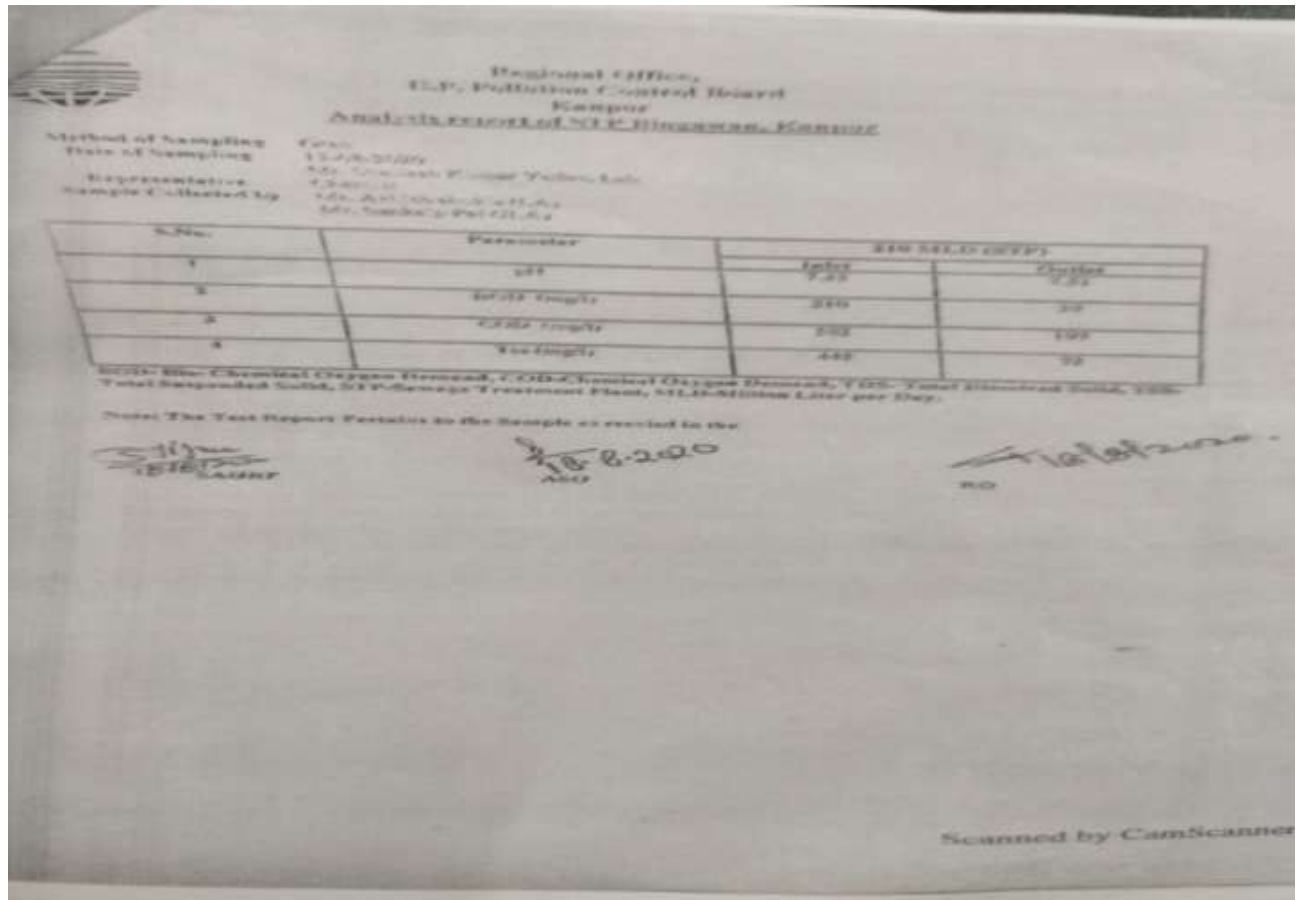
**Estimated Parameter Values of outlet treated dewatered sludge for
210 MLD STP at Bingawan**

S No.	Parameters	210 MLD STP @Bingawan
1	Total MPN/g (dry weight)	3.67E+06
2	Fecal MPN/g(dry weight)	1.76E+05

NOTE: The results presented are on basis of one time analysis of the sample collected by Environmental Engineering Laboratory, Department of Civil Engineering, IIT Kanpur.

(Vinod Tare)

Tel: +91-512-2597792 (O); 2590820/2598617 (R)
Fax: +91-512-2597797/2597395/25960260; e-mail: vinod@iitk.ac.in



Annexure 5: Site Inspection Reports for the Month of August 2020 (Bingawan)**Inspection report of 210 MLD STP Bingawan**

Visit & Inspected on date 06-08-2020, 08.08.2020 & 10.08.2020

Following STC & KRMPL Staff were present

- Mr. Lokesh Khandelwal, Support Engineer
- Mr. Linga Krishna Rao, Safety Expert
- Mr. Mahipal, Junior Engineer, UPJN
- Mr. Amit Brahmre, O&M In-charge, KRMPL
- Mr. Alokesh Das, Instrumentation Engineer, KRMPL
- Mr. Satesh Yadav, Lab Chemist, KRMPL

Observations:-**1. Online Monitoring System :-**

- Out of 2 no's of Electro-Magnetic Flow meters, 1 no. is installed at site and has been synchronised with RTOLMS. EMF is not calibrated.
- Inlet sump 2 nos. level transmitters are installed, found working and has been synchronised with RTOLMS.
- Online monitoring system, RTU, DNP & UPS installed at Inlet & Outlet, and has been synchronised with RTOLMS and testing results (COD, BOD & TSS) are change every 15 minutes. Both feeding pumps are not placed at the fixed location.
- It is also necessary to install RTOLMS system displaying proper power consumption and timing for both Power supply and Power backup (DG set).
- Installation of Flow meter at the treated effluent channel of the STP is necessary and has been synchronised with RTOLMS.



- **Note:-** RTOLMS Instruments and equipments are installed have been verified for installation at site. Technical parameters need to be ensured by the concessionaire.

2. Collection Chamber

- 2 no's of manual screen are in working condition.
- 2 no's of mechanical screen including belt conveyer assembly installed which are not in working condition till now.
- 2 no's of mechanical screen structure has to be painted. Currently in corroded state.

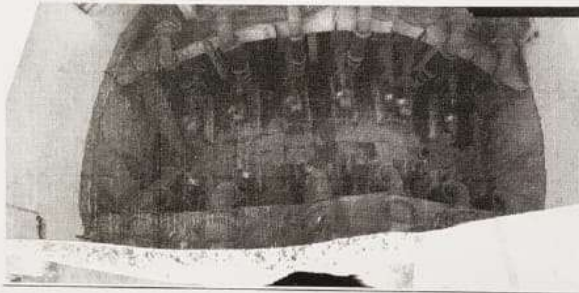
Joh

Sh



3. Main Pumping Station

- Out of 12 no's sewage transfer pump installed. All are in working condition. Pump no. 9 ATS problem sort out today .Out of 2 nos. EFM 1 no. EFM installed at site it was showing discharge flow of every pump (Pump no. 7 - 2345 cum./hr. , Pump no. 8 - 1930 cum./hr. Pump no. 9 - 2024 cum./hr. Pump no. 10 - 1995 cum./hr. Pump no. 11 - 2008 cum./hr. Pump no. 12 - 2020 cum./hr.



4. Inlet chamber

- 2 no's of manual screen are in working condition.
- 3 no's of mechanical screen including belt conveyer assembly are installed but 1 no. is not in working condition



5. Grit removal assembly

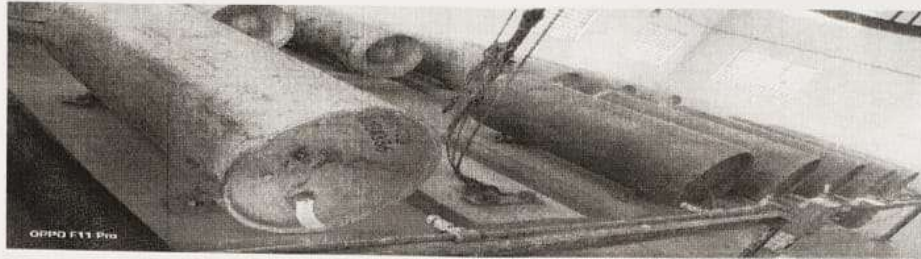
- Out of 4 no's, all are in working condition. 2 & 3 number scraper mechanism are stopped due to cleaning of tank and maintenance of raking plates with scooping arrangement.
- Coupling guard & Chain guards has yet to be placed
- Painting has to be carried out for all the gates.

Jals

[Signature]

9. Chlorination

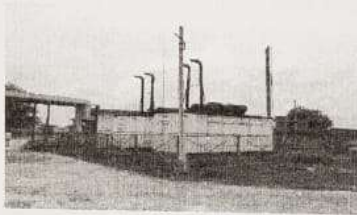
- Chlorine emergency kit demo to be arranged and chlorine mock drills to be conducted.

**10. Gas holder**

- Out of 2 no's both are not in working condition.

11. DFG & DG set

- Out of 2 no's DFG, 1 no. DFG is working condition and another under maintenance from plant handover date
- Full Power Backup i.e. DG set is extremely needed for each facility and to be arranged.

**12. Belt filter press**

- Out of 3 no's one number is working, and another one number is repairing work is being done. KRMPL has told that 1 no. will be ready by 10.09.2020.

**13. COD Nala Screen**

- No person was available for screen cleaning. There is no arrangement for cleaning day and night.
- COD nala structure platform, hand railing and ladder got damaged due to corrosion or erosion. It must be rectified immediately.

John

[Signature]

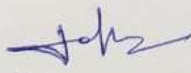


14. Miscellaneous


- There is no proper approach road beyond aeration system
- Boundary wall work is to be completed as earlier by upjn.
- There is no proper house keeping
- IP camera is to be installed around the plant

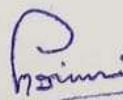
15. Safety

- Chlorine safety system to be improved, required proper caution boards and safe operation procedure at outside and inside area, chlorine detector and alarm system to be arranged for safety of operators and workers working in this area.
- SCBA (self contained breathing apparatus) which is in good condition and required usage training for workers is not there.
- Near mosque well top plate or grill to arrange in protection point of view.
- While entering in to 'DARGA' in/out checking and monitoring to be done at entry gate in safety point of view. In case of any problem in this area then the Concessioner should take liability as per Factories Act.
- In plant all ladders hand railing supports to be arranged for avoiding the fall of persons while climbing and getting down from ladder.
- In plant entire platforms area toe boards with 100X6 mm plate to be arranged for avoiding fall of persons legs in down.
- Coupling guards and chain belt guards to be provided for all the pumps and motors in the site area.
- DG area cautions boards, do's and don'ts along with "no smoking" to be written on the DG fence gate.
- In entire plant safety cautions boards, slogans, pictorial message, and flexes to be arranged for creating safety awareness to the workers, staff and visitors of the plant.


Lokesh Khandelwal
Support Engineer


Sunder Rajan
Support Engineer


Linga Krishna Rao
Safety Expert

 Counter Signed
13/06/20

210 MLD STP Bingawan Inspection report of IPS, Rakhimandi (100 MLD)

Visit & Inspected on date 05.08.2020

Following STC & KRML Staff were present.

1. Mr. Lokesh Khandelwal, Support Engineer, STC Kanpur
2. Mr. Sundar Rajan, Support Engineer, STC Kanpur
3. Mr. Mahipal, Junior Engineer, UPJN
4. Mr. Amit Brahmre, O&M In charge, KRML
5. Mr. Alokesh Das, Instrumentation Engineer, KRML

Observations:-

1. Online Monitoring:

- 1 no. of Electro-Magnetic Flow meter is installed at site and has been synchronised with RTOLMS.
- RTU, UPS, Level transmitter has been installed at site and has been synchronised with RTOLMS.
- Level transmitter has been installed at 16.0 m from the FFL and has been synchronised with RTOLMS
- It is also necessary to install RTOLMS system displaying proper power consumption and timing for both Power supply and Power backup (DG set).



Note:-

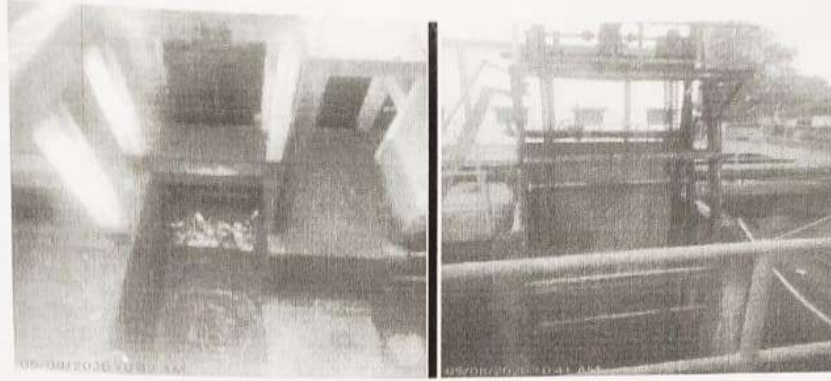
RTOLMS Instruments and equipments are installed have been verified for installation at site. Technical parameters need to be ensured by the concessionaire.

2. Collection Chamber

- 1 no. of manual screen is working condition.
- 1 no. of mechanical screen installed including Belt Conveyer found not in working condition.
- MS structural's are in rusted condition. Painting has to be carried out.
- There is no proper trolley for collecting derbies in the belt conveyer.

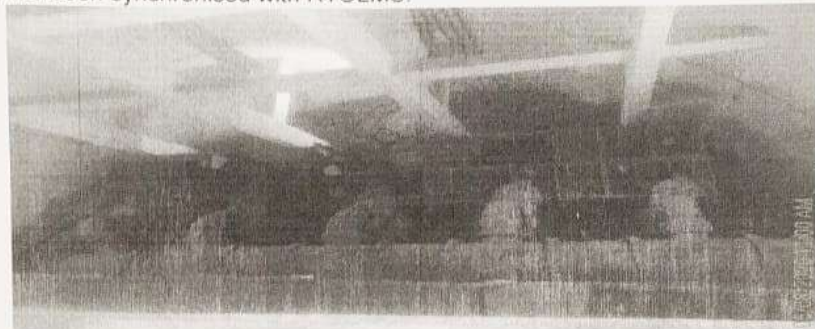
John

AS



3. **Pumping Station**

- Out of 5 no's sewage transfer pump. All are found in working condition and has been synchronised with RTOLMS.

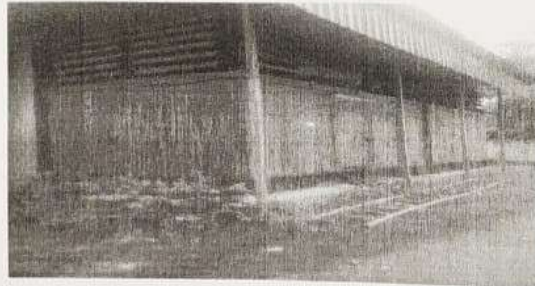


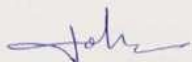
4. **Miscellaneous**

- No proper housekeeping around the site.
- Plastering on Collection chamber walls have to be carried out and painting of civil structure need to be done.

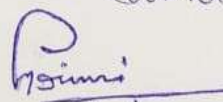
5. **DG Set**

- 1 no. of DG set is found in working condition.




Lokesh Khandelwal
Support Engineer


Sundar Rajan
Support Engineer

Counter Signed.

13/08/20

210 MLD STP Bingawan Inspection report of IPS, MunshiPurwa (67 MLD)

Visit & Inspected on date 06.08.2020

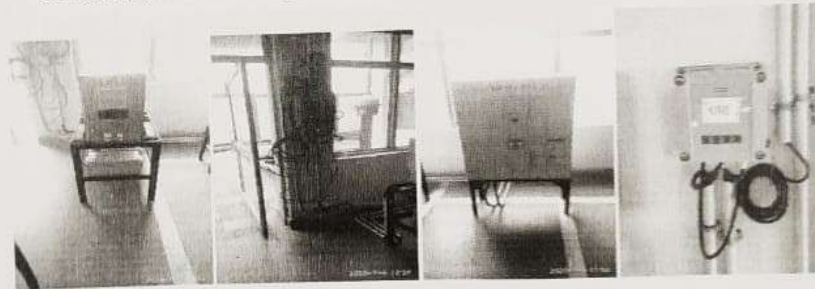
Following STC & KRMPL Staff were present.

1. Mr. Lokesh Khandelwal, Support Engineer, STC Kanpur
2. Mr. Sundar Rajan, Support Engineer, STC Kanpur
3. Mr. Mahipal, Junior Engineer, UPJN
4. Mr. Amit Brahmre, O&M In charge, KRMPL
5. Mr. Alokesh Das, Instrumentation Engineer, KRMPL

Observations:-

1. Online Monitoring

- 1 no. of Electro-Magnetic Flow meter is installed at site and has been synchronised with RTOLMS.
- RTU, UPS, Level transmitter has been installed at site and has been synchronised with RTOLMS. Ultrasonic level transmitter measuring data is not satisfactory and needs to be calibrated.
- Level transmitter has been installed at 13.5 m from the FFL and has been synchronised with RTOLMS.
- Installed UPS equipment is not found in working .Other UPS equipments are connected with system during inspection.
- It is also necessary to install RTOLMS system displaying proper power consumption and timing for both Power supply and Power backup (DG set).



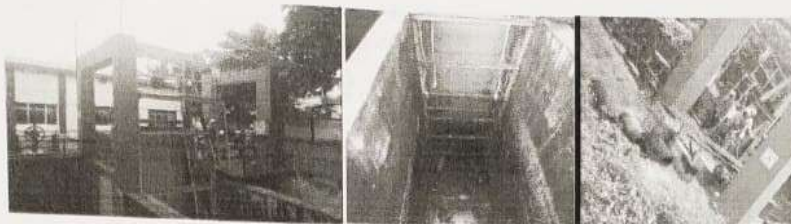
Note:-

RTOLMS Instruments and equipments are installed have been verified for installation at site. Technical parameters need to be ensured by the concessionaire.

2. Collection Chamber

- 1 no. of manual screen is working condition.
- 1 no. of mechanical screen installed including Belt Conveyer found not in working condition. Same is under maintenance work.
- MS structural's are in rusted condition. Painting has to be carried out.
- Inlet and outlet of the mechanical screen gates operating handle is not available and same has to be installed.

Johz



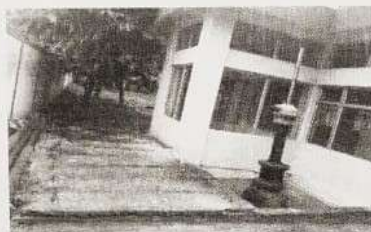
3. Pumping Station

- Out of 6 no's sewage transfer pump. All are found in working condition and has been synchronised with RTOLMS.



4. Miscellaneous


- No proper housekeeping around the site.
- Plastering on Collection chamber walls have to be carried out and painting of civil structure need to be done.
- For the Sluice valve chamber proper hand railing has to erect.
- RCC slabs are found in damaged condition same has to be replaced.

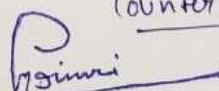


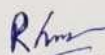
5. DG Set

- 1 no. of DG set is found in working condition.




Lokesh Khandelwal
Support Engineer


Counter signed
13/08/20


Sundar Rajan
Support Engineer

210 MLD STP Bingawan Inspection report of IPS, HalwaKhanda (20 MLD)

Visit & Inspected on date 06.08.2020

Following STC & KRMP staff were present.

1. Mr. Lokesh Khandelwal, Support Engineer, STC Kanpur
2. Mr. Sundar Rajan, Support Engineer, STC Kanpur
3. Mr. Mahipal, Junior Engineer, UPJN
4. Mr. Amit Brahmre, O&M In charge, KRMP
5. Mr. Alokesh Das, Instrumentation Engineer, KRMP

Observations:-

1. Online Monitoring

- 1 no. of Electro-Magnetic Flow meter is installed at site and has been synchronised with RTOLMS.
- RTU, UPS, Level transmitter has been installed at site and has been synchronised with RTOLMS.
- Level transmitter has been installed at 10.0 m from the FFL and has been synchronised with RTOLMS
- It is also necessary to install RTOLMS system displaying proper power consumption and timing for both Power supply and Power backup (DG set).



2. Collection Chamber

- Out of 2 no. mechanical screen 1 no. is installed which is not found in working condition.
- MS structural's frames (surrounding mechanical screen) are in rusted condition and the same has to rectify.
- Painting has to be carried out in MS Structural's.
- There is no proper trolley for collecting derbies.

Johy



3. **Pumping Station**

- Out of 5 no's sewage transfer pump all are in working condition and all pumps has been synchronised with RTOLMS.



4. **Miscellaneous**

- No proper housekeeping around the site.

5. **DG Set**

- 1 no. of DG set is available and not in found working condition due to battery problem.



Lokesh

Lokesh Khandelwal
Support Engineer

R. Sundar

Sundar Rajan
Support Engineer


Pravin
Counter Signed
13/08/20

Annexure 6: Summary of Monthly Performance Report of Sajari

42 MLD SEWAGE TREATMENT PLANT, SAJARI, KANPUR																		
MONTHLY FLOW & LAB REPORT																		
Month: August 2020																		
Date	INLET FLOW in MLD	Plant Run in HRS	RAW SEWAGE					FINAL OUTLET					Aeration DO ppm	POWER SHUTDOWN		REMARK		
			Temp	TDS	PH (7-8)	COD (450 mg/l)	BOD (250 mg/l)	TSS (600 mg/l)	Temp	TDS	PH (7-8)	COD (<100mg/l)		BOD (<30mg/l)	TSS (<50mg/l)		HRS	MINS
			°c	ppm		ppm	ppm	ppm	°c	ppm		ppm		ppm	ppm			
1-Aug-20	23.76	24.0	29	1260	7.5	408	162	303	29	813	7.9	96	23	26	1.7			2 STREAM IS UNDER OPERATION
2-Aug-20	20.79	21.0	29	1129	7.5	384	155	294	29	802	7.9	88	21	21	1.9		40	2 STREAM IS UNDER OPERATION
3-Aug-20	14.35	14.0	29	1209	7.5	428	160	303	29	823	7.9	96	21	27	1.6	4	40	2 STREAM IS UNDER OPERATION
4-Aug-20	13.86	14.0	29	1357	7.5	476	165	311	29	905	7.9	104	23	24	1.4		20	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
5-Aug-20	17.33	17.0	29	1290	7.5	356	140	243	29	894	7.9	96	22	27	1.6		30	2 STREAM IS UNDER OPERATION
6-Aug-20	16.58	17.0	29	1405	7.5	496	168	314	29	941	7.9	104	24	30	1.5	2	35	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
7-Aug-20	14.36	14.0	29	1341	7.5	384	160	297	29	816	7.9	92	22	26	1.8			2 STREAM IS UNDER OPERATION
8-Aug-20	23.07	23.0	29	1310	7.5	356	155	268	29	823	7.9	96	22	29	1.4		45	2 STREAM IS UNDER OPERATION
9-Aug-20	23.76	24.0	29	1296	7.5	348	148	254	29	804	7.9	88	21	26	1.9			2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
10-Aug-20	22.77	23.0	29	1390	7.5	472	160	305	29	891	7.9	104	23	29	1.7			2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
11-Aug-20	23.76	24.0	29	1461	7.5	496	165	327	29	887	7.9	96	21	27	1.8			2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
12-Aug-20	20.79	21.0	29	1391	7.5	476	170	314	29	932	7.9	104	24	31	1.7			2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
13-Aug-20	22.77	23.0	29	1388	7.5	408	164	294	29	894	7.9	92	21	28	1.8		40	2 STREAM IS UNDER OPERATION
14-Aug-20	23.76	24.0	29	1291	7.5	384	155	265	29	805	7.9	88	20	26	2.1			2 STREAM IS UNDER OPERATION
15-Aug-20	21.87	22.0	29	1297	7.5	416	160	293	29	915	7.9	96	22	30	1.8			2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
16-Aug-20	23.76	24.0	29	1221	7.5	356	154	246	29	894	7.9	80	21	26	1.9			2 STREAM IS UNDER OPERATION
17-Aug-20	20.79	21.0	29	1310	7.5	448	162	291	29	902	7.9	92	22	27	1.9			2 STREAM IS UNDER OPERATION
18-Aug-20	23.76	24.0	29	1305	7.5	388	140	284	29	819	7.9	96	22	31	1.6		30	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
19-Aug-20	20.79	21.0	29	1413	7.5	496	184	291	29	907	7.9	104	25	31	1.6	1		2 STREAM IS UNDER OPERATION
20-Aug-20	22.77	23.0	29	1339	7.5	380	155	264	29	843	7.9	96	23	26	1.9			2 STREAM IS UNDER OPERATION
21-Aug-20	23.76	24.0	29	1253	7.5	416	160	279	29	810	7.9	88	21	24	2.1			2 STREAM IS UNDER OPERATION
22-Aug-20	18.81	19.0	29	1409	7.5	456	175	308	29	905	7.9	92	24	27	1.7			2 STREAM IS UNDER OPERATION
23-Aug-20	21.29	21.0	29	1294	7.5	396	158	281	29	841	7.9	88	22	25	1.9	1	30	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
24-Aug-20	22.77	23.0	29	1402	7.5	516	180	315	29	913	7.9	104	25	31	1.6			2 STREAM IS UNDER OPERATION
25-Aug-20	23.76	24.0	29	1290	7.5	380	155	286	29	816	7.9	96	23	27	1.7		1	2 STREAM IS UNDER OPERATION
26-Aug-20	22.77	23.0	29	1205	7.5	376	145	261	29	802	7.9	88	21.0	25	1.8			2 STREAM IS UNDER OPERATION
27-Aug-20	23.76	24.0	29	1319	7.5	416	160	278	29	812	7.9	92	24	28	1.6			2 STREAM IS UNDER OPERATION
28-Aug-20	21.78	22.0	29	1461	7.5	432	154	310	OK	894	7.9	96	22	26	1.9		2	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
29-Aug-20	19.80	20.0	29	1505	7.5	480	166	316	29	934	7.9	104	24.0	31	1.7			2 STREAM IS UNDER OPERATION
30-Aug-20	22.61	23.0	29	1301	7.5	356	148	243	29	816	7.9	88	21	27	1.9			2 STREAM IS UNDER OPERATION
31-Aug-20	19.80	20.0	29	1358	7.5	440	160	294	29	839	7.9	96	23	32	1.7		16	30
TOTAL	656.34																	
AVG	21.17	21.32	29	1329	7.5	420.0	159.5	288.1	29	861	7.9	94.8	22.4	27.4	1.8			

Note: There is ingress of Industrial Waste water (coloured) at STP from Sarigawan area, which was experienced on dates of 4,6,10,11,19,24,29 August 2020.

Annexure 7: Test Result of Joint Sampling Report of Treated Effluent (Sajari)



Indian Institute of Technology, Kanpur

Environmental Engineering and Management
Department of Civil Engineering
IIT Kanpur - 208016, INDIA

July 20, 2020

Dr. Vinod Tare
Professor
Mr Amit Bharambe
Water & Utility Infrastructure
Shapoorji Pallonji & Co Pvt Ltd
Mumbai – 401 001
Maharashtra

Analysis Report of outlet treated sewage and dewatered sludge for
42 MLD STP at Sajari

The In-charge, Water & Utility Infrastructure, Shapoorji Pallonji & Co Pvt Ltd, Mumbai vide his email dated February 14, 2020 requested to carryout analysis of outlet sample for certain parameters.

The sample was delivered by representative from Shapoorji Pallonji & Co Pvt Ltd to Environmental Engineering Laboratory, IIT Kanpur on May 20, 2020.

The preservation and analysis of the sample was done as per the Standard Methods (Standard Methods for the Examination of Water and Wastewater, APHA). The analysis of the samples for the requested parameters started immediately after bringing it to laboratory. The results of the analysis are reported in following table.

**Estimated Parameter Values of outlet treated sewage (Wastewater Sample) for
42 MLD STP at Sajari**

S No.	Parameters	42 MLD STP @Sajari
1	COD, mg/L	96
2	BOD, mg/L	34
3	TSS, mg/L	24
4	Total Coliform, MPN/100ml	5.00E+06
5	Fecal Coliform, MPN/100ml	1.70E+05

**Estimated Parameter Values of outlet treated dewatered sludge for
42 MLD STP at Sajari**

S No.	Parameters	42 MLD STP @Sajari
1	Total MPN/g (dry weight)	3.06E+06
2	Fecal MPN/g(dry weight)	2.45E+05

NOTE: The results presented are on basis of one time analysis of the sample collected by Environmental Engineering Laboratory, Department of Civil Engineering, IIT Kanpur.

(Vinod Tare)

Tel: +91-512-2597792 (O); 2590820/2598617 (R)
Fax: +91-512-2597797/2597395/25960260; e-mail: vinod@iitk.ac.in

TEST REPORT

ID- K200701008-1

Date of start of testing: 18.07.2020
Date of completion of testing: 24.07.2020

SL No.	Test Parameter	Observed Value	Test Method
1.	Total Suspended Solids, mg/l	26	IS:3025(P-15)-1984 (RA-2019)
2.	C.O.D, mg/l	83.26	IS:3025(P-58)-2006 (RA-2017)
3.	B.O.D (5 days) at 20°C, mg/l	22.22	APHA 5210-B (23rd Edition): 2017

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

-- End of Test Report --

[Signature]
Analyst Signature



RESEARCH LAB VENTURES
Digitally signed
by SANJEET
KUMAR MISHRA
Date: 2020.07.26
16:05:43 +05'30'

Authorised Signatory