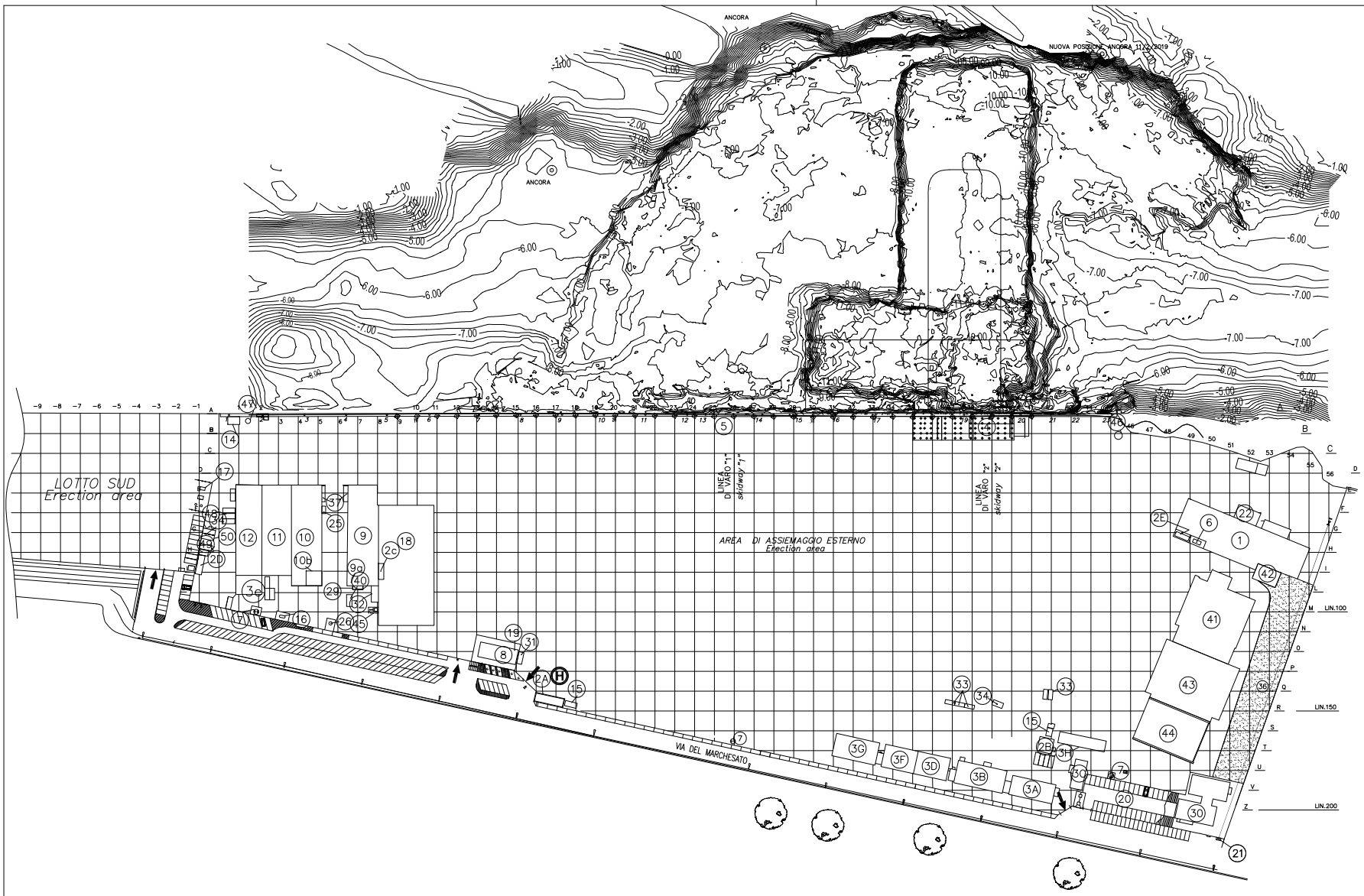
Software: Auto–CAD r2000 File: CADdraw.dwg



Quote batimetriche riferite al L.M.M.
riferimento CS RMN2–mareometro di Marina di Ravenna

ROSETTI MARINO RAVENNA ITALY

REV. REV.	DATA DATE	DESCRIZIONE / DESCRIPTION	DISEGN. DRAWN.	CONTR. CHECK.	APPROV. APPROV.	Q. A APPROV.
3						
2						
1						
0	18/03/19	EMISSIONE	MTM			

CANTIERE PIOMBONE
Via del Marchesato 37
Marina di Ravenna

PLANIMETRIA GENERALE/GENERAL LAY–OUT
BATIMETRIA STATO DI FATTO AL 28.02.2019
BATHIMETRY AS–BUILT AL 28.02.2019

DIS. N° / DWG Nr 79004.855
SCALA / SCALE 1:2000
FOGLIO SHEET 1 DI OF 1

Stampa: _ Foglio: A3

SIDE SCAN SONAR
MORPHOLOGICAL SURVEYS

Morphological survey for the verification of the seabed in front of ROSETTI YARD inside the Piomboni area (Port of Ravenna)

Rif. C2124

CONFORMITY CERTIFICATE OF THE AREA

Client:

ROSETTI MARINO

Index of revision

Rev.	Date	Description	Issue	Verified	Approved
0	21/05/2021	Emissione	S. Mancini	I. Malavolti	F. Morello
1					
2					
3					

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ANNEX 7-B	*Digital*	PDS Lite View Software Manual

1.0 SCOP OF WORK

Subsea Fenix Srl from Ravenna have been completed morphological surveys in front of the Rosetti Marino Yard in the area known as the Piomboni inside Ravenna Harbor.

The entire work was carried out with the aim of mapping the seabed surface and identifying the presence of any targets / anomalies such as wrecks or debris, that could be dangerous or an obstacle to the clear navigation and safe approach to the Rosetti jetty. The focus of the survey must guarantee the following information:

- Mapping the morphology of the seabed;
- Target identification;
- Sizing and positioning of any target identified;
- Bathymetric and Morphological data merging;



Image 1 – Rosetti Marino "Piomboni" Yard

The service offered by Subsea Fenix srl included the supply of equipment, operators and everything necessary to perform the required survey, including data processing and their cartographic representation.

2.0 SCOP OF DOCUMNT

To complete the scope of work, this declaration was drawn up and delivered. The document hold the conclusions reached from the analysis of the onsite collected data.

The annex of this document was written to describe i the methods of execution of surveys and data processing, the list and characteristics of the instrumentation used and the personnel employed.

The conclusions was obtained by the analysis of the data acquired and mapped. All the info and the data used to determinate this conclusion was summarized in all the document and map annex to this document.

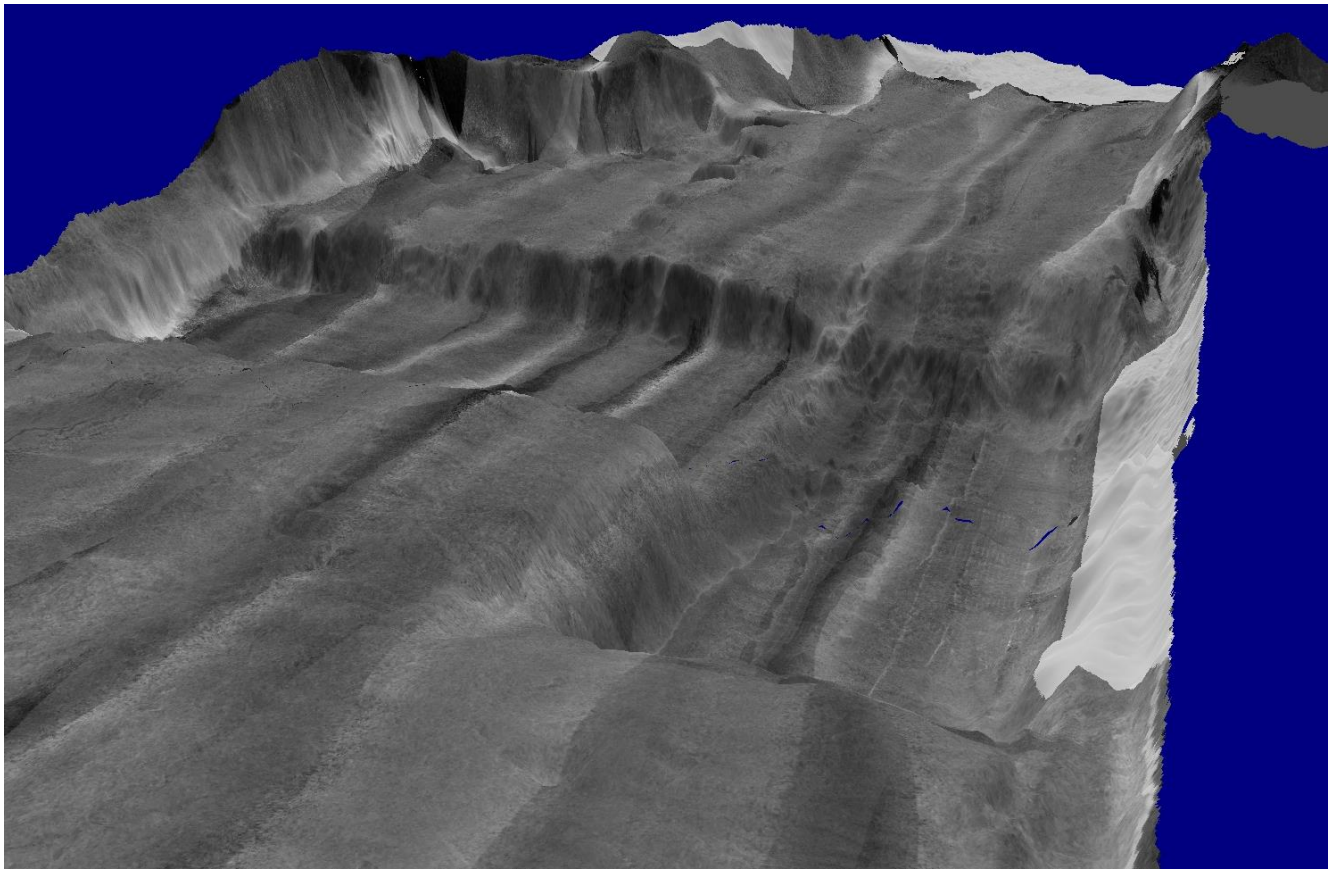


Image 2 – 3D Image of photomosaic

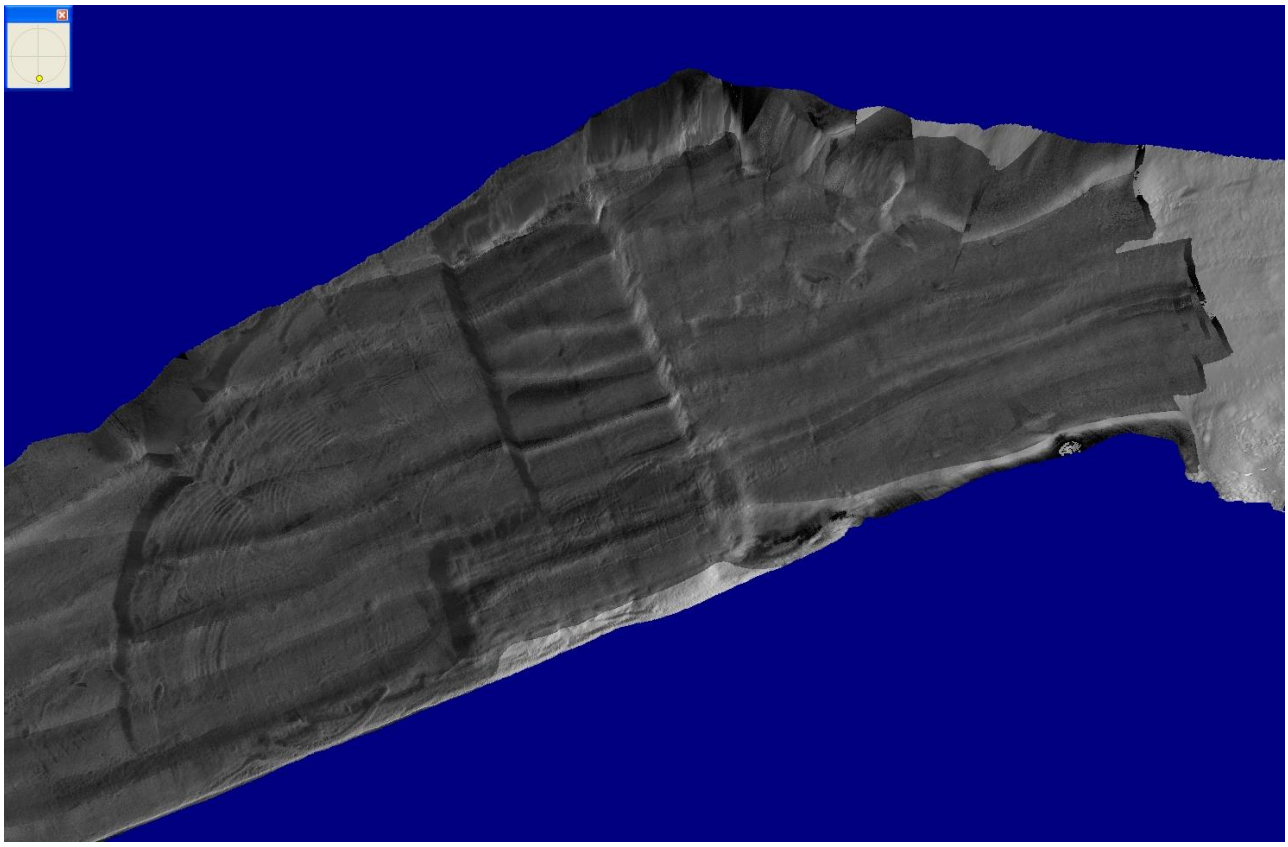


Image 3 – 2D Image of photomosaic

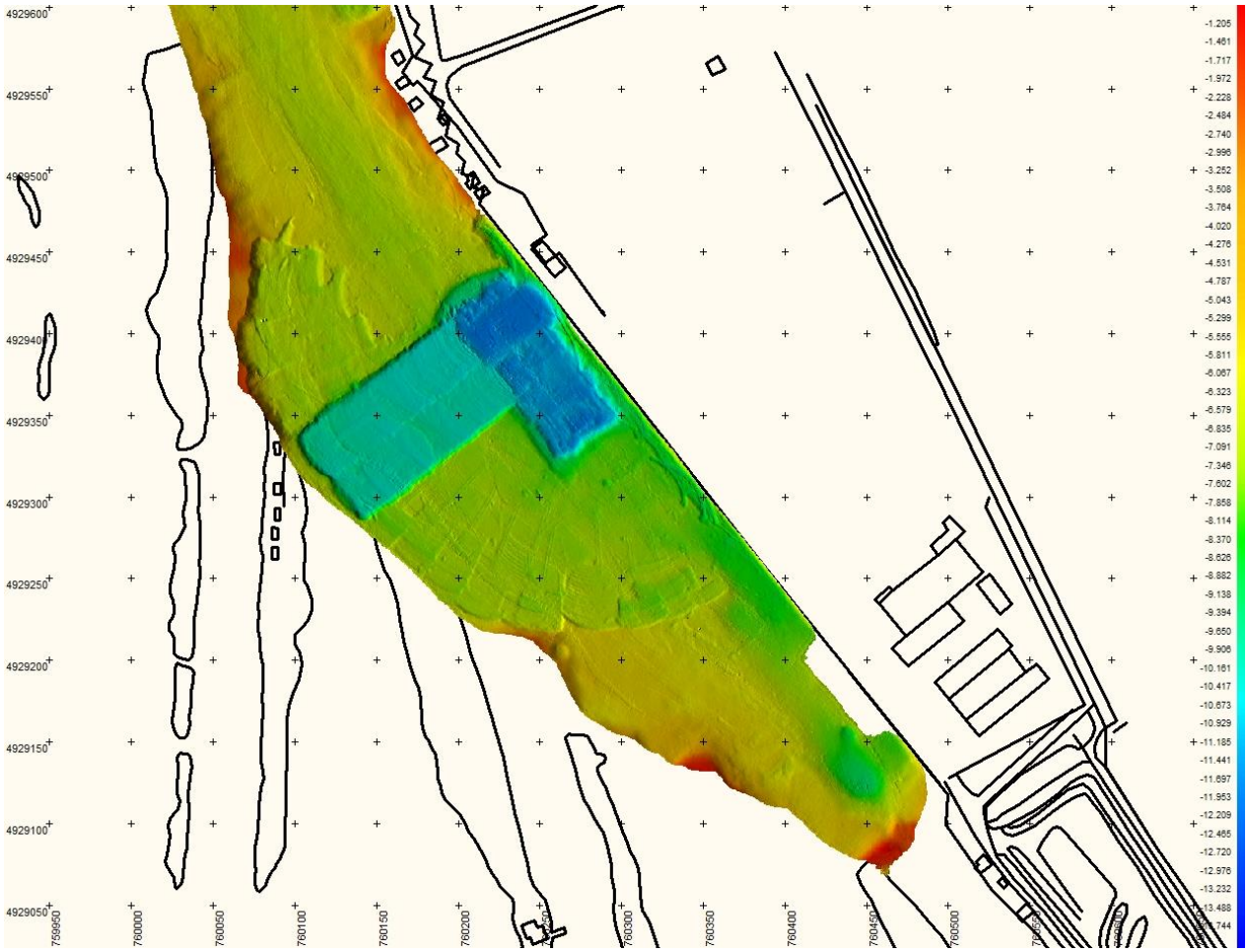


Image 4 – DTM Image

3.0 DEFINITION

- **Client** **Rosetti Marino Srl;**
- **Contractor** Subsea Fenix Srl;
- **Executor** Subsea Fenix Srl;

4.0 CONFORMITY DECLARATION OF SEABED AREA

On 14th May 2021 Subsea Fenix Srl has performed a detailed morphological survey of the Seabad Morphological survey for the verification of the seabed in front of ROSETTI YARD inside the Piomboni area (Port of Ravenna)

The entire work was carried out with the aim of mapping the seabed surface and identifying the presence of any targets / anomalies such as wrecks or debris, that could be dangerous or an obstacle to the clear navigation and safe approach to the Rosetti jetty.

The survey inspection was execute by using a very High Fr3equacy Side Scan Sonar 1250 kHz) system combined with appropriate positioning system and software capable to recording, validate and analyse the acquired data. By making a series of dockside parallel line, spaced 25m, we obtained 100% of coverage of the seabed and 200% of data overlap.

The summary results obtained with the survey, did not report inside the on the seabed any targets, anomalies such as wrecks or debris, that could be dangerous or an obstacle to the clear navigation and safe approach to the Rosetti jetty.

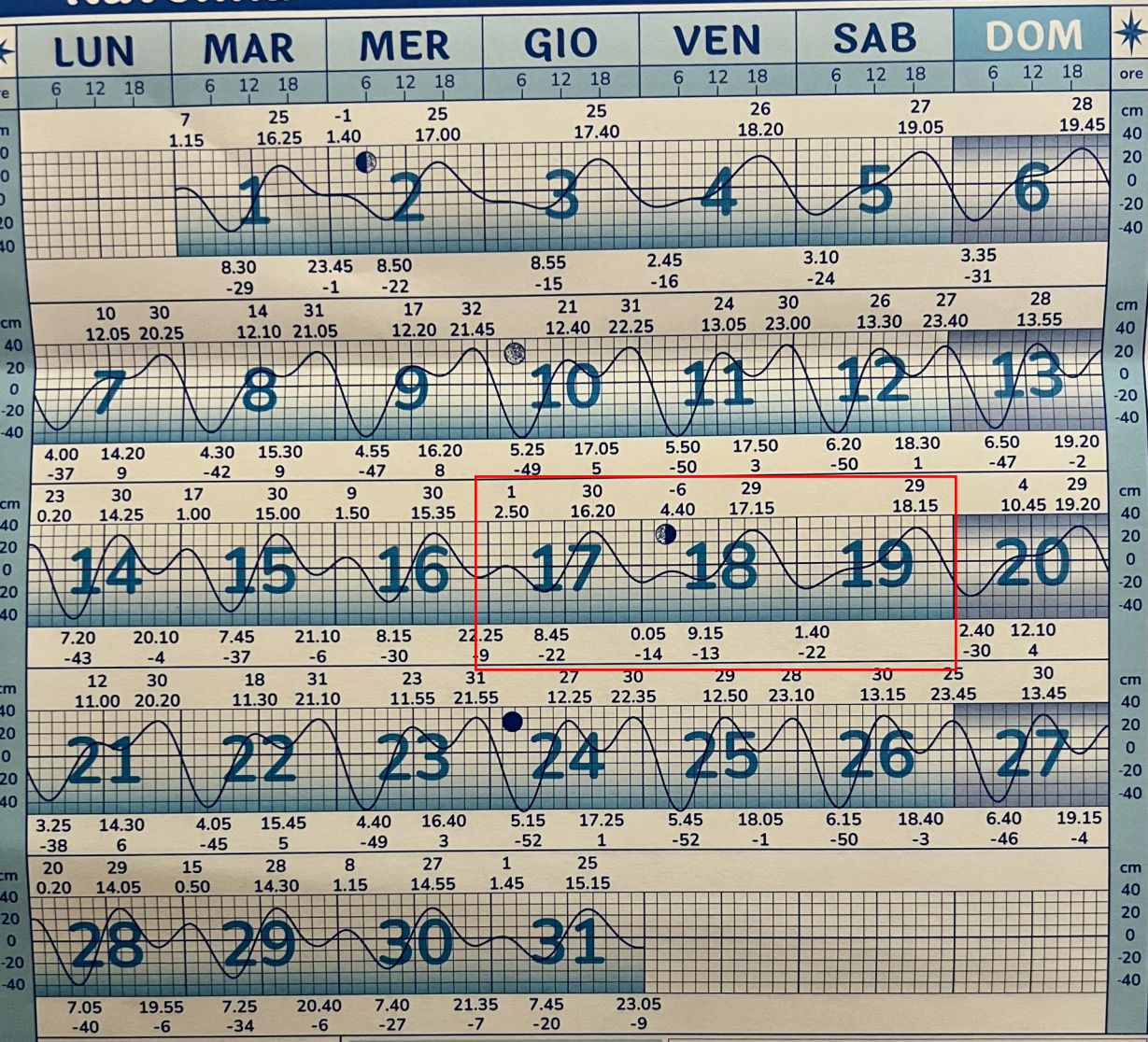
LUGLIO 2025

Ora Legale

• Ravenna •

Previsioni di marea nell'Adriatico settentrionale

RAVENNA PORTO - Lat. 44° 29' 31" Nord - Long. 12° 17' 33" Est • VALORI ASTRONOMICI



ANTICIPI E RITARDI DELLE MAREE - APPROSSIMATI - NEI PORTI IN MINUTI E CON AMPIEZZA RELATIVA

ANTICIPI		RITARDI	
Trieste	55'(100%)	Cesenatico	5'(70%)
Grado	45'(100%)	Rimini	10'(70%)
Lignano	35'(100%)	Riccione	15'(70%)

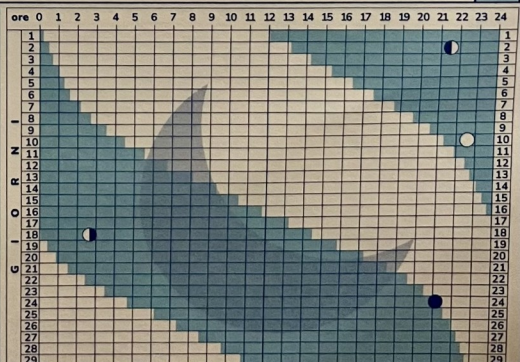
IL SOLE:

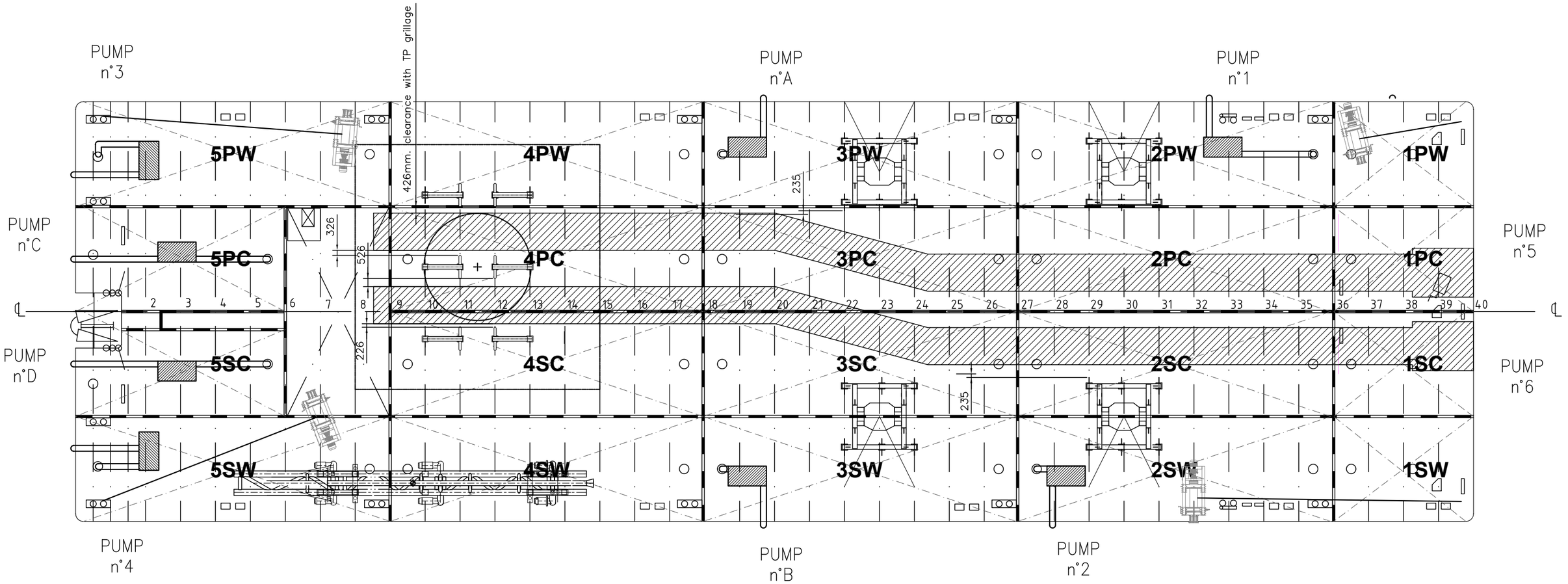
gg.	leva	tram.
1	05.29	20.59
4	05.31	20.59
7	05.33	20.58
10	05.35	20.57
13	05.37	20.55
16	05.40	20.53
19	05.43	20.51
22	05.46	20.48

LA LUNA:

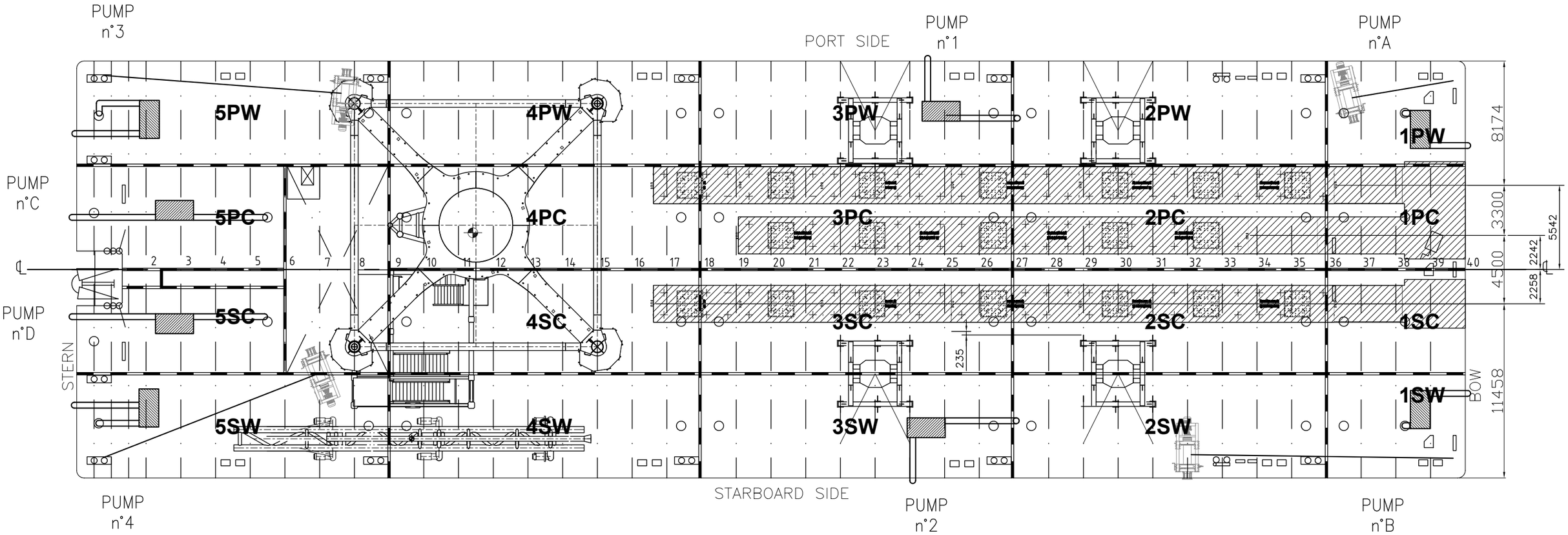
sorge ▬▬ tramonta

Nel grafico è evidenziato il tempo in cui la Luna è visibile nell'arco delle 24 ore. La Luna ed il Sole sono gli astri che principalmente esercitano una attrazione in grado di





PORTABLE BALLAST PUMP TABLE - TP loadout				
PUMP N.	CAPACITY [M3/H]	BARGE TANK	BALLAST ARRANGEMENT	NOTE
1	250	2PW	IN & OUT	LOAD TRANSFER
2	250	2SW	IN & OUT	LOAD TRANSFER
3	250	5PW	IN & OUT	LOAD TRANSFER
4	250	5SW	IN & OUT	LOAD TRANSFER
A	300	3PW	IN & OUT	TIDE
B	300	3SW	IN & OUT	TIDE
C	300	5PC	IN & OUT	TIDE
D	300	5SC	IN & OUT	TIDE



PORTABLE BALLAST PUMP TABLE - BLPH loadout				
PUMP N.	CAPACITY [M3/H]	BARGE TANK	BALLAST ARRANGEMENT	NOTE
1	300	2PW / 3PW	IN & OUT	LOAD TRANSFER
2	300	2SW / 3SW	IN & OUT	LOAD TRANSFER
3	300	5PW	IN & OUT	LOAD TRANSFER
4	300	5SW	IN & OUT	LOAD TRANSFER
A	300	1PW	IN & OUT	TIDE
B	300	1SW	IN & OUT	TIDE
C	300	5PC	IN & OUT	TIDE
D	300	5SC	IN & OUT	TIDE

Base Load Power Hub (BLPH)

APPENDIX O – Ballast Sequence for TP

Document Number: 123A90-DDL-TI-RE-99005

Document Class: 2

01	15/07/2025	Accepted for Construction (AFU)	A.Balzarotti	F.Ceroni	D.LoSterzo
00	27/06/2025	Issued for Approval (IFA)	A.Balzarotti	F.Ceroni	D.LoSterzo
Rev.	Date	Description	Prepared	Reviewed	Approved
TECON					

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Revision / Change Log

Rev.	Description
00	Issued for Review (IFA)
01	Accepted for Construction (AFU)

HOLDS LIST

No.	Description
1	
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3	
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1 INTRODUCTION

1.1 PROJECT OVERVIEW

Crosswind, a Shell and Eneco joint venture, was awarded the tender to develop the offshore Hollandse Kust Noord (HKN) wind farm, located 18.5km off the coast of Netherlands near the town of Egmond aan Zee. The consortium plans to have HKN operational in 2023 with an installed capacity of 759MW generating at least 3.3TWh per year. This is sufficient renewable power to supply more than 1 million Dutch households with green electricity.

Offshore wind farms produce intermittent electricity and balancing these dips and peaks and integrating this electricity into the national energy system requires new technologies. For this reason, the offshore wind farm will include several new technologies that could be implemented at full-scale in the future. The new technologies being explored include a floating solar park, a short-duration battery storage as well as long-term storage via green hydrogen produced by water electrolysis and subsequently consumed in a fuel cell. The combination of these individual measures, herein referred to as the Base Load Power Hub (BLPH) will ensure a continuous power supply regardless of the wind situation.

1.1.1 Project Location

The Hollandse Kust Noord (HKN) wind farm is located 18.5km off the coast of the Netherlands near the town of Egmond aan Zee.

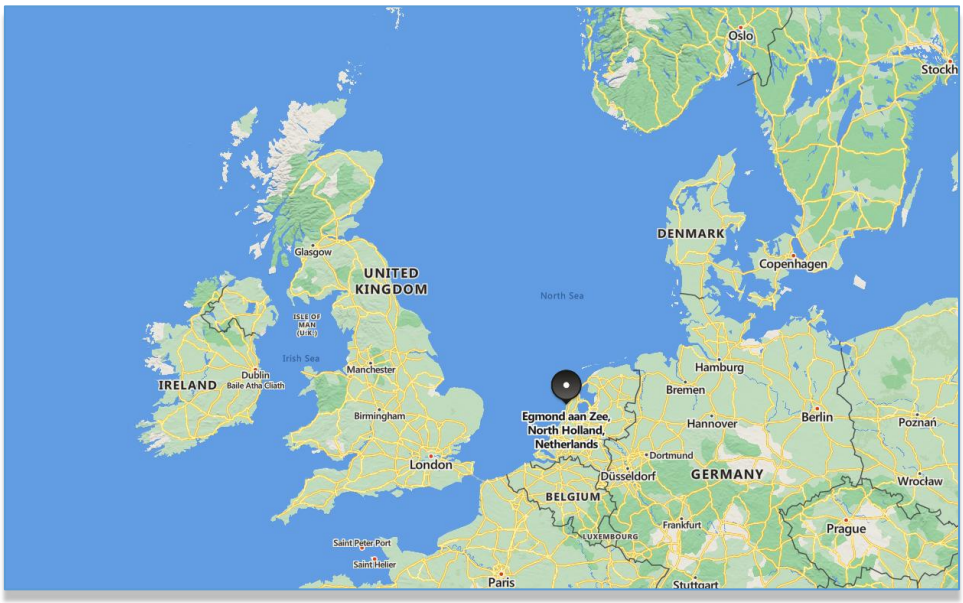


Figure 1.1 HOLLANDSE KUST NOORD WIND PARK Location Map

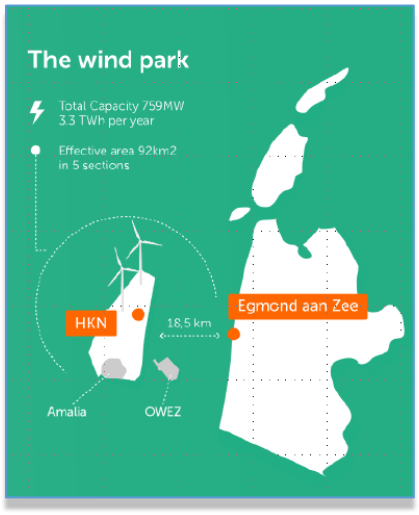


Figure 1.2 - Wind Park Details

The wind farm consist of No. 69 x 11.5MW wind turbine generators each to be installed on a dedicated monopile structure. A 70th monopile located on coordinates E 590719.1, N 5841602.3 is reserved for installing the platform accommodating the BLPH. The monopile structure was designed and installed by Van Oord Offshore Wind (VooW) and therefore not part of the BLPH scope.

1.1.2 Project Concept

All components included in the BLPH will be integrated onshore on a topsides and installed in an offshore location within the boundaries of the HKN wind farm. At its simplest, the BLPH will store energy during periods of high electricity generation from renewable sources (a wind turbine generator and the floating solar PV farm) and release it during periods of low generation. In practice. It is expected that the energy stored will supplement generation from renewable sources to ensure that at least 1.0MW of power is exported to the electrical grid regardless of wind/solar availability.

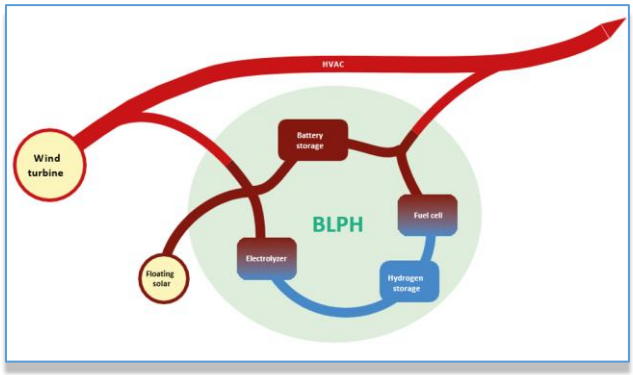


Figure 1.3 – BLPH Concept

Electricity in the BLPH will be stored in the form of electrons in a battery energy storage system (BESS) as well as converted into green hydrogen via water electrolysis. When the power output from the connecting wind turbine drops to below 1 MWe, the BLPH will return its stored energy to supplement the remaining power output. This will be by discharging the BESS, while stored hydrogen will be converted back into electricity using a fuel cell to extend the discharge duration.

The purpose of the BLPH is to function as a testbed for the integration of energy storage technologies with renewable generation. It is expected that equipment installed on the BLPH will operate as Normally Unmanned Installation for at least two (2) years with no or minimal maintenance and it will have its own independent control room with the ability to communicate with Crosswind's control room.

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2 SCOPE

This report presents the results of the load-out simulation of Transition Piece on board of VERVECE barge.

The selected cargo barge has the following main dimensions:

- Barge Name: Vervece
- LOA: 91.44 m
- Breadth: 27.43 m
- Depth: 6.1 m
- Frame Spacing: 2.286 m

The quay elevation above the mean sea level is 1.75 m.

The operation is planned to be performed the 17th of July 2025; the tide variation shall therefore be -20cm / +30cm.

Normal operation is planned in the rising tide phase. Tide variation shows, for the month of July-August, one deep tide saddle over the 24h. See appendix M.

Load out operation is classified type 2, given the possibility for water level differences due to environmental effects, as per section 10.2.1 of Ref./2/.

The analysis is performed in accordance with the design requirements, criteria and parameters reported in the Structural Design Premises, Ref./4/.

The International System of units (SI) is used in all engineering assessments and calculations.

The hull of the barge and the ballast compartments were modelled using Moses language, Ref./19/.

The Multi-Operational Structural Engineering Simulator (MOSES) offshore engineering software package, developed by Ultramarine Inc., was used to simulate intact stability, and assess the longitudinal strength of the transportation barge during load-out operations.

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3 REFERENCES

3.1 CODES AND STANDARDS

Doc. No.	Description
/1/ API RP 2A-WSD	Recommended practice for planning, designing and constructing fixed offshore platforms – Working stress design – 22nd edition – 2014
/2/ DNV-ST-N001	DNV - Marine operation and marine warranty - 2023

3.2 PROJECT DOCUMENTS

Doc. No.	Description
/3/ 123A90-DDL-MD-RE-01006	Monthly Weight Report
/4/ 123A90-DDL-ST-SP-90017	Structural Design Basis
/5/ 123A90-DDL-ST-SP-90018	Structural Material Specification for Topside & TP
/6/ 123A90-DDL-ST-SP-90118	Structural Material Specification for Flange & Bolts
/7/ 123A90-DDL-ST-TN-90119	Evaluating ISO and DNV approaches
/8/ 123A90-DDL-TI-SP-99014	Specification for TP, Topside and Caissons Transportation and Installation
/9/ 123A90-DDL-ST-RE-90008	TP loadout analysis
/10/ 123A90-DDL-TI-RE-99003	Technical note – validation of TP grillage and SF design on barge Vervece
/11/ 123A90-DDL-TI-RE-99004	TP Gr&SF report
/12/ 123A90-DDL-TI-DD-99036	TP – Upper Grillage plan view
/13/ 123A90-DDL-TI-DD-99037	TP upper grillage sections
/14/ 123A90-DDL-TI-DD-99038	TP upper grillage section and details
/15/ 123A90-DDL-TI-DD-99039	TP – Lower Grillage Assembly
/16/ 123A90-DDL-TI-DD-99040	TP – Lower Grillage – Plan and Section
/17/ 123A90-DDL-TI-RE-99013	TP & CF – Yard Checklist
/18/	Vervece Stability booklet

3.3 SOFTWARE

Doc. No.	Description
/19/ MOSES	Hydrostatic and Hydrodynamic Analysis Software for Offshore Installation and Platform Design– BENTLEY Inc, v.12

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4 TRANSPORTATION ARRANGMENT

The TP will be supported by SPMT installed directly below the upper grillage beams. It is assumed to be located on the barge deck as follows:

- With respect to the barge longitudinal axis an offset of 2416mm towards port side.
- Row 2 is located 18235mm from the barge stern.

The following figure shows the arrangement of the TP structure on the barge.

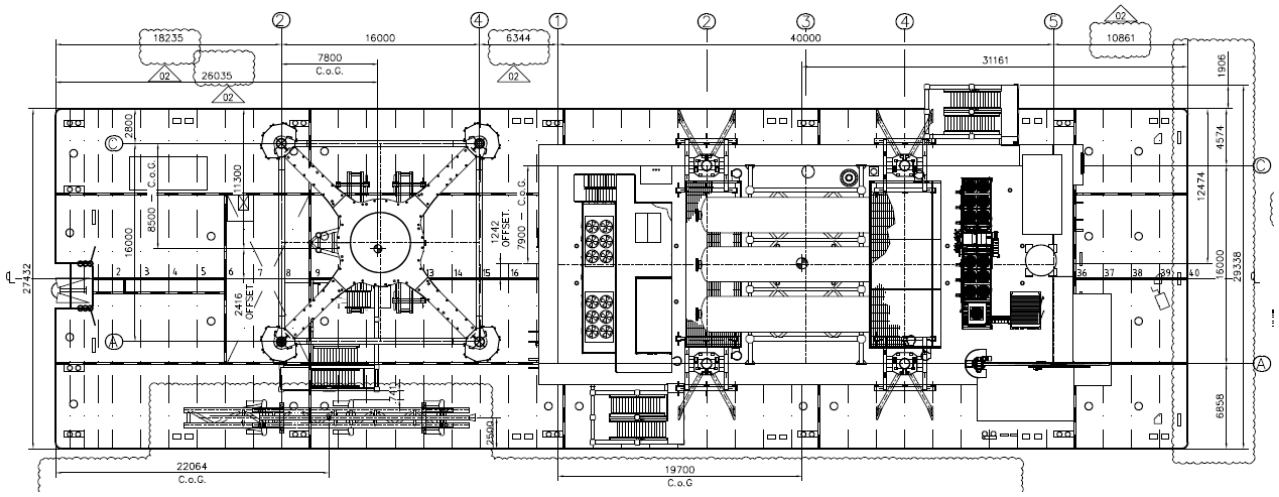


Figure 4.1 – Barge layout

Once the TP is loaded out onto the barge by means of the hydraulic trailers SPMT, it is lowered and it is supported on the 3 rows of the lower grillage beams.

The transportation restraint scheme is finally completed with the seafastenings.

Considering the depth of lower grillage (including shim plates mm), the bottom ends of TP flange is located at elevation +2.65 m above the barge deck.

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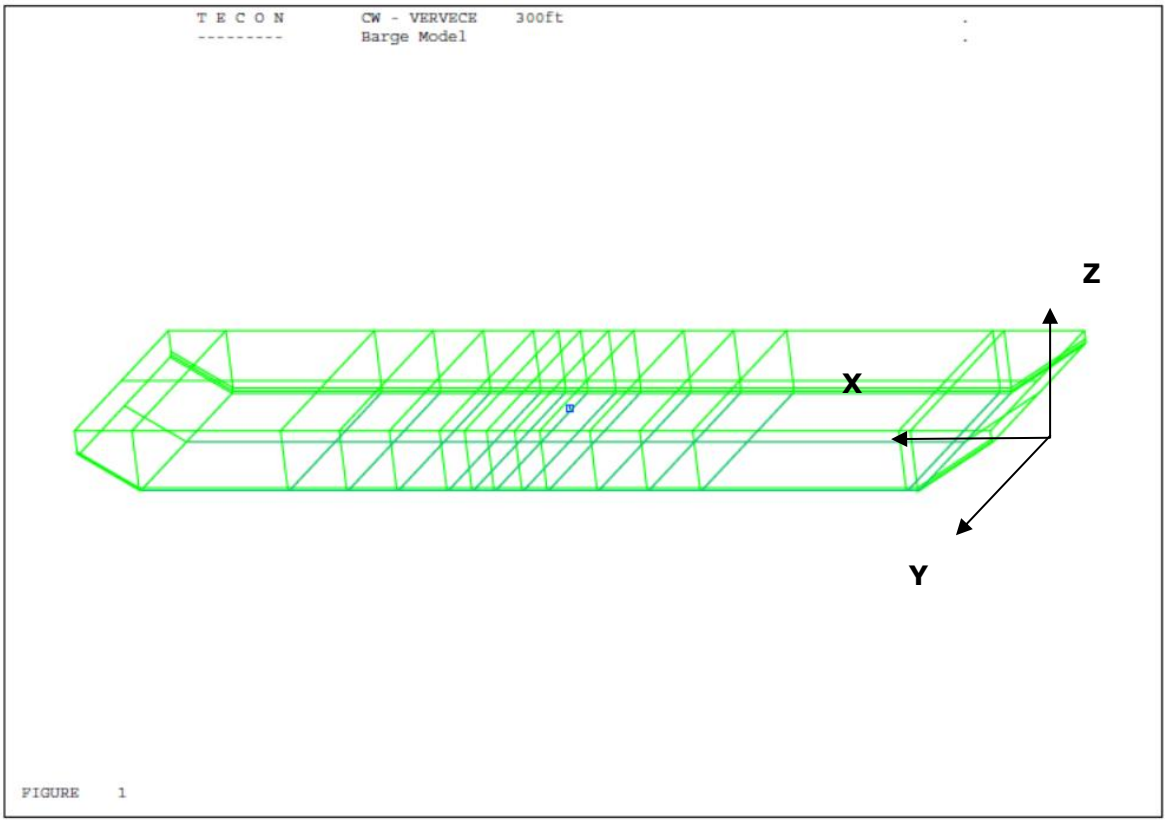
5 CARGO BARGE

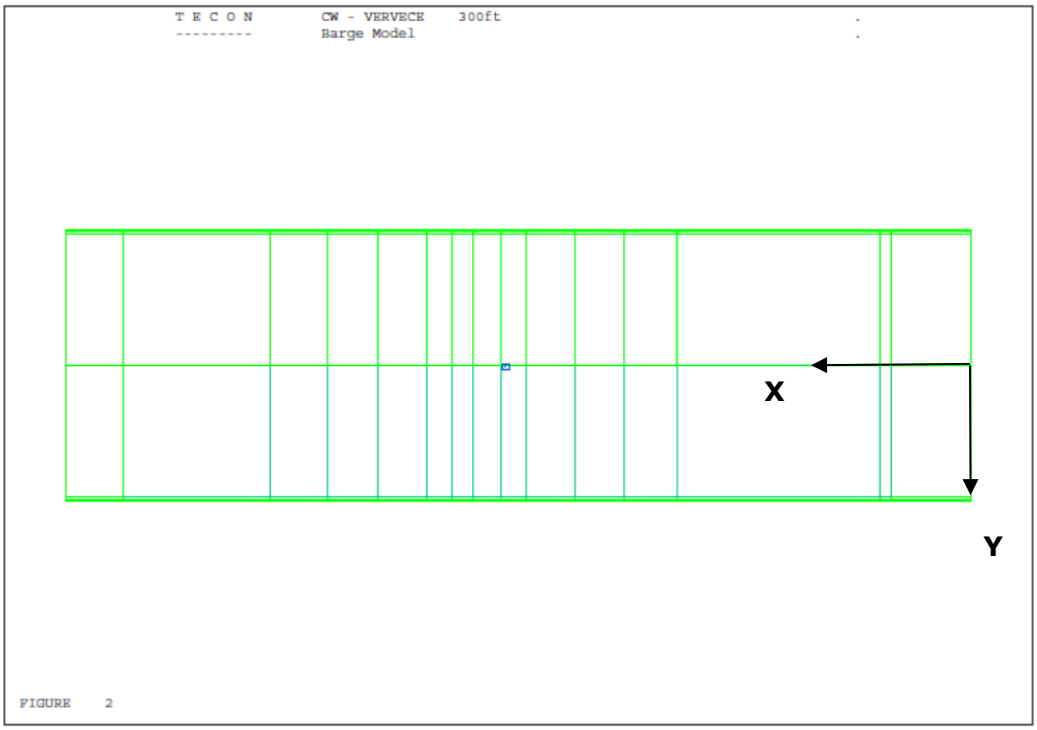
5.1 MOSES MODEL

VERVECE model was set out in MOSES language based on the hull drawings and on the tanks capacities and weight distribution included in the barge documents.

The standard Moses reference system has the origin at the bow of the barge, on the centreline and at keel elevation, the X axis positive from bow to stern, the Y axis positive to starboard and the Z axis positive upwards.

The Moses barge hull model is shown in the following figures:





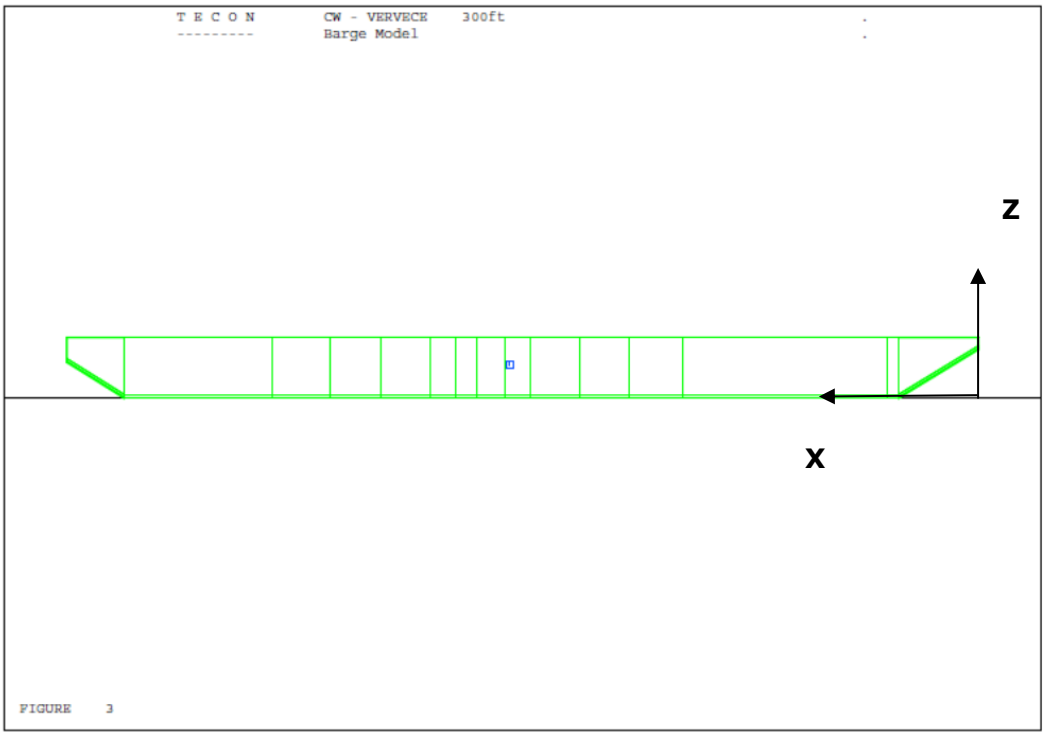


Figure 5.1 – Barge MOSES model and ref. system

The Barge hydrostatic properties are summarised in the following tables.

The density used for sea water is 1.025 t/m3.

```
**********************************************************************************************************
*                                          ***  MOSES   ***                                              *
*                                          ----------------                    25 March, 2025            *
*          T E C O N       CW - VERVECE    300ft                               .                         *
*          ---------       Hydrostatic Curves                                  .                         *
*                                                                                                        *
**********************************************************************************************************

                              +++ H Y D R O S T A T I C   P R O P E R T I E S +++
                              ==================================================

                  Process = DEFAULT: Units = Degrees, Meters, M-Tons, and MPa Unless Stated

                                        Results are in the Body System

                                              For Body VERVECE
```

/--- Condition ---			//- Displac-/	/-- Center Of Buoyancy --/			/ W.P. /	/C. Flotation /		/---- Metacentric Heights ----/			
Draft	Trim	Roll	M-Tons	---X---	---Y---	---Z---	Area	---X---	---Y---	-KMT-	-KML-	-BMT-	-BML-
0.10	0.00	0.00	211.04	46.85	0.00	0.05	2081.674	46.85	0.00	619.45	5128.82	619.40	5128.77
0.20	0.00	0.00	425.67	46.85	-0.00	0.10	2101.925	46.85	-0.00	313.63	2588.77	313.53	2588.67
0.30	0.00	0.00	641.89	46.85	0.00	0.15	2116.956	46.84	0.00	210.82	1743.33	210.67	1743.18
0.40	0.00	0.00	859.65	46.85	0.00	0.20	2132.015	46.84	0.00	159.57	1321.77	159.37	1321.57
0.50	0.00	0.00	1078.63	46.84	-0.00	0.25	2140.752	46.84	0.00	127.79	1066.52	127.54	1066.27
0.60	0.00	0.00	1298.50	46.84	0.00	0.30	2149.490	46.84	0.00	106.68	896.91	106.37	896.61
0.70	0.00	0.00	1519.27	46.84	-0.00	0.35	2158.227	46.83	0.00	91.64	776.06	91.29	775.70
0.80	0.00	0.00	1740.94	46.84	0.00	0.40	2166.965	46.83	0.00	80.39	685.59	79.99	685.19
0.90	0.00	0.00	1963.50	46.84	-0.00	0.45	2175.702	46.83	0.00	71.66	615.36	71.20	614.90
1.00	0.00	0.00	2186.96	46.84	0.00	0.50	2184.439	46.83	0.00	64.69	559.26	64.19	558.75
1.10	0.00	0.00	2411.31	46.84	-0.00	0.56	2193.177	46.83	0.00	59.00	513.42	58.45	512.87
1.20	0.00	0.00	2636.56	46.84	-0.00	0.61	2201.914	46.82	0.00	54.27	475.29	53.67	474.68
1.30	0.00	0.00	2862.70	46.84	-0.00	0.66	2210.652	46.82	0.00	50.28	443.07	49.62	442.41
1.40	0.00	0.00	3089.74	46.83	0.00	0.71	2219.389	46.82	0.00	46.87	415.49	46.16	414.78
1.50	0.00	0.00	3317.68	46.83	0.00	0.76	2228.126	46.82	0.00	43.92	391.62	43.16	390.86
1.60	0.00	0.00	3546.51	46.83	-0.00	0.81	2236.864	46.81	0.00	41.34	370.77	40.53	369.96
1.70	0.00	0.00	3776.23	46.83	-0.00	0.86	2245.601	46.81	0.00	39.07	352.40	38.21	351.54
1.80	0.00	0.00	4006.86	46.83	-0.00	0.91	2254.339	46.81	0.00	37.07	336.10	36.15	335.19
1.90	0.00	0.00	4238.37	46.83	-0.00	0.96	2263.076	46.81	0.00	35.28	321.54	34.31	320.58
2.00	0.00	0.00	4470.79	46.83	0.00	1.01	2271.813	46.81	0.00	33.67	308.46	32.65	307.45
2.10	0.00	0.00	4704.09	46.83	0.00	1.07	2280.551	46.80	0.00	32.22	296.65	31.15	295.58
2.20	0.00	0.00	4938.30	46.83	0.00	1.12	2289.288	46.80	0.00	30.91	285.93	29.79	284.81
2.30	0.00	0.00	5173.40	46.82	0.00	1.17	2298.026	46.80	0.00	29.71	276.17	28.54	275.00
2.40	0.00	0.00	5409.40	46.82	-0.00	1.22	2306.763	46.80	0.00	28.62	267.23	27.40	266.01
2.50	0.00	0.00	5646.29	46.82	-0.00	1.27	2315.500	46.79	0.00	27.63	259.03	26.35	257.76
2.60	0.00	0.00	5884.07	46.82	0.00	1.32	2324.238	46.79	0.00	26.71	251.48	25.38	250.15
2.70	0.00	0.00	6122.75	46.82	-0.00	1.38	2332.975	46.79	0.00	25.86	244.50	24.49	243.12
2.80	0.00	0.00	6362.33	46.82	0.00	1.43	2341.713	46.79	0.00	25.08	238.03	23.65	236.60
2.90	0.00	0.00	6602.80	46.82	0.00	1.48	2350.450	46.79	0.00	24.35	232.03	22.88	230.55
3.00	0.00	0.00	6844.17	46.82	0.00	1.53	2359.188	46.78	0.00	23.68	226.44	22.15	224.91
3.10	0.00	0.00	7086.44	46.81	0.00	1.58	2367.925	46.78	0.00	23.06	221.22	21.47	219.64
3.20	0.00	0.00	7329.60	46.81	0.00	1.63	2376.663	46.78	-0.00	22.47	216.35	20.84	214.71
3.30	0.00	0.00	7573.65	46.81	0.00	1.69	2385.400	46.78	0.00	21.93	211.78	20.24	210.10
3.40	0.00	0.00	7818.61	46.81	-0.00	1.74	2394.138	46.77	0.00	21.42	207.50	19.68	205.76
3.50	0.00	0.00	8064.45	46.81	0.00	1.79	2402.875	46.77	-0.00	20.94	203.47	19.15	201.68
3.60	0.00	0.00	8311.19	46.81	0.00	1.84	2411.444	46.77	-0.00	20.49	199.63	18.65	197.79
3.70	0.00	0.00	8558.60	46.81	0.00	1.90	2415.958	46.69	-0.00	20.04	195.05	18.14	193.15
3.80	0.00	0.00	8806.47	46.80	0.00	1.95	2420.419	46.61	-0.00	19.61	190.71	17.66	188.76
3.90	0.00	0.00	9054.78	46.80	0.00	2.00	2424.867	46.52	-0.00	19.21	186.60	17.21	184.60
4.00	0.00	0.00	9303.56	46.79	0.00	2.05	2429.302	46.44	-0.00	18.83	182.70	16.78	180.65
4.10	0.00	0.00	9552.79	46.78	-0.00	2.10	2433.730	46.36	0.00	18.48	179.00	16.37	176.90
4.20	0.00	0.00	9802.47	46.77	-0.00	2.16	2438.159	46.28	0.00	18.14	175.49	15.99	173.34
4.30	0.00	0.00	10052.61	46.75	0.00	2.21	2442.588	46.20	-0.00	17.82	172.15	15.62	169.95
4.40	0.00	0.00	10303.21	46.74	0.00	2.26	2447.017	46.11	0.00	17.52	168.98	15.26	166.72
4.50	0.00	0.00	10554.25	46.72	-0.00	2.31	2451.446	46.03	-0.00	17.24	165.95	14.93	163.64
4.60	0.00	0.00	10805.76	46.70	-0.00	2.36	2455.874	45.95	-0.00	16.97	163.06	14.61	160.69
4.70	0.00	0.00	11057.71	46.69	-0.00	2.42	2460.303	45.87	-0.00	16.72	160.30	14.30	157.88
4.80	0.00	0.00	11310.12	46.67	0.00	2.47	2464.732	45.79	-0.00	16.47	157.66	14.01	155.20
4.90	0.00	0.00	11562.96	46.65	0.00	2.52	2468.126	45.72	-0.00	16.24	154.95	13.72	152.43
5.00	0.00	0.00	11815.95	46.63	-0.00	2.57	2468.198	45.72	-0.00	16.00	151.75	13.43	149.18
5.10	0.00	0.00	12068.95	46.61	0.00	2.62	2468.228	45.72	-0.00	15.77	148.68	13.15	146.06
5.20	0.00	0.00	12321.94	46.59	-0.00	2.68	2468.245	45.72	0.00	15.55	145.74	12.88	143.06
5.30	0.00	0.00	12574.93	46.57	-0.00	2.73	2468.249	45.72	-0.00	15.34	142.91	12.62	140.18
5.40	0.00	0.00	12827.93	46.56	0.00	2.78	2468.249	45.72	-0.00	15.15	140.20	12.37	137.42
5.50	0.00	0.00	13080.93	46.54	0.00	2.83	2468.249	45.72	-0.00	14.96	137.59	12.13	134.76
5.60	0.00	0.00	13333.92	46.52	-0.00	2.88	2468.249	45.72	-0.00	14.78	135.09	11.90	132.20
5.70	0.00	0.00	13586.92	46.51	-0.00	2.93	2468.249	45.72	-0.00	14.61	132.68	11.68	129.74
5.80	0.00	0.00	13839.91	46.49	-0.00	2.99	2468.249	45.72	-0.00	14.45	130.36	11.46	127.37

5.90	0.00	0.00	14092.91	46.48	0.00	3.04	2468.249	45.72	-0.00	14.30	128.12	11.26	125.08
6.00	0.00	0.00	14345.91	46.47	-0.00	3.09	2468.249	45.72	-0.00	14.15	125.97	11.06	122.88

+++ H Y D R O S T A T I C C O E F F I C I E N T S +++

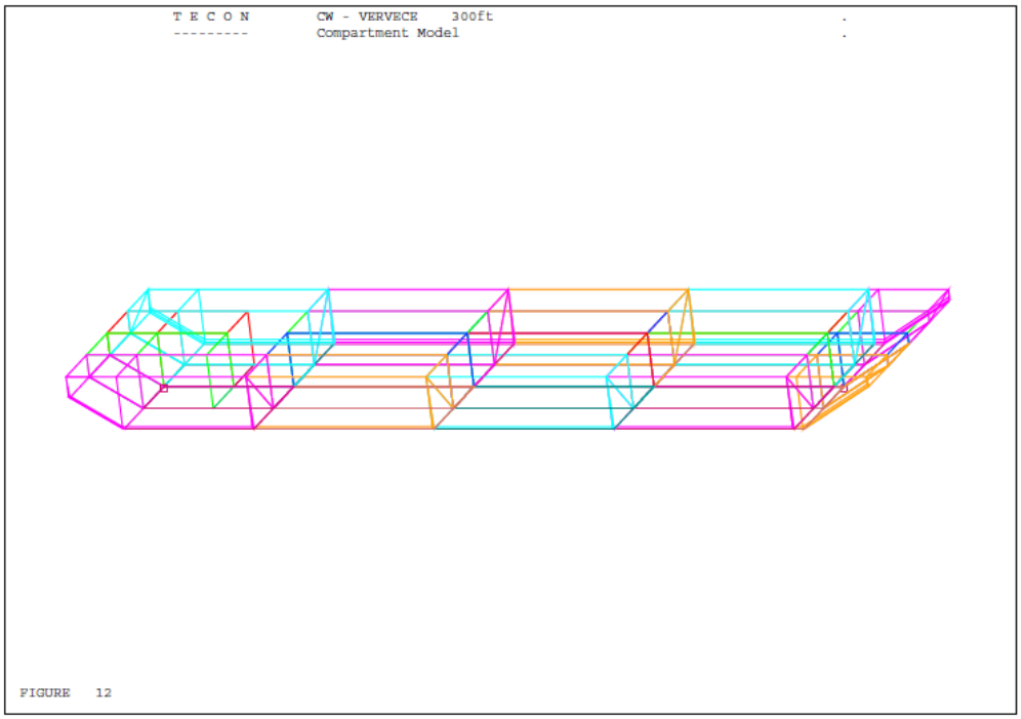
Process = DEFAULT: Units = Degrees, Meters, M-Tons, and MPa Unless Stated

Results are in the Body System

For Body VERVECE

/--- Condition ---/			Displacement	Wetted Surface	Load To Change Draft 1 MM	/--- For KG = KB ----/ Moment To Change .01 Deg	
Draft	Trim	Roll				--- Heel ---	--- Trim ---
0.10	0.00	0.00	211.04	2120.1	2.13	22.81	188.91
0.20	0.00	0.00	425.67	2151.4	2.15	23.29	192.32
0.30	0.00	0.00	641.89	2178.7	2.17	23.60	195.29
0.40	0.00	0.00	859.65	2206.1	2.19	23.91	198.28
0.50	0.00	0.00	1078.63	2232.2	2.19	24.01	200.73
0.60	0.00	0.00	1298.50	2258.4	2.20	24.11	203.20
0.70	0.00	0.00	1519.27	2284.7	2.21	24.21	205.69
0.80	0.00	0.00	1740.94	2311.0	2.22	24.30	208.20
0.90	0.00	0.00	1963.50	2337.4	2.23	24.40	210.72
1.00	0.00	0.00	2186.96	2363.9	2.24	24.50	213.27
1.10	0.00	0.00	2411.31	2390.4	2.25	24.60	215.84
1.20	0.00	0.00	2636.56	2417.0	2.26	24.70	218.43
1.30	0.00	0.00	2862.70	2443.6	2.27	24.79	221.04
1.40	0.00	0.00	3089.74	2470.3	2.27	24.89	223.67
1.50	0.00	0.00	3317.68	2497.1	2.28	24.99	226.33
1.60	0.00	0.00	3546.51	2524.0	2.29	25.09	229.00
1.70	0.00	0.00	3776.23	2550.9	2.30	25.19	231.69
1.80	0.00	0.00	4006.86	2577.9	2.31	25.28	234.41
1.90	0.00	0.00	4238.37	2604.9	2.32	25.38	237.15
2.00	0.00	0.00	4470.79	2632.0	2.33	25.48	239.90
2.10	0.00	0.00	4704.09	2659.2	2.34	25.58	242.68
2.20	0.00	0.00	4938.30	2686.4	2.35	25.68	245.48
2.30	0.00	0.00	5173.40	2713.7	2.36	25.77	248.30
2.40	0.00	0.00	5409.40	2741.1	2.36	25.87	251.15
2.50	0.00	0.00	5646.29	2768.5	2.37	25.97	254.01
2.60	0.00	0.00	5884.07	2796.0	2.38	26.07	256.90
2.70	0.00	0.00	6122.75	2823.6	2.39	26.17	259.80
2.80	0.00	0.00	6362.33	2851.2	2.40	26.26	262.73
2.90	0.00	0.00	6602.80	2878.9	2.41	26.36	265.69
3.00	0.00	0.00	6844.17	2906.7	2.42	26.46	268.66
3.10	0.00	0.00	7086.44	2934.5	2.43	26.56	271.66
3.20	0.00	0.00	7329.60	2962.4	2.44	26.66	274.67
3.30	0.00	0.00	7573.65	2990.3	2.45	26.75	277.71
3.40	0.00	0.00	7818.61	3018.4	2.45	26.85	280.78
3.50	0.00	0.00	8064.45	3046.4	2.46	26.95	283.86
3.60	0.00	0.00	8311.19	3074.5	2.47	27.05	286.91
3.70	0.00	0.00	8558.60	3100.3	2.48	27.10	288.53
3.80	0.00	0.00	8806.47	3126.2	2.48	27.15	290.13
3.90	0.00	0.00	9054.78	3152.1	2.49	27.20	291.73
4.00	0.00	0.00	9303.56	3178.0	2.49	27.25	293.33
4.10	0.00	0.00	9552.79	3204.0	2.49	27.30	294.94
4.20	0.00	0.00	9802.47	3230.0	2.50	27.35	296.55
4.30	0.00	0.00	10052.61	3256.0	2.50	27.40	298.17
4.40	0.00	0.00	10303.21	3282.0	2.51	27.45	299.80
4.50	0.00	0.00	10554.25	3308.1	2.51	27.50	301.43
4.60	0.00	0.00	10805.76	3334.3	2.52	27.55	303.06
4.70	0.00	0.00	11057.71	3360.4	2.52	27.60	304.71
4.80	0.00	0.00	11310.12	3386.6	2.53	27.65	306.35
4.90	0.00	0.00	11562.96	3412.3	2.53	27.69	307.62
5.00	0.00	0.00	11815.95	3436.0	2.53	27.69	307.65
5.10	0.00	0.00	12068.95	3459.8	2.53	27.69	307.66
5.20	0.00	0.00	12321.94	3483.6	2.53	27.69	307.67
5.30	0.00	0.00	12574.93	3507.3	2.53	27.69	307.67
5.40	0.00	0.00	12827.93	3531.1	2.53	27.69	307.67
5.50	0.00	0.00	13080.93	3554.9	2.53	27.69	307.67
5.60	0.00	0.00	13333.92	3578.7	2.53	27.69	307.67
5.70	0.00	0.00	13586.92	3602.4	2.53	27.69	307.67
5.80	0.00	0.00	13839.91	3626.2	2.53	27.69	307.67
5.90	0.00	0.00	14092.91	3650.0	2.53	27.69	307.67
6.00	0.00	0.00	14345.91	3673.8	2.53	27.69	307.67

The modelled compartment codes are shown in the following figure



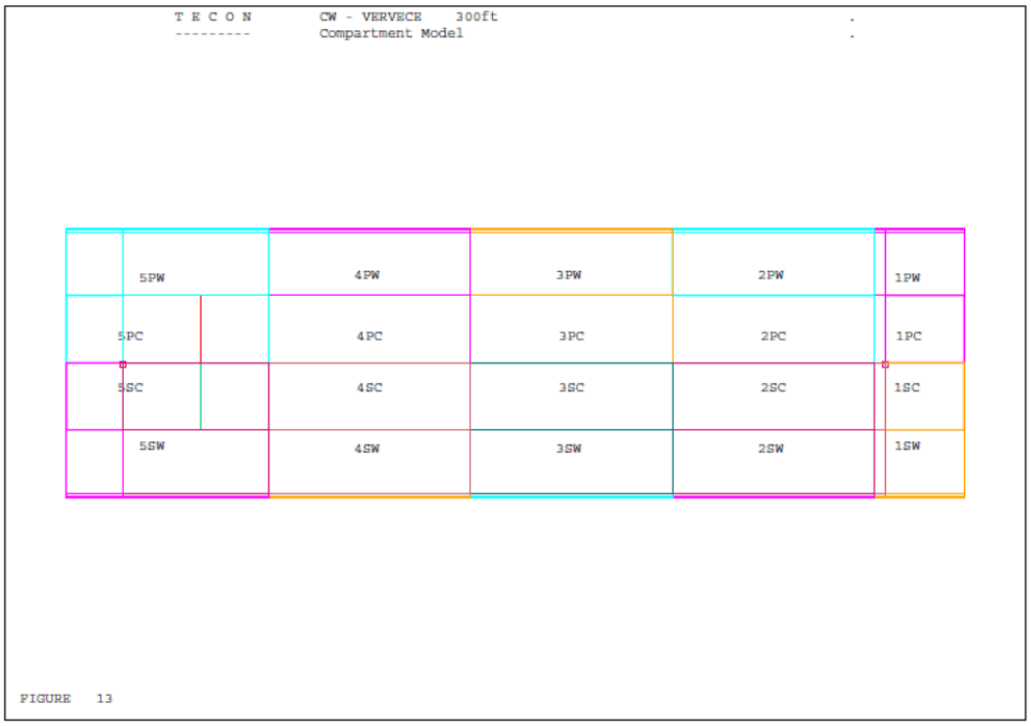


Figure 5.2 – Barge Compartments

The capacity plan for ballast compartments is presented in the Moses output.

The density used for ballast water is 1.025 t/m3 (same of sea water).

```
*****************************************************************************************************************
*                                          ***  MOSES   ***                                                     *
*          T E C O N       CW - VERVECE    300ft                                    .                          *
*          ---------       Capacity Plan                                            .                          *
*****************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ======================================================================
                Process = DEFAULT: Units = Degrees, Meters, M-Tons, and MPa Unless Stated

                                  Results Are Reported In Body System

                        Draft =     0.00 Roll Angle =     0.00 Pitch Angle =     0.00

                                     Wet Radii Of Gyration About CG

                                K-X =     7.95 K-Y =    24.53 K-Z =    25.56

                                          /-- Center of Gravity ---/  Sounding   % Full
                        Name      Weight    ---X---  ---Y---  ---Z---  -------- --------

                        ----------------  Part VERVECE    ------------
                        LOAD_GRO   1832.80    47.02     0.00     3.52
                        --- Contents ---
                        1PC         234.61     5.60    -3.43     3.81     6.10   100.00
                        1PW         234.98     5.60   -10.28     3.82     6.10   100.00
                        1SC         235.12     5.60     3.43     3.81     6.10   100.00
                        1SW         234.98     5.60    10.28     3.82     6.10   100.00
                        2PC         873.69    19.43    -3.43     3.05     6.10   100.00
                        2PW         873.63    19.43   -10.28     3.05     6.10   100.00
                        2SC         873.69    19.43     3.43     3.05     6.10   100.00
                        2SW         873.63    19.43    10.28     3.05     6.10   100.00
                        3PC         873.69    40.01    -3.43     3.05     6.10   100.00
                        3PW         873.63    40.00   -10.28     3.05     6.10   100.00
                        3SC         873.69    40.01     3.43     3.05     6.10   100.00
                        3SW         873.63    40.01    10.28     3.05     6.10   100.00
                        4PC         873.69    60.58    -3.43     3.05     6.10   100.00
                        4PW         873.63    60.58   -10.28     3.05     6.10   100.00
                        4SC         873.69    60.58     3.43     3.05     6.10   100.00
                        4SW         873.63    60.58    10.28     3.05     6.10   100.00
                        5PC         492.02    83.89    -3.43     3.31     6.10   100.00
                        5PW         793.58    80.40   -10.28     3.22     6.10   100.00
                        5SC         484.29    83.89     3.43     3.31     6.10   100.00
                        5SW         793.58    80.40    10.28     3.22     6.10   100.00
                        ========  ========  =======  =======  =======
                        Total     15819.89    45.53    -0.00     3.18
                        Buoyancy      0.00     0.00     0.00     0.00

                             +++ C O M P A R T M E N T   P R O P E R T I E S +++
                             ===================================================
                                       Results Are Reported In Body System

                            Process = DEFAULT: Units = Degrees, Meters, M-Tons, and MPa Unless Stated

                                      Fill   Specific /--- Ballast ---/ /------ % Full --------/ Sounding
                             Name     Type    Gravity  Maximum  Current   Max.    Min.    Curr.  --------

                            1PC     CORRECT     1.0250    234.6    234.6  100.00    0.00  100.00     6.096
                            1PW     CORRECT     1.0250    235.0    235.0  100.00    0.00  100.00     6.096
                            1SC     CORRECT     1.0250    235.1    235.1  100.00    0.00  100.00     6.096
                            1SW     CORRECT     1.0250    235.0    235.0  100.00    0.00  100.00     6.096
                            2PC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                            2PW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                            2SC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                            2SW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                            3PC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                            3PW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                            3SC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                            3SW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                            4PC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                            4PW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                            4SC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                            4SW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                            5PC     CORRECT     1.0250    492.0    492.0  100.00    0.00  100.00     6.096
                            5PW     CORRECT     1.0250    793.6    793.6  100.00    0.00  100.00     6.096
                            5SC     CORRECT     1.0250    484.3    484.3  100.00    0.00  100.00     6.096
                            5SW     CORRECT     1.0250    793.6    793.6  100.00    0.00  100.00     6.096
```

5.2 LIGHTSHIP

As indicated in the barge Stability booklet the barge has the following properties:

- Lightweight = 1833 t
- LCG = 44.42 m
- VCG = 3.524 m
- TCG = 0.0 m

5.3 DOWNFLOODING POINTS

Down flooding points have been modelled at barge edges and at deck elevation+600mm, Ref./18/.

Following FloodingPoints are included in the calculations:

No.	Type	Fr.AP(M)	Fr.CL(M)	Ab/BASE(M)	Description
1	3	90.000	-13.000	6.700	Ventilator, Tk. 1 PW
2	3	90.000	13.000	6.700	Ventilator, Tk. 1 SW
3	3	1.000	-13.000	6.700	Ventilator, Tk. 5 PW
4	3	1.000	13.000	6.700	Ventilator, TK. 5 SW

5.4 ALLOWABLE LONG. BENDING MOMENT AND SHEAR IN STILL WATER

Section 13 of Ref./18/, indicates the following values of bending moment and shear in still water:

	Max B.M.	W
Hogging	26700 tm	3.24 m3
Sagging	26130 tm	3.24 m3
Max shear midship	6150 ton	

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6 LOAD-OUT SIMULATION

The load-out was fully simulated using the software MOSES. The TP grillage layout on Vervece barge is shown below. Pre installed items on barge in final position are:

- CF and its grillage
- BLPH lower grillage
- TP lower grillage.

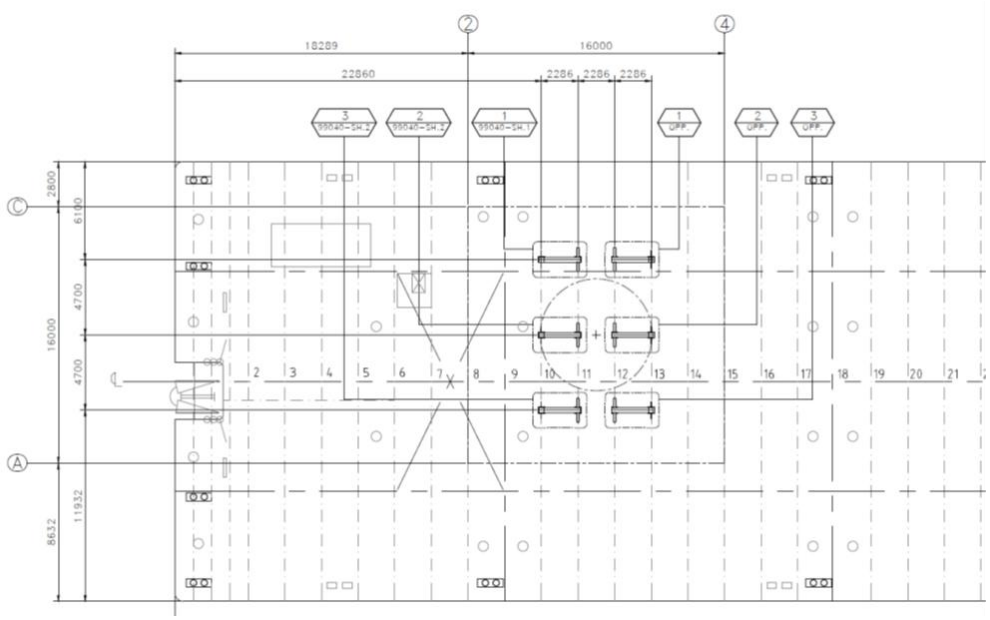


Figure 6.1 – Grillage arrangement – Top view

The operation was divided into 14 steps plus the initial step 0 that shows the initial ballast pattern. In recognition of the physical limitations of the ballasting system, the following criteria have been applied in the load-out analyses:

- At 3% volume ballast tanks are considered empty.
- at 98% volume ballast tanks are considered full.

The load-out simulation was performed according to the following premises:

Load-out date: 17th of July 2025

Starting hour: 8:00 AM

Trailer speed: 9 to 20 m / hour

6.1 LOAD DESCRIPTION

The SPMT drawing, Ref. Appendix H, shows all data for the load-out on board of the cargo barge.

The following figures show parts of the above-mentioned drawing.

CoG position is taken from ref. /3/, according to the last issued WCR revision, TP has the following CoG and weight position relevant to loadout condition:

- Loadout expected weight 361.5 ton (-55.5 ton compared with WCR) including SPMTs;
  TP weighed weight +3% cont. = 254.5 ton
  SPMTs and spacers = 99+8 ton
- X_G = 19.663 m;
- Y_G = 8.774 m;
- Z_G = 20.10 m.

TP loadout scheme with CoG position is shown in the next figure.

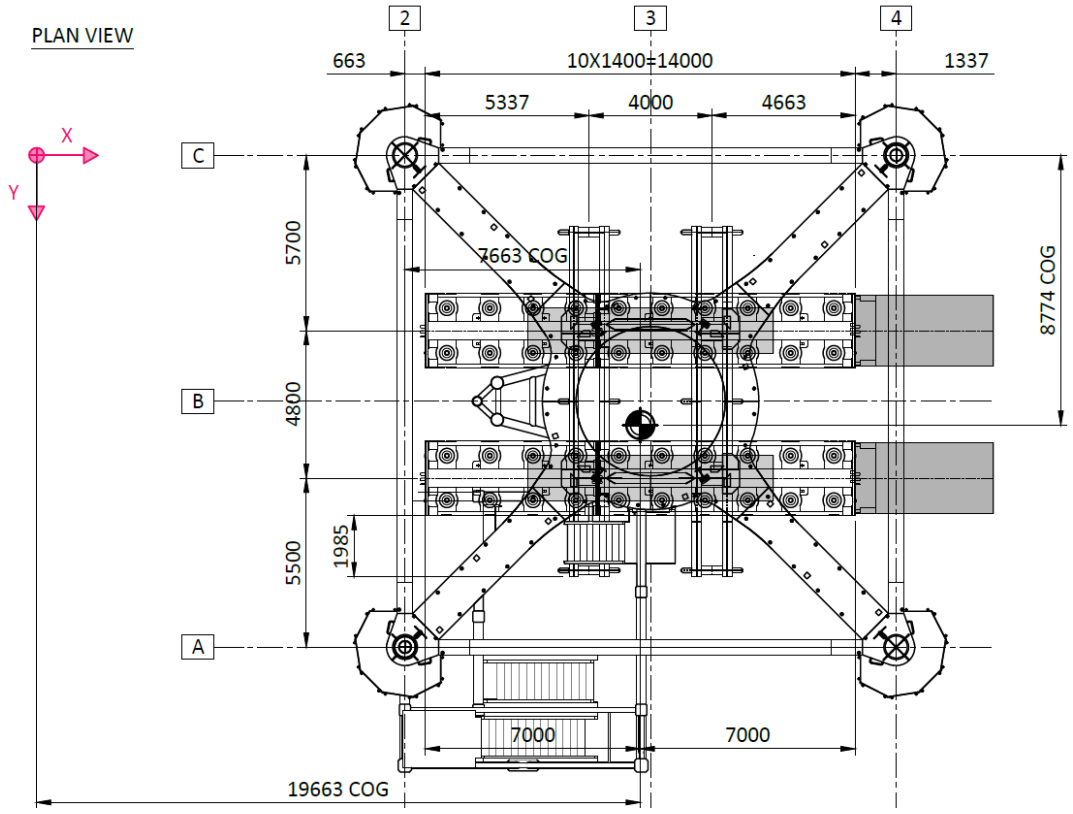


Figure 6.2 – TP loadout scheme

Note: ballast plan is prepared according to WCR having, the weighing operation, confirmed the CoG position and the final weight.

Lower Grillage weight, CF and its grillage and SF and BLPH grillage were all applied as external loads to the barge model.

- TP LOW-GRIL WEIGHT = 45 t
- BLPH GRILLAGE WEIGHT = 75 t
- CF WEIGHT = 28 t
- CF GRILLAGE WEIGHT = 0.5 t

TRANSPORT CONFIGURATION: 20 AXLES			
ITEM weight (contingency included)			**310 t**
SPMT dead weight			99 t
EQUIPMENT weight			8 t
TOTAL weight			417 t
		BASE VALUES	**MAX VALUES**
Group A 6 AXLES	Weight per axles	26,7 t	33,5 t
	Capacity per axles	36,0 t	36,0 t
	Cylinder pressure	183 bar	233 bar
	Contact pressure under the wheel	8,3 kg/cm^2	9,1 kg/cm^2
	Average Ground pressure	7,8 t/m^2	9,8 t/m^2
Group B 6 AXLES	Weight per axles	21,2 t	27,7 t
	Capacity per axles	36,0 t	36,0 t
	Cylinder pressure	143 bar	190 bar
	Contact pressure under the wheel	7,4 kg/cm^2	8,4 kg/cm^2
	Average Ground pressure	6,2 t/m^2	8,1 t/m^2
Group C-D 8 AXLES (1 Hidden Axles)	Weight per axles	18,5 t	22,0 t
	Capacity per axles	36,0 t	36,0 t
	Cylinder pressure	124 bar	149 bar
	Contact pressure under the wheel	6,9 kg/cm^2	7,6 kg/cm^2
	Average Ground pressure	5,5 t/m^2	6,5 t/m^2

Figure 6.3 – Loads

For load out simulation the loads have been described as a set of concentrated forces, one per each trailer axle, i.e. at 1.4m interval. The following tables report the complete set of loads applied, with ref to the above fig. 6.2.

LoadNam	Weight	Xw	Yw	Zw
GA-1-01	26.70	0.000	2.258	1.000
GA-1-02	26.70	1.400	2.258	1.000
GA-1-03	26.70	2.800	2.258	1.000
GA-1-04	26.70	4.200	2.258	1.000
GA-1-05	26.70	5.600	2.258	1.000
GA-1-06	13.35	7.000	2.983	1.000
GA-1-07	13.35	8.400	2.983	1.000
GB-1-01	21.20	0.000	-2.542	1.000
GB-1-02	21.20	1.400	-2.542	1.000
GB-1-03	21.20	2.800	-2.542	1.000
GB-1-04	21.20	4.200	-2.542	1.000
GB-1-05	21.20	5.600	-2.542	1.000
GB-1-06	10.60	7.000	-3.267	1.000
GB-1-07	10.60	8.400	-3.267	1.000
GC-1-01	9.25	7.000	-1.817	1.000
GC-1-02	9.25	8.400	-1.817	1.000
GC-1-04	18.50	11.200	-2.542	1.000
GC-1-05	18.50	12.600	-2.542	1.000
GC-2-01	9.25	7.000	1.533	1.000
GC-2-02	9.25	8.400	1.533	1.000
GC-2-03	18.50	9.800	2.258	1.000
GC-2-04	18.50	11.200	2.258	1.000
GC-2-05	18.50	12.600	2.258	1.000

Table 6.1 – Axles loads

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6.2 BALLAST WATER MANAGEMENT

Barge is equipped with an internal ballast management system; therefore, water can be both moved to other tanks or discharged to the sea.

6.3 LOADOUT SEQUENCE

The above-described operation sequence was divided into the following steps:

Step 0 Barge ready for starting load-out of the TP from the bow. The ballast pattern is selected in order of having the barge deck at the same elevation as the quay.

Barge is with 4.30m draft even keel

VERVECE - BALLAST PLAN - load-out TP - Ph.0 - Draft = 4.30m evenkeel

STERN						BOW
	74.0% **5PW** u=1.45m		50% **4PW** u=3.0m	50% **3PW**	50% **2PW** u=3.0m	90% **1PW** u=0.40m
	50% **5PC** u=3.0m		full **4PC**	30% **3PC** u=4.30m	50% **2PC** u=3.0m	full **1PC**
	50% **5SC** u=3.0m		full **4SC**	30% **3SC** u=4.30m	50% **2SC** u=3.0m	full **1SC**
	73.5% **5SW** u=1.45m		50% **4SW** u=3.0m	50% **3SW**	50% **2SW** u=3.0m	90% **1SW** u=0.40m

Figure 6.4 – Loadout Phase 0

Step 1 The first 2 axles of group A and B enter the barge bow.

Step 2 Trailers advance 2.80 m: next 2+2 axles of trailers of group A and B on board. Total axles on board: 6.

Step 3 Trailers advance 2.80 m: next 2+2 axles of trailers of group A and B on board. Total axles on board: 10.

Step 4 Trailers advance 2.80 m: next 1 axle of trailers of group A and 1 axle of group B and first axles of trailers of group C/D on board. Total axles on board: 14.

Step 5 Trailers advance 4.2 m: all groups on board.

Step 6 Trailers advance 9 m

Step 7 Trailers advance 9 m

Step 8 Trailers advance 9 m

Step 9 Trailers advance 9 m

Step 10 Trailers shift toward PS

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Step 11 Trailers advance 7 m

Step 12 Trailers shift toward PS for final alignment with grillage

Step 13 Trailers advance 8 m

Step 14 Trailers advance 8.57m. TP reaches the transport position.

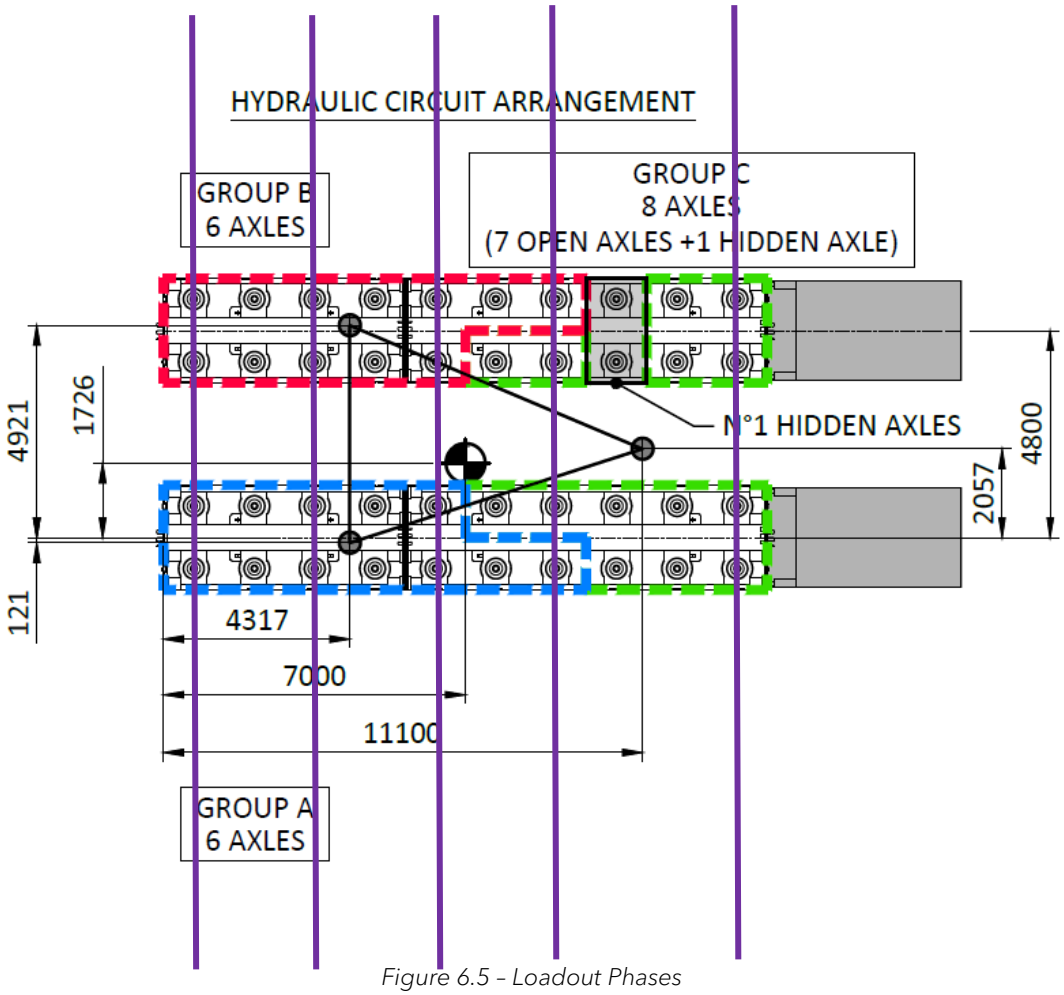


Figure 6.5 – Loadout Phases

The here below tables summarize the ballast variations.

TECON CW TP LOADOUT ON VERVECE

BALLASTING SUMMARY

STEP	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	MAX.	MIN.
TRAVEL DISTANCE [m]	0	3.01	5.81	8.61	11.41	15.61	24.61	33.61	42.61	51.61	51.61	58.61	58.61	66.61	75.18		
WEIGHT ON BARGE [t]	0	48	144	240	324	417	417	417	417	417	417	417	417	417	417		
VERVECE BARGE DATA:																	
Displacement [t]	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053		
Draft at Bow[m]	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		
Draft at Stern[m]	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		
Pitch Angle [deg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Roll Angle [deg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
GMT (m)	14.4	14.38	14.33	14.27	14.22	14.17	14.19	14.21	14.23	14.24	14.24	14.25	14.25	14.25	14.26		
ACTIVE TANKS BALLAST WEIGHT [t]																MAX.	MIN.
2PW	428	396	335	277	227	179	210	240	270	300	286	310	295	323	351	428	179
2SW	423	392	330	271	221	171	202	232	263	293	307	331	345	372	401	423	171
5PW	574	581	595	607	614	618	587	556	526	496	482	458	444	417	388	618	388
5SW	569	577	590	601	608	610	579	549	518	488	503	478	493	466	437	610	437
ACTIVE TANKS SOUNDING [m]																MAX.	MIN.
2PW	3.06	2.84	2.4	1.98	1.63	1.28	1.5	1.72	1.94	2.15	2.05	2.22	2.12	2.31	2.52	3.06	1.28
2SW	3.03	2.81	2.36	1.94	1.58	1.23	1.45	1.67	1.88	2.1	2.2	2.37	2.47	2.66	2.87	3.03	1.23
5PW	4.65	4.7	4.8	4.89	4.94	4.97	4.74	4.52	4.3	4.09	3.99	3.81	3.71	3.52	3.3	4.97	3.30
5SW	4.62	4.67	4.77	4.84	4.9	4.91	4.69	4.47	4.25	4.03	4.14	3.96	4.07	3.87	3.66	4.91	3.66
ACTIVE TANKS ULLAGE [m]																MAX.	MIN.
2PW	3.03	3.26	3.69	4.11	4.47	4.81	4.59	4.37	4.16	3.94	4.05	3.87	3.98	3.79	3.58	4.81	3.03
2SW	3.06	3.29	3.73	4.16	4.51	4.87	4.65	4.43	4.21	4	3.9	3.73	3.63	3.43	3.23	4.87	3.06
5PW	1.45	1.39	1.29	1.21	1.15	1.13	1.35	1.57	1.79	2.01	2.11	2.28	2.38	2.58	2.79	2.79	1.13
5SW	1.48	1.43	1.33	1.25	1.2	1.19	1.41	1.63	1.85	2.06	1.96	2.13	2.03	2.22	2.43	2.43	1.19
BALLAST OPERATION (ballast variation) [t]																TOTAL VARIATION [t]	
2PW		-31	-61	-59	-50	-48	31	30	30	30	-14	24	-15	27	29	479	
2SW		-32	-62	-59	-50	-50	31	30	30	30	14	24	14	27	29	462	
5PW		8	14	12	8	3	-31	-30	-30	-30	-14	-24	-14	-27	-29	274	
5SW		7	13	11	7	2	-31	-30	-30	-30	14	-24	15	-27	-29	270	
BALLAST OPERATION (Pump Capacity)[m^3/h]																MAX.	MIN.
2PW		-186	-244	-236	-300	-288	186	180	180	180	-84	144	-90	162	174	186	-300
2SW		-192	-248	-236	-300	-300	186	180	180	180	84	144	84	162	174	186	-300
5PW		48	56	48	48	18	-186	-180	-180	-180	-84	-144	-84	-162	-174	56	-186
5SW		42	52	44	42	12	-186	-180	-180	-180	84	-144	90	-162	-174	90	-186
time (min.)	0	10'	15'	15'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	150'	-

Table 6.2 – Loadout summary Tables

From the above table the total amount of moved water is 417 t (same of WCR).

Weight ballast (t)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Barge draft [m]	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
2PW	396	335	277	227	179	210	240	270	300	286	310	295	323	351
2SW	392	330	271	221	171	202	232	263	293	307	331	345	372	401
5PW	581	595	607	614	618	587	556	526	496	482	458	444	417	388
5SW	577	590	601	608	610	579	549	518	488	503	478	493	466	437

Ballast Sounding (m)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Barge draft [m]	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
2PW	2.84	2.4	1.98	1.63	1.28	1.5	1.72	1.94	2.15	2.05	2.22	2.12	2.31	2.52
2SW	2.81	2.36	1.94	1.58	1.23	1.45	1.67	1.88	2.1	2.2	2.37	2.47	2.66	2.87
5PW	4.7	4.8	4.89	4.94	4.97	4.74	4.52	4.3	4.09	3.99	3.81	3.71	3.52	3.3
5SW	4.67	4.77	4.84	4.9	4.91	4.69	4.47	4.25	4.03	4.14	3.96	4.07	3.87	3.66

Weight ballast Variation (t)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Barge draft [m]	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
2PW	-31	-61	-59	-50	-48	31	30	30	30	-14	24	-15	27	29
2SW	-32	-62	-59	-50	-50	31	30	30	30	14	24	14	27	29
5PW	8	14	12	8	3	-31	-30	-30	-30	-14	-24	-14	-27	-29
5SW	7	13	11	7	2	-31	-30	-30	-30	14	-24	15	-27	-29

Ballast Ullage (t)

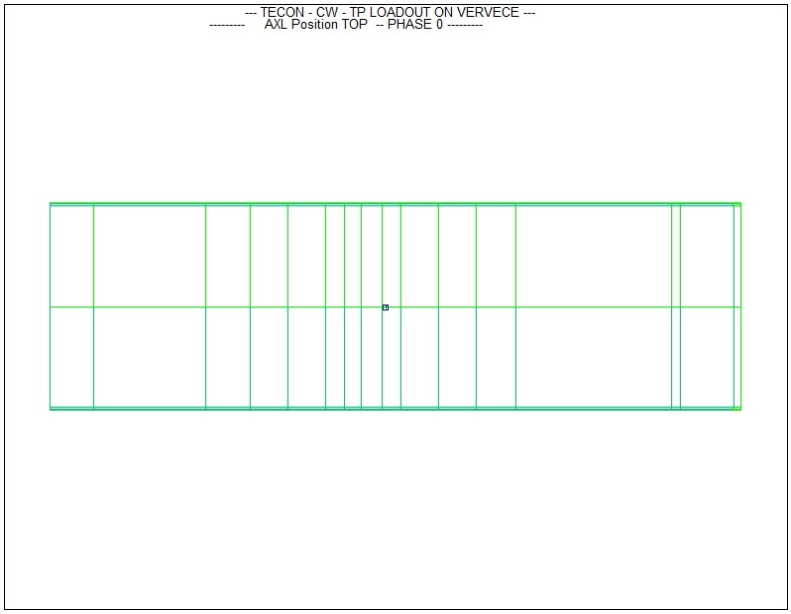
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Barge draft [m]	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
2PW	3.26	3.69	4.11	4.47	4.81	4.59	4.37	4.16	3.94	4.05	3.87	3.98	3.79	3.58
2SW	3.29	3.73	4.16	4.51	4.87	4.65	4.43	4.21	4	3.9	3.73	3.63	3.43	3.23
5PW	1.39	1.29	1.21	1.15	1.13	1.35	1.57	1.79	2.01	2.11	2.28	2.38	2.58	2.79
5SW	1.43	1.33	1.25	1.2	1.19	1.41	1.63	1.85	2.06	1.96	2.13	2.03	2.22	2.43

Table 6.3 – Loadout summary Tables - Detailed

Ballast variation lower than 15 ton are to be considered for numerical stability only.

6.4 MOSES OUTPUT SUMMARY

6.4.1 Step 0: barge ready for loadout. Barge is with 4.30m draft evenkeel



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

	5PW 574 t	4PW 426 t	3PW 426 t	2PW 428 t	1PW 206 t
	5PC 240 t	4PC Full	3PC Empty	2PC 426 t	1PC Full
	5SC 236 t	4SC Full	3SC Empty	2SC 426 t	1SC Full
	5SW 569 t	4SW 426 t	3SW 426 t	2SW 423 t	1SW 206 t

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)

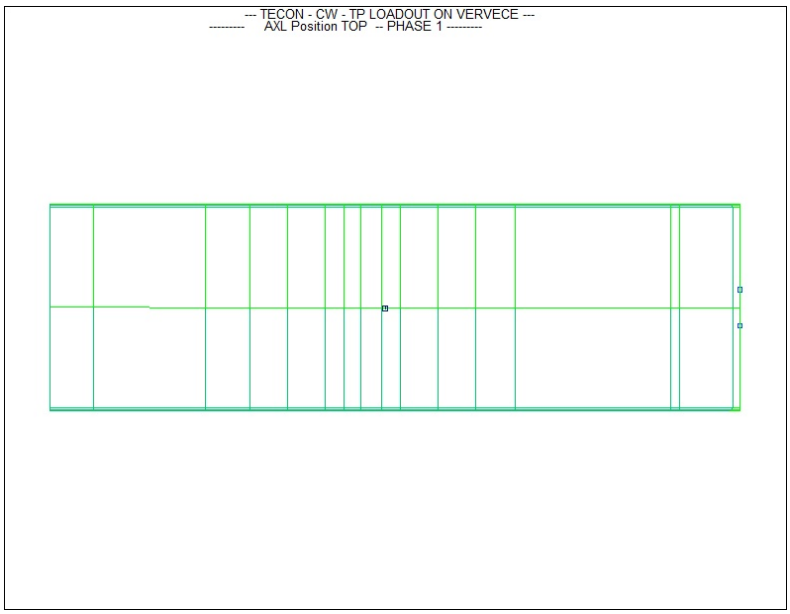
PHASE: 0 STRUCTURE WEIGHT ON BARGE(t): 0 DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00

Phase -0-

Tank No	Ballast	Sounding	Ullage	Tank No	Ballast	Sounding	Ullage
1PC	224	6,02	,08	3SC	256	1,83	4,27
1PW	206	5,70	,40	3SW	426	3,05	3,04
1SC	225	6,02	,08	4PC	835	5,97	,12
1SW	206	5,70	,40	4PW	426	3,05	3,04
2PC	426	3,05	3,05	4SC	835	5,97	,12
2PW	428	3,06	3,03	4SW	426	3,05	3,04
2SC	426	3,05	3,05	5PC	240	3,42	2,67
2SW	423	3,03	3,06	5PW	574	4,65	1,45
3PC	256	1,83	4,27	5SC	236	3,42	2,67
3PW	426	3,05	3,04	5SW	569	4,62	1,48

Being the distance between quay and barge bow <= 1.0m, the load of the axles is considered onshore on onboard.

6.4.2 Step 1



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS - OUT

	5PW 8 t	4PW	3PW	2PW -31 t	1PW
	5PC	4PC	3PC	2PC	1PC
	5SC	4SC	3SC	2SC	1SC
	5SW 7 t	4SW	3SW	2SW -32 t	1SW

Barge pump STB - OUT

PHASE: 1
TRAVEL DISTANCE: 3,01

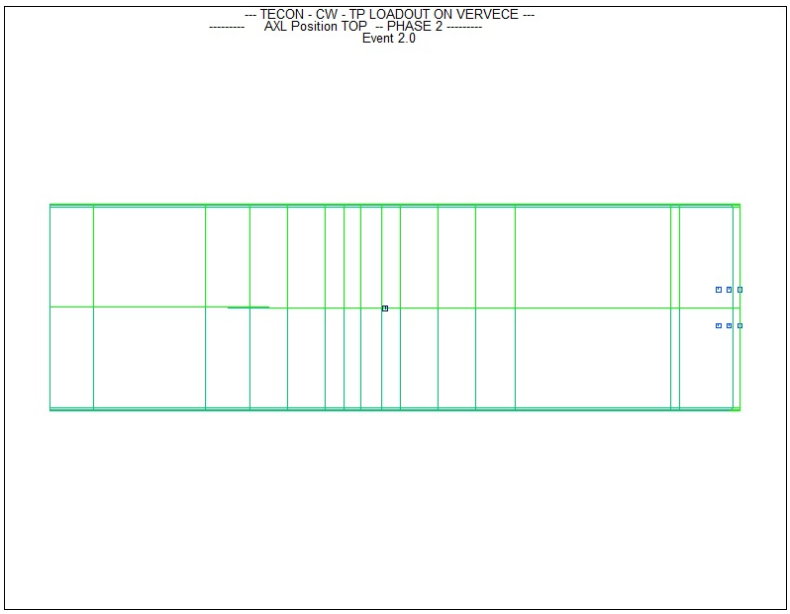
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 47,9

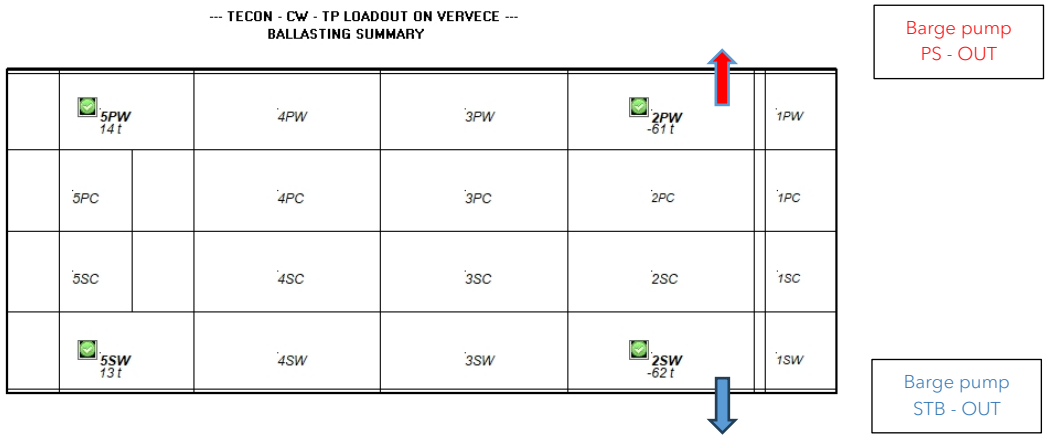
Phase -1-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-31	2,84	-,22	3,26	,22	186,
2SW	-32	2,81	-,23	3,29	,23	192,
5PW	8	4,70	,06	1,39	-,06	48,
5SW	7	4,67	,05	1,43	-,05	42,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.3 Step 2





PHASE: 2
TRAVEL DISTANCE: 5,81

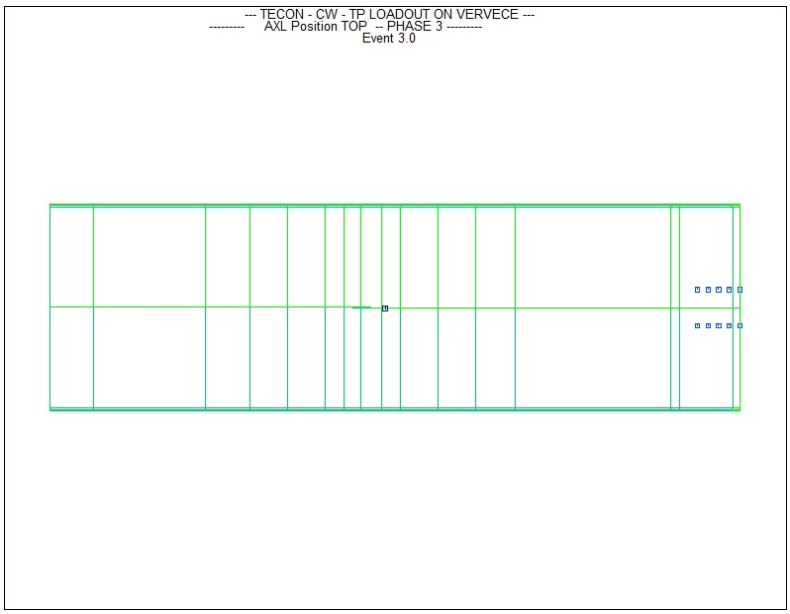
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 143,7

Phase -2-

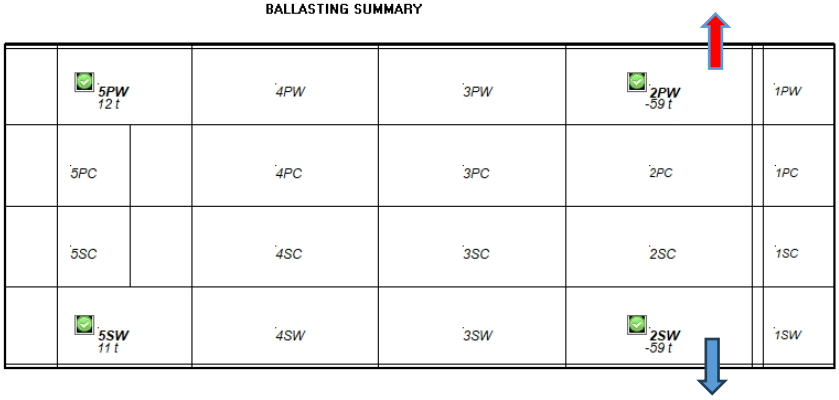
Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-61	2,40	-,44	3,69	,44	244,
2SW	-62	2,36	-,44	3,73	,44	248,
5PW	14	4,80	,10	1,29	-,10	56,
5SW	13	4,77	,10	1,33	-,10	52,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.4 Step 3



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY



Barge pump
PS - OUT

Barge pump
STB - OUT

PHASE: 3
TRAVEL DISTANCE: 8,61

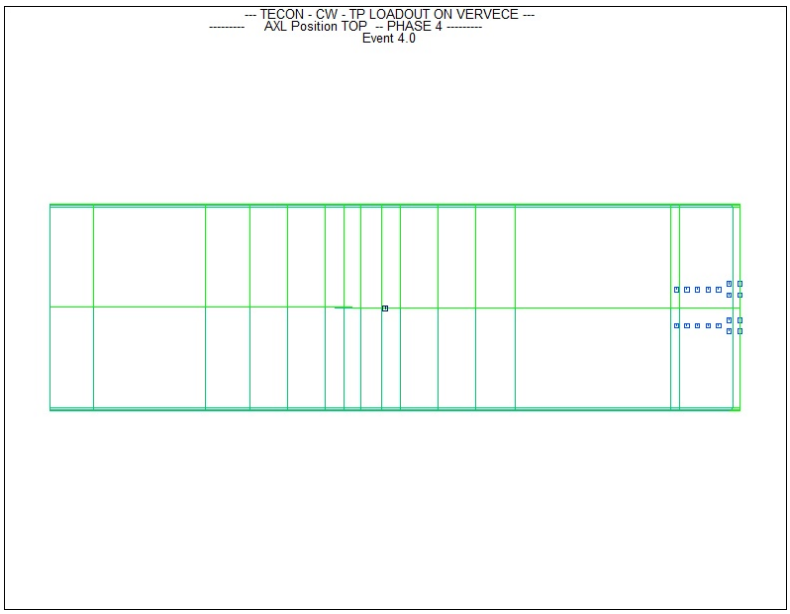
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 239,5

Phase -3-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-59	1,98	-,42	4,11	,42	236,
2SW	-59	1,94	-,42	4,16	,42	236,
5PW	12	4,89	,08	1,21	-,08	48,
5SW	11	4,84	,08	1,25	-,08	44,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.5 Step 4



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

	5PW 8 t	4PW	3PW	2PW -50 t	1PW
	5PC	4PC	3PC	2PC	1PC
	5SC	4SC	3SC	2SC	1SC
	5SW 7 t	4SW	3SW	2SW -50 t	1SW

Barge pump PS - OUT

Barge pump STB - OUT

PHASE: 4
TRAVEL DISTANCE: 11,41

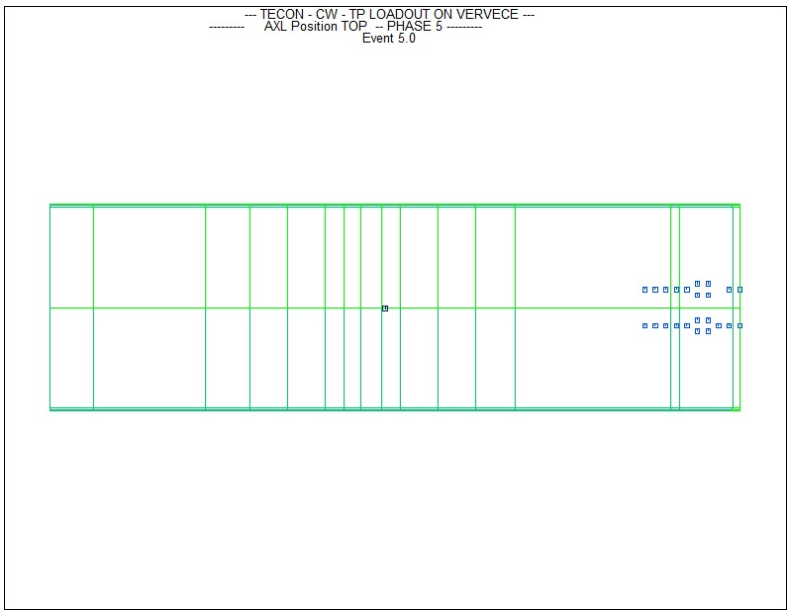
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 324,4

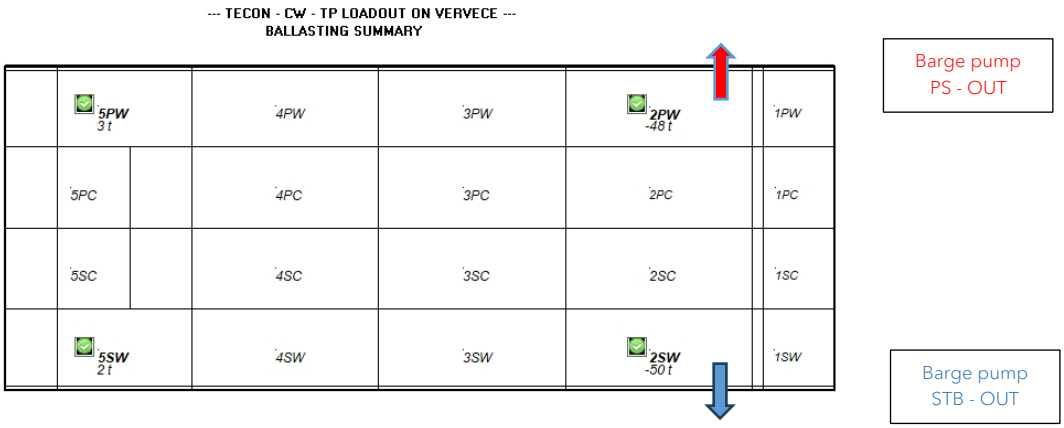
Phase -4-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-50	1,63	-,36	4,47	,36	300,
2SW	-50	1,58	-,36	4,51	,36	300,
5PW	8	4,94	,05	1,15	-,05	48,
5SW	7	4,90	,05	1,20	-,05	42,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.6 Step 5 – All axles on board





PHASE: 5
TRAVEL DISTANCE: 15,61

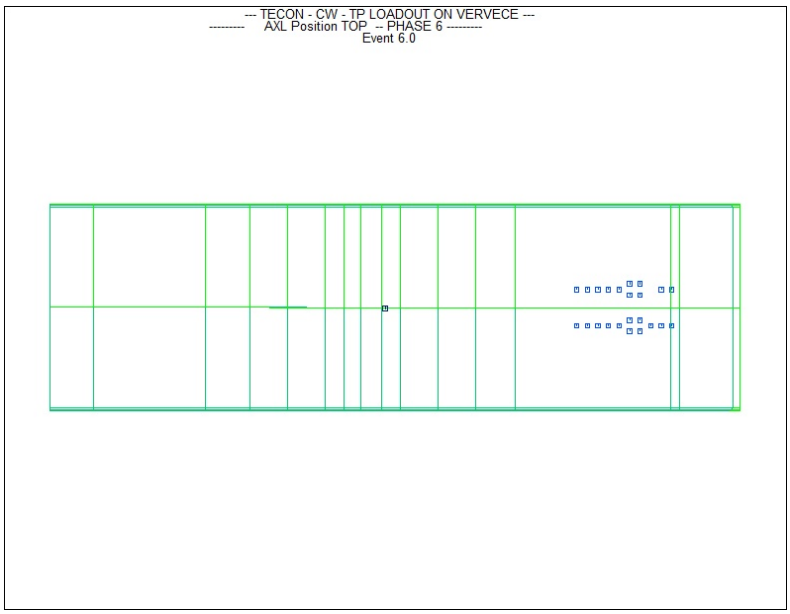
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -5-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-48	1,28	-,34	4,81	,34	288,
2SW	-50	1,23	-,35	4,87	,35	300,
5PW	3	4,97	,02	1,13	-,02	18,
5SW	2	4,91	,01	1,19	-,01	12,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.7 Step 6: Shifting phase. All axles on board.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -31 t	4PW	3PW	2PW 31 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -31 t	4SW	3SW	2SW 31 t	1SW

Barge pump STB

PHASE: 6
TRAVEL DISTANCE: 24,61

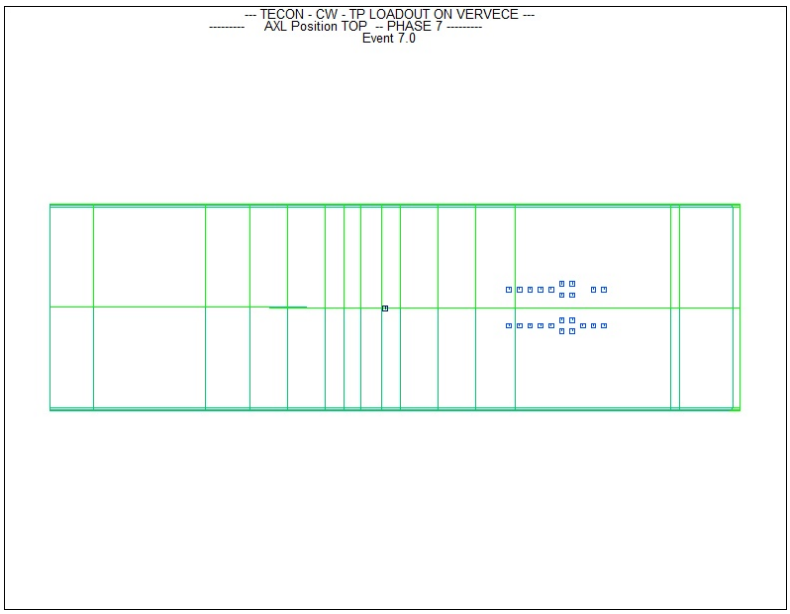
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -6-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	31	1,50	,22	4,59	-,22	186,
2SW	31	1,45	,22	4,65	-,22	186,
5PW	-31	4,74	-,22	1,35	,22	186,
5SW	-31	4,69	-,22	1,41	,22	186,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.8 Step 7: Shifting phase. All axles on board.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -30 t	4PW	3PW	2PW 30 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -30 t	4SW	3SW	2SW 30 t	1SW

Barge pump STB

PHASE: 7
TRAVEL DISTANCE: 33,61

DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

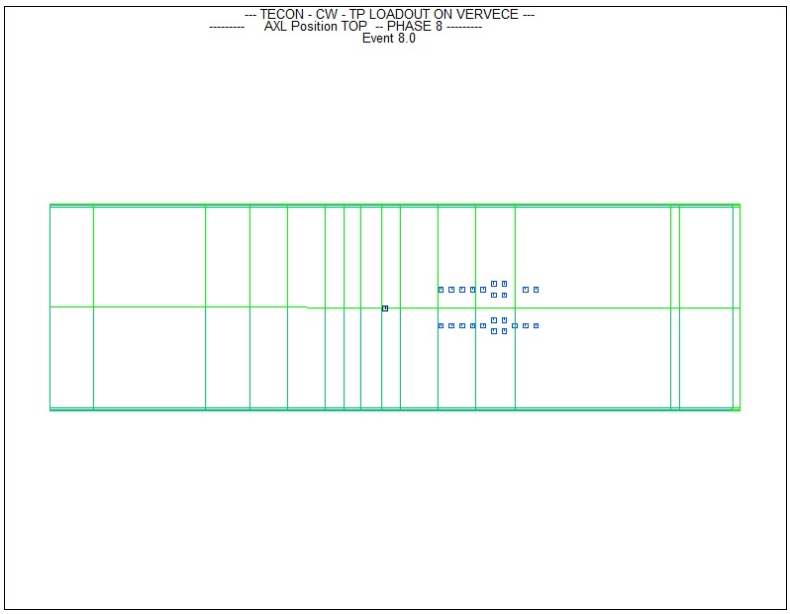
Phase -7-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	30	1,72	,22	4,37	-,22	180,
2SW	30	1,67	,22	4,43	-,22	180,
5PW	-30	4,52	-,22	1,57	,22	180,
5SW	-30	4,47	-,22	1,63	,22	180,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

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6.4.9 Step 8: Shifting phase. All axles on board.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -30 t	4PW	3PW	2PW 30 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -30 t	4SW	3SW	2SW 30 t	1SW

Barge pump STB

PHASE: 8
TRAVEL DISTANCE: 42,61

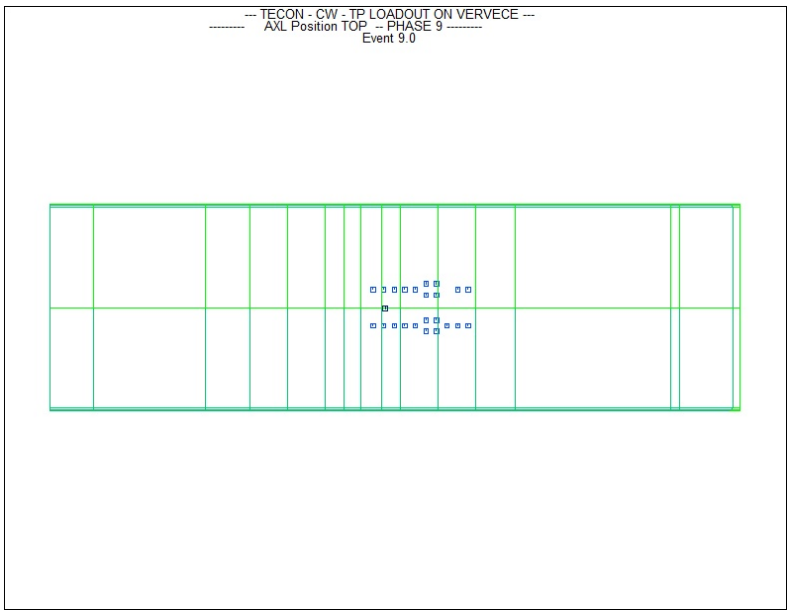
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -8-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	30	1,94	,22	4,16	-,22	180,
2SW	30	1,88	,22	4,21	-,22	180,
5PW	-30	4,30	-,22	1,79	,22	180,
5SW	-30	4,25	-,22	1,85	,22	180,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.10 Step 9: Shifting phase. All axles on board.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -30 t	4PW	3PW	2PW 30 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -30 t	4SW	3SW	2SW 30 t	1SW

Barge pump STB

PHASE: 9
TRAVEL DISTANCE: 51,61

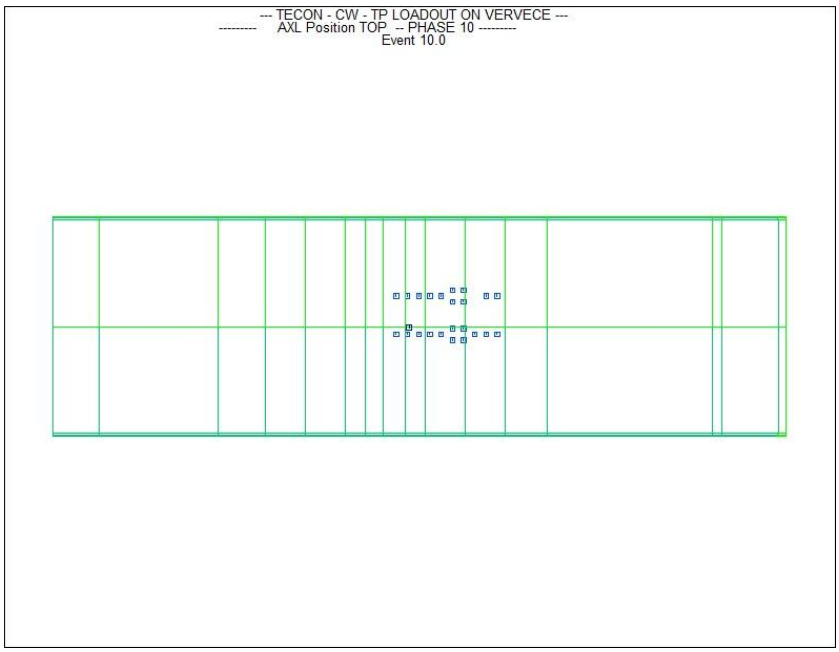
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -9-

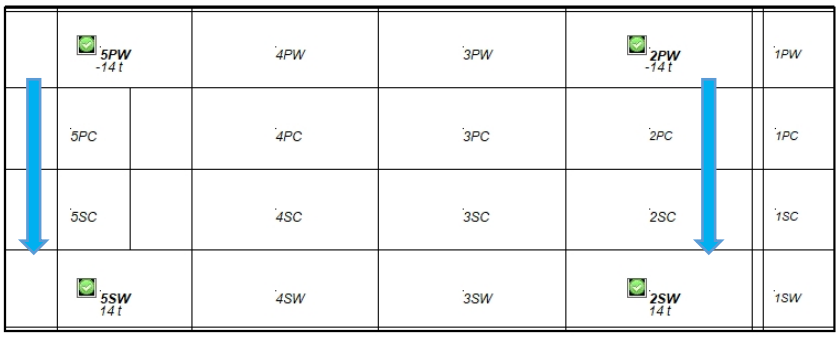
Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	30	2,15	,21	3,94	-,21	180,
2SW	30	2,10	,21	4,00	-,21	180,
5PW	-30	4,09	-,22	2,01	,22	180,
5SW	-30	4,03	-,22	2,06	,22	180,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.11 Step 10: Transversal shifting phase.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY



PHASE: 10
TRAVEL DISTANCE: 51,61

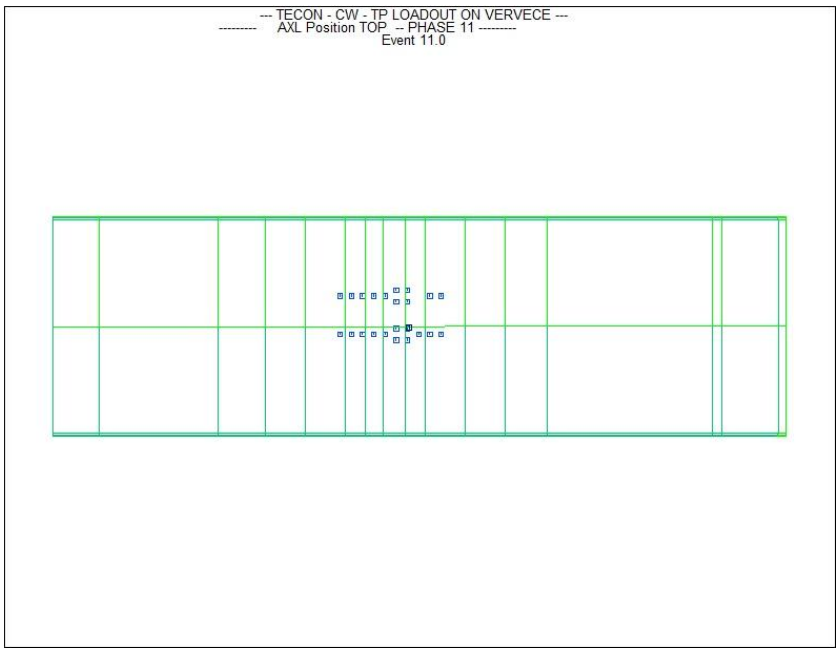
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -10-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-14	2,05	-,10	4,05	,10	84,
2SW	14	2,20	,10	3,90	-,10	84,
5PW	-14	3,99	-,10	2,11	,10	84,
5SW	14	4,14	,10	1,96	-,10	84,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.12 Step 11: Shifting phase.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -24 t	4PW	3PW	2PW 24 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -24 t	4SW	3SW	2SW 24 t	1SW

Barge pump STB

PHASE: 11
TRAVEL DISTANCE: 58,61

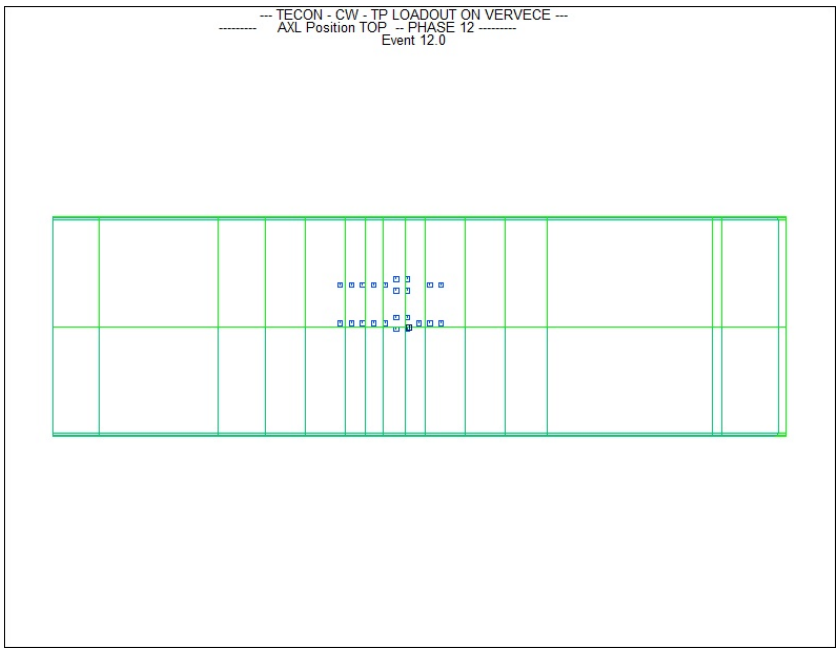
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -11-

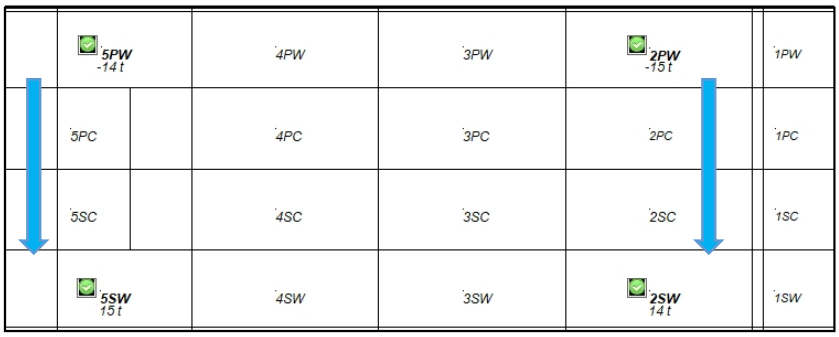
Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	24	2,22	,17	3,87	-,17	144,
2SW	24	2,37	,17	3,73	-,17	144,
5PW	-24	3,81	-,17	2,28	,17	144,
5SW	-24	3,96	-,17	2,13	,17	144,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.13 Step 12: Transversal shifting phase.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY



PHASE: 12
TRAVEL DISTANCE: 58,61

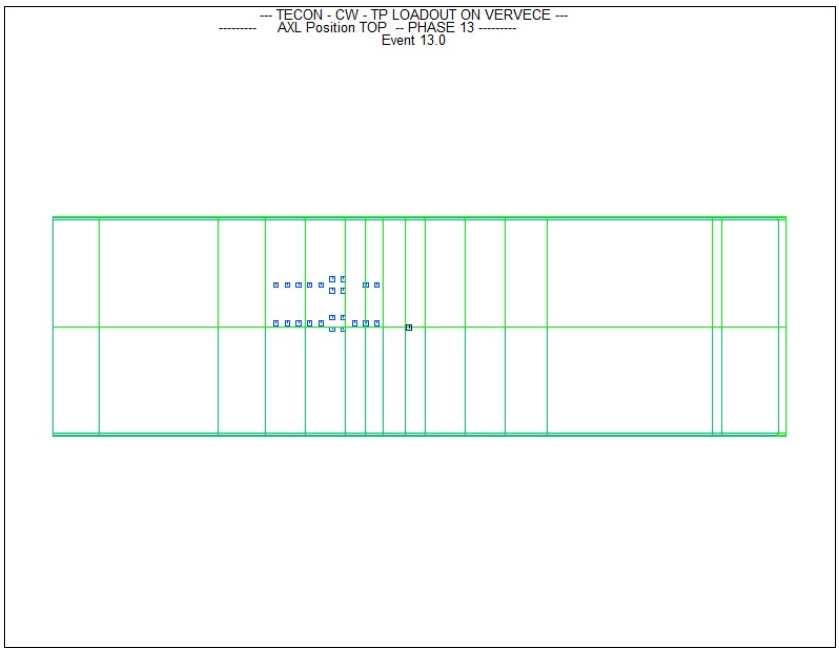
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -12-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-15	2,12	-,11	3,98	,11	90,
2SW	14	2,47	,10	3,63	-,10	84,
5PW	-14	3,71	-,10	2,38	,10	84,
5SW	15	4,07	,11	2,03	-,11	90,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.14 Step 13: Shifting phase.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -27 t	4PW	3PW	2PW 27 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -27 t	4SW	3SW	2SW 27 t	1SW

Barge pump STB

PHASE: 13
TRAVEL DISTANCE: 66,61

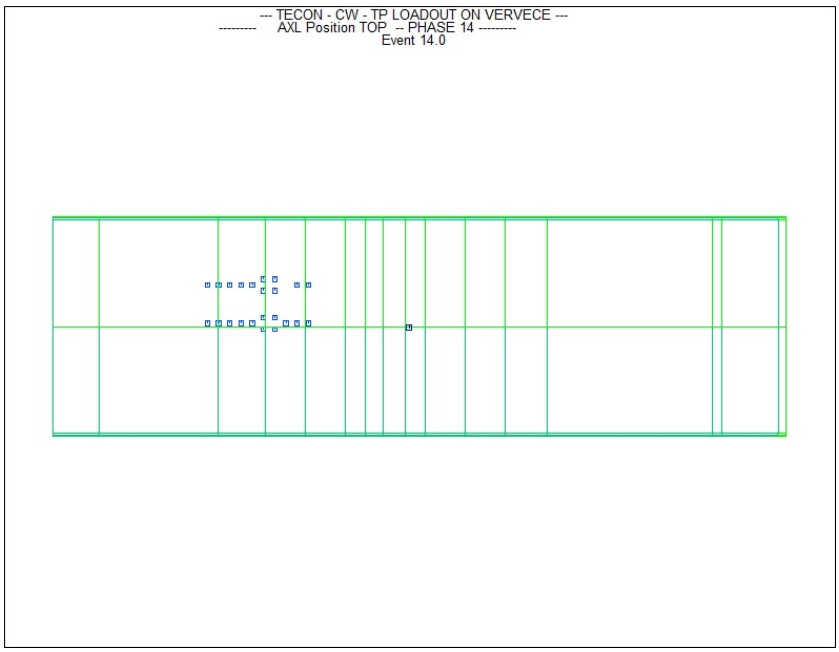
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -13-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	27	2,31	,19	3,79	-,19	162,
2SW	27	2,66	,19	3,43	-,19	162,
5PW	-27	3,52	-,20	2,58	,20	162,
5SW	-27	3,87	-,19	2,22	,19	162,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.15 Step 14: TP in final position



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -29 t	4PW	3PW	2PW 29 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -29 t	4SW	3SW	2SW 29 t	1SW

Barge pump STB

PHASE: 14
TRAVEL DISTANCE: 75,18

DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -14-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	29	2,52	,21	3,58	-,21	174,
2SW	29	2,87	,21	3,23	-,21	174,
5PW	-29	3,30	-,21	2,79	,21	174,
5SW	-29	3,66	-,21	2,43	,21	174,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.5 BALLAST CORRECTION FOR TIDE

The correction to compensate for sea level variation at start of LO operation is shown below. Intermediate level of water at start of operation requires interpolation of the values only in the tanks highlighted in yellow or blue.

VERVECE - BALLAST PLAN - load-out Ph.0. - LOW TIDE D=3.95m trim 0.10deg

	74.0% **5PW** u=1.45m		50% **4PW** u=3.0m	3% **3PW**	50% **2PW** u=3.0m	90% **1PW** u=0.40m
STERN	44% **5PC** u=3.1m		full **4PC**	30% **3PC** u=4.30m	50% **2PC** u=3.0m	full **1PC**
	44% **5SC** u=3.1m		full **4SC**	30% **3SC** u=4.30m	50% **2SC** u=3.0m	full **1SC**
	73.5% **5SW** u=1.45m		50% **4SW** u=3.0m	3% **3SW**	50% **2SW** u=3.0m	90% **1SW** u=0.40m

VERVECE - BALLAST PLAN - load-out Ph.0. - HIGH TIDE D=4.75m evenkeel

	74.0% **5PW** u=1.45m		50% **4PW** u=3.0m	97% **3PW** u=0.20m	50% **2PW** u=3.0m	90% **1PW** u=0.40m
STERN	62.5% **5PC** u=2.0m		full **4PC**	30% **3PC** u=4.30m	50% **2PC** u=3.0m	full **1PC**
	63.0% **5SC** u=2.0m		full **4SC**	30% **3SC** u=4.30m	50% **2SC** u=3.0m	full **1SC**
	73.5% **5SW** u=1.45m		50% **4SW** u=3.0m	96% **3SW** u=0.25m	50% **2SW** u=3.0m	90% **1SW** u=0.40m

Figure 6.6 – Ballast plan for tide compensation

6.5.1 Tide -40cm Phase 0

```
*****************************************************************************************************************
*                                          ***  MOSES   ***                                                     *
*                                          ----------------                    17 June, 2025                   *
*          T E C O N                                                .                                          *
*          ---------     Barge Configuration                                  .                                *
*                                                                                                               *
*****************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                Process is DEFAULT: Units Are Degrees, Meters, and M-Tons Unless Specified

                                    Results Are Reported In Body System

                          Draft =     3.95 Roll Angle =     0.00 Pitch Angle =     0.10

                                        Wet Radii Of Gyration About CG
```

```
                K-X =     7.77 K-Y =    26.45 K-Z =    27.23

                      GMT =    15.11 GML =   167.17

                         /-- Center of Gravity ---/  Sounding   % Full
Name      Weight    ---X---  ---Y---  ---Z---  -------- --------

----------------  Part CF         ------------
LOAD_GRO     28.00    69.38    11.22     8.10
----------------  Part GRI&SF-B   ------------
LOAD_GRO     75.00    30.86    -1.14     7.35
----------------  Part GRI&SF-C   ------------
LOAD_GRO      0.50    67.44    11.22     7.10
----------------  Part GRI&SF-T   ------------
LOAD_GRO     45.00    65.20    -2.92     7.40
----------------  Part VERVECE    ------------
LOAD_GRO   1832.80    47.02     0.00     3.52
--- Contents ---
1PC          229.92     5.62    -3.43     3.77     6.02    98.00
1PW          211.48     5.72   -10.28     3.59     5.70    90.00
1SC          230.42     5.62     3.43     3.77     6.02    98.00
1SW          211.48     5.72    10.28     3.59     5.70    90.00
2PC          436.85    19.45    -3.43     1.52     3.05    50.00
2PW          436.81    19.45   -10.28     1.53     3.05    50.00
2SC          436.85    19.45     3.43     1.52     3.05    50.00
2SW          436.81    19.45    10.28     1.53     3.05    50.00
3PC          262.11    40.04    -3.43     0.91     1.83    30.00
3PW           33.50    40.27   -10.19     0.12     0.24     3.83
3SC          262.11    40.04     3.43     0.91     1.83    30.00
3SW           27.91    40.32    10.18     0.10     0.20     3.20
4PC          856.22    60.59    -3.43     2.99     5.97    98.00
4PW          436.82    60.60   -10.28     1.53     3.05    50.00
4SC          856.22    60.59     3.43     2.99     5.97    98.00
4SW          436.82    60.60    10.28     1.53     3.05    50.00
5PC          214.36    83.04    -3.43     1.65     3.06    43.57
5PW          587.25    80.15   -10.28     2.46     4.64    74.00
5SC          212.45    83.05     3.43     1.66     3.08    43.87
5SW          583.28    80.15    10.28     2.45     4.62    73.50
========  ========  =======  =======  =======
Total       9380.96    47.10    -0.00     2.56
Buoyancy    9380.95    47.10    -0.00     2.07


                  +++ D R A F T   M A R K   R E A D I N G S +++
                  ============================================

            Process is DEFAULT: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        3.95 BOWST        3.95 MIDPO        4.03 MIDST        4.03 STEPO        4.11 STEST        4.11
```

6.5.2 Tide +40cm Phase 0

```
*****************************************************************************************************************
*                                          ***  MOSES   ***                                                     *
*                                          ----------------                          17 June, 2025               *
*         T E C O N                                                        .                                      *
*         ---------     Barge Configuration                                .                                      *
*                                                                                                                *
*****************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

              Process is DEFAULT: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                   Draft =     4.75 Roll Angle =    -0.00 Pitch Angle =     0.00

                                  Wet Radii Of Gyration About CG

                            K-X =     8.14 K-Y =    24.90 K-Z =    25.85

                                  GMT =    13.09 GML =   147.02

                                     /-- Center of Gravity ---/  Sounding   % Full
                   Name      Weight    ---X---  ---Y---  ---Z---  -------- --------
```

```
----------------  Part CF          ------------
LOAD_GRO     28.00    69.38    11.22     8.10
----------------  Part GRI&SF-B    ------------
LOAD_GRO     75.00    30.86    -1.14     7.35
----------------  Part GRI&SF-C    ------------
LOAD_GRO      0.50    67.44    11.22     7.10
----------------  Part GRI&SF-T    ------------
LOAD_GRO     45.00    65.20    -2.92     7.40
----------------  Part VERVECE     ------------
LOAD_GRO   1832.80    47.02     0.00     3.52
--- Contents ---
1PC          229.92     5.62    -3.43     3.77     6.02    98.00
1PW          211.48     5.71   -10.28     3.59     5.70    90.00
1SC          230.42     5.62     3.43     3.77     6.02    98.00
1SW          211.48     5.71    10.28     3.59     5.70    90.00
2PC          436.85    19.43    -3.43     1.52     3.05    50.00
2PW          436.81    19.43   -10.28     1.53     3.05    50.00
2SC          436.85    19.43     3.43     1.52     3.05    50.00
2SW          436.81    19.43    10.28     1.53     3.05    50.00
3PC          262.11    40.01    -3.43     0.91     1.83    30.00
3PW          842.42    40.01   -10.28     2.94     5.88    96.43
3SC          262.11    40.01     3.43     0.91     1.83    30.00
3SW          836.89    40.01    10.28     2.92     5.84    95.79
4PC          856.22    60.58    -3.43     2.99     5.97    98.00
4PW          436.82    60.58   -10.28     1.53     3.05    50.00
4SC          856.22    60.58     3.43     2.99     5.97    98.00
4SW          436.82    60.58    10.28     1.53     3.05    50.00
5PC          306.89    83.47    -3.43     2.23     4.09    62.37
5PW          587.25    80.14   -10.28     2.46     4.64    74.00
5SC          304.91    83.48     3.43     2.25     4.12    62.96
5SW          583.28    80.13    10.28     2.45     4.62    73.50
========  ========  =======  =======  =======
Total     11183.85    46.68     0.00     2.65
Buoyancy  11183.85    46.68     0.00     2.44
```

```
+++ D R A F T   M A R K   R E A D I N G S +++
=============================================

Process is DEFAULT: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.75 BOWST        4.75 MIDPO        4.75 MIDST        4.75 STEPO        4.75 STEST        4.75
```

7 BARGE LONGITUDINAL STRUCTURAL CHECKS

The longitudinal strength analysis was carried out for the still water condition. The complete MOSES output is reported in section 8.

The allowable stresses were assumed as follows:

- Fy = 235 N/mm^2 yield stress
- σ_{all} = 0.66 x Fy = 155 N/mm^2
- τ_{all} = 0.4 x Fy = 94 N/mm^2

For normal stress, the maximum usage factor, i.e. the maximum bending / allowable stress ratio, is 0.475 in phase 5 of loadout operation.

- UF = 12412/26130 = 0.475

For shear stress, the maximum usage factor is:

- UF_{shear} = 802/6150 = 0.13

in phase 4 of loadout.

Values of BM and Shear along the longitudinal section of the cargo barge were compared with the admissible values shown in section 5.4. All the values are within allowable ones.

The maximum deflection results 3.56 cm (ph.5).

8 BARGE INTACT STABILITY – COMPLETE MOSES OUTPUT

In the following tables, the allowable deflection was conventionally set equal to unity, therefore the values indicated under the columns with heading Deflection / Allowable are actually the computed deflections.

```
                                  ********************************
*                                         ***  MOSES   ***                                                    *
*                                         ----------------                          18 June, 2025           *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                         *
*          ---------     Intact Stability Check    -- PHASE 0 ---------                                      *
*                                                                                                            *
**************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

                                   Results Are Reported In Body System

                         Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

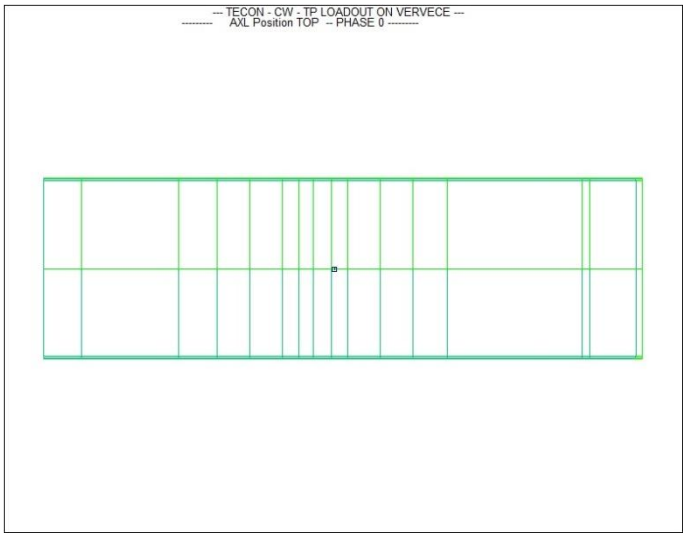
                                   Wet Radii Of Gyration About CG

                                K-X =     7.99 K-Y =    25.59 K-Z =    26.44

                                        GMT =    14.40 GML =   159.51

                                /-- Center of Gravity ---/  Sounding   % Full
                          Name   Weight     ---X---  ---Y---  ---Z---  -------- --------

                                ----------------  Part CF          ------------
                                LOAD_GRO     28.00    69.38    11.22     8.10
                                ----------------  Part GRI&SF-B    ------------
                                LOAD_GRO     75.00    30.86    -1.14     7.35
                                ----------------  Part GRI&SF-C    ------------
                                LOAD_GRO      0.50    67.44    11.22     7.10
                                ----------------  Part GRI&SF-T    ------------
                                LOAD_GRO     45.00    65.20    -2.92     7.40
                                ----------------  Part VERVECE     ------------
                                LOAD_GRO   1832.80    47.02     0.00     3.52
                                           --- Contents ---
                            1PC         224.31     5.62    -3.43     3.77     6.02    98.00
                            1PW         206.33     5.71   -10.28     3.59     5.70    90.00
                            1SC         224.80     5.62     3.43     3.77     6.02    98.00
                            1SW         206.33     5.71    10.28     3.59     5.70    90.00
                            2PC         426.19    19.43    -3.43     1.52     3.05    50.00
                            2PW         427.89    19.43   -10.28     1.53     3.06    50.20
                            2SC         426.19    19.43     3.43     1.52     3.05    50.00
                            2SW         423.45    19.43    10.28     1.52     3.03    49.68
                            3PC         255.71    40.01    -3.43     0.91     1.83    30.00
                            3PW         426.16    40.01   -10.28     1.53     3.05    50.00
                            3SC         255.71    40.01     3.43     0.91     1.83    30.00
                            3SW         426.16    40.01    10.28     1.53     3.05    50.00
                            4PC         835.34    60.58    -3.43     2.99     5.97    98.00
                            4PW         426.16    60.58   -10.28     1.53     3.05    50.00
                            4SC         835.34    60.58     3.43     2.99     5.97    98.00
                            4SW         426.16    60.58    10.28     1.53     3.05    50.00
                            5PC         240.01    83.19    -3.43     1.86     3.42    50.00
                            5PW         573.65    80.14   -10.28     2.46     4.65    74.09
                            5SC         236.24    83.19     3.43     1.86     3.42    50.00
                            5SW         569.19    80.13    10.28     2.45     4.62    73.52
                                       ========  ========  =======  =======  =======
                                       Total     10052.61    46.75    -0.00     2.50
                                       Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 0 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 0 ---------                 . *
*                                                                                      *
****************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.50, and Wind Speed = 10 Knots

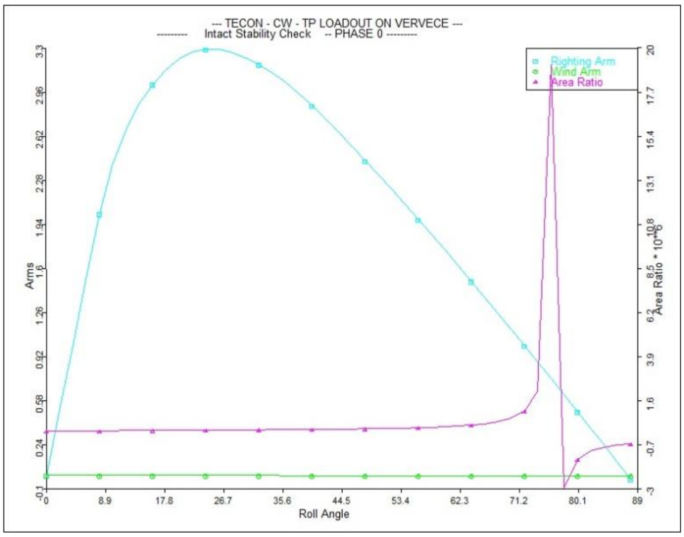
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3147.89	0.503
4.29	4.00	0.00	9999.00	1.49	1.01	2.02	0.00	0.00	6471.55	1.010
4.27	6.00	0.00	9999.00	1.03	1.52	4.54	0.00	0.00	9999.00	1.518
4.25	8.00	0.00	9999.00	0.57	2.02	8.08	0.00	0.00	9999.00	2.021
4.26	10.00	0.00	9999.00	0.08	2.40	12.51	0.00	0.00	9999.00	2.402
4.31	12.00	0.00	9999.00	-0.46	2.67	17.58	0.00	0.00	9999.00	2.672
4.39	14.00	0.00	9999.00	-1.03	2.87	23.12	0.00	0.00	9999.00	2.871
4.48	16.00	0.00	9999.00	-1.63	3.02	29.01	0.00	0.00	9999.00	3.020
4.60	18.00	0.00	9999.00	-2.25	3.13	35.17	0.00	0.00	9999.00	3.133
4.72	20.00	0.00	9999.00	-2.88	3.22	41.52	0.00	0.00	9999.00	3.217
4.85	22.00	0.00	9999.00	-3.51	3.27	48.00	0.00	0.00	9999.00	3.269
4.97	24.00	0.00	9999.00	-4.14	3.29	54.56	0.00	0.00	9999.00	3.291
5.09	26.00	0.00	9999.00	-4.77	3.29	61.14	0.00	0.00	9999.00	3.287
5.20	28.00	0.00	9999.00	-5.39	3.26	67.69	0.00	0.00	9999.00	3.264
5.31	30.00	0.00	9999.00	-6.01	3.22	74.18	0.00	0.00	9999.00	3.225
5.41	32.00	0.00	9999.00	-6.62	3.17	80.58	0.00	0.00	9999.00	3.173
5.50	34.00	0.00	9999.00	-7.22	3.11	86.86	0.00	0.00	9999.00	3.109
5.58	36.00	0.00	9999.00	-7.81	3.03	93.00	-0.00	0.00	9999.00	3.034
5.66	38.00	0.00	9999.00	-8.39	2.95	98.99	-0.00	0.00	9999.00	2.950
5.73	40.00	0.00	9999.00	-8.96	2.86	104.79	-0.00	0.00	9999.00	2.856
5.80	42.00	0.00	9999.00	-9.52	2.75	110.40	-0.00	0.00	9999.00	2.754
5.86	44.00	0.00	9999.00	-10.07	2.65	115.80	-0.00	0.00	9999.00	2.648
5.91	46.00	0.00	9999.00	-10.61	2.54	120.99	-0.00	0.00	9999.00	2.540
5.95	48.00	0.00	9999.00	-11.13	2.43	125.96	-0.00	0.00	9999.00	2.431
5.99	50.00	0.00	9999.00	-11.64	2.32	130.72	-0.00	0.00	9999.00	2.321
6.02	52.00	0.00	9999.00	-12.14	2.21	135.24	-0.00	0.00	9999.00	2.208
6.04	54.00	0.00	9999.00	-12.62	2.09	139.55	-0.00	0.00	9999.00	2.094
6.05	56.00	0.00	9999.00	-13.08	1.98	143.62	-0.00	0.00	9999.00	1.978
6.06	58.00	0.00	9999.00	-13.53	1.86	147.46	-0.00	0.00	9999.00	1.860
6.06	60.00	0.00	9999.00	-13.97	1.74	151.06	-0.00	0.00	9999.00	1.741
6.05	62.00	0.00	9999.00	-14.38	1.62	154.42	-0.00	0.00	9999.00	1.621
6.03	64.00	0.00	9999.00	-14.78	1.50	157.54	-0.00	0.00	9999.00	1.499
6.01	66.00	0.00	9999.00	-15.16	1.38	160.42	-0.00	0.00	9999.00	1.377
5.98	68.00	0.00	9999.00	-15.53	1.25	163.05	-0.00	0.00	9999.00	1.253
5.94	70.00	0.00	9999.00	-15.87	1.13	165.43	-0.00	0.00	9999.00	1.128
5.90	72.00	0.00	9999.00	-16.19	1.00	167.56	-0.00	0.00	9999.00	1.003
5.85	74.00	0.00	9999.00	-16.50	0.88	169.44	-0.00	0.00	9999.00	0.876
5.79	76.00	0.00	9999.00	-16.78	0.75	171.06	-0.00	0.00	9999.00	0.749
5.72	78.00	0.00	9999.00	-17.05	0.62	172.43	-0.00	-0.00	-9999.00	0.621
5.65	80.00	0.00	9999.00	-17.29	0.49	173.55	-0.00	-0.00	-9999.00	0.493
5.57	82.00	0.00	9999.00	-17.51	0.36	174.40	-0.00	-0.00	-9999.00	0.364
5.48	84.00	0.00	9999.00	-17.71	0.23	175.00	-0.00	-0.00	-9999.00	0.234
5.39	86.00	0.00	9999.00	-17.89	0.10	175.34	-0.00	-0.00	-9999.00	0.104
5.29	88.00	0.00	9999.00	-18.05	-0.03	175.41	-0.00	-0.00	-9999.00	-0.028

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```
+++ S T A B I L I T Y   S U M M A R Y +++
=========================================


The Following Intact Condition
=======================================
Draft                     =      4.30 M
Roll                      =      0.00 Deg
Pitch                     =      0.00 Deg
VCG                       =      2.47 M
Axis Angle                =      0.00 Deg
Wind Vel                  =    100.00 Knots
1st Intercept             =      0.03 Deg
2st Intercept             =     87.55 Deg
NWT Down-Flooding         =     10.17 Deg
WT Down-Flooding          = Not App. Deg
MIN (1st Int. NWT Down)   =     10.17 Deg

Passes All of The Stability Requirements:
=========================================

GM                            >=    1.00      M    14.40 Passes
Range                         >=   36.00     DEG   87.39 Passes
Area Ratio                    >=    1.40          193.27 Passes
```

```
                            ******************************************************
*                                               ***  MOSES   ***                                         *
*                                               ----------------                        18 June, 2025    *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ------ Wind Exposed Areas ------                                                              *
*                                                                                                        *
**********************************************************************************************************

                +++ L O A D   G R O U P   A T T R I B U T E S   F O R   P A R T   C F +++
                =========================================================================

                  Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified
```

LOAD GROUP	WEIGHT	CONT. NAME	DISPL	WIND	ADD. MASS	DRAG	AREA X	AREA Y	AREA Z	LOCATION X	LOCATION Y	LOCATION Z
CF	28.00									69.38	11.22	8.10

#WEI|010 #Weight

LOAD GROUP	WEIGHT	CONT. NAME	DISPL	WIND	ADD. MASS	DRAG	AREA X	AREA Y	AREA Z	LOCATION X	LOCATION Y	LOCATION Z
GRI&SF-B	75.00									30.86	-1.14	7.35

#WEI|004 #Weight

LOAD GROUP	WEIGHT	CONT. NAME	DISPL	WIND	FACTOR ADD. MASS	DRAG	AREA X	AREA Y	AREA Z	LOCATION X	LOCATION Y	LOCATION Z
GRI&SF-C	0.50									67.44	11.22	7.10

#WEI|008 #Weight

LOAD GROUP	WEIGHT	CONT. NAME	DISPL	WIND	FACTOR ADD. MASS	DRAG	AREA X	AREA Y	AREA Z	LOCATION X	LOCATION Y	LOCATION Z
GRI&SF-T	45.00									65.20	-2.92	7.40

#WEI|006 #Weight

LOAD GROUP	WEIGHT	CONT. NAME	DISPL	WIND	FACTOR ADD. MASS	DRAG	AREA X	AREA Y	AREA Z	LOCATION X	LOCATION Y	LOCATION Z
VERVECE	1832.80									47.02	0.00	3.52

#WEI|002 #Weight

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          18 June, 2025        *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 0 ------   *
*                                                                                    *
**************************************************************************************************************
```

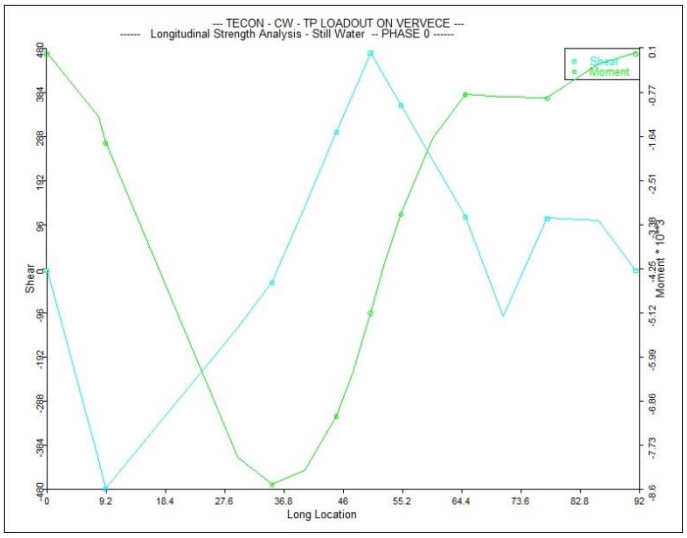
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-417	-1247	-0.0493	6.9449
9.14	-477	-1758	-0.0695	7.9230
29.72	-127	-7973	-0.3151	21.2966
35.00	-28	-8501	-0.3360	22.6689
40.00	135	-8235	-0.3254	23.0128
45.00	299	-7149	-0.2825	22.4563
47.50	380	-6301	-0.2490	21.8744
50.29	471	-5113	-0.2021	21.0211
52.50	418	-4133	-0.1633	20.2196
55.00	357	-3164	-0.1251	19.2056
60.00	236	-1680	-0.0664	16.9378
65.00	114	-805	-0.0318	14.4788
70.87	-103	-857	-0.0339	11.4708
77.72	110	-878	-0.0347	7.7854
85.70	104	-219	-0.0087	3.2880
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 1 ---------                               *
*                                                                                                     *
*******************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                 Process is 1: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                     Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

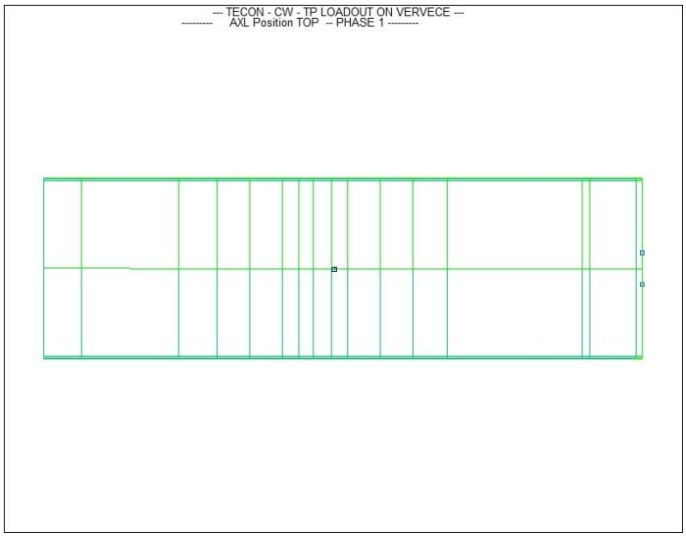
                                 Wet Radii Of Gyration About CG

                           K-X =     7.97 K-Y =    25.74 K-Z =    26.57

                                    GMT =    14.38 GML =   159.50

                           /-- Center of Gravity ---/  Sounding   % Full
                    Name    Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL1       ------------
                           LOAD_GRO     47.90     0.01     0.13     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                      1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                      1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                      1SC      224.80     5.62     3.43     3.77     6.02    98.00
                      1SW      206.33     5.71    10.28     3.59     5.70    90.00
                      2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                      2PW      396.48    19.43   -10.28     1.42     2.84    46.52
                      2SC      426.19    19.43     3.43     1.52     3.05    50.00
                      2SW      391.72    19.43    10.28     1.41     2.81    45.96
                      3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                      3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                      3SC      255.71    40.01     3.43     0.91     1.83    30.00
                      3SW      426.16    40.01    10.28     1.53     3.05    50.00
                      4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                      4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                      4SC      835.34    60.58     3.43     2.99     5.97    98.00
                      4SW      426.16    60.58    10.28     1.53     3.05    50.00
                      5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                      5PW      581.43    80.15   -10.28     2.49     4.70    75.10
                      5SC      236.24    83.19     3.43     1.86     3.42    50.00
                      5SW      576.65    80.14    10.28     2.47     4.67    74.48
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75    -0.00     2.52
                           Buoyancy  10052.62    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 1 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 1: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 1 ---------                 . *
*                                                                                      *
****************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 1: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.52, and Wind Speed = 10 Knots

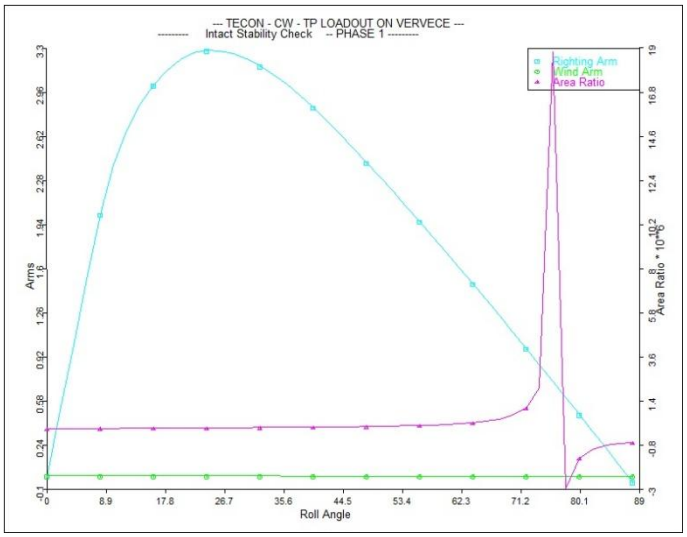
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3142.98	0.502
4.29	4.00	0.00	9999.00	1.49	1.01	2.01	0.00	0.00	6461.45	1.008
4.27	6.00	0.00	9999.00	1.03	1.52	4.54	0.00	0.00	9999.00	1.516
4.25	8.00	0.00	9999.00	0.57	2.02	8.07	0.00	0.00	9999.00	2.018
4.26	10.00	0.00	9999.00	0.07	2.40	12.49	0.00	0.00	9999.00	2.398
4.31	12.00	0.00	9999.00	-0.46	2.67	17.55	0.00	0.00	9999.00	2.667
4.39	14.00	0.00	9999.00	-1.04	2.87	23.08	0.00	0.00	9999.00	2.865
4.48	16.00	0.00	9999.00	-1.63	3.01	28.96	0.00	0.00	9999.00	3.014
4.60	18.00	0.00	9999.00	-2.25	3.13	35.10	0.00	0.00	9999.00	3.126
4.72	20.00	0.00	9999.00	-2.88	3.21	41.44	0.00	0.00	9999.00	3.209
4.85	22.00	0.00	9999.00	-3.51	3.26	47.91	0.00	0.00	9999.00	3.261
4.97	24.00	0.00	9999.00	-4.14	3.28	54.45	0.00	0.00	9999.00	3.282
5.09	26.00	0.00	9999.00	-4.77	3.28	61.01	0.00	0.00	9999.00	3.278
5.20	28.00	0.00	9999.00	-5.39	3.25	67.54	0.00	0.00	9999.00	3.254
5.31	30.00	0.00	9999.00	-6.01	3.21	74.01	0.00	0.00	9999.00	3.214
5.41	32.00	0.00	9999.00	-6.62	3.16	80.39	0.00	0.00	9999.00	3.162
5.50	34.00	0.00	9999.00	-7.22	3.10	86.65	0.00	0.00	9999.00	3.097
5.58	36.00	0.00	9999.00	-7.81	3.02	92.77	-0.00	0.00	9999.00	3.022
5.66	38.00	0.00	9999.00	-8.39	2.94	98.73	-0.00	0.00	9999.00	2.938
5.73	40.00	0.00	9999.00	-8.96	2.84	104.51	-0.00	0.00	9999.00	2.844
5.80	42.00	0.00	9999.00	-9.52	2.74	110.09	-0.00	0.00	9999.00	2.742
5.86	44.00	0.00	9999.00	-10.07	2.64	115.47	-0.00	0.00	9999.00	2.635
5.91	46.00	0.00	9999.00	-10.61	2.53	120.63	-0.00	0.00	9999.00	2.527
5.95	48.00	0.00	9999.00	-11.13	2.42	125.58	-0.00	0.00	9999.00	2.418
5.99	50.00	0.00	9999.00	-11.64	2.31	130.30	-0.00	0.00	9999.00	2.307
6.02	52.00	0.00	9999.00	-12.14	2.19	134.80	-0.00	0.00	9999.00	2.194
6.04	54.00	0.00	9999.00	-12.62	2.08	139.08	-0.00	0.00	9999.00	2.080
6.05	56.00	0.00	9999.00	-13.08	1.96	143.12	-0.00	0.00	9999.00	1.963
6.06	58.00	0.00	9999.00	-13.53	1.85	146.93	-0.00	0.00	9999.00	1.845
6.06	60.00	0.00	9999.00	-13.97	1.73	150.50	-0.00	0.00	9999.00	1.726
6.05	62.00	0.00	9999.00	-14.38	1.61	153.83	-0.00	0.00	9999.00	1.605
6.03	64.00	0.00	9999.00	-14.78	1.48	156.92	-0.00	0.00	9999.00	1.483
6.01	66.00	0.00	9999.00	-15.16	1.36	159.76	-0.00	0.00	9999.00	1.360
5.98	68.00	0.00	9999.00	-15.53	1.24	162.36	-0.00	0.00	9999.00	1.236
5.94	70.00	0.00	9999.00	-15.87	1.11	164.70	-0.00	0.00	9999.00	1.111
5.90	72.00	0.00	9999.00	-16.19	0.98	166.80	-0.00	0.00	9999.00	0.985
5.85	74.00	0.00	9999.00	-16.50	0.86	168.64	-0.00	0.00	9999.00	0.858
5.79	76.00	0.00	9999.00	-16.78	0.73	170.23	-0.00	0.00	9999.00	0.731
5.72	78.00	0.00	9999.00	-17.05	0.60	171.57	-0.00	-0.00	-9999.00	0.603
5.65	80.00	0.00	9999.00	-17.29	0.47	172.64	-0.00	-0.00	-9999.00	0.474
5.57	82.00	0.00	9999.00	-17.51	0.34	173.46	-0.00	-0.00	-9999.00	0.345
5.48	84.00	0.00	9999.00	-17.71	0.21	174.02	-0.00	-0.00	-9999.00	0.215
5.39	86.00	0.00	9999.00	-17.89	0.08	174.32	-0.00	-0.00	-9999.00	0.085
5.29	88.00	0.00	9999.00	-18.05	-0.05	174.36	-0.00	-0.00	-9999.00	-0.047

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                    ****************************************************
*                                  ***  MOSES   ***                                                  *
*                                  ----------------                          18 June, 2025        *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                               *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 1 ------                 *
*                                                                                                   *
*************************************************************************************************************

                  +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                  ================================================================

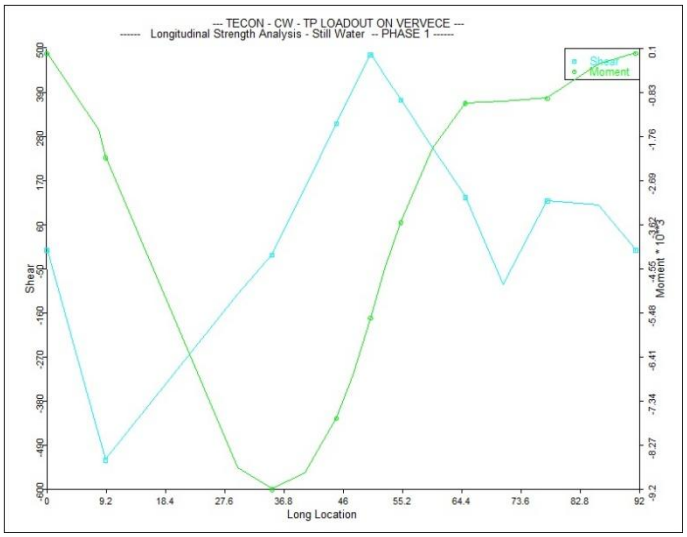
                Process is 1: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Allowable Stress =     155.00 Mpa

                                Allowable Deflection =       1.00 MM

     Longitudinal       Shear          Bending         B. Stress/     Deflection/
       Location         Force           Moment          Allowable      Allowable
    --------------  --------------  --------------  --------------  --------------

           0.00            -1              0          0.0000          0.0000
           8.00          -465          -1630         -0.0644          7.7408
           9.14          -525          -2195         -0.0868          8.8265
          29.72          -112          -8749         -0.3458         23.4979
          35.00           -13          -9197         -0.3635         24.9724
          40.00           150          -8855         -0.3500         25.3342
          45.00           314          -7695         -0.3041         24.7273
          47.50           395          -6809         -0.2691         24.0969
          50.29           486          -5579         -0.2205         23.1732
          52.50           433          -4566         -0.1805         22.3045
          55.00           372          -3559         -0.1407         21.2034
          60.00           251          -2000         -0.0791         18.7296
          65.00           129          -1049         -0.0415         16.0293
          70.87           -88          -1013         -0.0401         12.7045
          77.72           120           -948         -0.0375          8.6192
          85.70           109           -231         -0.0092          3.6388
          91.44            -1              0          0.0000          0.0001
```


--- TECON - CW - TP LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 1 ------
Shear
Moment
Shear
Moment * 10^3
Long Location
0
9.2
18.4
27.6
36.8
46
55.2
64.4
73.6
82.8
92

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  -----------------                 18 June, 2025   *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ---------     Intact Stability Check    -- PHASE 2 ---------               *
*                                                                                    *
**************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 2: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Results Are Reported In Body System

                        Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

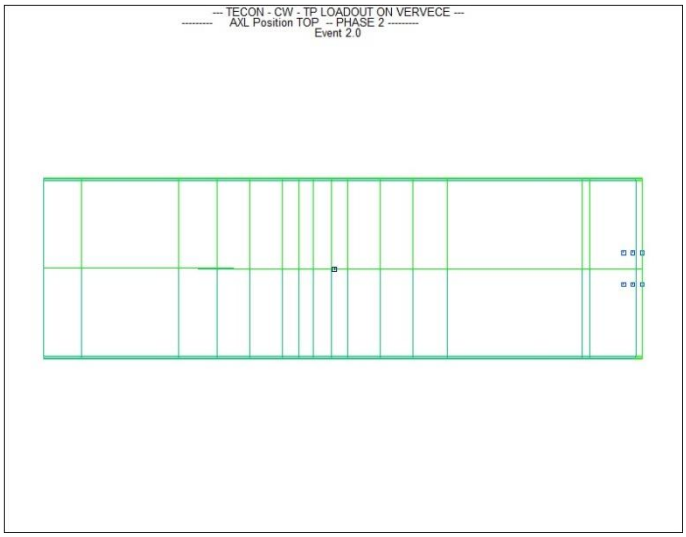
                                    Wet Radii Of Gyration About CG

                               K-X =     7.92 K-Y =    26.00 K-Z =    26.80

                                        GMT =    14.33 GML =   159.47

                               /-- Center of Gravity ---/  Sounding   % Full
                          Name  Weight    ---X---  ---Y---  ---Z---  -------- --------

                               ----------------  Part AXL2       ------------
                               LOAD_GRO    143.70     1.41     0.13     7.10
                               ----------------  Part CF         ------------
                               LOAD_GRO     28.00    69.38    11.22     8.10
                               ----------------  Part GRI&SF-B   ------------
                               LOAD_GRO     75.00    30.86    -1.14     7.35
                               ----------------  Part GRI&SF-C   ------------
                               LOAD_GRO      0.50    67.44    11.22     7.10
                               ----------------  Part GRI&SF-T   ------------
                               LOAD_GRO     45.00    65.20    -2.92     7.40
                               ----------------  Part VERVECE    ------------
                               LOAD_GRO   1832.80    47.02     0.00     3.52
                                            --- Contents ---
                          1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                          1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                          1SC      224.80     5.62     3.43     3.77     6.02    98.00
                          1SW      206.33     5.71    10.28     3.59     5.70    90.00
                          2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                          2PW      335.35    19.43   -10.28     1.20     2.40    39.35
                          2SC      426.19    19.43     3.43     1.52     3.05    50.00
                          2SW      329.98    19.43    10.28     1.19     2.36    38.72
                          3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                          3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                          3SC      255.71    40.01     3.43     0.91     1.83    30.00
                          3SW      426.16    40.01    10.28     1.53     3.05    50.00
                          4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                          4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                          4SC      835.34    60.58     3.43     2.99     5.97    98.00
                          4SW      426.16    60.58    10.28     1.53     3.05    50.00
                          5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                          5PW      595.28    80.18   -10.28     2.55     4.80    76.89
                          5SC      236.24    83.19     3.43     1.86     3.42    50.00
                          5SW      589.87    80.17    10.28     2.52     4.77    76.19
                               ========  ========  =======  =======  =======
                               Total     10052.61    46.76    -0.00     2.57
                               Buoyancy  10052.62    46.76    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 2 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 2: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                          18 June, 2025        *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 2 ---------                                 . *
*                                                                                                       *
*************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 2: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.57, and Wind Speed = 10 Knots

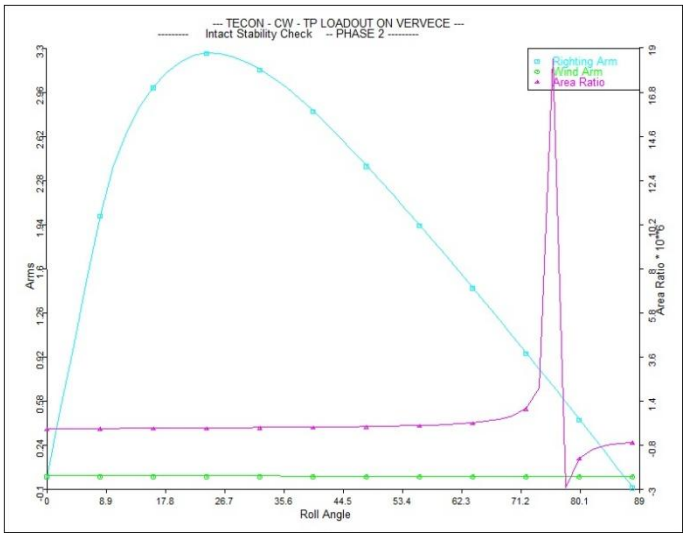
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3132.33	0.501
4.29	4.00	0.00	9999.00	1.49	1.00	2.01	0.00	0.00	6439.61	1.005
4.27	6.00	0.00	9999.00	1.03	1.51	4.52	0.00	0.00	9999.00	1.511
4.25	8.00	0.00	9999.00	0.57	2.01	8.04	0.00	0.00	9999.00	2.011
4.26	10.00	0.00	9999.00	0.07	2.39	12.44	0.00	0.00	9999.00	2.390
4.31	12.00	0.00	9999.00	-0.46	2.66	17.49	0.00	0.00	9999.00	2.657
4.39	14.00	0.00	9999.00	-1.04	2.85	23.00	0.00	0.00	9999.00	2.853
4.48	16.00	0.00	9999.00	-1.63	3.00	28.85	0.00	0.00	9999.00	3.000
4.60	18.00	0.00	9999.00	-2.25	3.11	34.97	0.00	0.00	9999.00	3.111
4.72	20.00	0.00	9999.00	-2.88	3.19	41.27	0.00	0.00	9999.00	3.192
4.85	22.00	0.00	9999.00	-3.51	3.24	47.70	0.00	0.00	9999.00	3.243
4.97	24.00	0.00	9999.00	-4.14	3.26	54.21	0.00	0.00	9999.00	3.263
5.09	26.00	0.00	9999.00	-4.77	3.26	60.73	0.00	0.00	9999.00	3.257
5.20	28.00	0.00	9999.00	-5.39	3.23	67.22	0.00	0.00	9999.00	3.233
5.31	30.00	0.00	9999.00	-6.01	3.19	73.64	0.00	0.00	9999.00	3.192
5.41	32.00	0.00	9999.00	-6.62	3.14	79.97	0.00	0.00	9999.00	3.138
5.50	34.00	0.00	9999.00	-7.22	3.07	86.19	0.00	0.00	9999.00	3.073
5.58	36.00	0.00	9999.00	-7.81	3.00	92.25	-0.00	0.00	9999.00	2.997
5.66	38.00	0.00	9999.00	-8.39	2.91	98.16	-0.00	0.00	9999.00	2.912
5.73	40.00	0.00	9999.00	-8.96	2.82	103.89	-0.00	0.00	9999.00	2.818
5.80	42.00	0.00	9999.00	-9.52	2.72	109.43	-0.00	0.00	9999.00	2.717
5.86	44.00	0.00	9999.00	-10.07	2.61	114.76	-0.00	0.00	9999.00	2.612
5.91	46.00	0.00	9999.00	-10.61	2.50	119.87	-0.00	0.00	9999.00	2.504
5.95	48.00	0.00	9999.00	-11.13	2.39	124.77	-0.00	0.00	9999.00	2.394
5.99	50.00	0.00	9999.00	-11.64	2.28	129.45	-0.00	0.00	9999.00	2.282
6.02	52.00	0.00	9999.00	-12.14	2.17	133.90	-0.00	0.00	9999.00	2.168
6.04	54.00	0.00	9999.00	-12.62	2.05	138.12	-0.00	0.00	9999.00	2.053
6.05	56.00	0.00	9999.00	-13.08	1.94	142.11	-0.00	0.00	9999.00	1.936
6.06	58.00	0.00	9999.00	-13.53	1.82	145.86	-0.00	0.00	9999.00	1.817
6.06	60.00	0.00	9999.00	-13.97	1.70	149.37	-0.00	0.00	9999.00	1.697
6.05	62.00	0.00	9999.00	-14.38	1.58	152.65	-0.00	0.00	9999.00	1.576
6.03	64.00	0.00	9999.00	-14.78	1.45	155.67	-0.00	0.00	9999.00	1.453
6.01	66.00	0.00	9999.00	-15.16	1.33	158.46	-0.00	0.00	9999.00	1.329
5.98	68.00	0.00	9999.00	-15.53	1.20	160.99	-0.00	0.00	9999.00	1.204
5.94	70.00	0.00	9999.00	-15.87	1.08	163.27	-0.00	0.00	9999.00	1.078
5.90	72.00	0.00	9999.00	-16.19	0.95	165.30	-0.00	0.00	9999.00	0.951
5.85	74.00	0.00	9999.00	-16.50	0.82	167.07	-0.00	0.00	9999.00	0.824
5.79	76.00	0.00	9999.00	-16.78	0.70	168.59	-0.00	0.00	9999.00	0.696
5.72	78.00	0.00	9999.00	-17.05	0.57	169.86	-0.00	-0.00	-9999.00	0.567
5.65	80.00	0.00	9999.00	-17.29	0.44	170.86	-0.00	-0.00	-9999.00	0.437
5.57	82.00	0.00	9999.00	-17.51	0.31	171.61	-0.00	-0.00	-9999.00	0.307
5.48	84.00	0.00	9999.00	-17.71	0.18	172.09	-0.00	-0.00	-9999.00	0.177
5.39	86.00	0.00	9999.00	-17.89	0.05	172.31	-0.00	-0.00	-9999.00	0.046
5.29	88.00	0.00	9999.00	-18.05	-0.09	172.27	-0.00	-0.00	-9999.00	-0.086

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 2
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^6
Roll Angle
0
8.9
17.8
26.7
35.6
44.5
53.4
62.3
71.2
80.1
89

```
*******************************************************
*                                *** MOSES ***                                *
*                                ----------------          18 June, 2025      *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                            *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 2 ------*
*                                                                              *
********************************************************************************************************************
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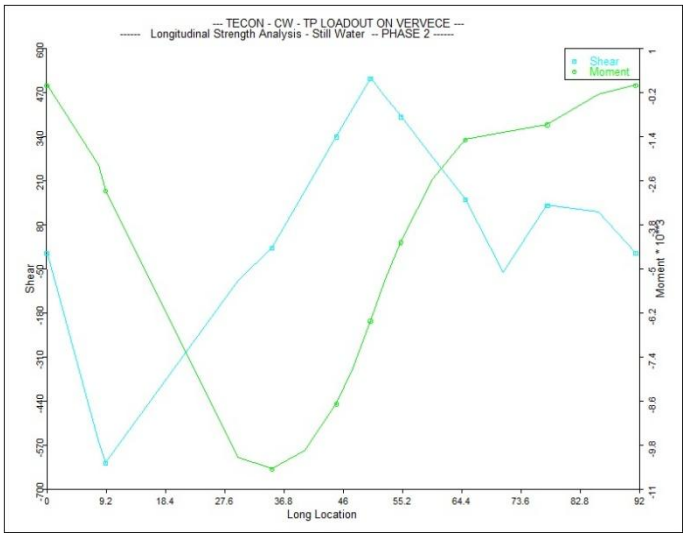
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 2: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-560	-2194	-0.0867	9.1166
9.14	-621	-2869	-0.1134	10.3909
29.72	-86	-10133	-0.4004	27.3756
35.00	13	-10439	-0.4125	29.0368
40.00	177	-9963	-0.3937	29.4340
45.00	341	-8667	-0.3425	28.7406
47.50	422	-7714	-0.3049	28.0257
50.29	512	-6410	-0.2533	26.9783
52.50	459	-5337	-0.2109	25.9916
55.00	399	-4263	-0.1685	24.7368
60.00	278	-2570	-0.1016	21.8989
65.00	156	-1484	-0.0587	18.7723
70.87	-61	-1290	-0.0510	14.8870
77.72	138	-1071	-0.0424	10.0945
85.70	116	-253	-0.0100	4.2595
91.44	-1	0	0.0000	0.0001



```
*******************************************************
*                                *** MOSES ***                                *
*                                ----------- 18 June, 2025                    *
*       --- TECON - CW - TP LOADOUT ON VERVECE ---                             *
*       ---------    Intact Stability Check   -- PHASE 3 ---------            *
*                                                                             *
*******************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ======================================================================

                     Process is 3: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Results Are Reported In Body System

                         Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

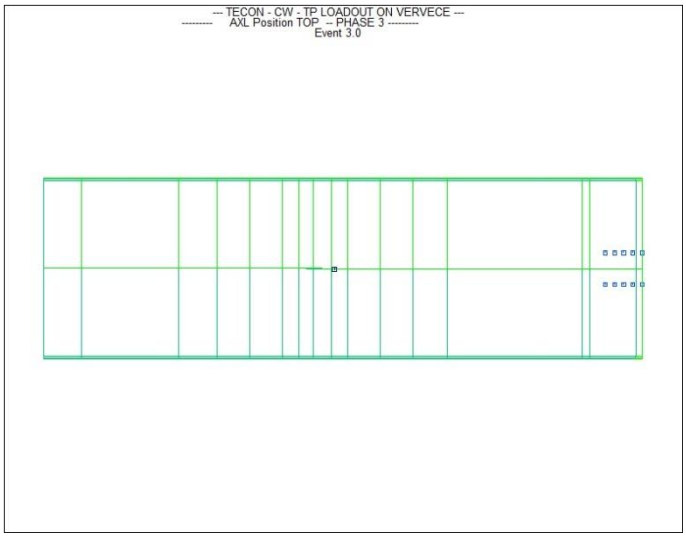
                                    Wet Radii Of Gyration About CG

                               K-X =     7.87 K-Y =    26.21 K-Z =    26.98

                                        GMT =    14.27 GML =   159.44

                               /-- Center of Gravity ---/  Sounding   % Full
                          Name  Weight    ---X---  ---Y---  ---Z---  -------- --------

                               ----------------  Part AXL3       ------------
                               LOAD_GRO    239.50     2.81     0.13     7.10
                               ----------------  Part CF         ------------
                               LOAD_GRO     28.00    69.38    11.22     8.10
                               ----------------  Part GRI&SF-B   ------------
                               LOAD_GRO     75.00    30.86    -1.14     7.35
                               ----------------  Part GRI&SF-C   ------------
                               LOAD_GRO      0.50    67.44    11.22     7.10
                               ----------------  Part GRI&SF-T   ------------
                               LOAD_GRO     45.00    65.20    -2.92     7.40
                               ----------------  Part VERVECE    ------------
                               LOAD_GRO   1832.80    47.02     0.00     3.52
                                            --- Contents ---
                          1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                          1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                          1SC      224.80     5.62     3.43     3.77     6.02    98.00
                          1SW      206.33     5.71    10.28     3.59     5.70    90.00
                          2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                          2PW      276.53    19.43   -10.27     0.99     1.98    32.44
                          2SC      426.19    19.43     3.43     1.52     3.05    50.00
                          2SW      270.54    19.43    10.27     0.97     1.94    31.74
                          3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                          3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                          3SC      255.71    40.01     3.43     0.91     1.83    30.00
                          3SW      426.16    40.01    10.28     1.53     3.05    50.00
                          4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                          4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                          4SC      835.34    60.58     3.43     2.99     5.97    98.00
                          4SW      426.16    60.58    10.28     1.53     3.05    50.00
                          5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                          5PW      606.82    80.19   -10.28     2.59     4.89    78.38
                          5SC      236.24    83.19     3.43     1.86     3.42    50.00
                          5SW      600.79    80.18    10.28     2.57     4.84    77.60
                               ========  ========  =======  =======  =======
                               Total     10052.61    46.75    -0.00     2.62
                               Buoyancy  10052.62    46.75    -0.00     2.21
```




```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                      18 June, 2025              *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*          ---------     Intact Stability Check    -- PHASE 3 ---------                               *
*                                                                                                     *
*******************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 3: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 3 ---------                 . *
*                                                                                      *
****************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 3: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.62, and Wind Speed = 10 Knots

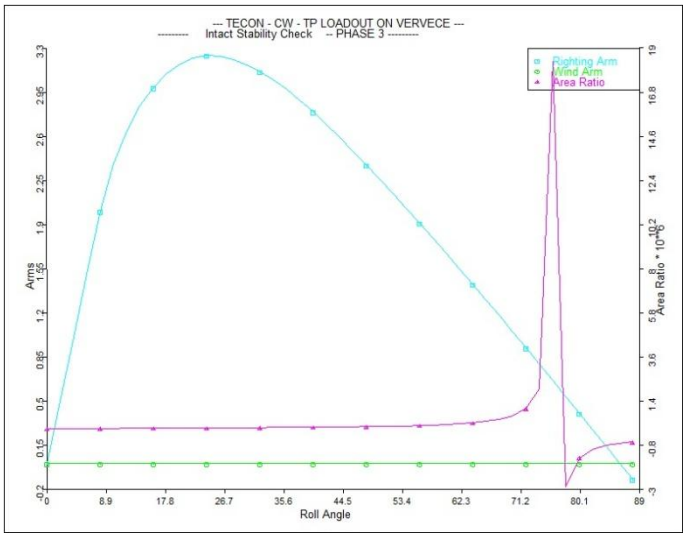
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3120.80	0.499
4.29	4.00	0.00	9999.00	1.49	1.00	2.00	0.00	0.00	6415.95	1.001
4.27	6.00	0.00	9999.00	1.03	1.51	4.51	0.00	0.00	9999.00	1.505
4.25	8.00	0.00	9999.00	0.57	2.00	8.01	0.00	0.00	9999.00	2.003
4.26	10.00	0.00	9999.00	0.07	2.38	12.40	0.00	0.00	9999.00	2.380
4.31	12.00	0.00	9999.00	-0.46	2.65	17.42	0.00	0.00	9999.00	2.646
4.39	14.00	0.00	9999.00	-1.04	2.84	22.91	0.00	0.00	9999.00	2.841
4.48	16.00	0.00	9999.00	-1.63	2.99	28.74	0.00	0.00	9999.00	2.986
4.60	18.00	0.00	9999.00	-2.25	3.09	34.82	0.00	0.00	9999.00	3.095
4.72	20.00	0.00	9999.00	-2.88	3.17	41.09	0.00	0.00	9999.00	3.174
4.85	22.00	0.00	9999.00	-3.51	3.22	47.48	0.00	0.00	9999.00	3.223
4.97	24.00	0.00	9999.00	-4.14	3.24	53.95	0.00	0.00	9999.00	3.242
5.09	26.00	0.00	9999.00	-4.77	3.24	60.43	0.00	0.00	9999.00	3.235
5.20	28.00	0.00	9999.00	-5.39	3.21	66.87	0.00	0.00	9999.00	3.209
5.31	30.00	0.00	9999.00	-6.01	3.17	73.25	0.00	0.00	9999.00	3.167
5.41	32.00	0.00	9999.00	-6.62	3.11	79.53	0.00	0.00	9999.00	3.113
5.50	34.00	0.00	9999.00	-7.22	3.05	85.69	0.00	0.00	9999.00	3.047
5.58	36.00	0.00	9999.00	-7.81	2.97	91.71	-0.00	0.00	9999.00	2.971
5.66	38.00	0.00	9999.00	-8.39	2.89	97.56	-0.00	0.00	9999.00	2.887
5.73	40.00	0.00	9999.00	-8.96	2.79	103.24	-0.00	0.00	9999.00	2.794
5.80	42.00	0.00	9999.00	-9.52	2.69	108.73	-0.00	0.00	9999.00	2.693
5.86	44.00	0.00	9999.00	-10.07	2.59	114.01	-0.00	0.00	9999.00	2.588
5.91	46.00	0.00	9999.00	-10.61	2.48	119.08	-0.00	0.00	9999.00	2.480
5.95	48.00	0.00	9999.00	-11.13	2.37	123.93	-0.00	0.00	9999.00	2.371
5.99	50.00	0.00	9999.00	-11.64	2.26	128.56	-0.00	0.00	9999.00	2.259
6.02	52.00	0.00	9999.00	-12.14	2.15	132.97	-0.00	0.00	9999.00	2.146
6.04	54.00	0.00	9999.00	-12.62	2.03	137.14	-0.00	0.00	9999.00	2.030
6.05	56.00	0.00	9999.00	-13.08	1.91	141.08	-0.00	0.00	9999.00	1.911
6.06	58.00	0.00	9999.00	-13.53	1.79	144.79	-0.00	0.00	9999.00	1.792
6.06	60.00	0.00	9999.00	-13.97	1.67	148.25	-0.00	0.00	9999.00	1.671
6.05	62.00	0.00	9999.00	-14.38	1.55	151.47	-0.00	0.00	9999.00	1.548
6.03	64.00	0.00	9999.00	-14.78	1.42	154.44	-0.00	0.00	9999.00	1.425
6.01	66.00	0.00	9999.00	-15.16	1.30	157.16	-0.00	0.00	9999.00	1.300
5.98	68.00	0.00	9999.00	-15.53	1.17	159.64	-0.00	0.00	9999.00	1.174
5.94	70.00	0.00	9999.00	-15.87	1.05	161.86	-0.00	0.00	9999.00	1.047
5.90	72.00	0.00	9999.00	-16.19	0.92	163.82	-0.00	0.00	9999.00	0.919
5.85	74.00	0.00	9999.00	-16.50	0.79	165.53	-0.00	0.00	9999.00	0.791
5.79	76.00	0.00	9999.00	-16.78	0.66	166.98	-0.00	0.00	9999.00	0.662
5.72	78.00	0.00	9999.00	-17.05	0.53	168.18	-0.00	-0.00	-9999.00	0.532
5.65	80.00	0.00	9999.00	-17.29	0.40	169.11	-0.00	-0.00	-9999.00	0.402
5.57	82.00	0.00	9999.00	-17.51	0.27	169.78	-0.00	-0.00	-9999.00	0.271
5.48	84.00	0.00	9999.00	-17.71	0.14	170.19	-0.00	-0.00	-9999.00	0.140
5.39	86.00	0.00	9999.00	-17.89	0.01	170.34	-0.00	-0.00	-9999.00	0.009
5.29	88.00	0.00	9999.00	-18.05	-0.12	170.23	-0.00	-0.00	-9999.00	-0.124

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                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025          *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                 *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 3 ------                  *
*                                                                                                     *
*******************************************************************************************************

                  +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                  ================================================================

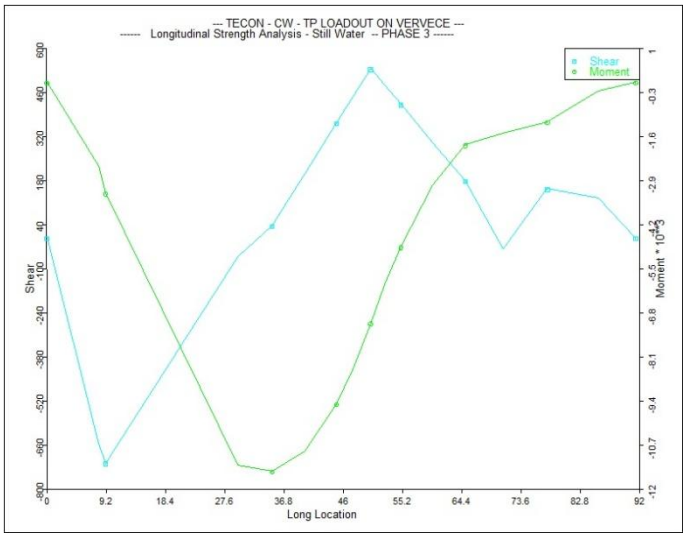
                Process is 3: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Allowable Stress =     155.00 Mpa

                              Allowable Deflection =       1.00 MM

  Longitudinal       Shear          Bending         B. Stress/     Deflection/
    Location         Force           Moment          Allowable      Allowable
 --------------  --------------  --------------  --------------  --------------

       0.00             -1               0          0.0000          0.0000
       8.00           -656           -2490         -0.0984         10.2094
       9.14           -717           -3275         -0.1294         11.6369
      29.72            -63          -11291         -0.4462         30.5562
      35.00             36          -11479         -0.4536         32.3790
      40.00            200          -10890         -0.4304         32.8114
      45.00            363           -9482         -0.3747         32.0507
      47.50            444           -8472         -0.3348         31.2679
      50.29            535           -7105         -0.2808         30.1198
      52.50            482           -5982         -0.2364         29.0365
      55.00            422           -4852         -0.1918         27.6556
      60.00            301           -3046         -0.1204         24.5187
      65.00            179           -1848         -0.0731         21.0401
      70.87            -38           -1522         -0.0602         16.6920
      77.72            153           -1174         -0.0464         11.3147
      85.70            123            -271         -0.0107          4.7729
      91.44             -1               0          0.0000          0.0001
```


--- TECON - CW - TP LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 3 ------
Shear
Moment
Shear
Moment * 10^3
Long Location
600
460
320
180
40
-100
-240
-380
-520
-660
-800
1
-0.3
-1.6
-2.9
-4.2
-5.5
-6.8
-8.1
-9.4
-10.7
-12
0
9.2
18.4
27.6
36.8
46
55.2
64.4
73.6
82.8
92

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                 18 June, 2025    *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ---------     Intact Stability Check    -- PHASE 4 ---------               *
*                                                                                    *
**************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 4: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Results Are Reported In Body System

                        Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

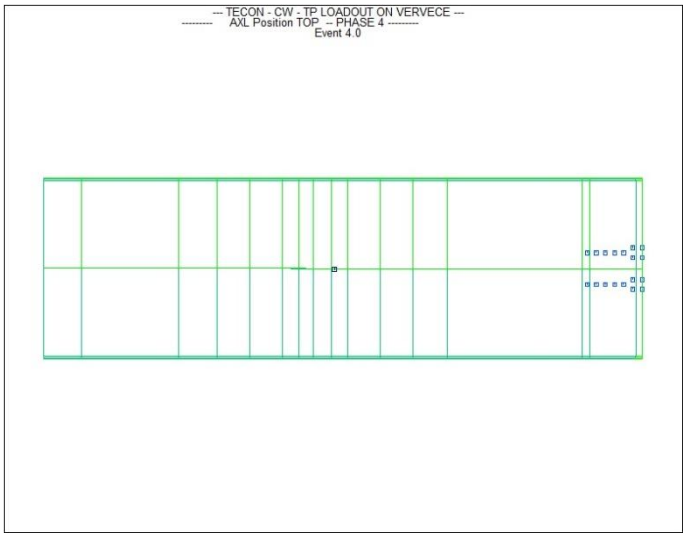
                                    Wet Radii Of Gyration About CG

                               K-X =     7.83 K-Y =    26.33 K-Z =    27.08

                                        GMT =    14.22 GML =   159.40

                               /-- Center of Gravity ---/  Sounding   % Full
                          Name  Weight    ---X---  ---Y---  ---Z---  -------- --------

                               ----------------  Part AXL4       ------------
                               LOAD_GRO    324.40     4.33     0.11     7.10
                               ----------------  Part CF         ------------
                               LOAD_GRO     28.00    69.38    11.22     8.10
                               ----------------  Part GRI&SF-B   ------------
                               LOAD_GRO     75.00    30.86    -1.14     7.35
                               ----------------  Part GRI&SF-C   ------------
                               LOAD_GRO      0.50    67.44    11.22     7.10
                               ----------------  Part GRI&SF-T   ------------
                               LOAD_GRO     45.00    65.20    -2.92     7.40
                               ----------------  Part VERVECE    ------------
                               LOAD_GRO   1832.80    47.02     0.00     3.52
                                            --- Contents ---
                          1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                          1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                          1SC      224.80     5.62     3.43     3.77     6.02    98.00
                          1SW      206.33     5.71    10.28     3.59     5.70    90.00
                          2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                          2PW      226.82    19.43   -10.27     0.82     1.63    26.61
                          2SC      426.19    19.43     3.43     1.52     3.05    50.00
                          2SW      220.59    19.43    10.27     0.79     1.58    25.88
                          3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                          3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                          3SC      255.71    40.01     3.43     0.91     1.83    30.00
                          3SW      426.16    40.01    10.28     1.53     3.05    50.00
                          4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                          4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                          4SC      835.34    60.58     3.43     2.99     5.97    98.00
                          4SW      426.16    60.58    10.28     1.53     3.05    50.00
                          5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                          5PW      614.33    80.21   -10.28     2.62     4.94    79.35
                          5SC      236.24    83.19     3.43     1.86     3.42    50.00
                          5SW      608.04    80.20    10.28     2.59     4.90    78.54
                               ========  ========  =======  =======  =======
                               Total     10052.61    46.75    -0.00     2.67
                               Buoyancy  10052.62    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 4 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 4: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 4 ---------                 . *
*                                                                                      *
****************************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 4: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.67, and Wind Speed = 10 Knots

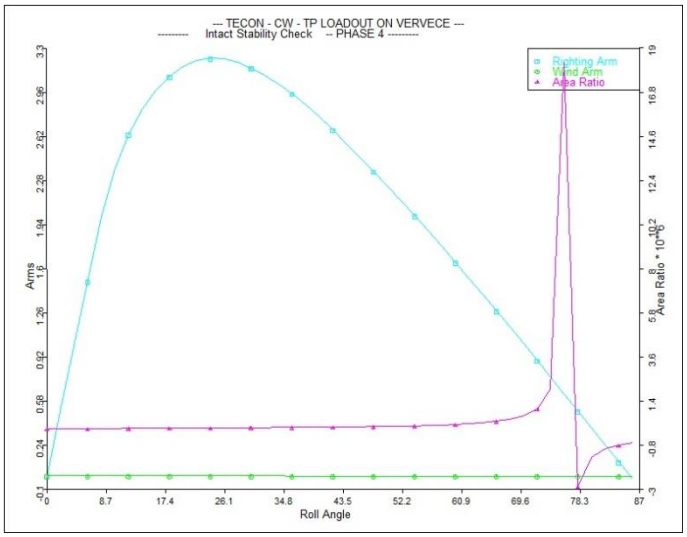
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3110.03	0.497
4.29	4.00	0.00	9999.00	1.49	1.00	1.99	0.00	0.00	6393.83	0.998
4.27	6.00	0.00	9999.00	1.03	1.50	4.49	0.00	0.00	9999.00	1.500
4.25	8.00	0.00	9999.00	0.57	2.00	7.99	0.00	0.00	9999.00	1.997
4.26	10.00	0.00	9999.00	0.07	2.37	12.35	0.00	0.00	9999.00	2.372
4.31	12.00	0.00	9999.00	-0.46	2.64	17.36	0.00	0.00	9999.00	2.636
4.39	14.00	0.00	9999.00	-1.04	2.83	22.83	0.00	0.00	9999.00	2.828
4.48	16.00	0.00	9999.00	-1.63	2.97	28.63	0.00	0.00	9999.00	2.972
4.60	18.00	0.00	9999.00	-2.25	3.08	34.68	0.00	0.00	9999.00	3.079
4.72	20.00	0.00	9999.00	-2.88	3.16	40.92	0.00	0.00	9999.00	3.157
4.85	22.00	0.00	9999.00	-3.51	3.21	47.28	0.00	0.00	9999.00	3.205
4.97	24.00	0.00	9999.00	-4.14	3.22	53.71	0.00	0.00	9999.00	3.222
5.09	26.00	0.00	9999.00	-4.77	3.21	60.14	0.00	0.00	9999.00	3.215
5.20	28.00	0.00	9999.00	-5.39	3.19	66.55	0.00	0.00	9999.00	3.188
5.31	30.00	0.00	9999.00	-6.01	3.15	72.88	0.00	0.00	9999.00	3.146
5.41	32.00	0.00	9999.00	-6.62	3.09	79.12	0.00	0.00	9999.00	3.091
5.50	34.00	0.00	9999.00	-7.22	3.03	85.23	0.00	0.00	9999.00	3.026
5.58	36.00	0.00	9999.00	-7.81	2.95	91.21	-0.00	0.00	9999.00	2.950
5.66	38.00	0.00	9999.00	-8.39	2.87	97.03	-0.00	0.00	9999.00	2.865
5.73	40.00	0.00	9999.00	-8.96	2.77	102.66	-0.00	0.00	9999.00	2.772
5.80	42.00	0.00	9999.00	-9.52	2.67	108.11	-0.00	0.00	9999.00	2.671
5.86	44.00	0.00	9999.00	-10.07	2.57	113.35	-0.00	0.00	9999.00	2.566
5.91	46.00	0.00	9999.00	-10.61	2.46	118.37	-0.00	0.00	9999.00	2.459
5.95	48.00	0.00	9999.00	-11.13	2.35	123.18	-0.00	0.00	9999.00	2.350
5.99	50.00	0.00	9999.00	-11.64	2.24	127.77	-0.00	0.00	9999.00	2.238
6.02	52.00	0.00	9999.00	-12.14	2.12	132.13	-0.00	0.00	9999.00	2.125
6.04	54.00	0.00	9999.00	-12.62	2.01	136.26	-0.00	0.00	9999.00	2.009
6.05	56.00	0.00	9999.00	-13.08	1.89	140.16	-0.00	0.00	9999.00	1.891
6.06	58.00	0.00	9999.00	-13.53	1.77	143.83	-0.00	0.00	9999.00	1.771
6.06	60.00	0.00	9999.00	-13.97	1.65	147.25	-0.00	0.00	9999.00	1.649
6.05	62.00	0.00	9999.00	-14.38	1.53	150.42	-0.00	0.00	9999.00	1.525
6.03	64.00	0.00	9999.00	-14.78	1.40	153.35	-0.00	0.00	9999.00	1.401
6.01	66.00	0.00	9999.00	-15.16	1.27	156.02	-0.00	0.00	9999.00	1.275
5.98	68.00	0.00	9999.00	-15.53	1.15	158.44	-0.00	0.00	9999.00	1.148
5.94	70.00	0.00	9999.00	-15.87	1.02	160.61	-0.00	0.00	9999.00	1.020
5.90	72.00	0.00	9999.00	-16.19	0.89	162.52	-0.00	0.00	9999.00	0.892
5.85	74.00	0.00	9999.00	-16.50	0.76	164.18	-0.00	0.00	9999.00	0.762
5.79	76.00	0.00	9999.00	-16.78	0.63	165.57	-0.00	0.00	9999.00	0.632
5.72	78.00	0.00	9999.00	-17.05	0.50	166.71	-0.00	-0.00	-9999.00	0.502
5.65	80.00	0.00	9999.00	-17.29	0.37	167.58	-0.00	-0.00	-9999.00	0.371
5.57	82.00	0.00	9999.00	-17.51	0.24	168.19	-0.00	-0.00	-9999.00	0.239
5.48	84.00	0.00	9999.00	-17.71	0.11	168.54	-0.00	-0.00	-9999.00	0.108
5.39	86.00	0.00	9999.00	-17.89	-0.02	168.62	-0.00	-0.00	-9999.00	-0.025

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--- TECON - CW - TP LOADOUT ON VERVECE ---
--------- Intact Stability Check -- PHASE 4 ---------
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                  18 June, 2025    *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 4 ------     *
*                                                                                      *
****************************************************************************************************************

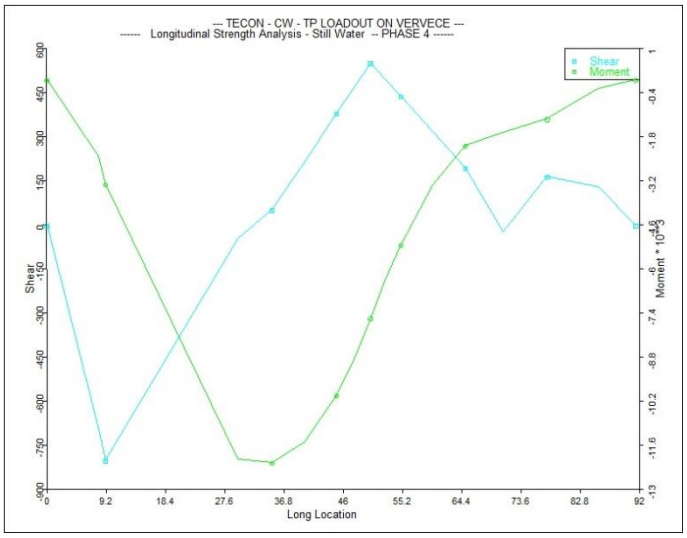
                    +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                    ================================================================

                Process is 4: Units Are Degrees, Meters, and M-Tons Unless Specified

                                    Allowable Stress =     155.00 Mpa

                                  Allowable Deflection =       1.00 MM
```

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-693	-2458	-0.0972	10.8624
9.14	-802	-3320	-0.1312	12.3842
29.72	-48	-12057	-0.4765	32.5734
35.00	50	-12165	-0.4807	34.5101
40.00	215	-11502	-0.4545	34.9722
45.00	378	-10020	-0.3960	34.1738
47.50	459	-8973	-0.3546	33.3495
50.29	550	-7564	-0.2989	32.1387
52.50	497	-6408	-0.2533	30.9944
55.00	437	-5241	-0.2071	29.5338
60.00	315	-3360	-0.1328	26.2059
65.00	193	-2088	-0.0825	22.5018
70.87	-24	-1675	-0.0662	17.8559
77.72	163	-1242	-0.0491	12.1018
85.70	127	-283	-0.0112	5.1042
91.44	-1	0	0.0000	0.0001



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                 18 June, 2025    *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ---------     Intact Stability Check    -- PHASE 5 ---------               *
*                                                                                    *
**************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 5: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Results Are Reported In Body System

                        Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

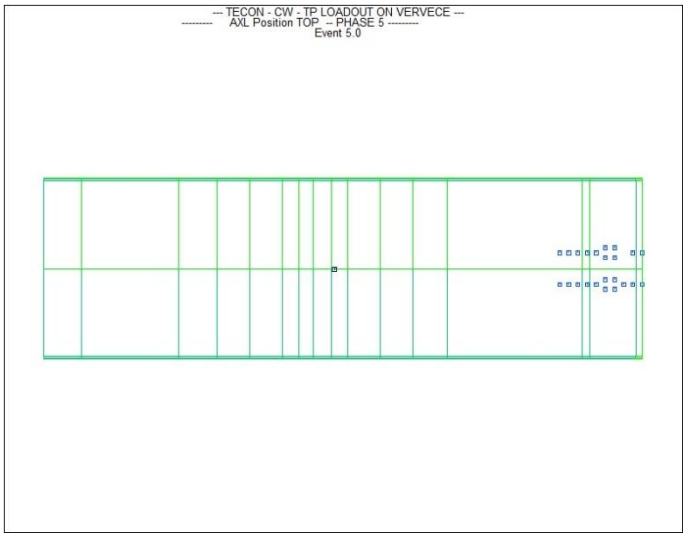
                                    Wet Radii Of Gyration About CG

                                K-X =     7.78 K-Y =    26.37 K-Z =    27.10

                                        GMT =    14.17 GML =   159.35

                                /-- Center of Gravity ---/  Sounding   % Full
                          Name   Weight    ---X---  ---Y---  ---Z---  -------- --------

                                ----------------  Part AXL5       ------------
                                LOAD_GRO    416.90     6.89     0.16     7.10
                                ----------------  Part CF         ------------
                                LOAD_GRO     28.00    69.38    11.22     8.10
                                ----------------  Part GRI&SF-B   ------------
                                LOAD_GRO     75.00    30.86    -1.14     7.35
                                ----------------  Part GRI&SF-C   ------------
                                LOAD_GRO      0.50    67.44    11.22     7.10
                                ----------------  Part GRI&SF-T   ------------
                                LOAD_GRO     45.00    65.20    -2.92     7.40
                                ----------------  Part VERVECE    ------------
                                LOAD_GRO   1832.80    47.02     0.00     3.52
                                             --- Contents ---
                          1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                          1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                          1SC      224.80     5.62     3.43     3.77     6.02    98.00
                          1SW      206.33     5.71    10.28     3.59     5.70    90.00
                          2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                          2PW      178.73    19.43   -10.27     0.64     1.28    20.97
                          2SC      426.19    19.43     3.43     1.52     3.05    50.00
                          2SW      170.99    19.43    10.27     0.62     1.23    20.06
                          3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                          3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                          3SC      255.71    40.01     3.43     0.91     1.83    30.00
                          3SW      426.16    40.01    10.28     1.53     3.05    50.00
                          4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                          4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                          4SC      835.34    60.58     3.43     2.99     5.97    98.00
                          4SW      426.16    60.58    10.28     1.53     3.05    50.00
                          5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                          5PW      617.69    80.21   -10.28     2.63     4.97    79.78
                          5SC      236.24    83.19     3.43     1.86     3.42    50.00
                          5SW      609.88    80.20    10.28     2.60     4.91    78.77
                                ========  ========  =======  =======  =======
                                Total     10052.61    46.75    -0.00     2.72
                                Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 5 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 5: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 5 ---------                 . *
*                                                                                      *
****************************************************************************************************************************
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+++ R I G H T I N G A R M R E S U L T S +++

Process is 5: Units Are Degrees, Meters, and M-Tons Unless Specified

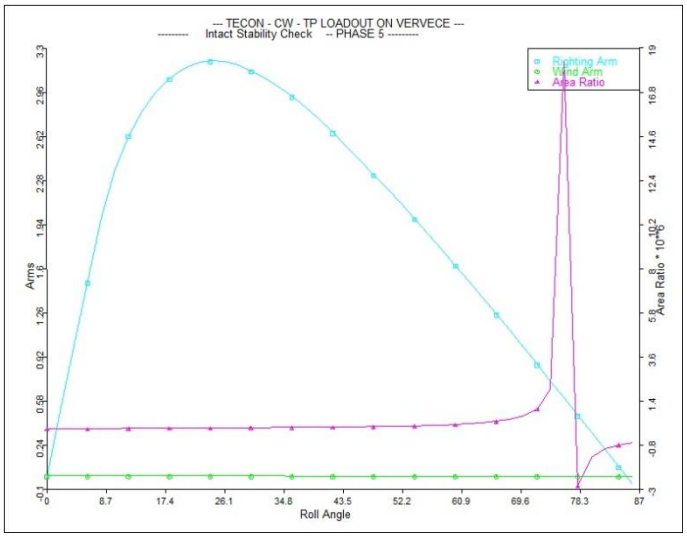
Moment Scaled By 10052.61, KG = 2.72, and Wind Speed = 10 Knots

Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3098.21	0.495
4.29	4.00	0.00	9999.00	1.49	0.99	1.98	0.00	0.00	6369.66	0.994
4.27	6.00	0.00	9999.00	1.03	1.49	4.47	0.00	0.00	9999.00	1.494
4.25	8.00	0.00	9999.00	0.57	1.99	7.96	0.00	0.00	9999.00	1.989
4.26	10.00	0.00	9999.00	0.08	2.36	12.31	0.00	0.00	9999.00	2.362
4.31	12.00	0.00	9999.00	-0.46	2.62	17.29	0.00	0.00	9999.00	2.624
4.39	14.00	0.00	9999.00	-1.04	2.82	22.73	0.00	0.00	9999.00	2.815
4.48	16.00	0.00	9999.00	-1.63	2.96	28.51	0.00	0.00	9999.00	2.957
4.60	18.00	0.00	9999.00	-2.25	3.06	34.53	0.00	0.00	9999.00	3.063
4.72	20.00	0.00	9999.00	-2.88	3.14	40.73	0.00	0.00	9999.00	3.139
4.85	22.00	0.00	9999.00	-3.51	3.19	47.06	0.00	0.00	9999.00	3.186
4.97	24.00	0.00	9999.00	-4.14	3.20	53.44	0.00	0.00	9999.00	3.202
5.09	26.00	0.00	9999.00	-4.77	3.19	59.84	0.00	0.00	9999.00	3.194
5.20	28.00	0.00	9999.00	-5.39	3.17	66.20	0.00	0.00	9999.00	3.167
5.31	30.00	0.00	9999.00	-6.01	3.12	72.49	0.00	0.00	9999.00	3.125
5.41	32.00	0.00	9999.00	-6.62	3.07	78.69	0.00	0.00	9999.00	3.070
5.50	34.00	0.00	9999.00	-7.22	3.00	84.76	0.00	0.00	9999.00	3.004
5.58	36.00	0.00	9999.00	-7.81	2.93	90.69	-0.00	0.00	9999.00	2.928
5.66	38.00	0.00	9999.00	-8.39	2.84	96.47	-0.00	0.00	9999.00	2.843
5.73	40.00	0.00	9999.00	-8.96	2.75	102.06	-0.00	0.00	9999.00	2.750
5.80	42.00	0.00	9999.00	-9.52	2.65	107.46	-0.00	0.00	9999.00	2.648
5.86	44.00	0.00	9999.00	-10.07	2.54	112.65	-0.00	0.00	9999.00	2.543
5.91	46.00	0.00	9999.00	-10.61	2.44	117.63	-0.00	0.00	9999.00	2.435
5.95	48.00	0.00	9999.00	-11.13	2.33	122.39	-0.00	0.00	9999.00	2.326
5.99	50.00	0.00	9999.00	-11.64	2.21	126.93	-0.00	0.00	9999.00	2.214
6.02	52.00	0.00	9999.00	-12.14	2.10	131.24	-0.00	0.00	9999.00	2.100
6.04	54.00	0.00	9999.00	-12.62	1.98	135.33	-0.00	0.00	9999.00	1.984
6.05	56.00	0.00	9999.00	-13.08	1.87	139.18	-0.00	0.00	9999.00	1.866
6.06	58.00	0.00	9999.00	-13.53	1.75	142.79	-0.00	0.00	9999.00	1.746
6.06	60.00	0.00	9999.00	-13.97	1.62	146.16	-0.00	0.00	9999.00	1.624
6.05	62.00	0.00	9999.00	-14.38	1.50	149.28	-0.00	0.00	9999.00	1.501
6.03	64.00	0.00	9999.00	-14.78	1.38	152.16	-0.00	0.00	9999.00	1.375
6.01	66.00	0.00	9999.00	-15.16	1.25	154.78	-0.00	0.00	9999.00	1.248
5.98	68.00	0.00	9999.00	-15.53	1.12	157.15	-0.00	0.00	9999.00	1.120
5.94	70.00	0.00	9999.00	-15.87	0.99	159.26	-0.00	0.00	9999.00	0.991
5.90	72.00	0.00	9999.00	-16.19	0.86	161.11	-0.00	0.00	9999.00	0.862
5.85	74.00	0.00	9999.00	-16.50	0.73	162.71	-0.00	0.00	9999.00	0.731
5.79	76.00	0.00	9999.00	-16.78	0.60	164.04	-0.00	0.00	9999.00	0.601
5.72	78.00	0.00	9999.00	-17.05	0.47	165.11	-0.00	-0.00	-9999.00	0.469
5.65	80.00	0.00	9999.00	-17.29	0.34	165.92	-0.00	-0.00	-9999.00	0.337
5.57	82.00	0.00	9999.00	-17.51	0.20	166.46	-0.00	-0.00	-9999.00	0.205
5.48	84.00	0.00	9999.00	-17.71	0.07	166.73	-0.00	-0.00	-9999.00	0.072
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.75	-0.00	-0.00	-9999.00	-0.061


--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 5
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
**********************************************************
*                                  ***  MOSES    ***                                  *
*                                  ----------------                    18 June, 2025  *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 5 ------   *
*                                                                                     *
***************************************************************************************************************

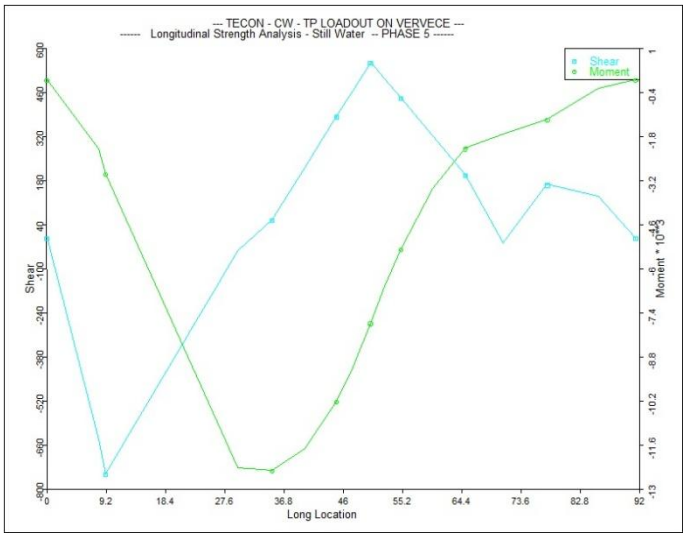
                    +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                    ================================================================

                  Process is 5: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Allowable Stress =     155.00 Mpa

                                Allowable Deflection =       1.00 MM
```

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-642	-2192	-0.0867	10.9526
9.14	-751	-2996	-0.1184	12.4910
29.72	-43	-12332	-0.4873	33.1034
35.00	56	-12412	-0.4905	35.0974
40.00	220	-11722	-0.4632	35.5857
45.00	383	-10213	-0.4036	34.7892
47.50	465	-9152	-0.3617	33.9578
50.29	555	-7728	-0.3054	32.7332
52.50	502	-6561	-0.2593	31.5741
55.00	442	-5380	-0.2126	30.0923
60.00	321	-3473	-0.1373	26.7117
65.00	199	-2173	-0.0859	22.9424
70.87	-18	-1729	-0.0684	18.2081
77.72	167	-1266	-0.0501	12.3405
85.70	128	-286	-0.0114	5.2047
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 6 ---------                               *
*                                                                                                     *
*******************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                 Process is 6: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                     Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =    -0.00

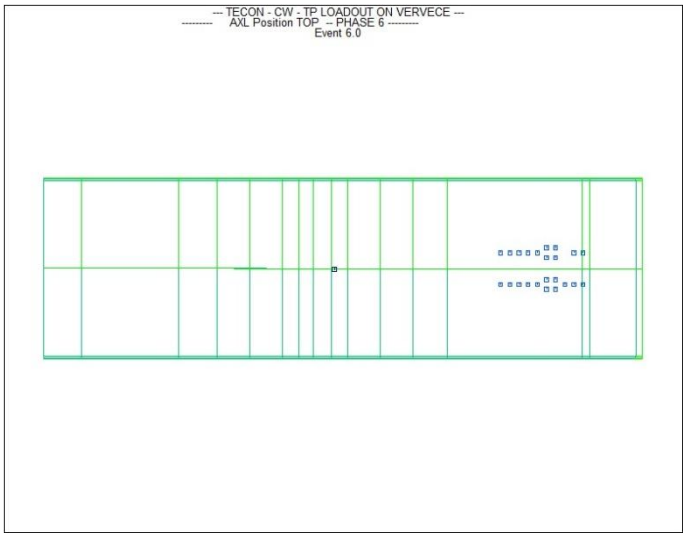
                                 Wet Radii Of Gyration About CG

                           K-X =     7.78 K-Y =    25.81 K-Z =    26.55

                                    GMT =    14.19 GML =   159.34

                           /-- Center of Gravity ---/  Sounding   % Full
                    Name    Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL6       ------------
                           LOAD_GRO    416.90    15.89     0.16     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                      1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                      1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                      1SC      224.80     5.62     3.43     3.77     6.02    98.00
                      1SW      206.33     5.71    10.28     3.59     5.70    90.00
                      2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                      2PW      209.63    19.43   -10.27     0.75     1.50    24.60
                      2SC      426.19    19.43     3.43     1.52     3.05    50.00
                      2SW      201.90    19.43    10.27     0.73     1.45    23.69
                      3PC      255.71    40.00    -3.43     0.91     1.83    30.00
                      3PW      426.16    40.00   -10.28     1.53     3.05    50.00
                      3SC      255.71    40.00     3.43     0.91     1.83    30.00
                      3SW      426.16    40.00    10.28     1.53     3.05    50.00
                      4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                      4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                      4SC      835.34    60.58     3.43     2.99     5.97    98.00
                      4SW      426.16    60.58    10.28     1.53     3.05    50.00
                      5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                      5PW      586.78    80.16   -10.28     2.51     4.74    75.79
                      5SC      236.24    83.19     3.43     1.86     3.42    50.00
                      5SW      578.97    80.15    10.28     2.48     4.69    74.78
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75     0.00     2.70
                           Buoyancy  10052.60    46.75     0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 6 ---------                                 *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 6: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

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*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 6 ---------                 . *
*                                                                                      *
****************************************************************************************************************
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+++ R I G H T I N G A R M R E S U L T S +++

Process is 6: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.70, and Wind Speed = 10 Knots

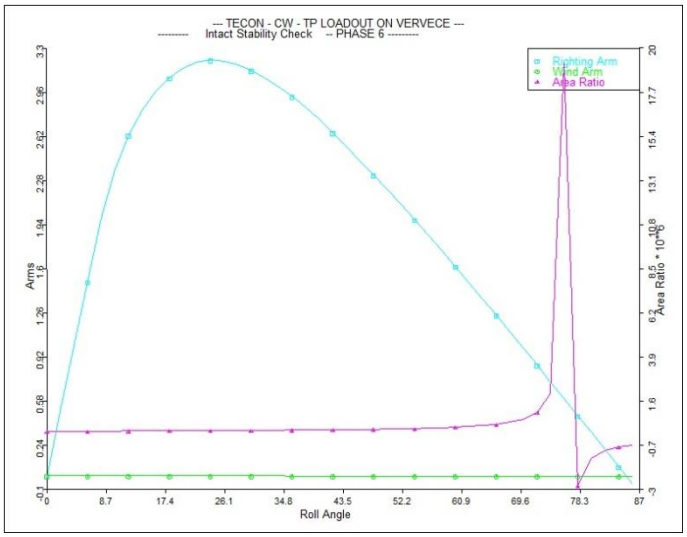
Initial: Roll = -0.00, Trim = -0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3103.10	0.496
4.29	4.00	0.00	9999.00	1.48	1.00	1.99	0.00	0.00	6379.58	0.995
4.27	6.00	0.00	9999.00	1.03	1.50	4.48	0.00	0.00	9999.00	1.497
4.25	8.00	0.00	9999.00	0.57	1.99	7.97	0.00	0.00	9999.00	1.992
4.26	10.00	0.00	9999.00	0.07	2.37	12.33	0.00	0.00	9999.00	2.366
4.31	12.00	0.00	9999.00	-0.47	2.63	17.32	0.00	0.00	9999.00	2.629
4.39	14.00	0.00	9999.00	-1.04	2.82	22.77	0.00	0.00	9999.00	2.821
4.49	16.00	0.00	9999.00	-1.63	2.96	28.56	0.00	0.00	9999.00	2.963
4.60	18.00	0.00	9999.00	-2.25	3.07	34.59	0.00	0.00	9999.00	3.069
4.72	20.00	0.00	9999.00	-2.88	3.15	40.80	0.00	0.00	9999.00	3.146
4.85	22.00	0.00	9999.00	-3.51	3.19	47.14	0.00	0.00	9999.00	3.192
4.98	24.00	0.00	9999.00	-4.15	3.21	53.54	0.00	0.00	9999.00	3.208
5.09	26.00	0.00	9999.00	-4.77	3.20	59.95	0.00	0.00	9999.00	3.198
5.20	28.00	0.00	9999.00	-5.40	3.17	66.32	0.00	0.00	9999.00	3.170
5.31	30.00	0.00	9999.00	-6.01	3.13	72.61	0.00	0.00	9999.00	3.127
5.41	32.00	0.00	9999.00	-6.62	3.07	78.81	0.00	0.00	9999.00	3.071
5.50	34.00	0.00	9999.00	-7.22	3.00	84.89	0.00	0.00	9999.00	3.005
5.59	36.00	0.00	9999.00	-7.81	2.93	90.82	-0.00	0.00	9999.00	2.928
5.66	38.00	0.00	9999.00	-8.39	2.84	96.59	-0.00	0.00	9999.00	2.842
5.74	40.00	0.00	9999.00	-8.96	2.75	102.18	-0.00	0.00	9999.00	2.748
5.80	42.00	0.00	9999.00	-9.52	2.65	107.58	-0.00	0.00	9999.00	2.646
5.86	44.00	0.00	9999.00	-10.07	2.54	112.76	-0.00	0.00	9999.00	2.540
5.91	46.00	0.00	9999.00	-10.61	2.43	117.74	-0.00	0.00	9999.00	2.432
5.95	48.00	0.00	9999.00	-11.13	2.32	122.49	-0.00	0.00	9999.00	2.322
5.99	50.00	0.00	9999.00	-11.64	2.21	127.02	-0.00	0.00	9999.00	2.210
6.02	52.00	0.00	9999.00	-12.14	2.10	131.33	-0.00	0.00	9999.00	2.095
6.04	54.00	0.00	9999.00	-12.62	1.98	135.40	-0.00	0.00	9999.00	1.979
6.05	56.00	0.00	9999.00	-13.09	1.86	139.24	-0.00	0.00	9999.00	1.860
6.06	58.00	0.00	9999.00	-13.54	1.74	142.84	-0.00	0.00	9999.00	1.739
6.06	60.00	0.00	9999.00	-13.97	1.62	146.19	-0.00	0.00	9999.00	1.616
6.05	62.00	0.00	9999.00	-14.38	1.49	149.30	-0.00	0.00	9999.00	1.492
6.03	64.00	0.00	9999.00	-14.78	1.37	152.16	-0.00	0.00	9999.00	1.367
6.01	66.00	0.00	9999.00	-15.16	1.24	154.77	-0.00	0.00	9999.00	1.240
5.98	68.00	0.00	9999.00	-15.53	1.11	157.12	-0.00	0.00	9999.00	1.113
5.94	70.00	0.00	9999.00	-15.87	0.98	159.22	-0.00	0.00	9999.00	0.985
5.90	72.00	0.00	9999.00	-16.19	0.86	161.06	-0.00	0.00	9999.00	0.856
5.85	74.00	0.00	9999.00	-16.50	0.73	162.64	-0.00	0.00	9999.00	0.726
5.79	76.00	0.00	9999.00	-16.78	0.60	163.96	-0.00	0.00	9999.00	0.596
5.72	78.00	0.00	9999.00	-17.05	0.47	165.02	-0.00	-0.00	-9999.00	0.465
5.65	80.00	0.00	9999.00	-17.29	0.33	165.82	-0.00	-0.00	-9999.00	0.334
5.57	82.00	0.00	9999.00	-17.51	0.20	166.36	-0.00	-0.00	-9999.00	0.203
5.48	84.00	0.00	9999.00	-17.71	0.07	166.63	-0.00	-0.00	-9999.00	0.071
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.64	-0.00	-0.00	-9999.00	-0.061

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 6
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                 *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 6 ------  *
*                                                                                    *
**************************************************************************************************************
```

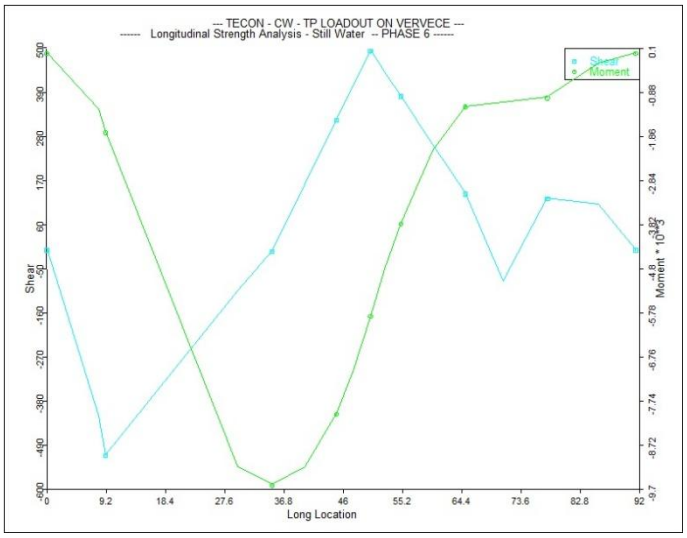
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 6: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-416	-1245	-0.0492	7.7992
9.14	-514	-1760	-0.0696	8.8996
29.72	-104	-9200	-0.3636	24.1661
35.00	-4	-9602	-0.3795	25.7515
40.00	159	-9216	-0.3642	26.1722
45.00	323	-8011	-0.3166	25.5844
47.50	404	-7102	-0.2807	24.9503
50.29	495	-5848	-0.2311	24.0128
52.50	441	-4814	-0.1903	23.1267
55.00	381	-3786	-0.1496	21.9994
60.00	260	-2183	-0.0863	19.4550
65.00	138	-1188	-0.0470	16.6641
70.87	-79	-1102	-0.0436	13.2137
77.72	126	-987	-0.0390	8.9652
85.70	111	-238	-0.0094	3.7847
91.44	-1	0	0.0000	0.0001



```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  -----------------                 18 June, 2025    *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 7 ---------                 *
*                                                                                     *
***************************************************************************************************************

                  +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                  ====================================================================

                   Process is 7: Units Are Degrees, Meters, and M-Tons Unless Specified

                                 Results Are Reported In Body System

                       Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =    -0.00

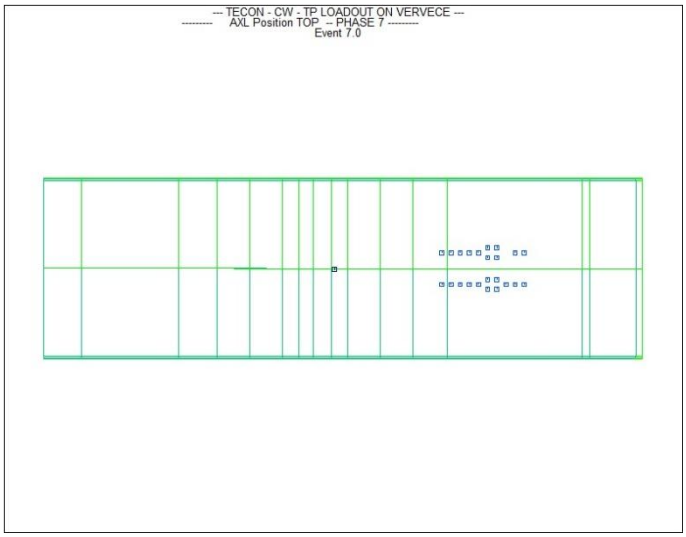
                                    Wet Radii Of Gyration About CG

                              K-X =     7.78 K-Y =    25.37 K-Z =    26.13

                                       GMT =    14.21 GML =   159.31

                              /-- Center of Gravity ---/  Sounding   % Full
                        Name   Weight    ---X---  ---Y---  ---Z---  -------- --------

                              ----------------  Part AXL7       ------------
                              LOAD_GRO    416.90    24.89     0.16     7.10
                              ----------------  Part CF         ------------
                              LOAD_GRO     28.00    69.38    11.22     8.10
                              ----------------  Part GRI&SF-B   ------------
                              LOAD_GRO     75.00    30.86    -1.14     7.35
                              ----------------  Part GRI&SF-C   ------------
                              LOAD_GRO      0.50    67.44    11.22     7.10
                              ----------------  Part GRI&SF-T   ------------
                              LOAD_GRO     45.00    65.20    -2.92     7.40
                              ----------------  Part VERVECE    ------------
                              LOAD_GRO   1832.80    47.02     0.00     3.52
                                           --- Contents ---
                        1PC       224.31     5.62    -3.43     3.77     6.02    98.00
                        1PW       206.33     5.71   -10.28     3.59     5.70    90.00
                        1SC       224.80     5.62     3.43     3.77     6.02    98.00
                        1SW       206.33     5.71    10.28     3.59     5.70    90.00
                        2PC       426.19    19.43    -3.43     1.52     3.05    50.00
                        2PW       240.05    19.43   -10.27     0.86     1.72    28.16
                        2SC       426.19    19.43     3.43     1.52     3.05    50.00
                        2SW       232.31    19.43    10.27     0.84     1.67    27.26
                        3PC       255.71    40.00    -3.43     0.91     1.83    30.00
                        3PW       426.16    40.00   -10.28     1.53     3.05    50.00
                        3SC       255.71    40.00     3.43     0.91     1.83    30.00
                        3SW       426.16    40.00    10.28     1.53     3.05    50.00
                        4PC       835.34    60.58    -3.43     2.99     5.97    98.00
                        4PW       426.16    60.58   -10.28     1.53     3.05    50.00
                        4SC       835.34    60.58     3.43     2.99     5.97    98.00
                        4SW       426.16    60.58    10.28     1.53     3.05    50.00
                        5PC       240.01    83.19    -3.43     1.86     3.42    50.00
                        5PW       556.37    80.11   -10.28     2.40     4.52    71.86
                        5SC       236.24    83.19     3.43     1.86     3.42    50.00
                        5SW       548.55    80.09    10.28     2.37     4.47    70.85
                              ========  ========  =======  =======  =======
                              Total     10052.61    46.75     0.00     2.68
                              Buoyancy  10052.60    46.75     0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 7 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 7: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                      ***  MOSES   ***                                                    *
*                                      ----------------                          18 June, 2025          *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                     *
*          ---------     Intact Stability Check    -- PHASE 7 ---------                                  . *
*                                                                                                         *
***********************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 7: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.68, and Wind Speed = 10 Knots

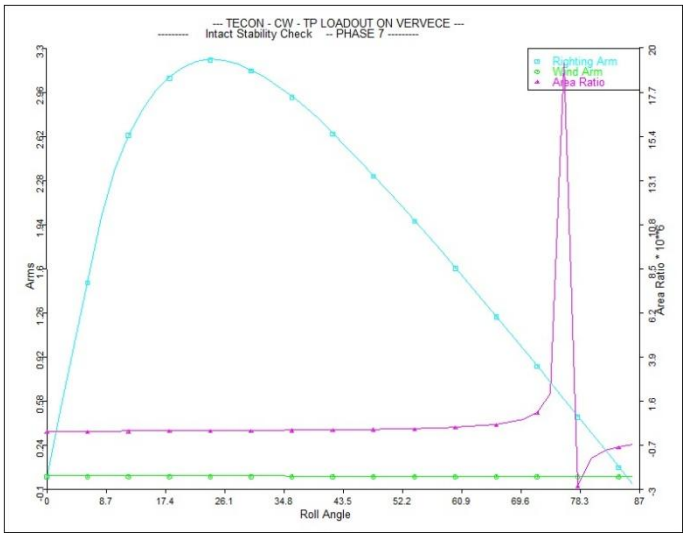
Initial: Roll = -0.00, Trim = -0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3107.09	0.497
4.29	4.00	0.00	9999.00	1.48	1.00	1.99	0.00	0.00	6387.78	0.997
4.27	6.00	0.00	9999.00	1.03	1.50	4.49	0.00	0.00	9999.00	1.498
4.25	8.00	0.00	9999.00	0.57	1.99	7.98	0.00	0.00	9999.00	1.995
4.26	10.00	0.00	9999.00	0.07	2.37	12.34	0.00	0.00	9999.00	2.369
4.31	12.00	0.00	9999.00	-0.47	2.63	17.34	0.00	0.00	9999.00	2.633
4.39	14.00	0.00	9999.00	-1.04	2.83	22.80	0.00	0.00	9999.00	2.825
4.49	16.00	0.00	9999.00	-1.63	2.97	28.60	0.00	0.00	9999.00	2.968
4.60	18.00	0.00	9999.00	-2.25	3.08	34.64	0.00	0.00	9999.00	3.075
4.72	20.00	0.00	9999.00	-2.88	3.15	40.87	0.00	0.00	9999.00	3.152
4.85	22.00	0.00	9999.00	-3.51	3.20	47.22	0.00	0.00	9999.00	3.199
4.98	24.00	0.00	9999.00	-4.15	3.21	53.63	0.00	0.00	9999.00	3.214
5.09	26.00	0.00	9999.00	-4.77	3.20	60.05	0.00	0.00	9999.00	3.205
5.20	28.00	0.00	9999.00	-5.40	3.18	66.43	0.00	0.00	9999.00	3.175
5.31	30.00	0.00	9999.00	-6.01	3.13	72.74	0.00	0.00	9999.00	3.131
5.41	32.00	0.00	9999.00	-6.62	3.07	78.94	0.00	0.00	9999.00	3.074
5.50	34.00	0.00	9999.00	-7.22	3.01	85.02	0.00	0.00	9999.00	3.006
5.59	36.00	0.00	9999.00	-7.81	2.93	90.96	-0.00	0.00	9999.00	2.929
5.66	38.00	0.00	9999.00	-8.39	2.84	96.73	-0.00	0.00	9999.00	2.842
5.74	40.00	0.00	9999.00	-8.96	2.75	102.32	-0.00	0.00	9999.00	2.747
5.80	42.00	0.00	9999.00	-9.52	2.64	107.71	-0.00	0.00	9999.00	2.645
5.86	44.00	0.00	9999.00	-10.07	2.54	112.89	-0.00	0.00	9999.00	2.538
5.91	46.00	0.00	9999.00	-10.61	2.43	117.86	-0.00	0.00	9999.00	2.429
5.95	48.00	0.00	9999.00	-11.13	2.32	122.61	-0.00	0.00	9999.00	2.318
5.99	50.00	0.00	9999.00	-11.64	2.20	127.13	-0.00	0.00	9999.00	2.205
6.02	52.00	0.00	9999.00	-12.14	2.09	131.42	-0.00	0.00	9999.00	2.090
6.04	54.00	0.00	9999.00	-12.62	1.97	135.49	-0.00	0.00	9999.00	1.972
6.05	56.00	0.00	9999.00	-13.09	1.85	139.31	-0.00	0.00	9999.00	1.853
6.06	58.00	0.00	9999.00	-13.54	1.73	142.90	-0.00	0.00	9999.00	1.731
6.06	60.00	0.00	9999.00	-13.97	1.61	146.23	-0.00	0.00	9999.00	1.608
6.05	62.00	0.00	9999.00	-14.38	1.48	149.33	-0.00	0.00	9999.00	1.484
6.03	64.00	0.00	9999.00	-14.78	1.36	152.17	-0.00	0.00	9999.00	1.359
6.01	66.00	0.00	9999.00	-15.16	1.23	154.76	-0.00	0.00	9999.00	1.233
5.98	68.00	0.00	9999.00	-15.53	1.11	157.10	-0.00	0.00	9999.00	1.106
5.94	70.00	0.00	9999.00	-15.87	0.98	159.18	-0.00	0.00	9999.00	0.979
5.90	72.00	0.00	9999.00	-16.19	0.85	161.01	-0.00	0.00	9999.00	0.850
5.85	74.00	0.00	9999.00	-16.50	0.72	162.59	-0.00	0.00	9999.00	0.722
5.79	76.00	0.00	9999.00	-16.78	0.59	163.90	-0.00	0.00	9999.00	0.592
5.72	78.00	0.00	9999.00	-17.05	0.46	164.95	-0.00	-0.00	-9999.00	0.462
5.65	80.00	0.00	9999.00	-17.29	0.33	165.75	-0.00	-0.00	-9999.00	0.332
5.57	82.00	0.00	9999.00	-17.51	0.20	166.28	-0.00	-0.00	-9999.00	0.201
5.48	84.00	0.00	9999.00	-17.71	0.07	166.55	-0.00	-0.00	-9999.00	0.070
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.56	-0.00	-0.00	-9999.00	-0.062

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 7
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*******************************************************
*                                *** MOSES ***                                *
*                                ---------------                 18 June, 2025 *
*       --- TECON - CW - TP LOADOUT ON VERVECE ---                             *
*       ------  Longitudinal Strength Analysis - Still Water  -- PHASE 7 ------ *
*                                                                              *
********************************************************************************************************************
```

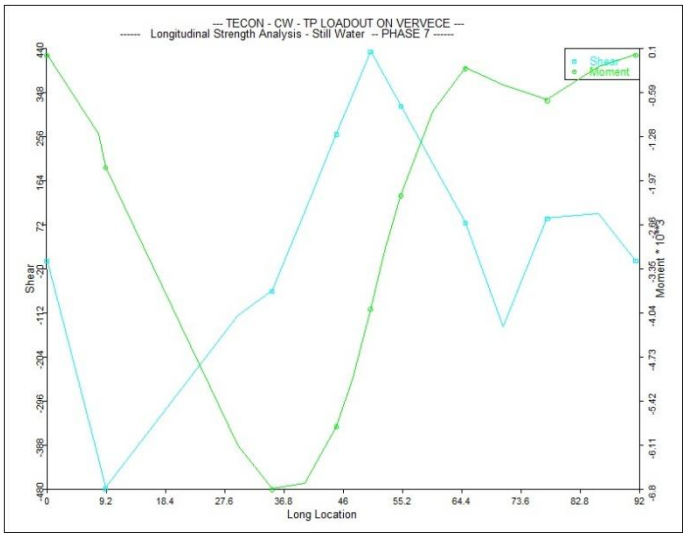
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 7: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-416	-1245	-0.0492	5.6097
9.14	-477	-1755	-0.0694	6.3970
29.72	-117	-6116	-0.2417	16.8414
35.00	-65	-6796	-0.2686	17.8826
40.00	98	-6714	-0.2653	18.1066
45.00	262	-5813	-0.2297	17.5981
47.50	343	-5056	-0.1998	17.0967
50.29	434	-3972	-0.1570	16.3735
52.50	381	-3072	-0.1214	15.7032
55.00	320	-2196	-0.0868	14.8650
60.00	199	-897	-0.0355	13.0262
65.00	77	-206	-0.0082	11.0826
70.87	-140	-476	-0.0189	8.7618
77.72	85	-709	-0.0281	5.9517
85.70	94	-189	-0.0075	2.5161
91.44	-1	0	0.0000	0.0001



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  -----------------                 18 June, 2025   *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ---------     Intact Stability Check    -- PHASE 8 ---------               *
*                                                                                    *
**************************************************************************************************************
```

+++ B U O Y A N C Y A N D W E I G H T F O R V E R V E C E +++

Process is 8: Units Are Degrees, Meters, and M-Tons Unless Specified

Results Are Reported In Body System

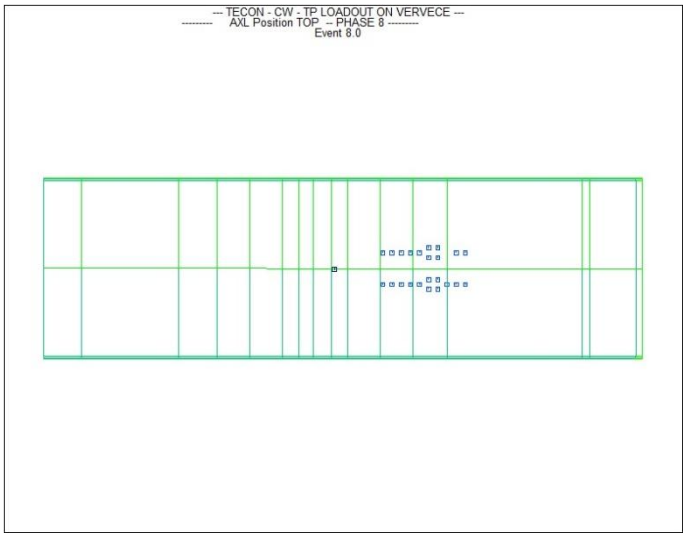
Draft = 4.30 Roll Angle = -0.00 Pitch Angle = -0.00

Wet Radii Of Gyration About CG

K-X = 7.78 K-Y = 25.06 K-Z = 25.82

GMT = 14.23 GML = 159.26

Name	Weight	/-- Center of Gravity ---/ ---X---	---Y---	---Z---	Sounding	% Full
		Part AXL8				
LOAD_GRO	416.90	33.89	0.16	7.10		
		Part CF				
LOAD_GRO	28.00	69.38	11.22	8.10		
		Part GRI&SF-B				
LOAD_GRO	75.00	30.86	-1.14	7.35		
		Part GRI&SF-C				
LOAD_GRO	0.50	67.44	11.22	7.10		
		Part GRI&SF-T				
LOAD_GRO	45.00	65.20	-2.92	7.40		
		Part VERVECE				
LOAD_GRO	1832.80	47.02	0.00	3.52		
		--- Contents ---				
1PC	224.31	5.62	-3.43	3.77	6.02	98.00
1PW	206.33	5.71	-10.28	3.59	5.70	90.00
1SC	224.80	5.62	3.43	3.77	6.02	98.00
1SW	206.33	5.71	10.28	3.59	5.70	90.00
2PC	426.19	19.43	-3.43	1.52	3.05	50.00
2PW	270.47	19.43	-10.27	0.97	1.94	31.73
2SC	426.19	19.43	3.43	1.52	3.05	50.00
2SW	262.73	19.43	10.27	0.94	1.88	30.83
3PC	255.71	40.00	-3.43	0.91	1.83	30.00
3PW	426.16	40.00	-10.28	1.53	3.05	50.00
3SC	255.71	40.00	3.43	0.91	1.83	30.00
3SW	426.16	40.00	10.28	1.53	3.05	50.00
4PC	835.34	60.58	-3.43	2.99	5.97	98.00
4PW	426.16	60.58	-10.28	1.53	3.05	50.00
4SC	835.34	60.58	3.43	2.99	5.97	98.00
4SW	426.16	60.58	10.28	1.53	3.05	50.00
5PC	240.01	83.19	-3.43	1.86	3.42	50.00
5PW	525.95	80.05	-10.28	2.28	4.30	67.93
5SC	236.24	83.19	3.43	1.86	3.42	50.00
5SW	518.13	80.03	10.28	2.25	4.25	66.92
Total	10052.61	46.75	0.00	2.67		
Buoyancy	10052.60	46.75	0.00	2.21		




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 8 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 8: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 8 ---------                 . *
*                                                                                      *
****************************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 8: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.67, and Wind Speed = 10 Knots

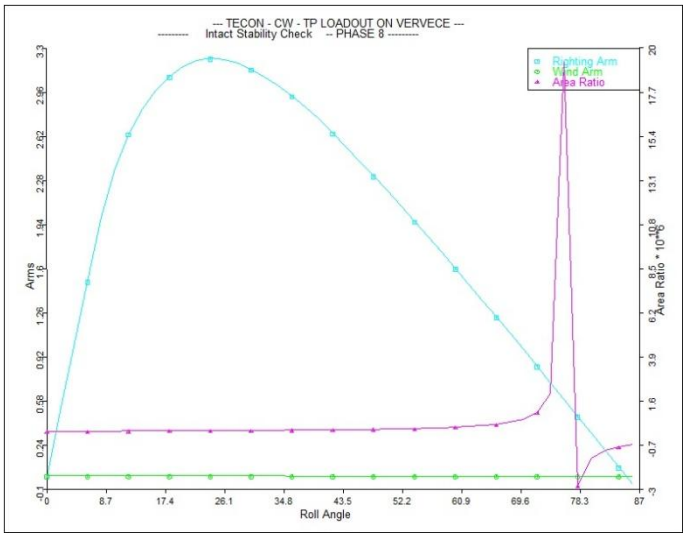
Initial: Roll = -0.00, Trim = -0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3110.51	0.497
4.29	4.00	0.00	9999.00	1.48	1.00	1.99	0.00	0.00	6394.80	0.998
4.27	6.00	0.00	9999.00	1.03	1.50	4.49	0.00	0.00	9999.00	1.500
4.25	8.00	0.00	9999.00	0.57	2.00	7.99	0.00	0.00	9999.00	1.997
4.26	10.00	0.00	9999.00	0.07	2.37	12.36	0.00	0.00	9999.00	2.372
4.31	12.00	0.00	9999.00	-0.47	2.64	17.36	0.00	0.00	9999.00	2.636
4.39	14.00	0.00	9999.00	-1.04	2.83	22.83	0.00	0.00	9999.00	2.829
4.49	16.00	0.00	9999.00	-1.63	2.97	28.63	0.00	0.00	9999.00	2.972
4.60	18.00	0.00	9999.00	-2.25	3.08	34.68	0.00	0.00	9999.00	3.080
4.72	20.00	0.00	9999.00	-2.88	3.16	40.92	0.00	0.00	9999.00	3.158
4.85	22.00	0.00	9999.00	-3.51	3.21	47.28	0.00	0.00	9999.00	3.205
4.98	24.00	0.00	9999.00	-4.15	3.22	53.71	0.00	0.00	9999.00	3.221
5.09	26.00	0.00	9999.00	-4.77	3.21	60.14	0.00	0.00	9999.00	3.211
5.20	28.00	0.00	9999.00	-5.40	3.18	66.53	0.00	0.00	9999.00	3.182
5.31	30.00	0.00	9999.00	-6.01	3.14	72.85	0.00	0.00	9999.00	3.136
5.41	32.00	0.00	9999.00	-6.62	3.08	79.07	0.00	0.00	9999.00	3.078
5.50	34.00	0.00	9999.00	-7.22	3.01	85.15	0.00	0.00	9999.00	3.009
5.59	36.00	0.00	9999.00	-7.81	2.93	91.09	-0.00	0.00	9999.00	2.931
5.66	38.00	0.00	9999.00	-8.39	2.84	96.87	-0.00	0.00	9999.00	2.843
5.74	40.00	0.00	9999.00	-8.96	2.75	102.46	-0.00	0.00	9999.00	2.747
5.80	42.00	0.00	9999.00	-9.52	2.64	107.85	-0.00	0.00	9999.00	2.644
5.86	44.00	0.00	9999.00	-10.07	2.54	113.03	-0.00	0.00	9999.00	2.536
5.91	46.00	0.00	9999.00	-10.61	2.43	117.99	-0.00	0.00	9999.00	2.426
5.95	48.00	0.00	9999.00	-11.13	2.31	122.73	-0.00	0.00	9999.00	2.314
5.99	50.00	0.00	9999.00	-11.64	2.20	127.24	-0.00	0.00	9999.00	2.200
6.02	52.00	0.00	9999.00	-12.14	2.08	131.53	-0.00	0.00	9999.00	2.084
6.04	54.00	0.00	9999.00	-12.62	1.97	135.58	-0.00	0.00	9999.00	1.966
6.05	56.00	0.00	9999.00	-13.09	1.85	139.39	-0.00	0.00	9999.00	1.845
6.06	58.00	0.00	9999.00	-13.54	1.72	142.96	-0.00	0.00	9999.00	1.723
6.06	60.00	0.00	9999.00	-13.97	1.60	146.28	-0.00	0.00	9999.00	1.601
6.05	62.00	0.00	9999.00	-14.38	1.48	149.36	-0.00	0.00	9999.00	1.477
6.03	64.00	0.00	9999.00	-14.78	1.35	152.19	-0.00	0.00	9999.00	1.353
6.01	66.00	0.00	9999.00	-15.16	1.23	154.77	-0.00	0.00	9999.00	1.227
5.98	68.00	0.00	9999.00	-15.53	1.10	157.10	-0.00	0.00	9999.00	1.101
5.94	70.00	0.00	9999.00	-15.87	0.97	159.17	-0.00	0.00	9999.00	0.974
5.90	72.00	0.00	9999.00	-16.19	0.85	160.99	-0.00	0.00	9999.00	0.846
5.85	74.00	0.00	9999.00	-16.50	0.72	162.55	-0.00	0.00	9999.00	0.718
5.79	76.00	0.00	9999.00	-16.78	0.59	163.86	-0.00	0.00	9999.00	0.589
5.72	78.00	0.00	9999.00	-17.05	0.46	164.91	-0.00	-0.00	-9999.00	0.460
5.65	80.00	0.00	9999.00	-17.29	0.33	165.70	-0.00	-0.00	-9999.00	0.330
5.57	82.00	0.00	9999.00	-17.51	0.20	166.23	-0.00	-0.00	-9999.00	0.200
5.48	84.00	0.00	9999.00	-17.71	0.07	166.50	-0.00	-0.00	-9999.00	0.069
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.51	-0.00	-0.00	-9999.00	-0.062

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                    ******************************************************
*                                  ***  MOSES   ***                                                  *
*                                  ----------------                          18 June, 2025        *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                               *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 8 ------                 *
*                                                                                                   *
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```

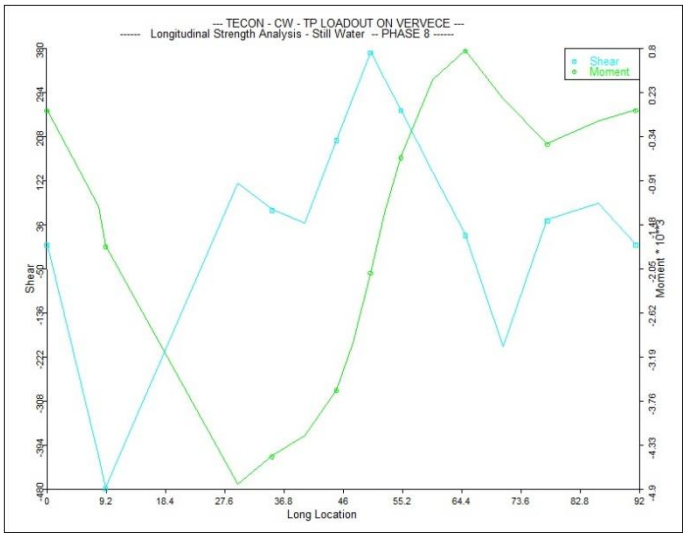
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 8: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-416	-1245	-0.0492	4.2871
9.14	-477	-1755	-0.0694	4.8853
29.72	117	-4832	-0.1910	11.9390
35.00	65	-4471	-0.1767	12.2955
40.00	38	-4212	-0.1665	12.1252
45.00	201	-3615	-0.1429	11.4935
47.50	282	-3010	-0.1190	11.0233
50.29	373	-2095	-0.0828	10.4016
52.50	320	-1330	-0.0526	9.8572
55.00	260	-606	-0.0240	9.2070
60.00	138	389	0.0154	7.8710
65.00	16	775	0.0306	6.5723
70.87	-201	148	0.0059	5.1434
77.72	45	-431	-0.0171	3.4938
85.70	77	-141	-0.0056	1.4800
91.44	-1	0	0.0000	0.0001


--- TECON - CW - TP LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 8 ------
Shear
Moment
Shear
Moment * 10^3
Long Location
0
9.2
18.4
27.6
36.8
46
55.2
64.4
73.6
82.8
92

```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 9 ---------                               *
*                                                                                                     *
*******************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                 Process is 9: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                     Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

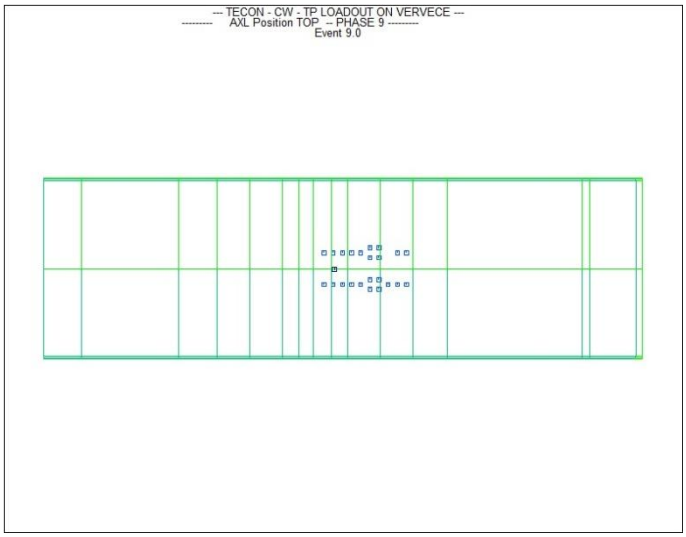
                                 Wet Radii Of Gyration About CG

                           K-X =     7.78 K-Y =    24.88 K-Z =    25.65

                                    GMT =    14.24 GML =   159.20

                           /-- Center of Gravity ---/  Sounding   % Full
                    Name    Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL9       ------------
                           LOAD_GRO    416.90    42.89     0.16     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                      1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                      1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                      1SC      224.80     5.62     3.43     3.77     6.02    98.00
                      1SW      206.33     5.71    10.28     3.59     5.70    90.00
                      2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                      2PW      300.34    19.43   -10.28     1.08     2.15    35.24
                      2SC      426.19    19.43     3.43     1.52     3.05    50.00
                      2SW      292.59    19.43    10.28     1.05     2.10    34.33
                      3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                      3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                      3SC      255.71    40.01     3.43     0.91     1.83    30.00
                      3SW      426.16    40.01    10.28     1.53     3.05    50.00
                      4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                      4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                      4SC      835.34    60.58     3.43     2.99     5.97    98.00
                      4SW      426.16    60.58    10.28     1.53     3.05    50.00
                      5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                      5PW      496.08    79.98   -10.28     2.17     4.09    64.07
                      5SC      236.24    83.19     3.43     1.86     3.42    50.00
                      5SW      488.27    79.96    10.28     2.14     4.03    63.07
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75    -0.00     2.66
                           Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                       ***  MOSES   ***                                                  *
*                                       ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                     *
*          ---------     Intact Stability Check    -- PHASE 9 ---------                                  *
*                                                                                                         *
***********************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 9: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                          18 June, 2025        *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 9 ---------                                 . *
*                                                                                                       *
*************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 9: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.66, and Wind Speed = 10 Knots

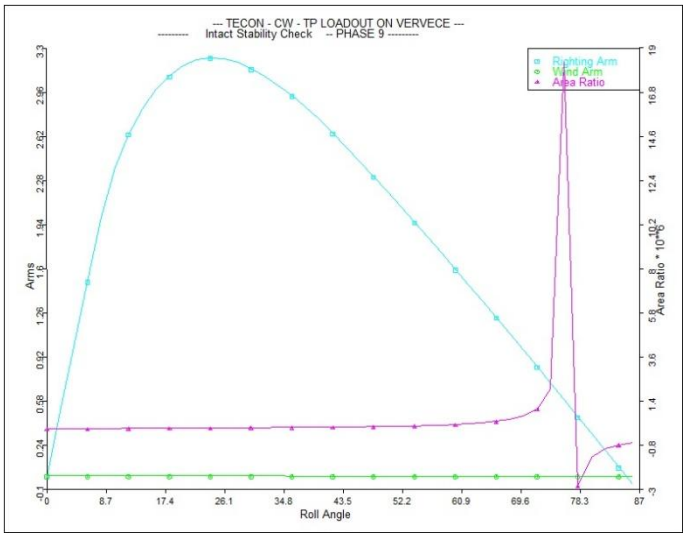
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3113.11	0.498
4.29	4.00	0.00	9999.00	1.49	1.00	1.99	0.00	0.00	6400.17	0.999
4.27	6.00	0.00	9999.00	1.03	1.50	4.49	0.00	0.00	9999.00	1.501
4.25	8.00	0.00	9999.00	0.57	2.00	7.99	0.00	0.00	9999.00	1.999
4.26	10.00	0.00	9999.00	0.08	2.37	12.37	0.00	0.00	9999.00	2.374
4.31	12.00	0.00	9999.00	-0.46	2.64	17.38	0.00	0.00	9999.00	2.639
4.39	14.00	0.00	9999.00	-1.04	2.83	22.85	0.00	0.00	9999.00	2.832
4.48	16.00	0.00	9999.00	-1.63	2.98	28.66	0.00	0.00	9999.00	2.976
4.60	18.00	0.00	9999.00	-2.25	3.08	34.72	0.00	0.00	9999.00	3.084
4.72	20.00	0.00	9999.00	-2.88	3.16	40.97	0.00	0.00	9999.00	3.162
4.85	22.00	0.00	9999.00	-3.51	3.21	47.34	0.00	0.00	9999.00	3.210
4.97	24.00	0.00	9999.00	-4.14	3.23	53.77	0.00	0.00	9999.00	3.226
5.09	26.00	0.00	9999.00	-4.77	3.22	60.22	0.00	0.00	9999.00	3.217
5.20	28.00	0.00	9999.00	-5.39	3.19	66.62	0.00	0.00	9999.00	3.188
5.31	30.00	0.00	9999.00	-6.01	3.14	72.95	0.00	0.00	9999.00	3.142
5.41	32.00	0.00	9999.00	-6.62	3.08	79.18	0.00	0.00	9999.00	3.083
5.50	34.00	0.00	9999.00	-7.22	3.01	85.27	0.00	0.00	9999.00	3.013
5.58	36.00	0.00	9999.00	-7.81	2.93	91.22	-0.00	0.00	9999.00	2.933
5.66	38.00	0.00	9999.00	-8.39	2.84	97.00	-0.00	0.00	9999.00	2.845
5.73	40.00	0.00	9999.00	-8.96	2.75	102.59	-0.00	0.00	9999.00	2.747
5.80	42.00	0.00	9999.00	-9.52	2.64	107.98	-0.00	0.00	9999.00	2.643
5.86	44.00	0.00	9999.00	-10.07	2.53	113.16	-0.00	0.00	9999.00	2.534
5.91	46.00	0.00	9999.00	-10.61	2.42	118.12	-0.00	0.00	9999.00	2.423
5.95	48.00	0.00	9999.00	-11.13	2.31	122.85	-0.00	0.00	9999.00	2.310
5.99	50.00	0.00	9999.00	-11.64	2.19	127.35	-0.00	0.00	9999.00	2.195
6.02	52.00	0.00	9999.00	-12.14	2.08	131.63	-0.00	0.00	9999.00	2.078
6.04	54.00	0.00	9999.00	-12.62	1.96	135.66	-0.00	0.00	9999.00	1.959
6.05	56.00	0.00	9999.00	-13.08	1.84	139.46	-0.00	0.00	9999.00	1.839
6.06	58.00	0.00	9999.00	-13.53	1.72	143.02	-0.00	0.00	9999.00	1.717
6.06	60.00	0.00	9999.00	-13.97	1.59	146.33	-0.00	0.00	9999.00	1.595
6.05	62.00	0.00	9999.00	-14.38	1.47	149.39	-0.00	0.00	9999.00	1.472
6.03	64.00	0.00	9999.00	-14.78	1.35	152.21	-0.00	0.00	9999.00	1.348
6.01	66.00	0.00	9999.00	-15.16	1.22	154.78	-0.00	0.00	9999.00	1.223
5.98	68.00	0.00	9999.00	-15.53	1.10	157.10	-0.00	0.00	9999.00	1.097
5.94	70.00	0.00	9999.00	-15.87	0.97	159.17	-0.00	0.00	9999.00	0.970
5.90	72.00	0.00	9999.00	-16.19	0.84	160.98	-0.00	0.00	9999.00	0.843
5.85	74.00	0.00	9999.00	-16.50	0.72	162.54	-0.00	0.00	9999.00	0.715
5.79	76.00	0.00	9999.00	-16.78	0.59	163.85	-0.00	0.00	9999.00	0.587
5.72	78.00	0.00	9999.00	-17.05	0.46	164.89	-0.00	-0.00	-9999.00	0.458
5.65	80.00	0.00	9999.00	-17.29	0.33	165.68	-0.00	-0.00	-9999.00	0.329
5.57	82.00	0.00	9999.00	-17.51	0.20	166.20	-0.00	-0.00	-9999.00	0.199
5.48	84.00	0.00	9999.00	-17.71	0.07	166.47	-0.00	-0.00	-9999.00	0.069
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.48	-0.00	-0.00	-9999.00	-0.062

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--- TECON - CW - TP LOADOUT ON VERVECE ---
--------- Intact Stability Check -- PHASE 9 ---------
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
**********************************************************
*                                  ***  MOSES    ***                                  *
*                                  ----------------                    18 June, 2025  *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 9 ------   *
*                                                                                     *
***************************************************************************************************************

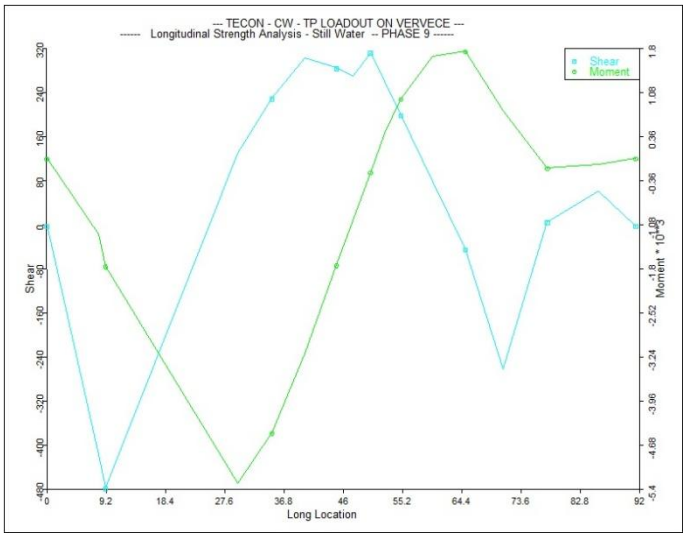
                    +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                    ================================================================

                  Process is 9: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Allowable Stress =     155.00 Mpa

                                Allowable Deflection =       1.00 MM
```

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-417	-1246	-0.0493	3.7201
9.14	-477	-1757	-0.0695	4.2372
29.72	130	-5314	-0.2100	9.7319
35.00	230	-4476	-0.1769	9.5916
40.00	301	-3183	-0.1258	8.9549
45.00	284	-1739	-0.0688	7.9685
47.50	269	-1022	-0.0404	7.3935
50.29	312	-224	-0.0089	6.7190
52.50	259	406	0.0160	6.1786
55.00	199	978	0.0387	5.5776
60.00	78	1670	0.0660	4.4675
65.00	-43	1753	0.0693	3.5356
70.87	-261	771	0.0305	2.6723
77.72	5	-154	-0.0061	1.8009
85.70	60	-92	-0.0037	0.7641
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 10 ---------                             *
*                                                                                                     *
*******************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                Process is 10: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                    Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

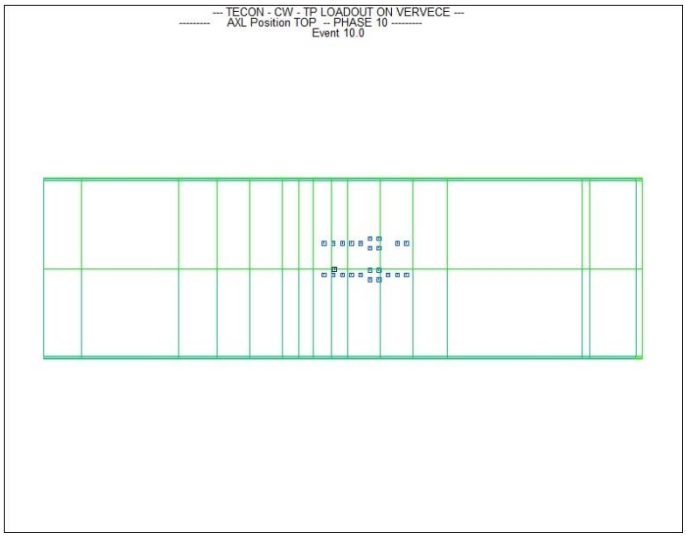
                                 Wet Radii Of Gyration About CG

                           K-X =     7.79 K-Y =    24.88 K-Z =    25.65

                                    GMT =    14.24 GML =   159.19

                           /-- Center of Gravity ---/  Sounding   % Full
                     Name   Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL10      ------------
                           LOAD_GRO    416.90    42.89    -1.24     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                     1PC         224.31     5.62    -3.43     3.77     6.02    98.00
                     1PW         206.33     5.71   -10.28     3.59     5.70    90.00
                     1SC         224.80     5.62     3.43     3.77     6.02    98.00
                     1SW         206.33     5.71    10.28     3.59     5.70    90.00
                     2PC         426.19    19.43    -3.43     1.52     3.05    50.00
                     2PW         286.07    19.43   -10.27     1.03     2.05    33.56
                     2SC         426.19    19.43     3.43     1.52     3.05    50.00
                     2SW         306.88    19.43    10.28     1.10     2.20    36.00
                     3PC         255.71    40.01    -3.43     0.91     1.83    30.00
                     3PW         426.16    40.01   -10.28     1.53     3.05    50.00
                     3SC         255.71    40.01     3.43     0.91     1.83    30.00
                     3SW         426.16    40.01    10.28     1.53     3.05    50.00
                     4PC         835.34    60.58    -3.43     2.99     5.97    98.00
                     4PW         426.16    60.58   -10.28     1.53     3.05    50.00
                     4SC         835.34    60.58     3.43     2.99     5.97    98.00
                     4SW         426.16    60.58    10.28     1.53     3.05    50.00
                     5PC         240.01    83.19    -3.43     1.86     3.42    50.00
                     5PW         481.79    79.94   -10.28     2.11     3.99    62.23
                     5SC         236.24    83.19     3.43     1.86     3.42    50.00
                     5SW         502.54    79.99    10.28     2.19     4.14    64.91
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75     0.00     2.66
                           Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 10 ---------                                 *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 10: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 10 ---------                                .*
*                                                                                                        *
**********************************************************************************************************

                              +++ R I G H T I N G   A R M   R E S U L T S +++
                              ==============================================

                    Process is 10: Units Are Degrees, Meters, and M-Tons Unless Specified

                    Moment Scaled By 10052.61, KG = 2.66, and Wind Speed = 10 Knots

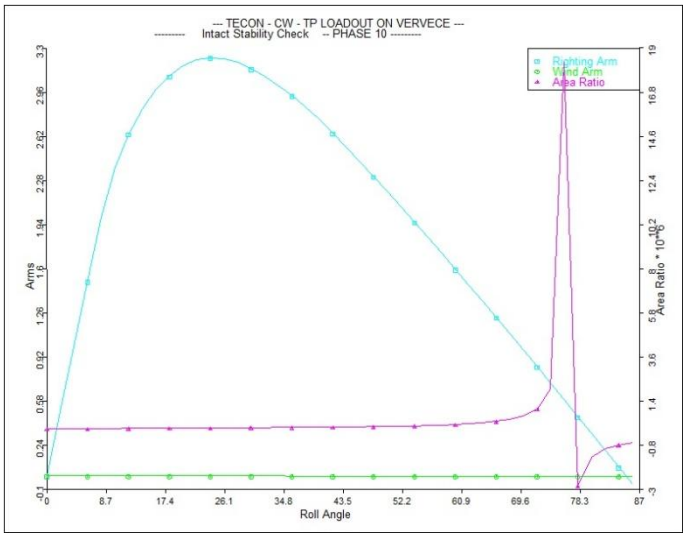
                              Initial: Roll = 0.00, Trim = 0.00 Deg.

                              Critical NWT Down Flooding Point Is *BOWPTWT

                              Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/   /-- Min. Height --/   /--- Righting ---/    /--- Heeling ---/    Area        Net
 Draft    Roll    Trim      W Tight  NW Tight        Arm      Area        Arm      Area     Ratio       Arm

  4.30    0.00    0.00     9999.00      2.40       0.00      0.00       0.00      0.00      0.00    -0.000
  4.30    2.00    0.00     9999.00      1.94       0.50      0.50       0.00      0.00   3113.75     0.498
  4.29    4.00    0.00     9999.00      1.49       1.00      1.99       0.00      0.00   6400.79     0.999
  4.27    6.00    0.00     9999.00      1.03       1.50      4.49       0.00      0.00   9999.00     1.501
  4.25    8.00    0.00     9999.00      0.57       2.00      7.99       0.00      0.00   9999.00     1.999
  4.26   10.00    0.00     9999.00      0.08       2.37     12.37       0.00      0.00   9999.00     2.374
  4.31   12.00    0.00     9999.00     -0.46       2.64     17.38       0.00      0.00   9999.00     2.639
  4.39   14.00    0.00     9999.00     -1.04       2.83     22.85       0.00      0.00   9999.00     2.832
  4.48   16.00    0.00     9999.00     -1.63       2.98     28.66       0.00      0.00   9999.00     2.976
  4.60   18.00    0.00     9999.00     -2.25       3.08     34.72       0.00      0.00   9999.00     3.084
  4.72   20.00    0.00     9999.00     -2.88       3.16     40.97       0.00      0.00   9999.00     3.162
  4.85   22.00    0.00     9999.00     -3.51       3.21     47.34       0.00      0.00   9999.00     3.210
  4.97   24.00    0.00     9999.00     -4.14       3.23     53.77       0.00      0.00   9999.00     3.226
  5.09   26.00    0.00     9999.00     -4.77       3.22     60.22       0.00      0.00   9999.00     3.217
  5.20   28.00    0.00     9999.00     -5.39       3.19     66.62       0.00      0.00   9999.00     3.188
  5.31   30.00    0.00     9999.00     -6.01       3.14     72.95       0.00      0.00   9999.00     3.142
  5.41   32.00    0.00     9999.00     -6.62       3.08     79.18       0.00      0.00   9999.00     3.083
  5.50   34.00    0.00     9999.00     -7.22       3.01     85.27       0.00      0.00   9999.00     3.013
  5.58   36.00    0.00     9999.00     -7.81       2.93     91.22      -0.00      0.00   9999.00     2.933
  5.66   38.00    0.00     9999.00     -8.39       2.84     97.00      -0.00      0.00   9999.00     2.845
  5.73   40.00    0.00     9999.00     -8.96       2.75    102.59      -0.00      0.00   9999.00     2.748
  5.80   42.00    0.00     9999.00     -9.52       2.64    107.98      -0.00      0.00   9999.00     2.643
  5.86   44.00    0.00     9999.00    -10.07       2.53    113.16      -0.00      0.00   9999.00     2.534
  5.91   46.00    0.00     9999.00    -10.61       2.42    118.12      -0.00      0.00   9999.00     2.423
  5.95   48.00    0.00     9999.00    -11.13       2.31    122.85      -0.00      0.00   9999.00     2.310
  5.99   50.00    0.00     9999.00    -11.64       2.19    127.35      -0.00      0.00   9999.00     2.195
  6.02   52.00    0.00     9999.00    -12.14       2.08    131.63      -0.00      0.00   9999.00     2.078
  6.04   54.00    0.00     9999.00    -12.62       1.96    135.66      -0.00      0.00   9999.00     1.959
  6.05   56.00    0.00     9999.00    -13.08       1.84    139.46      -0.00      0.00   9999.00     1.839
  6.06   58.00    0.00     9999.00    -13.53       1.72    143.02      -0.00      0.00   9999.00     1.717
  6.06   60.00    0.00     9999.00    -13.97       1.59    146.33      -0.00      0.00   9999.00     1.595
  6.05   62.00    0.00     9999.00    -14.38       1.47    149.40      -0.00      0.00   9999.00     1.472
  6.03   64.00    0.00     9999.00    -14.78       1.35    152.22      -0.00      0.00   9999.00     1.348
  6.01   66.00    0.00     9999.00    -15.16       1.22    154.79      -0.00      0.00   9999.00     1.223
  5.98   68.00    0.00     9999.00    -15.53       1.10    157.11      -0.00      0.00   9999.00     1.097
  5.94   70.00    0.00     9999.00    -15.87       0.97    159.17      -0.00      0.00   9999.00     0.970
  5.90   72.00    0.00     9999.00    -16.19       0.84    160.99      -0.00      0.00   9999.00     0.843
  5.85   74.00    0.00     9999.00    -16.50       0.72    162.55      -0.00      0.00   9999.00     0.715
  5.79   76.00    0.00     9999.00    -16.78       0.59    163.85      -0.00      0.00   9999.00     0.587
  5.72   78.00    0.00     9999.00    -17.05       0.46    164.89      -0.00     -0.00  -9999.00     0.458
  5.65   80.00    0.00     9999.00    -17.29       0.33    165.68      -0.00     -0.00  -9999.00     0.329
  5.57   82.00    0.00     9999.00    -17.51       0.20    166.21      -0.00     -0.00  -9999.00     0.199
  5.48   84.00    0.00     9999.00    -17.71       0.07    166.47      -0.00     -0.00  -9999.00     0.069
  5.39   86.00    0.00     9999.00    -17.89      -0.06    166.48      -0.00     -0.00  -9999.00    -0.062
```


--- TECON - CW - TP LOADOUT ON VERVECE ---
--------- Intact Stability Check -- PHASE 10 ---------
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10**6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*******************************************************
*                                *** MOSES ***                                *
*                                ----------------          18 June, 2025      *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                            *
*        ------  Longitudinal Strength Analysis - Still Water  -- PHASE 10 ------ *
*                                                                              *
********************************************************************************************************************

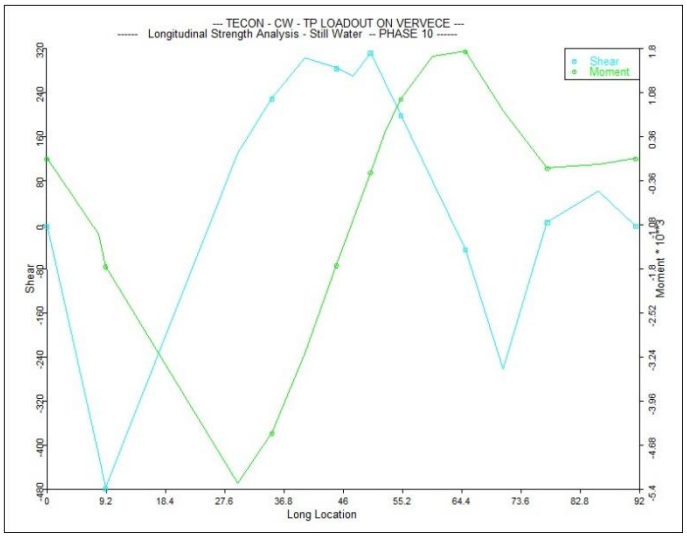
                    +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                    ================================================================

                  Process is 10: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Allowable Stress =     155.00 Mpa

                                Allowable Deflection =       1.00 MM
```

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-417	-1246	-0.0493	3.7200
9.14	-477	-1757	-0.0695	4.2370
29.72	130	-5314	-0.2100	9.7315
35.00	230	-4476	-0.1769	9.5912
40.00	301	-3183	-0.1258	8.9545
45.00	284	-1739	-0.0687	7.9681
47.50	269	-1022	-0.0404	7.3932
50.29	312	-224	-0.0089	6.7187
52.50	259	406	0.0160	6.1783
55.00	199	978	0.0387	5.5774
60.00	78	1670	0.0660	4.4673
65.00	-43	1753	0.0693	3.5355
70.87	-261	771	0.0305	2.6722
77.72	5	-154	-0.0061	1.8008
85.70	60	-92	-0.0037	0.7641
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 11 ---------                              *
*                                                                                                     *
*******************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                Process is 11: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                    Draft =     4.30 Roll Angle =     0.00 Pitch Angle =    -0.00

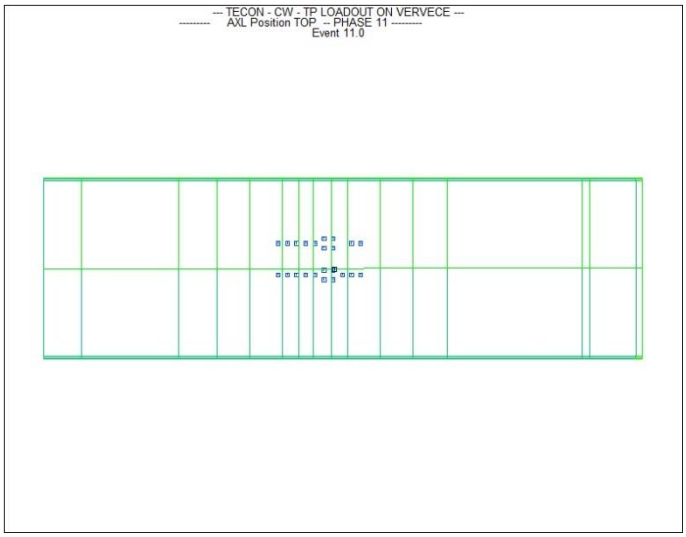
                                 Wet Radii Of Gyration About CG

                           K-X =     7.79 K-Y =    24.83 K-Z =    25.60

                                    GMT =    14.25 GML =   159.16

                           /-- Center of Gravity ---/  Sounding   % Full
                  Name      Weight    ---X---  ---Y---  ---Z---  -------- --------

                          ----------------  Part AXL11      ------------
                          LOAD_GRO    416.90    49.89    -1.24     7.10
                          ----------------  Part CF         ------------
                          LOAD_GRO     28.00    69.38    11.22     8.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part GRI&SF-C   ------------
                          LOAD_GRO      0.50    67.44    11.22     7.10
                          ----------------  Part GRI&SF-T   ------------
                          LOAD_GRO     45.00    65.20    -2.92     7.40
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                       --- Contents ---
                    1PC       224.31     5.62    -3.43     3.77     6.02    98.00
                    1PW       206.33     5.71   -10.28     3.59     5.70    90.00
                    1SC       224.80     5.62     3.43     3.77     6.02    98.00
                    1SW       206.33     5.71    10.28     3.59     5.70    90.00
                    2PC       426.19    19.43    -3.43     1.52     3.05    50.00
                    2PW       310.23    19.43   -10.28     1.11     2.22    36.40
                    2SC       426.19    19.43     3.43     1.52     3.05    50.00
                    2SW       330.92    19.43    10.28     1.19     2.37    38.83
                    3PC       255.71    40.00    -3.43     0.91     1.83    30.00
                    3PW       426.16    40.00   -10.28     1.53     3.05    50.00
                    3SC       255.71    40.00     3.43     0.91     1.83    30.00
                    3SW       426.16    40.00    10.28     1.53     3.05    50.00
                    4PC       835.34    60.58    -3.43     2.99     5.97    98.00
                    4PW       426.16    60.58   -10.28     1.53     3.05    50.00
                    4SC       835.34    60.58     3.43     2.99     5.97    98.00
                    4SW       426.16    60.58    10.28     1.53     3.05    50.00
                    5PC       240.01    83.19    -3.43     1.86     3.42    50.00
                    5PW       457.65    79.88   -10.28     2.02     3.81    59.11
                    5SC       236.24    83.19     3.43     1.86     3.42    50.00
                    5SW       478.47    79.94    10.28     2.10     3.96    61.80
                          ========  ========  =======  =======  =======
                          Total     10052.61    46.75    -0.00     2.65
                          Buoyancy  10052.60    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 11 ---------                                 *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 11: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

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                    ******************************************************
*                                       ***  MOSES   ***                                                  *
*                                       ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                     *
*          ---------     Intact Stability Check    -- PHASE 11 ---------                                 .*
*                                                                                                         *
***********************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 11: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.65, and Wind Speed = 10 Knots

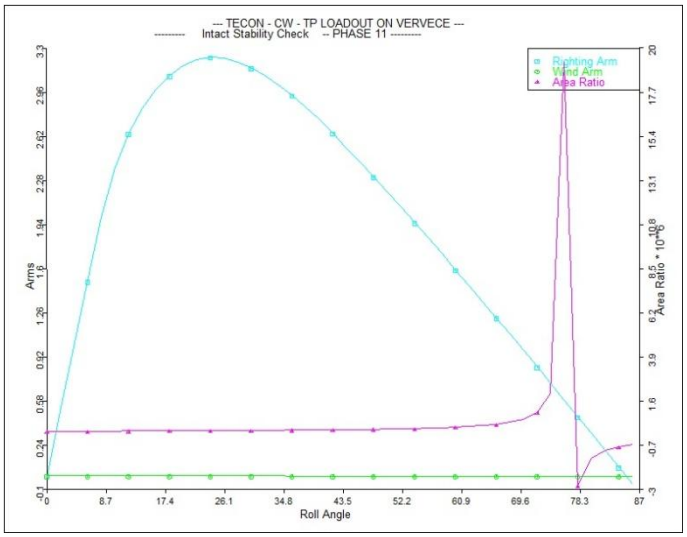
Initial: Roll = 0.00, Trim = -0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3115.10	0.498
4.29	4.00	0.00	9999.00	1.48	1.00	2.00	0.00	0.00	6404.21	0.999
4.27	6.00	0.00	9999.00	1.03	1.50	4.50	0.00	0.00	9999.00	1.502
4.25	8.00	0.00	9999.00	0.57	2.00	8.00	0.00	0.00	9999.00	2.000
4.26	10.00	0.00	9999.00	0.07	2.38	12.37	0.00	0.00	9999.00	2.376
4.31	12.00	0.00	9999.00	-0.47	2.64	17.39	0.00	0.00	9999.00	2.640
4.39	14.00	0.00	9999.00	-1.04	2.83	22.87	0.00	0.00	9999.00	2.834
4.49	16.00	0.00	9999.00	-1.63	2.98	28.68	0.00	0.00	9999.00	2.978
4.60	18.00	0.00	9999.00	-2.25	3.09	34.74	0.00	0.00	9999.00	3.087
4.72	20.00	0.00	9999.00	-2.88	3.17	41.00	0.00	0.00	9999.00	3.165
4.85	22.00	0.00	9999.00	-3.51	3.21	47.37	0.00	0.00	9999.00	3.213
4.98	24.00	0.00	9999.00	-4.15	3.23	53.82	0.00	0.00	9999.00	3.230
5.09	26.00	0.00	9999.00	-4.77	3.22	60.27	0.00	0.00	9999.00	3.221
5.20	28.00	0.00	9999.00	-5.40	3.19	66.68	0.00	0.00	9999.00	3.192
5.31	30.00	0.00	9999.00	-6.01	3.15	73.02	0.00	0.00	9999.00	3.147
5.41	32.00	0.00	9999.00	-6.62	3.09	79.25	0.00	0.00	9999.00	3.088
5.50	34.00	0.00	9999.00	-7.22	3.02	85.36	0.00	0.00	9999.00	3.017
5.59	36.00	0.00	9999.00	-7.81	2.94	91.31	-0.00	0.00	9999.00	2.936
5.66	38.00	0.00	9999.00	-8.39	2.85	97.09	-0.00	0.00	9999.00	2.846
5.74	40.00	0.00	9999.00	-8.96	2.75	102.69	-0.00	0.00	9999.00	2.748
5.80	42.00	0.00	9999.00	-9.52	2.64	108.08	-0.00	0.00	9999.00	2.643
5.86	44.00	0.00	9999.00	-10.07	2.53	113.26	-0.00	0.00	9999.00	2.533
5.91	46.00	0.00	9999.00	-10.61	2.42	118.21	-0.00	0.00	9999.00	2.421
5.95	48.00	0.00	9999.00	-11.13	2.31	122.94	-0.00	0.00	9999.00	2.307
5.99	50.00	0.00	9999.00	-11.64	2.19	127.43	-0.00	0.00	9999.00	2.191
6.02	52.00	0.00	9999.00	-12.14	2.07	131.70	-0.00	0.00	9999.00	2.073
6.04	54.00	0.00	9999.00	-12.62	1.95	135.73	-0.00	0.00	9999.00	1.955
6.05	56.00	0.00	9999.00	-13.09	1.83	139.52	-0.00	0.00	9999.00	1.835
6.06	58.00	0.00	9999.00	-13.54	1.71	143.06	-0.00	0.00	9999.00	1.713
6.06	60.00	0.00	9999.00	-13.97	1.59	146.37	-0.00	0.00	9999.00	1.591
6.05	62.00	0.00	9999.00	-14.38	1.47	149.43	-0.00	0.00	9999.00	1.469
6.03	64.00	0.00	9999.00	-14.78	1.34	152.24	-0.00	0.00	9999.00	1.345
6.01	66.00	0.00	9999.00	-15.16	1.22	154.81	-0.00	0.00	9999.00	1.220
5.98	68.00	0.00	9999.00	-15.53	1.09	157.12	-0.00	0.00	9999.00	1.095
5.94	70.00	0.00	9999.00	-15.87	0.97	159.18	-0.00	0.00	9999.00	0.968
5.90	72.00	0.00	9999.00	-16.19	0.84	160.99	-0.00	0.00	9999.00	0.841
5.85	74.00	0.00	9999.00	-16.50	0.71	162.55	-0.00	0.00	9999.00	0.714
5.79	76.00	0.00	9999.00	-16.78	0.59	163.85	-0.00	0.00	9999.00	0.586
5.72	78.00	0.00	9999.00	-17.05	0.46	164.89	-0.00	-0.00	-9999.00	0.457
5.65	80.00	0.00	9999.00	-17.29	0.33	165.67	-0.00	-0.00	-9999.00	0.328
5.57	82.00	0.00	9999.00	-17.51	0.20	166.20	-0.00	-0.00	-9999.00	0.198
5.48	84.00	0.00	9999.00	-17.71	0.07	166.47	-0.00	-0.00	-9999.00	0.069
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.47	-0.00	-0.00	-9999.00	-0.062

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 11 ---
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
**********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                  18 June, 2025  *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                 *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 11 ------ *
*                                                                                    *
**************************************************************************************************************

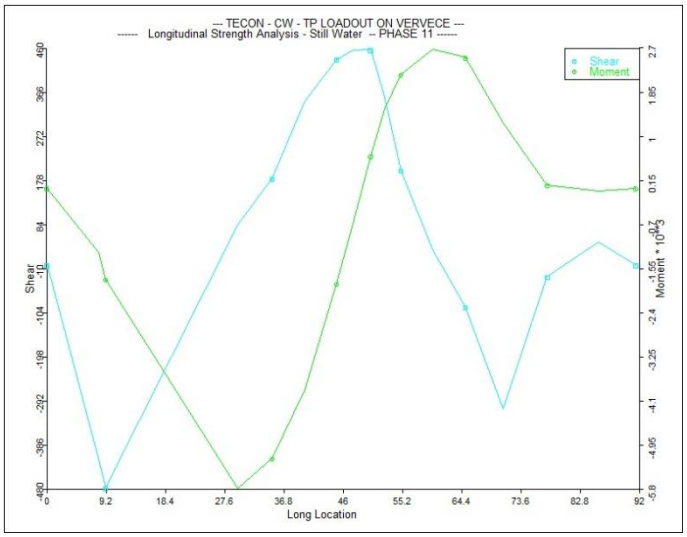
                    +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                    ================================================================

                  Process is 11: Units Are Degrees, Meters, and M-Tons Unless Specified

                                    Allowable Stress =     155.00 Mpa

                                  Allowable Deflection =       1.00 MM
```

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-416	-1245	-0.0492	3.7131
9.14	-477	-1755	-0.0694	4.2291
29.72	83	-5796	-0.2291	9.6338
35.00	182	-5209	-0.2059	9.3783
40.00	347	-3886	-0.1536	8.5523
45.00	436	-1841	-0.0728	7.3051
47.50	456	-693	-0.0274	6.5909
50.29	456	622	0.0246	5.7721
52.50	356	1519	0.0600	5.1373
55.00	199	2190	0.0865	4.4581
60.00	30	2674	0.1057	3.2880
65.00	-91	2521	0.0996	2.4069
70.87	-309	1260	0.0498	1.7092
77.72	-26	62	0.0024	1.1232
85.70	47	-54	-0.0022	0.4747
91.44	-1	0	-0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 12 ---------                              *
*                                                                                                     *
*******************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                Process is 12: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Results Are Reported In Body System

                    Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

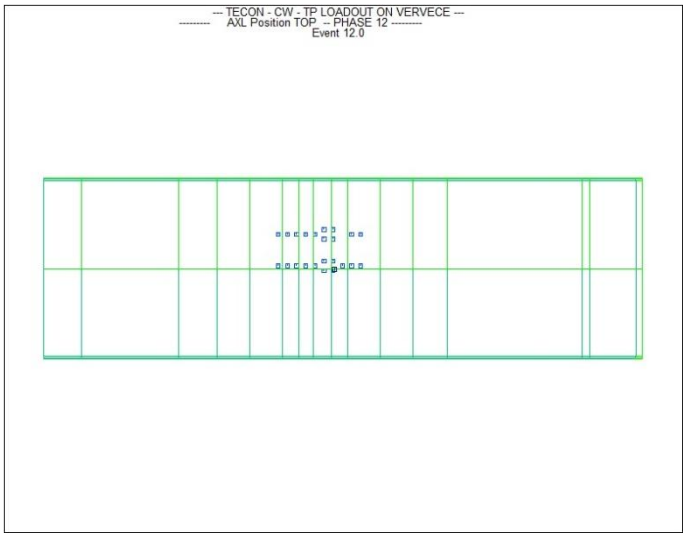
                                Wet Radii Of Gyration About CG

                           K-X =     7.80 K-Y =    24.83 K-Z =    25.61

                                    GMT =    14.25 GML =   159.14

                           /-- Center of Gravity ---/  Sounding   % Full
                    Name    Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL12      ------------
                           LOAD_GRO    416.90    49.89    -2.65     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                       --- Contents ---
                      1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                      1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                      1SC      224.80     5.62     3.43     3.77     6.02    98.00
                      1SW      206.33     5.71    10.28     3.59     5.70    90.00
                      2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                      2PW      295.50    19.43   -10.28     1.06     2.12    34.67
                      2SC      426.19    19.43     3.43     1.52     3.05    50.00
                      2SW      344.73    19.43    10.28     1.24     2.47    40.45
                      3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                      3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                      3SC      255.71    40.01     3.43     0.91     1.83    30.00
                      3SW      426.16    40.01    10.28     1.53     3.05    50.00
                      4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                      4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                      4SC      835.34    60.58     3.43     2.99     5.97    98.00
                      4SW      426.16    60.58    10.28     1.53     3.05    50.00
                      5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                      5PW      443.83    79.84   -10.28     1.96     3.71    57.33
                      5SC      236.24    83.19     3.43     1.86     3.42    50.00
                      5SW      493.22    79.97    10.28     2.15     4.07    63.71
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75     0.00     2.65
                           Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*          ---------     Intact Stability Check    -- PHASE 12 ---------                              *
*                                                                                                      *
********************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 12: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                          18 June, 2025        *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 12 ---------                                .*
*                                                                                                        *
**********************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 12: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.65, and Wind Speed = 10 Knots

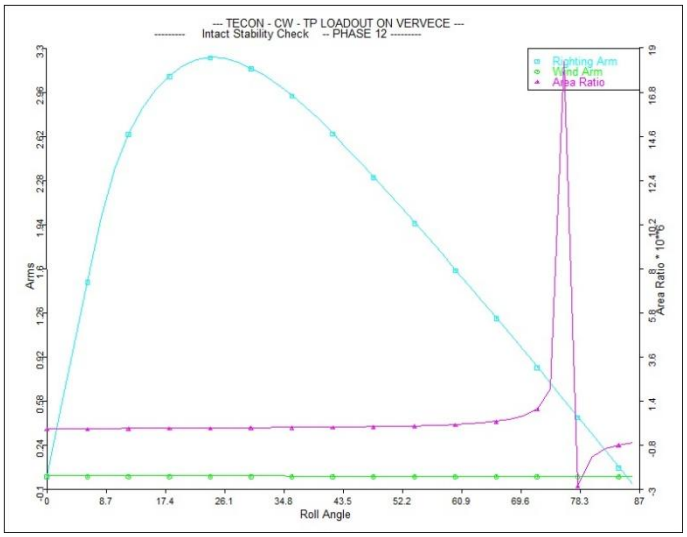
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3115.38	0.498
4.29	4.00	0.00	9999.00	1.49	1.00	2.00	0.00	0.00	6404.17	0.999
4.27	6.00	0.00	9999.00	1.03	1.50	4.50	0.00	0.00	9999.00	1.502
4.25	8.00	0.00	9999.00	0.57	2.00	8.00	0.00	0.00	9999.00	2.000
4.26	10.00	0.00	9999.00	0.08	2.38	12.37	0.00	0.00	9999.00	2.376
4.31	12.00	0.00	9999.00	-0.46	2.64	17.39	0.00	0.00	9999.00	2.640
4.39	14.00	0.00	9999.00	-1.04	2.83	22.86	0.00	0.00	9999.00	2.834
4.48	16.00	0.00	9999.00	-1.63	2.98	28.68	0.00	0.00	9999.00	2.978
4.60	18.00	0.00	9999.00	-2.25	3.09	34.74	0.00	0.00	9999.00	3.086
4.72	20.00	0.00	9999.00	-2.88	3.17	40.99	0.00	0.00	9999.00	3.165
4.85	22.00	0.00	9999.00	-3.51	3.21	47.37	0.00	0.00	9999.00	3.213
4.97	24.00	0.00	9999.00	-4.14	3.23	53.81	0.00	0.00	9999.00	3.230
5.09	26.00	0.00	9999.00	-4.77	3.22	60.26	0.00	0.00	9999.00	3.221
5.20	28.00	0.00	9999.00	-5.39	3.19	66.68	0.00	0.00	9999.00	3.192
5.31	30.00	0.00	9999.00	-6.01	3.15	73.01	0.00	0.00	9999.00	3.146
5.41	32.00	0.00	9999.00	-6.62	3.09	79.25	0.00	0.00	9999.00	3.087
5.50	34.00	0.00	9999.00	-7.22	3.02	85.35	0.00	0.00	9999.00	3.017
5.58	36.00	0.00	9999.00	-7.81	2.94	91.31	-0.00	0.00	9999.00	2.936
5.66	38.00	0.00	9999.00	-8.39	2.85	97.09	-0.00	0.00	9999.00	2.847
5.73	40.00	0.00	9999.00	-8.96	2.75	102.68	-0.00	0.00	9999.00	2.748
5.80	42.00	0.00	9999.00	-9.52	2.64	108.07	-0.00	0.00	9999.00	2.643
5.86	44.00	0.00	9999.00	-10.07	2.53	113.25	-0.00	0.00	9999.00	2.533
5.91	46.00	0.00	9999.00	-10.61	2.42	118.20	-0.00	0.00	9999.00	2.421
5.95	48.00	0.00	9999.00	-11.13	2.31	122.93	-0.00	0.00	9999.00	2.307
5.99	50.00	0.00	9999.00	-11.64	2.19	127.43	-0.00	0.00	9999.00	2.191
6.02	52.00	0.00	9999.00	-12.14	2.07	131.69	-0.00	0.00	9999.00	2.074
6.04	54.00	0.00	9999.00	-12.62	1.96	135.72	-0.00	0.00	9999.00	1.955
6.05	56.00	0.00	9999.00	-13.08	1.84	139.51	-0.00	0.00	9999.00	1.835
6.06	58.00	0.00	9999.00	-13.53	1.71	143.06	-0.00	0.00	9999.00	1.714
6.06	60.00	0.00	9999.00	-13.97	1.59	146.37	-0.00	0.00	9999.00	1.592
6.05	62.00	0.00	9999.00	-14.38	1.47	149.43	-0.00	0.00	9999.00	1.469
6.03	64.00	0.00	9999.00	-14.78	1.35	152.24	-0.00	0.00	9999.00	1.345
6.01	66.00	0.00	9999.00	-15.16	1.22	154.81	-0.00	0.00	9999.00	1.220
5.98	68.00	0.00	9999.00	-15.53	1.09	157.12	-0.00	0.00	9999.00	1.095
5.94	70.00	0.00	9999.00	-15.87	0.97	159.19	-0.00	0.00	9999.00	0.969
5.90	72.00	0.00	9999.00	-16.19	0.84	161.00	-0.00	0.00	9999.00	0.842
5.85	74.00	0.00	9999.00	-16.50	0.71	162.55	-0.00	0.00	9999.00	0.714
5.79	76.00	0.00	9999.00	-16.78	0.59	163.85	-0.00	0.00	9999.00	0.586
5.72	78.00	0.00	9999.00	-17.05	0.46	164.90	-0.00	-0.00	-9999.00	0.457
5.65	80.00	0.00	9999.00	-17.29	0.33	165.68	-0.00	-0.00	-9999.00	0.328
5.57	82.00	0.00	9999.00	-17.51	0.20	166.21	-0.00	-0.00	-9999.00	0.199
5.48	84.00	0.00	9999.00	-17.71	0.07	166.48	-0.00	-0.00	-9999.00	0.069
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.48	-0.00	-0.00	-9999.00	-0.061

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 12 ---
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*******************************************************
*                                *** MOSES ***                                *
*                                ----------------          18 June, 2025      *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                            *
*        ------  Longitudinal Strength Analysis - Still Water  -- PHASE 12 ------ *
*                                                                              *
********************************************************************************************************************
```

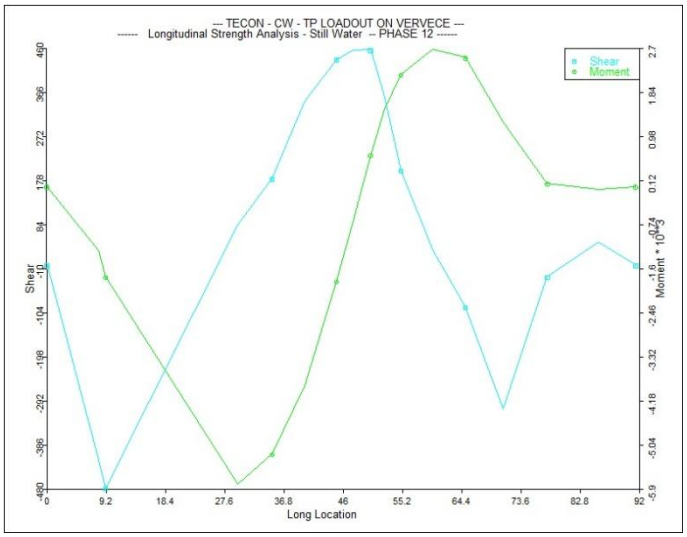
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 12: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-417	-1246	-0.0493	3.7180
9.14	-477	-1757	-0.0695	4.2347
29.72	83	-5800	-0.2292	9.6483
35.00	182	-5213	-0.2060	9.3939
40.00	347	-3890	-0.1538	8.5685
45.00	436	-1844	-0.0729	7.3214
47.50	456	-697	-0.0276	6.6071
50.29	456	618	0.0244	5.7882
52.50	356	1515	0.0599	5.1530
55.00	199	2186	0.0864	4.4732
60.00	30	2670	0.1055	3.3021
65.00	-91	2517	0.0995	2.4195
70.87	-309	1258	0.0497	1.7192
77.72	-26	61	0.0024	1.1300
85.70	47	-54	-0.0022	0.4776
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 13 ---------                              *
*                                                                                                     *
*******************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                Process is 13: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Results Are Reported In Body System

                    Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

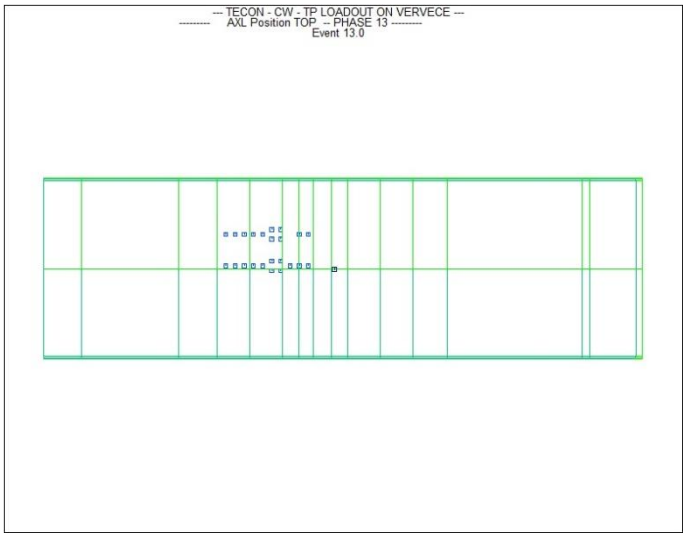
                                Wet Radii Of Gyration About CG

                           K-X =     7.80 K-Y =    24.87 K-Z =    25.65

                                    GMT =    14.25 GML =   159.12

                           /-- Center of Gravity ---/  Sounding   % Full
                    Name    Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL13      ------------
                           LOAD_GRO    416.90    57.89    -2.65     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                       --- Contents ---
                      1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                      1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                      1SC      224.80     5.62     3.43     3.77     6.02    98.00
                      1SW      206.33     5.71    10.28     3.59     5.70    90.00
                      2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                      2PW      322.54    19.43   -10.28     1.16     2.31    37.84
                      2SC      426.19    19.43     3.43     1.52     3.05    50.00
                      2SW      371.71    19.43    10.28     1.33     2.66    43.61
                      3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                      3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                      3SC      255.71    40.01     3.43     0.91     1.83    30.00
                      3SW      426.16    40.01    10.28     1.53     3.05    50.00
                      4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                      4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                      4SC      835.34    60.58     3.43     2.99     5.97    98.00
                      4SW      426.16    60.58    10.28     1.53     3.05    50.00
                      5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                      5PW      416.81    79.76   -10.28     1.85     3.52    53.84
                      5SC      236.24    83.19     3.43     1.86     3.42    50.00
                      5SW      466.22    79.90    10.28     2.05     3.87    60.22
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75    -0.00     2.64
                           Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                      18 June, 2025              *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*          ---------     Intact Stability Check    -- PHASE 13 ---------                             *
*                                                                                                     *
*******************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 13: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                       ***  MOSES   ***                                                  *
*                                       ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                     *
*          ---------     Intact Stability Check    -- PHASE 13 ---------                                 .*
*                                                                                                        *
**********************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 13: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.64, and Wind Speed = 10 Knots

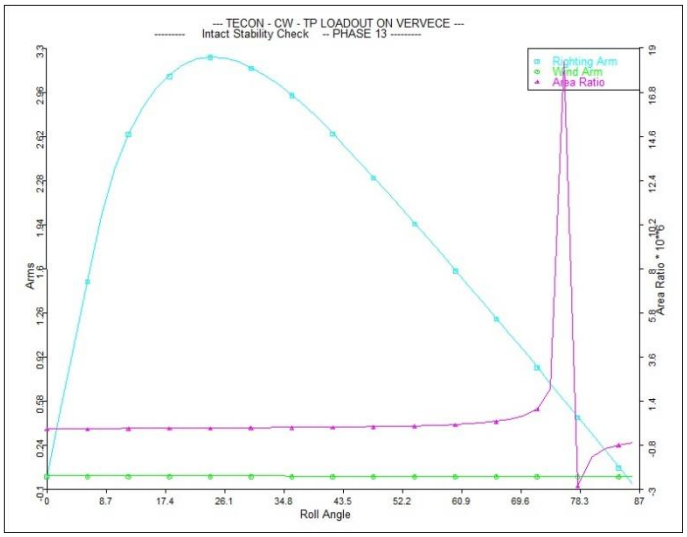
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3116.47	0.498
4.29	4.00	0.00	9999.00	1.49	1.00	2.00	0.00	0.00	6407.07	1.000
4.27	6.00	0.00	9999.00	1.03	1.50	4.50	0.00	0.00	9999.00	1.503
4.25	8.00	0.00	9999.00	0.57	2.00	8.00	0.00	0.00	9999.00	2.001
4.26	10.00	0.00	9999.00	0.08	2.38	12.38	0.00	0.00	9999.00	2.377
4.31	12.00	0.00	9999.00	-0.46	2.64	17.40	0.00	0.00	9999.00	2.642
4.39	14.00	0.00	9999.00	-1.04	2.84	22.88	0.00	0.00	9999.00	2.836
4.48	16.00	0.00	9999.00	-1.63	2.98	28.69	0.00	0.00	9999.00	2.980
4.60	18.00	0.00	9999.00	-2.25	3.09	34.76	0.00	0.00	9999.00	3.089
4.72	20.00	0.00	9999.00	-2.88	3.17	41.02	0.00	0.00	9999.00	3.168
4.85	22.00	0.00	9999.00	-3.51	3.22	47.40	0.00	0.00	9999.00	3.216
4.97	24.00	0.00	9999.00	-4.14	3.23	53.85	0.00	0.00	9999.00	3.233
5.09	26.00	0.00	9999.00	-4.77	3.22	60.31	0.00	0.00	9999.00	3.224
5.20	28.00	0.00	9999.00	-5.39	3.20	66.73	0.00	0.00	9999.00	3.196
5.31	30.00	0.00	9999.00	-6.01	3.15	73.08	0.00	0.00	9999.00	3.150
5.41	32.00	0.00	9999.00	-6.62	3.09	79.32	0.00	0.00	9999.00	3.092
5.50	34.00	0.00	9999.00	-7.22	3.02	85.43	0.00	0.00	9999.00	3.021
5.58	36.00	0.00	9999.00	-7.81	2.94	91.39	-0.00	0.00	9999.00	2.940
5.66	38.00	0.00	9999.00	-8.39	2.85	97.18	-0.00	0.00	9999.00	2.849
5.73	40.00	0.00	9999.00	-8.96	2.75	102.78	-0.00	0.00	9999.00	2.750
5.80	42.00	0.00	9999.00	-9.52	2.64	108.17	-0.00	0.00	9999.00	2.643
5.86	44.00	0.00	9999.00	-10.07	2.53	113.35	-0.00	0.00	9999.00	2.532
5.91	46.00	0.00	9999.00	-10.61	2.42	118.30	-0.00	0.00	9999.00	2.418
5.95	48.00	0.00	9999.00	-11.13	2.30	123.02	-0.00	0.00	9999.00	2.304
5.99	50.00	0.00	9999.00	-11.64	2.19	127.51	-0.00	0.00	9999.00	2.188
6.02	52.00	0.00	9999.00	-12.14	2.07	131.77	-0.00	0.00	9999.00	2.070
6.04	54.00	0.00	9999.00	-12.62	1.95	135.79	-0.00	0.00	9999.00	1.952
6.05	56.00	0.00	9999.00	-13.08	1.83	139.57	-0.00	0.00	9999.00	1.832
6.06	58.00	0.00	9999.00	-13.53	1.71	143.11	-0.00	0.00	9999.00	1.711
6.06	60.00	0.00	9999.00	-13.97	1.59	146.41	-0.00	0.00	9999.00	1.589
6.05	62.00	0.00	9999.00	-14.38	1.47	149.47	-0.00	0.00	9999.00	1.466
6.03	64.00	0.00	9999.00	-14.78	1.34	152.28	-0.00	0.00	9999.00	1.343
6.01	66.00	0.00	9999.00	-15.16	1.22	154.84	-0.00	0.00	9999.00	1.218
5.98	68.00	0.00	9999.00	-15.53	1.09	157.15	-0.00	0.00	9999.00	1.093
5.94	70.00	0.00	9999.00	-15.87	0.97	159.21	-0.00	0.00	9999.00	0.967
5.90	72.00	0.00	9999.00	-16.19	0.84	161.02	-0.00	0.00	9999.00	0.840
5.85	74.00	0.00	9999.00	-16.50	0.71	162.57	-0.00	0.00	9999.00	0.713
5.79	76.00	0.00	9999.00	-16.78	0.58	163.87	-0.00	0.00	9999.00	0.585
5.72	78.00	0.00	9999.00	-17.05	0.46	164.91	-0.00	-0.00	-9999.00	0.456
5.65	80.00	0.00	9999.00	-17.29	0.33	165.69	-0.00	-0.00	-9999.00	0.328
5.57	82.00	0.00	9999.00	-17.51	0.20	166.22	-0.00	-0.00	-9999.00	0.198
5.48	84.00	0.00	9999.00	-17.71	0.07	166.49	-0.00	-0.00	-9999.00	0.069
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.50	-0.00	-0.00	-9999.00	-0.061

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 13 ---
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                    18 June, 2025 *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 13 ------  *
*                                                                                    *
**************************************************************************************************************
```

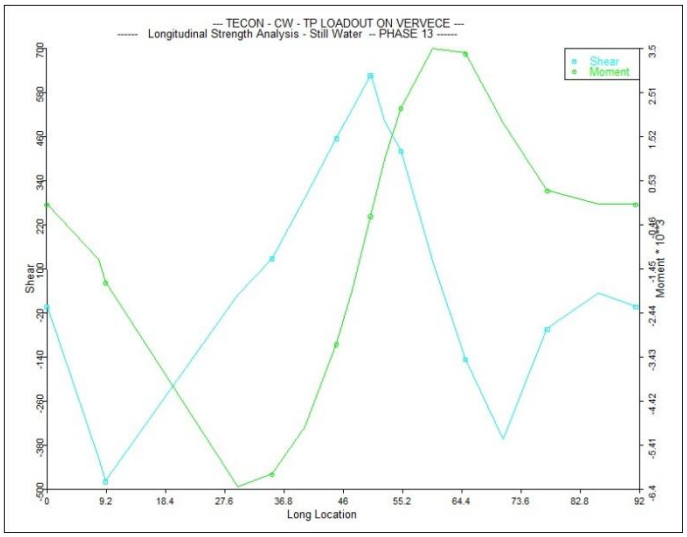
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 13: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-417	-1246	-0.0493	4.1136
9.14	-477	-1757	-0.0695	4.6869
29.72	29	-6356	-0.2512	11.0315
35.00	128	-6054	-0.2393	10.9094
40.00	292	-5002	-0.1977	10.1145
45.00	456	-3131	-0.1238	8.7755
47.50	537	-1890	-0.0747	7.9630
50.29	628	-263	-0.0104	6.9964
52.50	501	1005	0.0397	6.2225
55.00	422	2159	0.0853	5.3729
60.00	120	3495	0.1381	3.8737
65.00	-145	3390	0.1339	2.7464
70.87	-363	1813	0.0716	1.8771
77.72	-62	308	0.0122	1.1947
85.70	32	-11	-0.0005	0.4981
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 14 ---------                              *
*                                                                                                     *
*******************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                Process is 14: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Results Are Reported In Body System

                    Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

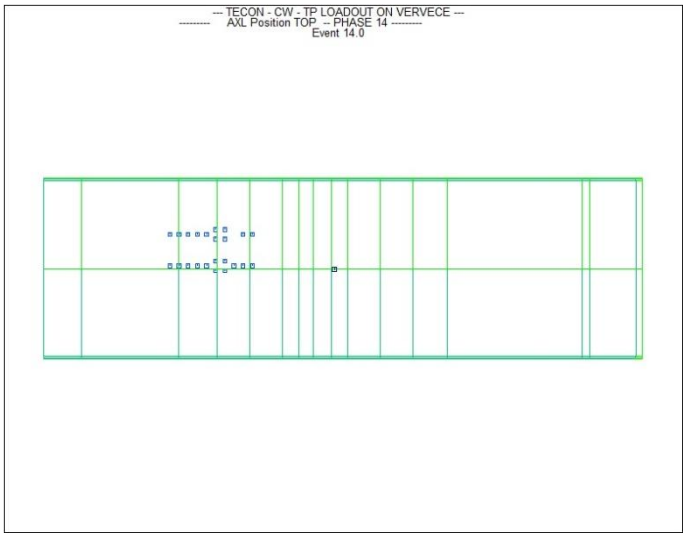
                                Wet Radii Of Gyration About CG

                           K-X =     7.80 K-Y =    25.04 K-Z =    25.82

                                    GMT =    14.26 GML =   159.16

                           /-- Center of Gravity ---/  Sounding   % Full
                  Name      Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL14      ------------
                           LOAD_GRO    416.90    66.46    -2.65     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                    1PC         224.31     5.62    -3.43     3.77     6.02    98.00
                    1PW         206.33     5.71   -10.28     3.59     5.70    90.00
                    1SC         224.80     5.62     3.43     3.77     6.02    98.00
                    1SW         206.33     5.71    10.28     3.59     5.70    90.00
                    2PC         426.19    19.43    -3.43     1.52     3.05    50.00
                    2PW         351.48    19.43   -10.28     1.26     2.52    41.24
                    2SC         426.19    19.43     3.43     1.52     3.05    50.00
                    2SW         400.72    19.43    10.28     1.44     2.87    47.02
                    3PC         255.71    40.01    -3.43     0.91     1.83    30.00
                    3PW         426.16    40.01   -10.28     1.53     3.05    50.00
                    3SC         255.71    40.01     3.43     0.91     1.83    30.00
                    3SW         426.16    40.01    10.28     1.53     3.05    50.00
                    4PC         835.34    60.58    -3.43     2.99     5.97    98.00
                    4PW         426.16    60.58   -10.28     1.53     3.05    50.00
                    4SC         835.34    60.58     3.43     2.99     5.97    98.00
                    4SW         426.16    60.58    10.28     1.53     3.05    50.00
                    5PC         240.01    83.19    -3.43     1.86     3.42    50.00
                    5PW         387.87    79.67   -10.28     1.74     3.30    50.10
                    5SC         236.24    83.19     3.43     1.86     3.42    50.00
                    5SW         437.21    79.82    10.28     1.94     3.66    56.47
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75    -0.00     2.63
                           Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 14 ---------                                 *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 14: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                   ***  MOSES   ***                                  *
*                                   ----------------                 18 June, 2025    *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                   *
*        ---------     Intact Stability Check    -- PHASE 14 ---------              .*
*                                                                                     *
***************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 14: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.63, and Wind Speed = 10 Knots

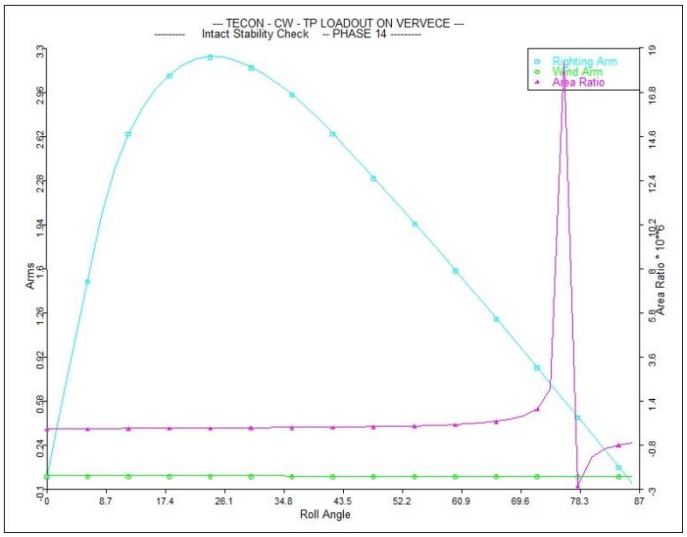
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3117.93	0.498
4.29	4.00	0.00	9999.00	1.49	1.00	2.00	0.00	0.00	6410.08	1.000
4.27	6.00	0.00	9999.00	1.03	1.50	4.50	0.00	0.00	9999.00	1.504
4.25	8.00	0.00	9999.00	0.57	2.00	8.01	0.00	0.00	9999.00	2.002
4.26	10.00	0.00	9999.00	0.08	2.38	12.39	0.00	0.00	9999.00	2.378
4.31	12.00	0.00	9999.00	-0.46	2.64	17.41	0.00	0.00	9999.00	2.643
4.39	14.00	0.00	9999.00	-1.04	2.84	22.89	0.00	0.00	9999.00	2.837
4.48	16.00	0.00	9999.00	-1.63	2.98	28.71	0.00	0.00	9999.00	2.982
4.60	18.00	0.00	9999.00	-2.25	3.09	34.78	0.00	0.00	9999.00	3.091
4.72	20.00	0.00	9999.00	-2.88	3.17	41.04	0.00	0.00	9999.00	3.170
4.85	22.00	0.00	9999.00	-3.51	3.22	47.43	0.00	0.00	9999.00	3.219
4.97	24.00	0.00	9999.00	-4.14	3.24	53.89	0.00	0.00	9999.00	3.236
5.09	26.00	0.00	9999.00	-4.77	3.23	60.35	0.00	0.00	9999.00	3.227
5.20	28.00	0.00	9999.00	-5.39	3.20	66.78	0.00	0.00	9999.00	3.199
5.31	30.00	0.00	9999.00	-6.01	3.15	73.13	0.00	0.00	9999.00	3.154
5.41	32.00	0.00	9999.00	-6.62	3.10	79.38	0.00	0.00	9999.00	3.095
5.50	34.00	0.00	9999.00	-7.22	3.02	85.50	0.00	0.00	9999.00	3.025
5.58	36.00	0.00	9999.00	-7.81	2.94	91.47	-0.00	0.00	9999.00	2.943
5.66	38.00	0.00	9999.00	-8.39	2.85	97.26	-0.00	0.00	9999.00	2.852
5.73	40.00	0.00	9999.00	-8.96	2.75	102.86	-0.00	0.00	9999.00	2.751
5.80	42.00	0.00	9999.00	-9.52	2.64	108.26	-0.00	0.00	9999.00	2.643
5.86	44.00	0.00	9999.00	-10.07	2.53	113.43	-0.00	0.00	9999.00	2.531
5.91	46.00	0.00	9999.00	-10.61	2.42	118.38	-0.00	0.00	9999.00	2.417
5.95	48.00	0.00	9999.00	-11.13	2.30	123.10	-0.00	0.00	9999.00	2.301
5.99	50.00	0.00	9999.00	-11.64	2.19	127.58	-0.00	0.00	9999.00	2.185
6.02	52.00	0.00	9999.00	-12.14	2.07	131.84	-0.00	0.00	9999.00	2.068
6.04	54.00	0.00	9999.00	-12.62	1.95	135.85	-0.00	0.00	9999.00	1.950
6.05	56.00	0.00	9999.00	-13.08	1.83	139.63	-0.00	0.00	9999.00	1.830
6.06	58.00	0.00	9999.00	-13.53	1.71	143.17	-0.00	0.00	9999.00	1.709
6.06	60.00	0.00	9999.00	-13.97	1.59	146.47	-0.00	0.00	9999.00	1.587
6.05	62.00	0.00	9999.00	-14.38	1.46	149.52	-0.00	0.00	9999.00	1.465
6.03	64.00	0.00	9999.00	-14.78	1.34	152.33	-0.00	0.00	9999.00	1.341
6.01	66.00	0.00	9999.00	-15.16	1.22	154.88	-0.00	0.00	9999.00	1.217
5.98	68.00	0.00	9999.00	-15.53	1.09	157.19	-0.00	0.00	9999.00	1.092
5.94	70.00	0.00	9999.00	-15.87	0.97	159.25	-0.00	0.00	9999.00	0.966
5.90	72.00	0.00	9999.00	-16.19	0.84	161.06	-0.00	0.00	9999.00	0.840
5.85	74.00	0.00	9999.00	-16.50	0.71	162.61	-0.00	0.00	9999.00	0.712
5.79	76.00	0.00	9999.00	-16.78	0.58	163.91	-0.00	0.00	9999.00	0.585
5.72	78.00	0.00	9999.00	-17.05	0.46	164.95	-0.00	-0.00	-9999.00	0.456
5.65	80.00	0.00	9999.00	-17.29	0.33	165.73	-0.00	-0.00	-9999.00	0.328
5.57	82.00	0.00	9999.00	-17.51	0.20	166.26	-0.00	-0.00	-9999.00	0.199
5.48	84.00	0.00	9999.00	-17.71	0.07	166.53	-0.00	-0.00	-9999.00	0.069
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.53	-0.00	-0.00	-9999.00	-0.060

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 14 ---
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                  18 June, 2025  *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 14 ------  *
*                                                                                    *
**************************************************************************************************************
```

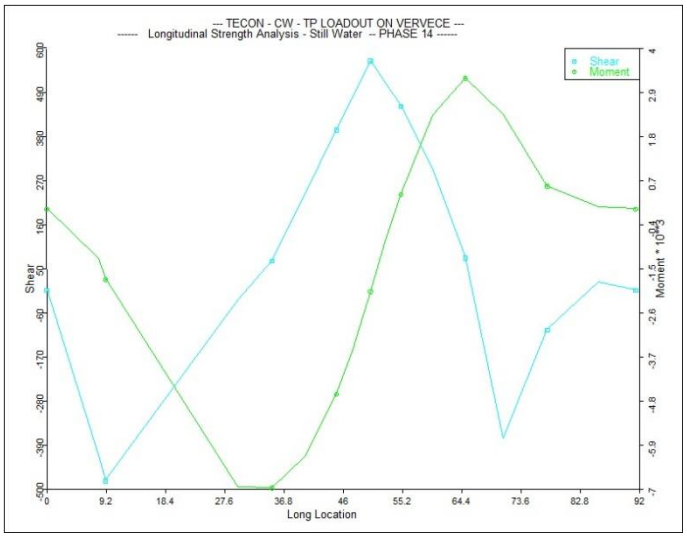
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 14: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-417	-1247	-0.0493	4.9197
9.14	-477	-1757	-0.0695	5.6083
29.72	-28	-6952	-0.2748	13.9332
35.00	70	-6956	-0.2749	14.2052
40.00	235	-6194	-0.2448	13.6816
45.00	398	-4613	-0.1823	12.4825
47.50	479	-3516	-0.1390	11.6808
50.29	570	-2052	-0.0811	10.6730
52.50	517	-852	-0.0337	9.8234
55.00	456	363	0.0144	8.8402
60.00	298	2327	0.0920	6.9327
65.00	78	3265	0.1290	5.2713
70.87	-373	2342	0.0925	3.7576
77.72	-100	569	0.0225	2.4055
85.70	16	34	0.0013	0.9978
91.44	-1	0	0.0000	0.0001



9 BALLASTING SYSTEM CHECKS

9.1 BALLAST TANK CAPACITY

The tanks filling was included in a range from 3% to 98% during all the Load-out and satisfies the requirement of table 4-1, section 4.5.3 of Ref. /2/ for Loadout class 2.

9.2 BALLAST PUMPING CAPACITY

Ballast pumps must be tried (turning on and off the pumps) to ensure perfect functioning of system/item within 24h of the start of load-out.

Pumping capacity of the external pumps consists of 8 pumps, with a rated capacity of min 300 m3/h + 2 x 600 m3/h internal barge pumps.

Load out weight:	417 t
Cross over estimated duration:	1 Hours
Capacity required for the load compensation	420 t/h

Capacity required for tide compensation:

- @max tide speed: 0.16 m/h x (2.52 t/mmx1000mm) = 403 t/h
- Average: 0.80 m x 91.4x27.4 = 2000 t / 6 hours = 334 t/h

a) Normal operation - Load transfer as planned: 130% capacity with intact system and 100% with 1 pump failed.

Capacity with intact system = 2*300 + 2*600 m3/h = 1800 m3/h

Intact system ratio = 1800/(420+403) = 2.18 > 1.3 (OK)

Capacity with 1 pump failed = 2*300 + 1*600 m3/h = 1200 m3/h

Damaged system ratio = 1200/(420+403) = 1.45 > 1.0 (OK)

b) Load transfer stopped: 150% capacity with intact system and 100% capacity with one pump failed.

Capacity with intact system = 4x300 = 1200 m3/h

Intact system ratio = 1200/403 = 3.00 > 1.5 (OK)

Capacity with 1 pump failed = replaced by 1 spare or 1 not used for load transfer being stopped

Base Load Power Hub (BLPH)

APPENDIX P – Ballast Sequence for BLPH

Document Number: 123A90-DDL-TI-RE-99002

Document Class: 2

02	15/07/2025	Accepted for Construction (AFU)	A.Balzarotti	F.Ceroni	D.LoSterzo
01	30/06/2025	Issued for Approval (IFA)	A.Balzarotti	F.Ceroni	D.LoSterzo
00	23/04/2025	Issued for Review (IFR)	A.Balzarotti	F.Ceroni	D.LoSterzo
Rev.	Date	Description	Prepared	Reviewed	Approved

TECON

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Revision / Change Log

Rev.	Description
00	Issued for Review (IFR)
01	Issued for Approval (IFA)
02	Accepted for construction (AFU)

HOLDS LIST

No.	Description
1	
2	
3	
4	

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1 INTRODUCTION

1.1 PROJECT OVERVIEW

Crosswind, a Shell and Eneco joint venture, was awarded the tender to develop the offshore Hollandse Kust Noord (HKN) wind farm, located 18.5km off the coast of Netherlands near the town of Egmond aan Zee. The consortium plans to have HKN operational in 2023 with an installed capacity of 759MW generating at least 3.3TWh per year. This is sufficient renewable power to supply more than 1 million Dutch households with green electricity.

Offshore wind farms produce intermittent electricity and balancing these dips and peaks and integrating this electricity into the national energy system requires new technologies. For this reason, the offshore wind farm will include several new technologies that could be implemented at full-scale in the future. The new technologies being explored include a floating solar park, a short-duration battery storage as well as long-term storage via green hydrogen produced by water electrolysis and subsequently consumed in a fuel cell. The combination of these individual measures, herein referred to as the Base Load Power Hub (BLPH) will ensure a continuous power supply regardless of the wind situation.

1.1.1 Project Location

The Hollandse Kust Noord (HKN) wind farm is located 18.5km off the coast of the Netherlands near the town of Egmond aan Zee.

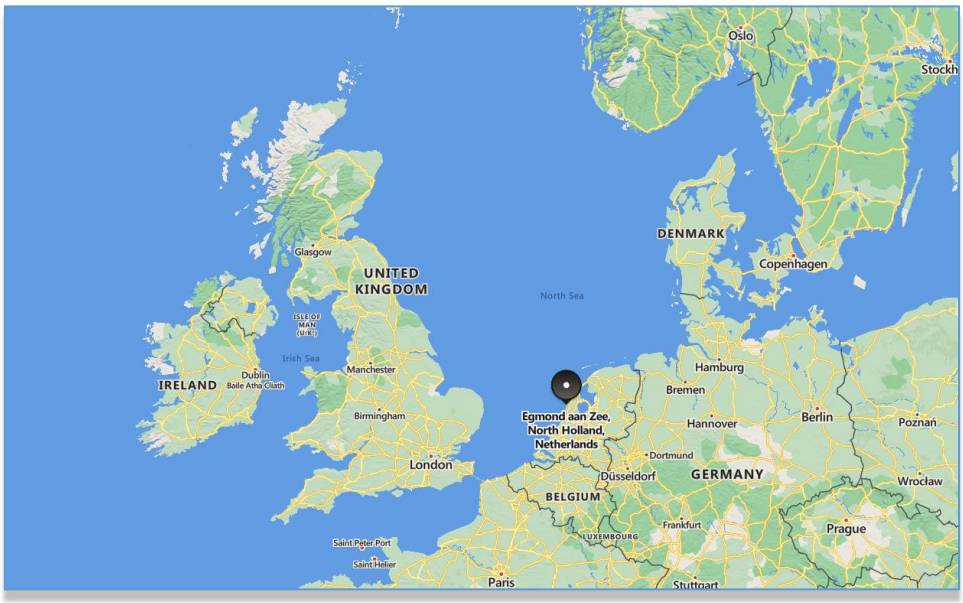


Figure 1.1 HOLLANDSE KUST NOORD WIND PARK Location Map

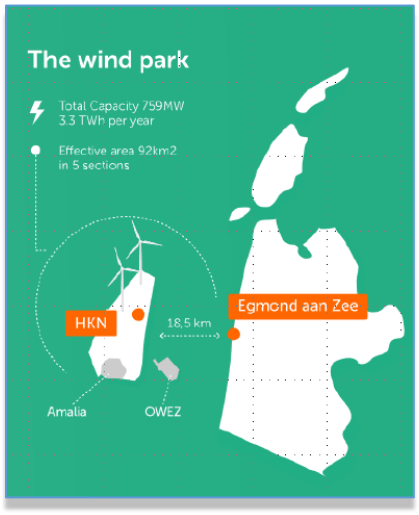


Figure 1.2 - Wind Park Details

The wind farm consist of No. 69 x 11.5MW wind turbine generators each to be installed on a dedicated monopile structure. A 70th monopile located on coordinates E 590719.1, N 5841602.3 is reserved for installing the platform accommodating the BLPH. The monopile structure was designed and installed by Van Oord Offshore Wind (VooW) and therefore not part of the BLPH scope.

1.1.2 Project Concept

All components included in the BLPH will be integrated onshore on a topsides and installed in an offshore location within the boundaries of the HKN wind farm. At its simplest, the BLPH will store energy during periods of high electricity generation from renewable sources (a wind turbine generator and the floating solar PV farm) and release it during periods of low generation. In practice. It is expected that the energy stored will supplement generation from renewable sources to ensure that at least 1.0MW of power is exported to the electrical grid regardless of wind/solar availability.

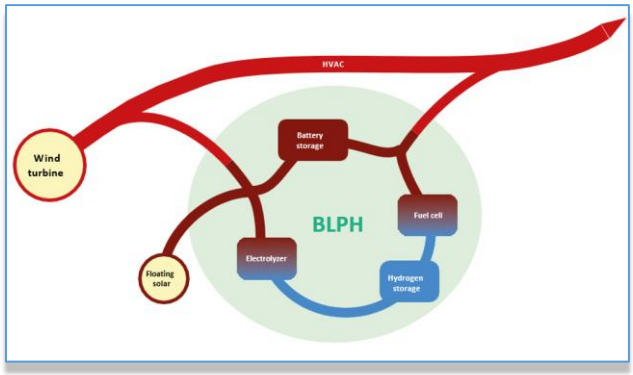


Figure 1.3 – BLPH Concept

Electricity in the BLPH will be stored in the form of electrons in a battery energy storage system (BESS) as well as converted into green hydrogen via water electrolysis. When the power output from the connecting wind turbine drops to below 1 MWe, the BLPH will return its stored energy to supplement the remaining power output. This will be by discharging the BESS, while stored hydrogen will be converted back into electricity using a fuel cell to extend the discharge duration.

The purpose of the BLPH is to function as a testbed for the integration of energy storage technologies with renewable generation. It is expected that equipment installed on the BLPH will operate as Normally Unmanned Installation for at least two (2) years with no or minimal maintenance and it will have its own independent control room with the ability to communicate with Crosswind's control room.

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2 SCOPE

This report presents the results of the load-out simulation of the BLPH topside on board of VERVECE barge.

The selected cargo barge has the following main dimensions:

- Barge Name: Vervece
- LOA: 91.44 m
- Breadth: 27.43 m
- Depth: 6.1 m
- Frame Spacing: 2.286 m

The quay elevation above the mean sea level is 1.75 m.

The operation is planned to be performed on 19th of July 2025; the tide variation shall therefore be -30cm / +30cm.

Normal operation is planned in the rising tide phase.

Load out operation is classified type 2, given the possibility for water level differences due to environmental effects, as per section 10.2.1 of Ref./2/.

The analysis is performed in accordance with the design requirements, criteria and parameters reported in the Structural Design Premises, Ref./4/.

The International System of units (SI) is used in all engineering assessments and calculations.

The hull of the barge and the ballast compartments were modelled using Moses language, Ref./16/.

The Multi-Operational Structural Engineering Simulator (MOSES) offshore engineering software package, developed by Ultramarine Inc., was used to simulate intact stability, and assess the longitudinal strength of the transportation barge during load-out operations.

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3 REFERENCES

3.1 CODES AND STANDARDS

Doc. No.	Description
/1/ API RP 2A-WSD	Recommended practice for planning, designing and constructing fixed offshore platforms – Working stress design – 22nd edition – 2014
/2/ DNV-ST-N001	DNV - Marine operation and marine warranty - 2023

3.2 PROJECT DOCUMENTS

Doc. No.	Description
/3/ 123A90-DDL-MD-RE-01006	Monthly Weight Report
/4/ 123A90-DDL-ST-SP-90017	Structural Design Basis
/5/ 123A90-DDL-ST-SP-90018	Structural Material Specification for Topside & TP
/6/ 123A90-DDL-ST-SP-90118	Structural Material Specification for Flange & Bolts
/7/ 123A90-DDL-ST-TN-90119	Evaluating ISO and DNV approaches
/8/ 123A90-DDL-TI-SP-99014	Specification for TP, Topside and Caissons Transportation and Installation
/9/ 123A90-DDL-ST-RE-90001	Topside loadout analysis
/10/ 123A90-DDL-TI-RE-99001	Topside Gr&SF report
/11/ 123A90-DDL-TI-DD-99021	Topside – Grillage Assembly
/12/ 123A90-DDL-TI-DD-99023	Topside – Grillage – Plan and Section
/13/ 123A90-DDL-TI-RE-99012	Topside – Yard Checklist
/14/ 123A90-DDL-TI-RE-99013	Topside – internal seafastening report
/15/	Vervece Stability booklet

3.3 SOFTWARE

Doc. No.	Description
/16/ MOSES	Hydrostatic and Hydrodynamic Analysis Software for Offshore Installation and Platform Design– BENTLEY Inc, v.12

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4 TRANSPORTATION ARRANGMENT

The BLPH will be supported by spacers installed directly below the lower deck main beams. It is assumed to be located on the barge deck as follows:

- with respect to the barge longitudinal axis an offset of 1142mm.
- Row 1 is located 50861 mm from the barge stern.

The following figure shows the arrangement of the BLPH module on the barge.

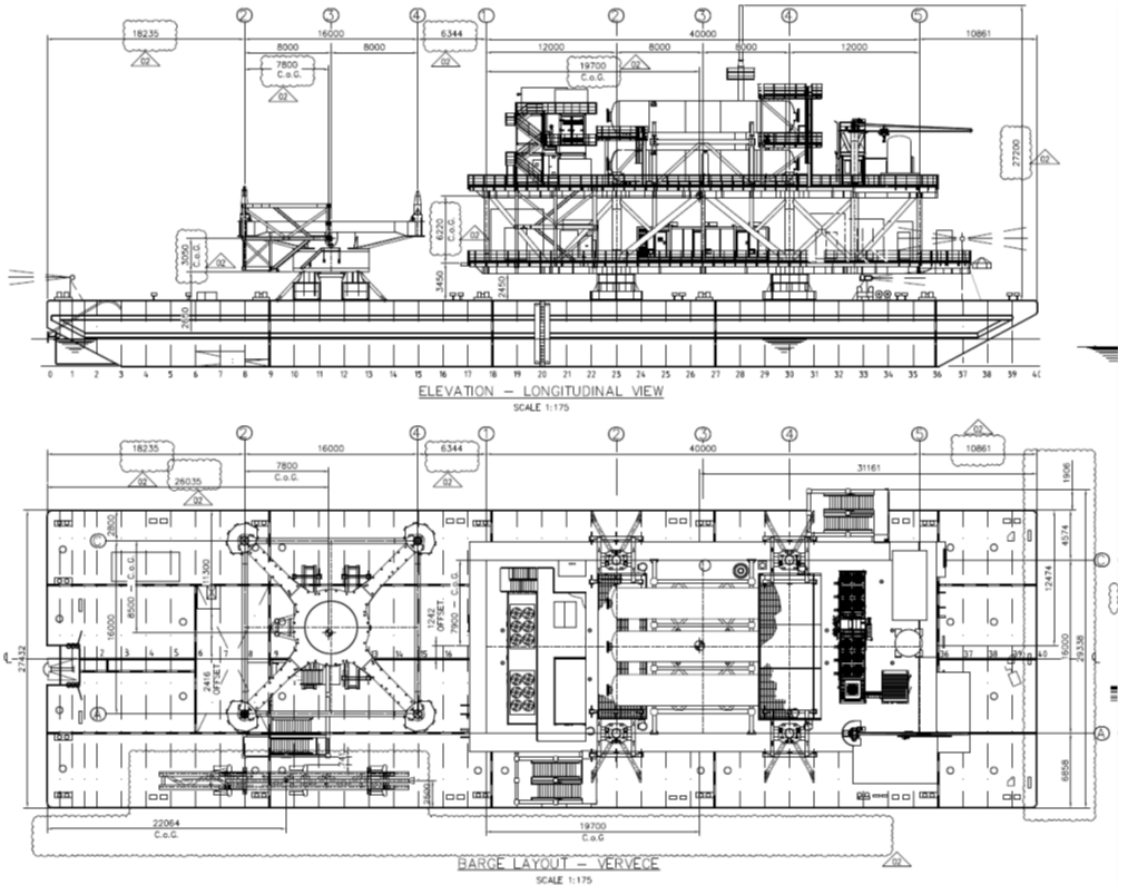


Figure 4.1 – Barge layout

Once the topside is loaded-out onto the barge by means of the hydraulic trailers SPMT, it is lowered and it is supported on the lower grillage beams.

The transportation restraint scheme is finally completed with the seafastenings.

Considering the depth of the lower grillage (including shim plates mm), the bottom ends of deck legs are located at elevation +2.45 m above the barge deck.

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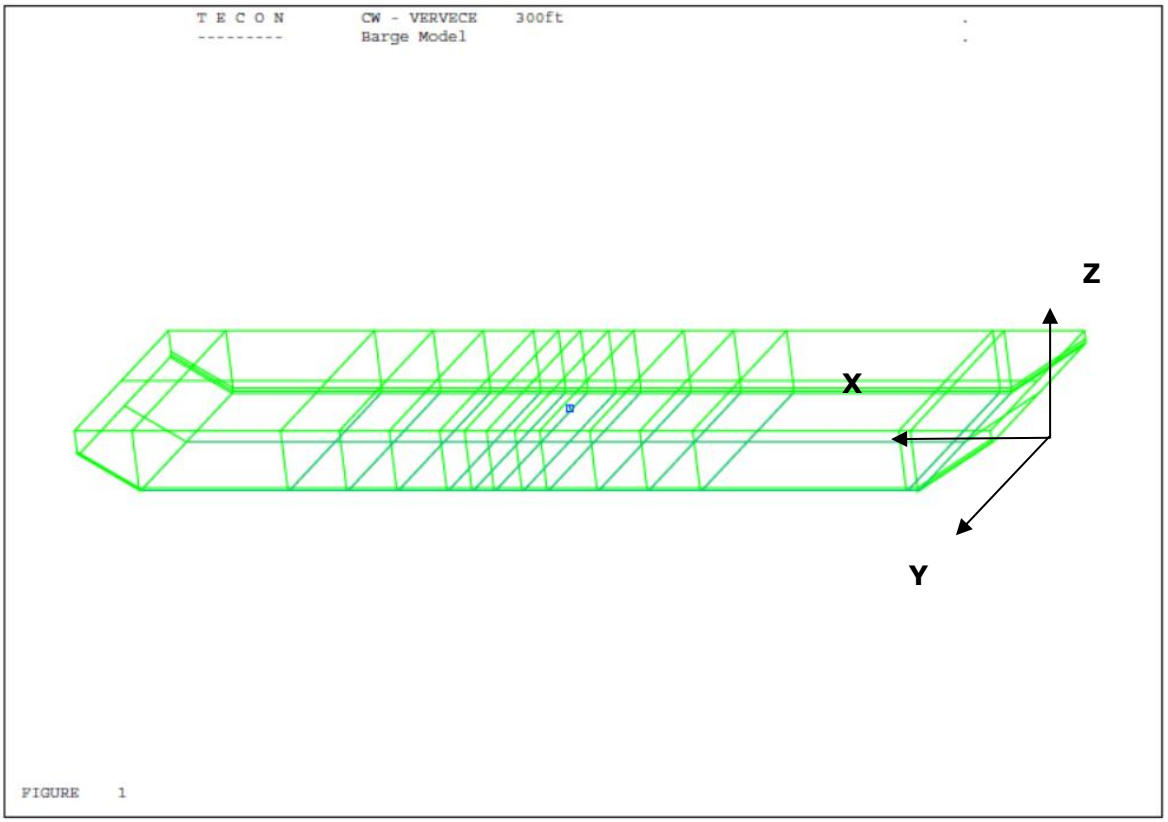
5 CARGO BARGE

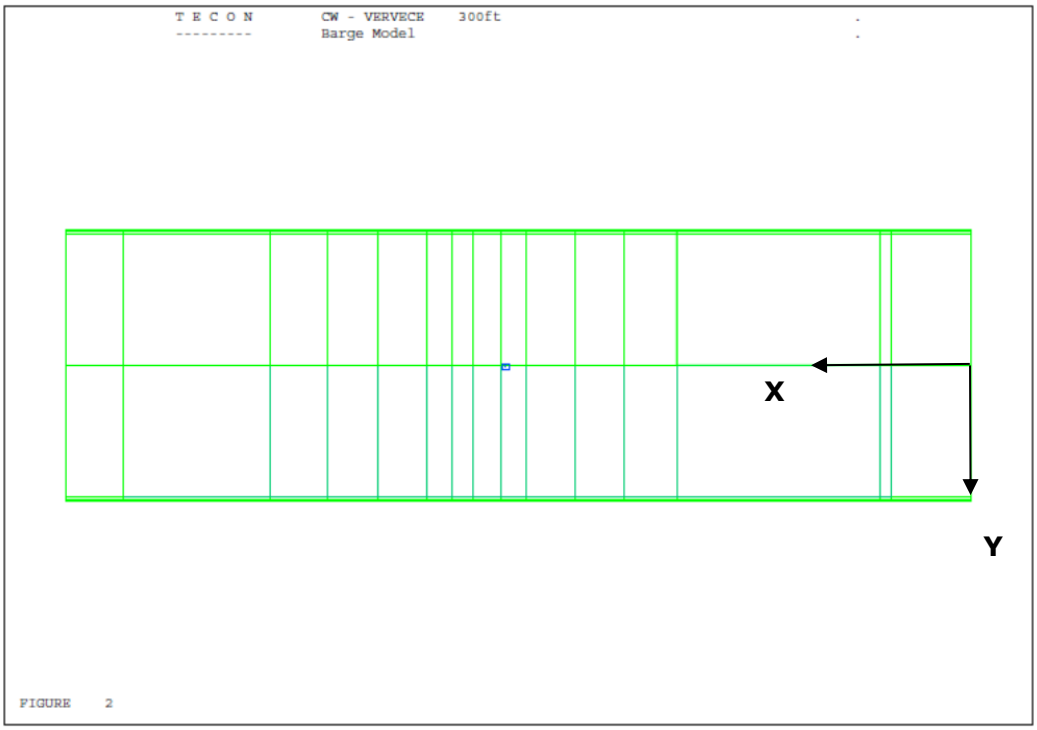
5.1 MOSES MODEL

VERVECE model was set out in MOSES language based on the hull drawings and on the tanks capacities and weight distribution included in the barge documents.

The standard Moses reference system has the origin at the bow of the barge, on the centreline and at keel elevation, the X axis positive from bow to stern, the Y axis positive to starboard and the Z axis positive upwards.

The Moses barge hull model is shown in the following figures:





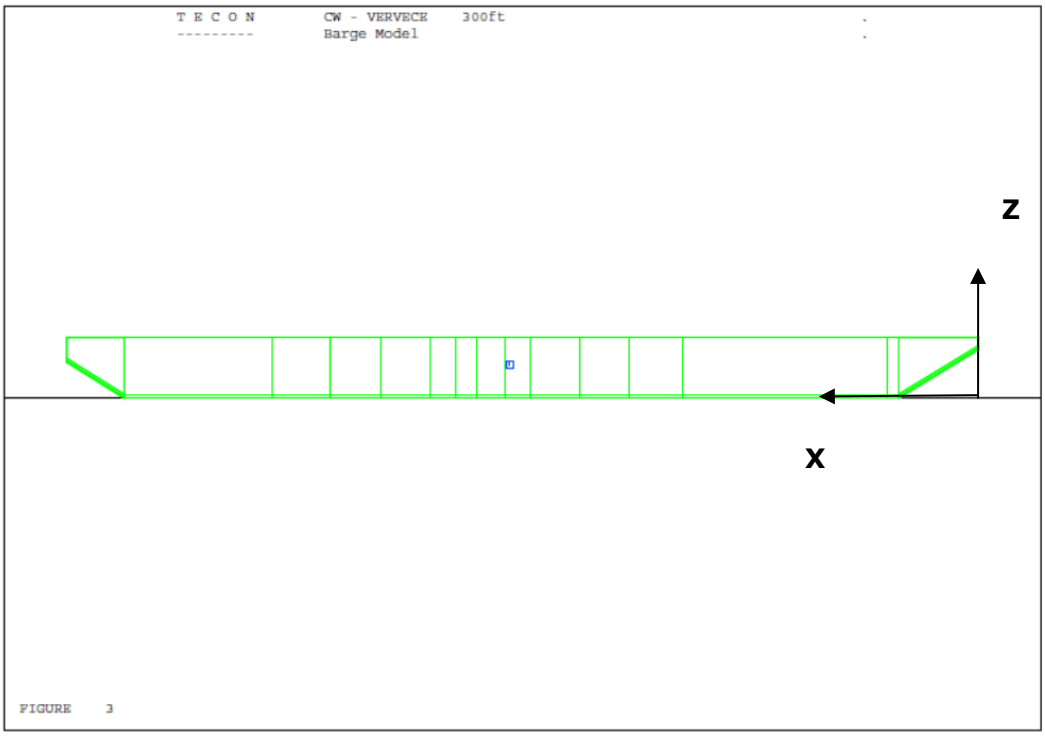


Figure 5.1 – Barge MOSES model and ref. system

The Barge hydrostatic properties are summarised in the following tables.

The density used for sea water is 1.025 t/m3.

```
**********************************************************************************************************
*                                          ***  MOSES   ***                                              *
*                                          ----------------                    25 March, 2025            *
*          T E C O N       CW - VERVECE    300ft                               .                         *
*          ---------       Hydrostatic Curves                                  .                         *
*                                                                                                        *
**********************************************************************************************************

                              +++ H Y D R O S T A T I C   P R O P E R T I E S +++
                              ==================================================

                    Process = DEFAULT: Units = Degrees, Meters, M-Tons, and MPa Unless Stated

                                        Results are in the Body System

                                              For Body VERVECE
```

/--- Condition ---			//- Displac-/	/-- Center Of Buoyancy --/			/ W.P. /	/C. Flotation /		/---- Metacentric Heights ----/			
Draft	Trim	Roll	M-Tons	---X---	---Y---	---Z---	Area	---X---	---Y---	-KMT-	-KML-	-BMT-	-BML-
0.10	0.00	0.00	211.04	46.85	0.00	0.05	2081.674	46.85	0.00	619.45	5128.82	619.40	5128.77
0.20	0.00	0.00	425.67	46.85	-0.00	0.10	2101.925	46.85	-0.00	313.63	2588.77	313.53	2588.67
0.30	0.00	0.00	641.89	46.85	0.00	0.15	2116.956	46.84	0.00	210.82	1743.33	210.67	1743.18
0.40	0.00	0.00	859.65	46.85	0.00	0.20	2132.015	46.84	0.00	159.57	1321.77	159.37	1321.57
0.50	0.00	0.00	1078.63	46.84	-0.00	0.25	2140.752	46.84	0.00	127.79	1066.52	127.54	1066.27
0.60	0.00	0.00	1298.50	46.84	0.00	0.30	2149.490	46.84	0.00	106.68	896.91	106.37	896.61
0.70	0.00	0.00	1519.27	46.84	-0.00	0.35	2158.227	46.83	0.00	91.64	776.06	91.29	775.70
0.80	0.00	0.00	1740.94	46.84	0.00	0.40	2166.965	46.83	0.00	80.39	685.59	79.99	685.19
0.90	0.00	0.00	1963.50	46.84	-0.00	0.45	2175.702	46.83	0.00	71.66	615.36	71.20	614.90
1.00	0.00	0.00	2186.96	46.84	0.00	0.50	2184.439	46.83	0.00	64.69	559.26	64.19	558.75
1.10	0.00	0.00	2411.31	46.84	-0.00	0.56	2193.177	46.83	0.00	59.00	513.42	58.45	512.87
1.20	0.00	0.00	2636.56	46.84	-0.00	0.61	2201.914	46.82	0.00	54.27	475.29	53.67	474.68
1.30	0.00	0.00	2862.70	46.84	-0.00	0.66	2210.652	46.82	0.00	50.28	443.07	49.62	442.41
1.40	0.00	0.00	3089.74	46.83	0.00	0.71	2219.389	46.82	0.00	46.87	415.49	46.16	414.78
1.50	0.00	0.00	3317.68	46.83	0.00	0.76	2228.126	46.82	0.00	43.92	391.62	43.16	390.86
1.60	0.00	0.00	3546.51	46.83	-0.00	0.81	2236.864	46.81	0.00	41.34	370.77	40.53	369.96
1.70	0.00	0.00	3776.23	46.83	-0.00	0.86	2245.601	46.81	0.00	39.07	352.40	38.21	351.54
1.80	0.00	0.00	4006.86	46.83	-0.00	0.91	2254.339	46.81	0.00	37.07	336.10	36.15	335.19
1.90	0.00	0.00	4238.37	46.83	-0.00	0.96	2263.076	46.81	0.00	35.28	321.54	34.31	320.58
2.00	0.00	0.00	4470.79	46.83	0.00	1.01	2271.813	46.81	0.00	33.67	308.46	32.65	307.45
2.10	0.00	0.00	4704.09	46.83	0.00	1.07	2280.551	46.80	0.00	32.22	296.65	31.15	295.58
2.20	0.00	0.00	4938.30	46.83	0.00	1.12	2289.288	46.80	0.00	30.91	285.93	29.79	284.81
2.30	0.00	0.00	5173.40	46.82	0.00	1.17	2298.026	46.80	0.00	29.71	276.17	28.54	275.00
2.40	0.00	0.00	5409.40	46.82	-0.00	1.22	2306.763	46.80	0.00	28.62	267.23	27.40	266.01
2.50	0.00	0.00	5646.29	46.82	-0.00	1.27	2315.500	46.79	0.00	27.63	259.03	26.35	257.76
2.60	0.00	0.00	5884.07	46.82	0.00	1.32	2324.238	46.79	0.00	26.71	251.48	25.38	250.15
2.70	0.00	0.00	6122.75	46.82	-0.00	1.38	2332.975	46.79	0.00	25.86	244.50	24.49	243.12
2.80	0.00	0.00	6362.33	46.82	0.00	1.43	2341.713	46.79	0.00	25.08	238.03	23.65	236.60
2.90	0.00	0.00	6602.80	46.82	0.00	1.48	2350.450	46.79	0.00	24.35	232.03	22.88	230.55
3.00	0.00	0.00	6844.17	46.82	0.00	1.53	2359.188	46.78	0.00	23.68	226.44	22.15	224.91
3.10	0.00	0.00	7086.44	46.81	0.00	1.58	2367.925	46.78	0.00	23.06	221.22	21.47	219.64
3.20	0.00	0.00	7329.60	46.81	0.00	1.63	2376.663	46.78	-0.00	22.47	216.35	20.84	214.71
3.30	0.00	0.00	7573.65	46.81	0.00	1.69	2385.400	46.78	0.00	21.93	211.78	20.24	210.10
3.40	0.00	0.00	7818.61	46.81	-0.00	1.74	2394.138	46.77	0.00	21.42	207.50	19.68	205.76
3.50	0.00	0.00	8064.45	46.81	0.00	1.79	2402.875	46.77	-0.00	20.94	203.47	19.15	201.68
3.60	0.00	0.00	8311.19	46.81	0.00	1.84	2411.444	46.77	-0.00	20.49	199.63	18.65	197.79
3.70	0.00	0.00	8558.60	46.81	0.00	1.90	2415.958	46.69	-0.00	20.04	195.05	18.14	193.15
3.80	0.00	0.00	8806.47	46.80	0.00	1.95	2420.419	46.61	-0.00	19.61	190.71	17.66	188.76
3.90	0.00	0.00	9054.78	46.80	0.00	2.00	2424.867	46.52	-0.00	19.21	186.60	17.21	184.60
4.00	0.00	0.00	9303.56	46.79	0.00	2.05	2429.302	46.44	-0.00	18.83	182.70	16.78	180.65
4.10	0.00	0.00	9552.79	46.78	-0.00	2.10	2433.730	46.36	0.00	18.48	179.00	16.37	176.90
4.20	0.00	0.00	9802.47	46.77	-0.00	2.16	2438.159	46.28	0.00	18.14	175.49	15.99	173.34
4.30	0.00	0.00	10052.61	46.75	0.00	2.21	2442.588	46.20	-0.00	17.82	172.15	15.62	169.95
4.40	0.00	0.00	10303.21	46.74	0.00	2.26	2447.017	46.11	0.00	17.52	168.98	15.26	166.72
4.50	0.00	0.00	10554.25	46.72	-0.00	2.31	2451.446	46.03	-0.00	17.24	165.95	14.93	163.64
4.60	0.00	0.00	10805.76	46.70	-0.00	2.36	2455.874	45.95	-0.00	16.97	163.06	14.61	160.69
4.70	0.00	0.00	11057.71	46.69	-0.00	2.42	2460.303	45.87	-0.00	16.72	160.30	14.30	157.88
4.80	0.00	0.00	11310.12	46.67	0.00	2.47	2464.732	45.79	-0.00	16.47	157.66	14.01	155.20
4.90	0.00	0.00	11562.96	46.65	0.00	2.52	2468.126	45.72	-0.00	16.24	154.95	13.72	152.43
5.00	0.00	0.00	11815.95	46.63	-0.00	2.57	2468.198	45.72	-0.00	16.00	151.75	13.43	149.18
5.10	0.00	0.00	12068.95	46.61	0.00	2.62	2468.228	45.72	-0.00	15.77	148.68	13.15	146.06
5.20	0.00	0.00	12321.94	46.59	-0.00	2.68	2468.245	45.72	0.00	15.55	145.74	12.88	143.06
5.30	0.00	0.00	12574.93	46.57	-0.00	2.73	2468.249	45.72	-0.00	15.34	142.91	12.62	140.18
5.40	0.00	0.00	12827.93	46.56	0.00	2.78	2468.249	45.72	-0.00	15.15	140.20	12.37	137.42
5.50	0.00	0.00	13080.93	46.54	0.00	2.83	2468.249	45.72	-0.00	14.96	137.59	12.13	134.76
5.60	0.00	0.00	13333.92	46.52	-0.00	2.88	2468.249	45.72	-0.00	14.78	135.09	11.90	132.20
5.70	0.00	0.00	13586.92	46.51	-0.00	2.93	2468.249	45.72	-0.00	14.61	132.68	11.68	129.74
5.80	0.00	0.00	13839.91	46.49	-0.00	2.99	2468.249	45.72	-0.00	14.45	130.36	11.46	127.37

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5.90	0.00	0.00	14092.91	46.48	0.00	3.04	2468.249	45.72	-0.00	14.30	128.12	11.26	125.08
6.00	0.00	0.00	14345.91	46.47	-0.00	3.09	2468.249	45.72	-0.00	14.15	125.97	11.06	122.88

+++ H Y D R O S T A T I C C O E F F I C I E N T S +++

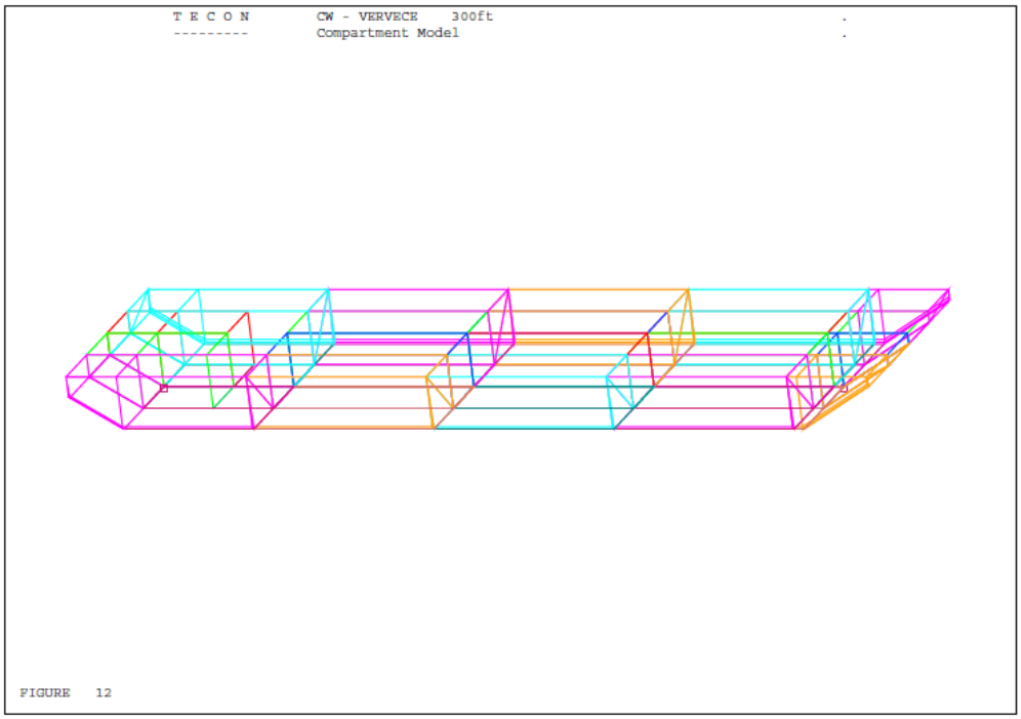
Process = DEFAULT: Units = Degrees, Meters, M-Tons, and MPa Unless Stated

Results are in the Body System

For Body VERVECE

/--- Condition ---/			Displacement	Wetted Surface	Load To Change Draft 1 MM	/--- For KG = KB ----/ Moment To Change .01 Deg	
Draft	Trim	Roll				--- Heel ---	--- Trim ---
0.10	0.00	0.00	211.04	2120.1	2.13	22.81	188.91
0.20	0.00	0.00	425.67	2151.4	2.15	23.29	192.32
0.30	0.00	0.00	641.89	2178.7	2.17	23.60	195.29
0.40	0.00	0.00	859.65	2206.1	2.19	23.91	198.28
0.50	0.00	0.00	1078.63	2232.2	2.19	24.01	200.73
0.60	0.00	0.00	1298.50	2258.4	2.20	24.11	203.20
0.70	0.00	0.00	1519.27	2284.7	2.21	24.21	205.69
0.80	0.00	0.00	1740.94	2311.0	2.22	24.30	208.20
0.90	0.00	0.00	1963.50	2337.4	2.23	24.40	210.72
1.00	0.00	0.00	2186.96	2363.9	2.24	24.50	213.27
1.10	0.00	0.00	2411.31	2390.4	2.25	24.60	215.84
1.20	0.00	0.00	2636.56	2417.0	2.26	24.70	218.43
1.30	0.00	0.00	2862.70	2443.6	2.27	24.79	221.04
1.40	0.00	0.00	3089.74	2470.3	2.27	24.89	223.67
1.50	0.00	0.00	3317.68	2497.1	2.28	24.99	226.33
1.60	0.00	0.00	3546.51	2524.0	2.29	25.09	229.00
1.70	0.00	0.00	3776.23	2550.9	2.30	25.19	231.69
1.80	0.00	0.00	4006.86	2577.9	2.31	25.28	234.41
1.90	0.00	0.00	4238.37	2604.9	2.32	25.38	237.15
2.00	0.00	0.00	4470.79	2632.0	2.33	25.48	239.90
2.10	0.00	0.00	4704.09	2659.2	2.34	25.58	242.68
2.20	0.00	0.00	4938.30	2686.4	2.35	25.68	245.48
2.30	0.00	0.00	5173.40	2713.7	2.36	25.77	248.30
2.40	0.00	0.00	5409.40	2741.1	2.36	25.87	251.15
2.50	0.00	0.00	5646.29	2768.5	2.37	25.97	254.01
2.60	0.00	0.00	5884.07	2796.0	2.38	26.07	256.90
2.70	0.00	0.00	6122.75	2823.6	2.39	26.17	259.80
2.80	0.00	0.00	6362.33	2851.2	2.40	26.26	262.73
2.90	0.00	0.00	6602.80	2878.9	2.41	26.36	265.69
3.00	0.00	0.00	6844.17	2906.7	2.42	26.46	268.66
3.10	0.00	0.00	7086.44	2934.5	2.43	26.56	271.66
3.20	0.00	0.00	7329.60	2962.4	2.44	26.66	274.67
3.30	0.00	0.00	7573.65	2990.3	2.45	26.75	277.71
3.40	0.00	0.00	7818.61	3018.4	2.45	26.85	280.78
3.50	0.00	0.00	8064.45	3046.4	2.46	26.95	283.86
3.60	0.00	0.00	8311.19	3074.5	2.47	27.05	286.91
3.70	0.00	0.00	8558.60	3100.3	2.48	27.10	288.53
3.80	0.00	0.00	8806.47	3126.2	2.48	27.15	290.13
3.90	0.00	0.00	9054.78	3152.1	2.49	27.20	291.73
4.00	0.00	0.00	9303.56	3178.0	2.49	27.25	293.33
4.10	0.00	0.00	9552.79	3204.0	2.49	27.30	294.94
4.20	0.00	0.00	9802.47	3230.0	2.50	27.35	296.55
4.30	0.00	0.00	10052.61	3256.0	2.50	27.40	298.17
4.40	0.00	0.00	10303.21	3282.0	2.51	27.45	299.80
4.50	0.00	0.00	10554.25	3308.1	2.51	27.50	301.43
4.60	0.00	0.00	10805.76	3334.3	2.52	27.55	303.06
4.70	0.00	0.00	11057.71	3360.4	2.52	27.60	304.71
4.80	0.00	0.00	11310.12	3386.6	2.53	27.65	306.35
4.90	0.00	0.00	11562.96	3412.3	2.53	27.69	307.62
5.00	0.00	0.00	11815.95	3436.0	2.53	27.69	307.65
5.10	0.00	0.00	12068.95	3459.8	2.53	27.69	307.66
5.20	0.00	0.00	12321.94	3483.6	2.53	27.69	307.67
5.30	0.00	0.00	12574.93	3507.3	2.53	27.69	307.67
5.40	0.00	0.00	12827.93	3531.1	2.53	27.69	307.67
5.50	0.00	0.00	13080.93	3554.9	2.53	27.69	307.67
5.60	0.00	0.00	13333.92	3578.7	2.53	27.69	307.67
5.70	0.00	0.00	13586.92	3602.4	2.53	27.69	307.67
5.80	0.00	0.00	13839.91	3626.2	2.53	27.69	307.67
5.90	0.00	0.00	14092.91	3650.0	2.53	27.69	307.67
6.00	0.00	0.00	14345.91	3673.8	2.53	27.69	307.67

The modelled compartment codes are shown in the following figure



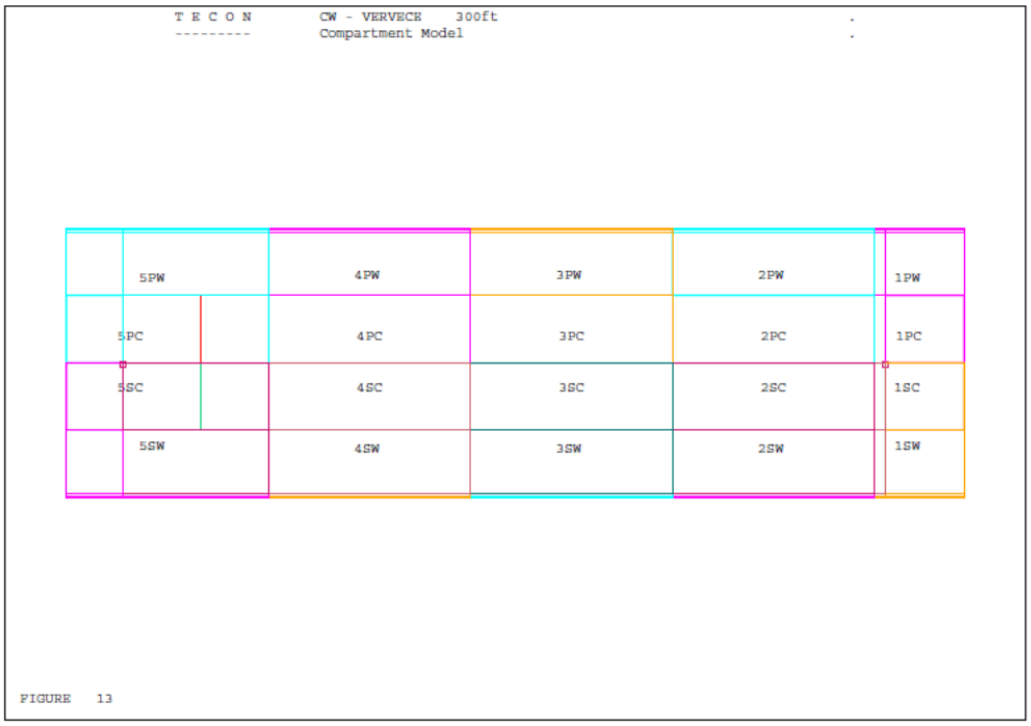


Figure 5.2 – Barge Compartments

The capacity plan for ballast compartments is presented in the Moses output.

The density used for ballast water is 1.025 t/m3 (same of sea water).

```
*****************************************************************************************************************
*                                          ***  MOSES   ***                                                     *
*          T E C O N       CW - VERVECE    300ft                                    .                          *
*          ---------       Capacity Plan                                            .                          *
*****************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ======================================================================
                Process = DEFAULT: Units = Degrees, Meters, M-Tons, and MPa Unless Stated

                                  Results Are Reported In Body System

                       Draft =     0.00 Roll Angle =     0.00 Pitch Angle =     0.00

                                     Wet Radii Of Gyration About CG

                              K-X =     7.95 K-Y =    24.53 K-Z =    25.56

                                        /-- Center of Gravity ---/  Sounding   % Full
                       Name      Weight    ---X---  ---Y---  ---Z---  -------- --------

                       ----------------  Part VERVECE    ------------
                       LOAD_GRO   1832.80    47.02     0.00     3.52
                       --- Contents ---
                       1PC         234.61     5.60    -3.43     3.81     6.10   100.00
                       1PW         234.98     5.60   -10.28     3.82     6.10   100.00
                       1SC         235.12     5.60     3.43     3.81     6.10   100.00
                       1SW         234.98     5.60    10.28     3.82     6.10   100.00
                       2PC         873.69    19.43    -3.43     3.05     6.10   100.00
                       2PW         873.63    19.43   -10.28     3.05     6.10   100.00
                       2SC         873.69    19.43     3.43     3.05     6.10   100.00
                       2SW         873.63    19.43    10.28     3.05     6.10   100.00
                       3PC         873.69    40.01    -3.43     3.05     6.10   100.00
                       3PW         873.63    40.00   -10.28     3.05     6.10   100.00
                       3SC         873.69    40.01     3.43     3.05     6.10   100.00
                       3SW         873.63    40.01    10.28     3.05     6.10   100.00
                       4PC         873.69    60.58    -3.43     3.05     6.10   100.00
                       4PW         873.63    60.58   -10.28     3.05     6.10   100.00
                       4SC         873.69    60.58     3.43     3.05     6.10   100.00
                       4SW         873.63    60.58    10.28     3.05     6.10   100.00
                       5PC         492.02    83.89    -3.43     3.31     6.10   100.00
                       5PW         793.58    80.40   -10.28     3.22     6.10   100.00
                       5SC         484.29    83.89     3.43     3.31     6.10   100.00
                       5SW         793.58    80.40    10.28     3.22     6.10   100.00
                       ========  ========  =======  =======  =======
                       Total     15819.89    45.53    -0.00     3.18
                       Buoyancy      0.00     0.00     0.00     0.00

                            +++ C O M P A R T M E N T   P R O P E R T I E S +++
                            ===================================================
                                      Results Are Reported In Body System

                          Process = DEFAULT: Units = Degrees, Meters, M-Tons, and MPa Unless Stated

                                    Fill   Specific /--- Ballast ---/ /------ % Full --------/ Sounding
                            Name    Type    Gravity  Maximum  Current   Max.    Min.    Curr.  --------

                          1PC     CORRECT     1.0250    234.6    234.6  100.00    0.00  100.00     6.096
                          1PW     CORRECT     1.0250    235.0    235.0  100.00    0.00  100.00     6.096
                          1SC     CORRECT     1.0250    235.1    235.1  100.00    0.00  100.00     6.096
                          1SW     CORRECT     1.0250    235.0    235.0  100.00    0.00  100.00     6.096
                          2PC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                          2PW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                          2SC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                          2SW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                          3PC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                          3PW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                          3SC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                          3SW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                          4PC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                          4PW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                          4SC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                          4SW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                          5PC     CORRECT     1.0250    492.0    492.0  100.00    0.00  100.00     6.096
                          5PW     CORRECT     1.0250    793.6    793.6  100.00    0.00  100.00     6.096
                          5SC     CORRECT     1.0250    484.3    484.3  100.00    0.00  100.00     6.096
                          5SW     CORRECT     1.0250    793.6    793.6  100.00    0.00  100.00     6.096
```

5.2 LIGHTSHIP

As indicated in the barge Stability booklet the barge has the following properties:

- Lightweight = 1833 t
- LCG = 44.42 m
- VCG = 3.524 m
- TCG = 0.0 m

5.3 DOWNFLOODING POINTS

Down flooding points have been modelled at barge edges and at deck elevation+600mm, Ref./15/.

Following FloodingPoints are included in the calculations:

No.	Type	Fr.AP(M)	Fr.CL(M)	Ab/BASE(M)	Description
1	3	90.000	-13.000	6.700	Ventilator, Tk. 1 PW
2	3	90.000	13.000	6.700	Ventilator, Tk. 1 SW
3	3	1.000	-13.000	6.700	Ventilator, Tk. 5 PW
4	3	1.000	13.000	6.700	Ventilator, TK. 5 SW

5.4 ALLOWABLE LONG. BENDING MOMENT AND SHEAR IN STILL WATER

Section 13 of Ref./15/, indicates the following values of bending moment and shear in still water:

	Max B.M.	W
Hogging	26700 tm	3.24 m^3
Sagging	26130 tm	3.24 m^3
Max shear midship	6150 ton	

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6 LOAD-OUT SIMULATION

The load-out was fully simulated using the software MOSES.

The transportation layout of BLPH on Vervece barge is shown below.

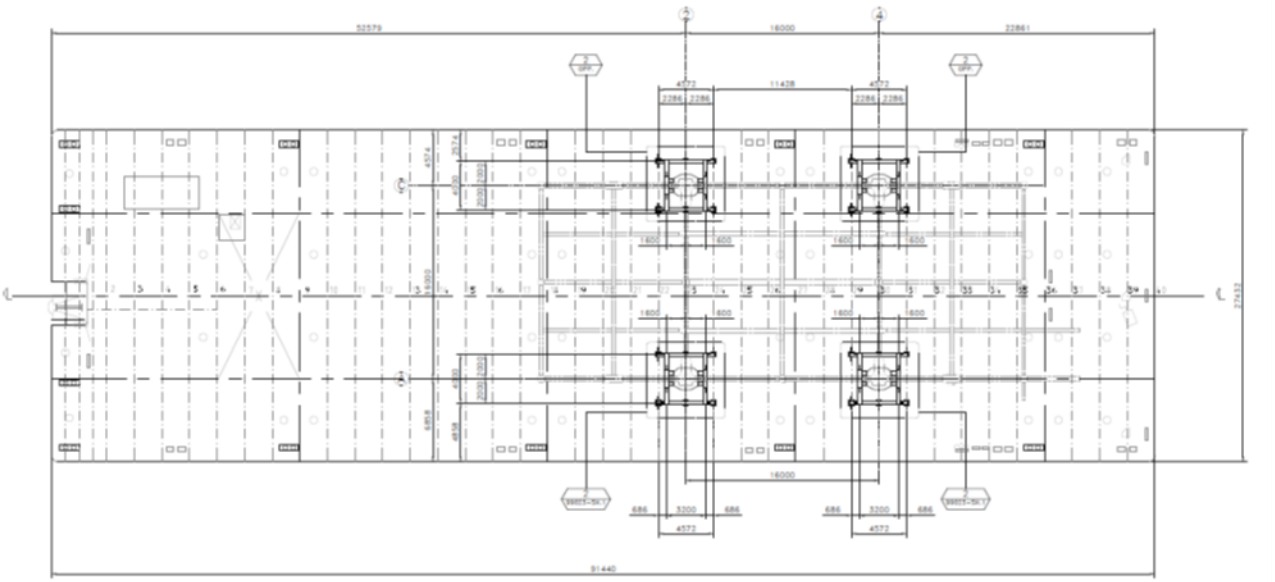


Figure 6.1 – Grillage arrangement – Top view

The operation was divided in 19 steps plus the initial step 0 that shows the initial ballast pattern. In recognition of the physical limitations of the ballasting system, the following criteria have been applied in the load-out analyses:

- At 3% volume ballast tanks are considered empty.
- at 98% volume ballast tanks are considered full.

The load-out simulation was performed according to the following premises:

Load-out date: 19th of July 2025

Starting hour: 7:00 AM

Trailer speed: 9 to 20 m / hour

6.1 LOAD DESCRIPTION

The SPMT drawing, Ref. Appendix H, shows all data for the load-out on board of the cargo barge. Drawing is included in Appendix 2 for easy reference.

The following figures show parts of the above-mentioned drawing.

CoG position is taken from ref. /3/,. according to the last issued WCR revision, Topside has the following CoG and weight position relevant to loadout condition:

- Loadout Expected Weight 2280 ton including Spacers and SPMTs;
- X_G = 19.70 m;
- Y_G = 7.90 m;
- Z_G = 29.30 m.

BLPH loadout scheme with CoG position is shown in the next figure.

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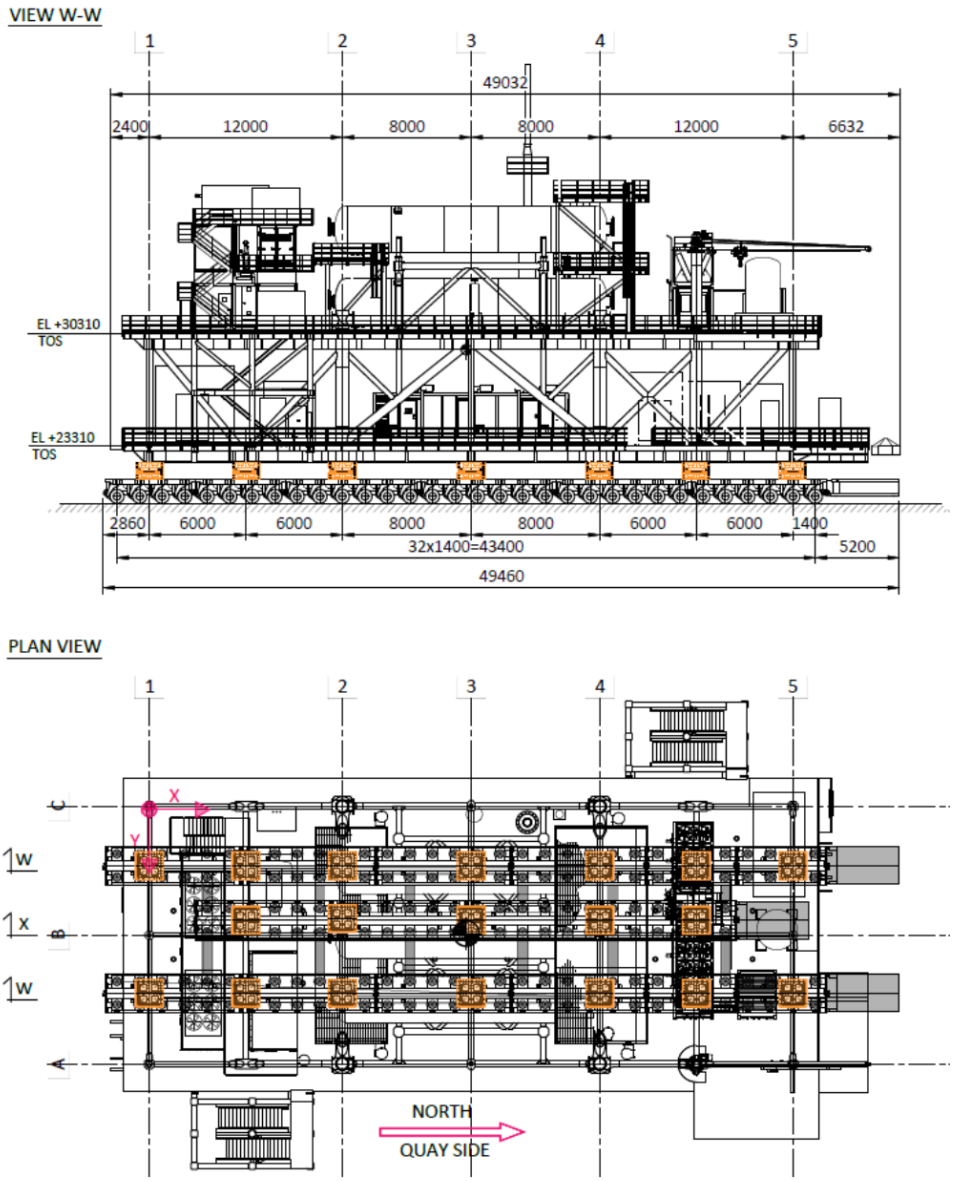


Figure 6.2 – BLPH loadout scheme

Before loadout operation, the final physical weighing operation will be performed in order to confirm the expected Weight and CoG. In case of the discrepancy in terms of weight and CoG position will be significant, the SPMT loads and ballasting sequence will be updated accordingly.

The following weights have been applied as external loads to the barge model.

- TP LOW-GRIL WEIGHT = 45 t
- BLPH GRILLAGE WEIGHT = 75 t

- CF WEIGHT = 28 t
- CF GRILLAGE WEIGHT = 0.5 t
- TP WEIGHT = 254.5 t

TRANSPORT CONFIGURATION: 88 AXLES			
ITEM weight (contingency included)			**1802 t**
SPMT dead weight			392,1 t
EQUIPMENT weight			87,9 t
TOTAL weight			2282 t
		BASE VALUES	**MAX VALUES**
Group A 20 Axles	Weight per axles	31,0 t	38,5 t
	Capacity per axles	48,0 t	48,0 t
	Cylinder pressure	189 bar	234 bar
	Contact pressure under the wheel	8,8 kg/cm^2	9,8 kg/cm^2
	Average Ground pressure	9,1 t/m^2	11,3 t/m^2
Group B 20 Axles	Weight per axles	31,0 t	38,5 t
	Capacity per axles	48,0 t	48,0 t
	Cylinder pressure	189 bar	234 bar
	Contact pressure under the wheel	8,8 kg/cm^2	9,8 kg/cm^2
	Average Ground pressure	9,1 t/m^2	11,3 t/m^2
Group C-D 48 Axles	Weight per axles	21,7 t	26,0 t
	Capacity per axles	48,0 t	48,0 t
	Cylinder pressure	132 bar	158 bar
	Contact pressure under the wheel	7,5 kg/cm^2	8,2 kg/cm^2
	Average Ground pressure	6,4 t/m^2	7,6 t/m^2

Figure 6.3 – Loads

For load out simulation the loads have been described as a set of concentrated forces, one per each trailer axle, i.e. at 1.4m interval. The following tables report the complete set of loads applied, with ref to the above fig. 6.2.

LoadNam	Weight	Xw	Yw	Zw
GC-1-01	21.7	0.000	-5.542	1.000
GC-1-02	21.7	-1.400	-5.542	1.000
GC-1-03	21.7	-2.800	-5.542	1.000
GC-1-04	21.7	-4.200	-5.542	1.000
GC-1-05	21.7	-5.600	-5.542	1.000
GC-1-06	21.7	-7.000	-5.542	1.000
GC-1-07	21.7	-8.400	-5.542	1.000

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GC-1-08	21.7	-9.800	-5.542	1.000
GC-1-09	21.7	-11.200	-5.542	1.000
GC-1-10	21.7	-12.600	-5.542	1.000
GC-1-11	21.7	-14.000	-5.542	1.000
GC-1-12	21.7	-15.400	-5.542	1.000
GC-1-13	21.7	-16.800	-5.542	1.000
GC-1-14	21.7	-18.200	-5.542	1.000
GC-1-15	21.7	-19.600	-5.542	1.000
GC-1-16	21.7	-21.000	-5.542	1.000
GC-1-17	21.7	-22.400	-5.542	1.000
GC-1-18	21.7	-23.800	-5.542	1.000
GC-1-19	21.7	-25.200	-5.542	1.000
GC-1-20	21.7	-26.600	-5.542	1.000
GC-1-21	21.7	-28.000	-5.542	1.000
GC-1-22	21.7	-29.400	-5.542	1.000
GC-1-23	21.7	-30.800	-5.542	1.000
GC-1-24	21.7	-32.200	-5.542	1.000
GC-1-25	21.7	-33.600	-5.542	1.000
GC-1-26	21.7	-35.000	-5.542	1.000
GC-1-27	21.7	-36.400	-5.542	1.000
GC-1-28	21.7	-37.800	-5.542	1.000
GC-1-29	21.7	-39.200	-5.542	1.000
GC-1-30	21.7	-40.600	-5.542	1.000
GC-1-31	21.7	-42.000	-5.542	1.000
GC-1-32	21.7	-43.400	-5.542	1.000
GC-2-01	10.85	-5.600	-2.967	1.000
GC-2-02	10.85	-7.000	-2.967	1.000
GC-2-03	10.85	-8.400	-2.967	1.000
GC-2-04	10.85	-9.800	-2.967	1.000
GC-2-05	10.85	-11.200	-2.967	1.000
GC-2-06	10.85	-12.600	-2.967	1.000
GC-2-07	10.85	-14.000	-2.967	1.000
GC-2-08	10.85	-15.400	-2.967	1.000
GC-2-09	10.85	-16.800	-2.967	1.000
GC-2-10	10.85	-18.200	-2.967	1.000
GC-2-11	10.85	-19.600	-2.967	1.000
GC-2-12	10.85	-21.000	-2.967	1.000
GC-2-13	10.85	-22.400	-2.967	1.000
GC-2-14	10.85	-23.800	-2.967	1.000

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GC-2-15	10.85	-25.200	-2.967	1.000
GC-2-16	10.85	-26.600	-2.967	1.000
GC-2-17	10.85	-28.000	-2.967	1.000
GC-2-18	10.85	-29.400	-2.967	1.000
GC-2-19	10.85	-30.800	-2.967	1.000
GC-2-20	10.85	-32.200	-2.967	1.000
GC-2-21	10.85	-33.600	-2.967	1.000
GC-2-22	10.85	-35.000	-2.967	1.000
GC-2-23	10.85	-36.400	-2.967	1.000
GC-2-24	10.85	-37.800	-2.967	1.000
GB-1-01	31.0	0.000	2.258	1.000
GB-1-02	31.0	-1.400	2.258	1.000
GB-1-03	31.0	-2.800	2.258	1.000
GB-1-04	31.0	-4.200	2.258	1.000
GB-1-05	31.0	-5.600	2.258	1.000
GB-1-06	31.0	-7.000	2.258	1.000
GB-1-07	31.0	-8.400	2.258	1.000
GB-1-08	31.0	-9.800	2.258	1.000
GB-1-09	31.0	-11.200	2.258	1.000
GB-1-10	31.0	-12.600	2.258	1.000
GB-1-11	31.0	-14.000	2.258	1.000
GB-1-12	31.0	-15.400	2.258	1.000
GB-1-13	31.0	-16.800	2.258	1.000
GB-1-14	31.0	-18.200	2.258	1.000
GB-1-15	31.0	-19.600	2.258	1.000
GB-1-16	31.0	-21.000	2.258	1.000
GB-2-01	15.5	-5.600	-1.517	1.000
GB-2-02	15.5	-7.000	-1.517	1.000
GB-2-03	15.5	-8.400	-1.517	1.000
GB-2-04	15.5	-9.800	-1.517	1.000
GB-2-05	15.5	-11.200	-1.517	1.000
GB-2-06	15.5	-12.600	-1.517	1.000
GB-2-07	15.5	-14.000	-1.517	1.000
GB-2-08	15.5	-15.400	-1.517	1.000
GB-2-09	15.5	-16.800	-1.517	1.000
GB-2-10	15.5	-18.200	-1.517	1.000
GB-2-11	15.5	-19.600	-1.517	1.000
GB-2-12	15.5	-21.000	-1.517	1.000
GA-1-17	31.0	-22.400	2.258	1.000

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GA-1-18	31.0	-23.800	2.258	1.000
GA-1-19	31.0	-25.200	2.258	1.000
GA-1-20	31.0	-26.600	2.258	1.000
GA-1-21	31.0	-28.000	2.258	1.000
GA-1-22	31.0	-29.400	2.258	1.000
GA-1-23	31.0	-30.800	2.258	1.000
GA-1-24	31.0	-32.200	2.258	1.000
GA-1-25	31.0	-33.600	2.258	1.000
GA-1-26	31.0	-35.000	2.258	1.000
GA-1-27	31.0	-36.400	2.258	1.000
GA-1-28	31.0	-37.800	2.258	1.000
GA-1-29	31.0	-39.200	2.258	1.000
GA-1-30	31.0	-40.600	2.258	1.000
GA-1-31	31.0	-42.000	2.258	1.000
GA-1-32	31.0	-43.400	2.258	1.000
GA-2-13	15.5	-22.400	-1.517	1.000
GA-2-14	15.5	-23.800	-1.517	1.000
GA-2-15	15.5	-25.200	-1.517	1.000
GA-2-16	15.5	-26.600	-1.517	1.000
GA-2-17	15.5	-28.000	-1.517	1.000
GA-2-18	15.5	-29.400	-1.517	1.000

Table 6.1 – Axles loads

6.2 BALLAST WATER MANAGEMENT

Barge is equipped with an internal ballast management system; therefore, water can be both moved to other tanks or discharged to the sea.

6.3 LOADOUT SEQUENCE

The above-described operation sequence was divided into the following steps:

Step 0 Barge ready for starting load-out of the topside. The ballast pattern is selected in order of having the barge deck at the same elevation as the quay.

Step 1 The first 2 axles of group C and B enter the barge bow.

Step 2 Trailers advance 4.2 m: next 3+3 axles of trailers of group C and B on board. Total axles on board: 8.

Step 3 Trailers advance 1.40 m: next 1+1 axles of trailers of group C and B on board plus first axle of internal train on board. Total axles on board: 11.

Step 4 Trailers advance 4.20 m: next 3+3 axles of trailers of group C and B and 3 axles of trailers

of group C/B on board. Total axles on board: C/B-20.

Step 5 Trailers advance 4.2 m: Total axles on board: C/B-29.

Step 6 Trailers advance 4.2 m: Total axles on board: C/B-38.

Step 7 Trailers advance 4.2 m: Total axles on board: C/B-44 and first axles of group A

Step 8 Trailers advance 4.2 m: Total axles on board: 56.

Step 9 Trailers advance 4.2 m: Total axles on board: 65.

Step 10 Trailers advance 4.2 m: Total axles on board: 74.

Step 11 Trailers advance 2.8 m: Total axles on board: 80.

Step 12 Trailers advance 2.8 m: Total axles on board: 84.

Step 13 Trailers advance 2.8 m: All trailers on board the barge.

Step 14 Trailers advance 5 m. shifting towards stern

Step 15 Trailers advance 4.36 m: topside reaches the transport position.

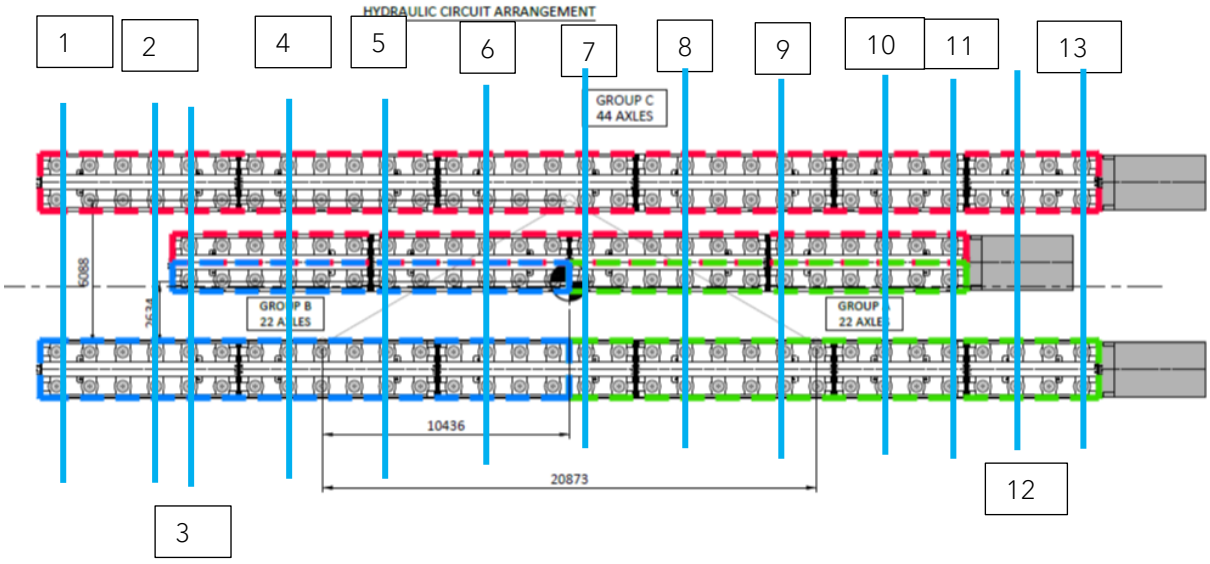
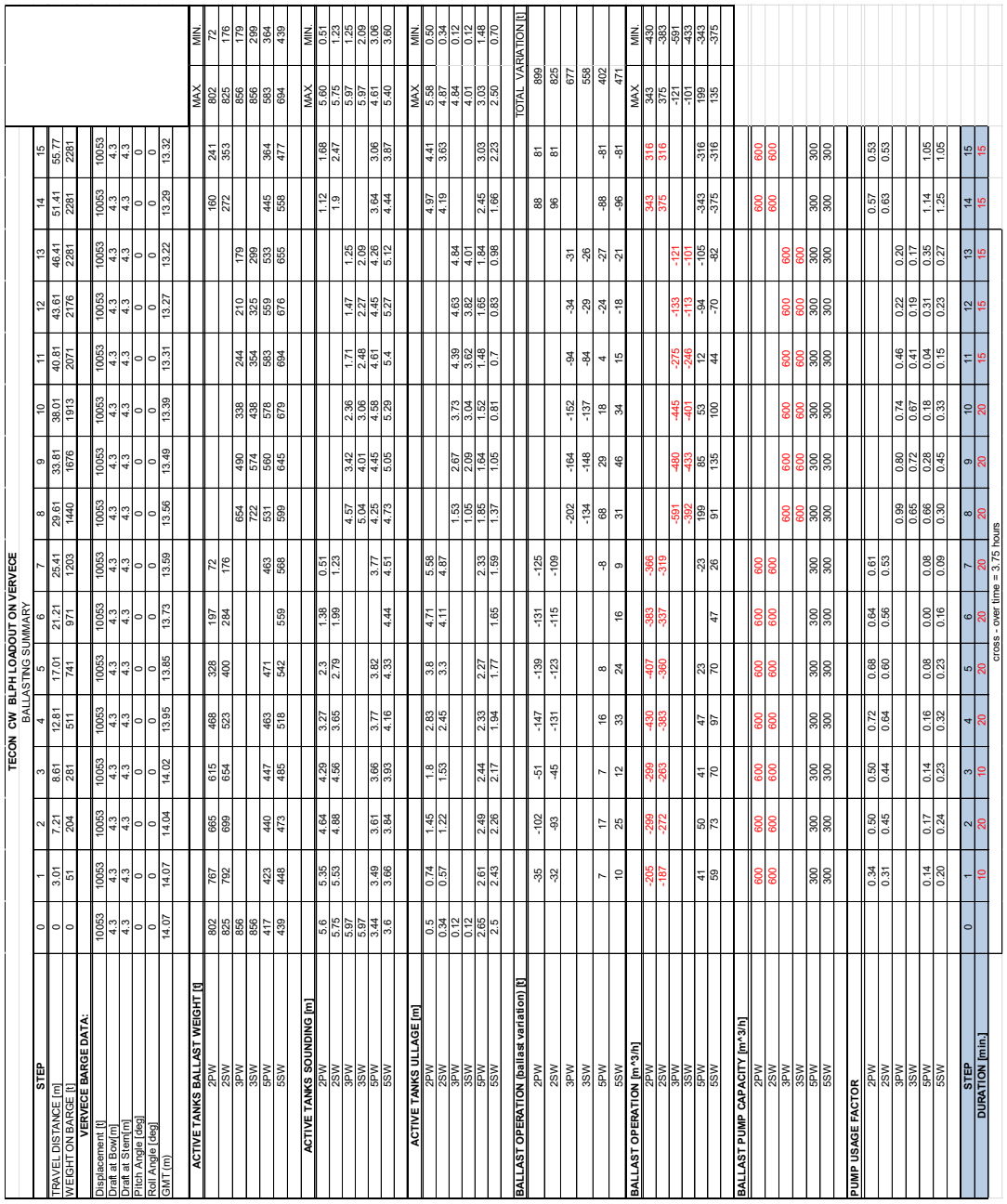


Figure 6.4 – Loadout Phases

Load out will be considered complete with BLPH in the final position.

The here below tables summarize the ballast variations.



TECON CW_BLPH LOADOUT ON VERVECE

BALLASTING SUMMARY

STEP	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
TRAVEL DISTANCE [m]	0	3.01	7.21	8.61	12.81	17.01	21.21	25.41	29.61	33.81	38.01	40.81	43.61	46.41	51.41	55.77		
WEIGHT ON BARGE [t]	0	51	204	281	511	741	971	1203	1440	1676	1913	2071	2176	2281	2281	2281		
VERVECE BARGE DATA:																		
Displacement [t]	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053		
Draft at Bow[m]	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		
Draft at Stern[m]	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		
Pitch Angle [deg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Roll Angle [deg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
GMT (m)	14.07	14.07	14.04	14.02	13.95	13.85	13.73	13.59	13.56	13.49	13.39	13.31	13.27	13.22	13.29	13.32		
ACTIVE TANKS BALLAST WEIGHT [t]																	MAX	MIN
2PW	802	767	665	615	468	328	197	72							160	241	802	72
2SW	825	792	699	654	523	400	284	176							272	353	825	176
3PW	856								654	490	338	244	210	179			856	179
3SW	856								722	574	438	354	325	299			856	299
5PW	417	423	440	447	463	471		463	531	560	578	583	559	533	445	364	583	364
5SW	439	448	473	485	518	542	559	568	599	645	679	694	676	655	558	477	694	439
ACTIVE TANKS SOUNDING [m]																	MAX	MIN
2PW	5.6	5.35	4.64	4.29	3.27	2.3	1.38	0.51							1.12	1.68	5.60	0.51
2SW	5.75	5.53	4.88	4.56	3.65	2.79	1.99	1.23							1.9	2.47	5.75	1.23
3PW	5.97								4.57	3.42	2.36	1.71	1.47	1.25			5.97	1.25
3SW	5.97								5.04	4.01	3.06	2.48	2.27	2.09			5.97	2.09
5PW	3.44	3.49	3.61	3.66	3.77	3.82		3.77	4.25	4.45	4.58	4.61	4.45	4.26	3.64	3.06	4.61	3.06
5SW	3.6	3.66	3.84	3.93	4.16	4.33	4.44	4.51	4.73	5.05	5.29	5.4	5.27	5.12	4.44	3.87	5.40	3.60
ACTIVE TANKS ULLAGE [m]																	MAX	MIN
2PW	0.5	0.74	1.45	1.8	2.83	3.8	4.71	5.58							4.97	4.41	5.58	0.50
2SW	0.34	0.57	1.22	1.53	2.45	3.3	4.11	4.87							4.19	3.63	4.87	0.34
3PW	0.12								1.53	2.67	3.73	4.39	4.63	4.84			4.84	0.12
3SW	0.12								1.05	2.09	3.04	3.82	4.01				4.01	0.12
5PW	2.65	2.61	2.49	2.44	2.33	2.27	2.33	1.85	1.64	1.92	1.48	1.65	1.84	2.45	3.03	1.48		
5SW	2.5	2.43	2.26	2.17	1.94	1.77	1.65	1.59	1.37	1.05	0.81	0.7	0.83	0.98	1.66	2.23	3.03	0.70
BALLAST OPERATION (ballast variation) [t]																	2.50	TOTAL VARIATION [t]
2PW		-35	-102	-51	-147	-139	-131	-125							88	81	899	
2SW		-32	-93	-45	-131	-123	-115	-109							96	81	825	
3PW									-202	-164	-152	-94	-34	-31			677	
3SW									-134	-148	-137	-84	-29	-26			558	
5PW		7	17	7	16	8		-8	68	29	18	4	-24	-27	-88	-81	402	
5SW		10	25	12	33	24	16	9	31	46	34	15	-18	-21	-96	-81	471	
BALLAST OPERATION [m^3/h]																	MAX	MIN
2PW		-205	-299	-299	-430	-407	-383	-366							343	316	343	-430
2SW		-187	-272	-283	-383	-360	-337	-319							375	316	375	-383
3PW									-591	-480	-445	-275	-133	-121			121	-591
3SW									-392	-433	-401	-246	-113	-101			-101	-433
5PW		41	50	41	47	23		-23	199	85	53	12	-94	-105	-343	-316	-316	-343
5SW		59	73	70	97	70	47	26	91	135	100	44	-70	-82	-375	-316	135	-375
BALLAST PUMP CAPACITY [m^3/h]																		
2PW		600	600	600	600	600	600	600							600	600		
2SW		600	600	600	600	600	600	600							600	600		
3PW									600	600	600	600	600	600				
3SW									600	600	600	600	600	600				
5PW		300	300	300	300	300	300	300	300	300	300	300	300	300	300	300		
5SW		300	300	300	300	300	300	300	300	300	300	300	300	300	300	300		
PUMP USAGE FACTOR																		
2PW		0.34	0.50	0.50	0.72	0.68	0.64	0.61							0.57	0.53		
2SW		0.31	0.45	0.44	0.64	0.60	0.56	0.53							0.63	0.53		
3PW									0.99	0.80	0.74	0.46	0.22	0.20				
3SW									0.65	0.72	0.67	0.41	0.19	0.17				
5PW		0.14	0.17	0.14	0.16	0.08	0.00	0.08	0.66	0.28	0.18	0.04	0.31	0.35	1.14	1.05		
5SW		0.20	0.24	0.23	0.32	0.23	0.16	0.09	0.30	0.45	0.33	0.15	0.23	0.27	1.25	1.05		
STEP	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
DURATION [min.]		10	20	10	20	20	20	20	20	20	20	15	15	15	15	15		

cross - over time = 3.75 hours

Table 6.2 – Loadout summary Tables

From the above table the total amount of moved water is 2282 t.

6.4 MOSES OUTPUT SUMMARY

Weight ballast (t)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Barge draft [m]	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
2PW	767	665	615	468	328	197	72							160	241
2SW	792	699	654	523	400	284	176							272	353
3PW								654	490	338	244	210	179		
3SW								722	574	438	354	325	299		
5PW	423	440	447	463	471	471	463	531	560	578	583	559	533	445	364
5SW	448	473	485	518	542	559	568	599	645	679	694	676	655	558	477

Ballast Sounding (m)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Barge draft [m]	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
2PW	5.35	4.64	4.29	3.27	2.3	1.38	0.51							1.12	1.68
2SW	5.53	4.88	4.56	3.65	2.79	1.99	1.23							1.9	2.47
3PW								4.57	3.42	2.36	1.71	1.47	1.25		
3SW								5.04	4.01	3.06	2.48	2.27	2.09		
5PW	3.49	3.61	3.66	3.77	3.82	3.82	3.77	4.25	4.45	4.58	4.61	4.45	4.26	3.64	3.06
5SW	3.66	3.84	3.93	4.16	4.33	4.44	4.51	4.73	5.05	5.29	5.4	5.27	5.12	4.44	3.87

Weight ballast Variation (t)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Barge draft [m]	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
2PW	-35	-102	-51	-147	-139	-131	-125							88	81
2SW	-32	-93	-45	-131	-123	-115	-109							96	81
3PW								-202	-164	-152	-94	-34	-31		
3SW								-134	-148	-137	-84	-29	-26		
5PW	7	17	7	16	8		-8	68	29	18	4	-24	-27	-88	-81
5SW	10	25	12	33	24	16	9	31	46	34	15	-18	-21	-96	-81

Ballast Ullage (t)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Barge draft [m]	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
2PW	0.74	1.45	1.8	2.83	3.8	4.71	5.58							4.97	4.41
2SW	0.57	1.22	1.53	2.45	3.3	4.11	4.87							4.19	3.63
3PW								1.53	2.67	3.73	4.39	4.63	4.84		
3SW								1.05	2.09	3.04	3.62	3.82	4.01		
5PW	2.61	2.49	2.44	2.33	2.27	2.27	2.33	1.85	1.64	1.52	1.48	1.65	1.84	2.45	3.03
5SW	2.43	2.26	2.17	1.94	1.77	1.65	1.59	1.37	1.05	0.81	0.7	0.83	0.98	1.66	2.23

Table 6.3 – Loadout summary Tables - Detailed

Ballast variation lower than 15 ton are to be considered for numerical stability only.

6.4.1 Step 0: barge ready for loadout. Barge is with 4.30m draft evenkeel

Being the distance between quay and barge stern <= 1.0m, the load of the axles is considered onshore on onboard.

Barge is with 4.30m draft even keel

VERVECE - BALLAST PLAN - load-out BLPH - Ph.0 - Draft = 4.30m evenkeel

STERN						BOW
	52.5% 5PW u=2.65m		full 4PW	full 3PW	92.0% 2PW u=0.50m	50% 1PW
	53% 5PC		30.0% 4PC u=4.30m	empty 3PC	empty 2PC	full 1PC
	55% 5SC		30.0% 4SC u=4.30m	empty 3SC	empty 2SC	full 1SC
	55.6% 5SW u=2.50m		full 4SW	full 3SW	94.5% 2SW u=0.35m	50% 1SW

Figure 6.5 – Loadout Phase 0

--- TECON - CW - BLPH LOADOUT ON VERVECE ---
BALLASTING SUMMARY

	5PW 417 t	4PW Full	3PW Full	2PW 802 t	1PW 117 t
	5PC 295 t	4PC Empty	3PC Empty	2PC Empty	1PC Full
	5SC 291 t	4SC Empty	3SC Empty	2SC Empty	1SC Full
	5SW 439 t	4SW Full	3SW Full	2SW 825 t	1SW 117 t

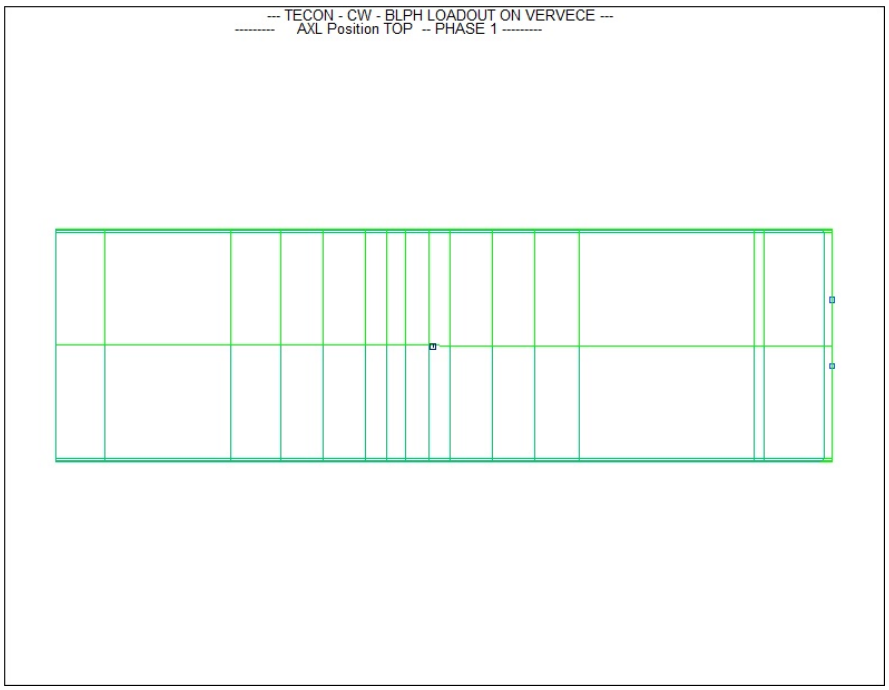
LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)

PHASE: 0 STRUCTURE WEIGHT ON BARGE(t): 0 DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00

Phase -0-

Tank No	Ballast	Sounding	Ullage	Tank No	Ballast	Sounding	Ullage
1PC	230	6,02	,08	3SC	26	,18	5,91
1PW	117	4,06	2,04	3SW	856	5,97	,12
1SC	230	6,02	,08	4PC	262	1,83	4,27
1SW	117	4,06	2,04	4PW	856	5,97	,12
2PC	26	,18	5,91	4SC	262	1,83	4,27
2PW	802	5,60	,50	4SW	856	5,97	,12
2SC	26	,18	5,91	5PC	295	3,96	2,14
2SW	825	5,75	,34	5PW	417	3,44	2,65
3PC	26	,18	5,91	5SC	291	3,96	2,14
3PW	856	5,97	,12	5SW	439	3,60	2,50

6.4.2 Step 1



--- TECON - CW - BLPH LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump
PS - OUT

	5PW 7 t	4PW	3PW	2PW -35 t	1PW
	5PC	4PC	3PC	2PC	1PC
	5SC	4SC	3SC	2SC	1SC
	5SW 10 t	4SW	3SW	2SW -32 t	1SW

Barge pump
STB - OUT

PHASE: 1
TRAVEL DISTANCE: 3,01

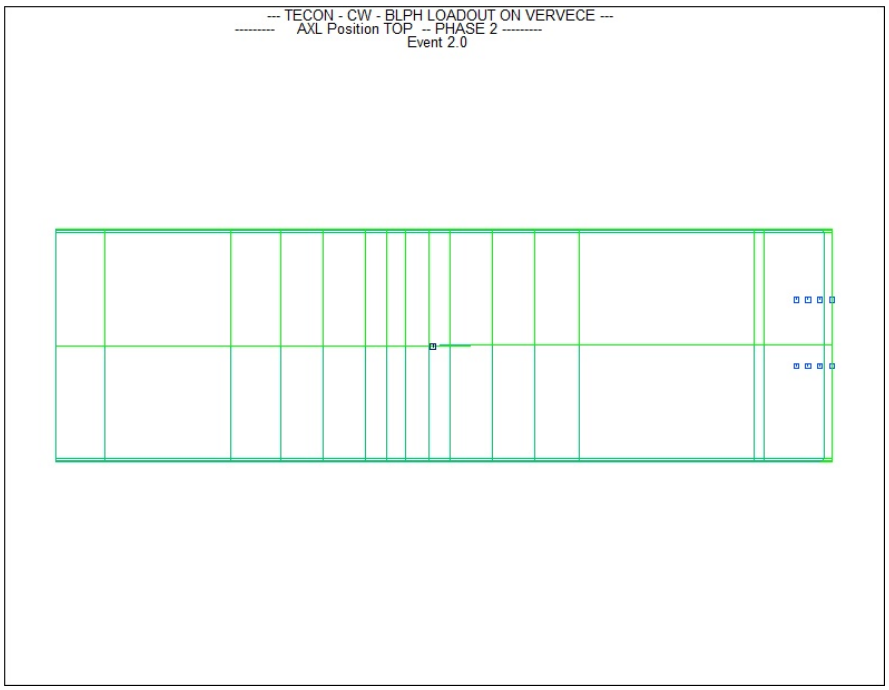
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 51,1

Phase -1-

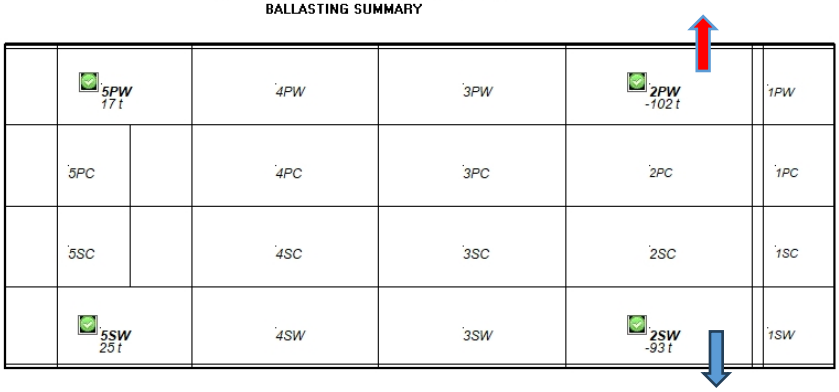
Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-35	5,35	-,24	,74	,24	205,
2SW	-32	5,53	-,23	,57	,23	187,
5PW	7	3,49	,05	2,61	-,05	41,
5SW	10	3,66	,07	2,43	-,07	59,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.3 Step 2



--- TECON - CW - BLPH LOADOUT ON VERVECE ---
BALLASTING SUMMARY



Barge pump PS - OUT

Barge pump STB - OUT

PHASE: 2
TRAVEL DISTANCE: 7,21

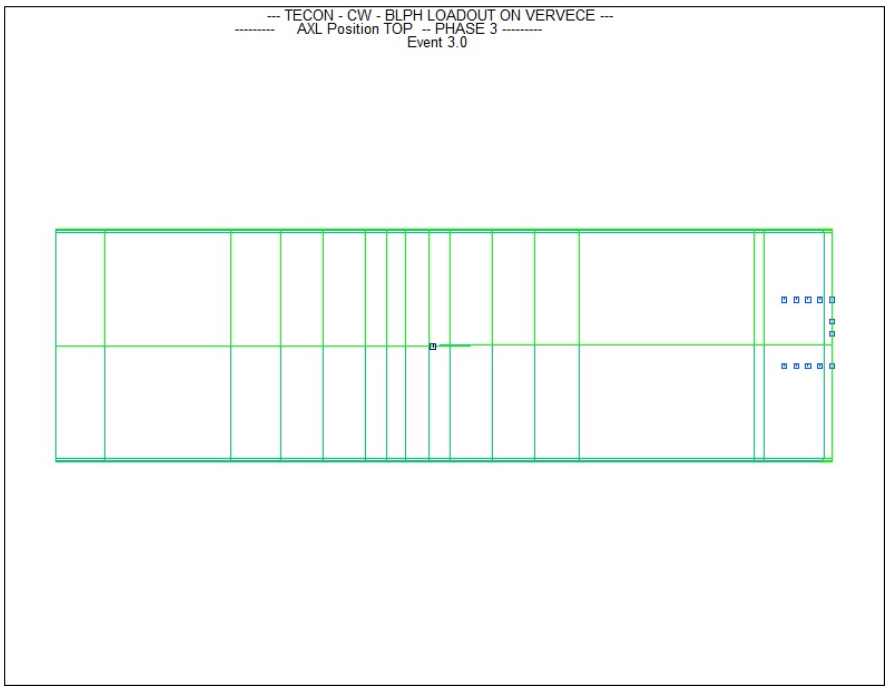
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 204,4

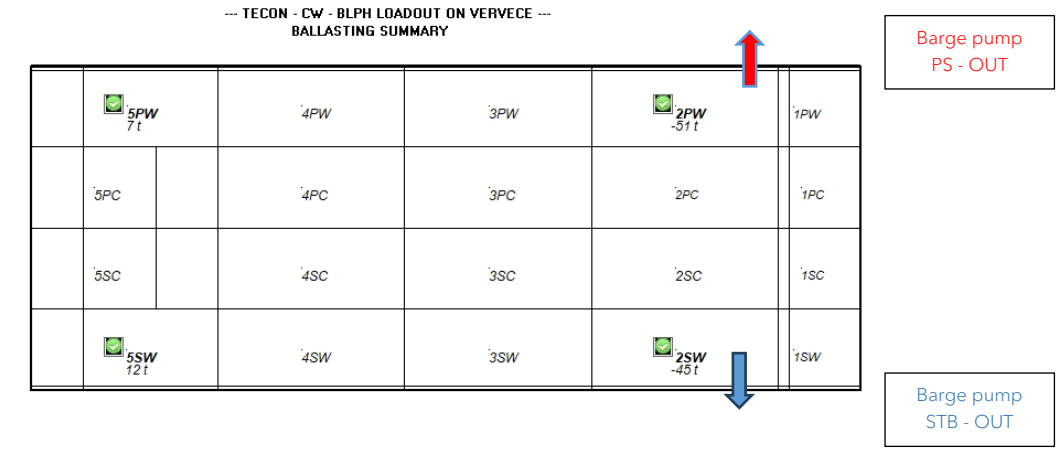
Phase -2-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-102	4,64	-,71	1,45	,71	299,
2SW	-93	4,88	-,65	1,22	,65	272,
5PW	17	3,61	,12	2,49	-,12	50,
5SW	25	3,84	,18	2,26	-,18	73,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.4 Step 3





PHASE: 3
TRAVEL DISTANCE: 8,61

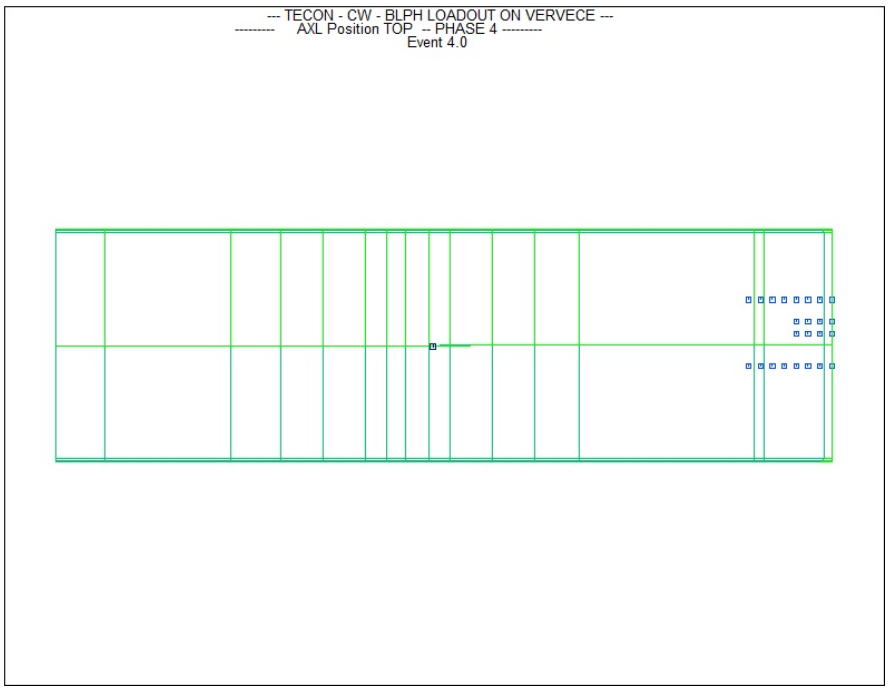
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 281

Phase -3-

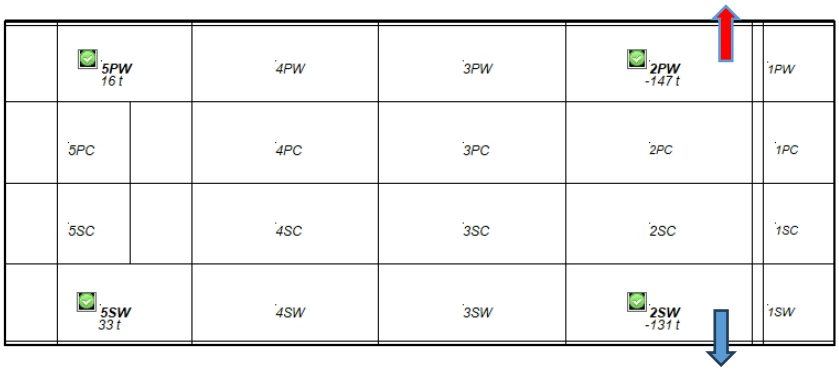
Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-51	4,29	-,35	1,80	,35	299,
2SW	-45	4,56	-,31	1,53	,31	263,
5PW	7	3,66	,05	2,44	-,05	41,
5SW	12	3,93	,09	2,17	-,09	70,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.5 Step 4



--- TECON - CW - BLPH LOADOUT ON VERVECE ---
BALLASTING SUMMARY



Barge pump
PS - OUT

Barge pump
STB - OUT

PHASE: 4
TRAVEL DISTANCE: 12,81

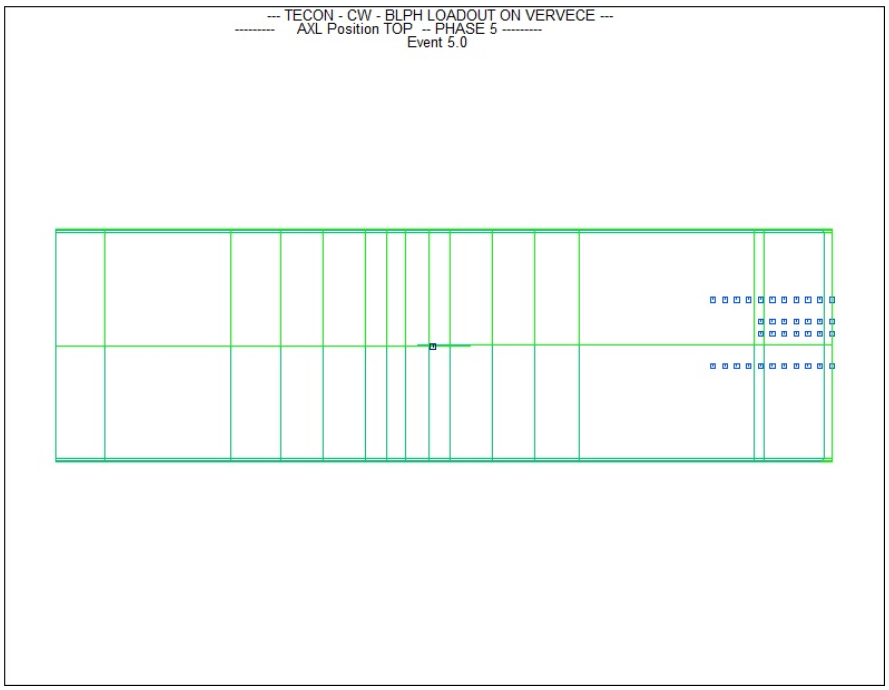
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 511

Phase -4-

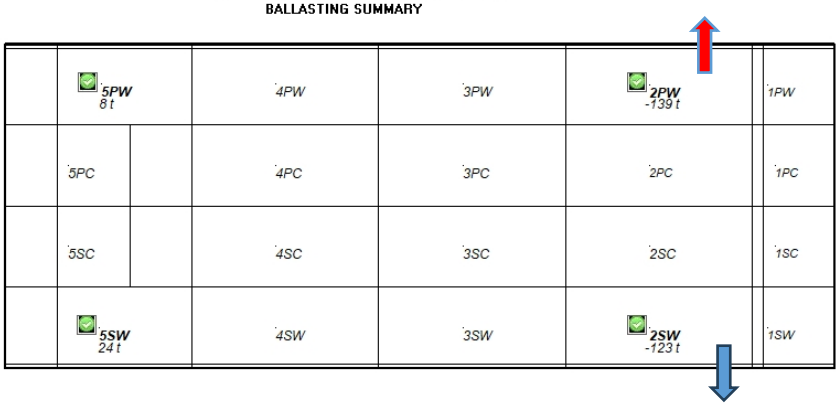
Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-147	3,27	-1,03	2,83	1,03	430,
2SW	-131	3,65	-,91	2,45	,91	383,
5PW	16	3,77	,11	2,33	-,11	47,
5SW	33	4,16	,23	1,94	-,23	97,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.6 Step 5



--- TECON - CW - BLPH LOADOUT ON VERVECE ---
BALLASTING SUMMARY



Barge pump PS - OUT

Barge pump STB - OUT

PHASE: 5
TRAVEL DISTANCE: 17,01

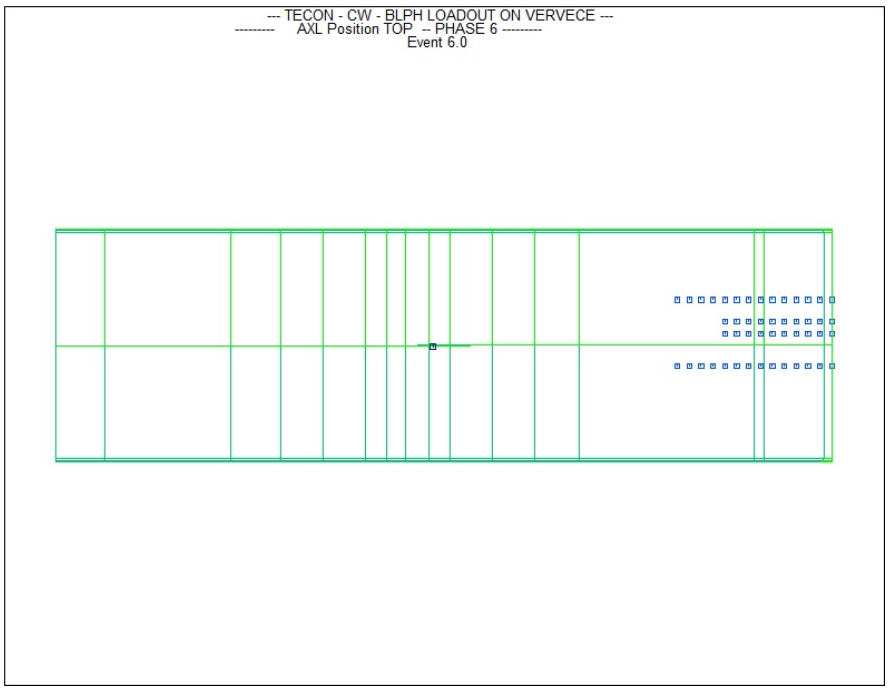
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 740,9

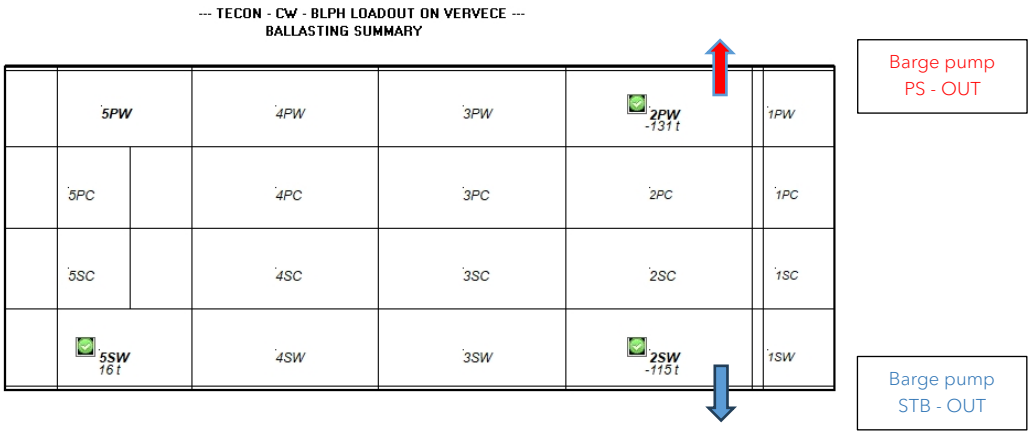
Phase -5-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-139	2,30	-,97	3,80	,97	407,
2SW	-123	2,79	-,86	3,30	,86	360,
5PW	8	3,82	,05	2,27	-,05	23,
5SW	24	4,33	,17	1,77	-,17	70,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.7 Step 6





PHASE: 6
TRAVEL DISTANCE: 21,21

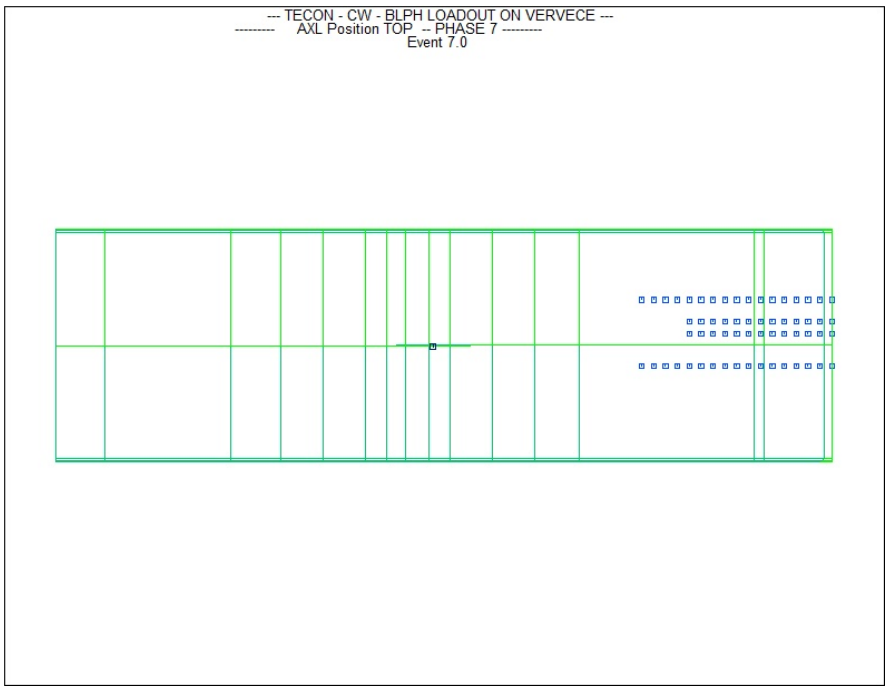
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 970,9

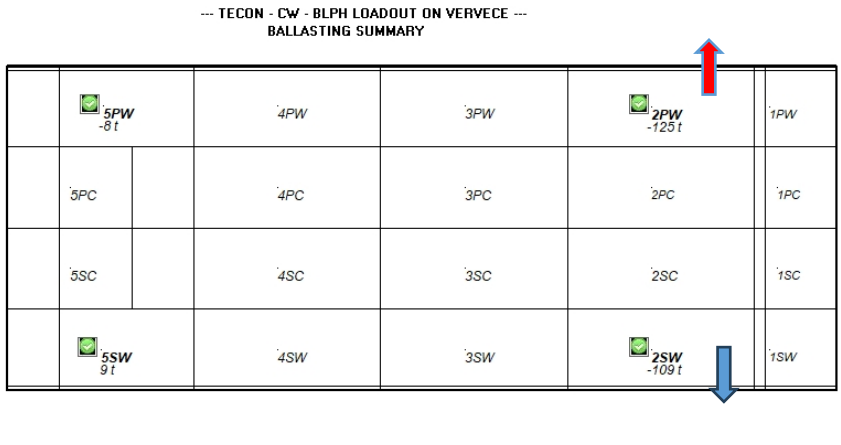
Phase -6-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-131	1,38	-,91	4,71	,91	383,
2SW	-115	1,99	-,80	4,11	,80	337,
5SW	16	4,44	,12	1,65	-,12	47,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.8 Step 7





PHASE: 7
TRAVEL DISTANCE: 25,41

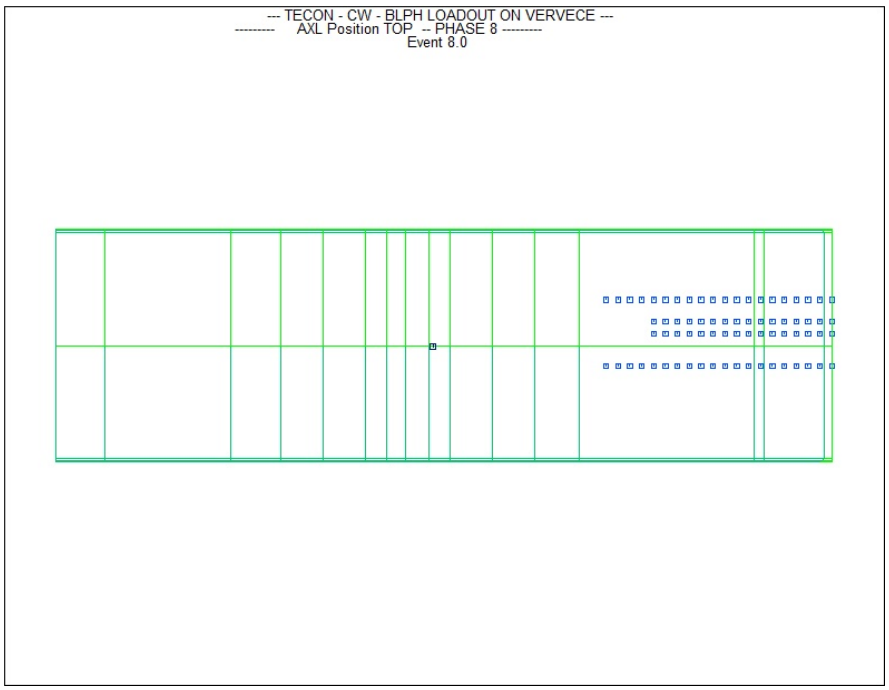
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 1203,1

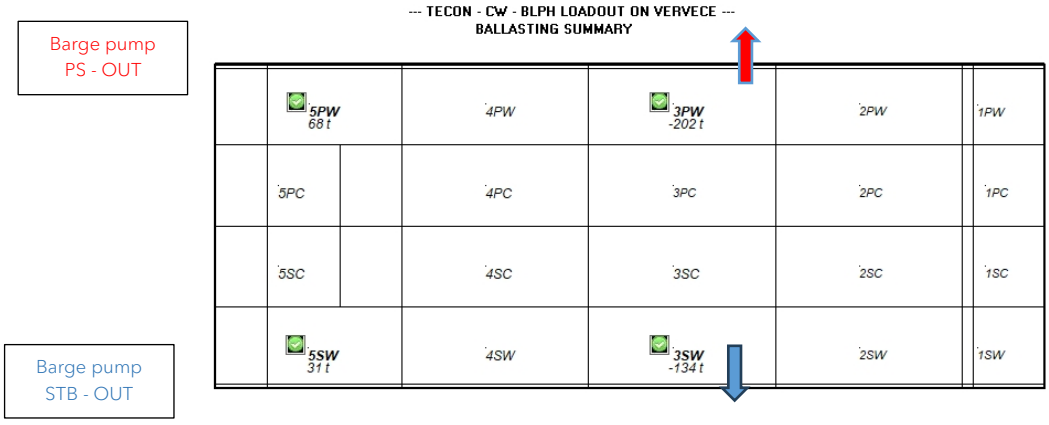
Phase -7-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-125	,51	-,87	5,58	,87	366,
2SW	-109	1,23	-,76	4,87	,76	319,
5PW	-8	3,77	-,05	2,33	,05	23,
5SW	9	4,51	,06	1,59	-,06	26,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.9 Step 8





PHASE: 8
TRAVEL DISTANCE: 29,61

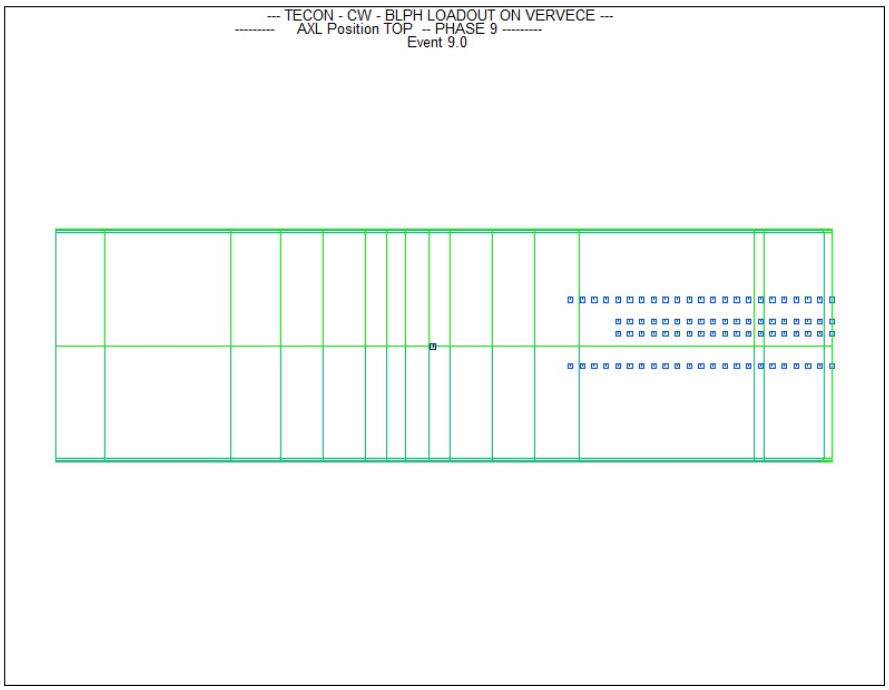
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 1439,8

Phase -8-

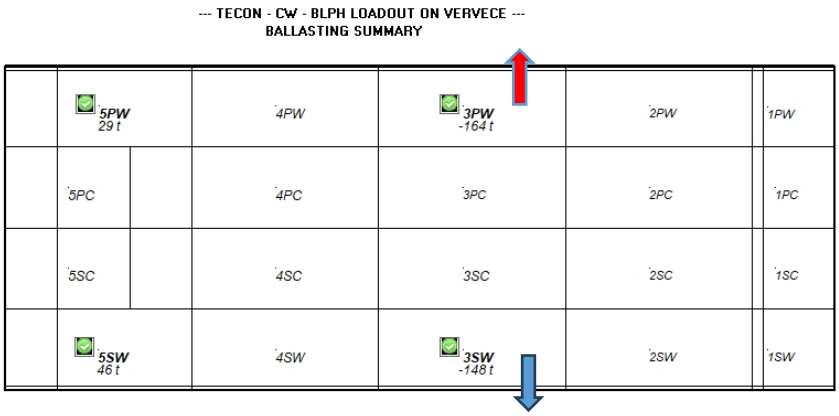
Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
3PW	-202	4,57	-1,41	1,53	1,41	591,
3SW	-134	5,04	-,93	1,05	,93	392,
5PW	68	4,25	,48	1,85	-,48	199,
5SW	31	4,73	,22	1,37	-,22	91,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.10 Step 9



Barge pump PS - OUT



Barge pump STB - OUT

PHASE: 9
TRAVEL DISTANCE: 33,81

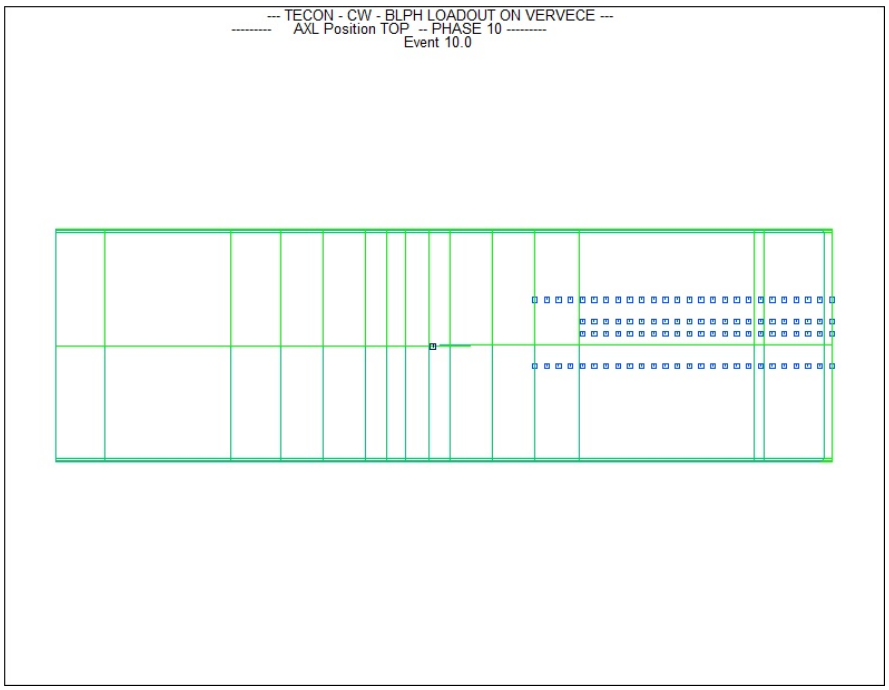
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 1676,5

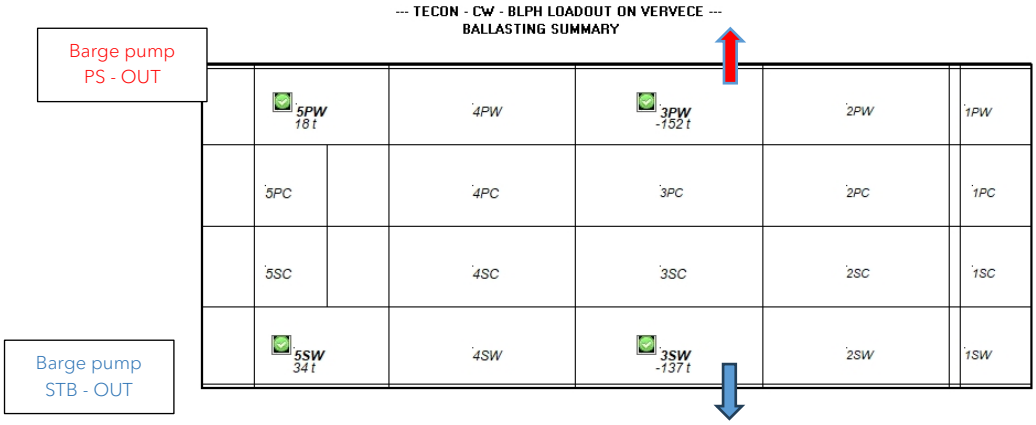
Phase -9-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
3PW	-164	3,42	-1,14	2,67	1,14	480,
3SW	-148	4,01	-1,03	2,09	1,03	433,
5PW	29	4,45	,21	1,64	-,21	85,
5SW	46	5,05	,32	1,05	-,32	135,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.11 Step 10





PHASE: 10
TRAVEL DISTANCE: 38,01

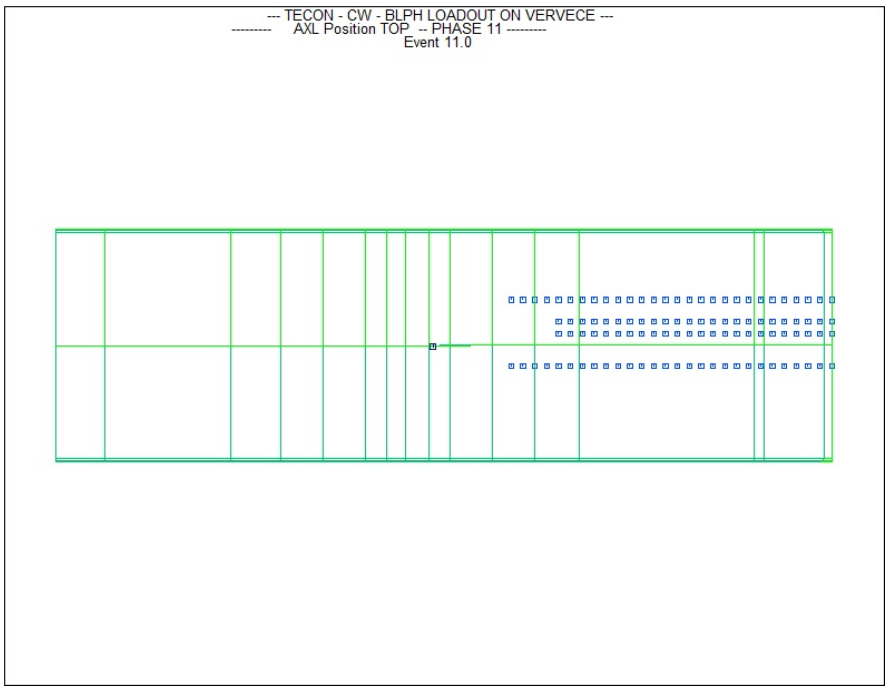
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 1913,2

Phase -10-

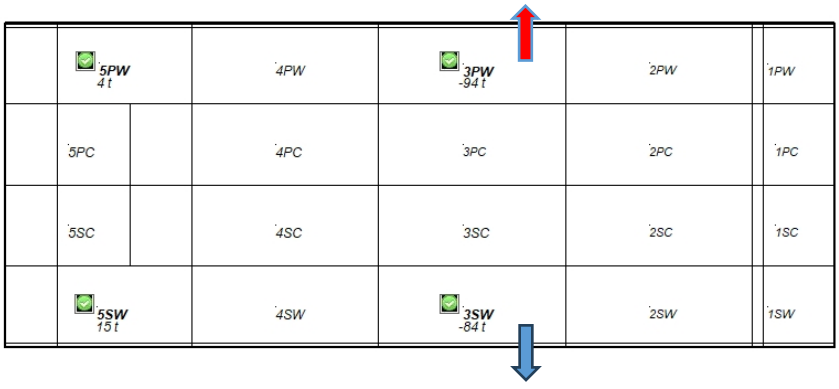
Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
3PW	-152	2,36	-1,06	3,73	1,06	445,
3SW	-137	3,06	-,95	3,04	,95	401,
5PW	18	4,58	,13	1,52	-,13	53,
5SW	34	5,29	,24	,81	-,24	100,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.12 Step 11



Barge pump PS - OUT



Barge pump STB - OUT

PHASE: 11
TRAVEL DISTANCE: 40,81

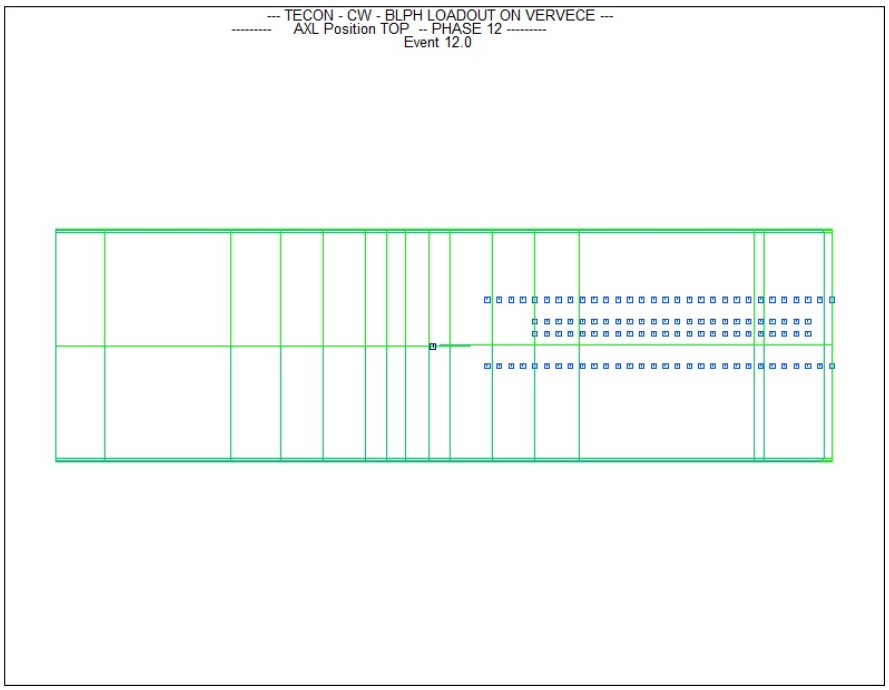
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2071

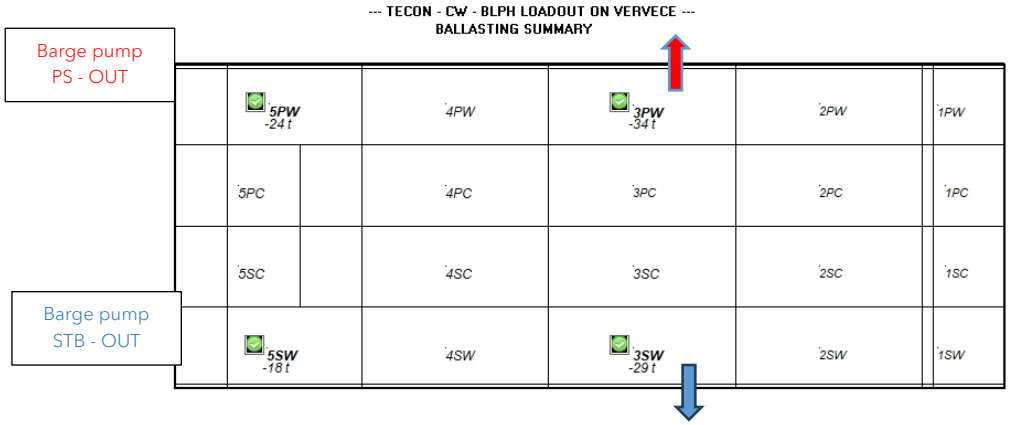
Phase -11-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
3PW	-94	1,71	-,65	4,39	,65	275,
3SW	-84	2,48	-,58	3,62	,58	246,
5PW	4	4,61	,03	1,48	-,03	12,
5SW	15	5,40	,11	,70	-,11	44,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.13 Step 12





PHASE: 12
TRAVEL DISTANCE: 43,61

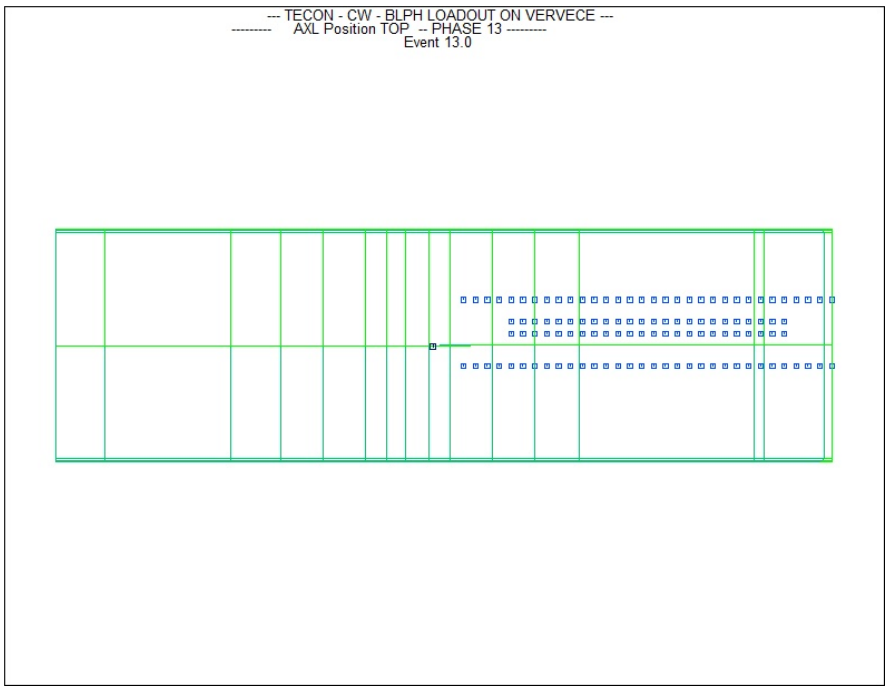
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2176,2

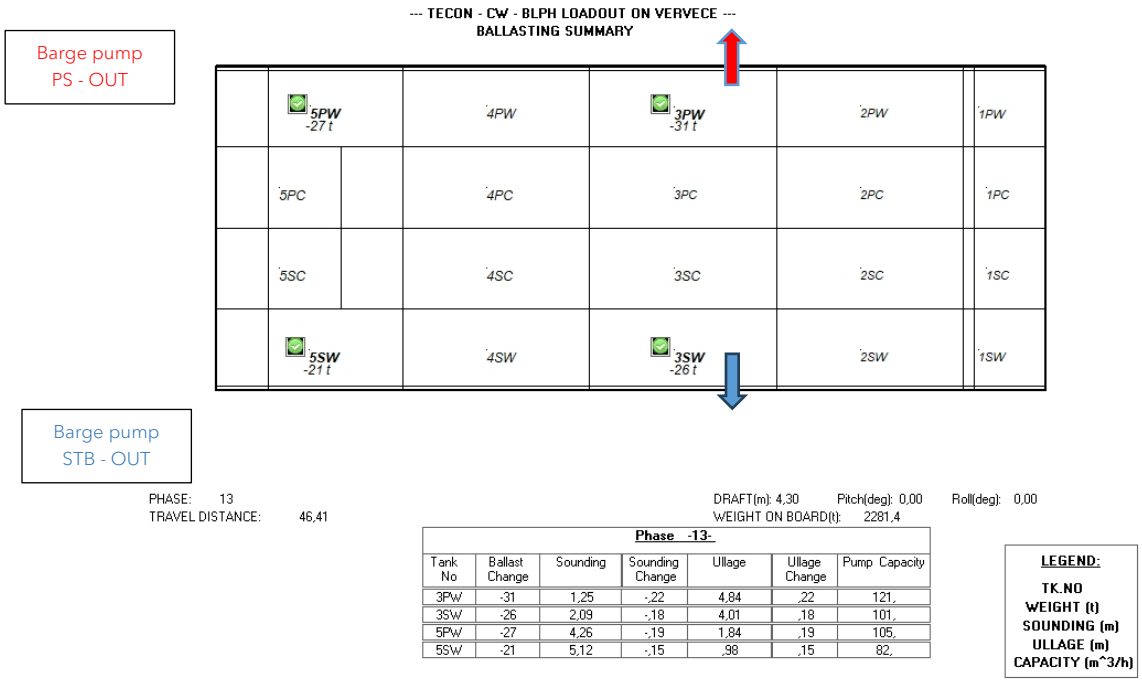
Phase -12-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
3PW	-34	1,47	-,24	4,63	,24	133,
3SW	-29	2,27	-,20	3,82	,20	113,
5PW	-24	4,45	-,17	1,65	,17	94,
5SW	-18	5,27	-,13	,83	,13	70,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.14 Step 13: All the axles on board.





PHASE: 13
TRAVEL DISTANCE: 46,41

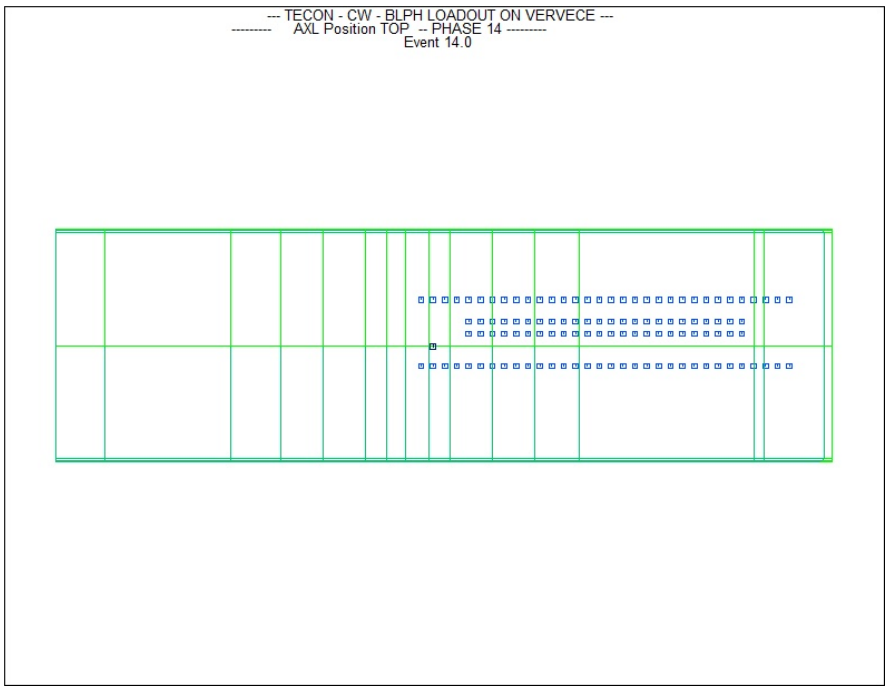
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2281,4

Phase -13-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
3PW	-31	1,25	-,22	4,84	,22	121,
3SW	-26	2,09	-,18	4,01	,18	101,
5PW	-27	4,26	-,19	1,84	,19	105,
5SW	-21	5,12	-,15	,98	,15	82,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

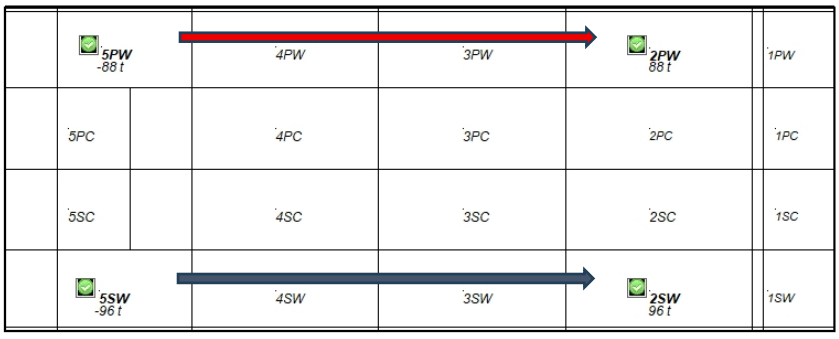
6.4.15 Step 14: Shifting phase of 5.0m



--- TECON - CW - BLPH LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

Barge pump STB



PHASE: 14
TRAVEL DISTANCE: 51,41

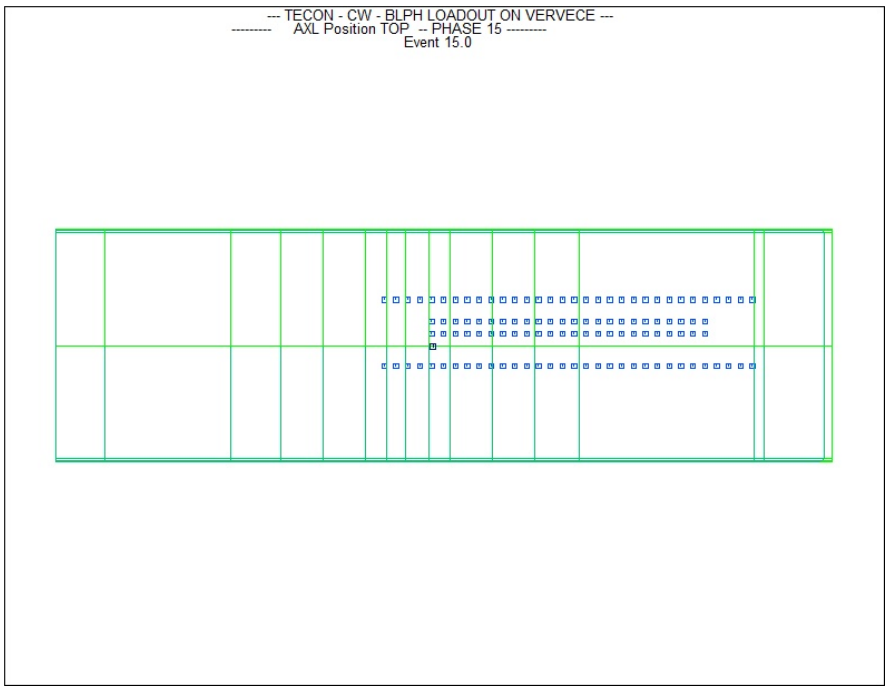
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2281,4

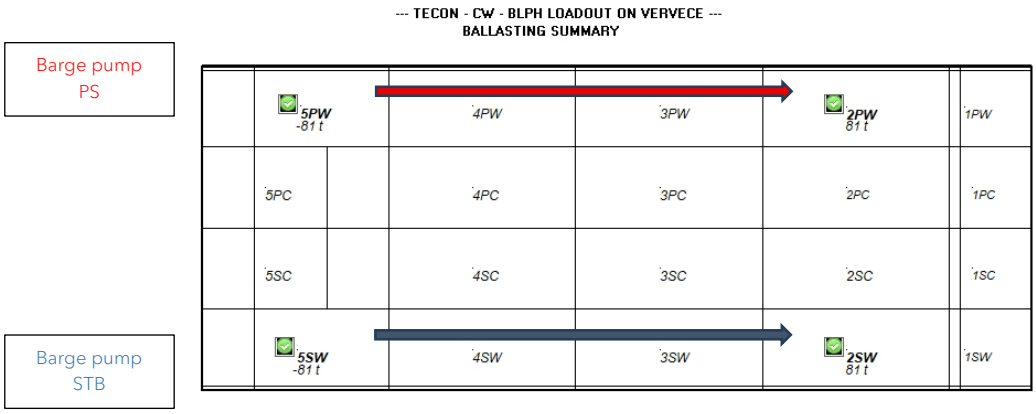
Phase -14-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	88	1,12	,61	4,97	-,61	343,
2SW	96	1,90	,67	4,19	-,67	375,
5PW	-88	3,64	-,62	2,45	,62	343,
5SW	-96	4,44	-,68	1,66	,68	375,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.16 Step 15: Shifting phase of 4.36m. Topside reaches the transport position.





PHASE: 15
TRAVEL DISTANCE: 55,77

DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2281,4

Phase -15-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	81	1,68	,56	4,41	-,56	316,
2SW	81	2,47	,56	3,63	-,56	316,
5PW	-81	3,06	-,58	3,03	,58	316,
5SW	-81	3,87	-,57	2,23	,57	316,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.5 BALLAST CORRECTION FOR TIDE

The correction to compensate for sea level variation at start of LO operation is shown below.

VERVECE - BALLAST PLAN - load-out Ph.0. - HIGH TIDE, D=4.70m trim -0.44deg

	52.5% **5PW** u=2.65m	full **4PW**	full **3PW**	92.0% **2PW** u=0.50m	full **1PW**
STERN	50% **5PC** u=2.67m	30.0% **4PC** u=4.30m	empty **3PC**	empty **2PC**	full **1PC**
	51% **5SC** u=2.63m	30.0% **4SC** u=4.30m	empty **3SC**	empty **2SC**	full **1SC**
	55.6% **5SW** u=2.50m	full **4SW**	full **3SW**	94.5% **2SW** u=0.35m	full **1SW**

BOW

d=4.00m **d=4.70m**

VERVECE - BALLAST PLAN - load-out Ph.0. - LOW TIDE D=3.90m, trim 0.42deg

	52.5% **5PW** u=2.65m	full **4PW**	full **3PW**	92.0% **2PW** u=0.50m	empty **1PW**
STERN	72% **5PC** u=1.50	30.0% **4PC** u=4.30m	empty **3PC**	empty **2PC**	full **1PC**
	73% **5SC** u=1.45m	30.0% **4SC** u=4.30m	empty **3SC**	empty **2SC**	full **1SC**
	55.6% **5SW** u=2.50m	full **4SW**	full **3SW**	94.5% **2SW** u=0.35m	empty **1SW**

BOW

d=4.60m **d=3.90m**

6.5.1 Tide -40cm Phase 0

```
**********************************************************************************************************
*                                          *** MOSES ***                                                 *
*                                          ---------------                          1 July, 2025         *
*          T E C O N                                                        .                            *
*          ---------     Barge Configuration                                .                            *
*                                                                                                        *
**********************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                Process is DEFAULT: Units Are Degrees, Meters, and M-Tons Unless Specified

                                    Results Are Reported In Body System

                          Draft =     3.90 Roll Angle =     0.00 Pitch Angle =     0.45
```

```
                    Wet Radii Of Gyration About CG

                 K-X =     9.09 K-Y =    24.43 K-Z =    25.78

                    GMT =    13.85 GML =   154.87

                          /-- Center of Gravity ---/  Sounding   % Full
Name      Weight     ---X---  ---Y---  ---Z---  -------- --------

----------------  Part CF          ------------
LOAD_GRO     28.00    69.38    11.22     8.10
----------------  Part GRI&SF-B    ------------
LOAD_GRO     75.00    30.86    -1.14     7.35
----------------  Part GRI&SF-C    ------------
LOAD_GRO      0.50    67.44    11.22     7.10
----------------  Part GRI&SF-T    ------------
LOAD_GRO     45.00    65.20    -2.92     7.40
----------------  Part TP          ------------
LOAD_GRO    254.50    65.54    -2.14     9.35
----------------  Part VERVECE     ------------
LOAD_GRO   1832.80    47.02     0.00     3.52
--- Contents ---
1PC          229.92     5.63    -3.43     3.77     6.02    98.00
1PW           27.11     7.77   -10.27     0.99     1.65    11.54
1SC          230.42     5.63     3.43     3.77     6.02    98.00
1SW           25.95     7.80    10.26     0.96     1.60    11.04
2PC           17.47    21.70    -3.43     0.07     0.12     2.00
2PW          803.74    19.48   -10.28     2.81     5.61    92.00
2SC           17.47    21.70     3.43     0.07     0.12     2.00
2SW          825.58    19.48    10.28     2.88     5.76    94.50
3PC           17.47    42.27    -3.43     0.07     0.12     2.00
3PW          856.16    40.05   -10.28     2.99     5.97    98.00
3SC           17.47    42.27     3.43     0.07     0.12     2.00
3SW          856.16    40.05    10.28     2.99     5.97    98.00
4PC          262.11    60.73    -3.43     0.91     1.83    30.00
4PW          856.16    60.63   -10.28     2.99     5.97    98.00
4SC          262.11    60.73     3.43     0.91     1.83    30.00
4SW          856.16    60.63    10.28     2.99     5.97    98.00
5PC          353.09    83.64    -3.43     2.51     4.59    71.76
5PW          419.01    79.82   -10.28     1.82     3.46    52.80
5SC          352.72    83.66     3.43     2.54     4.64    72.83
5SW          441.23    79.89    10.28     1.91     3.62    55.60
========  ========  =======  =======  =======
Total       9963.29    48.08    -0.00     3.06
Buoyancy    9963.30    48.09    -0.00     2.20

*****************************************************************************************************
*                                        ***  MOSES   ***                                           *
*                                        ----------------                    1 July, 2025           *
*          T E C O N                                                .                                 *
*          ---------     Barge Configuration                                .                       *
*                                                                                                    *
*****************************************************************************************************

                           +++ D R A F T   M A R K   R E A D I N G S +++
                           ============================================

                Process is DEFAULT: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

  BOWPO        3.90 BOWST        3.90 MIDPO        4.26 MIDST        4.26 STEPO        4.62 STEST        4.62
```

6.5.2 Tide +40cm Phase 0

```
*****************************************************************************************************
*                                        ***  MOSES   ***                                           *
*                                        ----------------                    1 July, 2025           *
*          T E C O N                                                .                                 *
*          ---------     Barge Configuration                                .                       *
*                                                                                                    *
*****************************************************************************************************

                  +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                  ====================================================================

               Process is DEFAULT: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Results Are Reported In Body System

                     Draft =     4.70 Roll Angle =    -0.00 Pitch Angle =    -0.44
```

```
                 Wet Radii Of Gyration About CG

          K-X =      9.23 K-Y =    25.35 K-Z =    26.40

                 GMT =     13.81 GML =    162.86

                    /-- Center of Gravity ---/  Sounding   % Full
Name      Weight    ---X---  ---Y---  ---Z---  -------- --------

----------------  Part CF          ------------
LOAD_GRO     28.00    69.38    11.22     8.10
----------------  Part GRI&SF-B    ------------
LOAD_GRO     75.00    30.86    -1.14     7.35
----------------  Part GRI&SF-C    ------------
LOAD_GRO      0.50    67.44    11.22     7.10
----------------  Part GRI&SF-T    ------------
LOAD_GRO     45.00    65.20    -2.92     7.40
----------------  Part TP          ------------
LOAD_GRO    254.50    65.54    -2.14     9.35
----------------  Part VERVECE     ------------
LOAD_GRO   1832.80    47.02     0.00     3.52
--- Contents ---
1PC         229.92     5.60    -3.43     3.77     6.02    98.00
1PW         234.98     5.60   -10.28     3.82     6.10   100.00
1SC         230.42     5.60     3.43     3.77     6.02    98.00
1SW         234.98     5.60    10.28     3.82     6.10   100.00
2PC          17.47    17.22    -3.43     0.07     0.12     2.00
2PW         803.74    19.38   -10.28     2.81     5.61    92.00
2SC          17.47    17.22     3.43     0.07     0.12     2.00
2SW         825.58    19.38    10.28     2.88     5.76    94.50
3PC          17.47    37.79    -3.43     0.07     0.12     2.00
3PW         856.16    39.96   -10.28     2.99     5.97    98.00
3SC          17.47    37.79     3.43     0.07     0.12     2.00
3SW         856.16    39.96    10.28     2.99     5.97    98.00
4PC         262.11    60.43    -3.43     0.91     1.83    30.00
4PW         856.16    60.53   -10.28     2.99     5.97    98.00
4SC         262.11    60.43     3.43     0.91     1.83    30.00
4SW         856.16    60.53    10.28     2.99     5.97    98.00
5PC         247.14    83.16    -3.43     1.86     3.43    50.23
5PW         419.01    79.64   -10.28     1.82     3.46    52.80
5SC         246.76    83.18     3.43     1.89     3.47    50.95
5SW         441.23    79.71    10.28     1.91     3.61    55.60
========  ========  =======  =======  =======
Total     10168.29    45.45     0.00     3.08
Buoyancy  10168.37    45.45     0.00     2.24
```

```
***************************************************************************************************************
*                                          ***  MOSES  ***                                                     *
*                                          ----------------                                1 July, 2025        *
*          T E C O N                                                  .                                        *
*          ---------     Barge Configuration                                          .                        *
*                                                                                                              *
***************************************************************************************************************
```

```
                         +++ D R A F T   M A R K   R E A D I N G S +++
                         ==============================================

              Process is DEFAULT: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.70 BOWST        4.70 MIDPO        4.35 MIDST        4.35 STEPO        4.00 STEST        4.00
```

7 BARGE LONGITUDINAL STRUCTURAL CHECKS

The longitudinal strength analysis was carried out for the still water condition. The complete MOSES output is reported in section 9.

The allowable stresses were assumed as follows:

- Fy = 235 N/mm^2 yield stress
- σ_{all} = 0.66 x Fy = 155 N/mm^2
- τ_{all} = 0.4 x Fy = 94 N/mm^2

For normal stress, the maximum usage factor, i.e. the maximum bending / allowable stress ratio, is 0.46 in phase 11 of loadout operation.

- UF = 17351/26130 = 0.66

For shear stress, the maximum usage factor is:

- UF_{shear} = 863/6150 = 0.14

in phase 10 of loadout.

Values of BM and Shear along the longitudinal section of the cargo barge were compared with the admissible values shown in section 5.4. All the values are within allowable ones.

The maximum deflection results 5.26 cm (ph.11).

8 BARGE INTACT STABILITY – COMPLETE MOSES OUTPUT

In the following tables, the allowable deflection was conventionally set equal to unity, therefore the values indicated under the columns with heading Deflection / Allowable are actually the computed deflections.

```
                                  ********************************
*                                         ***  MOSES   ***                                                    *
*                                         ----------------                          1 July, 2025             *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                       *
*          ---------     Intact Stability Check    -- PHASE 0 ---------                                      *
*                                                                                                            *
**************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ======================================================================

                     Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Results Are Reported In Body System

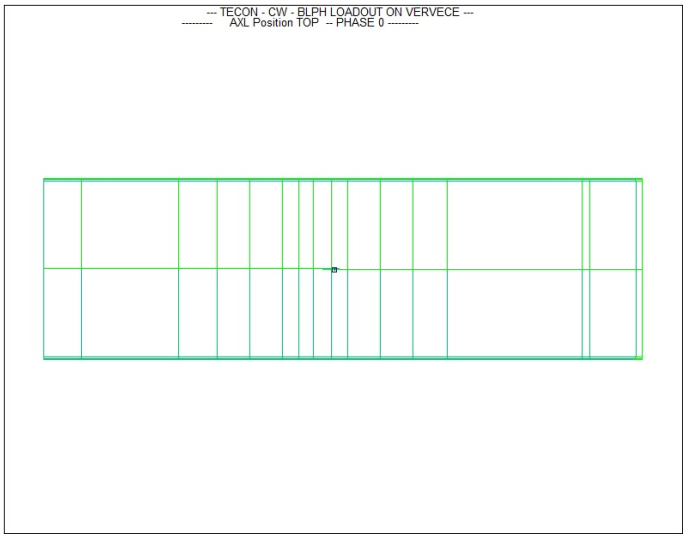
                         Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =     0.00

                                  Wet Radii Of Gyration About CG

                                K-X =     9.14 K-Y =    24.73 K-Z =    25.94

                                        GMT =    14.07 GML =   160.56

                                /-- Center of Gravity ---/  Sounding   % Full
                          Name   Weight    ---X---  ---Y---  ---Z---  -------- --------
                                ----------------  Part CF          ------------
                                LOAD_GRO     28.00    69.38    11.22     8.10
                                ----------------  Part GRI&SF-B    ------------
                                LOAD_GRO     75.00    30.86    -1.14     7.35
                                ----------------  Part GRI&SF-C    ------------
                                LOAD_GRO      0.50    67.44    11.22     7.10
                                ----------------  Part GRI&SF-T    ------------
                                LOAD_GRO     45.00    65.20    -2.92     7.40
                                ----------------  Part TP          ------------
                                LOAD_GRO    254.50    65.54    -2.14     9.35
                                ----------------  Part VERVECE     ------------
                                LOAD_GRO   1832.80    47.02     0.00     3.52
                                             --- Contents ---
                            1PC         229.92     5.62    -3.43     3.77     6.02    98.00
                            1PW         117.49     6.50   -10.28     2.53     4.06    50.00
                            1SC         230.42     5.62     3.43     3.77     6.02    98.00
                            1SW         117.49     6.50    10.28     2.53     4.06    50.00
                            2PC          26.21    19.43    -3.43     0.09     0.18     3.00
                            2PW         802.16    19.43   -10.28     2.80     5.60    91.82
                            2SC          26.21    19.43     3.43     0.09     0.18     3.00
                            2SW         824.55    19.43    10.28     2.88     5.75    94.38
                            3PC          26.21    40.00    -3.43     0.09     0.18     3.00
                            3PW         856.16    40.01   -10.28     2.99     5.97    98.00
                            3SC          26.21    40.01     3.43     0.09     0.18     3.00
                            3SW         856.16    40.01    10.28     2.99     5.97    98.00
                            4PC         262.11    60.58    -3.43     0.91     1.83    30.00
                            4PW         856.16    60.58   -10.28     2.99     5.97    98.00
                            4SC         262.11    60.58     3.43     0.91     1.83    30.00
                            4SW         856.16    60.58    10.28     2.99     5.97    98.00
                            5PC         295.21    83.42    -3.43     2.16     3.96    60.00
                            5PW         416.68    79.73   -10.28     1.81     3.44    52.51
                            5SC         290.58    83.42     3.43     2.16     3.96    60.00
                            5SW         438.62    79.79    10.28     1.90     3.60    55.27
                                ========  ========  =======  =======  =======
                                Total     10052.62    46.75     0.00     3.03
                                Buoyancy  10052.62    46.75     0.00     2.21
```




```
                    ********************************************************
*                                       ***  MOSES   ***                                                  *
*                                       ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 0 ---------                                   *
*                                                                                                         *
***********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
**********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025          *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                               *
*         ---------     Intact Stability Check    -- PHASE 0 ---------             . *
*                                                                                    *
**********************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.62, KG = 3.03, and Wind Speed = 10 Knots

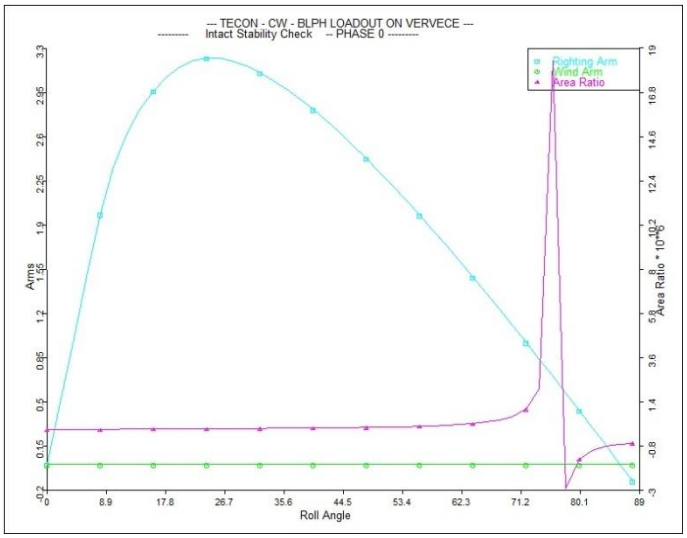
Initial: Roll = -0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.49	0.49	0.00	0.00	3076.04	0.492
4.29	4.00	0.00	9999.00	1.49	0.99	1.97	0.00	0.00	6329.47	0.989
4.27	6.00	0.00	9999.00	1.03	1.49	4.45	0.00	0.00	9950.45	1.488
4.25	8.00	0.00	9999.00	0.57	1.98	7.92	0.00	0.00	9999.00	1.984
4.26	10.00	0.00	9999.00	0.07	2.36	12.26	0.00	0.00	9999.00	2.358
4.31	12.00	0.00	9999.00	-0.46	2.62	17.24	0.00	0.00	9999.00	2.622
4.39	14.00	0.00	9999.00	-1.04	2.82	22.68	0.00	0.00	9999.00	2.816
4.48	16.00	0.00	9999.00	-1.63	2.96	28.46	0.00	0.00	9999.00	2.961
4.60	18.00	0.00	9999.00	-2.25	3.07	34.49	0.00	0.00	9999.00	3.071
4.72	20.00	0.00	9999.00	-2.88	3.15	40.71	0.00	0.00	9999.00	3.151
4.85	22.00	0.00	9999.00	-3.51	3.20	47.07	0.00	0.00	9999.00	3.202
4.97	24.00	0.00	9999.00	-4.14	3.22	53.49	0.00	0.00	9999.00	3.222
5.09	26.00	0.00	9999.00	-4.77	3.22	59.93	0.00	0.00	9999.00	3.218
5.20	28.00	0.00	9999.00	-5.39	3.19	66.35	0.00	0.00	9999.00	3.195
5.31	30.00	0.00	9999.00	-6.01	3.16	72.70	0.00	0.00	9999.00	3.156
5.41	32.00	0.00	9999.00	-6.62	3.11	78.96	0.00	0.00	9999.00	3.106
5.50	34.00	0.00	9999.00	-7.22	3.04	85.11	0.00	0.00	9999.00	3.045
5.58	36.00	0.00	9999.00	-7.81	2.97	91.13	-0.00	0.00	9999.00	2.975
5.66	38.00	0.00	9999.00	-8.39	2.90	97.00	-0.00	0.00	9999.00	2.897
5.73	40.00	0.00	9999.00	-8.96	2.81	102.71	-0.00	0.00	9999.00	2.814
5.80	42.00	0.00	9999.00	-9.52	2.72	108.25	-0.00	0.00	9999.00	2.724
5.86	44.00	0.00	9999.00	-10.07	2.63	113.60	-0.00	0.00	9999.00	2.629
5.91	46.00	0.00	9999.00	-10.61	2.53	118.76	-0.00	0.00	9999.00	2.530
5.95	48.00	0.00	9999.00	-11.13	2.43	123.72	-0.00	0.00	9999.00	2.426
5.99	50.00	0.00	9999.00	-11.64	2.32	128.46	-0.00	0.00	9999.00	2.318
6.02	52.00	0.00	9999.00	-12.14	2.21	132.99	-0.00	0.00	9999.00	2.208
6.04	54.00	0.00	9999.00	-12.62	2.09	137.29	-0.00	0.00	9999.00	2.094
6.05	56.00	0.00	9999.00	-13.08	1.98	141.36	-0.00	0.00	9999.00	1.977
6.06	58.00	0.00	9999.00	-13.53	1.86	145.19	-0.00	0.00	9999.00	1.858
6.06	60.00	0.00	9999.00	-13.97	1.74	148.79	-0.00	0.00	9999.00	1.736
6.05	62.00	0.00	9999.00	-14.38	1.61	152.14	-0.00	0.00	9999.00	1.613
6.03	64.00	0.00	9999.00	-14.78	1.49	155.24	-0.00	0.00	9999.00	1.487
6.01	66.00	0.00	9999.00	-15.16	1.36	158.08	-0.00	0.00	9999.00	1.360
5.98	68.00	0.00	9999.00	-15.53	1.23	160.67	-0.00	0.00	9999.00	1.231
5.94	70.00	0.00	9999.00	-15.87	1.10	163.00	-0.00	0.00	9999.00	1.101
5.90	72.00	0.00	9999.00	-16.19	0.97	165.07	-0.00	0.00	9999.00	0.969
5.85	74.00	0.00	9999.00	-16.50	0.84	166.88	-0.00	0.00	9999.00	0.836
5.79	76.00	0.00	9999.00	-16.78	0.70	168.41	-0.00	0.00	9999.00	0.701
5.72	78.00	0.00	9999.00	-17.05	0.57	169.68	-0.00	-0.00	-9999.00	0.565
5.65	80.00	0.00	9999.00	-17.29	0.43	170.68	-0.00	-0.00	-9999.00	0.429
5.57	82.00	0.00	9999.00	-17.51	0.29	171.39	-0.00	-0.00	-9999.00	0.291
5.48	84.00	0.00	9999.00	-17.71	0.15	171.84	-0.00	-0.00	-9999.00	0.152
5.39	86.00	0.00	9999.00	-17.89	0.01	172.00	-0.00	-0.00	-9999.00	0.012
5.29	88.00	0.00	9999.00	-18.05	-0.13	171.88	-0.00	-0.00	-9999.00	-0.131

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
--------- Intact Stability Check -- PHASE 0 ---------
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.9
17.8
26.7
35.6
44.5
53.4
62.3
71.2
80.1
89

```
                                    ******************************************************
        *                                       ***  MOSES   ***                                  *
        *                                       ----------------                  1 July, 2025    *
        *          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                    *
        *          ------ Wind Exposed Areas ------                                               *
        *                                                                                         *
        ***********************************************************************************************************

                          +++ L O A D   G R O U P   A T T R I B U T E S   F O R   P A R T   C F +++
                          ========================================================================

                            Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

 LOAD              CONT.            /---------- FACTOR ---------/ /----------- AREA ----------/ /--------- LOCATION --------/
  GROUP     WEIGHT    NAME      DISPL     WIND   ADD. MASS    DRAG        X         Y         Z         X         Y         Z
-------- --------- -------- --------- --------- --------- --------- --------- --------- --------- --------- --------- ---------

CF          28.00                                                                            69.38     11.22      8.10
                                              #WEI|010 #Weight


                                    ******************************************************
        *                                       ***  MOSES   ***                                  *
        *                                       ----------------                  1 July, 2025    *
        *          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                    *
        *          ------ Wind Exposed Areas ------                                               *
        *                                                                                         *
        ***********************************************************************************************************

                        +++ L O A D   G R O U P   A T T R I B U T E S   F O R   P A R T   G R I & S F - B +++
                        ====================================================================================

                            Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

 LOAD              CONT.            /---------- FACTOR ---------/ /----------- AREA ----------/ /--------- LOCATION --------/
  GROUP     WEIGHT    NAME      DISPL     WIND   ADD. MASS    DRAG        X         Y         Z         X         Y         Z
-------- --------- -------- --------- --------- --------- --------- --------- --------- --------- --------- --------- ---------

GRI&SF-B    75.00                                                                            30.86     -1.14      7.35
                                              #WEI|004 #Weight


                                    ******************************************************
        *                                       ***  MOSES   ***                                  *
        *                                       ----------------                  1 July, 2025    *
        *          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                    *
        *          ------ Wind Exposed Areas ------                                               *
        *                                                                                         *
        ***********************************************************************************************************

                        +++ L O A D   G R O U P   A T T R I B U T E S   F O R   P A R T   G R I & S F - C +++
                        ====================================================================================

                            Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

 LOAD              CONT.            /---------- FACTOR ---------/ /----------- AREA ----------/ /--------- LOCATION --------/
  GROUP     WEIGHT    NAME      DISPL     WIND   ADD. MASS    DRAG        X         Y         Z         X         Y         Z
-------- --------- -------- --------- --------- --------- --------- --------- --------- --------- --------- --------- ---------

GRI&SF-C     0.50                                                                            67.44     11.22      7.10
                                              #WEI|008 #Weight


                                    ******************************************************
        *                                       ***  MOSES   ***                                  *
        *                                       ----------------                  1 July, 2025    *
        *          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                    *
        *          ------ Wind Exposed Areas ------                                               *
        *                                                                                         *
        ***********************************************************************************************************

                        +++ L O A D   G R O U P   A T T R I B U T E S   F O R   P A R T   G R I & S F - T +++
                        ====================================================================================

                            Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

 LOAD              CONT.            /---------- FACTOR ---------/ /----------- AREA ----------/ /--------- LOCATION --------/
  GROUP     WEIGHT    NAME      DISPL     WIND   ADD. MASS    DRAG        X         Y         Z         X         Y         Z
-------- --------- -------- --------- --------- --------- --------- --------- --------- --------- --------- --------- ---------

GRI&SF-T    45.00                                                                            65.20     -2.92      7.40
                                              #WEI|006 #Weight


                                    ******************************************************
        *                                       ***  MOSES   ***                                  *
```

```
*                                                 ----------------                          1 July, 2025        *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                        *
*          ------ Wind Exposed Areas ------                                                                    *
*                                                                                                             *
***************************************************************************************************************

                    +++ L O A D   G R O U P   A T T R I B U T E S   F O R   P A R T   T P +++
                    ========================================================================

                       Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

 LOAD              CONT.            /---------- FACTOR ---------/ /----------- AREA ----------/ /--------- LOCATION --------/
  GROUP     WEIGHT    NAME      DISPL     WIND   ADD. MASS    DRAG        X         Y         Z         X         Y         Z
-------- --------- -------- --------- --------- --------- --------- --------- --------- --------- --------- --------- ---------

TP          254.50                                                                                  65.54     -2.14      9.35
                                                #WEI|012 #Weight


                                 ******************************************************
*                                    ***  MOSES   ***                                                       *
*                                    ----------------                          1 July, 2025        *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                        *
*          ------ Wind Exposed Areas ------                                                                    *
*                                                                                                             *
***************************************************************************************************************

                +++ L O A D   G R O U P   A T T R I B U T E S   F O R   P A R T   V E R V E C E +++
                ================================================================================

                       Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

 LOAD              CONT.            /---------- FACTOR ---------/ /----------- AREA ----------/ /--------- LOCATION --------/
  GROUP     WEIGHT    NAME      DISPL     WIND   ADD. MASS    DRAG        X         Y         Z         X         Y         Z
-------- --------- -------- --------- --------- --------- --------- --------- --------- --------- --------- --------- ---------

VERVECE    1832.80                                                                                  47.02      0.00      3.52
                                                #WEI|002 #Weight
```

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025         *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 0 ------   *
*                                                                                    *
**************************************************************************************************************
```

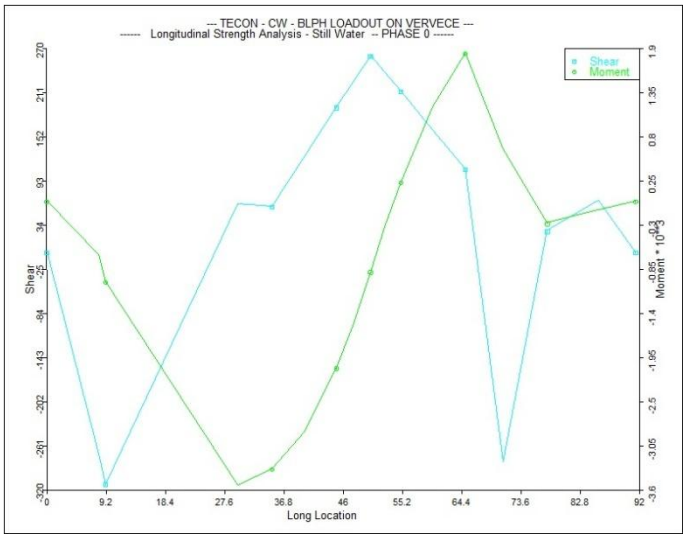
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-272	-670	-0.0265	2.6311
9.14	-311	-1003	-0.0397	2.9999
29.72	62	-3543	-0.1400	7.2611
35.00	59	-3334	-0.1318	7.3421
40.00	126	-2872	-0.1135	7.0434
45.00	192	-2078	-0.0821	6.4312
47.50	224	-1557	-0.0616	6.0332
50.29	260	-881	-0.0348	5.5393
52.50	238	-330	-0.0131	5.1260
55.00	213	233	0.0092	4.6497
60.00	161	1168	0.0462	3.7303
65.00	109	1843	0.0728	2.9369
70.87	-281	644	0.0254	2.2315
77.72	26	-276	-0.0109	1.5248
85.70	67	-108	-0.0043	0.6514
91.44	-1	0	0.0000	0.0001



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  -----------------                 1 July, 2025    *
*       --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                 *
*       ---------     Intact Stability Check    -- PHASE 1 ---------                *
*                                                                                    *
**************************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 1: Units Are Degrees, Meters, and M-Tons Unless Specified

                                   Results Are Reported In Body System

                         Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =     0.00

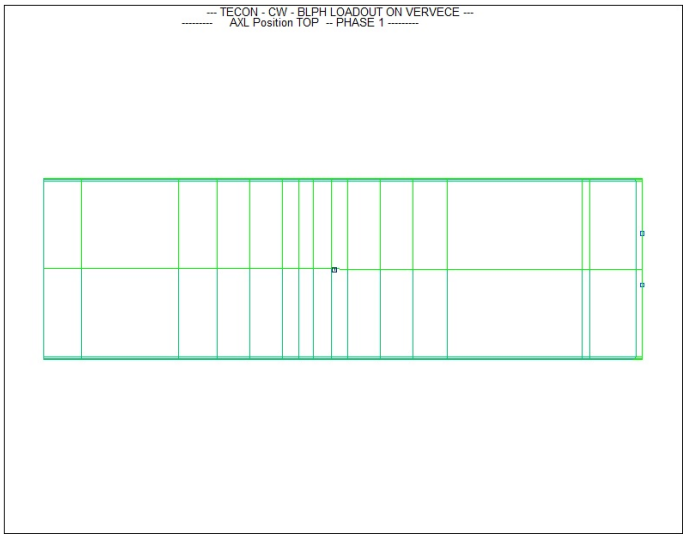
                                    Wet Radii Of Gyration About CG

                                K-X =     9.12 K-Y =    24.89 K-Z =    26.09

                                        GMT =    14.07 GML =   160.55

                                /-- Center of Gravity ---/  Sounding   % Full
                          Name   Weight    ---X---  ---Y---  ---Z---  -------- --------

                                ----------------  Part AXL1       ------------
                                LOAD_GRO     51.10     0.01    -1.12     7.10
                                ----------------  Part CF         ------------
                                LOAD_GRO     28.00    69.38    11.22     8.10
                                ----------------  Part GRI&SF-B   ------------
                                LOAD_GRO     75.00    30.86    -1.14     7.35
                                ----------------  Part GRI&SF-C   ------------
                                LOAD_GRO      0.50    67.44    11.22     7.10
                                ----------------  Part GRI&SF-T   ------------
                                LOAD_GRO     45.00    65.20    -2.92     7.40
                                ----------------  Part TP         ------------
                                LOAD_GRO    254.50    65.54    -2.14     9.35
                                ----------------  Part VERVECE    ------------
                                LOAD_GRO   1832.80    47.02     0.00     3.52
                                             --- Contents ---
                          1PC      229.92     5.62    -3.43     3.77     6.02    98.00
                          1PW      117.49     6.50   -10.28     2.53     4.06    50.00
                          1SC      230.42     5.62     3.43     3.77     6.02    98.00
                          1SW      117.49     6.50    10.28     2.53     4.06    50.00
                          2PC       26.21    19.43    -3.43     0.09     0.18     3.00
                          2PW      767.12    19.43   -10.28     2.68     5.35    87.81
                          2SC       26.21    19.43     3.43     0.09     0.18     3.00
                          2SW      792.25    19.43    10.28     2.77     5.53    90.69
                          3PC       26.21    40.00    -3.43     0.09     0.18     3.00
                          3PW      856.16    40.01   -10.28     2.99     5.97    98.00
                          3SC       26.21    40.01     3.43     0.09     0.18     3.00
                          3SW      856.16    40.01    10.28     2.99     5.97    98.00
                          4PC      262.11    60.58    -3.43     0.91     1.83    30.00
                          4PW      856.16    60.58   -10.28     2.99     5.97    98.00
                          4SC      262.11    60.58     3.43     0.91     1.83    30.00
                          4SW      856.16    60.58    10.28     2.99     5.97    98.00
                          5PC      295.21    83.42    -3.43     2.16     3.96    60.00
                          5PW      423.41    79.75   -10.28     1.84     3.49    53.35
                          5SC      290.58    83.42     3.43     2.16     3.96    60.00
                          5SW      448.14    79.82    10.28     1.94     3.66    56.47
                                ========  ========  =======  =======  =======
                                Total     10052.61    46.75     0.00     3.04
                                Buoyancy  10052.62    46.75     0.00     2.21
```




```
                    ********************************************************
*                                       ***  MOSES   ***                                                  *
*                                       ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 1 ---------                                   *
*                                                                                                         *
***********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 1: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 1 July, 2025      *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                 *
*         ---------     Intact Stability Check    -- PHASE 1 ---------               . *
*                                                                                      *
****************************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 1: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.04, and Wind Speed = 10 Knots

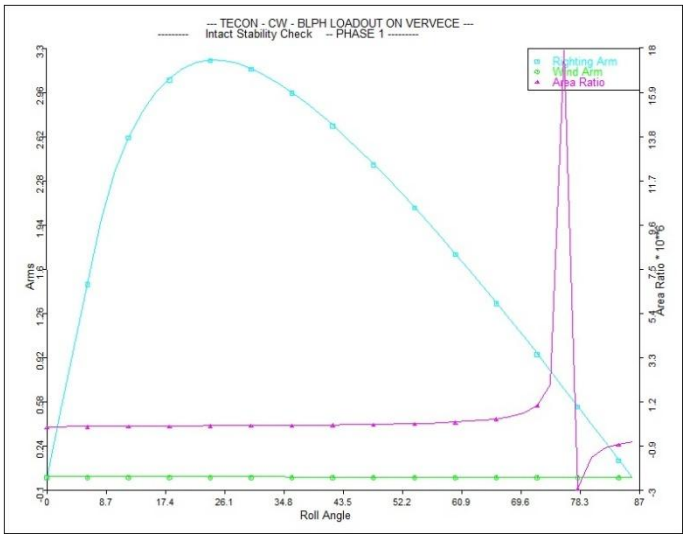
Initial: Roll = -0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.49	0.49	0.00	0.00	3074.93	0.492
4.29	4.00	0.00	9999.00	1.49	0.99	1.97	0.00	0.00	6327.19	0.988
4.27	6.00	0.00	9999.00	1.03	1.49	4.45	0.00	0.00	9946.86	1.488
4.25	8.00	0.00	9999.00	0.57	1.98	7.92	0.00	0.00	9999.00	1.982
4.26	10.00	0.00	9999.00	0.07	2.36	12.26	0.00	0.00	9999.00	2.356
4.31	12.00	0.00	9999.00	-0.46	2.62	17.23	0.00	0.00	9999.00	2.618
4.39	14.00	0.00	9999.00	-1.04	2.81	22.66	0.00	0.00	9999.00	2.810
4.48	16.00	0.00	9999.00	-1.63	2.95	28.42	0.00	0.00	9999.00	2.954
4.60	18.00	0.00	9999.00	-2.25	3.06	34.44	0.00	0.00	9999.00	3.062
4.72	20.00	0.00	9999.00	-2.88	3.14	40.64	0.00	0.00	9999.00	3.142
4.85	22.00	0.00	9999.00	-3.51	3.19	46.97	0.00	0.00	9999.00	3.192
4.97	24.00	0.00	9999.00	-4.14	3.21	53.38	0.00	0.00	9999.00	3.211
5.09	26.00	0.00	9999.00	-4.77	3.21	59.79	0.00	0.00	9999.00	3.206
5.20	28.00	0.00	9999.00	-5.39	3.18	66.18	0.00	0.00	9999.00	3.182
5.31	30.00	0.00	9999.00	-6.01	3.14	72.51	0.00	0.00	9999.00	3.143
5.41	32.00	0.00	9999.00	-6.62	3.09	78.74	0.00	0.00	9999.00	3.091
5.50	34.00	0.00	9999.00	-7.22	3.03	84.86	0.00	0.00	9999.00	3.030
5.58	36.00	0.00	9999.00	-7.81	2.96	90.85	-0.00	0.00	9999.00	2.960
5.66	38.00	0.00	9999.00	-8.39	2.88	96.69	-0.00	0.00	9999.00	2.882
5.73	40.00	0.00	9999.00	-8.96	2.80	102.37	-0.00	0.00	9999.00	2.798
5.80	42.00	0.00	9999.00	-9.52	2.71	107.88	-0.00	0.00	9999.00	2.708
5.86	44.00	0.00	9999.00	-10.07	2.61	113.20	-0.00	0.00	9999.00	2.613
5.91	46.00	0.00	9999.00	-10.61	2.51	118.32	-0.00	0.00	9999.00	2.513
5.95	48.00	0.00	9999.00	-11.13	2.41	123.25	-0.00	0.00	9999.00	2.409
5.99	50.00	0.00	9999.00	-11.64	2.30	127.96	-0.00	0.00	9999.00	2.301
6.02	52.00	0.00	9999.00	-12.14	2.19	132.45	-0.00	0.00	9999.00	2.190
6.04	54.00	0.00	9999.00	-12.62	2.08	136.71	-0.00	0.00	9999.00	2.076
6.05	56.00	0.00	9999.00	-13.08	1.96	140.75	-0.00	0.00	9999.00	1.959
6.06	58.00	0.00	9999.00	-13.53	1.84	144.55	-0.00	0.00	9999.00	1.839
6.06	60.00	0.00	9999.00	-13.97	1.72	148.10	-0.00	0.00	9999.00	1.718
6.05	62.00	0.00	9999.00	-14.38	1.59	151.42	-0.00	0.00	9999.00	1.594
6.03	64.00	0.00	9999.00	-14.78	1.47	154.48	-0.00	0.00	9999.00	1.468
6.01	66.00	0.00	9999.00	-15.16	1.34	157.29	-0.00	0.00	9999.00	1.340
5.98	68.00	0.00	9999.00	-15.53	1.21	159.84	-0.00	0.00	9999.00	1.211
5.94	70.00	0.00	9999.00	-15.87	1.08	162.13	-0.00	0.00	9999.00	1.080
5.90	72.00	0.00	9999.00	-16.19	0.95	164.16	-0.00	0.00	9999.00	0.948
5.85	74.00	0.00	9999.00	-16.50	0.81	165.92	-0.00	0.00	9999.00	0.814
5.79	76.00	0.00	9999.00	-16.78	0.68	167.41	-0.00	0.00	9999.00	0.679
5.72	78.00	0.00	9999.00	-17.05	0.54	168.63	-0.00	-0.00	-9999.00	0.543
5.65	80.00	0.00	9999.00	-17.29	0.41	169.58	-0.00	-0.00	-9999.00	0.405
5.57	82.00	0.00	9999.00	-17.51	0.27	170.25	-0.00	-0.00	-9999.00	0.268
5.48	84.00	0.00	9999.00	-17.71	0.13	170.65	-0.00	-0.00	-9999.00	0.129
5.39	86.00	0.00	9999.00	-17.89	-0.01	170.77	-0.00	-0.00	-9999.00	-0.010

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
--------- Intact Stability Check -- PHASE 1 ---------
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*                                                                                                                      *
*                                        ***  MOSES    ***                                                          *
*                                        ----------------                                  1 July, 2025              *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                               *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 1 ------                                  *
*                                                                                                                      *
**************************************************************************************************************************

                        +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                        ================================================================

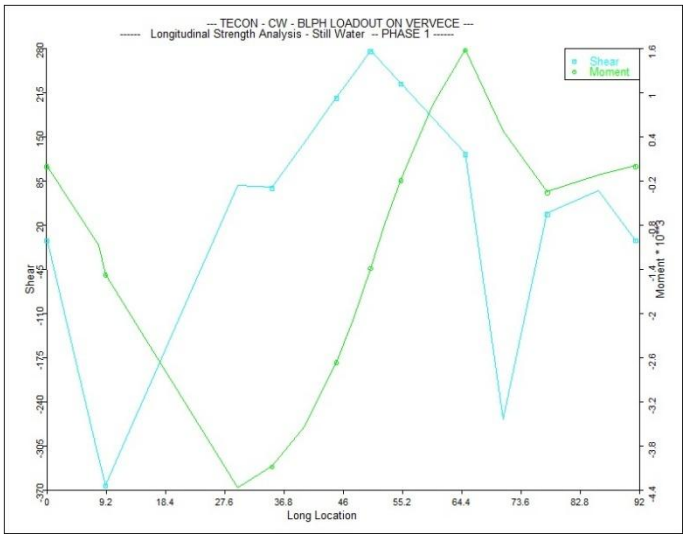
                    Process is 1: Units Are Degrees, Meters, and M-Tons Unless Specified

                                      Allowable Stress =     155.00 Mpa

                                   Allowable Deflection =       1.00 MM

      Longitudinal        Shear          Bending         B. Stress/     Deflection/
        Location          Force           Moment         Allowable      Allowable
     --------------  --------------  --------------  --------------  --------------

           0.00             -1               0          0.0000          0.0000
           8.00           -323           -1079         -0.0427          3.4801
           9.14           -362           -1470         -0.0581          3.9636
          29.72             79           -4371         -0.1727          9.6085
          35.00             75           -4077         -0.1611          9.7985
          40.00            142           -3534         -0.1397          9.5187
          45.00            208           -2659         -0.1051          8.8523
          47.50            240           -2099         -0.0830          8.4028
          50.29            277           -1377         -0.0545          7.8334
          52.50            254            -791         -0.0313          7.3484
          55.00            229            -187         -0.0074          6.7791
          60.00            177             828          0.0327          5.6396
          65.00            125            1583          0.0626          4.5889
          70.87           -265             478          0.0189          3.5457
          77.72             37            -349         -0.0138          2.4130
          85.70             71            -121         -0.0048          1.0250
          91.44             -1               0          0.0000          0.0001
```



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          1 July, 2025          *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*         ---------     Intact Stability Check    -- PHASE 2 ---------                              *
*                                                                                                    *
******************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                 Process is 2: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                     Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =     0.00

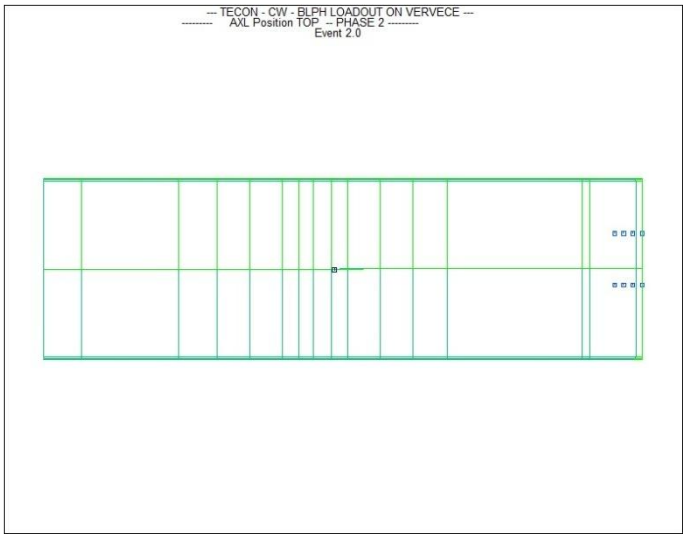
                                 Wet Radii Of Gyration About CG

                           K-X =     9.06 K-Y =    25.29 K-Z =    26.44

                                    GMT =    14.04 GML =   160.51

                           /-- Center of Gravity ---/  Sounding   % Full
                    Name    Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL2       ------------
                           LOAD_GRO    204.40     2.11    -1.12     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part TP         ------------
                           LOAD_GRO    254.50    65.54    -2.14     9.35
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                      1PC      229.92     5.62    -3.43     3.77     6.02    98.00
                      1PW      117.49     6.50   -10.28     2.53     4.06    50.00
                      1SC      230.42     5.62     3.43     3.77     6.02    98.00
                      1SW      117.49     6.50    10.28     2.53     4.06    50.00
                      2PC       26.21    19.43    -3.43     0.09     0.18     3.00
                      2PW      665.41    19.43   -10.28     2.33     4.64    76.17
                      2SC       26.21    19.43     3.43     0.09     0.18     3.00
                      2SW      698.81    19.43    10.28     2.44     4.88    79.99
                      3PC       26.21    40.00    -3.43     0.09     0.18     3.00
                      3PW      856.16    40.01   -10.28     2.99     5.97    98.00
                      3SC       26.21    40.01     3.43     0.09     0.18     3.00
                      3SW      856.16    40.01    10.28     2.99     5.97    98.00
                      4PC      262.11    60.58    -3.43     0.91     1.83    30.00
                      4PW      856.16    60.58   -10.28     2.99     5.97    98.00
                      4SC      262.11    60.58     3.43     0.91     1.83    30.00
                      4SW      856.16    60.58    10.28     2.99     5.97    98.00
                      5PC      295.21    83.42    -3.43     2.16     3.96    60.00
                      5PW      440.15    79.80   -10.28     1.90     3.61    55.46
                      5SC      290.58    83.42     3.43     2.16     3.96    60.00
                      5SW      473.25    79.89    10.28     2.03     3.84    59.64
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.76     0.00     3.06
                           Buoyancy  10052.62    46.76     0.00     2.21
```




```
                    ********************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*          ---------     Intact Stability Check    -- PHASE 2 ---------                              *
*                                                                                                     *
*******************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 2: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  -----------------          1 July, 2025          *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*         ---------     Intact Stability Check    -- PHASE 2 ---------              . *
*                                                                                     *
***************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 2: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.06, and Wind Speed = 10 Knots

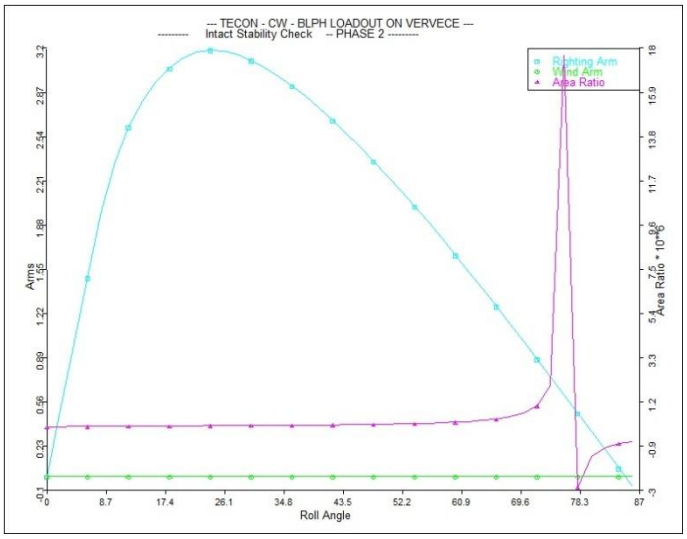
Initial: Roll = -0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.49	0.49	0.00	0.00	3069.38	0.491
4.29	4.00	0.00	9999.00	1.48	0.99	1.97	0.00	0.00	6315.79	0.986
4.27	6.00	0.00	9999.00	1.03	1.49	4.44	0.00	0.00	9929.01	1.485
4.25	8.00	0.00	9999.00	0.57	1.98	7.90	0.00	0.00	9999.00	1.979
4.26	10.00	0.00	9999.00	0.07	2.35	12.23	0.00	0.00	9999.00	2.351
4.31	12.00	0.00	9999.00	-0.47	2.61	17.20	0.00	0.00	9999.00	2.612
4.39	14.00	0.00	9999.00	-1.04	2.80	22.61	0.00	0.00	9999.00	2.802
4.48	16.00	0.00	9999.00	-1.63	2.94	28.36	0.00	0.00	9999.00	2.943
4.60	18.00	0.00	9999.00	-2.25	3.05	34.35	0.00	0.00	9999.00	3.049
4.72	20.00	0.00	9999.00	-2.88	3.13	40.52	0.00	0.00	9999.00	3.125
4.85	22.00	0.00	9999.00	-3.51	3.17	46.82	0.00	0.00	9999.00	3.171
4.97	24.00	0.00	9999.00	-4.15	3.19	53.18	0.00	0.00	9999.00	3.187
5.09	26.00	0.00	9999.00	-4.77	3.18	59.54	0.00	0.00	9999.00	3.179
5.20	28.00	0.00	9999.00	-5.40	3.15	65.87	0.00	0.00	9999.00	3.151
5.31	30.00	0.00	9999.00	-6.01	3.11	72.13	0.00	0.00	9999.00	3.109
5.41	32.00	0.00	9999.00	-6.62	3.06	78.30	0.00	0.00	9999.00	3.055
5.50	34.00	0.00	9999.00	-7.22	2.99	84.35	0.00	0.00	9999.00	2.991
5.58	36.00	0.00	9999.00	-7.81	2.92	90.25	-0.00	0.00	9999.00	2.918
5.66	38.00	0.00	9999.00	-8.39	2.84	96.01	-0.00	0.00	9999.00	2.839
5.73	40.00	0.00	9999.00	-8.96	2.75	101.60	-0.00	0.00	9999.00	2.753
5.80	42.00	0.00	9999.00	-9.52	2.66	107.02	-0.00	0.00	9999.00	2.662
5.86	44.00	0.00	9999.00	-10.07	2.56	112.24	-0.00	0.00	9999.00	2.565
5.91	46.00	0.00	9999.00	-10.61	2.46	117.27	-0.00	0.00	9999.00	2.464
5.95	48.00	0.00	9999.00	-11.13	2.36	122.09	-0.00	0.00	9999.00	2.358
5.99	50.00	0.00	9999.00	-11.64	2.25	126.70	-0.00	0.00	9999.00	2.248
6.01	52.00	0.00	9999.00	-12.14	2.14	131.08	-0.00	0.00	9999.00	2.135
6.04	54.00	0.00	9999.00	-12.62	2.02	135.24	-0.00	0.00	9999.00	2.019
6.05	56.00	0.00	9999.00	-13.09	1.90	139.16	-0.00	0.00	9999.00	1.900
6.06	58.00	0.00	9999.00	-13.53	1.78	142.84	-0.00	0.00	9999.00	1.779
6.06	60.00	0.00	9999.00	-13.97	1.66	146.27	-0.00	0.00	9999.00	1.655
6.05	62.00	0.00	9999.00	-14.38	1.53	149.46	-0.00	0.00	9999.00	1.529
6.03	64.00	0.00	9999.00	-14.78	1.40	152.39	-0.00	0.00	9999.00	1.402
6.01	66.00	0.00	9999.00	-15.16	1.27	155.06	-0.00	0.00	9999.00	1.273
5.98	68.00	0.00	9999.00	-15.53	1.14	157.48	-0.00	0.00	9999.00	1.142
5.94	70.00	0.00	9999.00	-15.87	1.01	159.63	-0.00	0.00	9999.00	1.010
5.90	72.00	0.00	9999.00	-16.19	0.88	161.51	-0.00	0.00	9999.00	0.877
5.85	74.00	0.00	9999.00	-16.50	0.74	163.13	-0.00	0.00	9999.00	0.743
5.79	76.00	0.00	9999.00	-16.78	0.61	164.49	-0.00	0.00	9999.00	0.608
5.72	78.00	0.00	9999.00	-17.05	0.47	165.57	-0.00	-0.00	-9999.00	0.473
5.65	80.00	0.00	9999.00	-17.29	0.34	166.38	-0.00	-0.00	-9999.00	0.337
5.57	82.00	0.00	9999.00	-17.51	0.20	166.91	-0.00	-0.00	-9999.00	0.200
5.48	84.00	0.00	9999.00	-17.71	0.06	167.18	-0.00	-0.00	-9999.00	0.063
5.39	86.00	0.00	9999.00	-17.89	-0.08	167.16	-0.00	-0.00	-9999.00	-0.076

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 2
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*******************************************************
*                                *** MOSES ***                                *
*                                ----------------          1 July, 2025       *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                          *
*        ------  Longitudinal Strength Analysis - Still Water  -- PHASE 2 ------*
*                                                                              *
********************************************************************************************************************
```

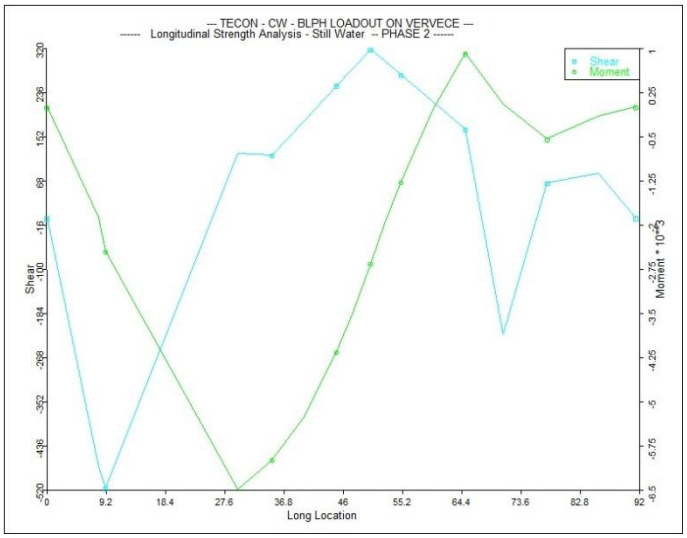
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 2: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-476	-1876	-0.0742	5.5694
9.14	-516	-2442	-0.0965	6.3410
29.72	120	-6496	-0.2567	15.5395
35.00	116	-5984	-0.2365	16.0183
40.00	183	-5235	-0.2069	15.7953
45.00	249	-4154	-0.1642	14.9983
47.50	282	-3490	-0.1380	14.4202
50.29	318	-2653	-0.1049	13.6620
52.50	296	-1976	-0.0781	12.9965
55.00	270	-1269	-0.0502	12.1921
60.00	219	-47	-0.0019	10.4958
65.00	166	915	0.0362	8.7920
70.87	-223	53	0.0021	6.8902
77.72	64	-538	-0.0213	4.6737
85.70	82	-154	-0.0061	1.9761
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          1 July, 2025          *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*         ---------     Intact Stability Check    -- PHASE 3 ---------                              *
*                                                                                                    *
******************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                 Process is 3: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                     Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =     0.00

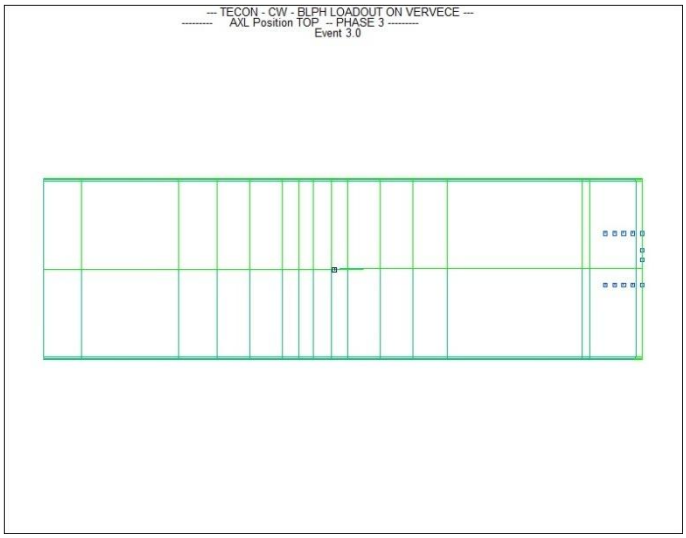
                                 Wet Radii Of Gyration About CG

                           K-X =     9.03 K-Y =    25.48 K-Z =    26.60

                                    GMT =    14.02 GML =   160.53

                           /-- Center of Gravity ---/  Sounding   % Full
                    Name    Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL3       ------------
                           LOAD_GRO    281.05     2.56    -1.21     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part TP         ------------
                           LOAD_GRO    254.50    65.54    -2.14     9.35
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                      1PC      229.92     5.62    -3.43     3.77     6.02    98.00
                      1PW      117.49     6.50   -10.28     2.53     4.06    50.00
                      1SC      230.42     5.62     3.43     3.77     6.02    98.00
                      1SW      117.49     6.50    10.28     2.53     4.06    50.00
                      2PC       26.21    19.43    -3.43     0.09     0.18     3.00
                      2PW      614.89    19.43   -10.28     2.15     4.29    70.38
                      2SC       26.21    19.43     3.43     0.09     0.18     3.00
                      2SW      653.71    19.43    10.28     2.28     4.56    74.83
                      3PC       26.21    40.00    -3.43     0.09     0.18     3.00
                      3PW      856.16    40.01   -10.28     2.99     5.97    98.00
                      3SC       26.21    40.01     3.43     0.09     0.18     3.00
                      3SW      856.16    40.01    10.28     2.99     5.97    98.00
                      4PC      262.11    60.58    -3.43     0.91     1.83    30.00
                      4PW      856.16    60.58   -10.28     2.99     5.97    98.00
                      4SC      262.11    60.58     3.43     0.91     1.83    30.00
                      4SW      856.16    60.58    10.28     2.99     5.97    98.00
                      5PC      295.21    83.42    -3.43     2.16     3.96    60.00
                      5PW      446.91    79.82   -10.28     1.93     3.66    56.32
                      5SC      290.58    83.42     3.43     2.16     3.96    60.00
                      5SW      485.46    79.92    10.28     2.08     3.93    61.17
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75     0.00     3.08
                           Buoyancy  10052.62    46.75     0.00     2.21
```




```
                    ********************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*          ---------     Intact Stability Check    -- PHASE 3 ---------                              *
*                                                                                                     *
*******************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 3: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  -----------------                  1 July, 2025    *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                  *
*        ---------     Intact Stability Check    -- PHASE 3 ---------                 . *
*                                                                                      *
****************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 3: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.08, and Wind Speed = 10 Knots

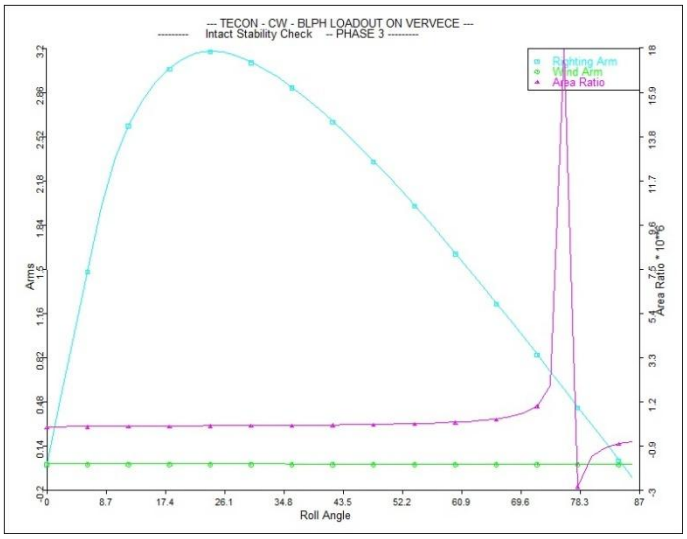
Initial: Roll = -0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.49	0.49	0.00	0.00	3065.60	0.490
4.29	4.00	0.00	9999.00	1.49	0.99	1.97	0.00	0.00	6308.02	0.985
4.27	6.00	0.00	9999.00	1.03	1.48	4.43	0.00	0.00	9916.80	1.483
4.25	8.00	0.00	9999.00	0.57	1.98	7.89	0.00	0.00	9999.00	1.976
4.26	10.00	0.00	9999.00	0.07	2.35	12.22	0.00	0.00	9999.00	2.348
4.31	12.00	0.00	9999.00	-0.46	2.61	17.18	0.00	0.00	9999.00	2.609
4.39	14.00	0.00	9999.00	-1.04	2.80	22.58	0.00	0.00	9999.00	2.798
4.48	16.00	0.00	9999.00	-1.63	2.94	28.32	0.00	0.00	9999.00	2.939
4.60	18.00	0.00	9999.00	-2.25	3.04	34.30	0.00	0.00	9999.00	3.043
4.72	20.00	0.00	9999.00	-2.88	3.12	40.46	0.00	0.00	9999.00	3.119
4.85	22.00	0.00	9999.00	-3.51	3.16	46.75	0.00	0.00	9999.00	3.164
4.97	24.00	0.00	9999.00	-4.14	3.18	53.09	0.00	0.00	9999.00	3.179
5.09	26.00	0.00	9999.00	-4.77	3.17	59.44	0.00	0.00	9999.00	3.169
5.20	28.00	0.00	9999.00	-5.39	3.14	65.75	0.00	0.00	9999.00	3.140
5.31	30.00	0.00	9999.00	-6.01	3.10	71.98	0.00	0.00	9999.00	3.096
5.41	32.00	0.00	9999.00	-6.62	3.04	78.12	0.00	0.00	9999.00	3.040
5.50	34.00	0.00	9999.00	-7.22	2.97	84.13	0.00	0.00	9999.00	2.974
5.58	36.00	0.00	9999.00	-7.81	2.90	90.00	-0.00	0.00	9999.00	2.900
5.66	38.00	0.00	9999.00	-8.39	2.82	95.72	-0.00	0.00	9999.00	2.819
5.73	40.00	0.00	9999.00	-8.96	2.73	101.27	-0.00	0.00	9999.00	2.732
5.80	42.00	0.00	9999.00	-9.52	2.64	106.64	-0.00	0.00	9999.00	2.639
5.86	44.00	0.00	9999.00	-10.07	2.54	111.82	-0.00	0.00	9999.00	2.541
5.91	46.00	0.00	9999.00	-10.61	2.44	116.80	-0.00	0.00	9999.00	2.439
5.95	48.00	0.00	9999.00	-11.13	2.33	121.57	-0.00	0.00	9999.00	2.332
5.99	50.00	0.00	9999.00	-11.64	2.22	126.13	-0.00	0.00	9999.00	2.221
6.02	52.00	0.00	9999.00	-12.14	2.11	130.45	-0.00	0.00	9999.00	2.107
6.04	54.00	0.00	9999.00	-12.62	1.99	134.55	-0.00	0.00	9999.00	1.989
6.05	56.00	0.00	9999.00	-13.08	1.87	138.41	-0.00	0.00	9999.00	1.869
6.06	58.00	0.00	9999.00	-13.53	1.75	142.02	-0.00	0.00	9999.00	1.746
6.06	60.00	0.00	9999.00	-13.97	1.62	145.39	-0.00	0.00	9999.00	1.622
6.05	62.00	0.00	9999.00	-14.38	1.50	148.51	-0.00	0.00	9999.00	1.495
6.03	64.00	0.00	9999.00	-14.78	1.37	151.37	-0.00	0.00	9999.00	1.367
6.01	66.00	0.00	9999.00	-15.16	1.24	153.98	-0.00	0.00	9999.00	1.238
5.98	68.00	0.00	9999.00	-15.53	1.11	156.32	-0.00	0.00	9999.00	1.107
5.94	70.00	0.00	9999.00	-15.87	0.98	158.40	-0.00	0.00	9999.00	0.976
5.90	72.00	0.00	9999.00	-16.19	0.84	160.22	-0.00	0.00	9999.00	0.843
5.85	74.00	0.00	9999.00	-16.50	0.71	161.77	-0.00	0.00	9999.00	0.709
5.79	76.00	0.00	9999.00	-16.78	0.57	163.06	-0.00	0.00	9999.00	0.574
5.72	78.00	0.00	9999.00	-17.05	0.44	164.07	-0.00	-0.00	-9999.00	0.439
5.65	80.00	0.00	9999.00	-17.29	0.30	164.81	-0.00	-0.00	-9999.00	0.303
5.57	82.00	0.00	9999.00	-17.51	0.17	165.28	-0.00	-0.00	-9999.00	0.167
5.48	84.00	0.00	9999.00	-17.71	0.03	165.48	-0.00	-0.00	-9999.00	0.030
5.39	86.00	0.00	9999.00	-17.89	-0.11	165.40	-0.00	-0.00	-9999.00	-0.108

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                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 3 ------                  *
*                                                                                                     *
*******************************************************************************************************

                  +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                  ================================================================

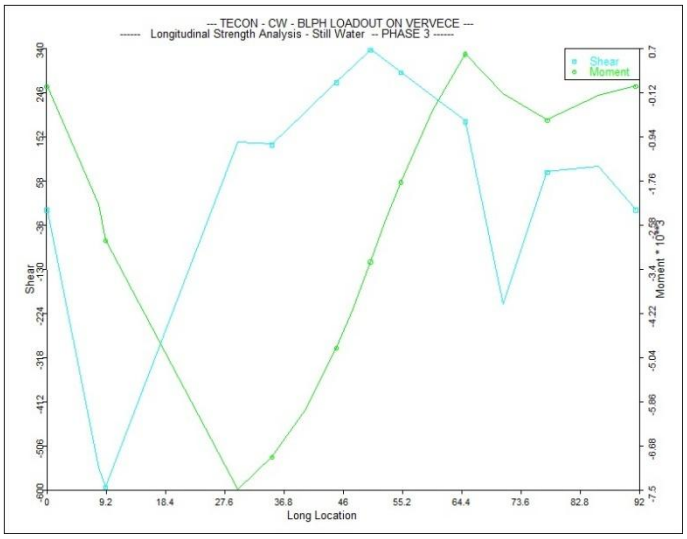
              Process is 3: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Allowable Stress =     155.00 Mpa

                              Allowable Deflection =       1.00 MM

      Longitudinal       Shear          Bending         B. Stress/     Deflection/
        Location         Force           Moment         Allowable      Allowable
     --------------  --------------  --------------  --------------  --------------

           0.00            -1              0          0.0000          0.0000
           8.00          -553          -2201          -0.0870          6.5372
           9.14          -592          -2855          -0.1129          7.4427
          29.72           139          -7496          -0.2962         18.3093
          35.00           136          -6881          -0.2720         18.9251
          40.00           203          -6034          -0.2385         18.7298
          45.00           269          -4856          -0.1919         17.8722
          47.50           301          -4144          -0.1638         17.2342
          50.29           337          -3252          -0.1285         16.3879
          52.50           315          -2532          -0.1001         15.6381
          55.00           290          -1776          -0.0702         14.7239
          60.00           238           -456          -0.0181         12.7673
          65.00           186            602           0.0238         10.7578
          70.87          -204           -145          -0.0058          8.4545
          77.72            77           -626          -0.0248          5.7311
          85.70            88           -169          -0.0067          2.4210
          91.44            -1              0          0.0000          0.0001
```


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 3 ------
Shear
Moment
Shear
Moment * 10^3
Long Location
0
9.2
18.4
27.6
36.8
46
55.2
64.4
73.6
82.8
92

```
*                                                                                                                      *
*                                        ***  MOSES   ***                                                          *
*                                        ----------------                                  1 July, 2025         *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                             *
*          ---------     Intact Stability Check    -- PHASE 4 ---------                                            *
*                                                                                                                      *
**********************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 4: Units Are Degrees, Meters, and M-Tons Unless Specified

                                   Results Are Reported In Body System

                        Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =     0.00

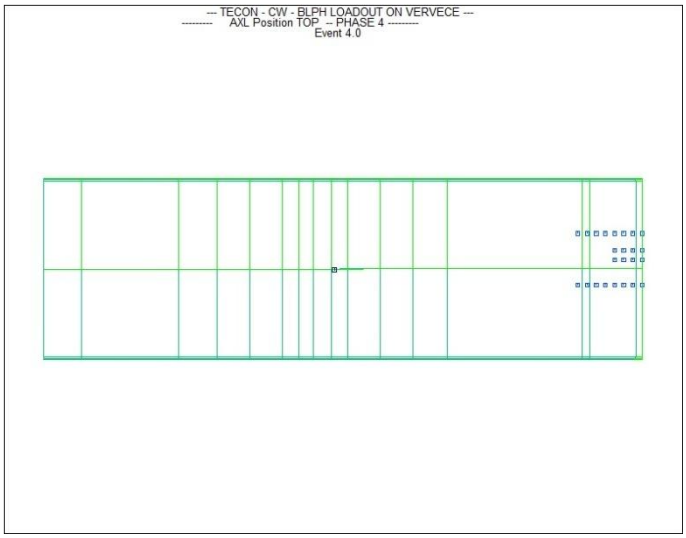
                                     Wet Radii Of Gyration About CG

                                K-X =     8.93 K-Y =    25.92 K-Z =    26.98

                                        GMT =    13.95 GML =   160.50

                                /-- Center of Gravity ---/  Sounding   % Full
                          Name   Weight    ---X---  ---Y---  ---Z---  -------- --------

                                ----------------  Part AXL4        ------------
                                LOAD_GRO    511.00     4.35    -1.32     7.10
                                ----------------  Part CF          ------------
                                LOAD_GRO     28.00    69.38    11.22     8.10
                                ----------------  Part GRI&SF-B    ------------
                                LOAD_GRO     75.00    30.86    -1.14     7.35
                                ----------------  Part GRI&SF-C    ------------
                                LOAD_GRO      0.50    67.44    11.22     7.10
                                ----------------  Part GRI&SF-T    ------------
                                LOAD_GRO     45.00    65.20    -2.92     7.40
                                ----------------  Part TP          ------------
                                LOAD_GRO    254.50    65.54    -2.14     9.35
                                ----------------  Part VERVECE     ------------
                                LOAD_GRO   1832.80    47.02     0.00     3.52
                                             --- Contents ---
                          1PC      229.92     5.62    -3.43     3.77     6.02    98.00
                          1PW      117.49     6.50   -10.28     2.53     4.06    50.00
                          1SC      230.42     5.62     3.43     3.77     6.02    98.00
                          1SW      117.49     6.50    10.28     2.53     4.06    50.00
                          2PC       26.21    19.43    -3.43     0.09     0.18     3.00
                          2PW      467.52    19.43   -10.28     1.64     3.27    53.51
                          2SC       26.21    19.43     3.43     0.09     0.18     3.00
                          2SW      522.52    19.43    10.28     1.83     3.65    59.81
                          3PC       26.21    40.00    -3.43     0.09     0.18     3.00
                          3PW      856.16    40.01   -10.28     2.99     5.97    98.00
                          3SC       26.21    40.01     3.43     0.09     0.18     3.00
                          3SW      856.16    40.01    10.28     2.99     5.97    98.00
                          4PC      262.11    60.58    -3.43     0.91     1.83    30.00
                          4PW      856.16    60.58   -10.28     2.99     5.97    98.00
                          4SC      262.11    60.58     3.43     0.91     1.83    30.00
                          4SW      856.16    60.58    10.28     2.99     5.97    98.00
                          5PC      295.21    83.42    -3.43     2.16     3.96    60.00
                          5PW      463.00    79.86   -10.28     1.99     3.77    58.34
                          5SC      290.58    83.42     3.43     2.16     3.96    60.00
                          5SW      517.98    80.00    10.28     2.20     4.16    65.27
                                ========  ========  =======  =======  =======
                                Total     10052.61    46.76     0.00     3.15
                                Buoyancy  10052.62    46.76     0.00     2.21
```




```
                    ********************************************************
*                                       ***  MOSES   ***                                                  *
*                                       ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 4 ---------                                   *
*                                                                                                         *
***********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                    Process is 4: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 1 July, 2025      *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                 *
*         ---------     Intact Stability Check    -- PHASE 4 ---------               . *
*                                                                                      *
****************************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 4: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.15, and Wind Speed = 10 Knots

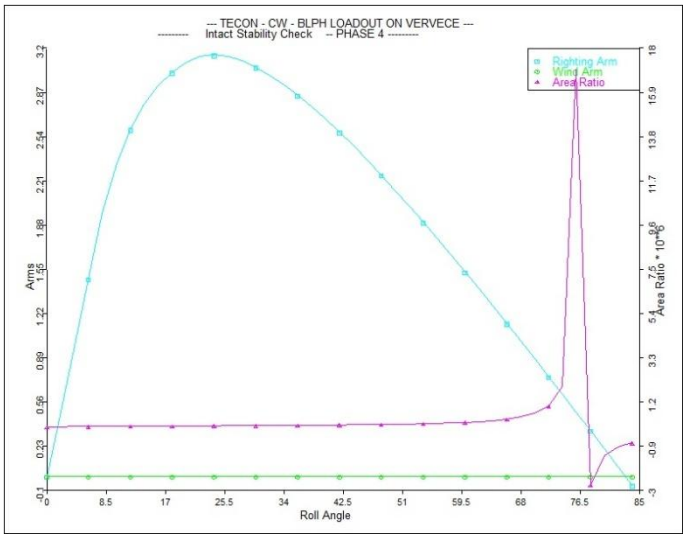
Initial: Roll = -0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	0.00	0.00	0.00	0.00	0.00	-0.000
4.29	2.00	0.00	9999.00	1.94	0.49	0.49	0.00	0.00	3049.69	0.488
4.29	4.00	0.00	9999.00	1.48	0.98	1.96	0.00	0.00	6275.34	0.980
4.27	6.00	0.00	9999.00	1.03	1.48	4.41	0.00	0.00	9865.57	1.476
4.25	8.00	0.00	9999.00	0.57	1.97	7.85	0.00	0.00	9999.00	1.966
4.26	10.00	0.00	9999.00	0.07	2.34	12.16	0.00	0.00	9999.00	2.335
4.31	12.00	0.00	9999.00	-0.47	2.59	17.08	0.00	0.00	9999.00	2.593
4.39	14.00	0.00	9999.00	-1.04	2.78	22.46	0.00	0.00	9999.00	2.780
4.48	16.00	0.00	9999.00	-1.63	2.92	28.16	0.00	0.00	9999.00	2.918
4.60	18.00	0.00	9999.00	-2.25	3.02	34.10	0.00	0.00	9999.00	3.021
4.72	20.00	0.00	9999.00	-2.88	3.09	40.21	0.00	0.00	9999.00	3.094
4.85	22.00	0.00	9999.00	-3.51	3.14	46.44	0.00	0.00	9999.00	3.137
4.97	24.00	0.00	9999.00	-4.15	3.15	52.73	0.00	0.00	9999.00	3.149
5.09	26.00	0.00	9999.00	-4.77	3.14	59.01	0.00	0.00	9999.00	3.136
5.20	28.00	0.00	9999.00	-5.40	3.10	65.25	0.00	0.00	9999.00	3.105
5.31	30.00	0.00	9999.00	-6.01	3.06	71.42	0.00	0.00	9999.00	3.057
5.41	32.00	0.00	9999.00	-6.62	3.00	77.47	0.00	0.00	9999.00	2.998
5.50	34.00	0.00	9999.00	-7.22	2.93	83.40	0.00	0.00	9999.00	2.928
5.58	36.00	0.00	9999.00	-7.81	2.85	89.17	-0.00	0.00	9999.00	2.849
5.66	38.00	0.00	9999.00	-8.39	2.76	94.79	-0.00	0.00	9999.00	2.764
5.73	40.00	0.00	9999.00	-8.96	2.67	100.22	-0.00	0.00	9999.00	2.672
5.80	42.00	0.00	9999.00	-9.52	2.57	105.47	-0.00	0.00	9999.00	2.574
5.86	44.00	0.00	9999.00	-10.07	2.47	110.51	-0.00	0.00	9999.00	2.471
5.91	46.00	0.00	9999.00	-10.61	2.36	115.35	-0.00	0.00	9999.00	2.364
5.95	48.00	0.00	9999.00	-11.13	2.25	119.97	-0.00	0.00	9999.00	2.253
5.99	50.00	0.00	9999.00	-11.64	2.14	124.36	-0.00	0.00	9999.00	2.139
6.01	52.00	0.00	9999.00	-12.14	2.02	128.52	-0.00	0.00	9999.00	2.021
6.04	54.00	0.00	9999.00	-12.62	1.90	132.44	-0.00	0.00	9999.00	1.902
6.05	56.00	0.00	9999.00	-13.09	1.78	136.12	-0.00	0.00	9999.00	1.779
6.06	58.00	0.00	9999.00	-13.54	1.65	139.56	-0.00	0.00	9999.00	1.655
6.06	60.00	0.00	9999.00	-13.97	1.53	142.74	-0.00	0.00	9999.00	1.529
6.05	62.00	0.00	9999.00	-14.38	1.40	145.67	-0.00	0.00	9999.00	1.402
6.03	64.00	0.00	9999.00	-14.78	1.27	148.34	-0.00	0.00	9999.00	1.273
6.01	66.00	0.00	9999.00	-15.16	1.14	150.76	-0.00	0.00	9999.00	1.143
5.98	68.00	0.00	9999.00	-15.53	1.01	152.92	-0.00	0.00	9999.00	1.012
5.94	70.00	0.00	9999.00	-15.87	0.88	154.81	-0.00	0.00	9999.00	0.880
5.90	72.00	0.00	9999.00	-16.19	0.75	156.43	-0.00	0.00	9999.00	0.746
5.85	74.00	0.00	9999.00	-16.50	0.61	157.79	-0.00	0.00	9999.00	0.612
5.79	76.00	0.00	9999.00	-16.78	0.48	158.88	-0.00	0.00	9999.00	0.478
5.72	78.00	0.00	9999.00	-17.05	0.34	159.70	-0.00	-0.00	-9999.00	0.343
5.65	80.00	0.00	9999.00	-17.29	0.21	160.25	-0.00	-0.00	-9999.00	0.207
5.57	82.00	0.00	9999.00	-17.51	0.07	160.53	-0.00	-0.00	-9999.00	0.071
5.48	84.00	0.00	9999.00	-17.71	-0.07	160.54	-0.00	-0.00	-9999.00	-0.065

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
--------- Intact Stability Check -- PHASE 4 ---------
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10**6
Roll Angle
0
8.5
17
25.5
34
42.5
51
59.5
68
76.5
85

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025         *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 4 ------   *
*                                                                                    *
**************************************************************************************************************
```

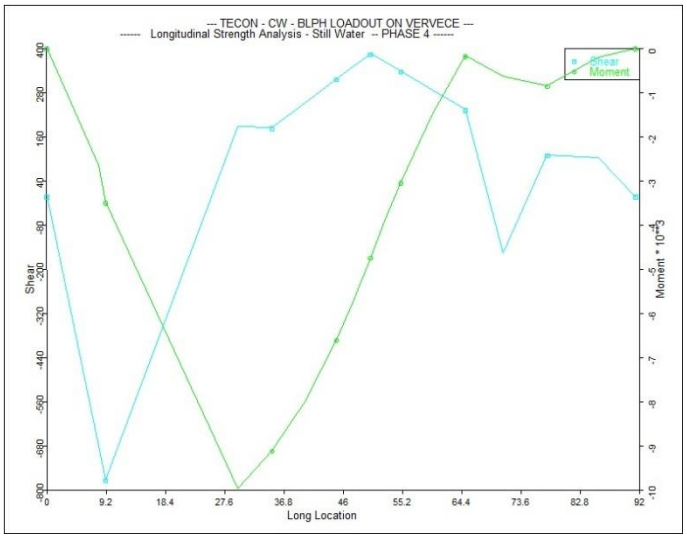
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 4: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-681	-2650	-0.1048	8.8067
9.14	-771	-3488	-0.1379	10.0309
29.72	187	-9968	-0.3939	25.0132
35.00	184	-9100	-0.3596	25.9817
40.00	251	-8013	-0.3167	25.8682
45.00	317	-6594	-0.2606	24.8745
47.50	349	-5762	-0.2277	24.0950
50.29	385	-4737	-0.1872	23.0380
52.50	363	-3910	-0.1546	22.0851
55.00	338	-3035	-0.1200	20.9054
60.00	286	-1475	-0.0583	18.3171
65.00	234	-174	-0.0069	15.5638
70.87	-156	-641	-0.0253	12.2803
77.72	109	-847	-0.0335	8.3177
85.70	101	-208	-0.0082	3.5094
91.44	-1	0	0.0000	0.0001



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025         *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ---------     Intact Stability Check    -- PHASE 5 ---------               *
*                                                                                    *
**************************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 5: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Results Are Reported In Body System

                        Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =     0.00

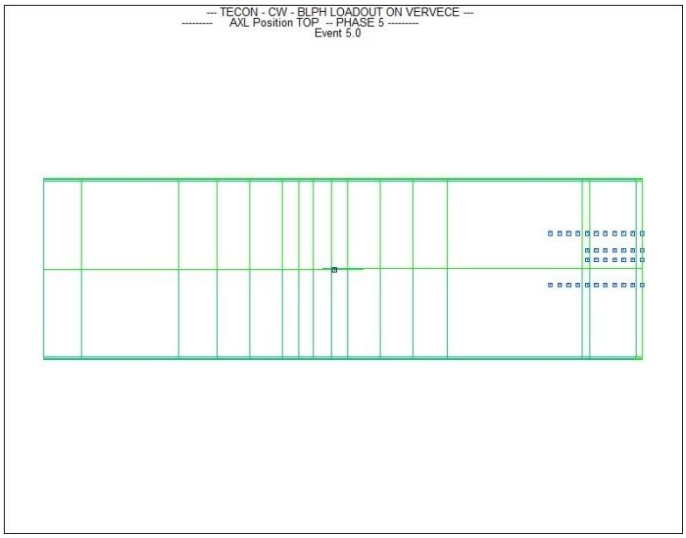
                                    Wet Radii Of Gyration About CG

                               K-X =     8.83 K-Y =    26.20 K-Z =    27.20

                                        GMT =    13.85 GML =   160.45

                               /-- Center of Gravity ---/  Sounding   % Full
                          Name  Weight    ---X---  ---Y---  ---Z---  -------- --------

                               ----------------  Part AXL5       ------------
                               LOAD_GRO    740.95     6.33    -1.36     7.10
                               ----------------  Part CF         ------------
                               LOAD_GRO     28.00    69.38    11.22     8.10
                               ----------------  Part GRI&SF-B   ------------
                               LOAD_GRO     75.00    30.86    -1.14     7.35
                               ----------------  Part GRI&SF-C   ------------
                               LOAD_GRO      0.50    67.44    11.22     7.10
                               ----------------  Part GRI&SF-T   ------------
                               LOAD_GRO     45.00    65.20    -2.92     7.40
                               ----------------  Part TP         ------------
                               LOAD_GRO    254.50    65.54    -2.14     9.35
                               ----------------  Part VERVECE    ------------
                               LOAD_GRO   1832.80    47.02     0.00     3.52
                                            --- Contents ---
                          1PC      229.92     5.62    -3.43     3.77     6.02    98.00
                          1PW      117.49     6.50   -10.28     2.53     4.06    50.00
                          1SC      230.42     5.62     3.43     3.77     6.02    98.00
                          1SW      117.49     6.50    10.28     2.53     4.06    50.00
                          2PC       26.21    19.43    -3.43     0.09     0.18     3.00
                          2PW      328.49    19.43   -10.28     1.15     2.30    37.60
                          2SC       26.21    19.43     3.43     0.09     0.18     3.00
                          2SW      399.62    19.43    10.28     1.40     2.79    45.74
                          3PC       26.21    40.00    -3.43     0.09     0.18     3.00
                          3PW      856.16    40.01   -10.28     2.99     5.97    98.00
                          3SC       26.21    40.01     3.43     0.09     0.18     3.00
                          3SW      856.16    40.01    10.28     2.99     5.97    98.00
                          4PC      262.11    60.58    -3.43     0.91     1.83    30.00
                          4PW      856.16    60.58   -10.28     2.99     5.97    98.00
                          4SC      262.11    60.58     3.43     0.91     1.83    30.00
                          4SW      856.16    60.58    10.28     2.99     5.97    98.00
                          5PC      295.21    83.42    -3.43     2.16     3.96    60.00
                          5PW      470.76    79.89   -10.28     2.02     3.82    59.32
                          5SC      290.58    83.42     3.43     2.16     3.96    60.00
                          5SW      542.21    80.05    10.28     2.29     4.33    68.32
                               ========  ========  =======  =======  =======
                               Total     10052.61    46.76     0.00     3.25
                               Buoyancy  10052.61    46.76     0.00     2.21
```




```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*          ---------     Intact Stability Check    -- PHASE 5 ---------                              *
*                                                                                                    *
******************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 5: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                      ***  MOSES   ***                                                    *
*                                      ----------------                          1 July, 2025             *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 5 ---------                                  . *
*                                                                                                         *
***********************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 5: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.25, and Wind Speed = 10 Knots

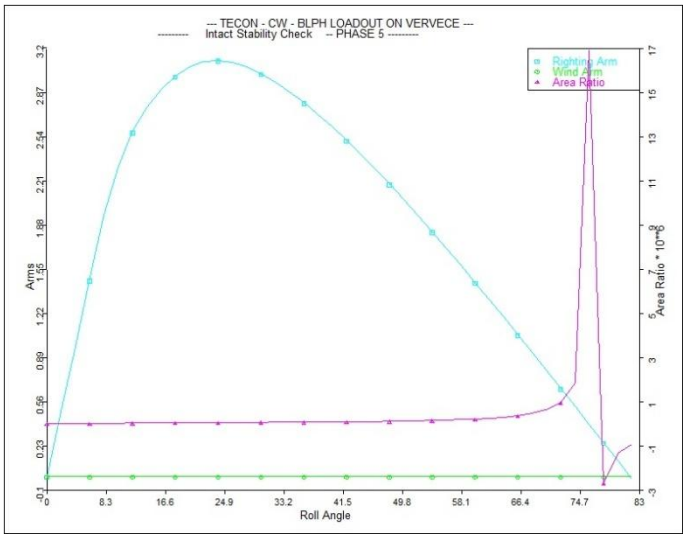
Initial: Roll = -0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.48	0.48	0.00	0.00	3028.43	0.484
4.29	4.00	0.00	9999.00	1.49	0.97	1.94	0.00	0.00	6231.70	0.973
4.27	6.00	0.00	9999.00	1.03	1.47	4.38	0.00	0.00	9797.15	1.466
4.25	8.00	0.00	9999.00	0.57	1.95	7.80	0.00	0.00	9999.00	1.953
4.26	10.00	0.00	9999.00	0.07	2.32	12.07	0.00	0.00	9999.00	2.318
4.31	12.00	0.00	9999.00	-0.46	2.57	16.96	0.00	0.00	9999.00	2.573
4.39	14.00	0.00	9999.00	-1.04	2.76	22.29	0.00	0.00	9999.00	2.757
4.48	16.00	0.00	9999.00	-1.63	2.89	27.94	0.00	0.00	9999.00	2.891
4.60	18.00	0.00	9999.00	-2.25	2.99	33.82	0.00	0.00	9999.00	2.990
4.72	20.00	0.00	9999.00	-2.88	3.06	39.87	0.00	0.00	9999.00	3.060
4.85	22.00	0.00	9999.00	-3.51	3.10	46.03	0.00	0.00	9999.00	3.100
4.97	24.00	0.00	9999.00	-4.15	3.11	52.24	0.00	0.00	9999.00	3.109
5.09	26.00	0.00	9999.00	-4.77	3.09	58.45	0.00	0.00	9999.00	3.093
5.20	28.00	0.00	9999.00	-5.39	3.06	64.60	0.00	0.00	9999.00	3.059
5.31	30.00	0.00	9999.00	-6.01	3.01	70.67	0.00	0.00	9999.00	3.009
5.41	32.00	0.00	9999.00	-6.62	2.95	76.62	0.00	0.00	9999.00	2.946
5.50	34.00	0.00	9999.00	-7.22	2.87	82.44	0.00	0.00	9999.00	2.874
5.58	36.00	0.00	9999.00	-7.81	2.79	88.11	-0.00	0.00	9999.00	2.793
5.66	38.00	0.00	9999.00	-8.39	2.71	93.61	-0.00	0.00	9999.00	2.706
5.73	40.00	0.00	9999.00	-8.96	2.61	98.92	-0.00	0.00	9999.00	2.612
5.80	42.00	0.00	9999.00	-9.52	2.51	104.05	-0.00	0.00	9999.00	2.512
5.86	44.00	0.00	9999.00	-10.07	2.41	108.97	-0.00	0.00	9999.00	2.408
5.91	46.00	0.00	9999.00	-10.61	2.30	113.68	-0.00	0.00	9999.00	2.299
5.95	48.00	0.00	9999.00	-11.13	2.19	118.16	-0.00	0.00	9999.00	2.186
5.99	50.00	0.00	9999.00	-11.64	2.07	122.42	-0.00	0.00	9999.00	2.070
6.02	52.00	0.00	9999.00	-12.14	1.95	126.44	-0.00	0.00	9999.00	1.951
6.04	54.00	0.00	9999.00	-12.62	1.83	130.22	-0.00	0.00	9999.00	1.829
6.05	56.00	0.00	9999.00	-13.08	1.70	133.75	-0.00	0.00	9999.00	1.705
6.06	58.00	0.00	9999.00	-13.53	1.58	137.04	-0.00	0.00	9999.00	1.579
6.06	60.00	0.00	9999.00	-13.97	1.45	140.06	-0.00	0.00	9999.00	1.451
6.05	62.00	0.00	9999.00	-14.38	1.32	142.84	-0.00	0.00	9999.00	1.322
6.03	64.00	0.00	9999.00	-14.78	1.19	145.35	-0.00	0.00	9999.00	1.191
6.01	66.00	0.00	9999.00	-15.16	1.06	147.60	-0.00	0.00	9999.00	1.060
5.98	68.00	0.00	9999.00	-15.53	0.93	149.59	-0.00	0.00	9999.00	0.927
5.94	70.00	0.00	9999.00	-15.87	0.79	151.31	-0.00	0.00	9999.00	0.794
5.90	72.00	0.00	9999.00	-16.19	0.66	152.76	-0.00	0.00	9999.00	0.659
5.85	74.00	0.00	9999.00	-16.50	0.52	153.95	-0.00	0.00	9999.00	0.524
5.79	76.00	0.00	9999.00	-16.78	0.39	154.86	-0.00	0.00	9999.00	0.389
5.72	78.00	0.00	9999.00	-17.05	0.25	155.50	-0.00	-0.00	-9999.00	0.253
5.65	80.00	0.00	9999.00	-17.29	0.12	155.87	-0.00	-0.00	-9999.00	0.116
5.57	82.00	0.00	9999.00	-17.51	-0.02	155.96	-0.00	-0.00	-9999.00	-0.021

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
--------- Intact Stability Check -- PHASE 5 ---------
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10**6
Roll Angle
0
8.3
16.6
24.9
33.2
41.5
49.8
58.1
66.4
74.7
83

```
**********************************************************
*                                  ***  MOSES    ***                                  *
*                                  ----------------                  1 July, 2025    *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 5 ------   *
*                                                                                     *
***************************************************************************************************************
```

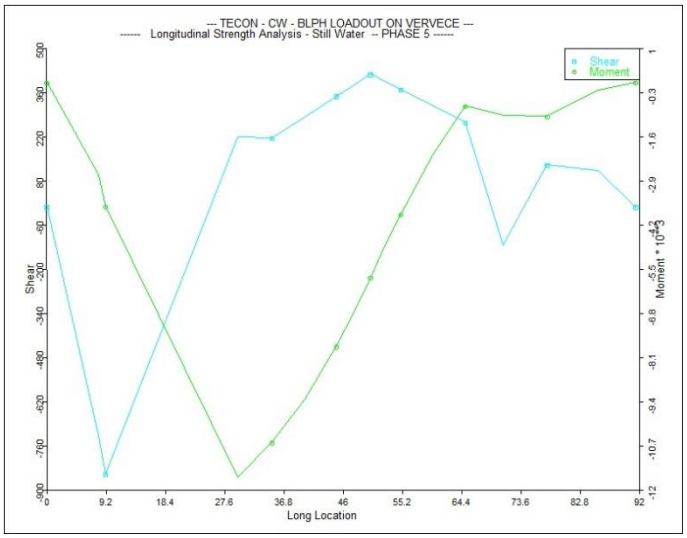
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 5: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-732	-2736	-0.1082	10.1819
9.14	-848	-3651	-0.1443	11.6021
29.72	220	-11631	-0.4597	29.3077
35.00	216	-10592	-0.4186	30.5310
40.00	283	-9343	-0.3692	30.4895
45.00	349	-7763	-0.3068	29.4211
47.50	382	-6850	-0.2707	28.5547
50.29	418	-5734	-0.2266	27.3655
52.50	395	-4836	-0.1911	26.2836
55.00	370	-3879	-0.1533	24.9339
60.00	318	-2158	-0.0853	21.9379
65.00	266	-696	-0.0275	18.7017
70.87	-124	-972	-0.0385	14.7797
77.72	131	-994	-0.0393	10.0082
85.70	110	-234	-0.0093	4.2209
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          1 July, 2025          *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*         ---------     Intact Stability Check    -- PHASE 6 ---------                              *
*                                                                                                    *
******************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                 Process is 6: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                     Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =     0.00

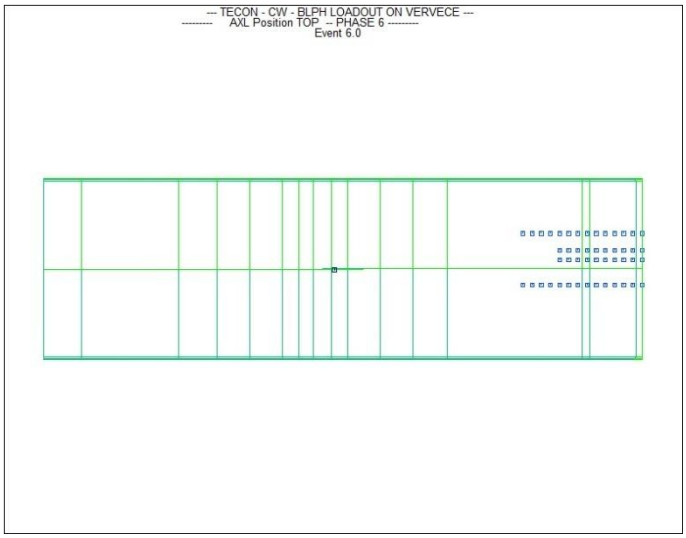
                                 Wet Radii Of Gyration About CG

                           K-X =     8.73 K-Y =    26.34 K-Z =    27.29

                                    GMT =    13.73 GML =   160.35

                           /-- Center of Gravity ---/  Sounding   % Full
                    Name    Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL6       ------------
                           LOAD_GRO    970.90     8.37    -1.39     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part TP         ------------
                           LOAD_GRO    254.50    65.54    -2.14     9.35
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                     1PC         229.92     5.62    -3.43     3.77     6.02    98.00
                     1PW         117.49     6.50   -10.28     2.53     4.06    50.00
                     1SC         230.42     5.62     3.43     3.77     6.02    98.00
                     1SW         117.49     6.50    10.28     2.53     4.06    50.00
                     2PC          26.21    19.43    -3.43     0.09     0.18     3.00
                     2PW         197.28    19.43   -10.27     0.69     1.38    22.58
                     2SC          26.21    19.43     3.43     0.09     0.18     3.00
                     2SW         284.48    19.43    10.27     1.00     1.99    32.56
                     3PC          26.21    40.00    -3.43     0.09     0.18     3.00
                     3PW         856.16    40.01   -10.28     2.99     5.97    98.00
                     3SC          26.21    40.01     3.43     0.09     0.18     3.00
                     3SW         856.16    40.01    10.28     2.99     5.97    98.00
                     4PC         262.11    60.58    -3.43     0.91     1.83    30.00
                     4PW         856.16    60.58   -10.28     2.99     5.97    98.00
                     4SC         262.11    60.58     3.43     0.91     1.83    30.00
                     4SW         856.16    60.58    10.28     2.99     5.97    98.00
                     5PC         295.21    83.42    -3.43     2.16     3.96    60.00
                     5PW         470.69    79.89   -10.28     2.02     3.82    59.31
                     5SC         290.58    83.42     3.43     2.16     3.96    60.00
                     5SW         558.68    80.09    10.28     2.35     4.44    70.40
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75     0.00     3.37
                           Buoyancy  10052.61    46.75     0.00     2.21
```




```
                    ********************************************************
*                                       ***  MOSES   ***                                                  *
*                                       ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 6 ---------                                   *
*                                                                                                         *
***********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                    Process is 6: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 1 July, 2025      *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                  *
*        ---------     Intact Stability Check    -- PHASE 6 ---------                 . *
*                                                                                      *
****************************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 6: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.37, and Wind Speed = 10 Knots

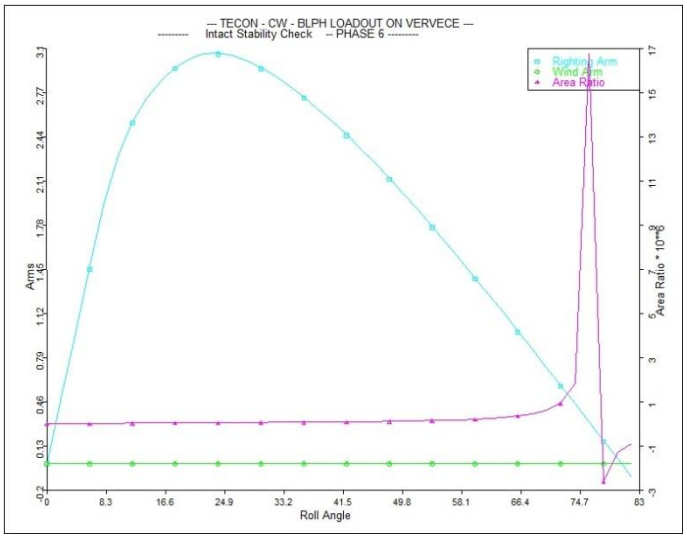
Initial: Roll = -0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.48	0.48	0.00	0.00	3002.68	0.480
4.29	4.00	0.00	9999.00	1.49	0.97	1.93	0.00	0.00	6178.86	0.965
4.27	6.00	0.00	9999.00	1.03	1.45	4.34	0.00	0.00	9714.31	1.453
4.25	8.00	0.00	9999.00	0.57	1.94	7.73	0.00	0.00	9999.00	1.936
4.26	10.00	0.00	9999.00	0.07	2.30	11.97	0.00	0.00	9999.00	2.298
4.31	12.00	0.00	9999.00	-0.46	2.55	16.81	0.00	0.00	9999.00	2.548
4.39	14.00	0.00	9999.00	-1.04	2.73	22.09	0.00	0.00	9999.00	2.728
4.48	16.00	0.00	9999.00	-1.63	2.86	27.68	0.00	0.00	9999.00	2.859
4.60	18.00	0.00	9999.00	-2.25	2.95	33.49	0.00	0.00	9999.00	2.954
4.72	20.00	0.00	9999.00	-2.88	3.02	39.47	0.00	0.00	9999.00	3.020
4.85	22.00	0.00	9999.00	-3.51	3.06	45.54	0.00	0.00	9999.00	3.056
4.97	24.00	0.00	9999.00	-4.14	3.06	51.66	0.00	0.00	9999.00	3.061
5.09	26.00	0.00	9999.00	-4.77	3.04	57.76	0.00	0.00	9999.00	3.042
5.20	28.00	0.00	9999.00	-5.39	3.00	63.81	0.00	0.00	9999.00	3.005
5.31	30.00	0.00	9999.00	-6.01	2.95	69.77	0.00	0.00	9999.00	2.953
5.41	32.00	0.00	9999.00	-6.62	2.89	75.61	0.00	0.00	9999.00	2.889
5.50	34.00	0.00	9999.00	-7.22	2.82	81.31	0.00	0.00	9999.00	2.815
5.58	36.00	0.00	9999.00	-7.81	2.73	86.86	-0.00	0.00	9999.00	2.734
5.66	38.00	0.00	9999.00	-8.39	2.65	92.24	-0.00	0.00	9999.00	2.646
5.73	40.00	0.00	9999.00	-8.96	2.55	97.44	-0.00	0.00	9999.00	2.552
5.80	42.00	0.00	9999.00	-9.52	2.45	102.45	-0.00	0.00	9999.00	2.453
5.86	44.00	0.00	9999.00	-10.07	2.35	107.25	-0.00	0.00	9999.00	2.349
5.91	46.00	0.00	9999.00	-10.61	2.24	111.84	-0.00	0.00	9999.00	2.241
5.95	48.00	0.00	9999.00	-11.13	2.13	116.21	-0.00	0.00	9999.00	2.128
5.99	50.00	0.00	9999.00	-11.64	2.01	120.35	-0.00	0.00	9999.00	2.011
6.02	52.00	0.00	9999.00	-12.14	1.89	124.25	-0.00	0.00	9999.00	1.891
6.04	54.00	0.00	9999.00	-12.62	1.77	127.91	-0.00	0.00	9999.00	1.768
6.05	56.00	0.00	9999.00	-13.08	1.64	131.32	-0.00	0.00	9999.00	1.642
6.06	58.00	0.00	9999.00	-13.53	1.51	134.47	-0.00	0.00	9999.00	1.514
6.06	60.00	0.00	9999.00	-13.97	1.38	137.37	-0.00	0.00	9999.00	1.384
6.05	62.00	0.00	9999.00	-14.38	1.25	140.01	-0.00	0.00	9999.00	1.253
6.03	64.00	0.00	9999.00	-14.78	1.12	142.38	-0.00	0.00	9999.00	1.120
6.01	66.00	0.00	9999.00	-15.16	0.99	144.49	-0.00	0.00	9999.00	0.987
5.98	68.00	0.00	9999.00	-15.53	0.85	146.33	-0.00	0.00	9999.00	0.852
5.94	70.00	0.00	9999.00	-15.87	0.72	147.89	-0.00	0.00	9999.00	0.716
5.90	72.00	0.00	9999.00	-16.19	0.58	149.19	-0.00	0.00	9999.00	0.580
5.85	74.00	0.00	9999.00	-16.50	0.44	150.21	-0.00	0.00	9999.00	0.443
5.79	76.00	0.00	9999.00	-16.78	0.31	150.96	-0.00	0.00	9999.00	0.305
5.72	78.00	0.00	9999.00	-17.05	0.17	151.43	-0.00	-0.00	-9999.00	0.168
5.65	80.00	0.00	9999.00	-17.29	0.03	151.63	-0.00	-0.00	-9999.00	0.030
5.57	82.00	0.00	9999.00	-17.51	-0.11	151.55	-0.00	-0.00	-9999.00	-0.109

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
--------- Intact Stability Check -- PHASE 6 ---------
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10**6
Roll Angle
0
8.3
16.6
24.9
33.2
41.5
49.8
58.1
66.4
74.7
83

```
*********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                  1 July, 2025    *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                               *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 6 ------  *
*                                                                                    *
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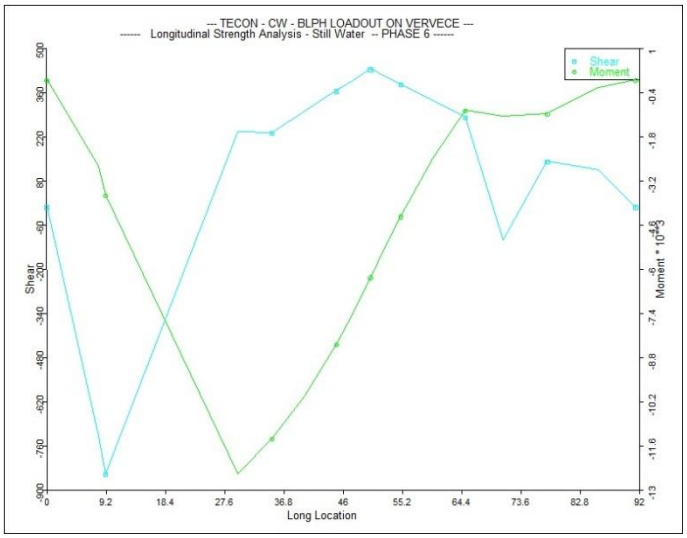
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 6: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-731	-2736	-0.1081	10.7862
9.14	-848	-3650	-0.1443	12.2929
29.72	236	-12490	-0.4936	31.3396
35.00	233	-11362	-0.4490	32.7102
40.00	300	-10030	-0.3964	32.7208
45.00	366	-8366	-0.3306	31.6285
47.50	398	-7411	-0.2929	30.7247
50.29	434	-6248	-0.2469	29.4757
52.50	412	-5314	-0.2100	28.3336
55.00	387	-4315	-0.1705	26.9037
60.00	335	-2510	-0.0992	23.7124
65.00	283	-965	-0.0382	20.2419
70.87	-107	-1144	-0.0452	16.0079
77.72	142	-1070	-0.0423	10.8395
85.70	115	-247	-0.0098	4.5708
91.44	-1	0	0.0000	0.0001



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  -----------------          1 July, 2025         *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ---------     Intact Stability Check    -- PHASE 7 ---------               *
*                                                                                    *
**************************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 7: Units Are Degrees, Meters, and M-Tons Unless Specified

                                   Results Are Reported In Body System

                         Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =     0.00

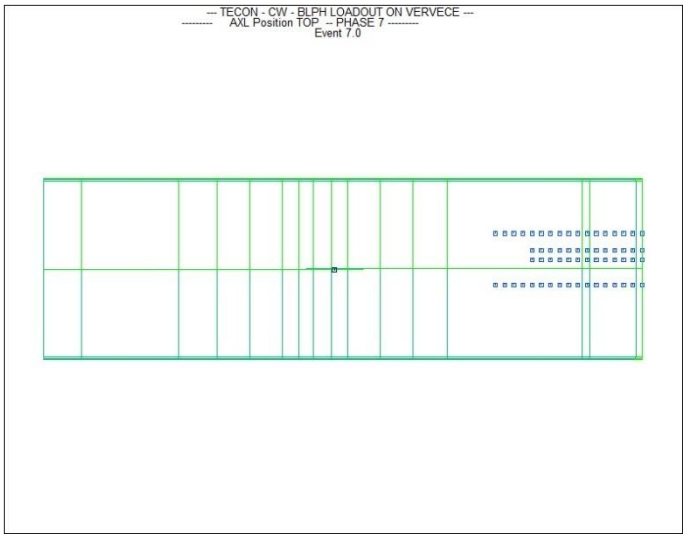
                                    Wet Radii Of Gyration About CG

                                K-X =     8.61 K-Y =    26.37 K-Z =    27.27

                                        GMT =    13.59 GML =   160.22

                                /-- Center of Gravity ---/  Sounding   % Full
                          Name   Weight    ---X---  ---Y---  ---Z---  -------- --------

                                ----------------  Part AXL7       ------------
                                LOAD_GRO   1203.10    10.42    -1.40     7.10
                                ----------------  Part CF         ------------
                                LOAD_GRO     28.00    69.38    11.22     8.10
                                ----------------  Part GRI&SF-B   ------------
                                LOAD_GRO     75.00    30.86    -1.14     7.35
                                ----------------  Part GRI&SF-C   ------------
                                LOAD_GRO      0.50    67.44    11.22     7.10
                                ----------------  Part GRI&SF-T   ------------
                                LOAD_GRO     45.00    65.20    -2.92     7.40
                                ----------------  Part TP         ------------
                                LOAD_GRO    254.50    65.54    -2.14     9.35
                                ----------------  Part VERVECE    ------------
                                LOAD_GRO   1832.80    47.02     0.00     3.52
                                          --- Contents ---
                          1PC      229.92     5.62    -3.43     3.77     6.02    98.00
                          1PW      117.49     6.50   -10.28     2.53     4.06    50.00
                          1SC      230.42     5.62     3.43     3.77     6.02    98.00
                          1SW      117.49     6.50    10.28     2.53     4.06    50.00
                          2PC       26.21    19.43    -3.43     0.09     0.18     3.00
                          2PW       72.47    19.43   -10.24     0.26     0.51     8.30
                          2SC       26.21    19.43     3.43     0.09     0.18     3.00
                          2SW      175.60    19.43    10.27     0.62     1.23    20.10
                          3PC       26.21    40.00    -3.43     0.09     0.18     3.00
                          3PW      856.16    40.01   -10.28     2.99     5.97    98.00
                          3SC       26.21    40.01     3.43     0.09     0.18     3.00
                          3SW      856.16    40.01    10.28     2.99     5.97    98.00
                          4PC      262.11    60.58    -3.43     0.91     1.83    30.00
                          4PW      856.16    60.58   -10.28     2.99     5.97    98.00
                          4SC      262.11    60.58     3.43     0.91     1.83    30.00
                          4SW      856.16    60.58    10.28     2.99     5.97    98.00
                          5PC      295.21    83.42    -3.43     2.16     3.96    60.00
                          5PW      463.18    79.87   -10.28     1.99     3.77    58.37
                          5SC      290.58    83.42     3.43     2.16     3.96    60.00
                          5SW      567.68    80.10    10.28     2.39     4.51    71.53
                                 ========  ========  =======  =======  =======
                                 Total     10052.61    46.75     0.00     3.50
                                 Buoyancy  10052.61    46.75     0.00     2.21
```




```
                    ********************************************************
*                                       ***  MOSES   ***                                                  *
*                                       ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 7 ---------                                   *
*                                                                                                         *
***********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 7: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                      ***  MOSES   ***                                                    *
*                                      ----------------                          1 July, 2025             *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 7 ---------                                  . *
*                                                                                                         *
**********************************************************************************************************

                              +++ R I G H T I N G   A R M   R E S U L T S +++
                              ==============================================

                    Process is 7: Units Are Degrees, Meters, and M-Tons Unless Specified

                    Moment Scaled By 10052.61, KG = 3.50, and Wind Speed = 10 Knots

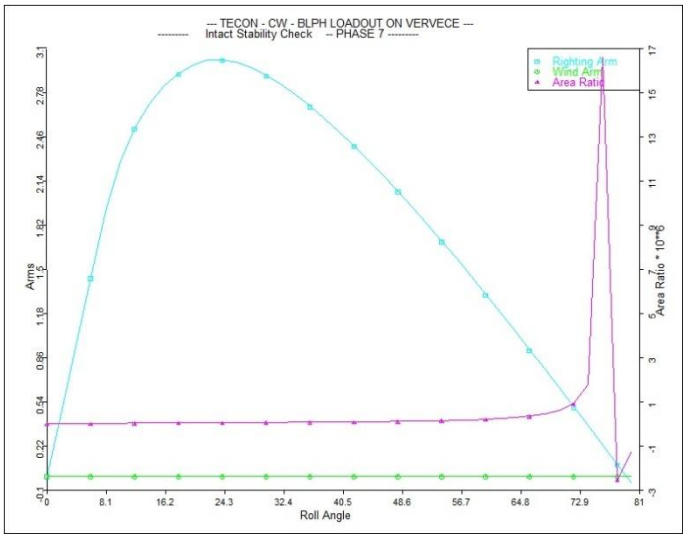
                              Initial: Roll = -0.00, Trim = 0.00 Deg.

                    Critical NWT Down Flooding Point Is *BOWPTWT

                    Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/   /-- Min. Height --/   /--- Righting ---/    /--- Heeling ---/    Area        Net
 Draft    Roll    Trim      W Tight  NW Tight        Arm      Area        Arm      Area     Ratio       Arm

 4.30    0.00    0.00     9999.00      2.40       0.00      0.00       0.00      0.00      0.00    -0.000
 4.30    2.00    0.00     9999.00      1.94       0.48      0.48       0.00      0.00   2973.06     0.475
 4.29    4.00    0.00     9999.00      1.49       0.96      1.91       0.00      0.00   6117.97     0.956
 4.27    6.00    0.00     9999.00      1.03       1.44      4.30       0.00      0.00   9618.79     1.439
 4.25    8.00    0.00     9999.00      0.57       1.92      7.66       0.00      0.00   9999.00     1.917
 4.26   10.00    0.00     9999.00      0.08       2.27     11.85       0.00      0.00   9999.00     2.275
 4.31   12.00    0.00     9999.00     -0.46       2.52     16.65       0.00      0.00   9999.00     2.521
 4.39   14.00    0.00     9999.00     -1.04       2.70     21.86       0.00      0.00   9999.00     2.697
 4.48   16.00    0.00     9999.00     -1.63       2.82     27.39       0.00      0.00   9999.00     2.825
 4.60   18.00    0.00     9999.00     -2.25       2.92     33.13       0.00      0.00   9999.00     2.917
 4.72   20.00    0.00     9999.00     -2.87       2.98     39.02       0.00      0.00   9999.00     2.980
 4.85   22.00    0.00     9999.00     -3.51       3.01     45.02       0.00      0.00   9999.00     3.014
 4.97   24.00    0.00     9999.00     -4.14       3.02     51.05       0.00      0.00   9999.00     3.017
 5.09   26.00    0.00     9999.00     -4.77       3.00     57.06       0.00      0.00   9999.00     2.996
 5.20   28.00    0.00     9999.00     -5.39       2.96     63.01       0.00      0.00   9999.00     2.957
 5.31   30.00    0.00     9999.00     -6.01       2.90     68.88       0.00      0.00   9999.00     2.904
 5.41   32.00    0.00     9999.00     -6.62       2.84     74.62       0.00      0.00   9999.00     2.839
 5.50   34.00    0.00     9999.00     -7.22       2.76     80.22       0.00      0.00   9999.00     2.764
 5.58   36.00    0.00     9999.00     -7.81       2.68     85.66      -0.00      0.00   9999.00     2.681
 5.66   38.00    0.00     9999.00     -8.39       2.59     90.94      -0.00      0.00   9999.00     2.592
 5.73   40.00    0.00     9999.00     -8.96       2.50     96.02      -0.00      0.00   9999.00     2.496
 5.80   42.00    0.00     9999.00     -9.52       2.40    100.92      -0.00      0.00   9999.00     2.396
 5.86   44.00    0.00     9999.00    -10.07       2.29    105.60      -0.00      0.00   9999.00     2.290
 5.91   46.00    0.00     9999.00    -10.61       2.18    110.07      -0.00      0.00   9999.00     2.180
 5.95   48.00    0.00     9999.00    -11.13       2.07    114.32      -0.00      0.00   9999.00     2.066
 5.99   50.00    0.00     9999.00    -11.64       1.95    118.33      -0.00      0.00   9999.00     1.948
 6.02   52.00    0.00     9999.00    -12.14       1.83    122.11      -0.00      0.00   9999.00     1.827
 6.04   54.00    0.00     9999.00    -12.62       1.70    125.64      -0.00      0.00   9999.00     1.703
 6.05   56.00    0.00     9999.00    -13.08       1.58    128.92      -0.00      0.00   9999.00     1.576
 6.06   58.00    0.00     9999.00    -13.53       1.45    131.94      -0.00      0.00   9999.00     1.448
 6.06   60.00    0.00     9999.00    -13.97       1.32    134.71      -0.00      0.00   9999.00     1.317
 6.05   62.00    0.00     9999.00    -14.38       1.18    137.21      -0.00      0.00   9999.00     1.184
 6.03   64.00    0.00     9999.00    -14.78       1.05    139.44      -0.00      0.00   9999.00     1.051
 6.01   66.00    0.00     9999.00    -15.16       0.92    141.41      -0.00      0.00   9999.00     0.915
 5.98   68.00    0.00     9999.00    -15.53       0.78    143.10      -0.00      0.00   9999.00     0.779
 5.94   70.00    0.00     9999.00    -15.87       0.64    144.52      -0.00      0.00   9999.00     0.642
 5.90   72.00    0.00     9999.00    -16.19       0.50    145.67      -0.00      0.00   9999.00     0.504
 5.85   74.00    0.00     9999.00    -16.50       0.36    146.54      -0.00      0.00   9999.00     0.365
 5.79   76.00    0.00     9999.00    -16.78       0.23    147.13      -0.00      0.00   9999.00     0.226
 5.72   78.00    0.00     9999.00    -17.05       0.09    147.44      -0.00     -0.00  -9999.00     0.086
 5.65   80.00    0.00     9999.00    -17.29      -0.05    147.47      -0.00     -0.00  -9999.00    -0.054
```


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
--------- Intact Stability Check -- PHASE 7 ---------
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10**6
Roll Angle
0
8.1
16.2
24.3
32.4
40.5
48.6
56.7
64.8
72.9
81

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025         *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 7 ------   *
*                                                                                    *
**************************************************************************************************************
```

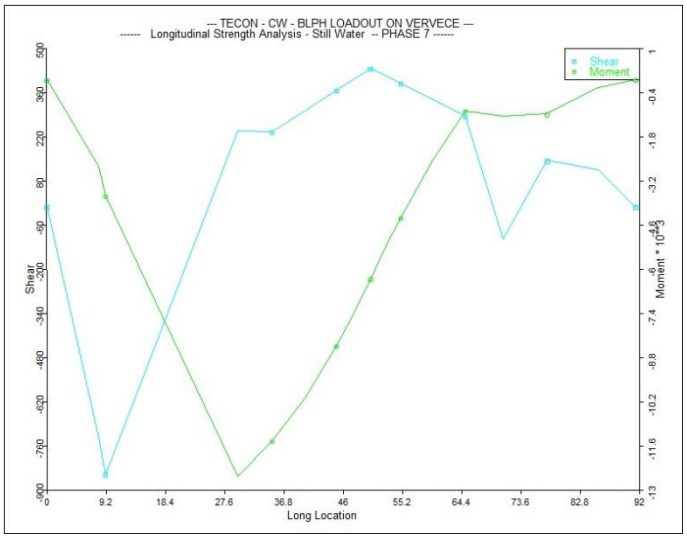
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 7: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-734	-2753	-0.1088	10.7764
9.14	-850	-3670	-0.1451	12.2814
29.72	238	-12580	-0.4971	31.3919
35.00	235	-11443	-0.4522	32.7917
40.00	302	-10102	-0.3992	32.8204
45.00	367	-8429	-0.3331	31.7386
47.50	400	-7469	-0.2952	30.8374
50.29	436	-6302	-0.2491	29.5892
52.50	414	-5363	-0.2120	28.4466
55.00	389	-4360	-0.1723	27.0146
60.00	337	-2546	-0.1006	23.8158
65.00	284	-992	-0.0392	20.3337
70.87	-105	-1161	-0.0459	16.0825
77.72	143	-1078	-0.0426	10.8905
85.70	115	-248	-0.0098	4.5923
91.44	-1	0	0.0000	0.0002



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  -----------------          1 July, 2025         *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ---------     Intact Stability Check    -- PHASE 8 ---------               *
*                                                                                    *
**************************************************************************************************************
```

+++ B U O Y A N C Y A N D W E I G H T F O R V E R V E C E +++

Process is 8: Units Are Degrees, Meters, and M-Tons Unless Specified

Results Are Reported In Body System

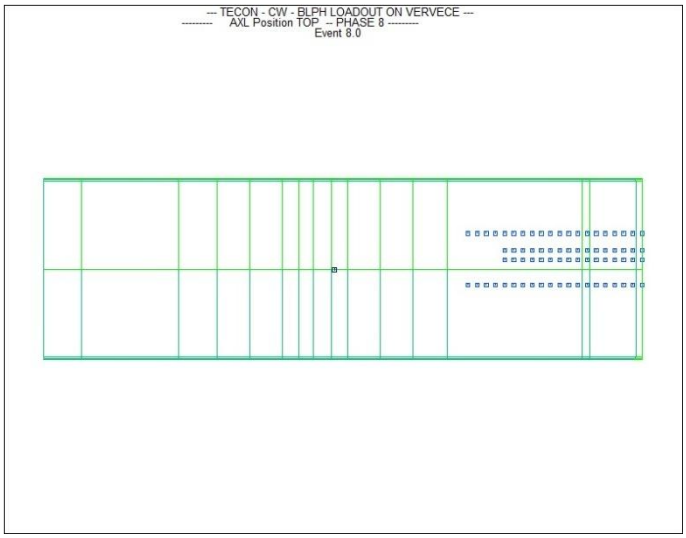
Draft = 4.30 Roll Angle = 0.00 Pitch Angle = 0.00

Wet Radii Of Gyration About CG

K-X = 8.51 K-Y = 26.83 K-Z = 27.67

GMT = 13.56 GML = 160.30

Name	Weight	/-- Center of Gravity ---/ ---X---	---Y---	---Z---	Sounding	% Full
		Part AXL8				
LOAD_GRO	1439.80	12.44	-1.39	7.10		
		Part CF				
LOAD_GRO	28.00	69.38	11.22	8.10		
		Part GRI&SF-B				
LOAD_GRO	75.00	30.86	-1.14	7.35		
		Part GRI&SF-C				
LOAD_GRO	0.50	67.44	11.22	7.10		
		Part GRI&SF-T				
LOAD_GRO	45.00	65.20	-2.92	7.40		
		Part TP				
LOAD_GRO	254.50	65.54	-2.14	9.35		
		Part VERVECE				
LOAD_GRO	1832.80	47.02	0.00	3.52		
		--- Contents ---				
1PC	229.92	5.62	-3.43	3.77	6.02	98.00
1PW	117.49	6.50	-10.28	2.53	4.06	50.00
1SC	230.42	5.62	3.43	3.77	6.02	98.00
1SW	117.49	6.50	10.28	2.53	4.06	50.00
2PC	26.21	19.43	-3.43	0.09	0.18	3.00
2PW	72.47	19.43	-10.24	0.26	0.51	8.30
2SC	26.21	19.43	3.43	0.09	0.18	3.00
2SW	175.60	19.43	10.27	0.62	1.23	20.10
3PC	26.21	40.00	-3.43	0.09	0.18	3.00
3PW	654.06	40.00	-10.28	2.29	4.57	74.87
3SC	26.21	40.01	3.43	0.09	0.18	3.00
3SW	722.43	40.01	10.28	2.52	5.04	82.69
4PC	262.11	60.58	-3.43	0.91	1.83	30.00
4PW	856.16	60.58	-10.28	2.99	5.97	98.00
4SC	262.11	60.58	3.43	0.91	1.83	30.00
4SW	856.16	60.58	10.28	2.99	5.97	98.00
5PC	295.21	83.42	-3.43	2.16	3.96	60.00
5PW	531.01	80.03	-10.28	2.25	4.25	66.91
5SC	290.58	83.42	3.43	2.16	3.96	60.00
5SW	598.98	80.16	10.28	2.50	4.73	75.48
Total	10052.61	46.75	0.00	3.53		
Buoyancy	10052.61	46.75	-0.00	2.21		




```
                    ********************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*          ---------     Intact Stability Check    -- PHASE 8 ---------                              *
*                                                                                                     *
*******************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 8: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
**********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025          *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                               *
*         ---------     Intact Stability Check    -- PHASE 8 ---------             . *
*                                                                                    *
**************************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 8: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.53, and Wind Speed = 10 Knots

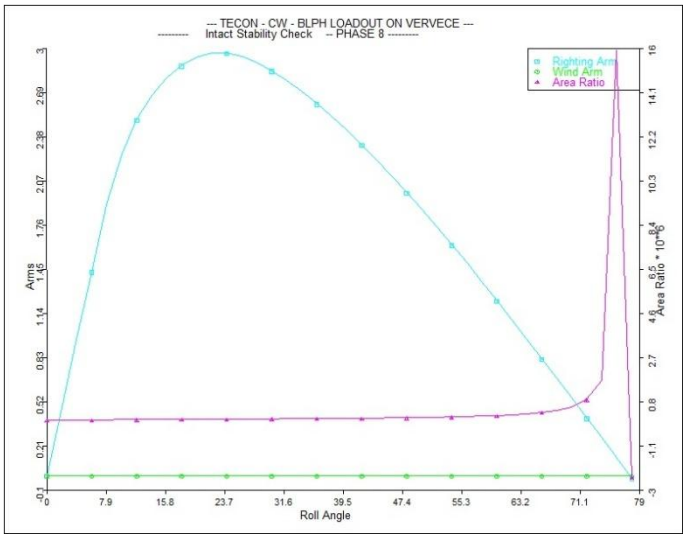
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.47	0.47	0.00	0.00	2966.60	0.474
4.29	4.00	0.00	9999.00	1.49	0.95	1.90	0.00	0.00	6099.78	0.952
4.27	6.00	0.00	9999.00	1.03	1.43	4.28	0.00	0.00	9581.25	1.431
4.25	8.00	0.00	9999.00	0.57	1.91	7.62	0.00	0.00	9999.00	1.905
4.26	10.00	0.00	9999.00	0.08	2.26	11.78	0.00	0.00	9999.00	2.258
4.31	12.00	0.00	9999.00	-0.46	2.50	16.54	0.00	0.00	9999.00	2.500
4.39	14.00	0.00	9999.00	-1.04	2.67	21.71	0.00	0.00	9999.00	2.671
4.48	16.00	0.00	9999.00	-1.63	2.79	27.18	0.00	0.00	9999.00	2.793
4.60	18.00	0.00	9999.00	-2.25	2.88	32.85	0.00	0.00	9999.00	2.880
4.72	20.00	0.00	9999.00	-2.88	2.94	38.67	0.00	0.00	9999.00	2.938
4.85	22.00	0.00	9999.00	-3.51	2.97	44.57	0.00	0.00	9999.00	2.967
4.97	24.00	0.00	9999.00	-4.14	2.97	50.51	0.00	0.00	9999.00	2.966
5.09	26.00	0.00	9999.00	-4.77	2.94	56.41	0.00	0.00	9999.00	2.941
5.20	28.00	0.00	9999.00	-5.39	2.90	62.25	0.00	0.00	9999.00	2.899
5.31	30.00	0.00	9999.00	-6.01	2.84	67.99	0.00	0.00	9999.00	2.842
5.41	32.00	0.00	9999.00	-6.62	2.77	73.61	0.00	0.00	9999.00	2.774
5.50	34.00	0.00	9999.00	-7.22	2.70	79.08	0.00	0.00	9999.00	2.697
5.58	36.00	0.00	9999.00	-7.81	2.61	84.39	-0.00	0.00	9999.00	2.612
5.66	38.00	0.00	9999.00	-8.39	2.52	89.52	-0.00	0.00	9999.00	2.521
5.73	40.00	0.00	9999.00	-8.96	2.42	94.47	-0.00	0.00	9999.00	2.424
5.80	42.00	0.00	9999.00	-9.52	2.32	99.22	-0.00	0.00	9999.00	2.322
5.86	44.00	0.00	9999.00	-10.07	2.22	103.75	-0.00	0.00	9999.00	2.216
5.91	46.00	0.00	9999.00	-10.61	2.10	108.07	-0.00	0.00	9999.00	2.104
5.95	48.00	0.00	9999.00	-11.13	1.99	112.17	-0.00	0.00	9999.00	1.989
5.99	50.00	0.00	9999.00	-11.64	1.87	116.03	-0.00	0.00	9999.00	1.870
6.02	52.00	0.00	9999.00	-12.14	1.75	119.64	-0.00	0.00	9999.00	1.747
6.04	54.00	0.00	9999.00	-12.62	1.62	123.01	-0.00	0.00	9999.00	1.622
6.05	56.00	0.00	9999.00	-13.08	1.49	126.13	-0.00	0.00	9999.00	1.494
6.06	58.00	0.00	9999.00	-13.53	1.36	128.98	-0.00	0.00	9999.00	1.363
6.06	60.00	0.00	9999.00	-13.97	1.23	131.58	-0.00	0.00	9999.00	1.230
6.05	62.00	0.00	9999.00	-14.38	1.10	133.90	-0.00	0.00	9999.00	1.096
6.03	64.00	0.00	9999.00	-14.78	0.96	135.96	-0.00	0.00	9999.00	0.960
6.01	66.00	0.00	9999.00	-15.16	0.82	137.74	-0.00	0.00	9999.00	0.823
5.98	68.00	0.00	9999.00	-15.53	0.68	139.25	-0.00	0.00	9999.00	0.684
5.94	70.00	0.00	9999.00	-15.87	0.55	140.48	-0.00	0.00	9999.00	0.545
5.90	72.00	0.00	9999.00	-16.19	0.41	141.43	-0.00	0.00	9999.00	0.406
5.85	74.00	0.00	9999.00	-16.50	0.27	142.10	-0.00	0.00	9999.00	0.266
5.79	76.00	0.00	9999.00	-16.78	0.13	142.49	-0.00	0.00	9999.00	0.125
5.72	78.00	0.00	9999.00	-17.05	-0.02	142.60	-0.00	-0.00	-9999.00	-0.015

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
--------- Intact Stability Check -- PHASE 8 ---------
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^6
Roll Angle
0
7.9
15.8
23.7
31.6
39.5
47.4
55.3
63.2
71.1
79

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025         *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 8 ------   *
*                                                                                    *
**************************************************************************************************************
```

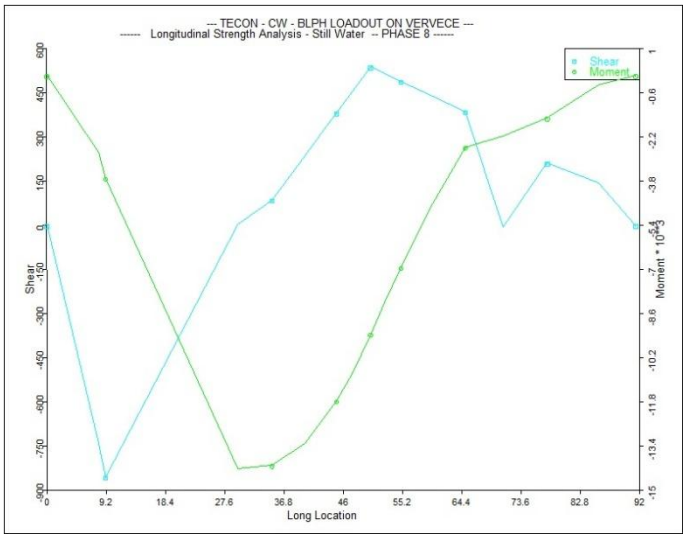
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 8: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-740	-2788	-0.1102	12.7280
9.14	-856	-3713	-0.1468	14.5116
29.72	1	-14226	-0.5622	38.4754
35.00	84	-14112	-0.5577	40.8521
40.00	233	-13319	-0.5263	41.5089
45.00	380	-11786	-0.4658	40.7041
47.50	454	-10743	-0.4246	39.8034
50.29	535	-9363	-0.3700	38.4494
52.50	513	-8205	-0.3243	37.1484
55.00	488	-6954	-0.2748	35.4636
60.00	436	-4644	-0.1836	31.5515
65.00	384	-2594	-0.1026	27.1248
70.87	-6	-2182	-0.0862	21.5441
77.72	209	-1532	-0.0606	14.6061
85.70	143	-328	-0.0130	6.1595
91.44	-1	0	0.0000	0.0002



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                 1 July, 2025    *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ---------     Intact Stability Check    -- PHASE 9 ---------              *
*                                                                                    *
**************************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 9: Units Are Degrees, Meters, and M-Tons Unless Specified

                                   Results Are Reported In Body System

                         Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

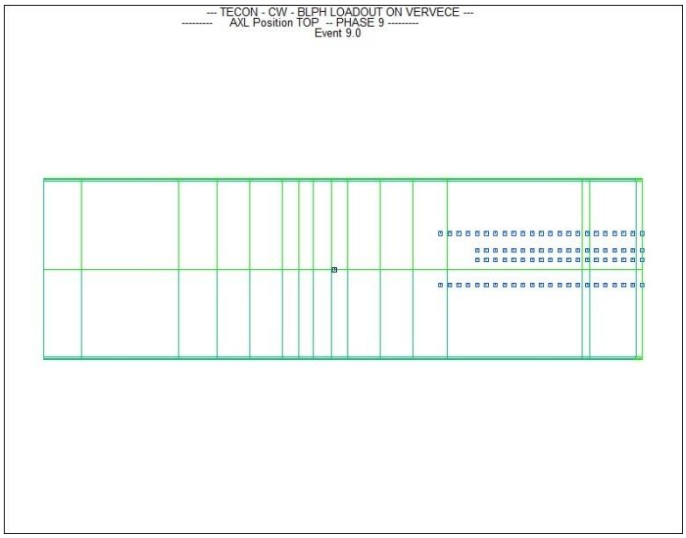
                                    Wet Radii Of Gyration About CG

                                K-X =     8.40 K-Y =    27.16 K-Z =    27.94

                                        GMT =    13.49 GML =   160.29

                                /-- Center of Gravity ---/  Sounding   % Full
                          Name   Weight    ---X---  ---Y---  ---Z---  -------- --------

                                ----------------  Part AXL9       ------------
                                LOAD_GRO   1676.50    14.49    -1.39     7.10
                                ----------------  Part CF         ------------
                                LOAD_GRO     28.00    69.38    11.22     8.10
                                ----------------  Part GRI&SF-B   ------------
                                LOAD_GRO     75.00    30.86    -1.14     7.35
                                ----------------  Part GRI&SF-C   ------------
                                LOAD_GRO      0.50    67.44    11.22     7.10
                                ----------------  Part GRI&SF-T   ------------
                                LOAD_GRO     45.00    65.20    -2.92     7.40
                                ----------------  Part TP         ------------
                                LOAD_GRO    254.50    65.54    -2.14     9.35
                                ----------------  Part VERVECE    ------------
                                LOAD_GRO   1832.80    47.02     0.00     3.52
                                             --- Contents ---
                          1PC       229.92     5.62    -3.43     3.77     6.02    98.00
                          1PW       117.49     6.50   -10.28     2.53     4.06    50.00
                          1SC       230.42     5.62     3.43     3.77     6.02    98.00
                          1SW       117.49     6.50    10.28     2.53     4.06    50.00
                          2PC        26.21    19.43    -3.43     0.09     0.18     3.00
                          2PW        72.47    19.43   -10.24     0.26     0.51     8.30
                          2SC        26.21    19.43     3.43     0.09     0.18     3.00
                          2SW       175.60    19.43    10.27     0.62     1.23    20.10
                          3PC        26.21    40.00    -3.43     0.09     0.18     3.00
                          3PW       490.34    40.01   -10.28     1.72     3.42    56.13
                          3SC        26.21    40.01     3.43     0.09     0.18     3.00
                          3SW       574.36    40.01    10.28     2.01     4.01    65.74
                          4PC       262.11    60.58    -3.43     0.91     1.83    30.00
                          4PW       856.16    60.58   -10.28     2.99     5.97    98.00
                          4SC       262.11    60.58     3.43     0.91     1.83    30.00
                          4SW       856.16    60.58    10.28     2.99     5.97    98.00
                          5PC       295.21    83.42    -3.43     2.16     3.96    60.00
                          5PW       560.40    80.09   -10.28     2.36     4.45    70.62
                          5SC       290.58    83.42     3.43     2.16     3.96    60.00
                          5SW       644.67    80.23    10.28     2.67     5.05    81.24
                                ========  ========  =======  =======  =======
                                Total     10052.61    46.75     0.00     3.60
                                Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*          ---------     Intact Stability Check    -- PHASE 9 ---------                              *
*                                                                                                     *
*******************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 9: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
**********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025          *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                               *
*         ---------     Intact Stability Check    -- PHASE 9 ---------             . *
*                                                                                    *
**************************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 9: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.60, and Wind Speed = 10 Knots

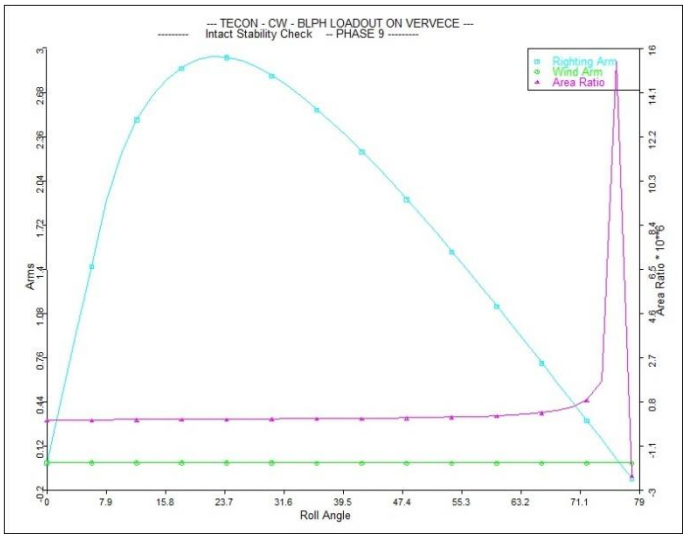
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.47	0.47	0.00	0.00	2951.24	0.472
4.29	4.00	0.00	9999.00	1.49	0.95	1.89	0.00	0.00	6068.26	0.947
4.27	6.00	0.00	9999.00	1.03	1.42	4.26	0.00	0.00	9531.84	1.424
4.25	8.00	0.00	9999.00	0.57	1.90	7.58	0.00	0.00	9999.00	1.896
4.26	10.00	0.00	9999.00	0.08	2.25	11.72	0.00	0.00	9999.00	2.246
4.31	12.00	0.00	9999.00	-0.46	2.49	16.45	0.00	0.00	9999.00	2.485
4.39	14.00	0.00	9999.00	-1.04	2.65	21.59	0.00	0.00	9999.00	2.654
4.48	16.00	0.00	9999.00	-1.63	2.77	27.02	0.00	0.00	9999.00	2.774
4.60	18.00	0.00	9999.00	-2.25	2.86	32.65	0.00	0.00	9999.00	2.858
4.72	20.00	0.00	9999.00	-2.88	2.91	38.43	0.00	0.00	9999.00	2.914
4.85	22.00	0.00	9999.00	-3.51	2.94	44.28	0.00	0.00	9999.00	2.941
4.97	24.00	0.00	9999.00	-4.14	2.94	50.16	0.00	0.00	9999.00	2.937
5.09	26.00	0.00	9999.00	-4.77	2.91	56.00	0.00	0.00	9999.00	2.909
5.20	28.00	0.00	9999.00	-5.39	2.86	61.78	0.00	0.00	9999.00	2.863
5.31	30.00	0.00	9999.00	-6.01	2.80	67.44	0.00	0.00	9999.00	2.803
5.41	32.00	0.00	9999.00	-6.62	2.73	72.98	0.00	0.00	9999.00	2.731
5.50	34.00	0.00	9999.00	-7.22	2.65	78.36	0.00	0.00	9999.00	2.649
5.58	36.00	0.00	9999.00	-7.81	2.56	83.57	-0.00	0.00	9999.00	2.560
5.66	38.00	0.00	9999.00	-8.39	2.46	88.59	-0.00	0.00	9999.00	2.464
5.73	40.00	0.00	9999.00	-8.96	2.36	93.42	-0.00	0.00	9999.00	2.362
5.80	42.00	0.00	9999.00	-9.52	2.26	98.03	-0.00	0.00	9999.00	2.255
5.86	44.00	0.00	9999.00	-10.07	2.14	102.43	-0.00	0.00	9999.00	2.143
5.91	46.00	0.00	9999.00	-10.61	2.03	106.60	-0.00	0.00	9999.00	2.028
5.95	48.00	0.00	9999.00	-11.13	1.91	110.54	-0.00	0.00	9999.00	1.908
5.99	50.00	0.00	9999.00	-11.64	1.79	114.23	-0.00	0.00	9999.00	1.785
6.02	52.00	0.00	9999.00	-12.14	1.66	117.68	-0.00	0.00	9999.00	1.659
6.04	54.00	0.00	9999.00	-12.62	1.53	120.87	-0.00	0.00	9999.00	1.531
6.05	56.00	0.00	9999.00	-13.08	1.40	123.80	-0.00	0.00	9999.00	1.400
6.06	58.00	0.00	9999.00	-13.53	1.27	126.46	-0.00	0.00	9999.00	1.267
6.06	60.00	0.00	9999.00	-13.97	1.13	128.86	-0.00	0.00	9999.00	1.133
6.05	62.00	0.00	9999.00	-14.38	1.00	130.99	-0.00	0.00	9999.00	0.997
6.03	64.00	0.00	9999.00	-14.78	0.86	132.85	-0.00	0.00	9999.00	0.860
6.01	66.00	0.00	9999.00	-15.16	0.72	134.43	-0.00	0.00	9999.00	0.723
5.98	68.00	0.00	9999.00	-15.53	0.58	135.74	-0.00	0.00	9999.00	0.584
5.94	70.00	0.00	9999.00	-15.87	0.44	136.77	-0.00	0.00	9999.00	0.445
5.90	72.00	0.00	9999.00	-16.19	0.30	137.52	-0.00	0.00	9999.00	0.305
5.85	74.00	0.00	9999.00	-16.50	0.16	137.99	-0.00	0.00	9999.00	0.165
5.79	76.00	0.00	9999.00	-16.78	0.02	138.18	-0.00	0.00	9999.00	0.025
5.72	78.00	0.00	9999.00	-17.05	-0.12	138.09	-0.00	-0.00	-9999.00	-0.116

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 9
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^6
Roll Angle
0
7.9
15.8
23.7
31.6
39.5
47.4
55.3
63.2
71.1
79

```
**********************************************************
*                                  ***  MOSES    ***                                  *
*                                  ----------------                  1 July, 2025    *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 9 ------   *
*                                                                                     *
***************************************************************************************************************
```

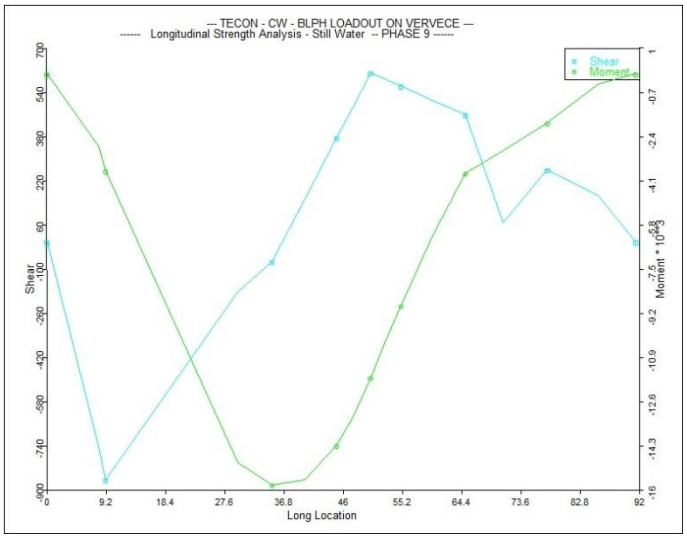
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 9: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-745	-2795	-0.1105	14.0442
9.14	-863	-3727	-0.1473	16.0160
29.72	-183	-14936	-0.5902	43.2930
35.00	-71	-15805	-0.6246	46.3995
40.00	152	-15605	-0.6167	47.5606
45.00	375	-14288	-0.5646	47.0118
47.50	486	-13210	-0.5221	46.1367
50.29	610	-11679	-0.4615	44.7314
52.50	588	-10356	-0.4093	43.3332
55.00	563	-8917	-0.3524	41.4827
60.00	511	-6232	-0.2463	37.0822
65.00	459	-3807	-0.1505	31.9920
70.87	68	-2954	-0.1168	25.4657
77.72	259	-1875	-0.0741	17.2768
85.70	164	-388	-0.0154	7.2863
91.44	-1	0	0.0000	0.0002



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                  1 July, 2025    *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ---------     Intact Stability Check    -- PHASE 10 ---------              *
*                                                                                    *
**************************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                    Process is 10: Units Are Degrees, Meters, and M-Tons Unless Specified

                                   Results Are Reported In Body System

                        Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =     0.00

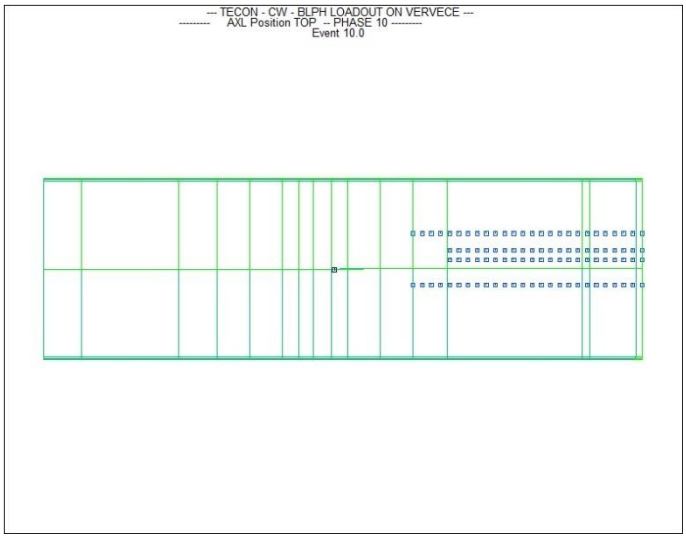
                                     Wet Radii Of Gyration About CG

                                K-X =     8.28 K-Y =    27.37 K-Z =    28.10

                                      GMT =    13.39 GML =   160.21

                                /-- Center of Gravity ---/  Sounding   % Full
                           Name  Weight    ---X---  ---Y---  ---Z---  -------- --------

                                ----------------  Part AXL10      ------------
                                LOAD_GRO   1913.20    16.56    -1.39     7.10
                                ----------------  Part CF         ------------
                                LOAD_GRO     28.00    69.38    11.22     8.10
                                ----------------  Part GRI&SF-B   ------------
                                LOAD_GRO     75.00    30.86    -1.14     7.35
                                ----------------  Part GRI&SF-C   ------------
                                LOAD_GRO      0.50    67.44    11.22     7.10
                                ----------------  Part GRI&SF-T   ------------
                                LOAD_GRO     45.00    65.20    -2.92     7.40
                                ----------------  Part TP         ------------
                                LOAD_GRO    254.50    65.54    -2.14     9.35
                                ----------------  Part VERVECE    ------------
                                LOAD_GRO   1832.80    47.02     0.00     3.52
                                           --- Contents ---
                           1PC      229.92     5.62    -3.43     3.77     6.02    98.00
                           1PW      117.49     6.50   -10.28     2.53     4.06    50.00
                           1SC      230.42     5.62     3.43     3.77     6.02    98.00
                           1SW      117.49     6.50    10.28     2.53     4.06    50.00
                           2PC       26.21    19.43    -3.43     0.09     0.18     3.00
                           2PW       72.47    19.43   -10.24     0.26     0.51     8.30
                           2SC       26.21    19.43     3.43     0.09     0.18     3.00
                           2SW      175.60    19.43    10.27     0.62     1.23    20.10
                           3PC       26.21    40.00    -3.43     0.09     0.18     3.00
                           3PW      338.06    40.01   -10.28     1.18     2.36    38.70
                           3SC       26.21    40.01     3.43     0.09     0.18     3.00
                           3SW      437.76    40.01    10.28     1.53     3.06    50.11
                           4PC      262.11    60.58    -3.43     0.91     1.83    30.00
                           4PW      856.16    60.58   -10.28     2.99     5.97    98.00
                           4SC      262.11    60.58     3.43     0.91     1.83    30.00
                           4SW      856.16    60.58    10.28     2.99     5.97    98.00
                           5PC      295.21    83.42    -3.43     2.16     3.96    60.00
                           5PW      578.35    80.12   -10.28     2.43     4.58    72.88
                           5SC      290.58    83.42     3.43     2.16     3.96    60.00
                           5SW      678.90    80.27    10.28     2.80     5.29    85.55
                                ========  ========  =======  =======  =======
                                Total     10052.61    46.76     0.00     3.70
                                Buoyancy  10052.61    46.76     0.00     2.21
```




```
                    ********************************************************
*                                       ***  MOSES   ***                                                  *
*                                       ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 10 ---------                                  *
*                                                                                                         *
***********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 10: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                      ***  MOSES   ***                                                    *
*                                      ----------------                          1 July, 2025             *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 10 ---------                                  .*
*                                                                                                         *
***********************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 10: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.70, and Wind Speed = 10 Knots

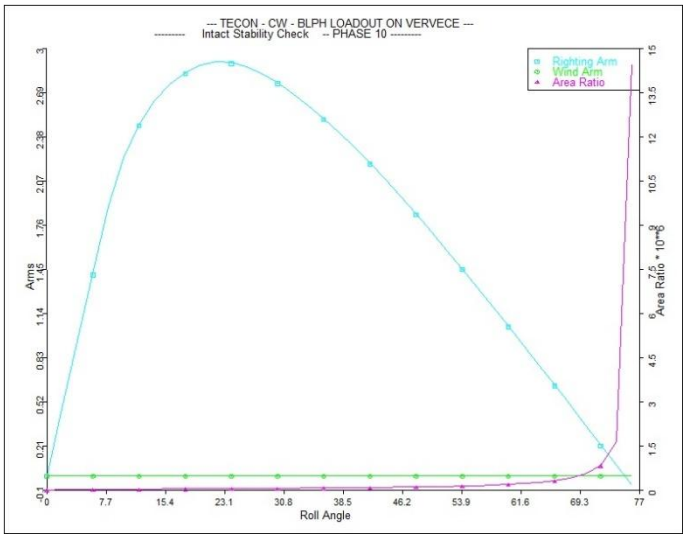
Initial: Roll = -0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.47	0.47	0.00	0.00	2929.12	0.468
4.29	4.00	0.00	9999.00	1.48	0.94	1.88	0.00	0.00	6022.81	0.940
4.27	6.00	0.00	9999.00	1.03	1.41	4.23	0.00	0.00	9460.61	1.414
4.25	8.00	0.00	9999.00	0.57	1.88	7.53	0.00	0.00	9999.00	1.882
4.26	10.00	0.00	9999.00	0.07	2.23	11.64	0.00	0.00	9999.00	2.228
4.31	12.00	0.00	9999.00	-0.47	2.46	16.33	0.00	0.00	9999.00	2.464
4.39	14.00	0.00	9999.00	-1.04	2.63	21.42	0.00	0.00	9999.00	2.630
4.48	16.00	0.00	9999.00	-1.63	2.75	26.80	0.00	0.00	9999.00	2.746
4.60	18.00	0.00	9999.00	-2.25	2.83	32.37	0.00	0.00	9999.00	2.828
4.72	20.00	0.00	9999.00	-2.88	2.88	38.08	0.00	0.00	9999.00	2.881
4.85	22.00	0.00	9999.00	-3.51	2.91	43.87	0.00	0.00	9999.00	2.905
4.97	24.00	0.00	9999.00	-4.15	2.90	49.67	0.00	0.00	9999.00	2.899
5.09	26.00	0.00	9999.00	-4.77	2.87	55.44	0.00	0.00	9999.00	2.868
5.20	28.00	0.00	9999.00	-5.40	2.82	61.13	0.00	0.00	9999.00	2.820
5.31	30.00	0.00	9999.00	-6.01	2.76	66.70	0.00	0.00	9999.00	2.757
5.41	32.00	0.00	9999.00	-6.62	2.68	72.14	0.00	0.00	9999.00	2.682
5.50	34.00	0.00	9999.00	-7.22	2.60	77.42	0.00	0.00	9999.00	2.598
5.58	36.00	0.00	9999.00	-7.81	2.51	82.53	-0.00	0.00	9999.00	2.506
5.66	38.00	0.00	9999.00	-8.39	2.41	87.44	-0.00	0.00	9999.00	2.407
5.73	40.00	0.00	9999.00	-8.96	2.30	92.15	-0.00	0.00	9999.00	2.302
5.80	42.00	0.00	9999.00	-9.52	2.19	96.64	-0.00	0.00	9999.00	2.192
5.86	44.00	0.00	9999.00	-10.07	2.08	100.91	-0.00	0.00	9999.00	2.077
5.91	46.00	0.00	9999.00	-10.61	1.96	104.95	-0.00	0.00	9999.00	1.959
5.95	48.00	0.00	9999.00	-11.13	1.84	108.74	-0.00	0.00	9999.00	1.836
5.99	50.00	0.00	9999.00	-11.64	1.71	112.29	-0.00	0.00	9999.00	1.711
6.01	52.00	0.00	9999.00	-12.14	1.58	115.58	-0.00	0.00	9999.00	1.583
6.04	54.00	0.00	9999.00	-12.62	1.45	118.62	-0.00	0.00	9999.00	1.453
6.05	56.00	0.00	9999.00	-13.08	1.32	121.39	-0.00	0.00	9999.00	1.320
6.06	58.00	0.00	9999.00	-13.53	1.19	123.90	-0.00	0.00	9999.00	1.186
6.06	60.00	0.00	9999.00	-13.97	1.05	126.14	-0.00	0.00	9999.00	1.050
6.05	62.00	0.00	9999.00	-14.38	0.91	128.10	-0.00	0.00	9999.00	0.913
6.03	64.00	0.00	9999.00	-14.78	0.77	129.79	-0.00	0.00	9999.00	0.775
6.01	66.00	0.00	9999.00	-15.16	0.64	131.20	-0.00	0.00	9999.00	0.636
5.98	68.00	0.00	9999.00	-15.53	0.50	132.33	-0.00	0.00	9999.00	0.496
5.94	70.00	0.00	9999.00	-15.87	0.36	133.18	-0.00	0.00	9999.00	0.356
5.90	72.00	0.00	9999.00	-16.19	0.21	133.75	-0.00	0.00	9999.00	0.215
5.85	74.00	0.00	9999.00	-16.50	0.07	134.04	-0.00	0.00	9999.00	0.074
5.79	76.00	0.00	9999.00	-16.78	-0.07	134.05	-0.00	0.00	9999.00	-0.067

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 10
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10**8
Roll Angle
0
7.7
15.4
23.1
30.8
38.5
46.2
53.9
61.6
69.3
77

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025         *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 10 ------   *
*                                                                                    *
**************************************************************************************************************
```

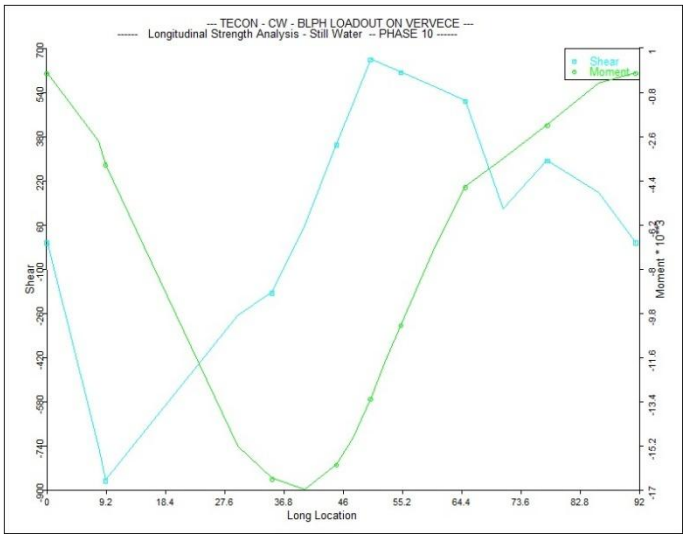
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 10: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-745	-2797	-0.1106	14.8403
9.14	-863	-3729	-0.1474	16.9258
29.72	-267	-15205	-0.6009	46.2128
35.00	-184	-16536	-0.6535	49.7862
40.00	59	-16977	-0.6709	51.3039
45.00	352	-15950	-0.6303	50.9636
47.50	499	-14887	-0.5883	50.1256
50.29	662	-13267	-0.5243	48.7078
52.50	639	-11830	-0.4675	47.2608
55.00	614	-10263	-0.4056	45.3169
60.00	563	-7321	-0.2893	40.6216
65.00	510	-4639	-0.1834	35.1171
70.87	119	-3484	-0.1377	27.9895
77.72	294	-2110	-0.0834	18.9980
85.70	178	-429	-0.0170	8.0129
91.44	-1	0	0.0000	0.0001



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  -----------------                 1 July, 2025    *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ---------     Intact Stability Check    -- PHASE 11 ---------              *
*                                                                                    *
**************************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                    Process is 11: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Results Are Reported In Body System

                        Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =     0.00

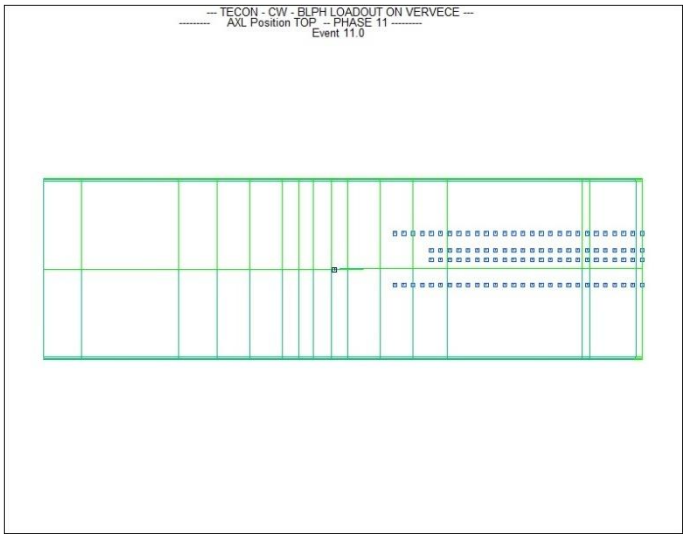
                                    Wet Radii Of Gyration About CG

                               K-X =     8.20 K-Y =    27.45 K-Z =    28.15

                                       GMT =    13.31 GML =   160.16

                               /-- Center of Gravity ---/  Sounding   % Full
                          Name  Weight    ---X---  ---Y---  ---Z---  -------- --------

                               ----------------  Part AXL11      ------------
                               LOAD_GRO   2071.00    17.93    -1.39     7.10
                               ----------------  Part CF         ------------
                               LOAD_GRO     28.00    69.38    11.22     8.10
                               ----------------  Part GRI&SF-B   ------------
                               LOAD_GRO     75.00    30.86    -1.14     7.35
                               ----------------  Part GRI&SF-C   ------------
                               LOAD_GRO      0.50    67.44    11.22     7.10
                               ----------------  Part GRI&SF-T   ------------
                               LOAD_GRO     45.00    65.20    -2.92     7.40
                               ----------------  Part TP         ------------
                               LOAD_GRO    254.50    65.54    -2.14     9.35
                               ----------------  Part VERVECE    ------------
                               LOAD_GRO   1832.80    47.02     0.00     3.52
                                            --- Contents ---
                          1PC      229.92     5.62    -3.43     3.77     6.02    98.00
                          1PW      117.49     6.50   -10.28     2.53     4.06    50.00
                          1SC      230.42     5.62     3.43     3.77     6.02    98.00
                          1SW      117.49     6.50    10.28     2.53     4.06    50.00
                          2PC       26.21    19.43    -3.43     0.09     0.18     3.00
                          2PW       72.47    19.43   -10.24     0.26     0.51     8.30
                          2SC       26.21    19.43     3.43     0.09     0.18     3.00
                          2SW      175.60    19.43    10.27     0.62     1.23    20.10
                          3PC       26.21    40.00    -3.43     0.09     0.18     3.00
                          3PW      244.10    40.01   -10.27     0.86     1.71    27.94
                          3SC       26.21    40.01     3.43     0.09     0.18     3.00
                          3SW      354.21    40.01    10.28     1.24     2.48    40.55
                          4PC      262.11    60.58    -3.43     0.91     1.83    30.00
                          4PW      856.16    60.58   -10.28     2.99     5.97    98.00
                          4SC      262.11    60.58     3.43     0.91     1.83    30.00
                          4SW      856.16    60.58    10.28     2.99     5.97    98.00
                          5PC      295.21    83.42    -3.43     2.16     3.96    60.00
                          5PW      582.76    80.13   -10.28     2.44     4.61    73.43
                          5SC      290.58    83.42     3.43     2.16     3.96    60.00
                          5SW      694.20    80.29    10.28     2.85     5.40    87.48
                               ========  ========  =======  =======  =======
                               Total     10052.61    46.75     0.00     3.78
                               Buoyancy  10052.61    46.75     0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                  *
*          ---------     Intact Stability Check    -- PHASE 11 ---------                                *
*                                                                                                       *
*************************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 11: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
**********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025          *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                               *
*         ---------     Intact Stability Check    -- PHASE 11 ---------            .*
*                                                                                    *
**************************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 11: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.78, and Wind Speed = 10 Knots

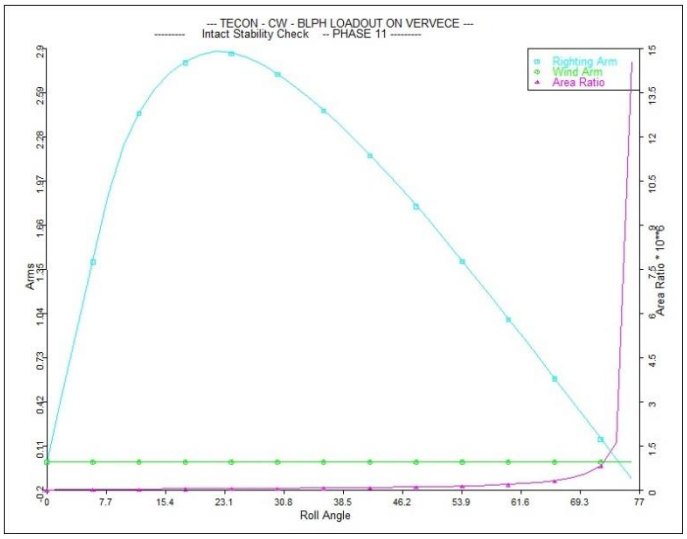
Initial: Roll = -0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.47	0.47	0.00	0.00	2911.83	0.465
4.29	4.00	0.00	9999.00	1.49	0.93	1.87	0.00	0.00	5987.33	0.934
4.27	6.00	0.00	9999.00	1.03	1.41	4.21	0.00	0.00	9404.99	1.405
4.25	8.00	0.00	9999.00	0.57	1.87	7.48	0.00	0.00	9999.00	1.871
4.26	10.00	0.00	9999.00	0.07	2.21	11.57	0.00	0.00	9999.00	2.214
4.31	12.00	0.00	9999.00	-0.46	2.45	16.23	0.00	0.00	9999.00	2.448
4.39	14.00	0.00	9999.00	-1.04	2.61	21.29	0.00	0.00	9999.00	2.611
4.48	16.00	0.00	9999.00	-1.63	2.73	26.62	0.00	0.00	9999.00	2.725
4.60	18.00	0.00	9999.00	-2.25	2.80	32.15	0.00	0.00	9999.00	2.804
4.72	20.00	0.00	9999.00	-2.88	2.86	37.81	0.00	0.00	9999.00	2.855
4.85	22.00	0.00	9999.00	-3.51	2.88	43.54	0.00	0.00	9999.00	2.877
4.97	24.00	0.00	9999.00	-4.14	2.87	49.29	0.00	0.00	9999.00	2.868
5.09	26.00	0.00	9999.00	-4.77	2.84	54.99	0.00	0.00	9999.00	2.835
5.20	28.00	0.00	9999.00	-5.39	2.78	60.61	0.00	0.00	9999.00	2.785
5.31	30.00	0.00	9999.00	-6.01	2.72	66.12	0.00	0.00	9999.00	2.720
5.41	32.00	0.00	9999.00	-6.62	2.64	71.48	0.00	0.00	9999.00	2.644
5.50	34.00	0.00	9999.00	-7.22	2.56	76.68	0.00	0.00	9999.00	2.559
5.58	36.00	0.00	9999.00	-7.81	2.47	81.71	-0.00	0.00	9999.00	2.466
5.66	38.00	0.00	9999.00	-8.39	2.37	86.54	-0.00	0.00	9999.00	2.367
5.73	40.00	0.00	9999.00	-8.96	2.26	91.17	-0.00	0.00	9999.00	2.261
5.80	42.00	0.00	9999.00	-9.52	2.15	95.58	-0.00	0.00	9999.00	2.151
5.86	44.00	0.00	9999.00	-10.07	2.04	99.77	-0.00	0.00	9999.00	2.037
5.91	46.00	0.00	9999.00	-10.61	1.92	103.72	-0.00	0.00	9999.00	1.918
5.95	48.00	0.00	9999.00	-11.13	1.80	107.44	-0.00	0.00	9999.00	1.795
5.99	50.00	0.00	9999.00	-11.64	1.67	110.90	-0.00	0.00	9999.00	1.669
6.02	52.00	0.00	9999.00	-12.14	1.54	114.11	-0.00	0.00	9999.00	1.541
6.04	54.00	0.00	9999.00	-12.62	1.41	117.06	-0.00	0.00	9999.00	1.409
6.05	56.00	0.00	9999.00	-13.08	1.28	119.75	-0.00	0.00	9999.00	1.275
6.06	58.00	0.00	9999.00	-13.53	1.14	122.16	-0.00	0.00	9999.00	1.140
6.06	60.00	0.00	9999.00	-13.97	1.00	124.30	-0.00	0.00	9999.00	1.002
6.05	62.00	0.00	9999.00	-14.38	0.86	126.17	-0.00	0.00	9999.00	0.864
6.03	64.00	0.00	9999.00	-14.78	0.72	127.76	-0.00	0.00	9999.00	0.724
6.01	66.00	0.00	9999.00	-15.16	0.58	129.07	-0.00	0.00	9999.00	0.584
5.98	68.00	0.00	9999.00	-15.53	0.44	130.09	-0.00	0.00	9999.00	0.443
5.94	70.00	0.00	9999.00	-15.87	0.30	130.84	-0.00	0.00	9999.00	0.301
5.90	72.00	0.00	9999.00	-16.19	0.16	131.30	-0.00	0.00	9999.00	0.159
5.85	74.00	0.00	9999.00	-16.50	0.02	131.47	-0.00	0.00	9999.00	0.017
5.79	76.00	0.00	9999.00	-16.78	-0.13	131.37	-0.00	0.00	9999.00	-0.125

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 11
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10**6
Roll Angle
0
7.7
15.4
23.1
30.8
38.5
46.2
53.9
61.6
69.3
77

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025         *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                               *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 11 ------ *
*                                                                                    *
**************************************************************************************************************
```

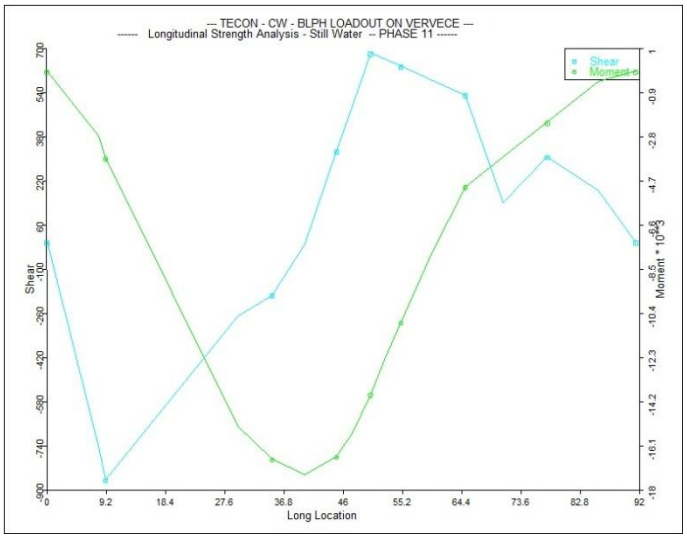
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 11: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-745	-2796	-0.1105	15.1046
9.14	-863	-3728	-0.1474	17.2279
29.72	-271	-15264	-0.6032	47.1863
35.00	-193	-16674	-0.6589	50.9196
40.00	-9	-17351	-0.6857	52.5730
45.00	327	-16559	-0.6544	52.3280
47.50	495	-15532	-0.6138	51.5141
50.29	682	-13889	-0.5489	50.1022
52.50	660	-12408	-0.4903	48.6447
55.00	634	-10790	-0.4264	46.6739
60.00	583	-7747	-0.3062	41.8832
65.00	530	-4964	-0.1962	36.2358
70.87	140	-3691	-0.1459	28.8959
77.72	307	-2202	-0.0871	19.6174
85.70	184	-445	-0.0176	8.2746
91.44	-1	0	0.0000	0.0002



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                  1 July, 2025    *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ---------     Intact Stability Check    -- PHASE 12 ---------              *
*                                                                                    *
**************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                Process is 12: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Results Are Reported In Body System

                    Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =    -0.00

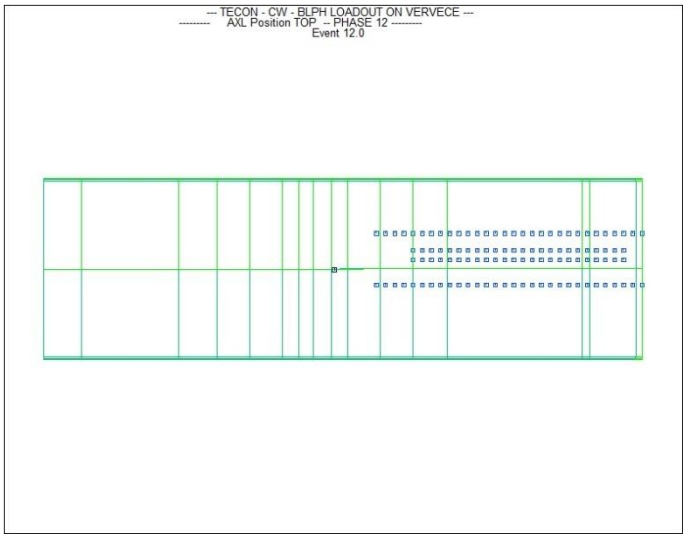
                                Wet Radii Of Gyration About CG

                              K-X =     8.15 K-Y =    27.18 K-Z =    27.87

                                       GMT =    13.27 GML =   160.10

                              /-- Center of Gravity ---/  Sounding   % Full
                        Name   Weight    ---X---  ---Y---  ---Z---  -------- --------

                              ----------------  Part AXL12      ------------
                              LOAD_GRO   2176.20    19.77    -1.37     7.10
                              ----------------  Part CF         ------------
                              LOAD_GRO     28.00    69.38    11.22     8.10
                              ----------------  Part GRI&SF-B   ------------
                              LOAD_GRO     75.00    30.86    -1.14     7.35
                              ----------------  Part GRI&SF-C   ------------
                              LOAD_GRO      0.50    67.44    11.22     7.10
                              ----------------  Part GRI&SF-T   ------------
                              LOAD_GRO     45.00    65.20    -2.92     7.40
                              ----------------  Part TP         ------------
                              LOAD_GRO    254.50    65.54    -2.14     9.35
                              ----------------  Part VERVECE    ------------
                              LOAD_GRO   1832.80    47.02     0.00     3.52
                                           --- Contents ---
                        1PC      229.92     5.62    -3.43     3.77     6.02    98.00
                        1PW      117.49     6.50   -10.28     2.53     4.06    50.00
                        1SC      230.42     5.62     3.43     3.77     6.02    98.00
                        1SW      117.49     6.50    10.28     2.53     4.06    50.00
                        2PC       26.21    19.43    -3.43     0.09     0.18     3.00
                        2PW       72.47    19.43   -10.24     0.26     0.51     8.30
                        2SC       26.21    19.43     3.43     0.09     0.18     3.00
                        2SW      175.60    19.43    10.27     0.62     1.23    20.10
                        3PC       26.21    40.00    -3.43     0.09     0.18     3.00
                        3PW      209.88    40.00   -10.27     0.74     1.47    24.02
                        3SC       26.21    40.01     3.43     0.09     0.18     3.00
                        3SW      325.11    40.00    10.28     1.14     2.27    37.21
                        4PC      262.11    60.58    -3.43     0.91     1.83    30.00
                        4PW      856.16    60.58   -10.28     2.99     5.97    98.00
                        4SC      262.11    60.58     3.43     0.91     1.83    30.00
                        4SW      856.16    60.58    10.28     2.99     5.97    98.00
                        5PC      295.21    83.42    -3.43     2.16     3.96    60.00
                        5PW      559.17    80.09   -10.28     2.36     4.45    70.46
                        5SC      290.58    83.42     3.43     2.16     3.96    60.00
                        5SW      675.91    80.27    10.28     2.79     5.27    85.17
                              ========  ========  =======  =======  =======
                              Total     10052.61    46.75     0.00     3.83
                              Buoyancy  10052.61    46.75     0.00     2.21
```




```
                    ********************************************************
*                                       ***  MOSES   ***                                                  *
*                                       ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 12 ---------                                  *
*                                                                                                         *
***********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 12: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          1 July, 2025          *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*         ---------     Intact Stability Check    -- PHASE 12 ---------                             .*
*                                                                                                    *
******************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 12: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.83, and Wind Speed = 10 Knots

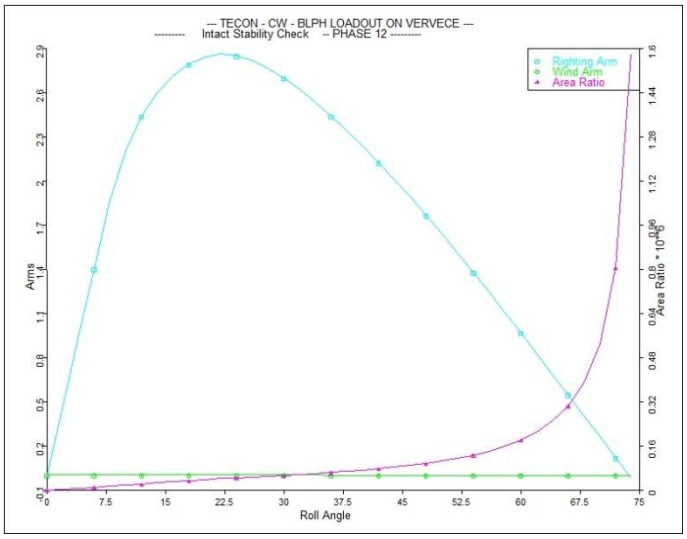
Initial: Roll = -0.00, Trim = -0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.46	0.46	0.00	0.00	2902.86	0.464
4.29	4.00	0.00	9999.00	1.48	0.93	1.86	0.00	0.00	5968.94	0.932
4.27	6.00	0.00	9999.00	1.03	1.40	4.19	0.00	0.00	9376.14	1.401
4.25	8.00	0.00	9999.00	0.57	1.86	7.46	0.00	0.00	9999.00	1.865
4.26	10.00	0.00	9999.00	0.07	2.21	11.53	0.00	0.00	9999.00	2.207
4.31	12.00	0.00	9999.00	-0.47	2.44	16.18	0.00	0.00	9999.00	2.439
4.39	14.00	0.00	9999.00	-1.04	2.60	21.22	0.00	0.00	9999.00	2.600
4.49	16.00	0.00	9999.00	-1.63	2.71	26.53	0.00	0.00	9999.00	2.713
4.60	18.00	0.00	9999.00	-2.25	2.79	32.03	0.00	0.00	9999.00	2.790
4.72	20.00	0.00	9999.00	-2.88	2.84	37.66	0.00	0.00	9999.00	2.840
4.85	22.00	0.00	9999.00	-3.51	2.86	43.36	0.00	0.00	9999.00	2.859
4.97	24.00	0.00	9999.00	-4.15	2.85	49.07	0.00	0.00	9999.00	2.849
5.09	26.00	0.00	9999.00	-4.77	2.82	54.73	0.00	0.00	9999.00	2.815
5.20	28.00	0.00	9999.00	-5.40	2.76	60.31	0.00	0.00	9999.00	2.763
5.31	30.00	0.00	9999.00	-6.01	2.70	65.77	0.00	0.00	9999.00	2.697
5.41	32.00	0.00	9999.00	-6.62	2.62	71.09	0.00	0.00	9999.00	2.620
5.50	34.00	0.00	9999.00	-7.22	2.53	76.24	0.00	0.00	9999.00	2.534
5.59	36.00	0.00	9999.00	-7.81	2.44	81.22	-0.00	0.00	9999.00	2.440
5.66	38.00	0.00	9999.00	-8.39	2.34	86.00	-0.00	0.00	9999.00	2.340
5.74	40.00	0.00	9999.00	-8.96	2.23	90.57	-0.00	0.00	9999.00	2.234
5.80	42.00	0.00	9999.00	-9.52	2.12	94.93	-0.00	0.00	9999.00	2.123
5.86	44.00	0.00	9999.00	-10.07	2.01	99.06	-0.00	0.00	9999.00	2.008
5.91	46.00	0.00	9999.00	-10.61	1.89	102.95	-0.00	0.00	9999.00	1.889
5.95	48.00	0.00	9999.00	-11.13	1.77	106.61	-0.00	0.00	9999.00	1.765
5.99	50.00	0.00	9999.00	-11.64	1.64	110.01	-0.00	0.00	9999.00	1.639
6.02	52.00	0.00	9999.00	-12.14	1.51	113.16	-0.00	0.00	9999.00	1.509
6.04	54.00	0.00	9999.00	-12.62	1.38	116.04	-0.00	0.00	9999.00	1.377
6.05	56.00	0.00	9999.00	-13.09	1.24	118.66	-0.00	0.00	9999.00	1.242
6.06	58.00	0.00	9999.00	-13.54	1.11	121.01	-0.00	0.00	9999.00	1.106
6.06	60.00	0.00	9999.00	-13.97	0.97	123.08	-0.00	0.00	9999.00	0.968
6.05	62.00	0.00	9999.00	-14.38	0.83	124.88	-0.00	0.00	9999.00	0.828
6.03	64.00	0.00	9999.00	-14.78	0.69	126.40	-0.00	0.00	9999.00	0.688
6.01	66.00	0.00	9999.00	-15.16	0.55	127.63	-0.00	0.00	9999.00	0.547
5.98	68.00	0.00	9999.00	-15.53	0.40	128.58	-0.00	0.00	9999.00	0.405
5.94	70.00	0.00	9999.00	-15.87	0.26	129.25	-0.00	0.00	9999.00	0.262
5.90	72.00	0.00	9999.00	-16.19	0.12	129.63	-0.00	0.00	9999.00	0.120
5.85	74.00	0.00	9999.00	-16.50	-0.02	129.73	-0.00	0.00	9999.00	-0.023

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 12 ---
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
7.5
15
22.5
30
37.5
45
52.5
60
67.5
75

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025         *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                               *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 12 ------ *
*                                                                                    *
**************************************************************************************************************
```

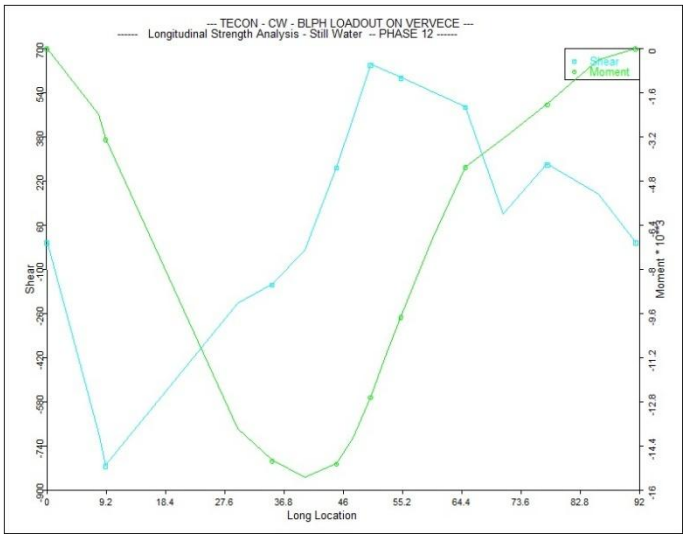
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 12: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-692	-2411	-0.0953	13.6131
9.14	-810	-3283	-0.1298	15.5293
29.72	-222	-13780	-0.5445	42.5330
35.00	-153	-14923	-0.5897	45.8798
40.00	-30	-15531	-0.6137	47.3625
45.00	270	-15032	-0.5940	47.1426
47.50	445	-14138	-0.5587	46.4064
50.29	641	-12621	-0.4988	45.1263
52.50	619	-11230	-0.4438	43.8046
55.00	593	-9715	-0.3839	42.0179
60.00	542	-6877	-0.2718	37.6808
65.00	489	-4299	-0.1699	32.5832
70.87	98	-3267	-0.1291	25.9802
77.72	280	-2014	-0.0796	17.6427
85.70	173	-412	-0.0163	7.4431
91.44	-1	0	0.0000	0.0002



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  -----------------          1 July, 2025         *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ---------     Intact Stability Check    -- PHASE 13 ---------              *
*                                                                                    *
**************************************************************************************************************

                  +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                  ====================================================================

                  Process is 13: Units Are Degrees, Meters, and M-Tons Unless Specified

                                 Results Are Reported In Body System

                      Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =    -0.00

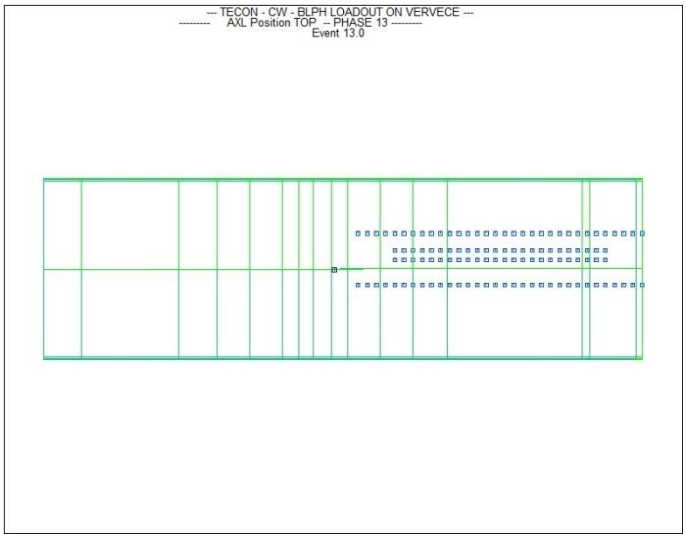
                                   Wet Radii Of Gyration About CG

                               K-X =     8.10 K-Y =    26.91 K-Z =    27.58

                                        GMT =    13.22 GML =   160.02

                               /-- Center of Gravity ---/  Sounding   % Full
                          Name  Weight    ---X---  ---Y---  ---Z---  -------- --------

                               ----------------  Part AXL13      ------------
                               LOAD_GRO   2281.40    21.56    -1.36     7.10
                               ----------------  Part CF         ------------
                               LOAD_GRO     28.00    69.38    11.22     8.10
                               ----------------  Part GRI&SF-B   ------------
                               LOAD_GRO     75.00    30.86    -1.14     7.35
                               ----------------  Part GRI&SF-C   ------------
                               LOAD_GRO      0.50    67.44    11.22     7.10
                               ----------------  Part GRI&SF-T   ------------
                               LOAD_GRO     45.00    65.20    -2.92     7.40
                               ----------------  Part TP         ------------
                               LOAD_GRO    254.50    65.54    -2.14     9.35
                               ----------------  Part VERVECE    ------------
                               LOAD_GRO   1832.80    47.02     0.00     3.52
                                             --- Contents ---
                          1PC      229.92     5.62    -3.43     3.77     6.02    98.00
                          1PW      117.49     6.50   -10.28     2.53     4.06    50.00
                          1SC      230.42     5.62     3.43     3.77     6.02    98.00
                          1SW      117.49     6.50    10.28     2.53     4.06    50.00
                          2PC       26.21    19.43    -3.43     0.09     0.18     3.00
                          2PW       72.47    19.43   -10.24     0.26     0.51     8.30
                          2SC       26.21    19.43     3.43     0.09     0.18     3.00
                          2SW      175.60    19.43    10.27     0.62     1.23    20.10
                          3PC       26.21    40.00    -3.43     0.09     0.18     3.00
                          3PW      178.62    40.00   -10.27     0.63     1.25    20.45
                          3SC       26.21    40.01     3.43     0.09     0.18     3.00
                          3SW      298.96    40.00    10.28     1.05     2.09    34.22
                          4PC      262.11    60.58    -3.43     0.91     1.83    30.00
                          4PW      856.16    60.58   -10.28     2.99     5.97    98.00
                          4SC      262.11    60.58     3.43     0.91     1.83    30.00
                          4SW      856.16    60.58    10.28     2.99     5.97    98.00
                          5PC      295.21    83.42    -3.43     2.16     3.96    60.00
                          5PW      532.62    80.03   -10.28     2.26     4.26    67.12
                          5SC      290.58    83.42     3.43     2.16     3.96    60.00
                          5SW      654.67    80.24    10.28     2.71     5.12    82.50
                               ========  ========  =======  =======  =======
                               Total     10052.61    46.75     0.00     3.87
                               Buoyancy  10052.61    46.75     0.00     2.21
```




```
                    ********************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                    1 July, 2025                 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*          ---------     Intact Stability Check    -- PHASE 13 ---------                             *
*                                                                                                     *
*******************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 13: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          1 July, 2025          *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*         ---------     Intact Stability Check    -- PHASE 13 ---------                             .*
*                                                                                                    *
******************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 13: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.87, and Wind Speed = 10 Knots

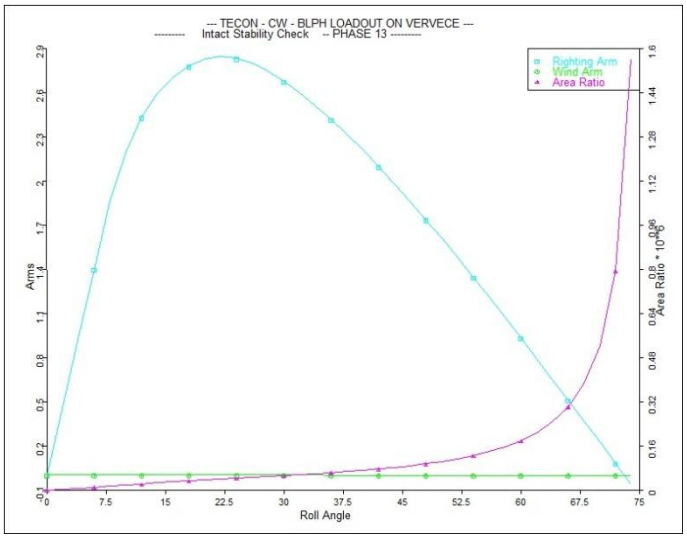
Initial: Roll = -0.00, Trim = -0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.46	0.46	0.00	0.00	2893.72	0.463
4.29	4.00	0.00	9999.00	1.48	0.93	1.85	0.00	0.00	5950.19	0.929
4.27	6.00	0.00	9999.00	1.03	1.40	4.18	0.00	0.00	9346.74	1.397
4.25	8.00	0.00	9999.00	0.57	1.86	7.43	0.00	0.00	9999.00	1.859
4.26	10.00	0.00	9999.00	0.07	2.20	11.49	0.00	0.00	9999.00	2.200
4.31	12.00	0.00	9999.00	-0.47	2.43	16.12	0.00	0.00	9999.00	2.430
4.39	14.00	0.00	9999.00	-1.04	2.59	21.14	0.00	0.00	9999.00	2.590
4.49	16.00	0.00	9999.00	-1.63	2.70	26.43	0.00	0.00	9999.00	2.701
4.60	18.00	0.00	9999.00	-2.25	2.78	31.91	0.00	0.00	9999.00	2.777
4.72	20.00	0.00	9999.00	-2.88	2.82	37.51	0.00	0.00	9999.00	2.824
4.85	22.00	0.00	9999.00	-3.51	2.84	43.18	0.00	0.00	9999.00	2.842
4.98	24.00	0.00	9999.00	-4.15	2.83	48.85	0.00	0.00	9999.00	2.831
5.09	26.00	0.00	9999.00	-4.77	2.80	54.48	0.00	0.00	9999.00	2.796
5.20	28.00	0.00	9999.00	-5.40	2.74	60.02	0.00	0.00	9999.00	2.743
5.31	30.00	0.00	9999.00	-6.01	2.68	65.44	0.00	0.00	9999.00	2.675
5.41	32.00	0.00	9999.00	-6.62	2.60	70.71	0.00	0.00	9999.00	2.597
5.50	34.00	0.00	9999.00	-7.22	2.51	75.82	0.00	0.00	9999.00	2.509
5.59	36.00	0.00	9999.00	-7.81	2.41	80.74	-0.00	0.00	9999.00	2.414
5.66	38.00	0.00	9999.00	-8.39	2.31	85.47	-0.00	0.00	9999.00	2.313
5.74	40.00	0.00	9999.00	-8.96	2.21	89.99	-0.00	0.00	9999.00	2.207
5.80	42.00	0.00	9999.00	-9.52	2.10	94.29	-0.00	0.00	9999.00	2.095
5.86	44.00	0.00	9999.00	-10.07	1.98	98.36	-0.00	0.00	9999.00	1.979
5.91	46.00	0.00	9999.00	-10.61	1.86	102.20	-0.00	0.00	9999.00	1.859
5.95	48.00	0.00	9999.00	-11.13	1.73	105.79	-0.00	0.00	9999.00	1.735
5.99	50.00	0.00	9999.00	-11.64	1.61	109.14	-0.00	0.00	9999.00	1.607
6.02	52.00	0.00	9999.00	-12.14	1.48	112.22	-0.00	0.00	9999.00	1.477
6.04	54.00	0.00	9999.00	-12.62	1.34	115.04	-0.00	0.00	9999.00	1.344
6.05	56.00	0.00	9999.00	-13.09	1.21	117.59	-0.00	0.00	9999.00	1.208
6.06	58.00	0.00	9999.00	-13.54	1.07	119.87	-0.00	0.00	9999.00	1.071
6.06	60.00	0.00	9999.00	-13.97	0.93	121.87	-0.00	0.00	9999.00	0.932
6.05	62.00	0.00	9999.00	-14.38	0.79	123.60	-0.00	0.00	9999.00	0.793
6.03	64.00	0.00	9999.00	-14.78	0.65	125.04	-0.00	0.00	9999.00	0.652
6.01	66.00	0.00	9999.00	-15.16	0.51	126.20	-0.00	0.00	9999.00	0.509
5.98	68.00	0.00	9999.00	-15.53	0.37	127.08	-0.00	0.00	9999.00	0.367
5.94	70.00	0.00	9999.00	-15.87	0.22	127.67	-0.00	0.00	9999.00	0.224
5.90	72.00	0.00	9999.00	-16.19	0.08	127.98	-0.00	0.00	9999.00	0.080
5.85	74.00	0.00	9999.00	-16.50	-0.06	127.99	-0.00	0.00	9999.00	-0.063

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 13 ---
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
7.5
15
22.5
30
37.5
45
52.5
60
67.5
75

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025         *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                               *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 13 ------ *
*                                                                                    *
**************************************************************************************************************
```

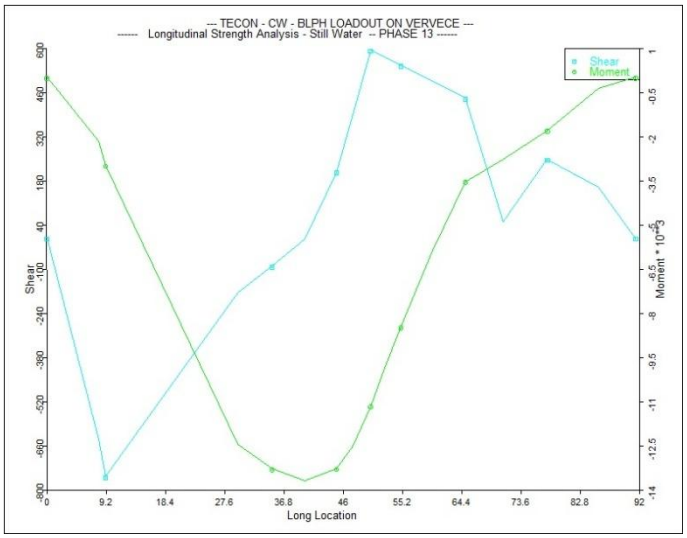
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 13: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-639	-2175	-0.0860	12.1769
9.14	-758	-2986	-0.1180	13.8907
29.72	-174	-12442	-0.4917	37.8792
35.00	-90	-13292	-0.5253	40.7800
40.00	-5	-13697	-0.5413	42.0245
45.00	207	-13268	-0.5243	41.7672
47.50	390	-12522	-0.4949	41.0868
50.29	593	-11149	-0.4406	39.9215
52.50	571	-9864	-0.3898	38.7265
55.00	546	-8468	-0.3346	37.1187
60.00	494	-5868	-0.2319	33.2394
65.00	442	-3529	-0.1395	28.7107
70.87	51	-2776	-0.1097	22.8815
77.72	248	-1796	-0.0710	15.5412
85.70	159	-374	-0.0148	6.5578
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          1 July, 2025          *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*         ---------     Intact Stability Check    -- PHASE 14 ---------                             *
*                                                                                                    *
******************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                Process is 14: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                    Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

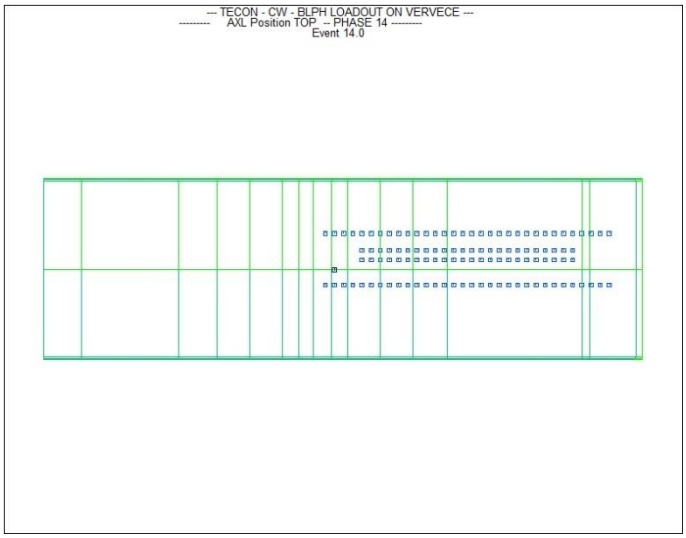
                                 Wet Radii Of Gyration About CG

                           K-X =     8.11 K-Y =    25.77 K-Z =    26.48

                                    GMT =    13.29 GML =   159.88

                           /-- Center of Gravity ---/  Sounding   % Full
                  Name      Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL14      ------------
                           LOAD_GRO   2281.40    26.56    -1.36     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part TP         ------------
                           LOAD_GRO    254.50    65.54    -2.14     9.35
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                    1PC         229.92     5.62    -3.43     3.77     6.02    98.00
                    1PW         117.49     6.50   -10.28     2.53     4.06    50.00
                    1SC         230.42     5.62     3.43     3.77     6.02    98.00
                    1SW         117.49     6.50    10.28     2.53     4.06    50.00
                    2PC          26.21    19.43    -3.43     0.09     0.18     3.00
                    2PW         160.09    19.43   -10.26     0.56     1.12    18.32
                    2SC          26.21    19.43     3.43     0.09     0.18     3.00
                    2SW         271.97    19.43    10.27     0.95     1.90    31.13
                    3PC          26.21    40.00    -3.43     0.09     0.18     3.00
                    3PW         178.62    40.01   -10.27     0.63     1.25    20.45
                    3SC          26.21    40.01     3.43     0.09     0.18     3.00
                    3SW         298.96    40.01    10.28     1.05     2.09    34.22
                    4PC         262.11    60.58    -3.43     0.91     1.83    30.00
                    4PW         856.16    60.58   -10.28     2.99     5.97    98.00
                    4SC         262.11    60.58     3.43     0.91     1.83    30.00
                    4SW         856.16    60.58    10.28     2.99     5.97    98.00
                    5PC         295.21    83.42    -3.43     2.16     3.96    60.00
                    5PW         445.01    79.81   -10.28     1.92     3.64    56.08
                    5SC         290.58    83.42     3.43     2.16     3.96    60.00
                    5SW         558.29    80.08    10.28     2.35     4.44    70.35
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75     0.00     3.81
                           Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                        1 July, 2025             *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*          ---------     Intact Stability Check    -- PHASE 14 ---------                             *
*                                                                                                     *
*******************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 14: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
**********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025          *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                               *
*         ---------     Intact Stability Check    -- PHASE 14 ---------            .*
*                                                                                    *
**********************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 14: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.81, and Wind Speed = 10 Knots

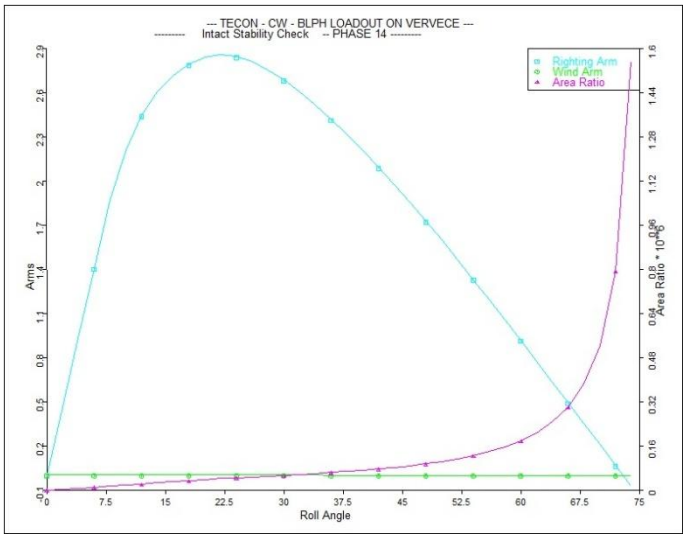
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.46	0.46	0.00	0.00	2906.27	0.465
4.29	4.00	0.00	9999.00	1.49	0.93	1.86	0.00	0.00	5976.07	0.933
4.27	6.00	0.00	9999.00	1.03	1.40	4.20	0.00	0.00	9387.45	1.403
4.25	8.00	0.00	9999.00	0.57	1.87	7.47	0.00	0.00	9999.00	1.867
4.26	10.00	0.00	9999.00	0.08	2.21	11.54	0.00	0.00	9999.00	2.210
4.31	12.00	0.00	9999.00	-0.46	2.44	16.20	0.00	0.00	9999.00	2.441
4.39	14.00	0.00	9999.00	-1.04	2.60	21.24	0.00	0.00	9999.00	2.602
4.48	16.00	0.00	9999.00	-1.63	2.71	26.56	0.00	0.00	9999.00	2.714
4.60	18.00	0.00	9999.00	-2.25	2.79	32.06	0.00	0.00	9999.00	2.790
4.72	20.00	0.00	9999.00	-2.88	2.84	37.69	0.00	0.00	9999.00	2.837
4.85	22.00	0.00	9999.00	-3.51	2.86	43.38	0.00	0.00	9999.00	2.855
4.97	24.00	0.00	9999.00	-4.14	2.84	49.08	0.00	0.00	9999.00	2.843
5.09	26.00	0.00	9999.00	-4.77	2.81	54.73	0.00	0.00	9999.00	2.806
5.20	28.00	0.00	9999.00	-5.39	2.75	60.28	0.00	0.00	9999.00	2.752
5.31	30.00	0.00	9999.00	-6.01	2.68	65.72	0.00	0.00	9999.00	2.683
5.41	32.00	0.00	9999.00	-6.62	2.60	71.00	0.00	0.00	9999.00	2.603
5.50	34.00	0.00	9999.00	-7.22	2.51	76.12	0.00	0.00	9999.00	2.513
5.58	36.00	0.00	9999.00	-7.81	2.42	81.05	-0.00	0.00	9999.00	2.416
5.66	38.00	0.00	9999.00	-8.39	2.31	85.78	-0.00	0.00	9999.00	2.313
5.73	40.00	0.00	9999.00	-8.96	2.20	90.29	-0.00	0.00	9999.00	2.204
5.80	42.00	0.00	9999.00	-9.52	2.09	94.59	-0.00	0.00	9999.00	2.090
5.86	44.00	0.00	9999.00	-10.07	1.97	98.65	-0.00	0.00	9999.00	1.972
5.91	46.00	0.00	9999.00	-10.61	1.85	102.47	-0.00	0.00	9999.00	1.850
5.95	48.00	0.00	9999.00	-11.13	1.72	106.05	-0.00	0.00	9999.00	1.724
5.99	50.00	0.00	9999.00	-11.64	1.60	109.37	-0.00	0.00	9999.00	1.595
6.02	52.00	0.00	9999.00	-12.14	1.46	112.42	-0.00	0.00	9999.00	1.463
6.04	54.00	0.00	9999.00	-12.62	1.33	115.22	-0.00	0.00	9999.00	1.329
6.05	56.00	0.00	9999.00	-13.08	1.19	117.74	-0.00	0.00	9999.00	1.192
6.06	58.00	0.00	9999.00	-13.53	1.05	119.98	-0.00	0.00	9999.00	1.054
6.06	60.00	0.00	9999.00	-13.97	0.92	121.95	-0.00	0.00	9999.00	0.915
6.05	62.00	0.00	9999.00	-14.38	0.78	123.64	-0.00	0.00	9999.00	0.775
6.03	64.00	0.00	9999.00	-14.78	0.63	125.05	-0.00	0.00	9999.00	0.634
6.01	66.00	0.00	9999.00	-15.16	0.49	126.18	-0.00	0.00	9999.00	0.493
5.98	68.00	0.00	9999.00	-15.53	0.35	127.02	-0.00	0.00	9999.00	0.350
5.94	70.00	0.00	9999.00	-15.87	0.21	127.58	-0.00	0.00	9999.00	0.208
5.90	72.00	0.00	9999.00	-16.19	0.07	127.85	-0.00	0.00	9999.00	0.066
5.85	74.00	0.00	9999.00	-16.50	-0.08	127.84	-0.00	0.00	9999.00	-0.076

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 14 ---
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
7.5
15
22.5
30
37.5
45
52.5
60
67.5
75

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025         *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 14 ------   *
*                                                                                    *
**************************************************************************************************************
```

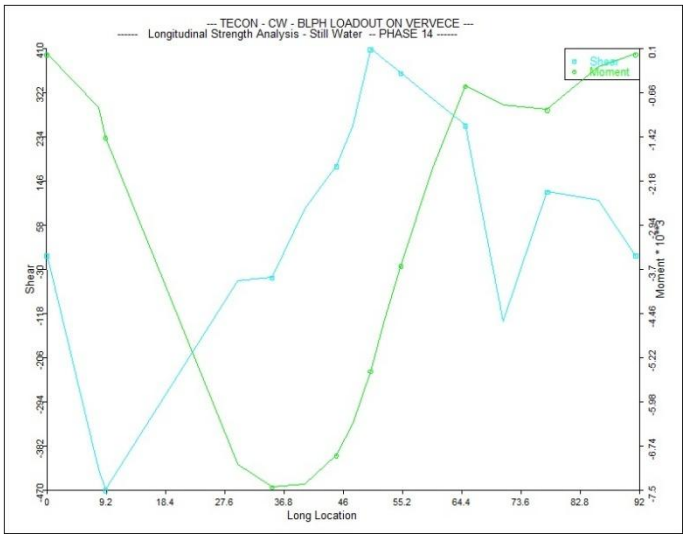
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 14: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-429	-921	-0.0364	6.4035
9.14	-469	-1434	-0.0567	7.3096
29.72	-52	-7056	-0.2789	19.7886
35.00	-45	-7446	-0.2943	21.1395
40.00	91	-7401	-0.2925	21.5796
45.00	176	-6899	-0.2726	21.2071
47.50	256	-6353	-0.2511	20.7320
50.29	409	-5450	-0.2154	19.9960
52.50	386	-4572	-0.1807	19.2799
55.00	361	-3638	-0.1438	18.3512
60.00	309	-1962	-0.0776	16.2170
65.00	257	-546	-0.0216	13.8638
70.87	-133	-877	-0.0347	10.9985
77.72	125	-951	-0.0376	7.4804
85.70	108	-226	-0.0090	3.1618
91.44	-1	0	0.0000	0.0001



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  -----------------                 1 July, 2025    *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ---------     Intact Stability Check    -- PHASE 15 ---------              *
*                                                                                    *
**************************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                    Process is 15: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Results Are Reported In Body System

                        Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

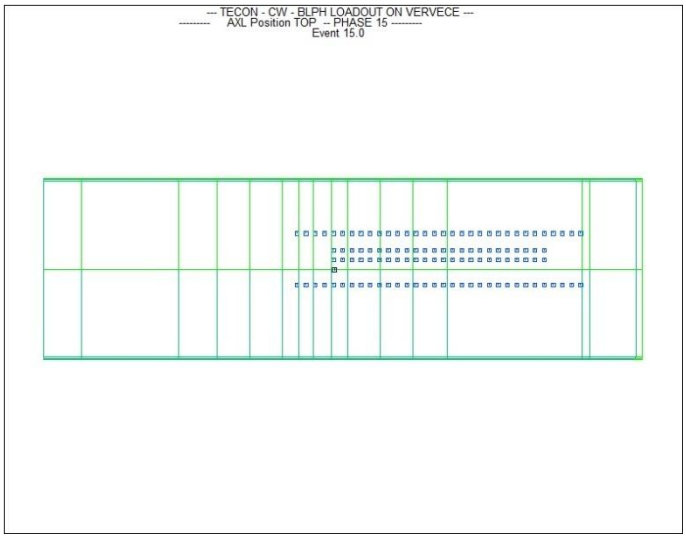
                                    Wet Radii Of Gyration About CG

                                K-X =     8.12 K-Y =    24.92 K-Z =    25.65

                                    GMT =    13.32 GML =   160.00

                                /-- Center of Gravity ---/  Sounding   % Full
                          Name   Weight    ---X---  ---Y---  ---Z---  -------- --------

                                ----------------  Part AXL15      ------------
                                LOAD_GRO   2281.40    30.92    -1.36     7.10
                                ----------------  Part CF         ------------
                                LOAD_GRO     28.00    69.38    11.22     8.10
                                ----------------  Part GRI&SF-B   ------------
                                LOAD_GRO     75.00    30.86    -1.14     7.35
                                ----------------  Part GRI&SF-C   ------------
                                LOAD_GRO      0.50    67.44    11.22     7.10
                                ----------------  Part GRI&SF-T   ------------
                                LOAD_GRO     45.00    65.20    -2.92     7.40
                                ----------------  Part TP         ------------
                                LOAD_GRO    254.50    65.54    -2.14     9.35
                                ----------------  Part VERVECE    ------------
                                LOAD_GRO   1832.80    47.02     0.00     3.52
                                             --- Contents ---
                          1PC       229.92     5.62    -3.43     3.77     6.02    98.00
                          1PW       117.49     6.50   -10.28     2.53     4.06    50.00
                          1SC       230.42     5.62     3.43     3.77     6.02    98.00
                          1SW       117.49     6.50    10.28     2.53     4.06    50.00
                          2PC        26.21    19.43    -3.43     0.09     0.18     3.00
                          2PW       240.63    19.43   -10.27     0.84     1.68    27.54
                          2SC        26.21    19.43     3.43     0.09     0.18     3.00
                          2SW       352.84    19.43    10.28     1.24     2.47    40.39
                          3PC        26.21    40.00    -3.43     0.09     0.18     3.00
                          3PW       178.62    40.01   -10.27     0.63     1.25    20.45
                          3SC        26.21    40.01     3.43     0.09     0.18     3.00
                          3SW       298.96    40.01    10.28     1.05     2.09    34.22
                          4PC       262.11    60.58    -3.43     0.91     1.83    30.00
                          4PW       856.16    60.58   -10.28     2.99     5.97    98.00
                          4SC       262.11    60.58     3.43     0.91     1.83    30.00
                          4SW       856.16    60.58    10.28     2.99     5.97    98.00
                          5PC       295.21    83.42    -3.43     2.16     3.96    60.00
                          5PW       364.46    79.56   -10.28     1.61     3.06    45.93
                          5SC       290.58    83.42     3.43     2.16     3.96    60.00
                          5SW       477.42    79.90    10.28     2.05     3.87    60.16
                                ========  ========  =======  =======  =======
                                Total     10052.61    46.75    -0.00     3.78
                                Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                        1 July, 2025             *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                *
*          ---------     Intact Stability Check    -- PHASE 15 ---------                             *
*                                                                                                      *
********************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 15: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
**********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          1 July, 2025          *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                               *
*         ---------     Intact Stability Check    -- PHASE 15 ---------            .*
*                                                                                    *
**********************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 15: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.78, and Wind Speed = 10 Knots

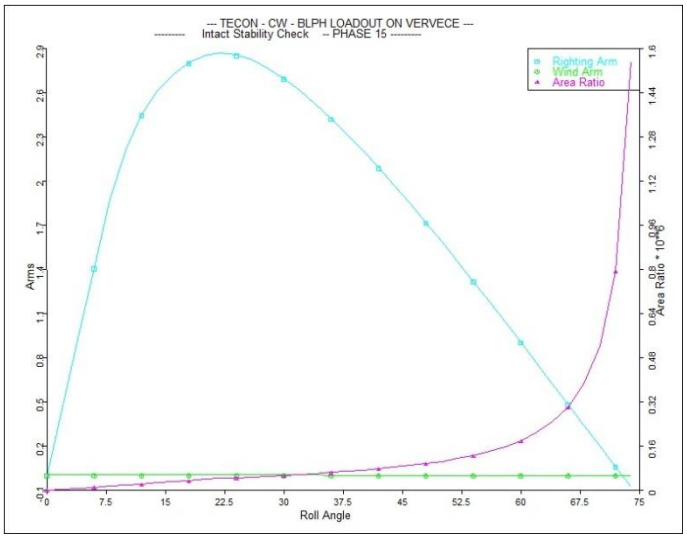
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.47	0.47	0.00	0.00	2913.63	0.466
4.29	4.00	0.00	9999.00	1.49	0.94	1.87	0.00	0.00	5991.18	0.935
4.27	6.00	0.00	9999.00	1.03	1.41	4.21	0.00	0.00	9411.11	1.406
4.25	8.00	0.00	9999.00	0.57	1.87	7.49	0.00	0.00	9999.00	1.872
4.26	10.00	0.00	9999.00	0.08	2.22	11.57	0.00	0.00	9999.00	2.216
4.31	12.00	0.00	9999.00	-0.46	2.45	16.24	0.00	0.00	9999.00	2.448
4.39	14.00	0.00	9999.00	-1.04	2.61	21.30	0.00	0.00	9999.00	2.610
4.48	16.00	0.00	9999.00	-1.63	2.72	26.63	0.00	0.00	9999.00	2.723
4.60	18.00	0.00	9999.00	-2.25	2.80	32.15	0.00	0.00	9999.00	2.800
4.72	20.00	0.00	9999.00	-2.88	2.85	37.80	0.00	0.00	9999.00	2.849
4.85	22.00	0.00	9999.00	-3.51	2.87	43.52	0.00	0.00	9999.00	2.867
4.97	24.00	0.00	9999.00	-4.14	2.86	49.24	0.00	0.00	9999.00	2.855
5.09	26.00	0.00	9999.00	-4.77	2.82	54.91	0.00	0.00	9999.00	2.819
5.20	28.00	0.00	9999.00	-5.39	2.76	60.50	0.00	0.00	9999.00	2.764
5.31	30.00	0.00	9999.00	-6.01	2.69	65.96	0.00	0.00	9999.00	2.694
5.41	32.00	0.00	9999.00	-6.62	2.61	71.26	0.00	0.00	9999.00	2.613
5.50	34.00	0.00	9999.00	-7.22	2.52	76.40	0.00	0.00	9999.00	2.521
5.58	36.00	0.00	9999.00	-7.81	2.42	81.34	-0.00	0.00	9999.00	2.422
5.66	38.00	0.00	9999.00	-8.39	2.32	86.08	-0.00	0.00	9999.00	2.317
5.73	40.00	0.00	9999.00	-8.96	2.21	90.60	-0.00	0.00	9999.00	2.206
5.80	42.00	0.00	9999.00	-9.52	2.09	94.90	-0.00	0.00	9999.00	2.089
5.86	44.00	0.00	9999.00	-10.07	1.97	98.96	-0.00	0.00	9999.00	1.969
5.91	46.00	0.00	9999.00	-10.61	1.84	102.77	-0.00	0.00	9999.00	1.844
5.95	48.00	0.00	9999.00	-11.13	1.72	106.33	-0.00	0.00	9999.00	1.716
5.99	50.00	0.00	9999.00	-11.64	1.59	109.63	-0.00	0.00	9999.00	1.586
6.02	52.00	0.00	9999.00	-12.14	1.45	112.67	-0.00	0.00	9999.00	1.453
6.04	54.00	0.00	9999.00	-12.62	1.32	115.44	-0.00	0.00	9999.00	1.317
6.05	56.00	0.00	9999.00	-13.08	1.18	117.94	-0.00	0.00	9999.00	1.181
6.06	58.00	0.00	9999.00	-13.53	1.04	120.16	-0.00	0.00	9999.00	1.042
6.06	60.00	0.00	9999.00	-13.97	0.90	122.11	-0.00	0.00	9999.00	0.903
6.05	62.00	0.00	9999.00	-14.38	0.76	123.77	-0.00	0.00	9999.00	0.763
6.03	64.00	0.00	9999.00	-14.78	0.62	125.16	-0.00	0.00	9999.00	0.623
6.01	66.00	0.00	9999.00	-15.16	0.48	126.26	-0.00	0.00	9999.00	0.482
5.98	68.00	0.00	9999.00	-15.53	0.34	127.09	-0.00	0.00	9999.00	0.341
5.94	70.00	0.00	9999.00	-15.87	0.20	127.63	-0.00	0.00	9999.00	0.200
5.90	72.00	0.00	9999.00	-16.19	0.06	127.89	-0.00	0.00	9999.00	0.059
5.85	74.00	0.00	9999.00	-16.50	-0.08	127.86	-0.00	0.00	9999.00	-0.082

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--- TECON - CW - BLPH LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 15 ---
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
7.5
15
22.5
30
37.5
45
52.5
60
67.5
75

```
**********************************************************
*                                  ***  MOSES    ***                                  *
*                                  -----------------                  1 July, 2025    *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 15 ------  *
*                                                                                     *
***************************************************************************************************************

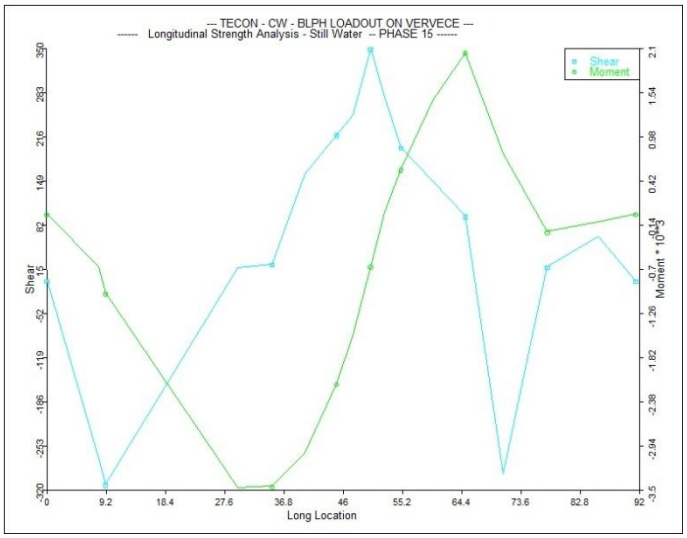
                    +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                    ================================================================

                Process is 15: Units Are Degrees, Meters, and M-Tons Unless Specified

                                    Allowable Stress =     155.00 Mpa

                                  Allowable Deflection =       1.00 MM
```

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-271	-670	-0.0265	2.5079
9.14	-311	-1003	-0.0397	2.8592
29.72	17	-3476	-0.1374	6.9097
35.00	22	-3454	-0.1365	6.9806
40.00	159	-3029	-0.1197	6.6608
45.00	219	-2155	-0.0852	6.0107
47.50	248	-1538	-0.0608	5.5903
50.29	349	-666	-0.0264	5.0720
52.50	276	22	0.0009	4.6441
55.00	199	567	0.0224	4.1604
60.00	148	1435	0.0567	3.2525
65.00	95	2044	0.0808	2.5003
70.87	-294	767	0.0303	1.8708
77.72	18	-225	-0.0089	1.2761
85.70	64	-100	-0.0040	0.5460
91.44	-1	0	0.0000	0.0001



```
*********************************************************
*                                  ***  MOSES   ***                                  *
*                                  -----------------                 1 July, 2025    *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*        ---------     Intact Stability Check    -- Buoyancy and Ballast ---------  *
*                                                                                    *
**************************************************************************************************************
```

+++ T N K S B A L L A S T P E R C E N T +++

Event Num	2PW %Full	2SW %Full	3PW %Full	3SW %Full	5PW %Full	5SW %Full
0.00	91.82	94.38	98.00	98.00	52.51	55.27
1.00	87.81	90.69	98.00	98.00	53.35	56.47
2.00	76.17	79.99	98.00	98.00	55.46	59.64
3.00	70.38	74.83	98.00	98.00	56.32	61.17
4.00	53.51	59.81	98.00	98.00	58.34	65.27
5.00	37.60	45.74	98.00	98.00	59.32	68.32
6.00	22.58	32.56	98.00	98.00	59.31	70.40
7.00	8.30	20.10	98.00	98.00	58.37	71.53
8.00	8.30	20.10	74.87	82.69	66.91	75.48
9.00	8.30	20.10	56.13	65.74	70.62	81.24
10.00	8.30	20.10	38.70	50.11	72.88	85.55
11.00	8.30	20.10	27.94	40.55	73.43	87.48
12.00	8.30	20.10	24.02	37.21	70.46	85.17
13.00	8.30	20.10	20.45	34.22	67.12	82.50
14.00	18.32	31.13	20.45	34.22	56.08	70.35
15.00	27.54	40.39	20.45	34.22	45.93	60.16

+++ T N K S B A L L A S T A M O U N T +++

Event Num	2PW Amount	2SW Amount	3PW Amount	3SW Amount	5PW Amount	5SW Amount
0.00	802.16	824.55	856.16	856.16	416.68	438.62
1.00	767.12	792.25	856.16	856.16	423.41	448.14
2.00	665.41	698.81	856.16	856.16	440.15	473.25
3.00	614.89	653.71	856.16	856.16	446.91	485.46
4.00	467.52	522.52	856.16	856.16	463.00	517.98
5.00	328.49	399.62	856.16	856.16	470.76	542.21
6.00	197.28	284.48	856.16	856.16	470.69	558.68
7.00	72.47	175.60	856.16	856.16	463.18	567.68
8.00	72.47	175.60	654.06	722.43	531.01	598.98
9.00	72.47	175.60	490.34	574.36	560.40	644.67
10.00	72.47	175.60	338.06	437.76	578.35	678.90
11.00	72.47	175.60	244.10	354.21	582.76	694.20
12.00	72.47	175.60	209.88	325.11	559.17	675.91
13.00	72.47	175.60	178.62	298.96	532.62	654.67
14.00	160.09	271.97	178.62	298.96	445.01	558.29
15.00	240.63	352.84	178.62	298.96	364.46	477.42

+++ T N K S B A L L A S T S O U N D I N G +++

Event Num	2PW Sounding	2SW Sounding	3PW Sounding	3SW Sounding	5PW Sounding	5SW Sounding
0.00	5.60	5.75	5.97	5.97	3.44	3.60
1.00	5.35	5.53	5.97	5.97	3.49	3.66
2.00	4.64	4.88	5.97	5.97	3.61	3.84
3.00	4.29	4.56	5.97	5.97	3.66	3.93
4.00	3.27	3.65	5.97	5.97	3.77	4.16
5.00	2.30	2.79	5.97	5.97	3.82	4.33
6.00	1.38	1.99	5.97	5.97	3.82	4.44
7.00	0.51	1.23	5.97	5.97	3.77	4.51
8.00	0.51	1.23	4.57	5.04	4.25	4.73
9.00	0.51	1.23	3.42	4.01	4.45	5.05
10.00	0.51	1.23	2.36	3.06	4.58	5.29
11.00	0.51	1.23	1.71	2.48	4.61	5.40
12.00	0.51	1.23	1.47	2.27	4.45	5.27
13.00	0.51	1.23	1.25	2.09	4.26	5.12
14.00	1.12	1.90	1.25	2.09	3.64	4.44
15.00	1.68	2.47	1.25	2.09	3.06	3.87

+++ T N K S B A L L A S T U L L A G E +++

Event Num	2PW Ullage	2SW Ullage	3PW Ullage	3SW Ullage	5PW Ullage	5SW Ullage

0.00	0.50	0.34	0.12	0.12	2.65	2.50
1.00	0.74	0.57	0.12	0.12	2.61	2.43
2.00	1.45	1.22	0.12	0.12	2.49	2.26
3.00	1.80	1.53	0.12	0.12	2.44	2.17
4.00	2.83	2.45	0.12	0.12	2.33	1.94
5.00	3.80	3.30	0.12	0.12	2.27	1.77
6.00	4.71	4.11	0.12	0.12	2.27	1.65
7.00	5.58	4.87	0.12	0.12	2.33	1.59
8.00	5.58	4.87	1.53	1.05	1.85	1.37
9.00	5.58	4.87	2.67	2.09	1.64	1.05
10.00	5.58	4.87	3.73	3.04	1.52	0.81
11.00	5.58	4.87	4.39	3.62	1.48	0.70
12.00	5.58	4.87	4.63	3.82	1.65	0.83
13.00	5.58	4.87	4.84	4.01	1.84	0.98
14.00	4.97	4.19	4.84	4.01	2.45	1.66
15.00	4.41	3.63	4.84	4.01	3.03	2.23

9 BALLASTING SYSTEM CHECKS

9.1 BALLAST TANK CAPACITY

The tanks filling was included in a range from 3% to 98% during all the Load-out and satisfies the requirement of table 4-1, section 4.5.3 of Ref. /2/ for Loadout class 2.

9.2 BALLAST PUMPING CAPACITY

Ballast pumps must be tried (turning on and off the pumps) to ensure perfect functioning of system/item within 24h of the start of load-out.

Pumping capacity of the external pumps consists of 8 pumps, with a rated capacity of min 300 m3/h + 2 x 600 m3/h internal barge pumps.

Load out weight:	2300 t
Cross over estimated duration:	3.5 Hours
Capacity required for the load compensation	660 t/h

Capacity required for tide compensation:

- @max tide speed: 0.16 m/h x (2.52 t/mmx1000mm) = 403 t/h
- Average: 0.80 m x 91.4x27.4 = 2000 t / 6 hours = 334 t/h

a) Normal operation - Load transfer as planned: 130% capacity with intact system and 100% with 1 pump failed.

Capacity with intact system = 2*300 + 2*600 m3/h = 1800 m3/h

Intact system ratio = 1800/(660+403) = 1.70 > 1.3 (OK)

Capacity with 1 pump failed = 2*300 + 1*600 m3/h = 1200 m3/h

Damaged system ratio = 1200/(660+403) = 1.12 > 1.0 (OK)

b) Load transfer stopped: 150% capacity with intact system and 100% capacity with one pump failed.

Capacity with intact system = 4x300 = 1200 m3/h

Intact system ratio = 1200/403 = 3.00 > 1.5 (OK)

Capacity with 1 pump failed = replaced by 1 spare or 1 not used for load transfer being stopped

ROSETTI MARINO SPA

CW - BLPH loadout

SAFETY CHECK LIST

Date: _____

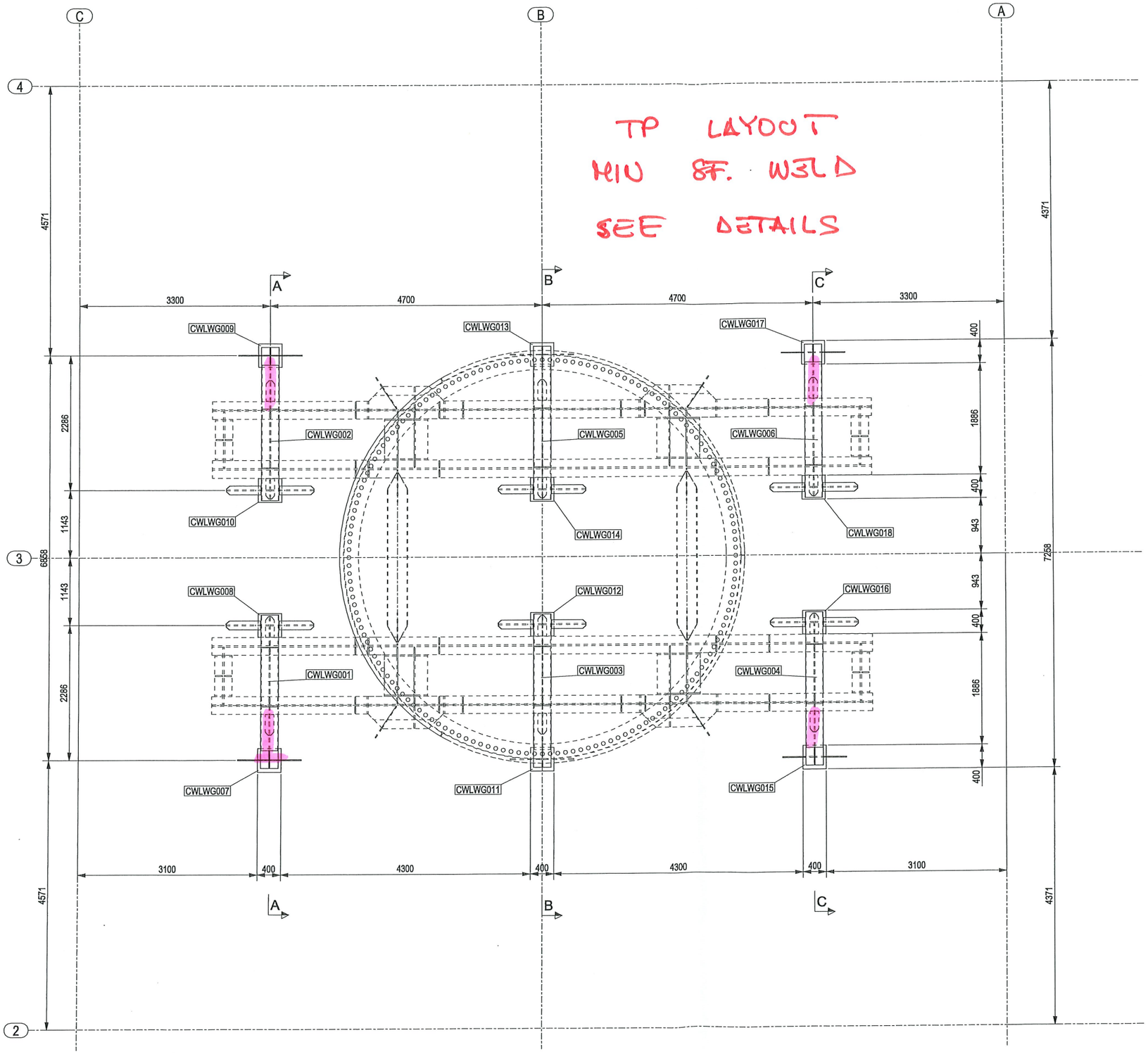
LOAD OUT OPERATION

Location: Marina di Ravenna (RA)

N°	TOPIC	CHECKED
	MOORING ARRANGEMENT	
1	Check winch engines and trial start	
2	Check lubricant levels	
3	Inspect and grease-up wire ropes and block sheaves	
4	Control positions and elevations of quay fenders	
	BARGE BALLASTING	
5	Instruct ballast superintendent to perform all checks on ballast pumps	
6	Ballast the barge according to the pattern defined for the initial phase	
7	Check and report ballast tank levels by manual sounding	
	BARGE TRIM AND ALIGNMENT	
8	Check position of all targets on barge	
9	Check position and readings of survey instrument	
10	Check and report the barge trim and alignment	

	SPMT	
11	Travel path inspected /cleaned	
12	Check plate covering holes in the ground	
13	No loose or not secured material, loose items survey with MWS	
14	Correct configuration of SPMT trailers as per attached drawings	
15	Functioning of every SPMT trailer	
16	Functioning of radio communications between SPMT trailer operator and lifting supervisor	
17	Briefing with personnel involved in the operation	
18	Area to be used cordoned off and access forbidden to unauthorized personnel	
	TIDE READINGS	
19	Check that the tide reading instrument is in place and perfectly working	
	WEATHER FORECAST	
20	In the week before load-out require every day official weather forecast and report to load-out Manager	
	COMMUNICATION EQUIPMENTS	
21	Available communication equipments and spare units and batteries	
	CONTINGENCY	

22	Cutting equipment	
23	Contingency plans (ballasting pumps, power supply, trailers, mooring winch and mooring lines) in place	
	APPROVAL	
24	Check warranty surveyor approval before topside lift off	
25	After load out and before removal of SPMT, check if necessary additional steelwork (shims).	



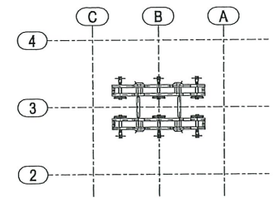
TP -LOWER GRILLAGE

MARKS	DRAWING NUMBER	NOTES
CWLWG001	123A90-FDL-ST-DD-90794	
CWLWG002	123A90-FDL-ST-DD-90795	
CWLWG003	123A90-FDL-ST-DD-90796	
CWLWG004	123A90-FDL-ST-DD-90797	
CWLWG005	123A90-FDL-ST-DD-90798	
CWLWG006	123A90-FDL-ST-DD-90799	
CWLWG007	123A90-FDL-ST-DD-90800	
CWLWG008	123A90-FDL-ST-DD-90800	
CWLWG009	123A90-FDL-ST-DD-90800	
CWLWG010	123A90-FDL-ST-DD-90800	
CWLWG011	123A90-FDL-ST-DD-90800	
CWLWG012	123A90-FDL-ST-DD-90800	
CWLWG013	123A90-FDL-ST-DD-90800	
CWLWG014	123A90-FDL-ST-DD-90800	
CWLWG015	123A90-FDL-ST-DD-90800	
CWLWG016	123A90-FDL-ST-DD-90800	
CWLWG017	123A90-FDL-ST-DD-90800	
CWLWG018	123A90-FDL-ST-DD-90800	

NOTES

1 – ALL DIMENSIONS AND ELEVATIONS ARE IN MILLIMETERS U.N.O.
2 – ALL ELEVATIONS ARE REFERED TO C.D.
3 – FOR SECTIONS A–A, B–B SEE DWG 123A90–FDL–ST–DD–90817
4 – FOR SECTIONS C–C SEE DWG 123A90–FDL–ST–DD–90818

KEY PLAN



UPPER GRILLAGE

HOLDS

REFERENCE DRAWINGS

DWG No.	DESCRIPTION
123A90-DDL-TI-DD-99039	TP - LOWER GRILLAGE ASSEMBLY
123A90-DDL-TI-DD-99040-001/002	TP - LOWER GRILLAGE - SECTION AND DETAILS

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
0	25/02/2025	CM–TS	MR	DC	ISSUED FOR CONSTRUCTION

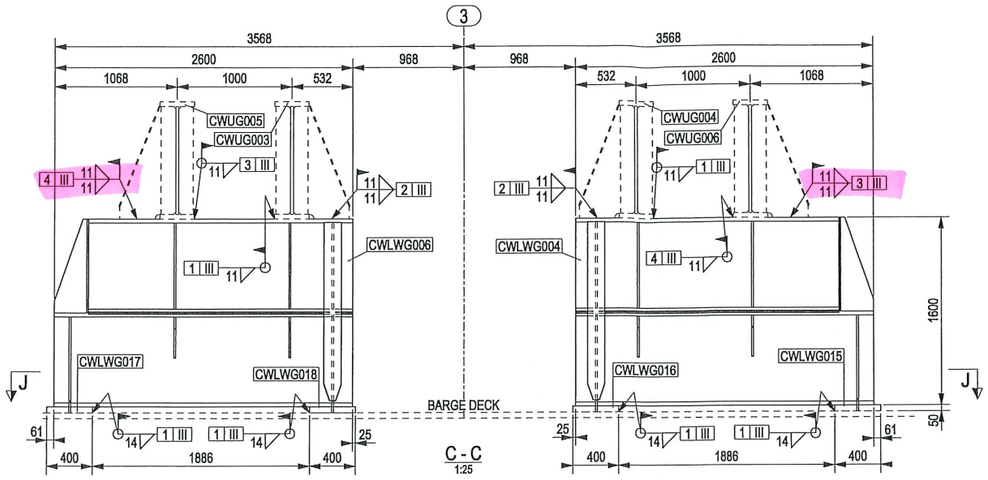
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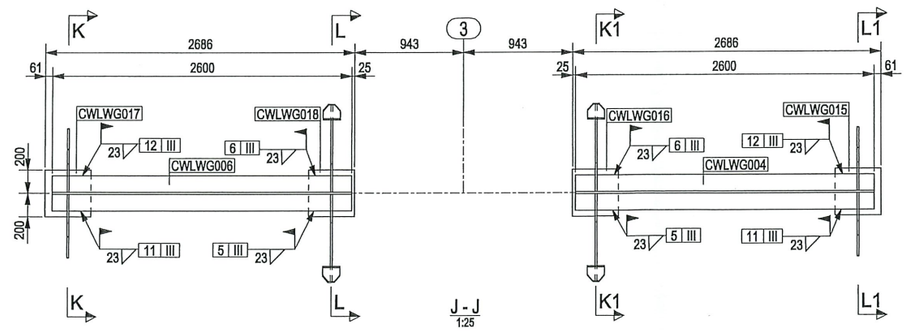
ROSETTI MARINO

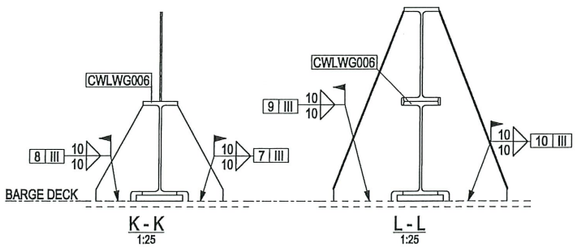
TITLE :
BASE LOAD POWER HUB (BLPH)
TP – LOWER GRILLAGE
ASSEMBLY

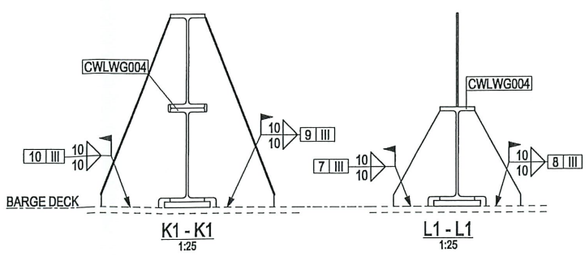
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DRAWN CM–TS	CHECKED M.ROSSI	APPROVED D.CASADIO	DATE 25/02/2025

A1	DRAWING NO. 123A90–FDL–ST–DD–90816	SHEET 001	REV. 0









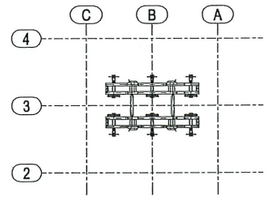
MIN SF WELD

20/06/2025

NOTES

1 – ALL DIMENSIONS AND ELEVATIONS ARE IN MILLIMETERS U.N.O.
2 – ALL ELEVATIONS ARE REFERED TO C.D.
3 – FOR PLAN VIEW AND MARKS LIST SEE DWG 123A90-FDL-ST-DD-90816

KEY PLAN



UPPER GRILLAGE

HOLDS

REFERENCE DRAWINGS

DWG No.	DESCRIPTION
123A90-DDL-TI-DD-99039	TP - LOWER GRILLAGE ASSEMBLY
123A90-DDL-TI-DD-99040-001/002	TP - LOWER GRILLAGE - SECTION AND DETAILS

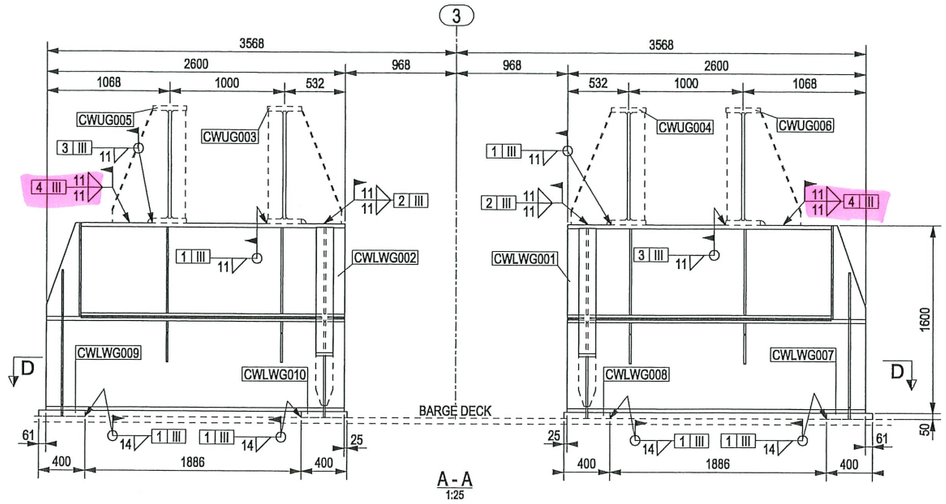
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CROSSWIND

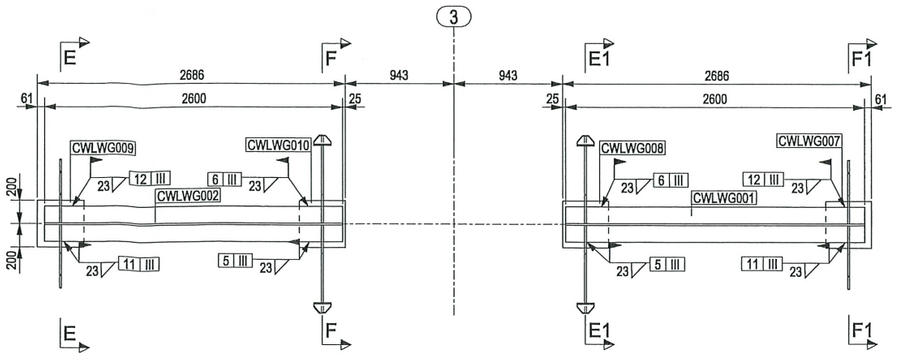
ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
TP – LOWER GRILLAGE
ASSEMBLY

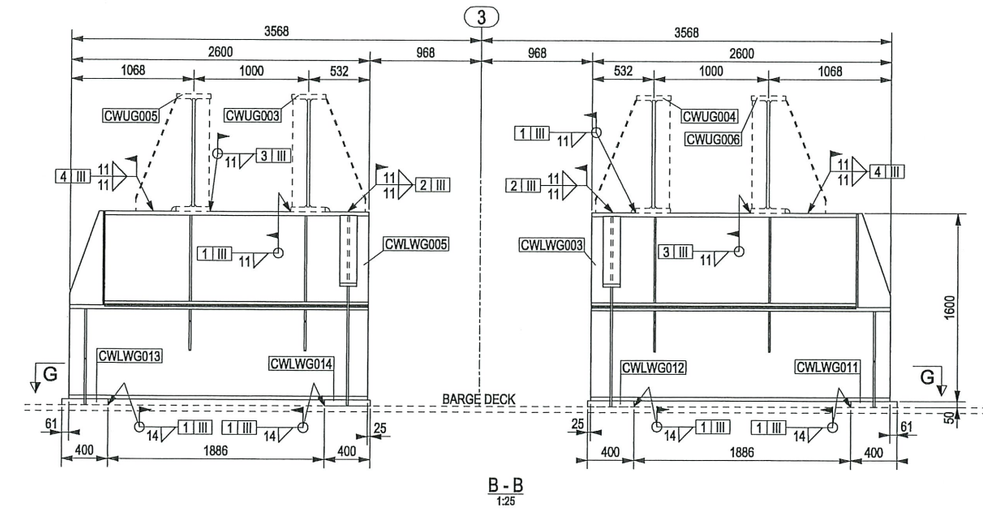
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DRAWN CM-TS	CHECKED M.ROSSI	APPROVED D.CASADIO	DATE 25/02/2025
A1	DRAWING NO. 123A90-FDL-ST-DD-90818	SHEET 001	REV. 0



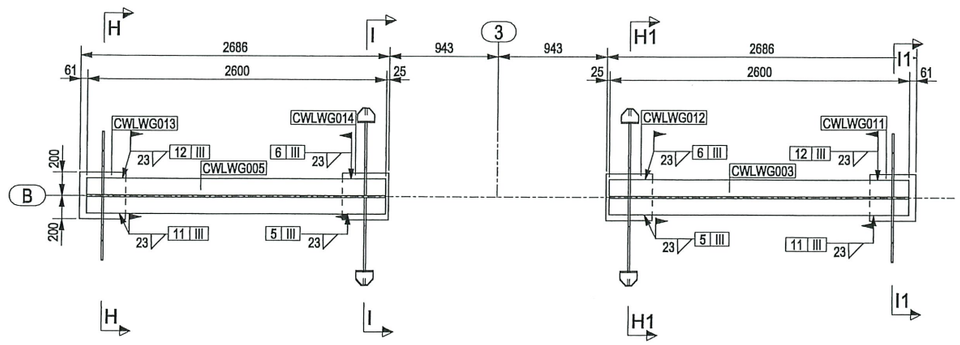
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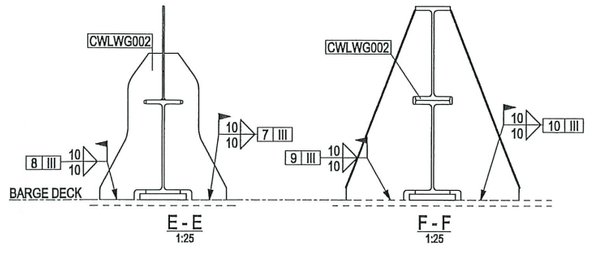
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B - B
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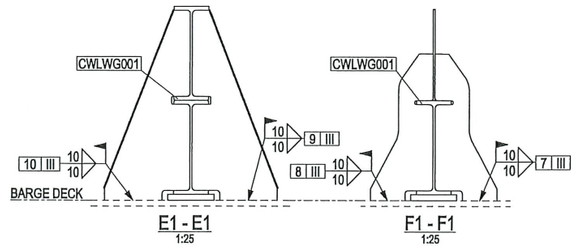


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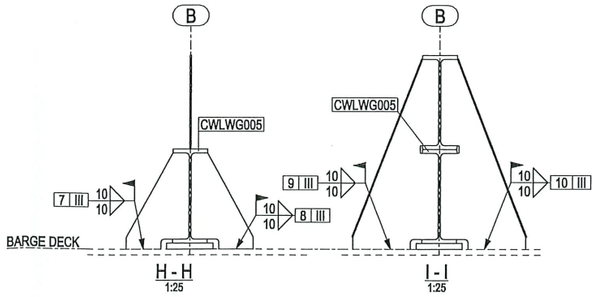
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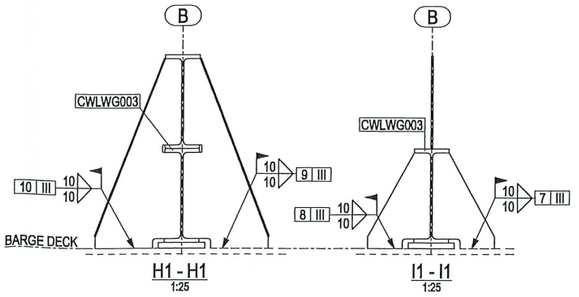
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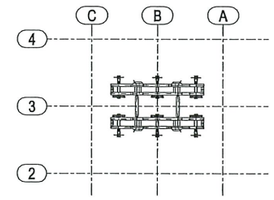
MIN 8F WELD

20/06/2025

NOTES

1 – ALL DIMENSIONS AND ELEVATIONS ARE IN MILLIMETERS U.N.O.
2 – ALL ELEVATIONS ARE REFERED TO C.D.
3 – FOR PLAN VIEW AND MARKS LIST SEE DWG 123A90-FDL-ST-DD-90816

KEY PLAN



UPPER GRILLAGE

HOLDS

REFERENCE DRAWINGS

DWG No.	DESCRIPTION
123A90-DDL-TI-DD-99039	TP - LOWER GRILLAGE ASSEMBLY
123A90-DDL-TI-DD-99040-001/002	TP - LOWER GRILLAGE - SECTION AND DETAILS

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
0	25/02/2025	CM-TS	MR	DC	ISSUED FOR CONSTRUCTION

CROSSWIND

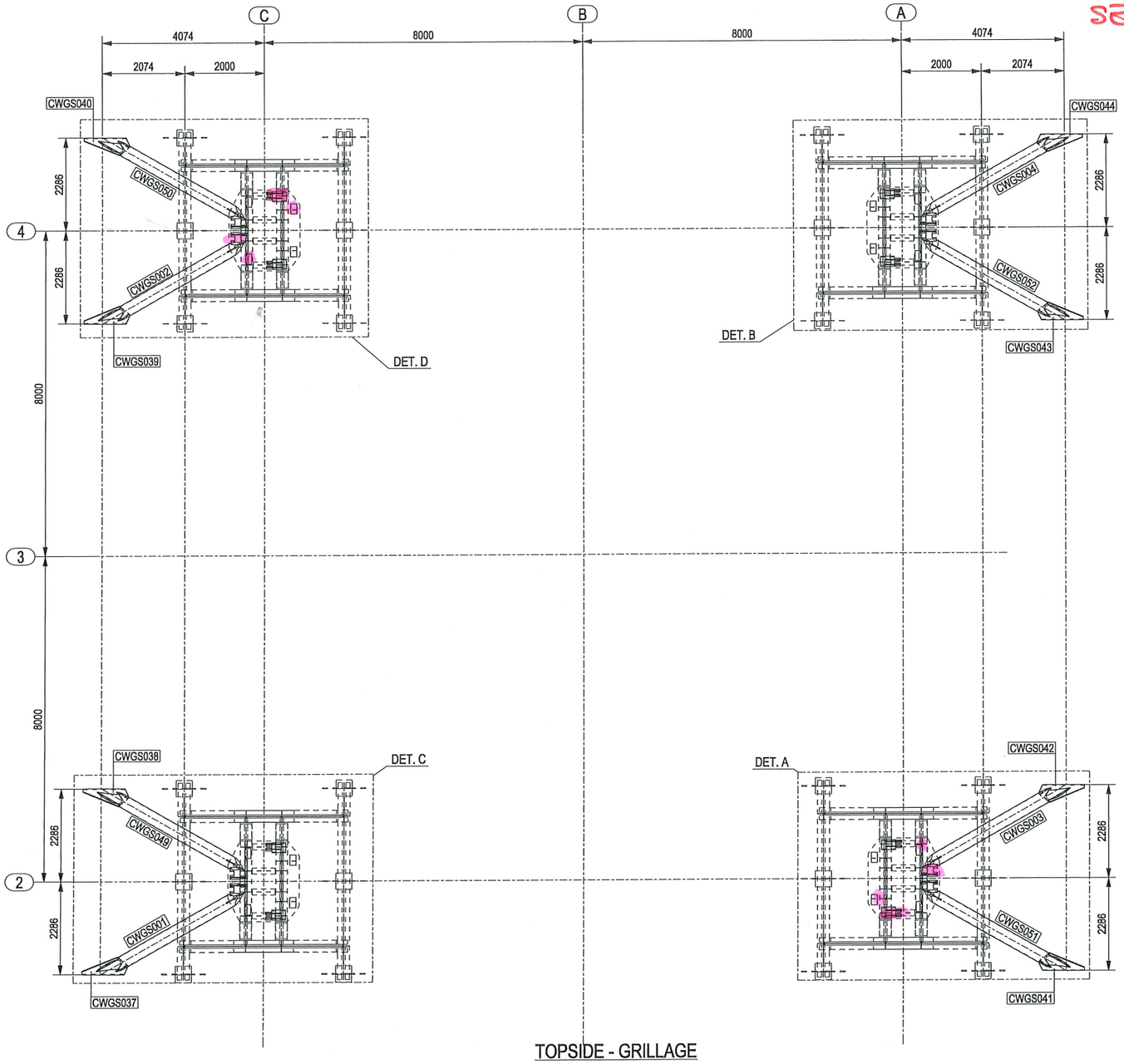
ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
TP – LOWER GRILLAGE
ASSEMBLY

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:25
DRAWN CM-TS	CHECKED M.ROSSI	APPROVED D.CASADIO	DATE 25/02/2025
A1	DRAWING NO. 123A90-FDL-ST-DD-90817		SHEET 001 / REV. 0

MARKS	DRAWING NUMBER	NOTES
CWGS001	123A90-FDL-ST-DD-90828	
CWGS002	123A90-FDL-ST-DD-90828	
CWGS003	123A90-FDL-ST-DD-90828	
CWGS004	123A90-FDL-ST-DD-90828	
CWGS005	123A90-FDL-ST-DD-90829	
CWGS006	123A90-FDL-ST-DD-90829	
CWGS007	123A90-FDL-ST-DD-90829	
CWGS008	123A90-FDL-ST-DD-90829	
CWGS009	123A90-FDL-ST-DD-90829	
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CWGS013	123A90-FDL-ST-DD-90829	
CWGS014	123A90-FDL-ST-DD-90829	
CWGS015	123A90-FDL-ST-DD-90829	
CWGS016	123A90-FDL-ST-DD-90829	
CWGS017	123A90-FDL-ST-DD-90830	
CWGS018	123A90-FDL-ST-DD-90830	
CWGS019	123A90-FDL-ST-DD-90831	
CWGS020	123A90-FDL-ST-DD-90831	
CWGS021	123A90-FDL-ST-DD-90831	
CWGS022	123A90-FDL-ST-DD-90831	
CWGS023	123A90-FDL-ST-DD-90830	
CWGS024	123A90-FDL-ST-DD-90830	
CWGS025	123A90-FDL-ST-DD-90829	
CWGS026	123A90-FDL-ST-DD-90829	
CWGS027	123A90-FDL-ST-DD-90829	
CWGS028	123A90-FDL-ST-DD-90829	
CWGS029	123A90-FDL-ST-DD-90832	
CWGS030	123A90-FDL-ST-DD-90832	
CWGS031	123A90-FDL-ST-DD-90833	
CWGS032	123A90-FDL-ST-DD-90833	
CWGS033	123A90-FDL-ST-DD-90833	
CWGS034	123A90-FDL-ST-DD-90833	
CWGS035	123A90-FDL-ST-DD-90832	
CWGS036	123A90-FDL-ST-DD-90832	
CWGS037	123A90-FDL-ST-DD-90829	
CWGS038	123A90-FDL-ST-DD-90829	
CWGS039	123A90-FDL-ST-DD-90829	
CWGS040	123A90-FDL-ST-DD-90829	
CWGS041	123A90-FDL-ST-DD-90829	
CWGS042	123A90-FDL-ST-DD-90829	
CWGS043	123A90-FDL-ST-DD-90829	
CWGS044	123A90-FDL-ST-DD-90829	
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CWGS052	123A90-FDL-ST-DD-90835	
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CWGS054	123A90-FDL-ST-DD-90834	
CWGS055	123A90-FDL-ST-DD-90834	
CWGS056	123A90-FDL-ST-DD-90834	
CWGS057	123A90-FDL-ST-DD-90836	
CWGS058	123A90-FDL-ST-DD-90836	
CWGS059	123A90-FDL-ST-DD-90836	
CWGS060	123A90-FDL-ST-DD-90836	
CWGS061	123A90-FDL-ST-DD-90836	
CWGS062	123A90-FDL-ST-DD-90836	
CWGS063	123A90-FDL-ST-DD-90836	
CWGS064	123A90-FDL-ST-DD-90836	

TOPSIDE LAYOUT
MIN SF WELD
SEE DETAILS

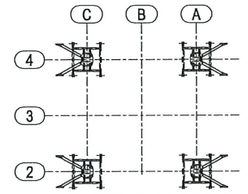


TOPSIDE - GRILLAGE

NOTES

1 – ALL DIMENSIONS AND ELEVATIONS ARE IN MILLIMETERS U.N.O.
2 – ALL ELEVATIONS ARE REFERED TO C.D.
3 – FOR DETAIL A SEE DWG 123A90–FDL–ST–DD–90838
4 – FOR DETAIL B SEE DWG 123A90–FDL–ST–DD–90840
5 – FOR DETAIL C SEE DWG 123A90–FDL–ST–DD–90842
6 – FOR DETAIL D SEE DWG 123A90–FDL–ST–DD–90844

KEY PLAN



SEA FASTENING GRILLAGE

HOLDS

REFERENCE DRAWINGS

DWG No.	DESCRIPTION
123A90-DDL-TI-DD-99024	TOPSIDE SEA FASTENING - ASSEMBLY
123A90-DDL-TI-DD-99025-001/002	TOPSIDE SEA FASTENING - DETAILS

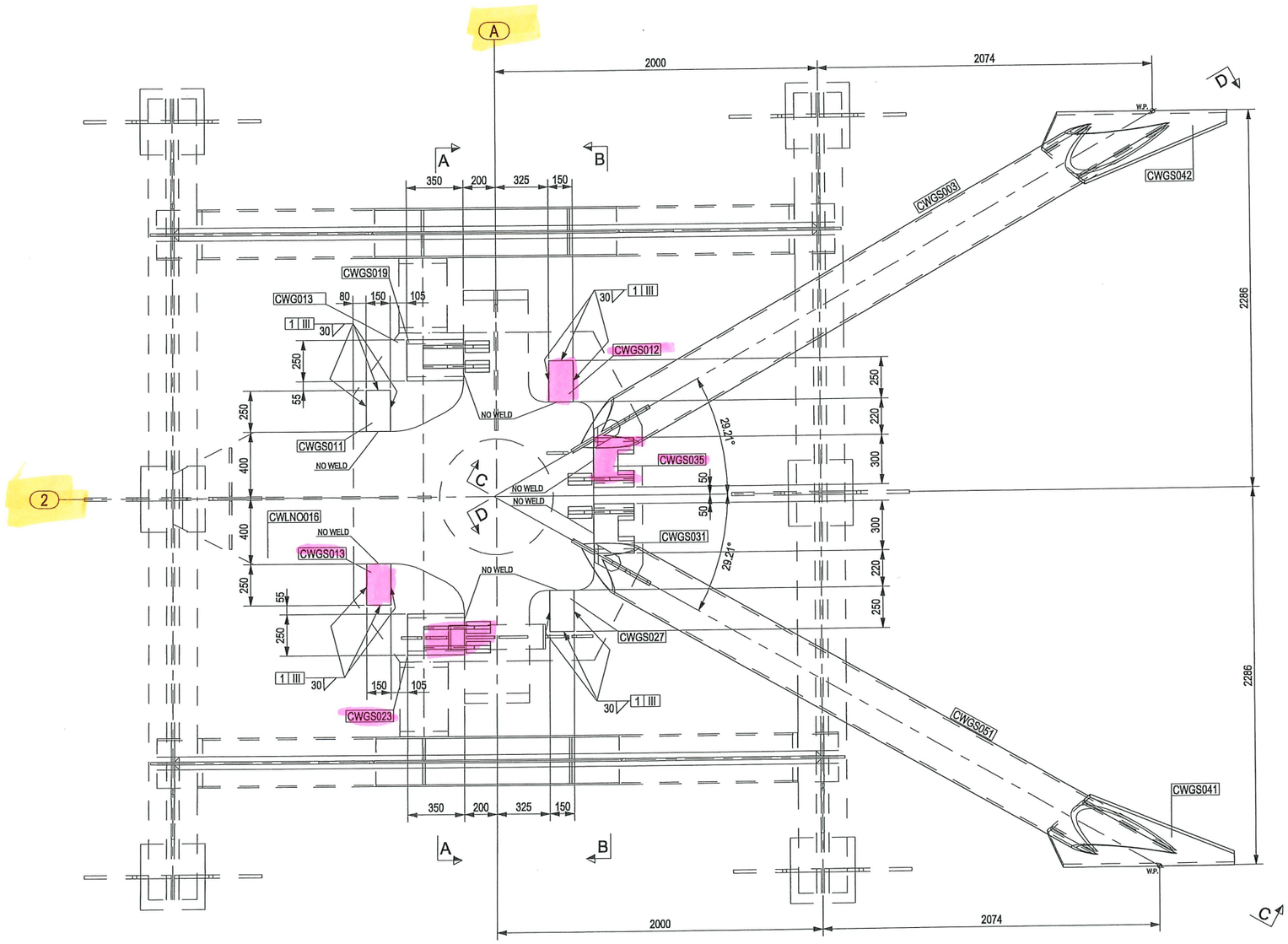
REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
0	06/03/2025	CM–TS	MR	DC	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
TOPSIDE SEAFASTENING GRILLAGE
ASSEMBLY

CONTRACT NO./TITLE CW–I–WP4–2023–05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:60
DRAWN CM–TS	CHECKED M.ROSSI	APPROVED D.CASADIO	DATE 06/03/2025
A1	DRAWING NO. 123A90–FDL–ST–DD–90837	SHEET 001	REV. 0



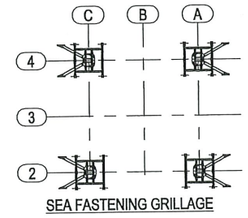
DETAIL A
SCALE 1:15

HIN OF WELD

NOTES

1 – ALL DIMENSIONS AND ELEVATIONS ARE IN MILLIMETERS U.N.O.
2 – ALL ELEVATIONS ARE REFERED TO C.D.
3 – FOR PLAN VIEW & DRAWING LIST SEE DWG 123A90-FDL-ST-DD-90837
4 – FOR SECTIONS LIST SEE DWG 123A90-FDL-ST-DD-90839

KEY PLAN



SEA FASTENING GRILLAGE

HOLDS

REFERENCE DRAWINGS

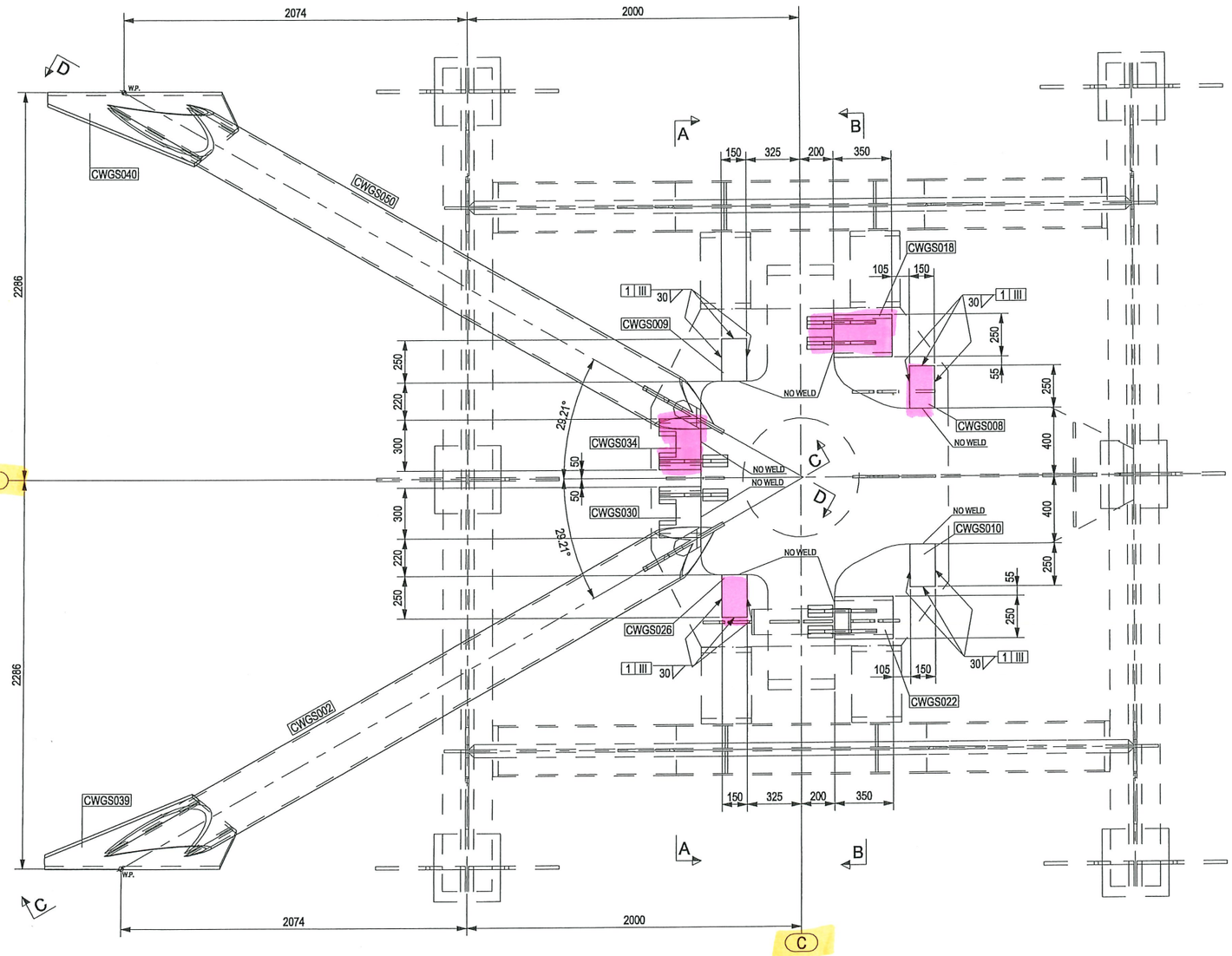
DWG No.	DESCRIPTION
123A90-DDL-TI-DD-99024	TOPSIDE SEA FASTENING - ASSEMBLY
123A90-DDL-TI-DD-99025-001/002	TOPSIDE SEA FASTENING - DETAILS

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
0	06/03/2025	CM-TS	MR	DC	ISSUED FOR CONSTRUCTION

CROSSWIND | ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
TOPSIDE SEAFASTENING GRILLAGE
ASSEMBLY

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:15
DRAWN CM-TS	CHECKED M.ROSSI	APPROVED D.CASADIO	DATE 06/03/2025
A1	DRAWING NO. 123A90-FDL-ST-DD-90838	SHEET 001	REV. 0



DETAIL D
SCALE 1:15

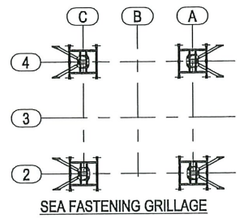
MIN 8F WELD

20/06/2025

NOTES

1 – ALL DIMENSIONS AND ELEVATIONS ARE IN MILLIMETERS U.N.O.
2 – ALL ELEVATIONS ARE REFERED TO C.D.
3 – FOR PLAN VIEW & DRAWING LIST SEE DWG 123A90-FDL-ST-DD-90837
4 – FOR SECTIONS LIST SEE DWG 123A90-FDL-ST-DD-90845

KEY PLAN



SEA FASTENING GRILLAGE

HOLDS

REFERENCE DRAWINGS

DWG No.	DESCRIPTION
123A90-DDL-TI-DD-99024	TOPSIDE SEA FASTENING - ASSEMBLY
123A90-DDL-TI-DD-99025-001/002	TOPSIDE SEA FASTENING - DETAILS

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
0	06/03/2025	CM-TS	MR	DC	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
TOPSIDE SEAFASTENING GRILLAGE
ASSEMBLY

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:15
DRAWN CM-TS	CHECKED M.ROSSI	APPROVED D.CASADIO	DATE 06/03/2025
A1	DRAWING NO. 123A90-FDL-ST-DD-90844	SHEET 001	REV. 0

CROSSWIND

ROSETTI MARINO

MANAGEMENT OF CHANGE Hollandse Kust Noord			
No. TQ :	123A90-PML-PM-MOC-00001	**Rev:**	0

Originating Party	Rosetti Marino – STR dept.					
Subject	Loadout Operation					
Author	A.Balzarotti	TQ Aconex unique number:				
Interface TQ - from		TQ interface source Aconex unique number:				
Type	Query		x	Interface		
	Deviation			Derogation (SHALL[PS])		
	Note: No deviations nor derogations which have an adverse effect on HSSE will be granted					
Workpackage						
Area(s) of application	Design & Eng.		Procurement		Construction	
	Commissioning		Operations	x	Other	
Issue date	17/07/2025		Urgent reply 5 days	x	Routine reply 10 days	
Close-out date						
Closed-out by			MOC status:		Open	

1. Description

Reference documents / Aconex unique numbers:

Based on the cargo barge pumps performance recorded during the loadout of TP, Contractor intends to use external ballast pumps to support the barge pumps.

The reason is to perform the cross-over according to the loadout manual with respect to the planned timing in order to reduce the risk of the operation, remaining in the rising tide curve.

No variation in the ballast sequence for load transfer is required.

ORIGINAL PLAN:

The original plan considers, in addition to the 2x600 mc/h barge pumps, n. 8 external ballast pumps (4 x 300mc/h + 4x400mc/h). n. 4 external ballast, out of 8 pumps, were considered spare pumps dedicated to load transfer, to be used in case of failure of the barge pumps.

The other 4 pumps were dedicated to tide compensation.

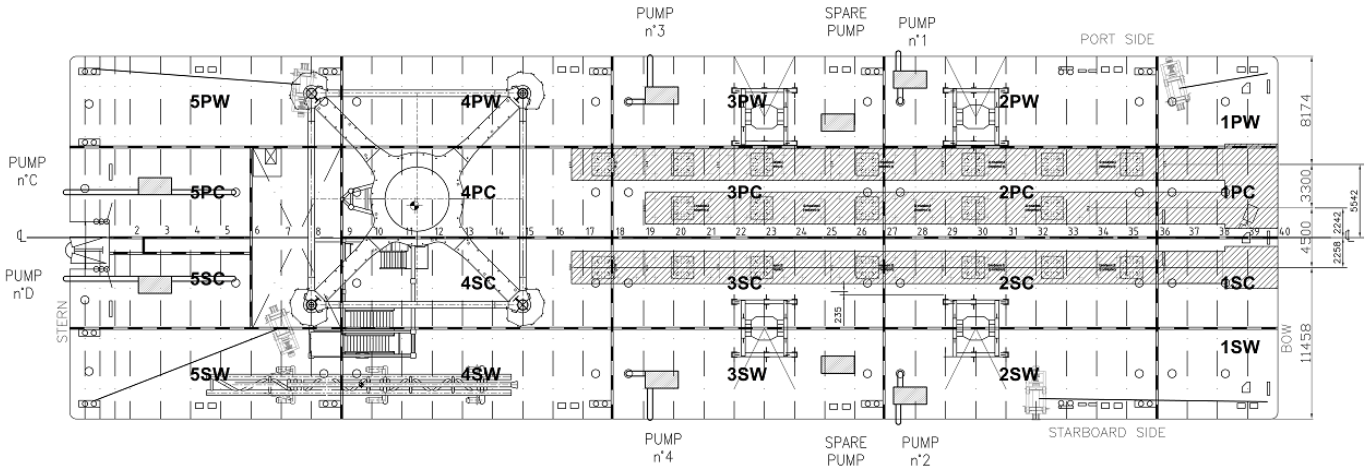
PORTABLE BALLAST PUMP TABLE - BLPH loadout				
PUMP N.	CAPACITY [M3/H]	BARGE TANK	BALLAST ARRANGEMENT	NOTE
1	300	2PW / 3PW	IN & OUT	LOAD TRANSFER - cont.
2	300	2SW / 3SW	IN & OUT	LOAD TRANSFER - cont.
3	300	5PW	IN & OUT	LOAD TRANSFER - cont.
4	300	5SW	IN & OUT	LOAD TRANSFER - cont.
A	300	1PW	IN & OUT	TIDE

This communication is issued for the recipient's information and to facilitate the obligations of the Parties under the Contract. This communication has no authority to amend or vary the Contract nor relieve either Party of any duties, obligations or responsibilities.

B	300	1SW	IN & OUT	TIDE
C	300	5PC	IN & OUT	TIDE
D	300	5SC	IN & OUT	TIDE

MOC:

The new scenario is presented in the next figure:



PORTABLE BALLAST PUMP TABLE - BLPH loadout - MOC				
PUMP N.	CAPACITY [M3/H]	BARGE TANK	BALLAST ARRANGEMENT	NOTE
1	300	2PW	IN & OUT	LOAD TRANSFER + TIDE
2	300	2SW	IN & OUT	LOAD TRANSFER + TIDE
3	300	3PW	OUT	LOAD TRANSFER
4	300	3SW	OUT	LOAD TRANSFER
A	300	2PW and 3PW	IN & OUT	SPARE
B	300	2PW and 3PW	IN & OUT	SPARE
C	300	5PC	IN & OUT	LOAD TRANSFER + TIDE
D	300	5SC	IN & OUT	LOAD TRANSFER + TIDE

2. Response

Reference documents / Aconex unique numbers

This communication is issued for the recipient's information and to facilitate the obligations of the Parties under the Contract. This communication has no authority to amend or vary the Contract nor relieve either Party of any duties, obligations or responsibilities.

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