

M/S VSAIPPL-SMC JV, Ghazipur (U.P)
Actual Strata Chart of PAHLIPUR VILLAGE WATER SUPPLY SCHEME, BLOCK-MARDHA, ZONE 1, GRAM PANCAHYAT- PAHLIPUR TW1
Under Jal Jeevan Mission, District- Ghazipur(U.P.)






S.No	BGL in meter		Formation	Drilling and assembly 300 MM 600MM	MS Ring Collar length AGL 0.50	BGL including MS Ring Collar
	From	to				
1	0	4	CLAY		0	5.600
2	4	28	KANKAD CLAY		0.000	11.700
3	28	38	VERY FINE SAND WITH KANKAD		0.000	17.780
4	38	55	KANKAD CLAY		0.000	23.800
5	55	66	FINE SAND WITH KANKAD		0.000	29.250
6	36	84	KANKAD CLAY		0.000	35.250
7	34	102	KANKAD WITH FINE SAND		0.000	35.750
8	102	154	KANKAD CLAY		0.000	38.750
9	154	162	VERY FINE SAND WITH KANKAD			
10	162	200	KANKAD CLAY			44.000

Logging
Date-20.12.2023

S.N.	Depth Range		Thickn ess	Remark
	From	to		
1	29	36	7	Good

Note-
 1. Quality of ground water is deteriorating marginal to saline below 55.0 mbgl till depth logged.
 2. Please ensure pre-monsoon water level before lower the well assembly.

DETAILS		AS PER DPR	ACTUAL
1	Proposed Discharge	480.000 LPM	
2	Cear Depth of bore 600mm	0 Mbgl	44.000 Mbgl
3	Cear Depth of bore 500mm	65 Mbgl	0.000 Mbgl
4	Clear Depth of bore 450mm	135 Mbgl	200.000 Mbgl
5	Plane pipe 300MM	0 m	32.750 m
6	Plane pipe 200MM	60 m	0.000 m
7	Plane pipe 150MM	96 m	0.000 m
8	Slotted pipe 300MM	0 m	6.500 m
9	Slotted pipe 200MM	0 m	0.000 m
10	Slotted pipe 150MM.	24 m	0.000 m
11	Date of lowering		25-12-2023

 (.....) Company Repre. M/S VSAIPPL-SMC JV, Ghazipur (U.P)	 (.....) TPIA Medhaj Techno Concept Pvt. Ltd., Ghazipur	 (A. Srivastava) Junior Engineer Division Office(E/M) ,U.P. Jal Nigam(Rural), Varanasi	 (Nitish Kumar) Assistant Engineer	 (Adarsh Verma) Exe. Engineer
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GEO INSTRUMENTS & TECHNIC'S

(A Division of Geophysical Exploration and Instrumentation)

Sales & Service Dealer : Uptron Borehole logging system, UPTRON INDIA LTD., LUCKNOW

Ref:GIT:UP: PJM:23-24:LS:K- 536

Dated: 21-12-2023

GEOPHYSICAL BOREHOLE LOGGING REPORT

Site: Palhipur
Block: Mardah
District: Ghazipur
State: Uttar Pradesh
Date of Logging: 20-12-2023
Drilling Depth: 200.0 m bgl
Logging Depth: 200.0 m bgl
Rm -10.0Ωm Rw - 12.0 Ωm

Latitude: 25.7700870 Longitude: 83.5442630

Borehole Drilled by: M/s VSAIPPL-SCL_JV, Ghazipur, Uttar Pradesh.

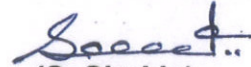
Based on the interpretation of Self Potential (SP), Short Normal (N-16"), Long Normal (N-64") and Lateral 6' geophysical logs following informations/granular zones have been deciphered with respect to Salinity only:

Sl. No.	Depth Range (m bgl)	Thickness (meter)	Remark (Quality of Aquifer Water)
1.	29 - 36	07	Good

Note: 1. Quality of ground water is deteriorating marginal to saline below 55.0 m bgl to till depth logged

2. Please ensure pre monsoon water level before lower the well assembly.

For Geo Instruments & Technic's


(S. Shukla)

महोदय,

जल जीवन मिशन कार्यक्रम अन्तर्गत पहलीपुर गांव पेयजल योजना, ब्लॉक-मरदाहा, जोन 1, ग्राम पंचायत- पहलीपुर TW1. जनपद गाजीपुर में 200x150 एम0एम0 व्यास साइज के 200/180 मीटर गहरे नलकूप का निर्माण किया जाना है एवं उक्त नलकूप से 480 ली०प्र०मि० श्राव लिया जाना प्रस्तावित है। अनुबन्ध सं०- 478/ED/PHASE 2/2022-23/X दिनांक 27.02.2023 के माध्यम से M/s VSAIPPL-SMC IV, District-Ghazipur द्वारा नलकूप निर्माण कार्य सम्पादित कराया जा रहा है। दिनांक 20.12.2023 को नलकूप के बोर की इलेक्ट्रिक लार्गिंग करायी गयी, जिसका विवरण निम्नानुसार है :-

Date-20.12.2023					PHYSICAL STRATA			
S.N.	Depth Range		Thickness	Remark	S.No.	BGL in meter		Formation
	From	to				From	to	
1	29	36	7	Good	1	0	4	CLAY
Note- 1. Quality of ground water is deteriorating marginal to saline below 55.0 mbgl till depth logged. 2. Please ensure pre-monsoon water level before lower the well assembly.					2	4	28	KANKAD CLAY
					3	28	38	VERY FINE SAND WITH KANKAD
					4	38	55	KANKAD CLAY
					5	55	66	FINE SAND WITH KANKAD
					6	66	84	KANKAD CLAY
					7	84	102	KANKAD WITH FINE SAND
					8	102	154	KANKAD CLAY
					9	154	162	VERY FINE SAND WITH KANKAD
					10	162	200	KANKAD CLAY

अनुबन्ध में उपरोक्त नलकूप से 480 ली०प्र०मि० श्राव प्राप्त करने हेतु Entrance Velocity 0.015m/sec पर 24 मीटर स्लाटेड पाइप का प्राविधान किया गया है। इलेक्ट्रिक लार्गिंग के उपरान्त प्राप्त स्ट्रेटा के अनुसार अधिकतम 6.5 मीटर ही स्लाटेड पाइप डाली जा सकती है।

Physically encountered Strata एवं लार्गिंग रिपोर्ट का निरीक्षण करने पर पाया गया कि उक्त के अन्तर्गत Aquifer Very Fine Sand with Kankad का है एवं लार्गिंग रिपोर्ट के अनुसार केवल 6.5 मीटर स्लाटेड पाइप ही लोवर की जा सकती है, जिससे 480 ली०प्र०मि० श्राव प्राप्त किया जाना सम्भव नहीं है। ऐसी स्थिति में 150 मि०मी० स्लाटेड पाइप के स्थान पर 300 मि०मी० व्यास साइज की स्लाटेड पाइप का उपयोग किया जाय तो 6.5 मीटर की लम्बाई में Entrance area को बढ़ाकर आवश्यक वांछित श्राव प्राप्त करने का प्रयास किया जा सकता है। उल्लेखनीय है यदि 6.5 मीटर लम्बाई में 150 मि०मी० के स्थान पर 300 मि०मी० व्यास साइज की स्लाटेड पाइप का उपयोग किया जाय तो Opening entrance area 150 मि०मी० व्यास साइज के 13.00 मीटर पाइप के बराबर आयेगी, जो Aquifer structure के दृष्टिगत उचित होगा एवं वास्तविक श्राव यील्ड टेस्ट के उपरान्त डिप्रेशन की मानकों के गणना के दृष्टिगत स्पष्ट हो पायेगा। अनुबन्ध में निहित प्राविधान के अनुसार श्राव की प्रतिपूर्ति फर्म की स्वयं का उत्तर दायित्व में है, अतएव श्राव प्रतिपूर्ति न होने पर फर्म द्वारा द्वितीय नलकूप निर्माण कराते हुए पूरा किया जायेगा एवं भुगतान के संबंध में राज्य पेयजल स्वच्छता मिशन (एसडब्लू०एस०एम०) द्वारा सक्षम स्तर से स्वीकृति उपरान्त नियमानुसार किया जायेगा।

अतः प्राप्त एक्यूफर के दृष्टिगत 300x300 मि०मी० व्यास साइज के 38.75 मीटर गहरे नलकूप जिसमें 6.5 मीटर स्लाटेड पाइप का उपयोग किया जायेगा, आपको तकनीकी स्वीकृति हेतु संलग्न कर प्रेषित है। कृपया अनुमोदन करना चाहें।

संलग्नक- लार्गिंग रिपोर्ट की छायाप्रति

M/s VSAIPPL-SMC JV
District - Ghazipur

संलग्नक

जूनि० इंजी०

सहायक अभियन्ता

अधिशाली अभियन्ता

अधीक्षण अभियन्ता

VARIATION STATEMENT AGAINST C.A. NO-478/ED/PHASE-2/2022-23/VII, Date- 27-02-2023

For Construction of 200/38.75 mts. deep 300 X 300 mm. dia assembly size T.W. inspite of 200/180 mts. deep 200 X 150 mm. dia assembly size T.W. by D.C. Rig Machine at PALHIPUR NEW WATER SUPPLY SCHEME, BLOCK-MARDAH, ZONE 1, GRAM PANCAHYAT- PALHIPUR TW1

Sl. No	Item of work	Unit	Rate	Cost As Per Cover Aggrement (200/180 mts. deep 200 X 150 mm. dia assembly size)		Expenditure as per Actual Work Executed at Site due to adverse Geophysical Condition (200/38.75 mts. deep 300 X 300 mm. dia assembly size)	
				Qty	Amount (Rs)	Qty	Amount (Rs)
1	2	3	4	5	6	7	8
2.00	Drilling of borehole for tubewell construction by DC/RC/DTH/Rig Machine including transportation, erection, dismantling, of Rig and associated T&P complete in all respect including required all material labor etc.						
2.01	Transportation, installation, Dismantling of Rig machine and logging of bore hole		156159.071	1	1,56,159.07	1	1,56,159.07
2.02	Tube well construction						
2.03	DC/RC Drilling up to 100Mtr.						
2.04	400 MMO	Rmt	2192.706				
2.05	450 MMO	Rmt	2454.948	35	85,923.19	56	1,37,477.10
2.06	500 MMO	Rmt	2717.191	65	1,76,617.39		
2.07	600 MMO		3241.68			44	1,42,633.71
2.08	DC/RC Drilling from 101 MT. To 200 Mtr Deep						
2.09	450 MMO	Rmt	2774.630	100	2,77,463.01	100	2,77,463.01
2.10	500 MMO	Rmt	3033.747				
2.11	600 MMO	Rmt	3551.980				
2.12	DC/RC Drilling from 201 Mtr. To 300 Mtr Deep						
2.13	450 MMO	Rmt	3158.991				
2.14	500 MMO	Rmt	3363.285				
2.15	600 MMO	Rmt	3771.872				
2.16	DC/RC Drilling from 301 Mtr. To 400 Mtr Deep & above						
2.17	450 MMO	Rmt	3703.098				
2.18	500 MMO	Rmt	3907.392				
2.19	600 MMO	Rmt	4315.989				
2.20	DTH Drilling upto 200.0 Mtr Deep						
2.21	200/165 MMO (in over burden/Hard Rock)		1248.250				
2.22	Development / Flushing of tubewell		2895.940				
3.00	Tubewell Assembly:						
3.01	MSERW Pipe plain pipe as per IS 4270						
3.02	100 MMO	Rmt	926.202				
3.03	150 MMO	Rmt	1897.340	96	1,82,144.64		
3.04	200 MMO	Rmt	2546.430	60	1,52,785.80		
3.05	300 MMO		3794.680			32.75	1,24,275.77
3.06	MSERW Pipe slotted pipe as per IS 8110						
3.07	100 MMO	Rmt	1364.936				
3.08	150 MMO	Rmt	2796.080	24	67,105.92		
3.09	200 MMO	Rmt	3828.433				
3.10	300 MMO	Rmt	5181.326			6.5	33,678.62
3.11	MS fittings such as clamp, bail plug, reducer, well cap. Girder & support structure	Job	32249.787	1	32,249.79	1	32,249.79
3.12	MS fittings such as ring & centre guide		471.020	180	84,783.54	39.25	18,487.52
4.00	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 MMO MSERW Plane/Slotted Pipe	Rmt	177.571				
4.03	150 MMO MSERW Plane/Slotted Pipe	Rmt	385.460	40	15,418.38		
4.04	200 MMO MSERW Plane/Slotted Pipe	Rmt	389.454	60	23,367.24		
4.05	300 MMO MSERW Plane/Slotted Pipe	Rmt	489.314			38.75	18,960.92
4.06	Lowering from 101 Mtr. To 200 Mtr. Deep						
4.07	150 MMO MSERW Plane/Slotted Pipe	Rmt	442.380	80	35,390.38		
4.08	200 MMO MSERW Plane/Slotted Pipe	Rmt	589.973	0			
4.09	300 MMO MSERW Plane/Slotted Pipe	Rmt	881.175				
4.10	Lowering from 201 Mtr. To 300 Mtr. Deep						
4.11	150 MMO MSERW Plane/Slotted Pipe	Rmt	569.552				
4.12	200 MMO MSERW Plane/Slotted Pipe	Rmt	678.689	0			
4.13	300 MMO MSERW Plane/Slotted Pipe	Rmt	896.962				
4.14	Lowering from 301 Mtr. To 400 Mtr. Deep & above						
4.15	150 MMO MSERW Plane/Slotted Pipe	Rmt	425.933				
4.16	200 MMO MSERW Plane/Slotted Pipe	Rmt	498.301	0			
4.17	300 MMO MSERW Plane/Slotted Pipe	Rmt	643.038				
	Total Amount				12,89,408.35		9,41,385.51
	Say				12,89,408.00		9,41,386.00

Net Savings Amount Rs. 3,48,022.00
Net Savings In Percentage 26.99%



(Company Rep.)


(TPIA Rep.) (Computer)
M/S VSAIPPL-SMC JV, Ghazipur Medhaj Techno Concept
Pvt. Ltd., Ghazipur Division Office(E/M), Division


(Jur) Junior Engineering Ass. Engineer


Div. Accountant


Ex. Engineer


Sup. Engineer
Circle office (E/M), UPIN, Vns

Divisional Office(E/M), U.P. Jal Nigam(Rural), Varanasi

Palhipur

ESTIMATE FOR
PALHIPUR VILLAGE WATER SUPPLY SCHEME
 UNDER - SWSM
 BLOCK- MARDAH, DISTRICT- GHAZIPUR
Estimate of Cost of Tubewell construction

Sl No.	Item of work	No.	L	B	H/D	Qty	Rate	Unit	Amount	Remarks
1	Drilling of Borehole for Tube well construction by DC/RC/BTH Rig Machine including transportation, erection, dismantling of Rig and associated T&P complete in all respect including required all material labor etc.									As per RFP.
1.1	Transportation, Installation Dismantling of Rig machine and logging of bore hole					1	1,56,378	Job	1,56,378	
1.2	DC/RC Drilling up to 100Mtr.									
1.2.1	500 MMØ	1	65			65	2,721	Rmt	1,76,865	
1.2.2	450 MMØ	1	35			35	2,458	Rmt	86,044	
1.3	DC/RC Drilling from 100 MT. To 200 Mtr.Deep									
1.3.1	450 MMØ	1	100			100	2,779	Rmt	2,77,852	
1.4	DC/RC Drilling from 200 MT. To 300 Mtr.Deep									
1.4.1	450 MMØ	1	0			0	3,163	Rmt	-	
1.5	DC/RC Drilling from 300 MT. To 400 Mtr.Deep									
1.5.1	450 MMØ	1	0			0	3,708	Rmt	-	
1.6	DTH Drilling upto 200.0 Mtr.Deep - 165/200 MMØ (in over burden/Hard Rock).	1	0			0	1,250	Rmt	-	
1.7	Development / Flushing of tubewell					0	2,900	Hrs	-	
1.8	Tube Well Assembly									
1.8	MSERW plane pipe									
1.8.1	200 MMØ					60	2,550	Rmt	1,53,000	
1.8.2	150 MMØ					96	1,900	Rmt	1,82,400	
1.9	MSERW Pipe slotted pipe as per IS 8110									
1.9.1	150 MMØ					24	2,800	Rmt	67,200	
1.9.2	MS Borewell cap fixture including fitting charges					1	2,000	Nos	2,000	

Pahlipora

1.9.3	MS fittings such as clamp, bail plug, reducer, well cap, girder & support structure					1	32,295	Job	32,295	
1.9.4	MS fittings such as ring & centre guide					180	472	Rmt	84,902	
2.0	Lowering of above assembly with welding of parts complete in all respect with all required material, T&P, labour, etc.									As per RFP.
2.1	Lowering up to 100 Mtr. Deep									
2.1.1	200 MMØ MSERW Plane/Slotted Pipe					60	390	Rmt	23,400	
2.1.2	150 MMØ MSERW Plane/Slotted Pipe					40	386	Rmt	15,440	
2.2	Lowering from 100 Mtr. To 200 Mtr. Deep									
2.2.1	150 MMØ MSERW Plane/Slotted Pipe					80	443	Rmt	35,440	
2.3	Lowering from 200 Mtr. To 300 Mtr. Deep									
2.3.1	150 MMØ MSERW Plane/Slotted Pipe					0	570.35	Rmt	-	
2.4	Lowering from 300 Mtr. To 400 Mtr. Deep									
2.4.1	150 MMØ MSERW Plane/Slotted Pipe					0	443	Rmt	-	
2.5	Supplying and unconsolidated packing of gravel with suitable size					46.0	7,500	Cum	3,45,000	As per RFP.
3.0	Development of Tube well									As per RFP.
3.1	Transportation, Installation Dismantling of 400 PSI Compressor					1	92,152	Job	92,152	
3.2	Charges for Development by 400 PSI Compressor per hour					40	3,272	Hrs	1,30,874	
3.3	Transportation, Installation Dismantling of 1 Cusec OP Unit and Yield test, water test					1	1,05,237	Job	1,05,237	
3.4	Charges for Development of TW by 1 Cusec OP Unit					70	994	Hr.	69,610	
									20,36,089	
									20,36,089	
									20,36,089	
									20.36	