

Programme: 100m LNG Dual-fueled Ro-Ro Passenger Ferry

Programme Director: [redacted]

Review Period: March 2021

<u>Name</u>	<u>Job Title</u>	<u>Signature</u>
[redacted]	Programme Director	
[redacted]	Project Accountant	
[redacted]	Planning and Controls Manager	



4. SOFT Report

Successes	Opportunities
<ul style="list-style-type: none"> • A weekend work shift commenced as planned on 19th March, with a team working on zone 2 hotwork manufacture and zone 3 pipe install. • Planning for the LNG double wall pipe installation is now underway with a forecast start in April ([redacted]) • External piping manufacture continues with pipework for zone 7 in hand, a start date for 802 pipework manufacture is being finalised. • Electrical installation - [redacted] has increased to 9 electricians + 2 apprentices on site • Zone 02 pipework rectification is completing, new pipework installation is now starting to pick up. • Zone 2 seats, the final work packs have been issued for manufacture and install • The structural completion milestone is progressing with a forecast, taking into account the loss of time to COVID, is 7th May. • Additional engineering staff have joined specifically to address risks on weight, stability and basic design. 	<ul style="list-style-type: none"> • Improved dimensional control using 3D technology. To be initially implemented on 802 units 82/83/84 and then future units/structure. • Build strategy review for 802 to build as blocks for wheelhouse and bow units prior to erection at ship • Double curvature plate has been identified as a problem area and an order is being placed with [redacted] produce these plates. This affects the 802 ducktail and bow units. • [redacted] is now on order ready to commence studding 801 areas 5dk and above. • Use of [redacted] for pipe closers to be assessed.
Failures	Threats
<ul style="list-style-type: none"> • Agency labour continues to be an issue. Available labour has been focused on 801 production in the manufacturing shop and the ship. The subcontract of units for 802 (to be built onsite) and steelwork at the ship is being considered. Further resourcing solutions are being reviewed. • The impact of the suspension of production work, labour shortfall and the extension to the 801 drydock will require a review of the 801/802 programmes. The programmes have been revised but a finalised labour resourcing strategy is required before the baseline is struck • The technical proposal for 801 hull paint repair has not been agreed with CMAL. CMAL consider that a full blast back will be required to meet the specification. A meeting has been arranged for w/c 29th March. 	<ul style="list-style-type: none"> • COVID 19 impact to programme– Further issues/restrictions remain a threat to the programme. • Volume outfitting is now commencing, the production organisation to manage this volume is currently not in place. Additional management and supervision has been identified and recruitment, either permanent or temporary, is in hand. Supervision has been enhanced on 801. • The manufacturing shop loading, and resource, to deliver 801/802/805 work is a concern. 801 is progressing well in the shop however alternative space is required to allow 802 unit build to commence in the area • Weight report – full review of the report is currently underway using [redacted] generated data and validating [redacted] where possible. This may have a weight growth risk • [redacted] pipework has been delivered untreated (pickle & passivate) and will require corrective treatment. – a solution has been identified to chemical clean the system insitu • [redacted] delay in getting Express Pipework on contract may impact LNG pipe installation programme • Equipment information loaded on Factory Master does not align to the [redacted] equipment list
Impact Statement / Help Needed	

6. Traffic Light Report

Criteria	Overall Status				Future Trend	Comments	Return to Green	
	Nov 20	Dec 20	Jan 21	Feb 21			Date	Status
Overall Status	R	R	R	R	↔	<ul style="list-style-type: none"> The revised Quarterly Look Ahead, QLA, for Q1 was agreed in December. This has been impacted by the COVID suspension of work and a continuing shortfall in subcontract labour. Available labour is being focused onto 801. A full return to work commenced on 8th Feb. A rebaseline is currently underway and planned to complete in March. 	Mar	R
Safety	A	A	A	A	↑	<ul style="list-style-type: none"> An interim senior safety director has now been appointed and has undertaken a gap analysis. This shows a score of 23%. Priority H&S actions are being identified however COVID precautions have taken precedence through January 	TBA	G
Quality	R	A	A	A	↑	<ul style="list-style-type: none"> Quality Progresses to Green and follows the natural progression of understanding the quality issues and route to closure, Legacy pipework quality controls delivering repeatable results with Client progressive sign off now established. QC to support for weekend working established 801 and 802 reactivation activities underway with Jotun's representative onsite, feedback has been positive. Formal Wartsila Engine survey due imminently, routine humidity and environmental checks now established Care and preventive Maintenance steering group set up between Quality/Commissioning/Operations/Facilities Dimensional control surveys with Specialist contractor underway. Double curvature plate outsourced. 	Mar	G
Customer Satisfaction	G	G	G	G	↔			
Schedule	R	R	R	R	↔	<ul style="list-style-type: none"> The revised Quarterly Look Ahead, QLA, for Q1 was agreed in December. This has been impacted by the COVID suspension of work and a continuing shortfall in subcontract labour. Available labour is being focused onto 801. A full return to work commenced on 8th Feb. A rebaseline is currently underway and planned to complete in March.. 	TBA	R
Finance	G	G	G	G	↔	<ul style="list-style-type: none"> The re-baseline has maintained the previous forecast at completion. There is an increasing amount of hours unspent which reflects the lack of labour. An updated financial project is currently being prepared 		
Technical	A	A	A	A	↑	<ul style="list-style-type: none"> Updated LR / MCA approvals Matrix of responsibilities has been assessed. Additional documents submitted for electrical design have skewed numbers Design verification completed; many issues found, typically poor documentation. Weight and stability calculations have been reviewed and there are a high number of issues to resolve. Limited progress this month due to the launch of 805. 	Mar	A
Suppliers	G	G	G	G	↔	<ul style="list-style-type: none"> Pipe Installation and 801/802 Hydraulics tenders now at award. 		
Resources	R	R	R	R	↔	<ul style="list-style-type: none"> Subcontract production labour is building up more slowly than planned. The lack of labour is now impacting the programme. This is currently being reviewed to determine how this can be improved and recovered. Sub contract of steel and pipe packages is currently under review 	TBA	R
Risk	R	R	R	R	↔	<ul style="list-style-type: none"> The status remains red as the labour risk is impacting the programme. The COVID risk has also impacted with the suspension of production occurring in January. 	TBA	G

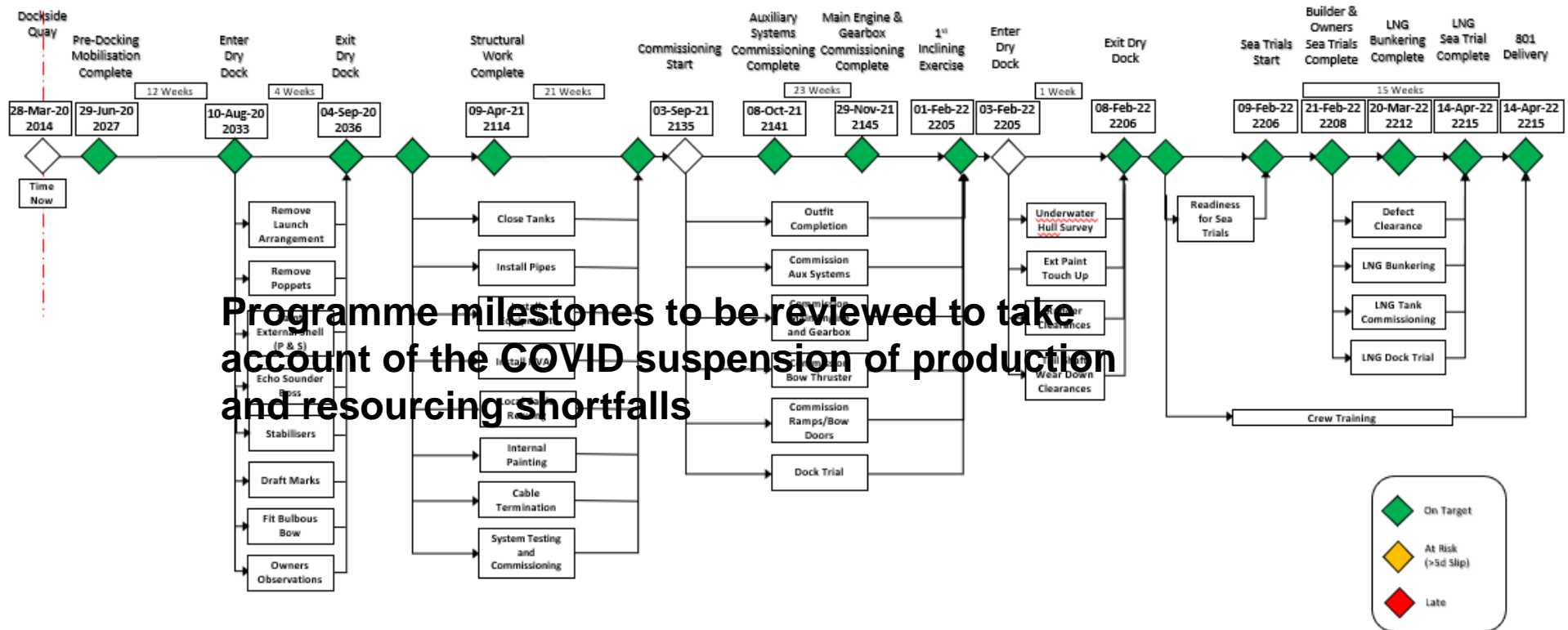
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8. 801 Schedule Overview as @ Baseline Position (Aug 2020)

801 Timeline to Delivery

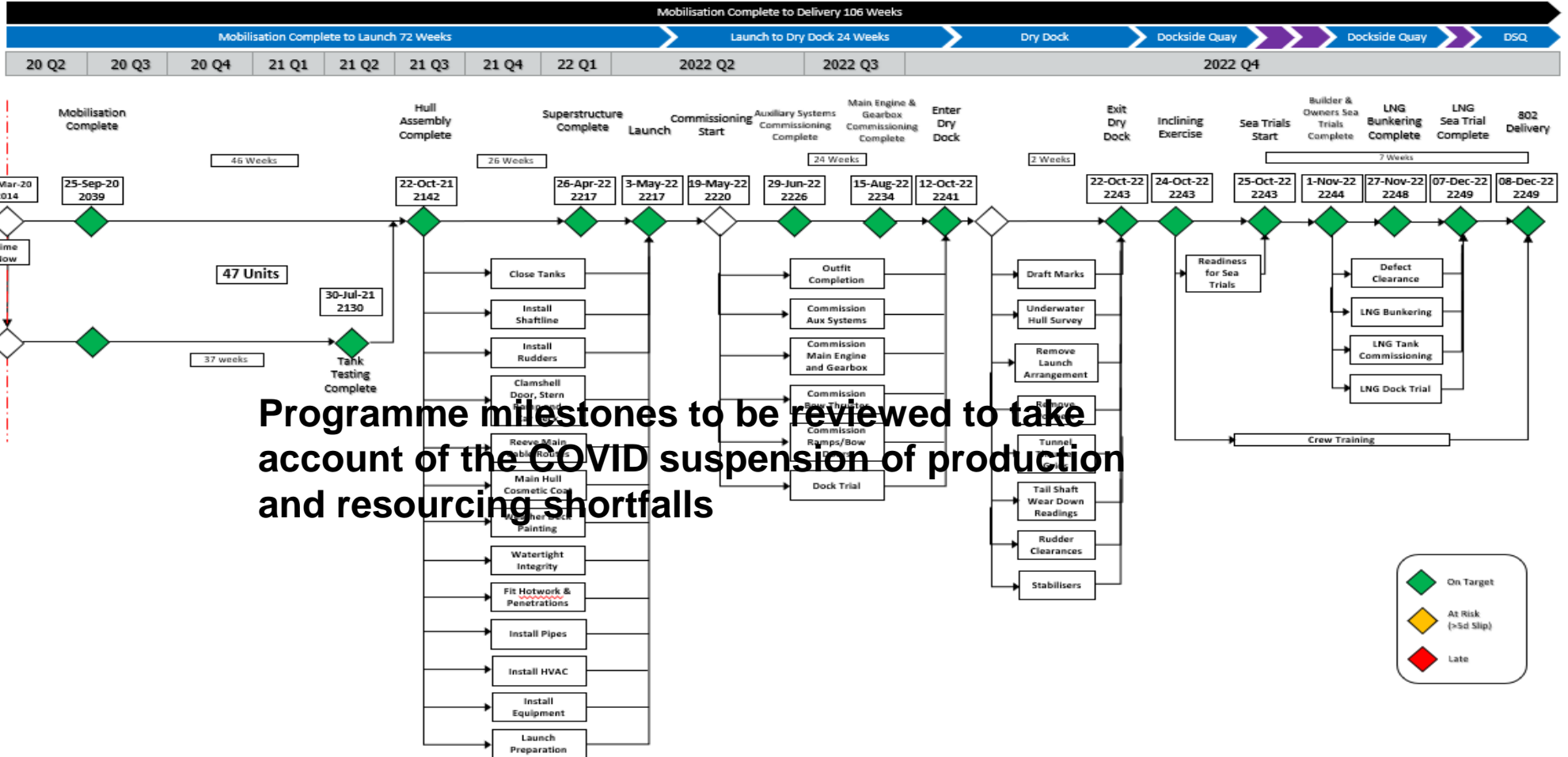


Programme milestones to be reviewed to take account of the COVID suspension of production and resourcing shortfalls

CDP has 3 weeks time contingency included compared to our Driving Project Plan

9. 802 Schedule Overview as @ Baseline Position (Aug 2020)

802 Timeline to Delivery



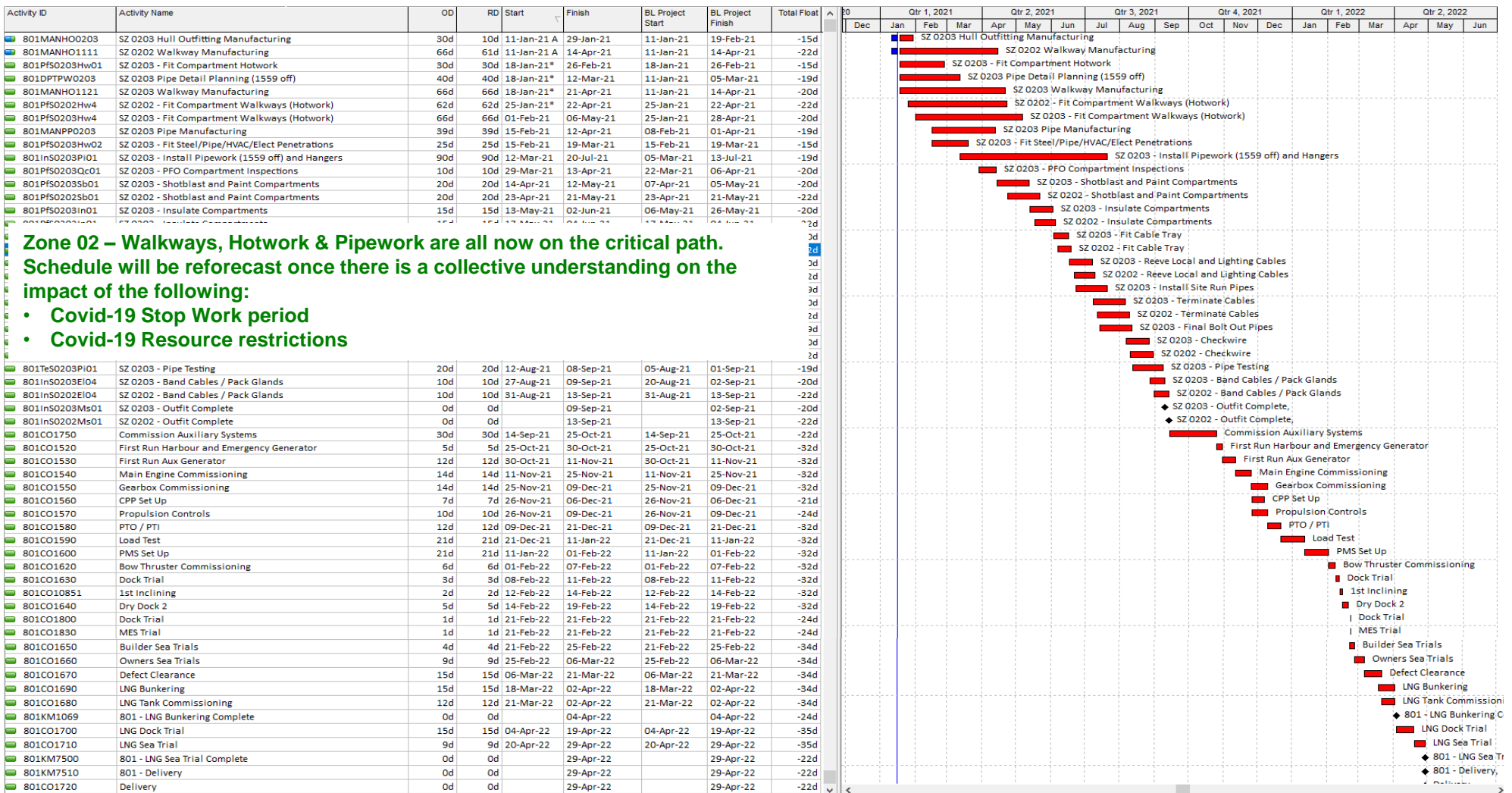
9a. [redacted]

Status

Week	W/C date	Planned	total holds	# not started or in progress	# 3D modeled	# closed (drawings are complete)	Note
10	15/03/2021	Zone 10 drawings due. Last Electrical drawings delivered on 22nd March.	171	40	20 (note many of these are closed)	86	Many are minor issues that will be dealt with at the ship. Known issues on exhaust and LNG pipe supports are in hand.
11	22/03/2021	3D modelling in Zone 6 complete	458	265	67	126	
12	29/03/2021						
13	05/04/2021	Zone 6 drawings due to complete					
14	12/04/2021	3D modelling in Zone 5 complete	55	34	4	17	
15	19/04/2021	Zone 5 drawings due to complete					
16	26/04/2021	3D modelling in Zone 11 complete, 3D modelling in Zone 1 starts	78	76	0	2	
17	03/05/2021	Zone 11 drawings due to complete					
18	10/05/2021	3D modelling in Zone 1 complete	111	87	12	12	
19	17/05/2021	Zone 1 drawings due to complete					
20	24/05/2021	3D modelling in Zone 8 complete	145	122	8	15	
21	31/05/2021	3D modelling in Zone 9 complete	133	100	9	24	
22	07/06/2021	Zones 8 and 9 drawings due to complete					

Ongoing resolution of open holds in zones 2, 3, 4 + 7 – generally error correction and missing VFIs. Known open holds on LNG supports. There are frequently multiple holds associated with the same problem, e.g. misuse of Axilocks generated almost 80 holds across all zones and both hulls and the missing pipe treatments generated +50 holds.

9c. Ship 801 Critical path



9c. Ship 802 Critical path

Activity ID	Activity Name	OD	RD	Start	Finish	BL Project Start	BL Project Finish	Total Float	Gantt Chart																						
									D21	Qtr 4, 2021			Qtr 1, 2022			Qtr 2, 2022			Qtr 3, 2022			Qtr 4, 2022			Qtr 1, 2023			Qtr 2, 2023			Qtr
									Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
802MAUA116Hw01	Unit A11/6 Prep Full Unit	15d	15d	18-Nov-21*	08-Dec-21	18-Nov-21	08-Dec-21	-63d	<ul style="list-style-type: none"> ■ Unit A11/6 Prep Full Unit 																						
802FaUA116Hw01	Unit A11/6 Fab Fab-T Frames, Minor Sub-Assys and Pillars	10d	10d	16-Dec-21	07-Jan-22	16-Dec-21	07-Jan-22	-63d	<ul style="list-style-type: none"> ■ Unit A11/6 Fab Fab-T Frames, Minor Sub-Assys and Pillars 																						
802FaUA116Hw03	Unit A11/6 Fab 6 Deck Plating	15d	15d	10-Jan-22	28-Jan-22	10-Jan-22	28-Jan-22	-63d	<ul style="list-style-type: none"> ■ Unit A11/6 Fab 6 Deck Plating 																						
802ASUA116Hw01	Unit A11/6 Unit Assembly + Dry Survey	15d	15d	31-Jan-22	18-Feb-22	31-Jan-22	18-Feb-22	-63d	<ul style="list-style-type: none"> ■ Unit A11/6 Unit Assembly + Dry Survey 																						
802ASB0011Hw02	Erect Fair and Weld Unit 11/6 to Block	20d	20d	21-Feb-22	18-Mar-22	21-Feb-22	18-Mar-22	-63d	<ul style="list-style-type: none"> ■ Erect Fair and Weld Unit 11/6 to Block 																						
802ASB0010Hw03	Erect Fair and Weld Unit 10/7 to Block	20d	20d	04-Apr-22	04-May-22	04-Apr-22	04-May-22	-63d	<ul style="list-style-type: none"> ■ Erect Fair and Weld Unit 10/7 to Block 																						
802ERB0010Hw01	Wheelhouse Block Erect, Fair and Weld	25d	25d	05-May-22	08-Jun-22	05-May-22	08-Jun-22	-63d	<ul style="list-style-type: none"> ■ Wheelhouse Block Erect, Fair and Weld 																						
802ERUA097Hw09	Unit A9/7 Erect, Fair and Weld	20d	20d	19-May-22	15-Jun-22	19-May-22	15-Jun-22	-63d	<ul style="list-style-type: none"> ■ Unit A9/7 Erect, Fair and Weld 																						
802ERUA087Hw01	Unit A8/7 Erect, Fair and Weld	20d	20d	16-Jun-22	13-Jul-22	16-Jun-22	13-Jul-22	-63d	<ul style="list-style-type: none"> ■ Unit A8/7 Erect, Fair and Weld 																						
802ERUA77Hw01	Unit A7/7 Erect, Fair and Weld	20d	20d	30-Jun-22	27-Jul-22	30-Jun-22	27-Jul-22	-63d	<ul style="list-style-type: none"> ■ Unit A7/7 Erect, Fair and Weld 																						
802KM003	802 Superstructure Complete	0d	0d		27-Jul-22		27-Jul-22	-63d	<ul style="list-style-type: none"> ◆ 802 Superstructure Complete, 																						
802A6470	Commission Auxiliary Systems	30d	30d	08-Aug-22	16-Sep-22	08-Aug-22	16-Sep-22	-63d	<ul style="list-style-type: none"> ■ Commission Auxiliary Systems 																						
802A4910	Launch	0d	0d	26-Aug-22*		26-Aug-22		-29d	<ul style="list-style-type: none"> ◆ Launch, 26-Aug-22* 																						
802A4920	First Run Harbour and Emergency Generator	2d	2d	17-Sep-22	21-Sep-22	17-Sep-22	21-Sep-22	-29d	<ul style="list-style-type: none"> ■ First Run Harbour and Emergency Generator 																						
802A4930	First Run Auxiliary Generator	4d	4d	22-Sep-22	03-Oct-22	22-Sep-22	03-Oct-22	-29d	<ul style="list-style-type: none"> ■ First Run Auxiliary Generator 																						
802A4940	Main Engine Commissioning	5d	5d	04-Oct-22	17-Oct-22	04-Oct-22	17-Oct-22	-29d	<ul style="list-style-type: none"> ■ Main Engine Commissioning 																						
802A4960	Propulsion Controls	10d	10d	18-Oct-22	31-Oct-22	18-Oct-22	31-Oct-22	-61d	<ul style="list-style-type: none"> ■ Propulsion Controls 																						
802A4970	Gearbox Commissioning	5d	5d	18-Oct-22	31-Oct-22	18-Oct-22	31-Oct-22	-28d	<ul style="list-style-type: none"> ■ Gearbox Commissioning 																						
802A4980	PTO / PTI	1d	1d	01-Nov-22	04-Nov-22	01-Nov-22	04-Nov-22	-28d	<ul style="list-style-type: none"> ■ PTO / PTI 																						
802A4990	Load Test	7d	7d	06-Nov-22	26-Nov-22	06-Nov-22	26-Nov-22	-28d	<ul style="list-style-type: none"> ■ Load Test 																						
802A5000	PMS Set Up	7d	7d	27-Nov-22	17-Dec-22	27-Nov-22	17-Dec-22	-28d	<ul style="list-style-type: none"> ■ PMS Set Up 																						
802A5010	Bow Thruster Commissioning	2d	2d	18-Dec-22	22-Dec-22	18-Dec-22	22-Dec-22	-28d	<ul style="list-style-type: none"> ■ Bow Thruster Commissioning 																						
802A5020	Dock Trial	0d	0d	26-Dec-22	26-Dec-22	26-Dec-22	26-Dec-22	-28d	<ul style="list-style-type: none"> ■ Dock Trial 																						
802A5030	Dry-Dock	3d	3d	28-Dec-22	06-Jan-23	28-Dec-22	06-Jan-23	-28d	<ul style="list-style-type: none"> ■ Dry-Dock 																						
802A10677	Inclining Exercise	0d	0d	10-Jan-23	10-Jan-23	10-Jan-23	10-Jan-23	-29d	<ul style="list-style-type: none"> ■ Inclining Exercise 																						
802A5040	Builder Sea Trials	1d	1d	11-Jan-23	14-Jan-23	11-Jan-23	14-Jan-23	-29d	<ul style="list-style-type: none"> ■ Builder Sea Trials 																						
802A5050	Owners Sea Trials	1d	1d	15-Jan-23	17-Jan-23	15-Jan-23	17-Jan-23	-29d	<ul style="list-style-type: none"> ■ Owners Sea Trials 																						
802A5070	Defect Clearance	5d	5d	18-Jan-23	31-Jan-23	18-Jan-23	31-Jan-23	-29d	<ul style="list-style-type: none"> ■ Defect Clearance 																						
802A5080	LNG Tank Commissioning	4d	4d	01-Feb-23	12-Feb-23	01-Feb-23	12-Feb-23	-29d	<ul style="list-style-type: none"> ■ LNG Tank Commissioning 																						
802A5090	LNG Bunkering	2d	2d	08-Feb-23	12-Feb-23	08-Feb-23	12-Feb-23	-28d	<ul style="list-style-type: none"> ■ LNG Bunkering 																						
802A5100	LNG Dock Trial	2d	2d	14-Feb-23	18-Feb-23	14-Feb-23	18-Feb-23	-29d	<ul style="list-style-type: none"> ■ LNG Dock Trial 																						
802A5110	LNG Sea Trial	1d	1d	20-Feb-23	22-Feb-23	20-Feb-23	22-Feb-23	-29d	<ul style="list-style-type: none"> ■ LNG Sea Trial 																						
802A5120	Delivery	0d	0d		27-Feb-23*		27-Feb-23	-54d	<ul style="list-style-type: none"> ◆ Delivery, 																						

17. CMAL Comments to the Monthly Report

CMAL Comments:

- The dates that are currently in circulation (namely H801 April 22 until June 22 and H802 December 22 until February 2023) are currently in jeopardy, in other words they are likely to be missed.
- The recent letter to REC Committee (24th March 2021) indicates that there is COVID Impact and that this cannot be accurately quantified.
- It is noted that the weekday shift (Mon – Thu) is currently under strength by 30 personnel and furthermore the weekend shift (Fri – Sun) has some 30 employed versus that required at 120 overall.
- The number of personnel deployed on the vessel is significantly lower than that which would be anticipated at this stage of the project.
- The re-baseline Programme has been promised within March 2021 and until that is received it is not possible to measure progress against the programme.
- A number of change orders have not been signed off and no date for completion has been given.
- We would find it useful to understand the labour split between H801 and H802 – this being a basic metric for each vessel.
- We are waiting for the weight estimates of the vessels to be completed – this is concerning as this potentially has a direct impact on deadweight of the vessel which is critical.
- Communication and interaction at all levels remains positive.