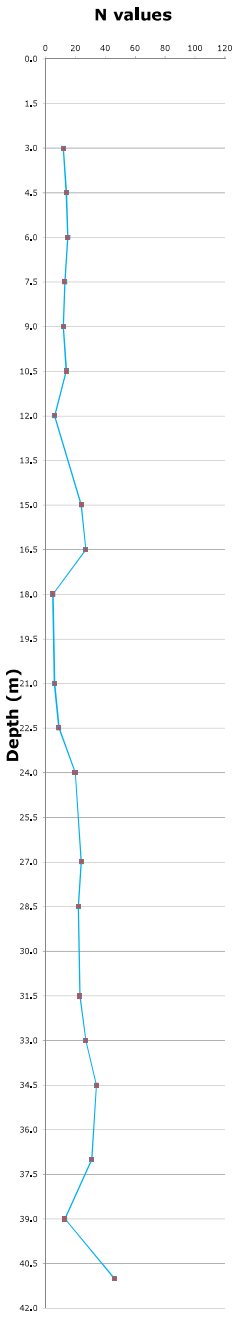
BORE LOG AND CORE LOG SHEET

Geotechnical Investigation Report for Refurbishment and strengthening of Q5 to Q9 at Ernakulam Wharf - Kerala — **MPAC PVT. LTD.**

BH.NO:	**1**		
DEPTH OF WATER TABLE :	1.0m	BORE HOLE DIAMETER:	150mm/75mm
LAND MARK DETAILS :	Q5 to Q9 at Ernakulam Wharf -BH1	DATE OF START & FINISH :	30-03-2026 to 02-04-2026
BORE HOLE TERMINATION:	41.0m	LADTITUDE & LONGITUDE :	638592.89 E 1102239.28 N

Depth (m) From	Depth (m) To	Thickness of Layer (m)	Type	Description	Profile	SPT Test 0.0 -0.15 m	SPT Test 0.15 - 0.30 m	SPT Test 0.30 -0.45 m	SPT Test N Value	Core Recovery (%)	RQD (%)	Remarks
0.0	1.5	1.5	DS	Back Filling		-	-	-	-	-	-	-
1.5	3.0	4.5	SPT	Black and Brown colored Clayey SAND (SC)		3	5	7	12	-	-	-
3.0	4.5		SPT			7	7	7	14	-	-	-
4.5	6.0		SPT			8	7	8	15	-	-	-
6.0	7.5	4.5	SPT	Brown colored Sand (SP)		6	7	6	13	-	-	-
7.5	9.0		SPT			7	6	6	12	-	-	-
9.0	10.5		SPT			10	8	6	14	-	-	-
10.5	12.0	12.0	SPT	Black colored Silty CLAY(CL)		1	2	4	6	-	-	-
12.0	13.5		UDS			-	-	-	-	-	-	-
13.5	15.0		SPT			9	14	10	24	-	-	-
15.0	16.5		SPT			8	11	16	27	-	-	-
16.5	18.0		SPT			2	2	3	5	-	-	-
18.0	19.5		UDS			-	-	-	-	-	-	-
19.5	21.0		SPT			2	3	3	6	-	-	-
21.0	22.5		SPT			3	4	5	9	-	-	-
22.5	24.0	13.5	SPT	Brown and Grey colored Silty CLAY(CL)		8	9	11	20	-	-	-
24.0	25.5		UDS			-	-	-	-	-	-	-
25.5	27.0		SPT			8	8	16	24	-	-	-
27.0	28.5		SPT			10	10	12	22	-	-	-
28.5	30.0		UDS			-	-	-	-	-	-	-
30.0	31.5		SPT			11	10	13	23	-	-	-
31.5	33.0		SPT			10	12	15	27	-	-	-
33.0	34.5		SPT			13	15	19	34	-	-	-
34.5	36.0		UDS			-	-	-	-	-	-	-
36.0	37.5	5.0	SPT	Black Colored Sandy CLAY(CL)		11	14	17	31	-	-	-
37.5	39.0		SPT			7	6	7	13	-	-	-
39.0	41.0		SPT			16	21	25	46	-	-	-

Depth Vs N Value



Authorised Signatory
(Dy.Quality Manager)

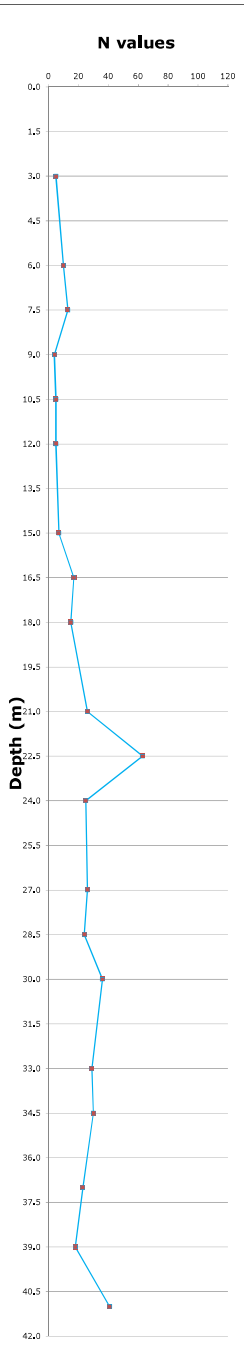
BORE LOG AND CORE LOG SHEET

Geotechnical Investigation Report for Refurbishment and strengthening of Q5 to Q9 at Ernakulam Wharf - Kerala — **MPAC PVT. LTD.**

BH.NO:	**2**		
DEPTH OF WATER TABLE :	1.5m	BORE HOLE DIAMETER:	150mm/75mm
LAND MARK DETAILS :	Q5 to Q9 at Ernakulam Wharf -BH2	DATE OF START & FINISH :	26-03-2026 to 29-03-2026
BORE HOLE TERMINATION:	41.0m	LADTITUDE & LONGITUDE :	638790.86 E 1102168.89 N

Depth (m) From	Depth (m) To	Thickness of Layer (m)	Type	Description	Profile	SPT Test 0.0 -0.15 m	SPT Test 0.15 - 0.30 m	SPT Test 0.30 -0.45 m	SPT Test N Value	Core Recovery (%)	RQD (%)	Remarks
0.0	1.5	1.5	DS	Back Filling		-	-	-	-	-	-	-
1.5	3.0	6.0	SPT	Black colored Sandy CLAY(CL)		6	4	1	5	-	-	-
3.0	4.5		UDS			-	-	-	-	-	-	UDS failed
4.5	6.0		SPT			8	4	6	10	-	-	-
6.0	7.5		SPT			4	6	7	13	-	-	-
7.5	9.0	12.0	SPT	Black colored Silty CLAY(CL)		1	2	2	4	-	-	-
9.0	10.5		SPT			2	2	3	5	-	-	-
10.5	12.0		SPT			1	2	3	5	-	-	-
12.0	13.5		UDS			-	-	-	-	-	-	-
13.5	15.0		SPT			3	3	4	7	-	-	-
15.0	16.5		SPT			3	6	11	17	-	-	-
16.5	18.0		SPT			11	6	9	15	-	-	-
18.0	19.5		UDS			-	-	-	-	-	-	-
19.5	21.0	3.0	SPT	Black colored Sandy CLAY(CL)		10	12	14	26	-	-	-
21.0	22.5		SPT			20	27	36	63	-	-	-
22.5	24.0	15.0	SPT	Black colored Silty CLAY(CL)		11	11	14	25	-	-	-
24.0	25.5		UDS			-	-	-	-	-	-	-
25.5	27.0		SPT			9	11	15	26	-	-	-
27.0	28.5		SPT			11	12	12	24	-	-	-
28.5	30.0		SPT			11	16	20	36	-	-	-
30.0	31.5		UDS			-	-	-	-	-	-	-
31.5	33.0		SPT			12	14	15	29	-	-	-
33.0	34.5		SPT			11	14	16	30	-	-	-
34.5	36.0		UDS			-	-	-	-	-	-	-
36.0	37.5		SPT			10	10	13	23	-	-	-
37.5	39.0	1.5	SPT	Brown colored Silty Clay mixed with Sand(CL)		10	8	10	18	-	-	-
39.0	41.0	2.0	SPT	Brown and Yellow Silty CLAY(CL)		32	28	13	41	-	-	-

Depth Vs N Value



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(Dy.Quality Manager)

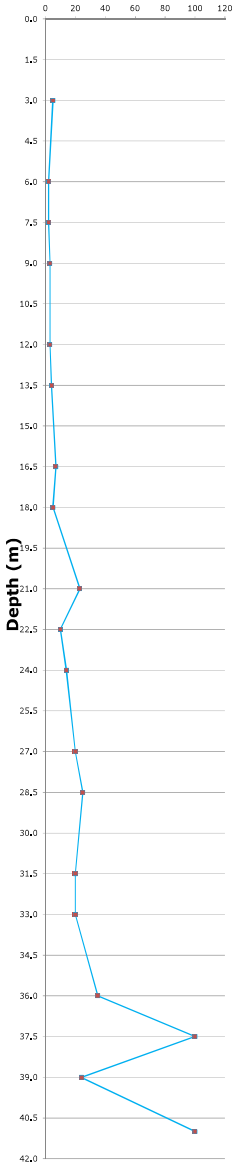
BORE LOG AND CORE LOG SHEET

Geotechnical Investigation Report for Refurbishment and strengthening of Q5 to Q9 at Ernakulam Wharf - Kerala — **MPAC PVT. LTD.**

BH.NO:	**3**		
DEPTH OF WATER TABLE :	1.5m	BORE HOLE DIAMETER:	150mm/75mm
LAND MARK DETAILS :	Q5 to Q9 at Ernakulam Wharf -BH3	DATE OF START & FINISH :	20-03-2026 to 25-03-2026
BORE HOLE TERMINATION:	41.0m	LADTITUDE & LONGITUDE :	638957.12 E 1102078.47 N

Depth (m) From	Depth (m) To	Thickness of Layer (m)	Type	Description	Profile	SPT Test 0.0 -0.15 m	SPT Test 0.15 - 0.30 m	SPT Test 0.30 -0.45 m	SPT Test N Value	Core Recovery (%)	RQD (%)	Remarks
0.0	1.5	1.5	DS	Back Filling		-	-	-	-	-	-	-
1.5	3.0	7.5	SPT	Black colored Sandy CLAY(CL)		2	2	3	5	-	-	-
3.0	4.5		UDS			-	-	-	-	-	-	UDS failed
4.5	6.0		SPT			2	1	1	2	-	-	-
6.0	7.5		SPT			2	1	1	2	-	-	Sample failed
7.5	9.0		SPT			2	2	1	3	-	-	-
9.0	10.5	9.0	UDS	Black colored Silty CLAY(CL)		-	-	-	-	-	-	-
10.5	12.0		SPT			1	1	2	3	-	-	-
12.0	13.5		SPT			1	2	2	4	-	-	-
13.5	15.0		UDS			-	-	-	-	-	-	-
15.0	16.5		SPT			3	3	4	7	-	-	-
16.5	18.0		SPT			2	2	3	5	-	-	-
18.0	19.5	7.5	UDS	Black colored Sandy CLAY(CL)		-	-	-	-	-	-	UDS failed
19.5	21.0		SPT			1	8	15	23	-	-	-
21.0	22.5		SPT			5	4	6	10	-	-	-
22.5	24.0		SPT			5	6	8	14	-	-	-
24.0	25.5		UDS			-	-	-	-	-	-	-
25.5	27.0	4.5	SPT	Brown and Black colored Silty SAND(SM)		8	9	11	20	-	-	-
27.0	28.5		SPT			8	14	21	35	-	-	-
28.5	30.0		UDS			-	-	-	-	-	-	UDS failed
30.0	31.5	4.5	SPT	Brown and Black colored Silty SAND mixed with Clay (SM)		10	10	10	20	-	-	-
31.5	33.0		SPT			9	9	11	20	-	-	-
33.0	34.5		UDS			-	-	-	-	-	-	-
34.5	36.0	1.5	SPT	Grey colored Silty CLAY(CL)		4	14	21	35	-	-	-
36.0	37.5	1.5	SPT	Grey colored Silty SAND mixed with Gravel (SM)		50	Rebound		>100	-	-	-
37.5	39.0	3.5	SPT	Grey colored Silty SAND (SM)		8	10	14	24	-	-	-
39.0	41.0		SPT			50	Rebound		>100	-	-	-

Depth Vs N Value



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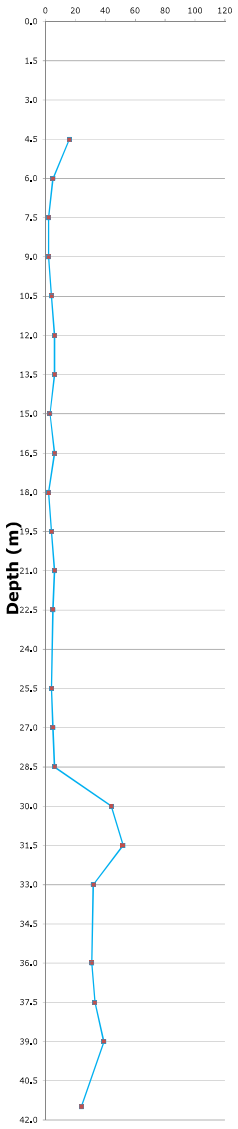
BORE LOG AND CORE LOG SHEET

Geotechnical Investigation Report for Refurbishment and strengthening of Q5 to Q9 at Ernakulam Wharf - Kerala — **MPAC PVT. LTD.**

BH.NO:	**4**		
DEPTH OF WATER TABLE :	0.5m	BORE HOLE DIAMETER:	150mm/75mm
LAND MARK DETAILS :	Q5 to Q9 at Ernakulam Wharf -BH4	DATE OF START & FINISH :	09-03-2026 to 13-03-2026
BORE HOLE TERMINATION:	41.5m	LADTITUDE & LONGITUDE :	639129.23 E 1101986.79 N

Depth (m) From	Depth (m) To	Thickness of Layer (m)	Type	Description	Profile	SPT Test 0.0 -0.15 m	SPT Test 0.15 - 0.30 m	SPT Test 0.30 -0.45 m	SPT Test N Value	Core Recovery (%)	RQD (%)	Remarks
0.0	2.5	2.5	DS	Back Filling		-	-	-	-	-	-	-
2.5	4.5	2.0	SPT	Black colored Clayey SAND(SC)		9	9	7	16	-	-	-
4.5	6.0	12.0	SPT	Black colored Sandy CLAY(CL)		1	2	3	5	-	-	-
6.0	7.5		SPT			0	1	1	2	-	-	-
7.5	9.0		SPT			1	1	1	2	-	-	-
9.0	10.5		SPT			2	2	2	4	-	-	-
10.5	12.0		SPT			2	3	3	6	-	-	-
12.0	13.5		SPT			2	3	3	6	-	-	-
13.5	15.0		SPT			0	1	2	3	-	-	-
15.0	16.5		SPT			2	3	3	6	-	-	-
16.5	18.0	6.0	SPT	Black colored Silty CLAY(CL)		0	1	1	2	-	-	-
18.0	19.5		SPT			1	2	2	4	-	-	-
19.5	21.0		SPT			2	3	3	6	-	-	-
21.0	22.5		SPT			2	2	3	5	-	-	-
22.5	24.0	1.5	UDS	Black colored Silty CLAY(CL)		-	-	-	-	-	-	UDS failed
24.0	25.5	4.5	SPT	Black colored Silty CLAY(CL)		2	2	2	4	-	-	-
25.5	27.0		SPT			3	3	2	5	-	-	-
27.0	28.5		SPT			2	3	3	6	-	-	-
28.5	30.0	1.5	SPT	Black colored Sandy CLAY(CL)		15	20	24	44	-	-	-
30.0	31.5	1.5	SPT	Black colored Silty CLAY(CL)		17	22	30	52	-	-	-
31.5	33.0	1.5	SPT	Brown and Red colored Silty SAND(SM)		11	13	19	32	-	-	-
33.0	34.5	1.5	UDS	Brown colored Silty SAND(SM)		-	-	-	-	-	-	-
34.5	36.0	1.5	SPT	Brown colored Silty SAND mixed with Clay(SM)		13	14	17	31	-	-	-
36.0	37.5	3.0	SPT	Brown colored Silty SAND(SM)		9	14	19	33	-	-	-
37.5	39.0		SPT			15	18	21	39	-	-	-
39.0	41.5	2.5	SPT	Brown colored Silty SAND mixed with Clay(SM)		12	13	11	24	-	-	-

Depth Vs N Value



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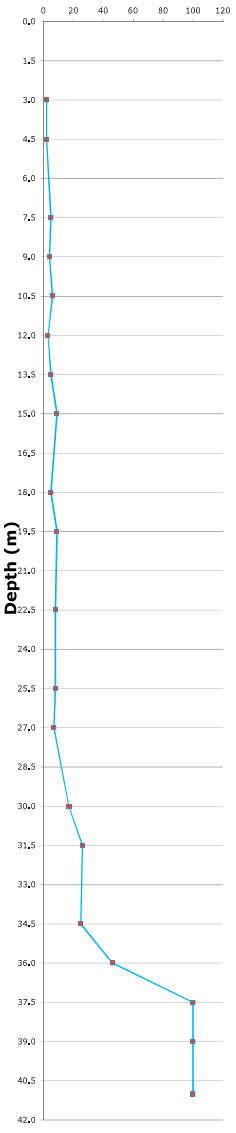
BORE LOG AND CORE LOG SHEET

Geotechnical Investigation Report for Refurbishment and strengthening of Q5 to Q9 at Ernakulam Wharf - Kerala — **MPAC PVT. LTD.**

BH.NO:	**5**		
DEPTH OF WATER TABLE :	1.0m	BORE HOLE DIAMETER:	150mm/75mm
LAND MARK DETAILS :	Q5 to Q9 at Ernakulam Wharf -BH5	DATE OF START & FINISH :	14-03-2026 to 19-03-2026
BORE HOLE TERMINATION:	41.0m	LADTITUDE & LONGITUDE :	639261.49 E 1101948.77 N

Depth (m) From	Depth (m) To	Thickness of Layer (m)	Type	Description	Profile	SPT Test 0.0 -0.15 m	SPT Test 0.15 - 0.30 m	SPT Test 0.30 -0.45 m	SPT Test N Value	Core Recovery (%)	RQD (%)	Remarks
0.0	1.5	1.5	DS	Back Filling		-	-	-	-	-	-	-
1.5	3.0	3.0	SPT	Black colored Sandy CLAY(CL)		2	1	1	2	-	-	-
3.0	4.5		SPT			1	1	1	2	-	-	-
4.5	6.0	1.5	UDS	Black colored Sandy CLAY(CL)		-	-	-	-	-	-	-
6.0	7.5	9.0	SPT	Black colored Silty CLAY(CL)		1	2	3	5	-	-	-
7.5	9.0		SPT			1	2	2	4	-	-	-
9.0	10.5		SPT			1	2	4	6	-	-	-
10.5	12.0		SPT			1	2	1	3	-	-	-
12.0	13.5		SPT			1	2	3	5	-	-	-
13.5	15.0		SPT			2	4	5	9	-	-	-
15.0	16.5	1.5	UDS	Black colored Silty CLAY(CL)		-	-	-	-	-	-	-
16.5	18.0	3.0	SPT	Black colored Sandy CLAY(CL)		1	2	3	5	-	-	-
18.0	19.5		SPT			3	4	5	9	-	-	-
19.5	21.0	1.5	UDS	Black colored Sandy CLAY(CL)		-	-	-	-	-	-	UDS failed
21.0	22.5	1.5	SPT	Black and Brown colored Silty CLAY(CL)		4	5	3	8	-	-	-
22.5	24.0	1.5	UDS	Black colored Silty CLAY(CL)		-	-	-	-	-	-	UDS failed
24.0	25.5	3.0	SPT	Yellow and White colored Silty CLAY(CL)		4	5	3	8	-	-	-
25.5	27.0		SPT			2	4	3	7	-	-	-
27.0	28.5	1.5	UDS	Black and Brown colored Silty SAND (SM)		-	-	-	-	-	-	-
28.5	30.0	6.0	SPT	Black and Brown colored Sandy CLAY(CL)		4	6	11	17	-	-	-
30.0	31.5		SPT			11	14	12	26	-	-	-
31.5	34.5		SPT			12	11	14	25	-	-	-
34.5	36.0	3.0	SPT	Black and Brown colored Silty SAND (SM)		16	20	20	40	-	-	-
36.0	37.5		SPT			48	40	50/2cm	>100	-	-	-
37.5	39.0	3.5	SPT	Black and Brown colored Coarse SAND (SM)		42	46	50/10cm	>100	-	-	-
39.0	41.0		SPT			47	45	50/12cm	>100	-	-	-

Depth Vs N Value



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(Dy.Quality Manager)