

## Appendix A Master Programme

Activity ID	Activity Name	Remaining Duration	Start	Finish	2018												2019												2020												2021												2022												2023												2024												2025																																																											
					N	D	J	F	M	A	M	J	J	A	S	O	N	D	N	D	J	F	M	A	M	J	J	A	S	O	N	D	N	D	J	F	M	A	M	J	J	A	S	O	N	D	N	D	J	F	M	A	M	J	J	A	S	O	N	D	N	D	J	F	M	A	M	J	J	A	S	O	N	D	N	D	J	F	M	A	M	J	J	A	S	O	N	D	N	D	J	F	M	A	M	J	J	A	S	O	N	D	N	D	J	F	M	A	M	J	J	A	S	O	N	D																																
EP_SP_66_12-WP-2-M0	<b>Programme for Design and Construction Works</b>	2835	22-Nov-17 A	26-Aug-25	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.01	<b>Key Dates</b>	2496	22-Nov-17	21-Sep-24	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.02	<b>Contract Preliminaries</b>	2807	19-Dec-17	26-Aug-25	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.03	<b>Licence/Permit Applications</b>	2252	15-Dec-17	13-Feb-24	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.04	<b>General Submissions</b>	1320	22-Nov-17	03-Jul-21	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.05	<b>Design Submissions</b>	1724	22-Nov-17 A	11-Aug-22	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.06	<b>Procurement of Major Equipment</b>	1903	13-Sep-18	28-Nov-23	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.07	<b>Environmental Works</b>	1708	05-Jan-18	09-Sep-22	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.08	<b>Maritime Works</b>	1277	29-Dec-17	27-Jun-21	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.08.1	<b>Marine Construction</b>	1265	10-Jan-18	27-Jun-21	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.08.1.1	<b>Phase I - Construction of Perimeter Seawalls</b>	740	10-Jan-18	19-Jan-20	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.08.1.1.3	<b>Marine Works Preparations</b>	274	10-Jan-18	10-Oct-18	[Gantt bars for 2018-2025]																																																																																																																																															
08-0900	Carry out hydrographic survey	14	10-Jan-18	23-Jan-18	[Gantt bars for 2018-2025]																																																																																																																																															
08-1005	Ground Investigation for DCM Design	180	13-Feb-18	11-Aug-18	[Gantt bars for 2018-2025]																																																																																																																																															
08-1010	Mobilization of DCM Barge for Load Test	30	14-May-18	12-Jun-18	[Gantt bars for 2018-2025]																																																																																																																																															
08-1020	Mobilization of Remaining DCM Barge for Construction	30	11-Sep-18	10-Oct-18	[Gantt bars for 2018-2025]																																																																																																																																															
08-1340(2)	Sediment Sample collection and testing Dumping Permit Application	21	05-Sep-18*	25-Sep-18	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.08.1.1.1	<b>Seawall and Berth at DCM Area</b>	676	15-Mar-18	19-Jan-20	[Gantt bars for 2018-2025]																																																																																																																																															
08-1030	DCM Mix Trial (incl. Bench-scale testing and Lab Tests)	106	15-Mar-18	28-Jun-18	[Gantt bars for 2018-2025]																																																																																																																																															
08-1040	DCM Pre-construction Site Trial and testing	43	29-Jun-18	10-Aug-18	[Gantt bars for 2018-2025]																																																																																																																																															
08-1050	Static Load Test Preparation	31	11-Aug-18	10-Sep-18	[Gantt bars for 2018-2025]																																																																																																																																															
08-1060	Carry out static loading test	22	11-Sep-18	02-Oct-18	[Gantt bars for 2018-2025]																																																																																																																																															
08-1065(2)	Static load test report submission	8	03-Oct-18	10-Oct-18	[Gantt bars for 2018-2025]																																																																																																																																															
08-1070	Geotextile Laying	60	11-Aug-18	09-Oct-18	[Gantt bars for 2018-2025]																																																																																																																																															
08-1075(2)	Sand Blanket Laying	60	11-Aug-18	09-Oct-18	[Gantt bars for 2018-2025]																																																																																																																																															
08-1080	DCM Injection Works (575,000m3, approx 6300 nr.)	120	11-Oct-18	07-Feb-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1090	DCM Final Completion Tests	180	10-Nov-18	08-May-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1100	Rubble Mound Laying (100,000m3 approx. @550m3/d)	180	09-Jan-19	07-Jul-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1105(1)	Prefabrication for Caisson	282	24-Nov-18	01-Sep-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1110	Caisson Laying (Total 50nrs, @2 nrs/week)	182	24-Mar-19	21-Sep-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1120	Wave Wall Construction	120	22-Sep-19	19-Jan-20	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.08.1.1.2	<b>Seawall at Dredging Area</b>	295	25-Dec-18	15-Oct-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1130	Dredging Works (26,000m3 @ 285m3/d avg. to comply EP Conditions 2.18)	110	25-Dec-18	13-Apr-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1140	Lay Rock & Sand Fill	50	15-Mar-19	03-May-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1150	Place Rubble Mound (35,000m3 approx., @550m3/d)	88	30-Mar-19	25-Jun-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1155(2)	Fabrication and delivery of Precast Seawall Blocks (12,000nr. approx)	90	15-Mar-19	12-Jun-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1160	Lay Concrete Block Walls (300m length approx. @4m/d)	80	29-Apr-19	17-Jul-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1170	In situ Concrete Wall Construction	90	18-Jul-19	15-Oct-19	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.08.1.2	<b>Phase II - Reclamation, Breakwater and Berth Construction</b>	999	03-Oct-18	27-Jun-21	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.08.1.2.1	<b>Reclamation</b>	999	03-Oct-18	27-Jun-21	[Gantt bars for 2018-2025]																																																																																																																																															
08-1180	Geotextile Laying	100	03-Oct-18	10-Jan-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1185(2)	Sand Blanket Laying	100	03-Oct-18	10-Jan-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1190	Install Vertical Band Drain by Barge	160	10-Feb-19	19-Jul-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1200	Reclamation fill up to +2.5mPD	375	22-Sep-19	30-Sep-20	[Gantt bars for 2018-2025]																																																																																																																																															
08-1210	Reclamation fill from +2.5 to Formation Level	120	03-Jul-20	30-Oct-20	[Gantt bars for 2018-2025]																																																																																																																																															
08-1220	Lay Surcharge	80	11-Sep-20	29-Nov-20	[Gantt bars for 2018-2025]																																																																																																																																															
08-1230	Surcharge Period	180	30-Nov-20	28-May-21	[Gantt bars for 2018-2025]																																																																																																																																															
08-1240	Remove Surcharge	85	04-Apr-21	27-Jun-21	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.08.1.2.2	<b>Breakwater</b>	583	02-Sep-19	06-Apr-21	[Gantt bars for 2018-2025]																																																																																																																																															
08-1250	Geotextile and Sand Blanket Laying	45	22-Sep-19	05-Nov-19	[Gantt bars for 2018-2025]																																																																																																																																															
08-1260	DCM Injection Works (290,000m3, approx 3200 nr.)	65	06-Nov-19	09-Jan-20	[Gantt bars for 2018-2025]																																																																																																																																															
08-1270	DCM Final Completion Test	71	05-Jan-20	15-Mar-20	[Gantt bars for 2018-2025]																																																																																																																																															
08-1280	Rubble Mound Laying (100,000m3 approx. @550m3/d)	188	05-Mar-20	08-Sep-20	[Gantt bars for 2018-2025]																																																																																																																																															
08-1285(1)	Prefabrication for Caisson	411	02-Sep-19	16-Oct-20	[Gantt bars for 2018-2025]																																																																																																																																															
08-1290	Caisson Laying (Total 43nrs, @2 nrs/week)	150	11-Jul-20	07-Dec-20	[Gantt bars for 2018-2025]																																																																																																																																															
08-1300	Wave Wall Construction	120	08-Dec-20	06-Apr-21	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.08.1.2.3	<b>Seawall and Berth at Marine Access</b>	150	03-Jul-20	29-Nov-20	[Gantt bars for 2018-2025]																																																																																																																																															
08-1310(2)	Prefabrication for Caisson (4nrs)	90	03-Jul-20	30-Sep-20	[Gantt bars for 2018-2025]																																																																																																																																															
08-1320(2)	Caisson Laying (4nrs)	30	01-Oct-20	30-Oct-20	[Gantt bars for 2018-2025]																																																																																																																																															
08-1330(2)	Wave Wall Construction	30	31-Oct-20	29-Nov-20	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.09	<b>Foundation Works</b>	397	12-Apr-21	13-May-22	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.09.0	<b>Site Investigation and Preliminary Pile</b>	46	12-Apr-21	27-May-21	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.09.1	<b>Administration Bld Foundation</b>	138	25-Nov-21	11-Apr-22	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.09.2	<b>Waste Bunker &amp; Tipping Hall Bld Foundation</b>	203	13-May-21	01-Dec-21	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.09.3	<b>Boiler &amp; Flue Gas Bld Foundation</b>	331	12-Apr-21	08-Mar-22	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.09.4	<b>ACC Area Foundation</b>	129	20-Sep-21	26-Jan-22	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.09.5	<b>Turbine Hall Bld Foundation</b>	142	28-Jun-21	16-Nov-21	[Gantt bars for 2018-2025]																																																																																																																																															
EP_SP_66_12-WP-2-M0.09.6	<b>Air Compressor Bld Foundation</b>	28	17-Nov-21	14-Dec-21	[Gantt bars for 2018-2025]																																																																																																																																															

**Programme for Design and Construction Works**  
**Summary Programme**

Date	Revision	Checked	Approved
04-Dec-17	Rev.0 - 1st Issue		
16-Jul-18	Rev.1 - Revised to SO's comments		
03-Sep-18	Rev.2 - Revised to SO's comments		

