

NCC SWSM PROJECTS – UP – GORAKHPUR

Project Name : Survey, Design, Preparation of DPR, Construction, Commissioning and O&M for 10 years of Various Rural Water Supply Project in the State of Uttar Pradesh– Gorakhpur District
 Client : SWSM/DWSM-UP-GKP
 Consultant : Medhaj Techno Concept Pvt. Ltd.
 Contractor : NCC Limited

Request For Inspection

RFI No:	SWSM-UP-GKP/S/TW/90/R ₁	Date And Time - 18/03/2022	
Description:	Rectification of Compliance.		
Location:	Block- Gagata G.P. Rajapur		
Preceding RFI No.	SWSM-UP-GKP/S/TW/90		
Commencement of work:	18/03/2022		
Submitted By:	Ajay		
Signature:	Ajay		
Designation:	JE (Civil)		
Concessionaire:		Proceed	Hold
Name:			
Designation:			
Comments:	<p>① For gravel available & filled in TW. ② H-frame got fixed with Tubewell Assembly. ③ Pointing done properly on pipe Assembly.</p>		

Ajay
 Signature
 Contractor Representative

Hailesh
 Signature
 Consultant Representative

 Signature
 Client Representative

NCC SWSM PROJECTS – UP – GORAKHPUR

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Request For Inspection

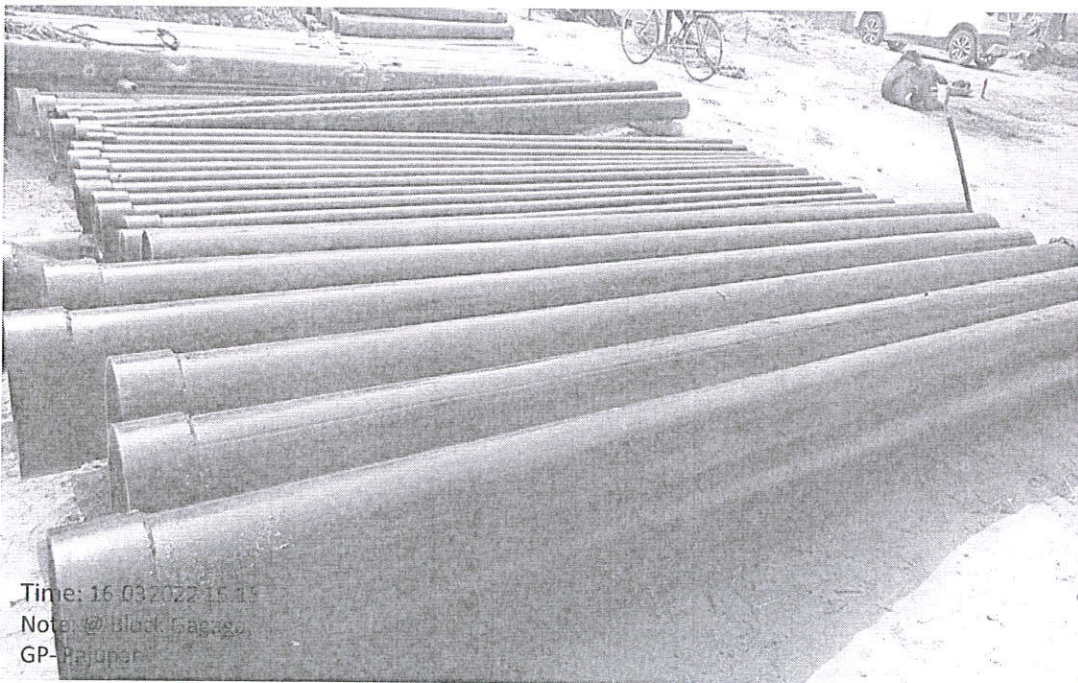
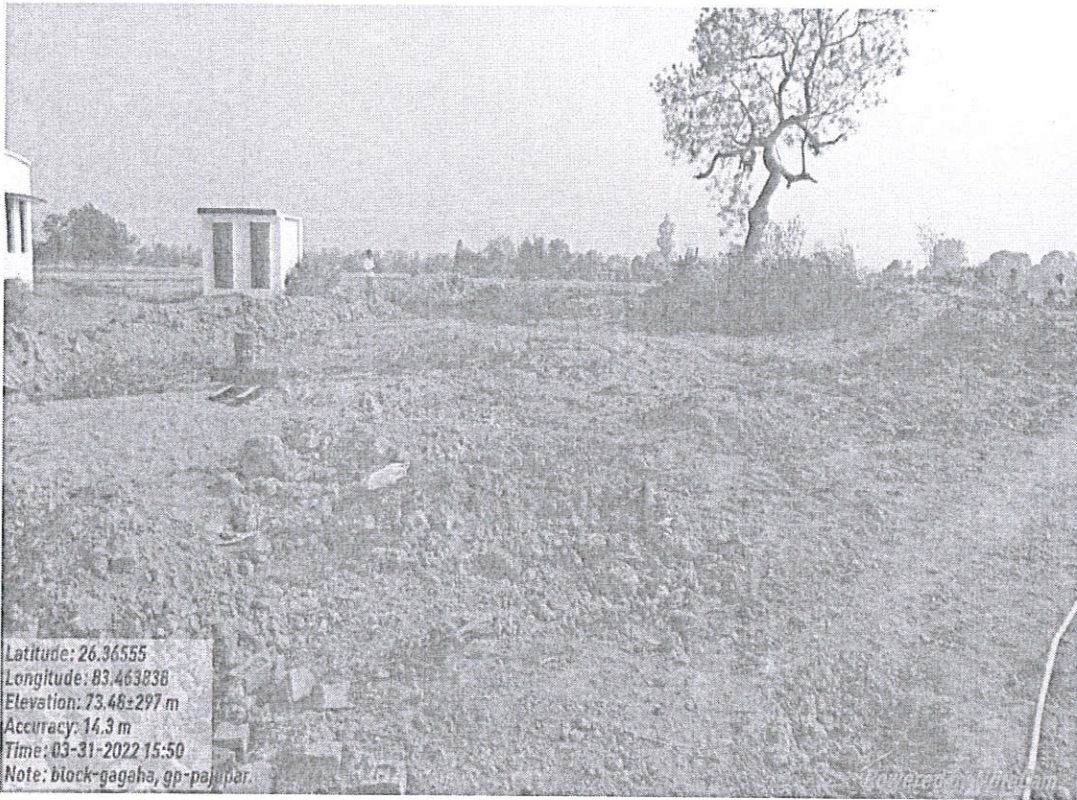
RFI No:	SWSM-UP-GKP/S/TW/90	Date And Time - 15/03/2022	
Description:	Lowering of Pipe with Assembly & Filling of Pea-gravel.		
Location:	Block- Aagaha, C.P. Rajapur.		
Preceding RFI No.	NA		
Commencement of work:	18/03/2022		
Submitted By:	Ajay		
Signature:	Ajay		
Designation:	JE (Civil)		
Concessionaire:	Proceed	Hold	
Name:			
Designation:			
Comments:	<p>① Pea gravel not available on site. ② H-frame not fabricated at site. ③ Painting was not done in proper manner on Assembly pipe.</p>		

Ajay
 Signature
 Contractor Representative

Thalesh
 T.P. RA
 Signature
 Consultant Representative

 Signature
 Client Representative

Pajupar



AS

GORAKHPUR-UP

SIEVE ANALYSIS OF PEA GRAVELS (SIZE-1.6 mm to 4.8 mm)

(As per IS : 460 and IS: 4097)

Date of Testing : 13/03/2022
Test report no : NCC/GR-578C/091

SL NO.	DESCRIPTION	OBSERVATIONS
1	Source of material :	Lakuan, Nainital, uttaranchal.
2	Location :	Block Name- GAGHA
		G.P Name- PAJUPAR
3	Date of sampling :	12/03/2022
4	Lab. Test no :	91
5	Sample no. :	91
6	Total wt. of sample (gm) :	1000gm


SIEVE ANALYSIS

IS Sieve Size	retained	Cumulative wt. Retained (gm)	Cumulative % wt. Retained	% passing	Acceptable / Not Acceptable
6.3 mm	09	09	0.9	99.1	
4.75 mm	490	499	49.9	50.1	
2.36 mm	470	969	96.9	3.1	
1.18 mm	30	999	99.9	0.1	
Pan	01				
Total(gm)=					

The Hardness of Material is=

Note:- The Hardness value should not be less than 5 in Moh's scale.


NCC LTD.


PMC/TPIA


CLIENT

NCC
NCC Limited

NCC LTD.

STATE WATER AND SANITATION MISSION

CLIENT: JJM / SWSM / DWSM

GORAKHPUR-UP



SPECIFIC GRAVITY OF PEA GRAVELS (SIZE- 1.6 mm to 4.8 mm)

As per IS : 2386 (Part-3)

Date of Testing-

13/03/2022

Test report no :

NCC/WR-5/SC/091

SL NO.	DESCRIPTION	OBSERVATIONS
1	Source of material :	Zalkuan, Nainital, Uttarakhand.
2	Location :	NAME OF THE BLOCK - GACAHHA
		NAME OF THE GRAM PANCHAYAT - PAJUPAR
3	Date of sampling :	12/03/2022
4	Lab. Test no :	91
5	Sample no :	91

SPECIFIC GRAVITY TEST AT ROOM TEMPERATURE

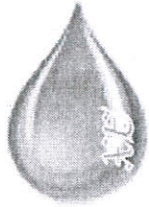
6	Weight of the Jar, W1 (gm)=	252gm	
7	Weight of Jar + Gravel, W2 (gm)=	474gm	
8	Weight of Jar + Gravel + Water, W3 (gm)=	869gm	
9	Weight of the Jar + Water, W4 (gm)=	724gm	
10	Specific Gravity	$\frac{W2 - W1}{(W2 - W1) - (W3 - W4)}$	$= \frac{222}{222 - 145} = 2.88$
	=		

Note : The Specific Gravity should not be less than 2.5

NCC LTD.

PMC/TPIA

CLIENT



Aqua Xplore

(Groundwater Assessment & Allied Services)

243/5, New Colony Jiyamau, Hazratganj, Lucknow – 226001
Mob. 9918202546 / 9889323322, Email-aquaxploreelko@gmail.com

Advisor- Dr. R. A. Yadav, ex- Manager (Groundwater), U. P. Jal Nigam

Ref 311 - P / AX - 2022 Date 11.03.2022

Geophysical Borehole Logging Report

Name of the site : Pajupar, Block- Gagaha
District : Gorakhpur
Date : 11.03.2022
Depth logged : 140.0 mbgl
Depth drilled : 145.0 mbgl- as reported
Logged by : Aqua Xplore
Presence : Representative of M/S NCC Limited, Gorakhpur - South

Based on the interpretation of geophysical logs, following information may be deciphered, particularly with respect to salinity of the formation water;

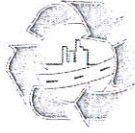
Sl.No.	Depth range(mbgl)	Thickness(m)	Remarks
1	34.0----38.0	4.0	Good all Verified as per logs provided. GSD 12/03/22.
2	47.0----60.0	13.0	
3	65.0----70.0	5.0	
4	76.0----80.0	4.0	
5	87.0----91.0	4.0	
6	110.0----120.0	10.0	
7	124.0----140.0	16.0	

Note. Sl.Nos.3, 4 & 5 are fine sand intermixed with kankar.

for Aqua Xplore

CC;

1. Executive Engineer, C.D. (Rural), U.P.Jal Nigam, Gorakhpur.
2. M/S NCC Limited, Gorakhpur –South, SWSM.



TECHPRO ENGINEERS PVT. LTD.

(Laboratory Division)

Lab Add. 131, Ram Ganga Housing Society, Naramau, Kanpur- 209217,

Tel.: 0512-2525759, 09793209918, Web site: www.techproindia.com

e-mail: tepllab@gmail.com, info@techproindia.com,

Doc No.: TEQR-36C, Issue No.: 02, Issue Date: 18/08/20, Rev. No. : 01, Rev. Date: 10/12/2020

TEPL/MT/2022/136/R1

Dated: 05-03-2022

TEST REPORT

Name of Customer	:	Jal Nigam, Gorakhpur
Project	:	SWSM-JJM Project (Har Ghar Jal Mission) at Gorakhpur U.P.
Reference No.	:	SWSM-UP/GKP/QC/77
Sample supplied to Lab by	:	Customer representative
Name of Contractor/ Agency	:	NCC Ltd.
Sample Particulars	:	Pea-Gravel

Sample Receipt Date	:	03/03/2022	Job No.	:	MT136
Condition of sample	:	Satisfactory	SRF No.	:	2022/29
Type of Sample	:	Pea-Gravel	ULR No.	:	NA
Source of sample	:	Lalkuan (Uttarakhand)	Period of Testing	:	03/03/2022 to 05/03/2022

Terms & Conditions:

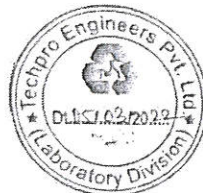
1	Results relate only to the test sample provided by customer.
2	This report is under copyright of Techpro Engineers Pvt. Ltd. (Laboratory Division) and is not to be reproduced, copied, handed over third party or used for any purpose other than for which it has been loaned.
3	The tested samples are retained for three months after issue of test report (if not collected by customer).
4	The unique identification of sample is as Job No. / Chainage No. /BH. No./SI. No. But only SI. No is mentioned in results.



Checked By:

Alok Chauhan

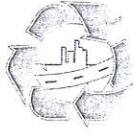
Alok Kumar Chauhan
(Technical Manager)



Approved By:

Arvind Kumar Garg

Arvind Kumar Garg
(Quality Manager)



TECHPRO ENGINEERS PVT. LTD.

(Laboratory Division)

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Tel.: 0512-2525759, 09793209918, Web site: www.techproindia.com

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Doc No.: TEQR-36C, Issue No.: 02, Issue Date: 18/08/20, Rev. No. : 01, Rev. Date: 10/12/2020

1. PHYSICAL TEST RESULT OF PEA GRAVEL

Sample Unique ID: MT136/TEPL/02

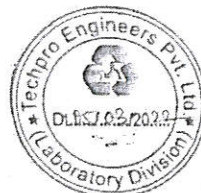
Sl. No.	Particular of Test	Test Passing %	Specification As Per IS (383 & 4097)	Test Method	Remarks
1.0	Sieve Analysis (% by weight)	12.5 mm	100	IS 2386 (Part-1) 1963, RA-2016	-
		8.0 mm	100		
		6.30mm	100		
		4.75 mm	80.90		
		3.35 mm	14.40		
		2.00 mm	8.60		
2.0	Combined Flakiness & Elongation Index (% by weight)	0.0	40 Max	IS 2386 (Part-1)-1963, RA-2016	Partical Size >6.3
3.0	Water Absorption (% by weight)	0.90	5 Max	IS 2386 (Part-3)-1963 RA-2016	-
4.0	Specific Gravity	2.66	2.1 - 3.2	IS 2386 (Part-3)-1963 RA-2016	-
5.0	Hardness Test (Number)	7.3	5 Min	IS 13630 (Part-13)-2006	-
6.0	Bulk Density , Kg/litre			IS 2386 (Part-3)-1963 RA-2016	-
	a) Compacted	1.59	NA		
	b) Loose	1.49	NA		



Checked By:

Alok Chauhan

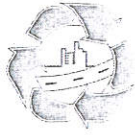
Alok Kumar Chauhan
(Technical Manager)



Approved By:

Arvind Kumar Garg

Arvind Kumar Garg
(Quality Manager)



TECHPRO ENGINEERS PVT. LTD.

(Laboratory Division)

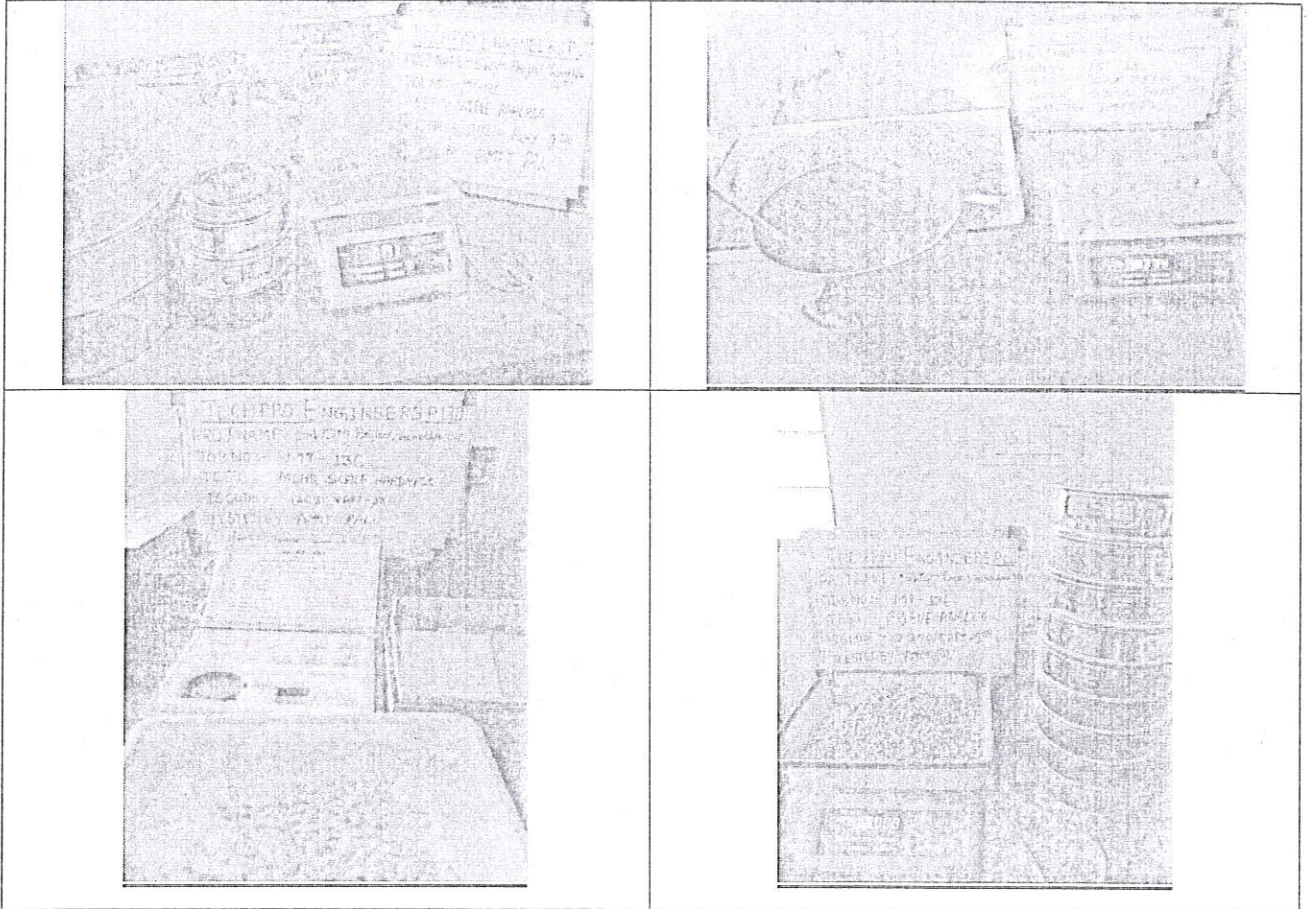
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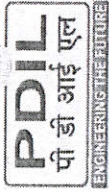
e-mail: tepllab@gmail.com, info@techproindia.com.

Doc No.: TEQR-36C, Issue No.: 02, Issue Date: 18/08/20, Rev. No. : 01, Rev. Date: 10/12/2020

PHOTOGRAPHS



END OF REPORT



प्रोजेक्ट्स एण्ड डेवलपमेंट इण्डिया लिमिटेड
PROJECTS & DEVELOPMENT INDIA LIMITED

Inspection Report/Certificate

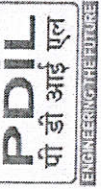
Certificate/Report No. 1500-005000049311-C
Dated 14.02.2022

Client /Purchaser		M/S SWSM UP/ M/S NCC LIMITED		Inspection office		INSP NOIDA					
P.O. No. & Date		NCC/SWSM-GORAKHPUR-SOUTH/2157/21-22 03.02.2021		Start Date of Inspection		12.02.2022					
Supplier /Manufacturer		M/S DADU PIPES (P) LTD.		End Date of Inspection		12.02.2022					
Sub Supplier		NA		PDIL Job no		4004006945					
Sub supplier P.O.No & date		NA		PDIL Sales Order No.		LS					
Project Name		NA		Total P.O. value		LS					
Client Reference		NA		Total inspected item value		LS					
P.O.Status		COMPLETE		Inspection Status		FINAL					
SI No.	P.O./BOM /Item No.	Description (Nomenclature, Size, Final Specification)	Unit	Ordered Qty	Offered Qty	Inspected Qty	Status	Accepted Qty	Cummulative Qty	Document Ref.	Heat no./batch No./Earlier certificate NO./material identification etc.
01	01	150MM DIA 5.4 MM THK (THE SLOT SIZE SHALL BE 75MM*1.20MM AND IT SHOULD BE ZIG-ZAG PATTERN AS PER S8110)	MTR	738	738	738	A	738	738	AS PER PO	BATCH NO.: 22B05
02	02	200MM DIA 7.1 MM THK (THE SLOT SIZE SHALL BE 75MM*1.20MM AND IT SHOULD BE ZIG-ZAG PATTERN AS PER S8110)	MTR	108	108	108	A	108	108	AS PER PO	BATCH NO.: 22B01
03	03	150MM DIA 5MM THK MS ERW PIPE AS PER IS 4270	MTR	1458	1470	1470	A	1458	1458	AS PER PO	BATCH NO.: 22B04
04	04	300MM DIA 7.1MM THK	MTR	468	480	480	A	468	468	AS PER PO	BATCH NO.: 22A29

Status Code (for details refer remarks): A- Accepted, C- Customer Clearance Required, D-Deviated, P- Partial Accepted, R- Rejected, S- Stage, W- Rework, X-Refer Remarks

Signature			
Name	SANDEEP SINGH BHATT		
Company/organization	PDIL (Inspection & NDT)	Client/Purchaser	Supplier/Manufacturer
			Sub Supplier

This Inspection Certificate is issued without prejudice of contractual obligation of the supplier and does not relieve him from the guarantees and obligations set forth in purchase order and attachment.



प्रोजेक्ट्स एण्ड डेवलपमेंट इण्डिया लिमिटेड
PROJECTS & DEVELOPMENT INDIA LIMITED

Inspection Report/Certificate

Certificate/Report No. 1500-005000049311-C
Dated 14.02.2022

Client/Purchaser		M/S SWSM UP/ M/S NCC LIMITED		Inspection office		INSP NOIDA					
P.O. No. & Date		NCC/SWSM-GORAKHPUR-SOUTH/2157/21-22 03.02.2021		Start Date of Inspection		12.02.2022					
Supplier /Manufacturer		M/S DADU PIPES (P) LTD.		End Date of Inspection		12.02.2022					
Sub Supplier		NA		PDIL Job no		4004006945					
Sub supplier P.O.No & date		NA		PDIL Sales Order No.		LS					
Project Name		NA		Total P.O. value		LS					
Client Reference		COMPLETE		Total inspected item value		LS					
P.O.Status		COMPLETE		Inspection Status		FINAL					
SI No.	P.O./BOMI /Item No.	Description (Nomenclature,Size,Final Specification)	Unit	IC/IR Status			Cumulative Qty	Accepted Qty	Status	Document Ref.	Heat no./batch No./Earlier certificate NO./material identification etc.
				Ordered Qty	Offered Qty	Inspected Qty					
		MS ERW PIPE AS PER IS4270									

Inspection/Test:

INSPECTION CARRIED OUT AS PER APPROVED QAP & IS4270

- 1) VISUAL & PHYSICAL INSPECTION FOR QUANTITY, MARKING, FINISHING AND FOUND OK.
- 2) DIMENSION CHECKED AND FOUND WITHIN TOLERANCE LIMITS.
- 3) TENSILE TEST, ELONGATION, FLATTENING & HYDRO TEST WITNESSED OF RANDOMLY SELECTED SAMPLES AND RESULTS FOUND SATISFACTORY.
- 4) INTERNAL REPORT, MTC AND CALIBRATION CERTIFICATES REVIEWED AND FOUND IN ORDER.
- 5) FOR IDENTIFICATION MATERIAL STAMPED AS "P&d/117".

Enclosure:

1) MATERIAL TEST CERTIFICATE (2) CALIBRATION CERTIFICATE (3) INSPECTION VISIT REPORT

Remarks:

MATERIAL RELEASED FOR DISPATCH AS PER TERMS & CONDITIONS OF PURCHASE ORDER.

Status Code (for details refer remarks): A- Accepted, C- Customer Clearance Required, D- Deviated, P- Partial Accepted, R- Rejected, S- Stage, W- Rework, X- Refer Remarks	
Signature	
Name	SANDEEP SINGH BHAKT Approved By (HOD Insp.)
Company/organization	PDIL (Inspection & NDT) NoIDA * Client/Purchaser
	Supplier/Manufacturer
	Sub Supplier

* This Inspection Certificate is issued without prejudice of contractual obligation of the supplier and does not relieve him from the guarantees and obligations set forth in purchase order and attachment.



Salient Feature

Name of the State : Uttar Pradesh
Name of the District : Gorakhpur
Name of the Block : Gagha
Name of the Programme : Jal Jeevan Mission
Name of the Gram Panchayat : Pajupar
No. of Village/Habitations : 1/1

Table 1: List of village and Habitation

S. No	District Name	Sub District Name	Block Name	Gram Panchayat Name	2011 Census Code	Revenue Village Name	Habitations Name
1	GORAKHPUR	Gagha	Gagha	Pajupar	0	Pajupar	Pajupar

Table 2: Gram Panchayat Population Summary

S. NO	DESCRIPTION	GROWTH FACTOR WRT Y-2011	POPULATION	SC/ST	HOUSE HOLDS
1.	As per Census 2011	1	1543	681	208
2.	Initial Stage 2022	1.2	1850	816	249
3.	Middle Stage 2037	1.46	2250	992	303
4.	Ultimate Stage 2052	1.72	2660	1173	358

Rate of Water Supply : 64.70 LPCD (Added 15 % losses over 55 LPCD)
Nature of Sources : Ground Water
Source of Development : Tube Well



Daily Water Demand Summary	:	
a) Initial Year 2022	:	120 KLD
b) Intermediate Year 2037	:	146 KLD
c) Ultimate Year 2052	:	172 KLD
Number of Tube Wells	:	1
Nature of Treatments	:	Chlorinator through HDPE Tank (100L) and Dosing metering pump (0-6LPH)
Average Dosing Capacity	:	0.50 PPM
Pumping plant for Tube Well		
a) No. and Type of Plant	:	1
b) Anticipated Discharge	:	400 LPM
c) Total Working Head	:	41 m
d) Motor (HP)	:	10 HP
Service Storage		
a) Quantity	:	1
b) Capacity	:	150 KL
c) Staging	:	12 m

Pipeline Summary

Table 3: Rising Mains

Pipeline Type	From	To	Material	Class	Diameter (mm)	Length (m)
Rising Mains	TW - 1	OHT-1	DI	K-9	100	35
Total Length of Rising Main (m)						35

Table 4: Distribution Network Summary

Pipeline Type	Material	Class	Diameter(mm)	Length (m)
Distribution Mains	HDPE	PN-6 PE100	63	3,170
Distribution Mains	HDPE	PN-6 PE100	75	407
Distribution Mains	HDPE	PN-6 PE100	90	450
Distribution Mains	HDPE	PN-6 PE100	110	422
Distribution Mains	HDPE	PN-6 PE100	125	0
Distribution Mains	HDPE	PN-6 PE100	140	106
Distribution Mains	HDPE	PN-6 PE100	160	0
Distribution Mains	HDPE	PN-6 PE100	180	0
Distribution Mains	HDPE	PN-6 PE100	200	0
Total Length (m)				4,555

Estimate for Pajupar Gram Panchayat
Water Supply Scheme
Under - SWSM
Block- Gagha District- Gorakhpur
Form "J" - Comprehensive Scheme

SLSSC - 191.32
DPR - 202.39
NWC - 172.76

Sr. No.	Description of Work	Amount (Rs. in Lacs)	%	Amount (Rs. in Lacs)	Govt. of U.P. Share	Govt. of India Share
1	2	3	4	5	6	7
1	Cost of Work	177.42		177.42		151.44
2	0.14% Discount as per Contract on Cost of work	177.42	-0.14%	0.25		0.21
	Net Cost of Work			177.17		151.23
3	Add Contingency 2%	177.17	2.00%	3.54		3.02
	Sub Total (A)			180.71	90.36	90.36
4	Add GST 12 %-B	180.71	12.00%	21.69	10.84	10.84
5	Add 12.5% Centage-C	180.71	12.50%	22.59	22.59	19.28
Grand Total (A+B+C)				224.99	123.79	101.20
6	1st O&M Cost (after DLP) (10 Year O&M)	177.17	2%	3.54	1.77	1.77
				38.80		

TOTAL POPULATION A (ULTIMATE YEAR 2052)	2660
Per Capita Cost (NET COST+CONTIGENCY+GST)	7609

PREPARED BY

CHECKED BY



J.E(T) Assistant Engineer

Member Secretary DWSM
Executive Engineer,
U.P Jal Nigam, 10th Div. Gorakhpur

Forwarded As Recommended
by DWSM For SLSSC

(तकनीकी प्रकोष्ठ)
राज्य पेयजल एवं स्वच्छता मिशन

(इं० डी०के० सिंह)
अधीक्षण अभियन्ता
राज्य पेयजल एवं स्वच्छता मिशन

(इं० जी०पी० शुक्ला)
युनिट कोऑर्डिनेटर
राज्य पेयजल एवं स्वच्छता मिशन

Break up of Cost

SL. No.	Sub Head	Total Cost of work	Building	R.C.C. Reservoir	Pipe Line	Machinery	Misc.
1	2	3.0	4.0	5.0	6.0	7.0	8.0
A. Civil works :							
1	Pump house & Chlorinating room	4,04,000	4,04,000				
2	Rising Main	71,161			71,161		
3	R.C.C. Over head tank (<u> </u> KL / <u> </u> m staging)	35,61,331	32,06,331	35,61,331			
4	Distribution System	44,62,557		44,62,557			
5	Approach Road	16,81,966	16,81,966				
6	Boundary Wall and approach road	8,72,280	8,72,280				
7	Staff Quarter	9,70,600	9,70,600				
8	Surveying and designing	1,77,417					1,77,417
	(Total A)	1,22,01,311	39,28,846	80,23,888	71,161	-	1,77,417
		99,80,183					
B. E&M works:							
1	Cost of Tubewell construction	15,85,555				15,85,555	
2	Cost of pumping plant and Chlorinating Plant	12,44,600				12,44,600	
3	Solar plant	16,49,200				16,49,200	
4	Electrification of pump house, SCADA	10,61,000				10,61,000	
	Total (B)	52,63,355				55,40,355	
	G. Total (A+B)	1,77,41,667	39,28,846	80,23,888	71,161	55,40,355	1,77,417
		1,51,43,538					

Estimate for Pajupar Gram Panchayat
Water Supply Scheme
Under - SWSM
Block- Gagha District- Gorakhpur

BOQ Item No.	Description	Unit	Qty	Rate	Amount
	Survey, Design & Preparation of DPR				
1.01	All the works including Hydrological survey, topographical survey, Design charges including preparation and approval of DPR	LS	1.00	177417.00	177417
2.00	Drilling of Borehole for Tubewell construction by DC/RC/DTH Rig Machine including transportaion, erection, dismantling of Rig and associated T&P complete in all respect including required all material labour etc.				
	RIG Transportation for Tube Well Construction				
2.01	Transportation, Installation Dismantling of Rig machine and logging of bore hole	Job	1.00	159478.88	159479
	Tube Well Construction- Drilling of Borehole				
2.03	DC/RC Drilling up to 100Mtr.				
2.04	400 MMØ	Mtr.		1638.27	
2.05	450 MMØ	Mtr.		1834.20	
2.06	550 MMØ	Mtr.	100.00	2422.00	242200
2.07	600 MMØ	Mtr.		2422.00	
2.08	DC/RC Drilling from 101 Mtr. To 200 Mtr.Deep				
2.09	450 MMØ	Mtr.		1960.88	
2.10	500 MMØ	Mtr.	45.00	2144.00	96480
2.11	600 MMØ	Mtr.		2510.25	
2.12	DC/RC Drilling from 201 Mtr. To 300 Mtr.Deep				
2.13	450 MMØ	Mtr.		2831.63	
2.14	500 MMØ	Mtr.		3014.75	
2.15	600 MMØ	Mtr.		3381.00	
2.16	DC/RC Drilling from 301 Mtr. To 400 Mtr.Deep & above				
2.17	450 MMØ	Mtr.		3319.35	
2.18	500 MMØ	Mtr.		3502.48	
2.19	600 MMØ	Mtr.		3868.72	
2.20	DTH Drilling upto 200.0 Mtr.Deep				
2.21	200/165 MMØ (in over burden/Hard Rock)	Mtr.		1250.00	
2.22	Development / Flushing of tubewell	Hr.		2900.00	
	Tubewell Assembly (Supply + Fittings & Specials)				
3.01	MSERW plain pipe,As per IS 4270				
3.02	100 MMØ	Mtr.		927.50	
3.03	150 MMØ	Mtr.	76.00	1900.00	144400
3.04	200 MMØ	Mtr.	36.00	2550.00	91800
3.05	300 MMØ	Mtr.		3800.00	
3.06	MSERW Pipe slotted pipe as per IS 8110				
3.07	100 MMØ	Mtr.		1366.85	
3.08	150 MMØ	Mtr.	18.00	2800.00	50400
3.09	200 MMØ	Mtr.		3833.80	
3.10	300 MMØ	Mtr.		5188.59	
3.11	MS fittings such as clamp, bail plug, reducer, well cap, girder & support structure	LS	1.00	32295.00	32295
3.12	MS fittings such as ring & centre guide	RM	130.00	471.68	61318
	Tubewell Assembly Lowering Works				
	Lowering of above assembly with welding of parts complete in all respect with all required material, T&P, labour, etc.				
4.01	Lowering up to 100 Mtr. Deep				
4.02	100 MMØ MSERW Plane/Slotted Pipe	Mtr.		129.45	
4.03	150 MMØ MSERW Plane/Slotted Pipe	Mtr.	64.00	281.00	17984
4.04	200 MMØ MSERW Plane/Slotted Pipe	Mtr.	36.00	376.50	13554
4.05	300 MMØ MSERW Plain/Slotted Pipe	Mtr.		472.00	
4.06	Lowering from 101 Mtr. To 200 Mtr. Deep				
4.07	150 MMØ MSERW Plane/Slotted Pipe	Mtr.	30.00	376.00	11280

BOQ Item No.	Description	Unit	Qty	Rate	Amount
4.08	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		499.19	
4.09	300 MMØ MSERW Plane/Slotted Pipe	Mtr.		745.58	
4.10	Lowering from 201 Mtr. To 300 Mtr. Deep				
4.11	150 MMØ MSERW Plane/Slotted Pipe	Mtr.		385.19	
4.12	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		459.00	
4.13	300 MMØ MSERW Plane/Slotted Pipe	Mtr.		606.62	
4.14	Lowering from 301 Mtr. To 400 Mtr. Deep & above				
4.15	150 MMØ MSERW Plane/Slotted Pipe	Mtr.		426.53	
4.16	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		499.00	
4.17	300 MMØ MSERW Plane/Slotted Pipe	Mtr.		643.94	
	Supply and Packing of Gravel Works				
5.00	Supply and unconsolidated packing of gravel with suitable size	Cum	37.00	7500.00	277500
	Development of Tube well				
6.01	Tranportation, Installation Dismantling of 150 PSI Compressor	Job		42120.00	
6.02	Charges for Development by 150 PSI Compressor per hour	Hr.		2544.52	
6.03	Tranportation, Installation Dismantling of 250/400/600 PSI Compressor	Job	1.00	42120.00	42120
6.04	Charges for Development by 250 PSI Compressor per hour	Hr.	60.00	3027.00	181620
6.05	Charges for Development by 400 PSI Compressor per hour	Hr.		3154.10	
6.06	Charges for Development by 600 PSI Compressor per hour	Hr.		4062.20	
6.07	Tranportation, Installation Dismantling of 0.5 Cusec OP Unit and Yield test, water test	Job		22321.28	
6.08	Charges for Development of TW by 0.5 Cusec OP Unit	Hr.		785.42	
6.09	Tranportation, Installation Dismantling of 1 Cusec to 3 Cusec OP Unit and Yield test, water test	Job	1.00	67225.00	67225
6.10	Charges for Development of TW by 1 cusec OP Unit	Hr.	100.00	959.00	95900
6.11	Charges for Development of TW by 3 cusec OP Unit	Hr.		1196.00	
6.12	Tranportation, Installation Dismantling of 2 Cusec OP Unit and Yield test, water test	Job		89317.00	
6.13	Charges for Development of TW by 2 cusec OP Unit	Hr.		1119.00	
	Pumping Plant:-				
7.00	SITC of Pumping plant including pumps with motors starter, pannel, cable, complete in all respect with all required material T&P labour etc.				
7.01	1 HP	Nos		32518.98	
7.02	2 HP	Nos		35843.14	
7.03	3 HP	Nos		46249.21	
7.04	5 HP	Nos		65037.95	
7.05	7.5HP	Nos		228500	
7.06	10 HP	Nos	1.00	230200	230200
7.07	12.5 HP	Nos		238800	
7.08	15 HP	Nos		252100	
7.09	17.5 HP	Nos		276504.56	
7.10	20 HP	Nos		295500	
7.11	25 HP	Nos		334043.48	
7.12	30 HP	Nos		366163.04	
7.13	35 HP	Nos		393723.7	
7.14	40 HP	Nos		426547.83	
7.15	Variation in HP due to change of site locations increased/decreased in per HP of the proposed pumping plants.	Rate/HP		30467	
8.00	Pressure Transmitter	Nos	1.00	43120	43120
A.I - 13	Electrically operated Sluice Valve:-				
A.I - 13.01	Electrically operated Sluice Valve PN 1.0 dia 80 mm	Nos	2.00	125000	250000
A.I - 13.02	Electrically operated Sluice Valve PN 1.0 dia 125 mm	Nos		125000	
9.00	Electrically operated Sluice Valve PN 1.0 dia 100 mm	Nos	1.00	125000	125000
9.01	Electrically operated Sluice Valve PN 1.0 dia 150 mm	Nos		125000	
9.02	Electrically operated Sluice Valve PN 1.0 dia 200 mm	Nos		150000	
A.I - 14	Check Valve:-				
A.I - 14.01	Check Valve PN 1.0 DPCV dia 80 mm	Nos	1.00	27519.8	27520
9.03	Check Valve PN 1.0 DPCV dia 100 mm	Nos		27519.8	
9.04	Check Valve PN 1.0 DPCV dia 150 mm	Nos		51145.45	
9.05	Check Valve PN 1.0 DPCV dia 200 mm	Nos		73485.9	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
A.1 - 15	Dismantling Joint :-				
A.1 - 15.02	Dismantling Joint PN 1.0 dia 80 mm	Nos		3923.92	
A.1 - 15.01	Dismantling Joint PN 1.0 dia 125 mm	Nos		5605.6	
9.06	Dismantling Joint PN 1.0 dia 100 mm	Nos	2.00	3923.92	7848
9.07	Dismantling Joint PN 1.0 dia 150 mm	Nos		5605.6	
9.08	Dismantling Joint PN 1.0 dia 200 mm	Nos		7367.36	
9.09	SITC of Chain Pulley Blocks				
9.10	1 Tonne	Nos	1.00	46305	46305
9.11	2 Tonne	Nos		58432.5	
10.00	Turbidity & Chlorine analyzer	Nos	1.00	273000	273000
11.00	Hydrostatic Level Sensor:- Providing and installation hydrostatic level sensor at all tubewell pumping system including all accessories etc. complete in all respect as per instructions of Engineer -in -charge.	Nos	1.00	126000	126000
12.00	Stabalizer				
12.01	2 KVA	Nos		12777.78	
12.02	5 KVA	Nos		25555.56	
12.03	7.5 KVA	Nos		44722.22	
12.04	10 KVA	Nos		127777.78	
12.05	15 KVA	Nos		166111.11	
12.06	20 KVA	Nos		191666.67	
12.07	25 KVA	Nos		204444.44	
12.08	30 KVA	Nos		230000	
12.09	40 KVA	Nos		281111.11	
12.10	50 KVA	Nos		319444.44	
12.11	60 KVA	Nos		345000	
13.00	Column Pipe:- SITC of Column pipe of MS pipe for connecting submersible pumps				
13.01	32 mm Dia size - MS pipe	Mtr.		500	
13.02	40 mm dia size - MS pipe	Mtr.		666.67	
13.03	50 mm dia size - MS pipe	Mtr.		921	
13.04	65 mm Dia size - MS pipe	Mtr.		1066.67	
13.05	80 mm Dia size - MS pipe	Mtr.	30.00	1400	42000
13.06	100 mm Dia size - MS pipe	Mtr.		1567	
13.07	150 mm Dia size - MS pipe	Mtr.		2167	
14.00	Chlorinating System:- Supply , Installation of chlorinating system with dosing pump 0-6 LPH capacity with 100 Litres(1w+1s) tanks, valves ,pipes with required accessories (Automatic dosing system for chemical injection)	JOB	1.00	112000	112000
15.00	Fluoride Removal Plant:- Supplying, installation, testing, commissioning of Fluoride removal plant for required capacity including transportation and labour charges as complete. (vendor have to select the technology based on capacity (Electrolytic-de fluoridation plant or media based system). Rates for 400 KLD/ 500 LPM	LS		8062500	
16.00	Iron Removal Plant:- Supplying, installation, testing, commissioning of Iron removal plant which includes vessel, media, piping valves etc. for required capacity including transportation and labour charges as complete. Rates for 400 KLD/ 500 LPM	LS		6062500	
17.00	Arsenic Removal Plant:- Supplying, installation, testing, commissioning of Arsenic removal plant which include vessel, media, piping valves etc. for required capacity including transportation and labour charges as complete. Rates for 400 KLD/ 500 LPM	LS		9000000	