

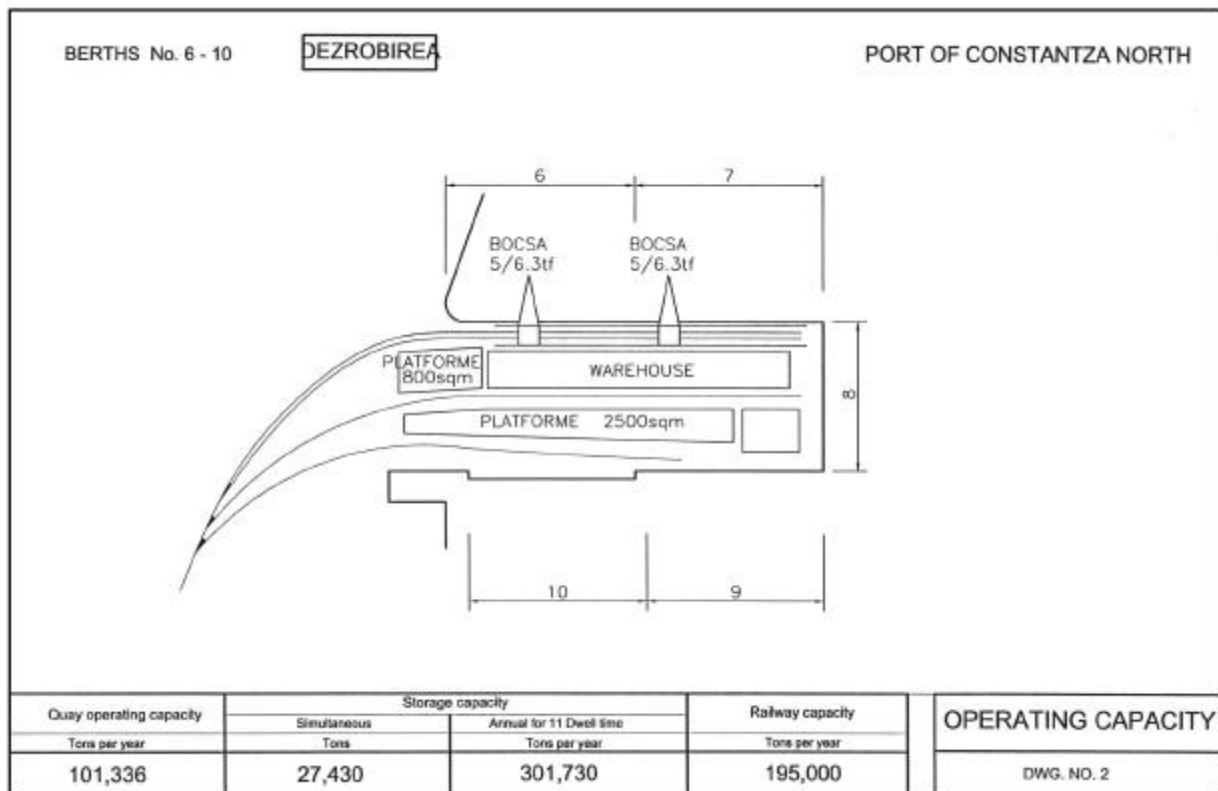
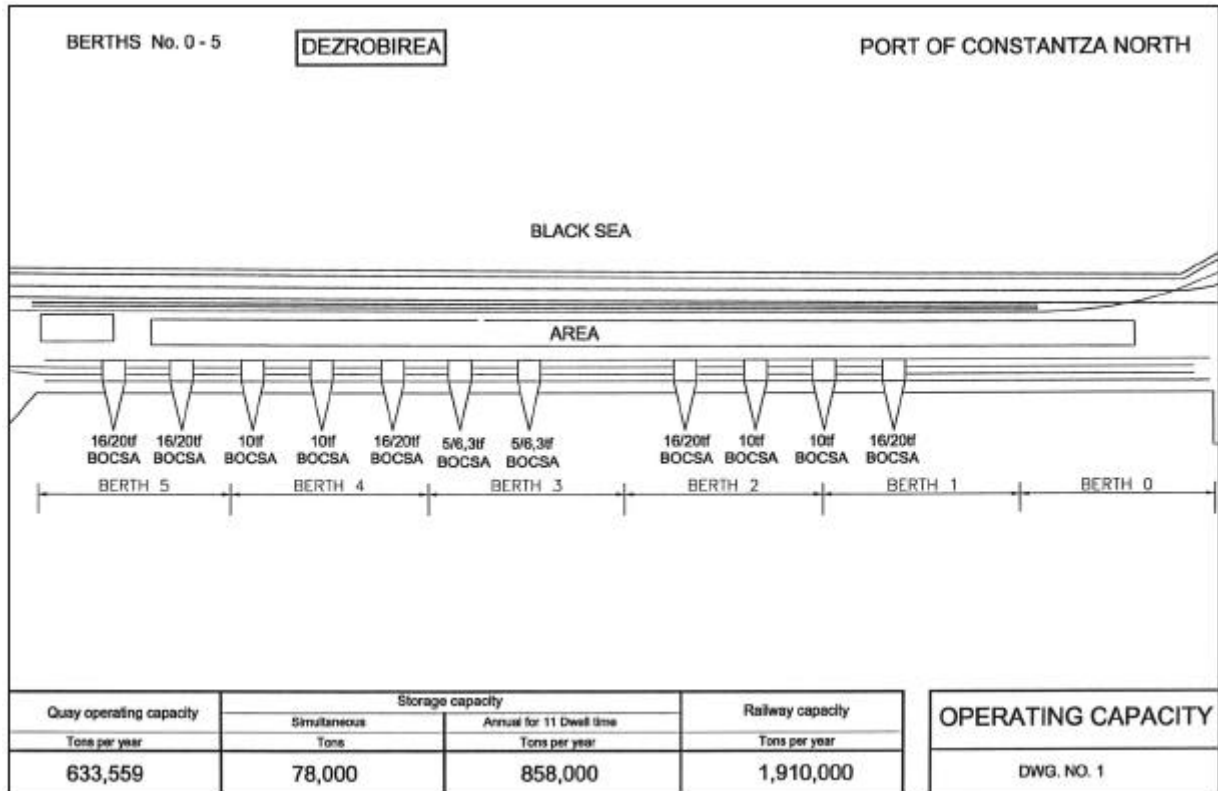
# **APPENDIX IB**

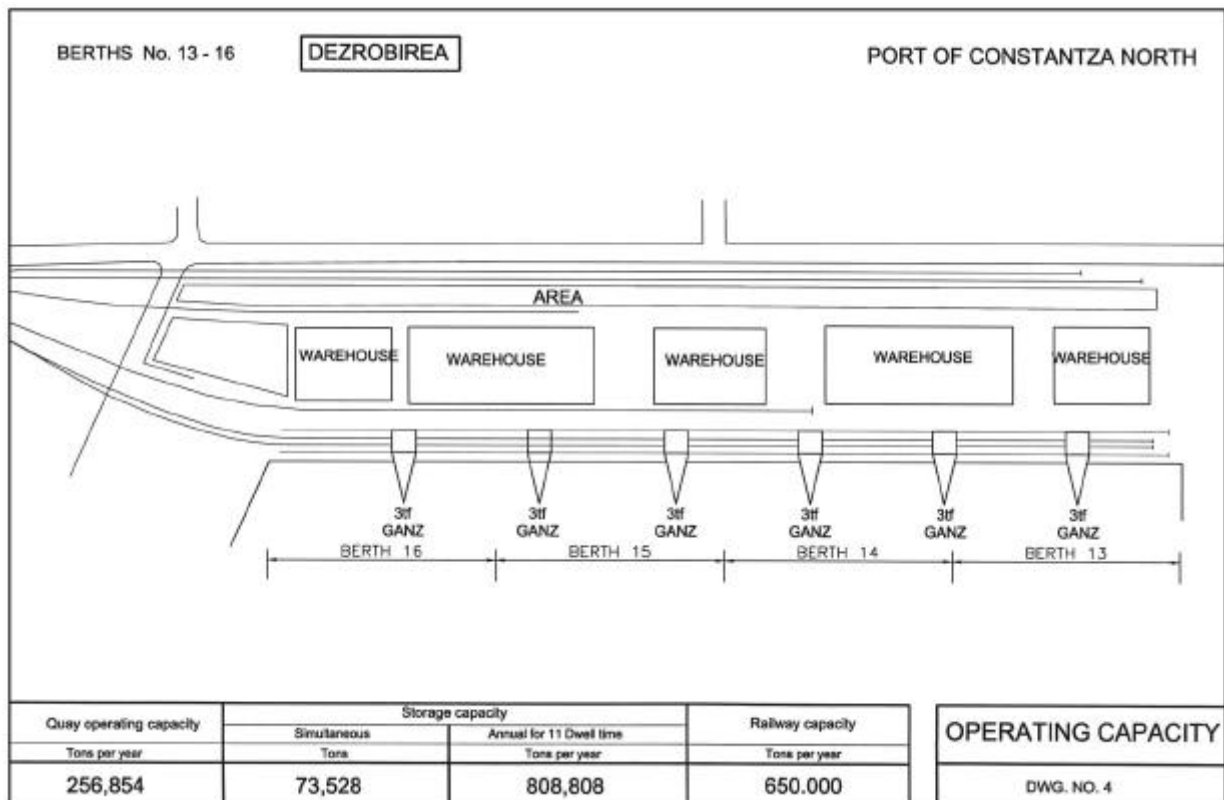
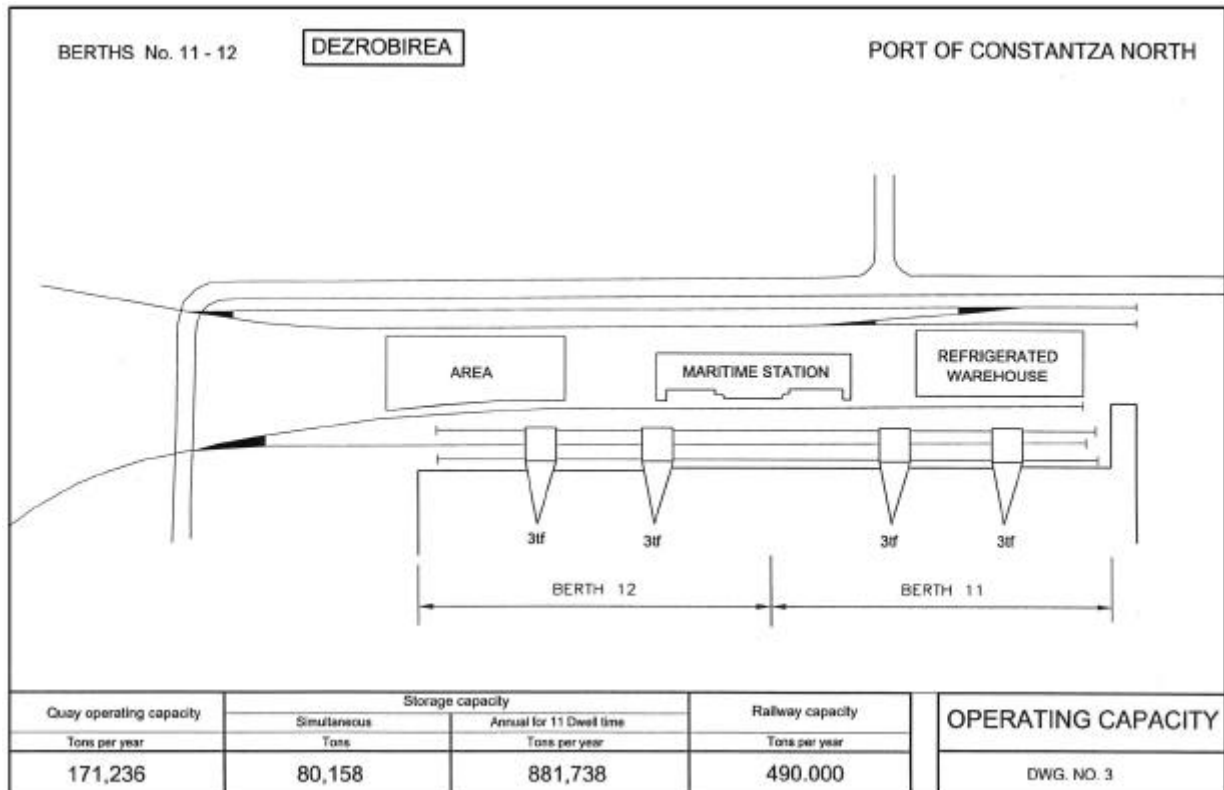
**EXISTING CARGO HANDLING CAPACITY ESTIMATED BY IPTANA**

**APPENDIX IB**  
**EXISTING CARGO HANDLING CAPACITY ESTIMATED BY IPTANA**

**Table of Operating Capacity in Constantza Port**

No.	Operator	Operating Area [Berths]	Quay Operating Capacity [Tons/Year]	Storage Capacity		Railway Capacity [Tons/Year]
				Simultaneous [Tons]	Annual [Tons/Year]	
1	DEZROBIREA	0 - 5	633.559	78.000	858.000	1.910.000
		6 - 10	101.336	27.430	301.730	195.000
		11 - 12	171.236	80.158	881.738	490.000
		13 - 16	256.854	73.528	808.808	650.000
		20	101.336	24.978	274.760	171.250
2	AGROEXPORT	17 - 18	700.000	90.000	990.000	1.100.000
		31 - 33	2.938.642	-	-	3.005.000
3	FRIAL	53	152.004	8.648	95.128	200.000
		21	93.477	3.900	42.900	171.250
		19	550.000	20.000	140.000	550.000
4	DECIROM	23	202.672	86.018	946.202	342.500
		47 - 50	771.143	253.500	2.788.500	1.350.000
5	SOCEP	35 - 37 ; 41 - 43	1.227.155	174.143	1.915.571	2.333.333
		51 - 52	810.000 [90,000 TEU/year]	39.600 [4,400 TEU/year]	792.000 [88,000 TEU/year]	675.000 [75,000 TEU/year]
6	UMEX	38 - 40	609.818	290.600	2.034.200	1.166.667
		44	152.004	300.000	2.100.000	350.000
			264.463	128.104	1.409.142	-
7	MINMETAL	45 - 46	581.714	553.729	3.876.100	675.000
		64 - 67	12.000.000	547.960	9.863.280	10.848.000
		85	-	-	-	-
8	CHIMPEX	54 - 63	10.376.184	163.606	1.800.000	3.980.000
9	SICIM	68	2.501.336	63.400	443.800	2.712.000
10	OIL TERMINAL	69 - 79	36.000.000	640.000	36.000.000	-
11	COMVEX	80 - 84	12.000.000	4.200.000	75.600.000	6.000.000
12	ROMTRANS	107 - 112 ; 115 - 118	652.508	639.090	7.029.994	3.300.000
13	SILOTRANS	113 - 114	2.000.000	100.000	2.000.000	400.000
<b>TOTAL</b>			<b>85.847.441</b>	<b>8.586.392</b>	<b>152.991.853</b>	<b>42.575.000</b>

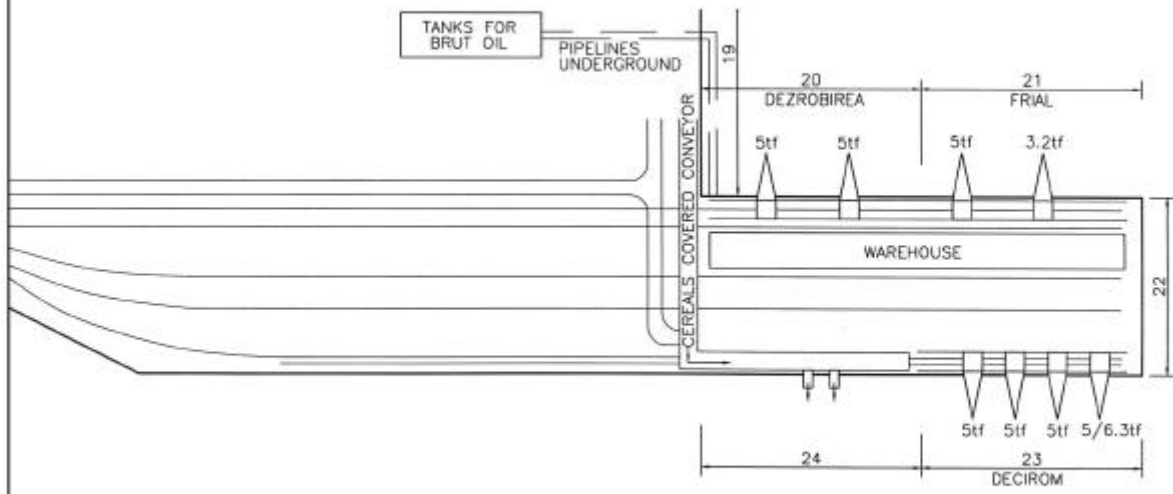




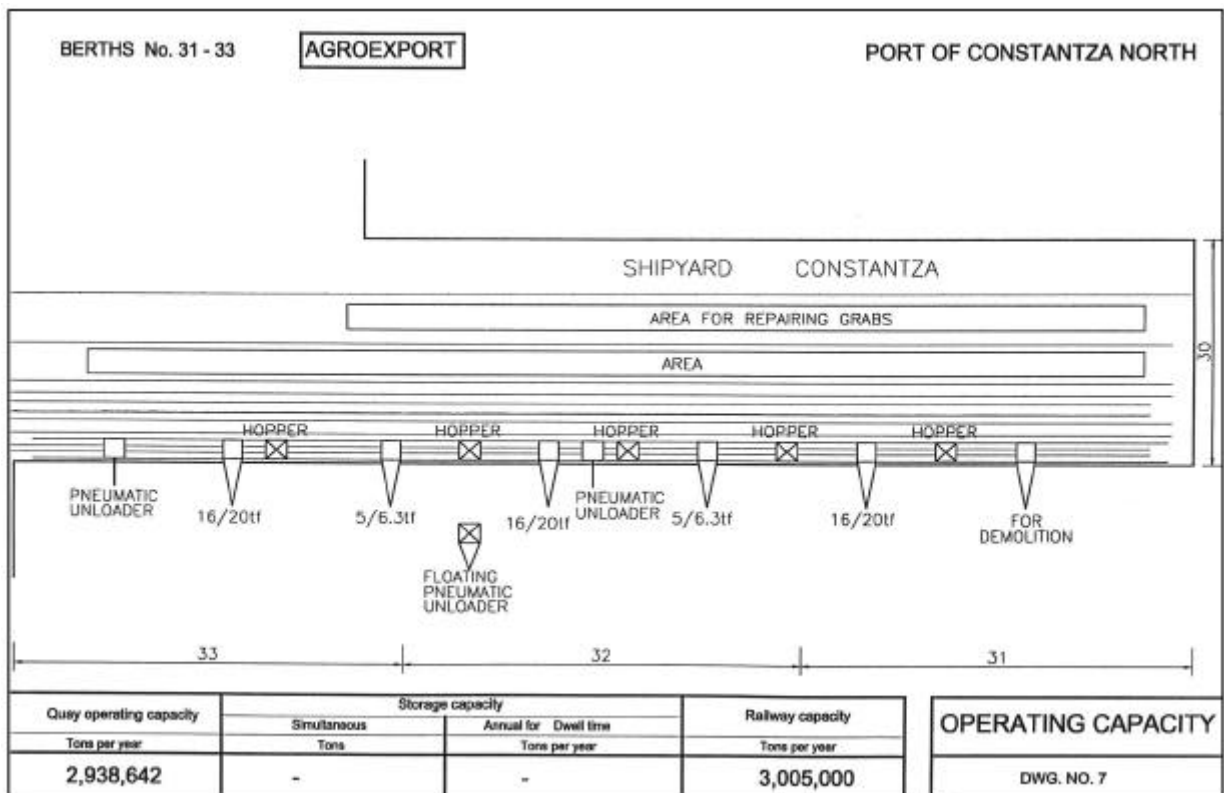
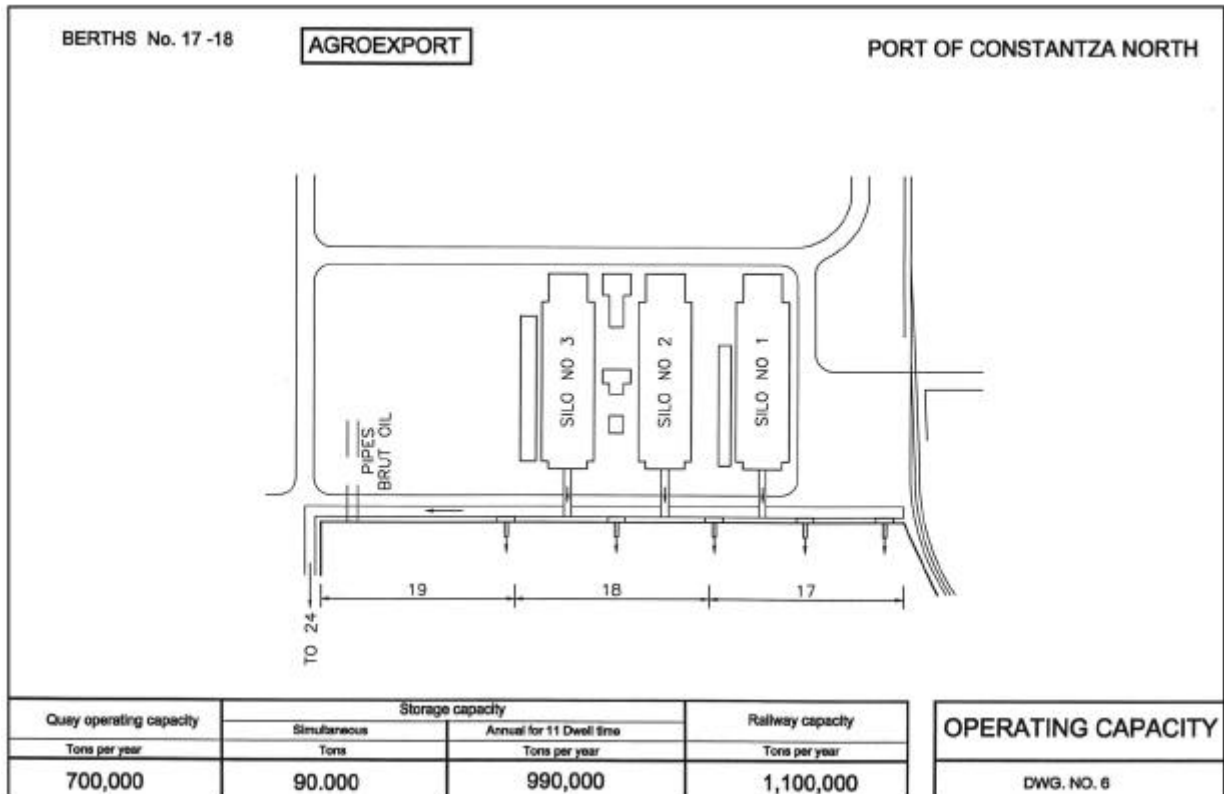
BERTH No. 20

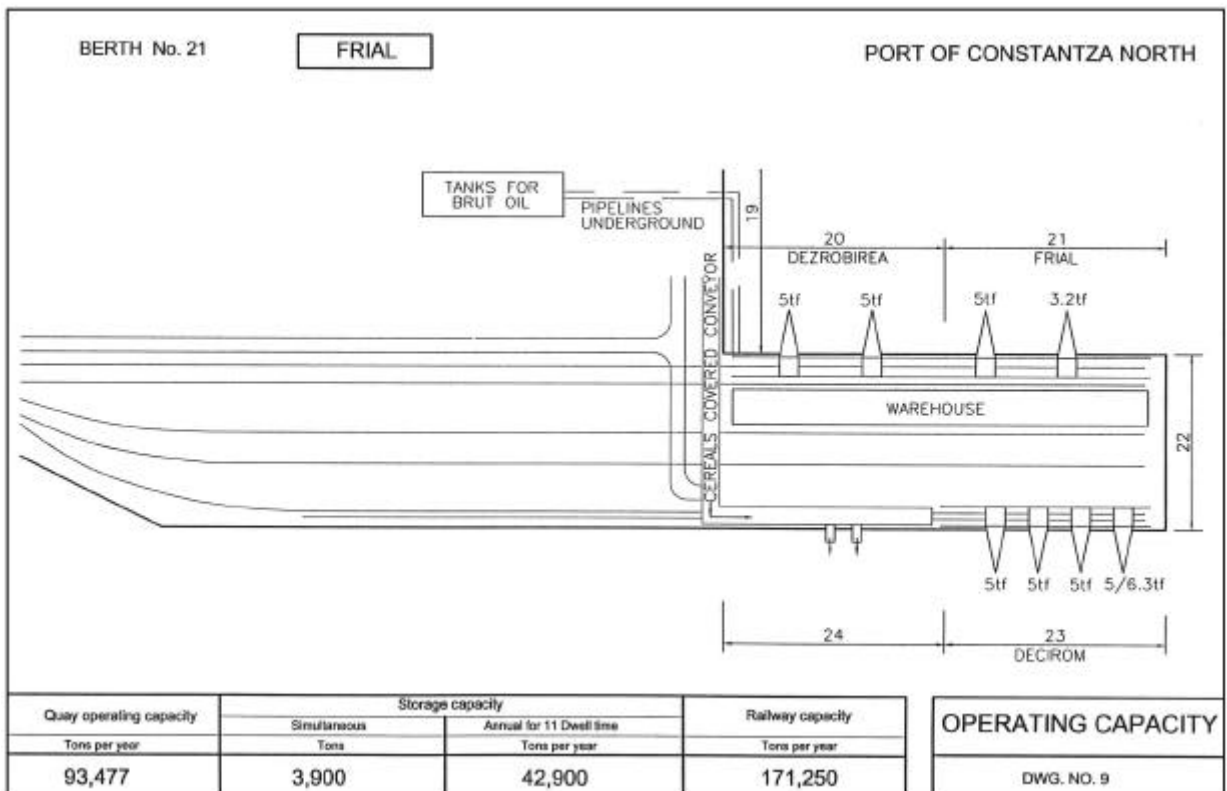
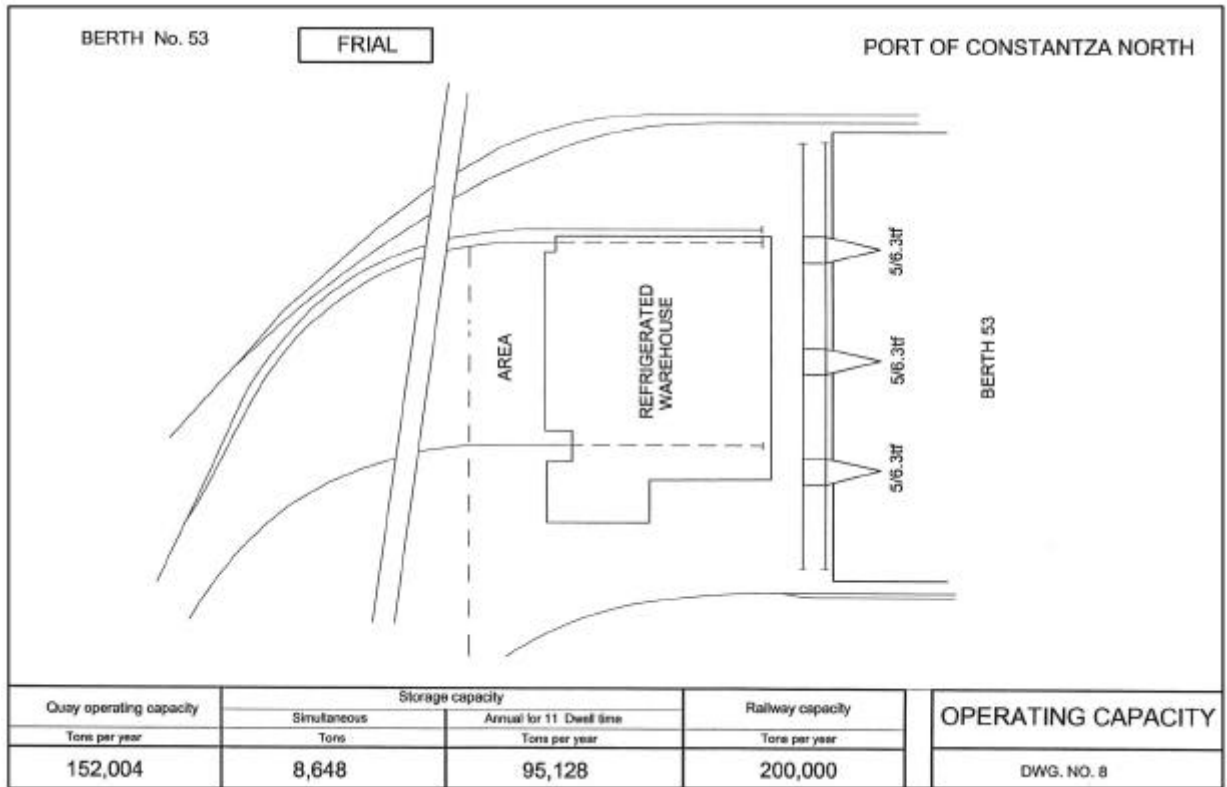
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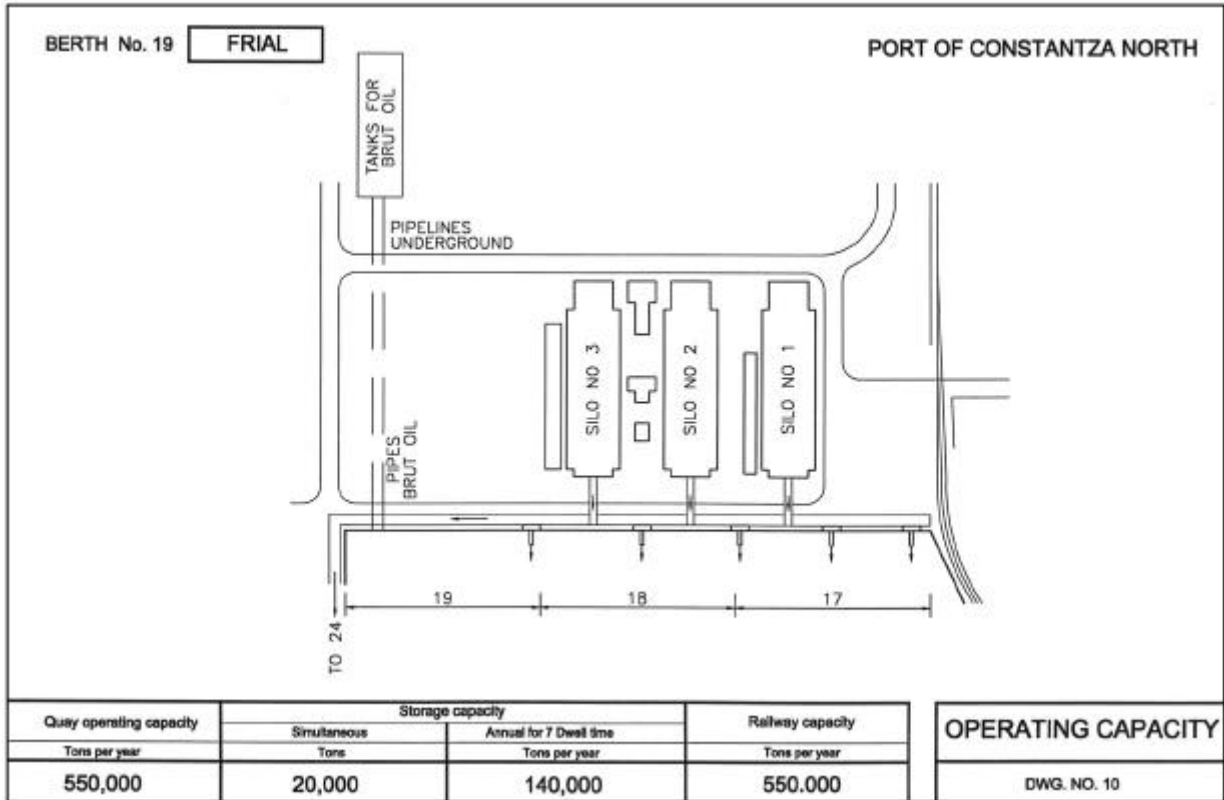
PORT OF CONSTANZA NORTH



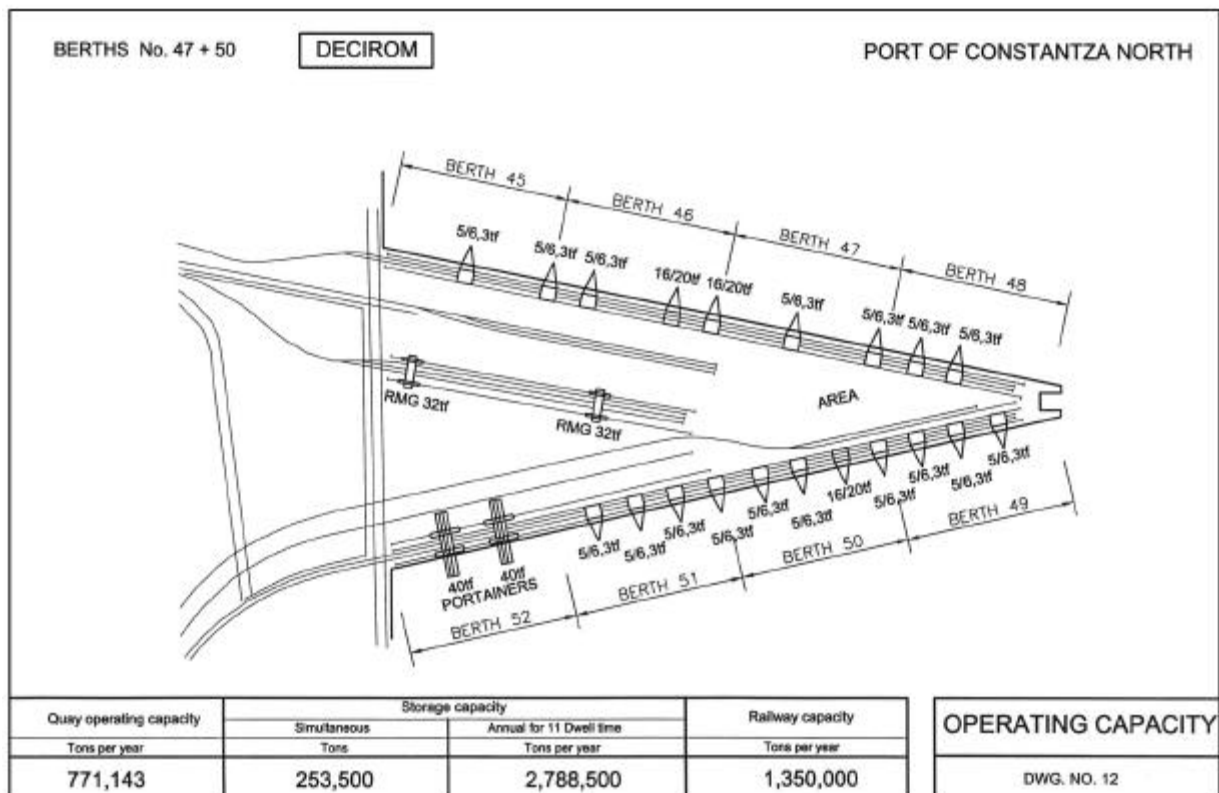
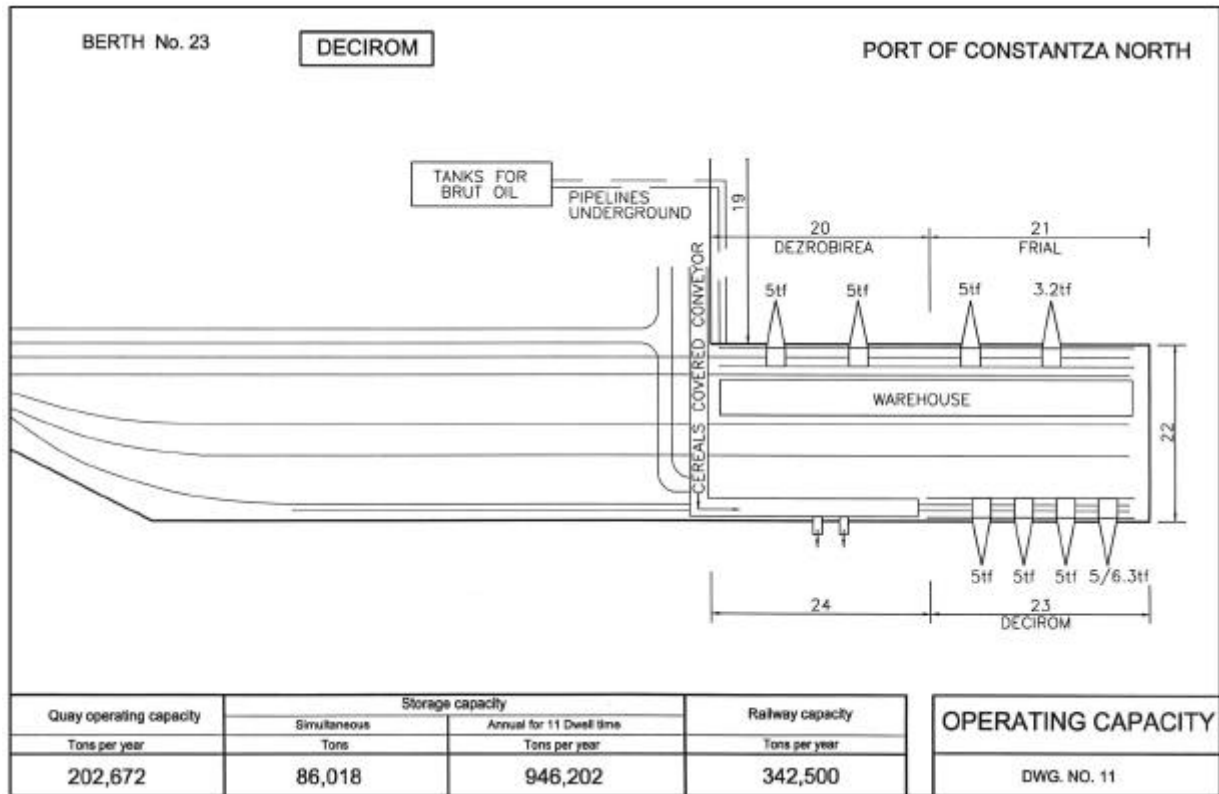
Quay operating capacity	Storage capacity		Railway capacity	OPERATING CAPACITY
	Simultaneous	Annual for 11 Dwell time		
Tons per year	Tons	Tons per year	Tons per year	
101,336	24,978	274,760	171,250	DWG. NO. 5







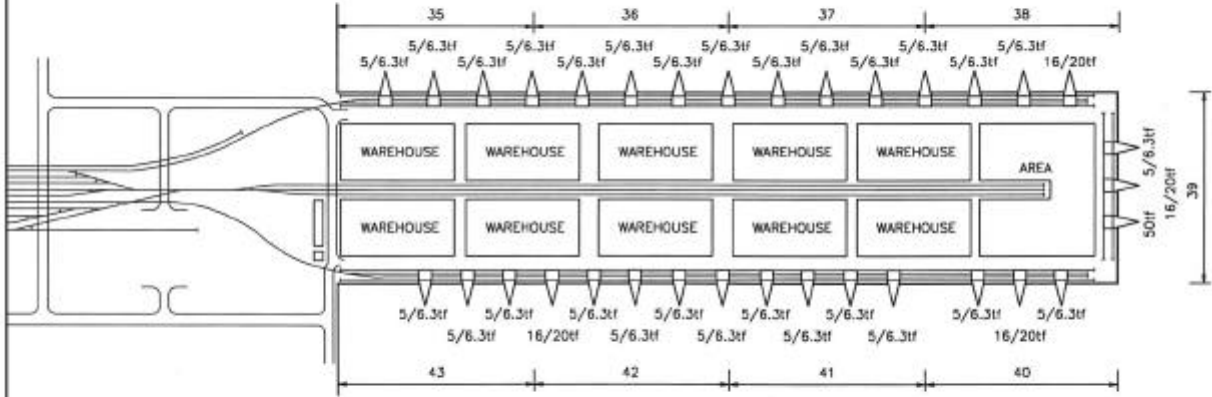




BERTHS No. 35 - 37  
BERTHS No. 41 - 43 to

SOCEP

PORT OF CONSTANTZA NORTH

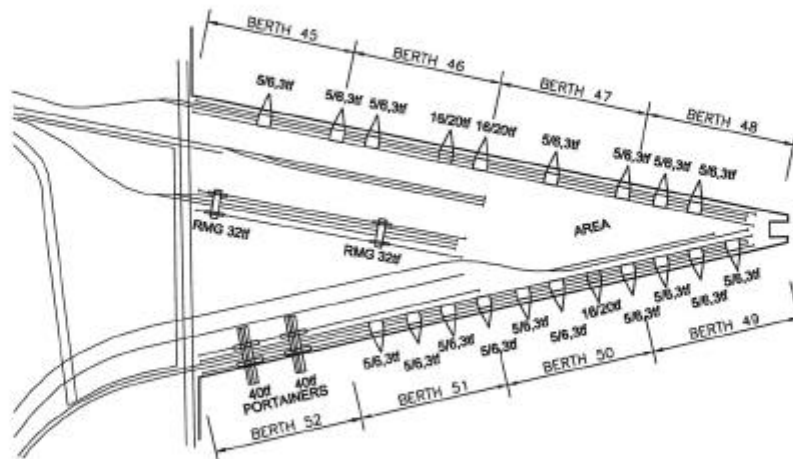


Quay operating capacity	Storage capacity		Railway capacity	OPERATING CAPACITY
	Simultaneous	Annual for 11 Dwell time		
Tons per year	Tons	Tons per year	Tons per year	DWG. NO. 13
1,227,155	174,143	1,915,571	2,333,333	

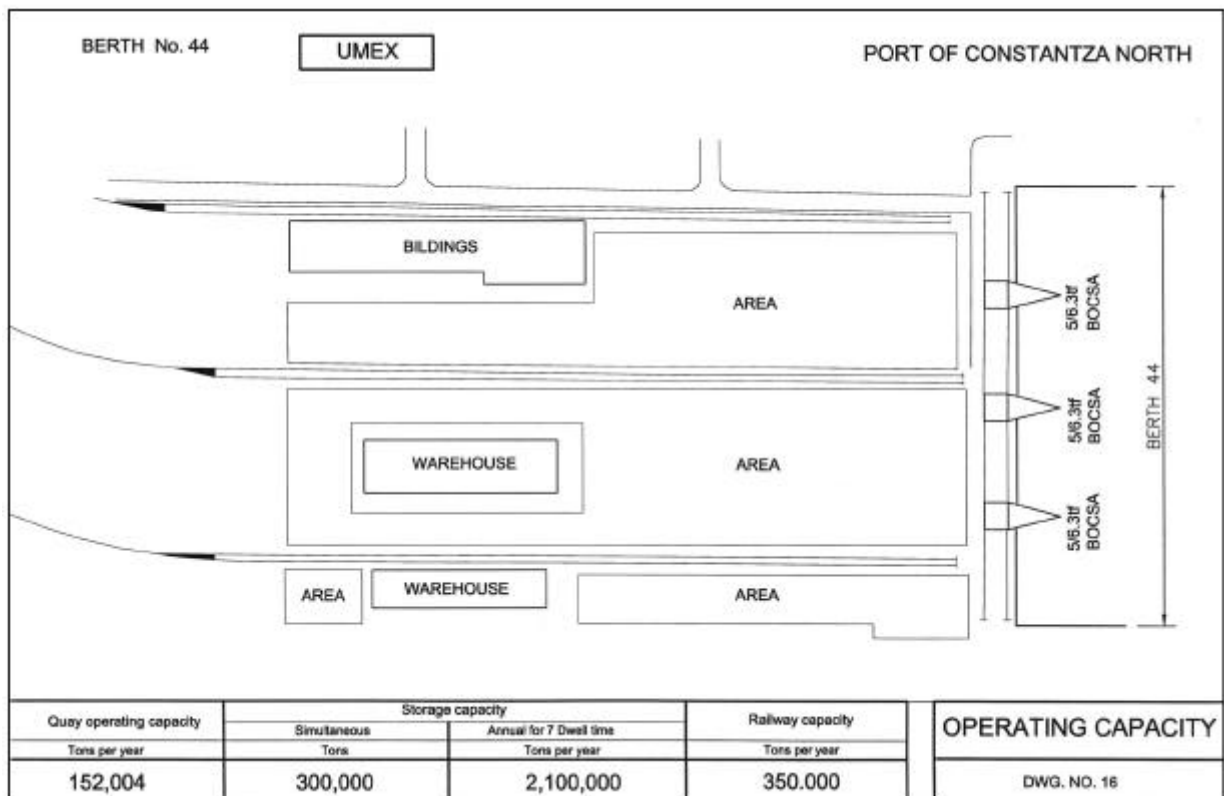
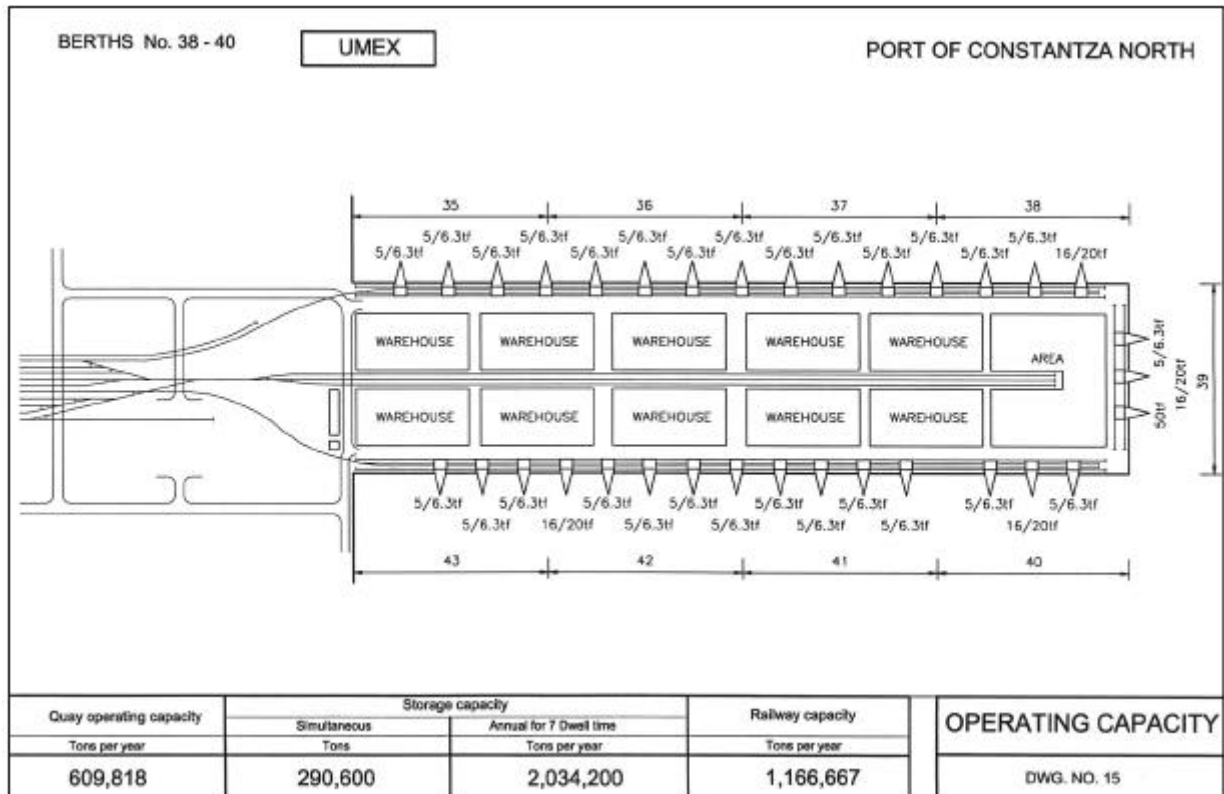
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SOCEP

PORT OF CONSTANTZA NORTH

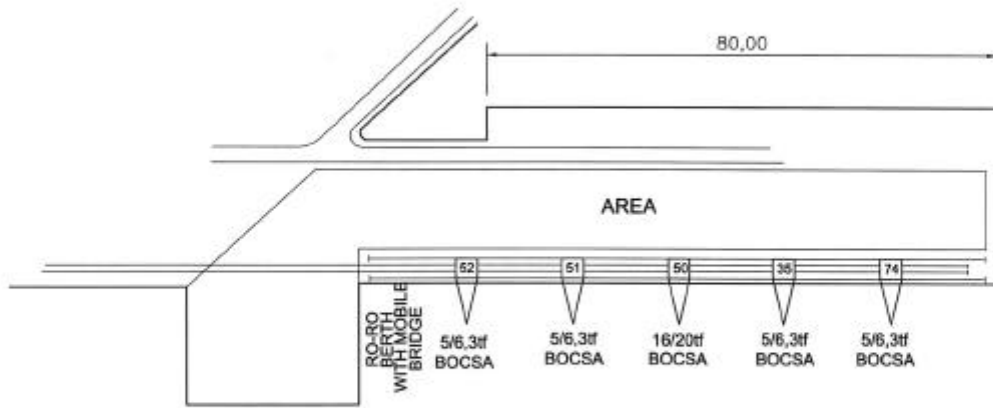


Quay operating capacity	Storage capacity		Railway capacity	OPERATING CAPACITY
	Simultaneous	Annual for 20 Dwell time		
Tons per year	Tons	Tons per year	Tons per year	DWG. NO. 14
810,000 [90,000 TEU/year]	39,600 [4,400 TEU]	792,000 [88,000 TEU/year]	675,000 [75,000 TEU/year]	



BERTHS No. **UMEX**

PORT OF CONSTANTZA NORTH

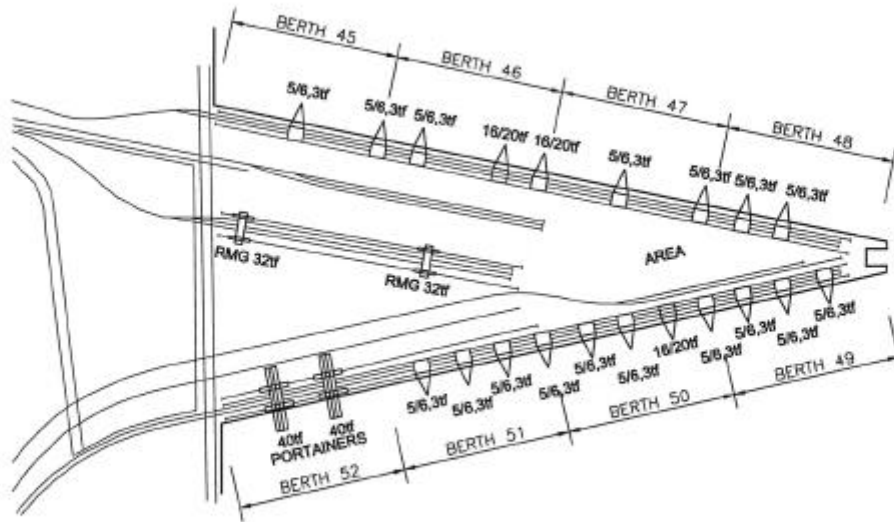


Quay operating capacity	Storage capacity		Railway capacity	OPERATING CAPACITY
	Simultaneous	Annual for 11 Dwell time		
Tons per year	Tons	Tons per year	Tons per year	
264,463	128,104	1,409,142	-	DWG. NO. 17

BERTHS No. 45 - 46

MINMETAL

PORT OF CONSTANTZA NORTH

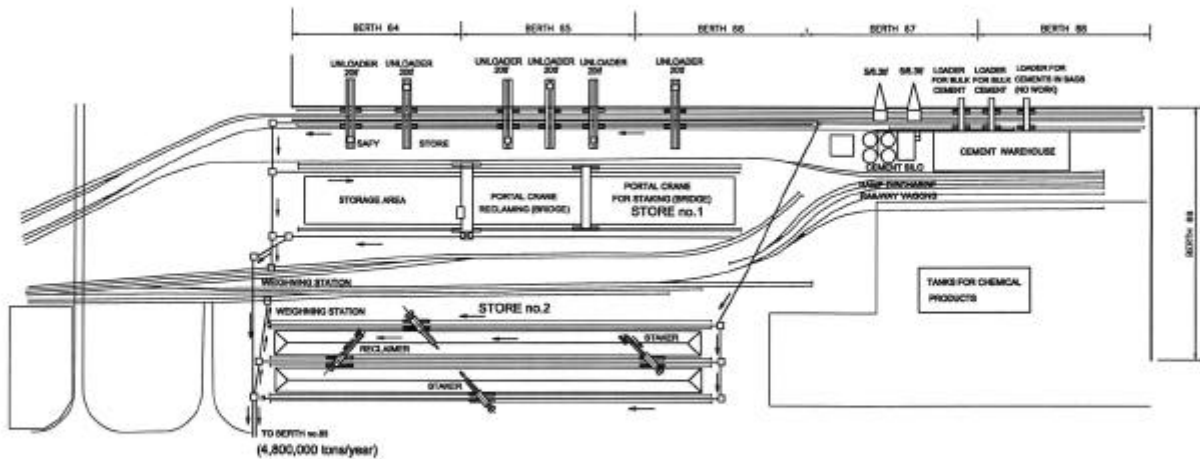


Quay operating capacity	Storage capacity		Railway capacity	OPERATING CAPACITY
	Simultaneous	Annual for 7 Dwell time		
Tons per year	Tons	Tons per year	Tons per year	
581,714	553,729	3,876,100	675,000	DWG. NO. 18

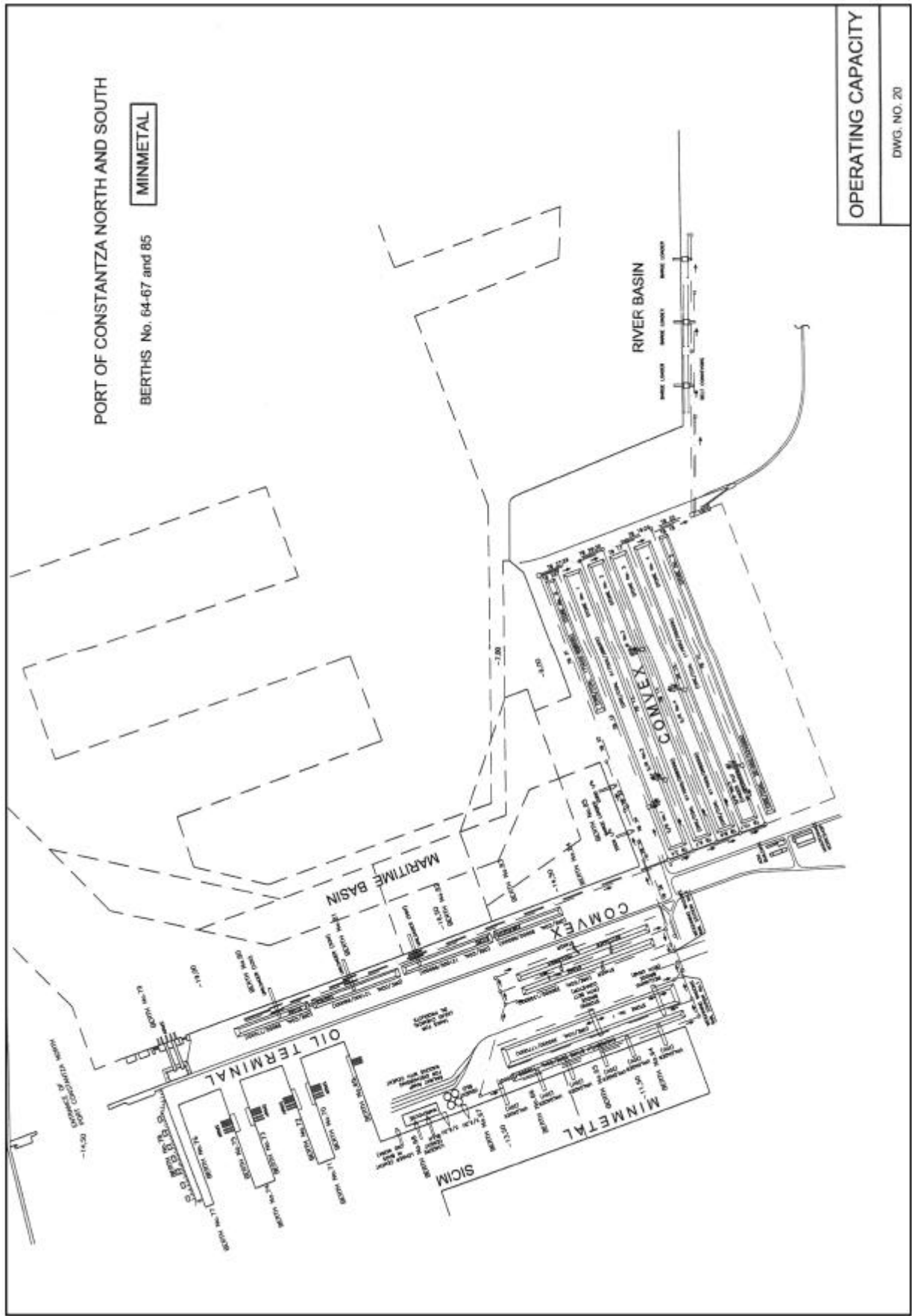
BERTHS No. 64 to 67

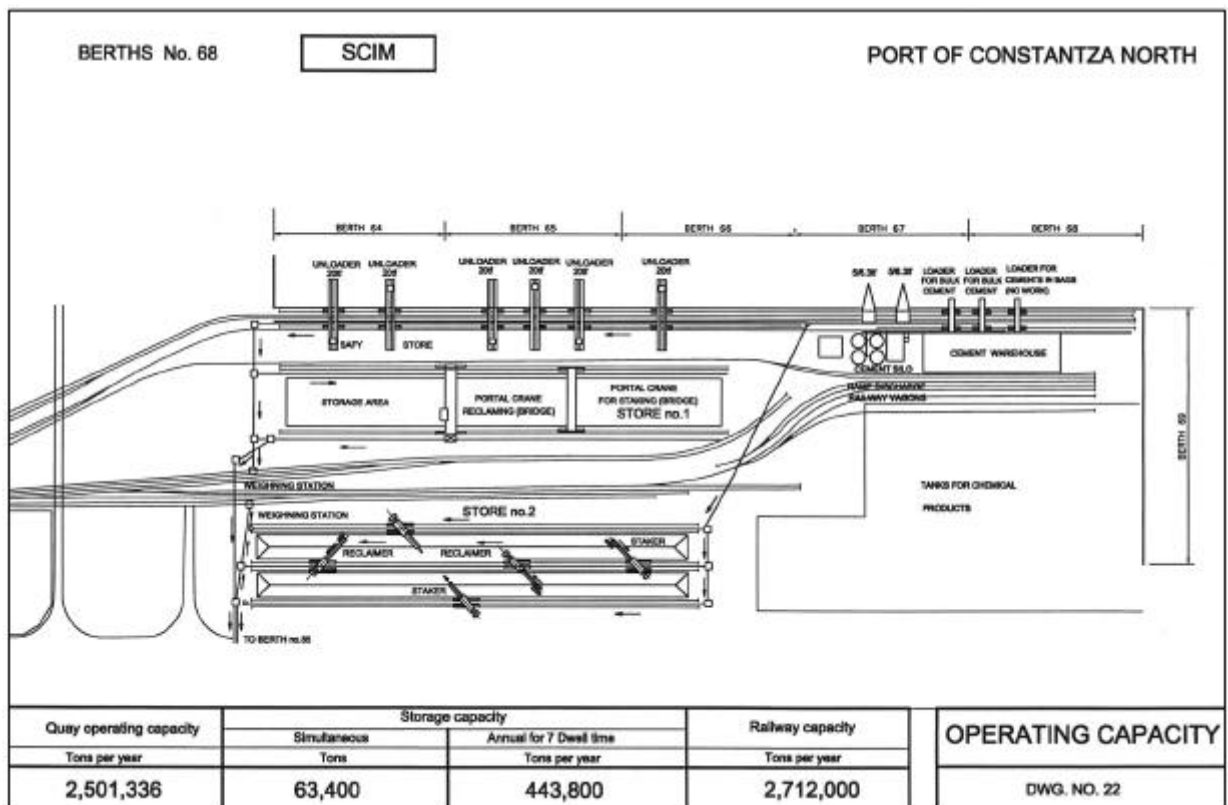
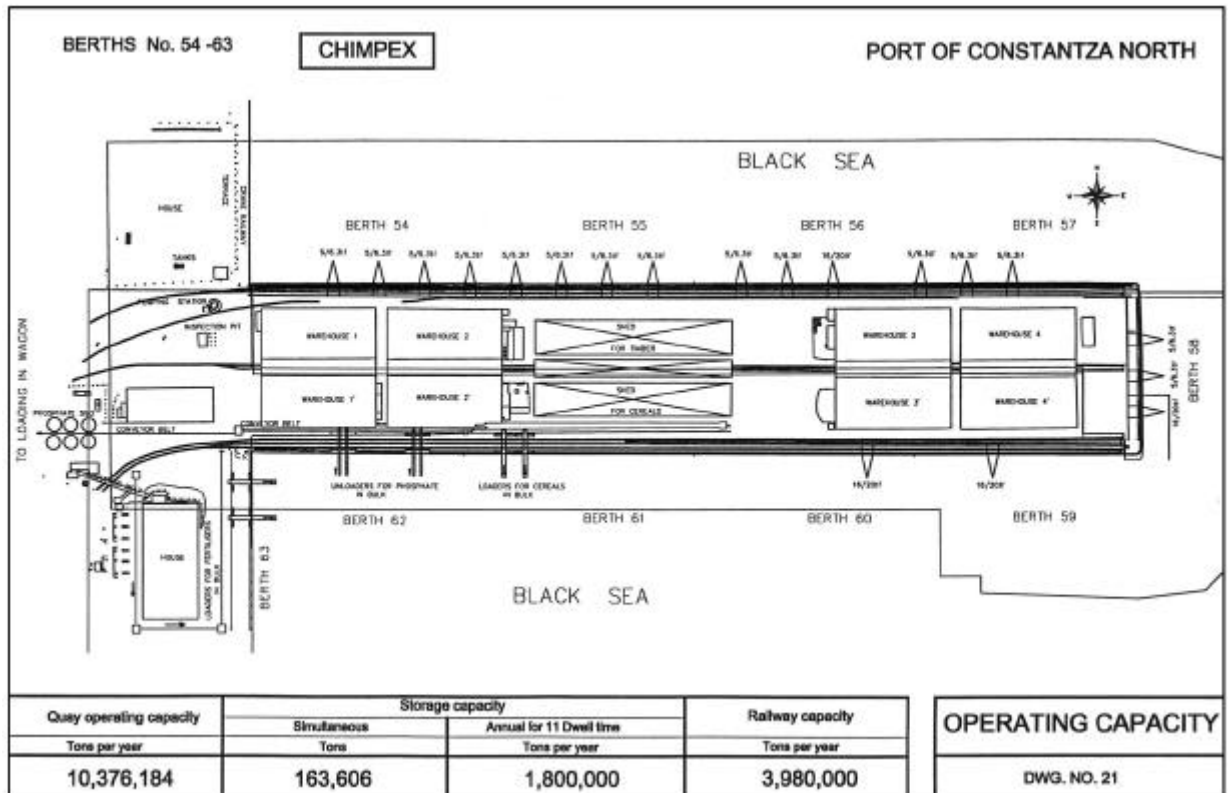
MINMETAL

PORT OF CONSTANTZA NORTH



Quay operating capacity	Storage capacity		Railway capacity	OPERATING CAPACITY
	Simultaneous	Annual for 18 Dwell time		
Tons per year	Tons	Tons per year	Tons per year	
12,000,000	547,960	9,863,280	10,848,000	DWG. NO. 19

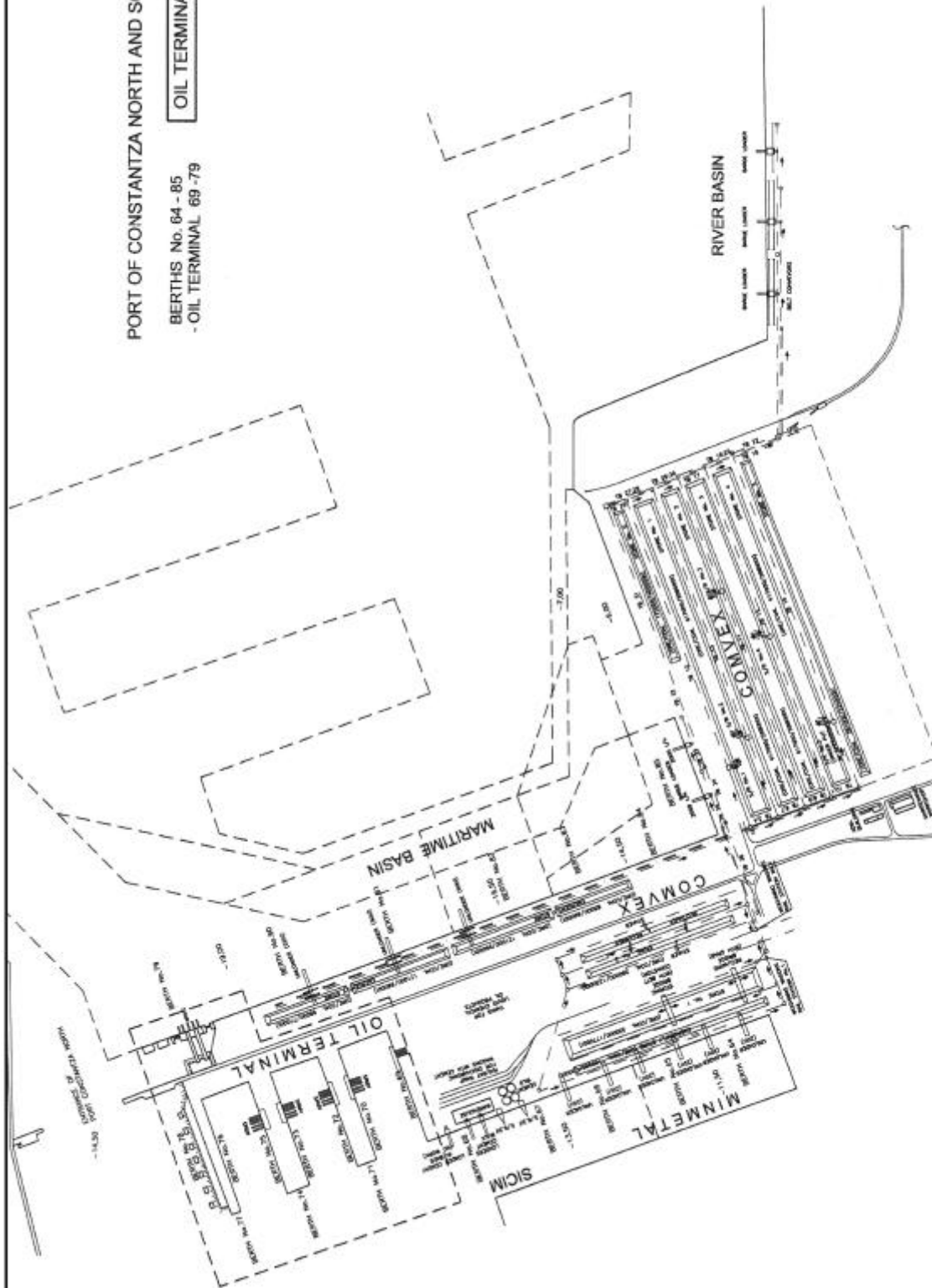




PORT OF CONSTANTZA NORTH AND SOUTH

BERTHS No. 64 - 85  
- OIL TERMINAL 69 - 79

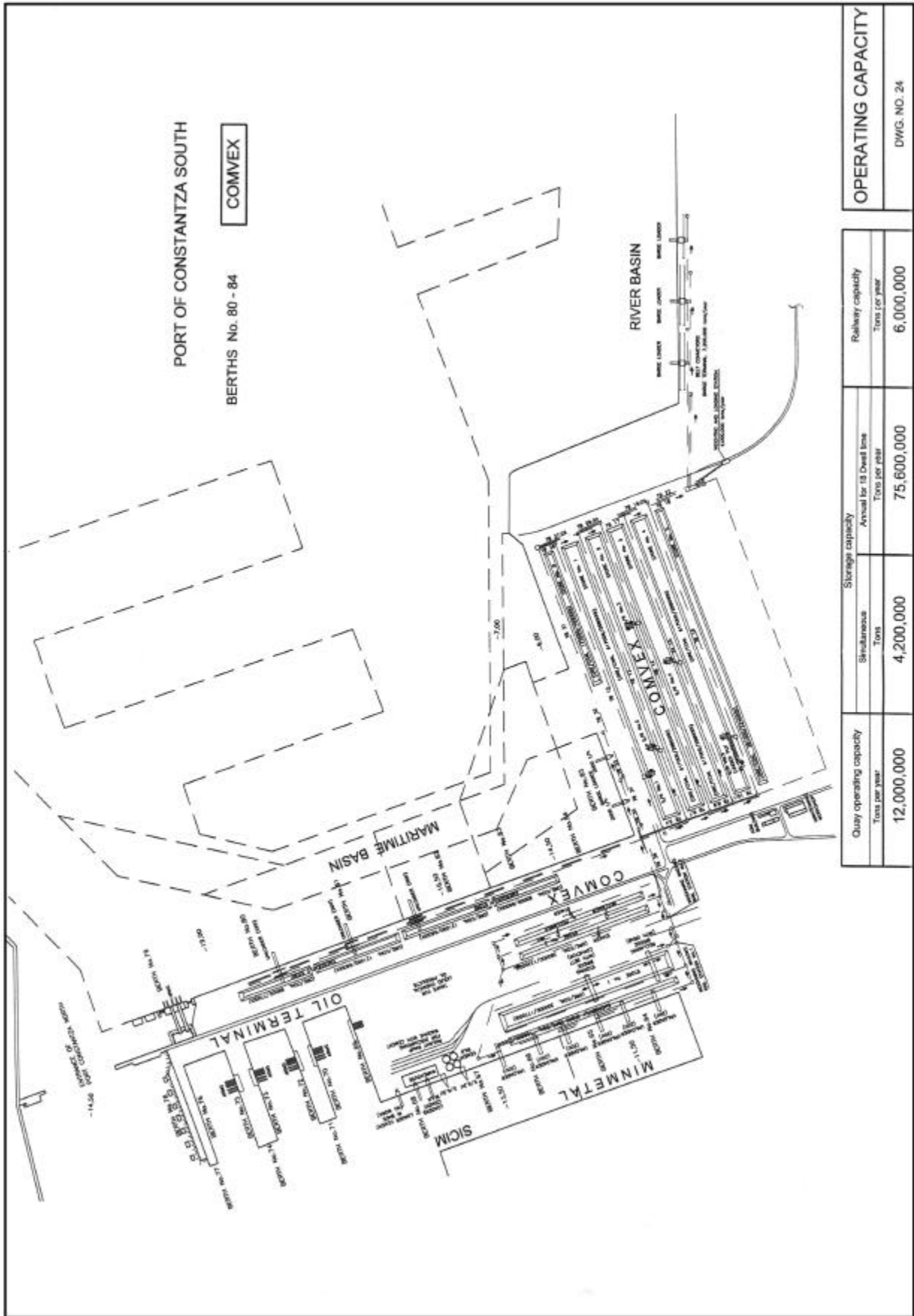
OIL TERMINAL

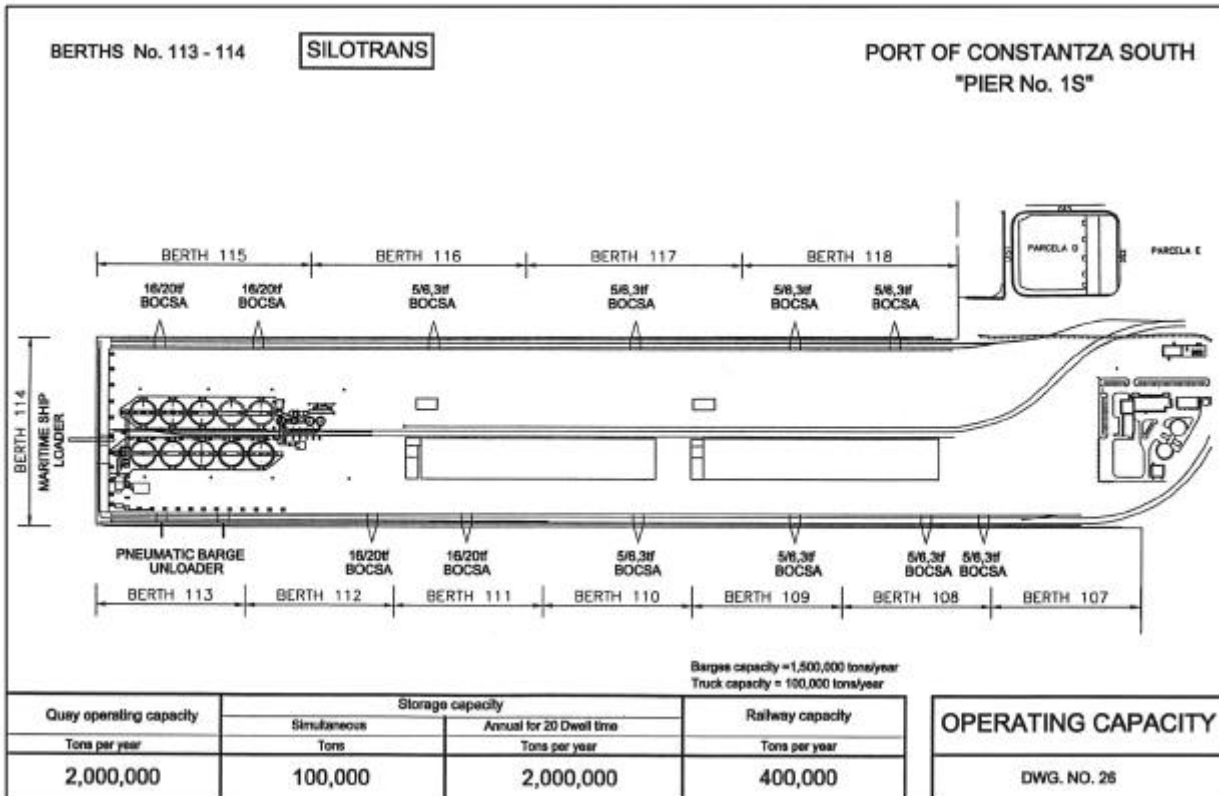
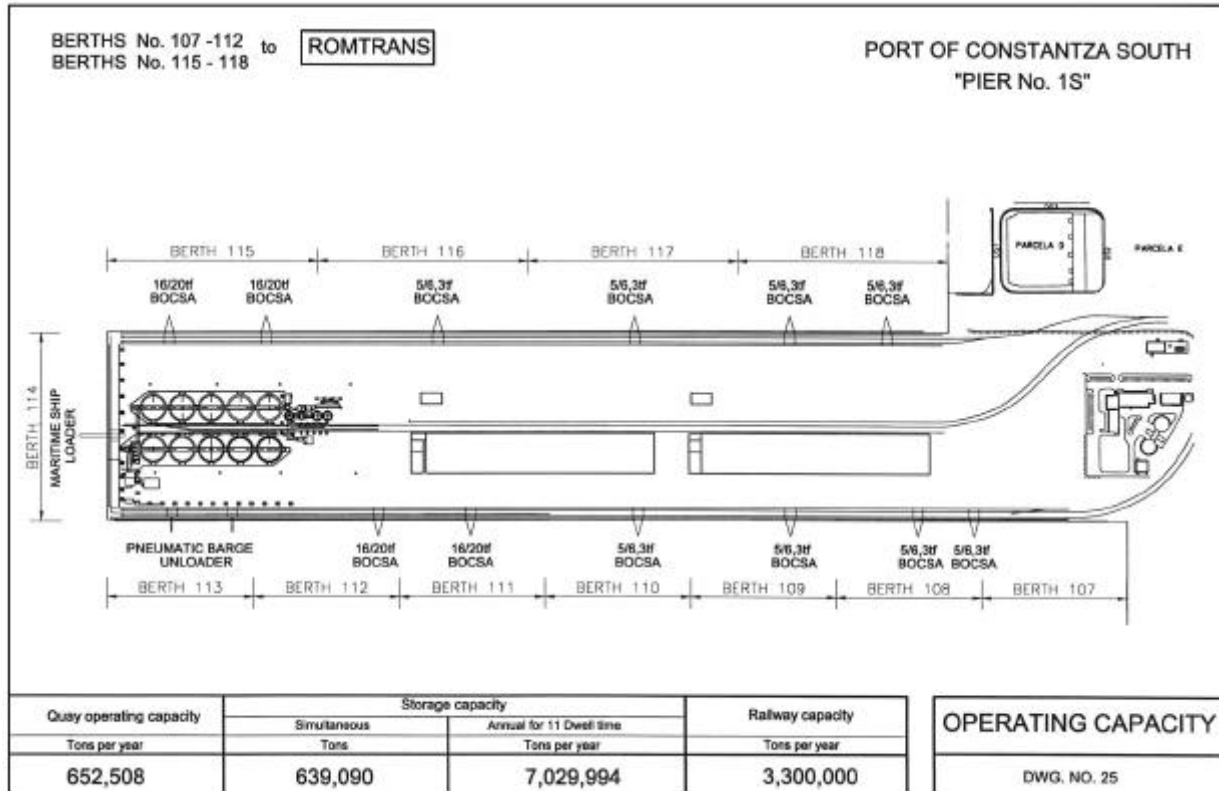


Quay operating capacity		Storage capacity		Railway capacity	
Tons per year	Simultaneous Tons	Annual for 66 Dwell time Tons per year	Tons	Tons per year	Tons per year
36,000,000	640,000	36,000,000	-	-	-

DWG. NO. 23







# **APPENDIX IC**

## **PORT WATER ENVIRONMENTAL QUALITY RESULTS**

**Table 1a. Composition of phytoplankton species in Constantza port waters (June 2001)**

NO.	Specii/Species	Ecological group <sup>1</sup>
	<b>DIATOMEE/DIATOMS</b>	
1	<i>Melosira moniliformis</i>	MS
2	<i>Skeletonema costatum</i>	MS
3	<i>Cyclotella meneghiniana</i>	DS
4	<i>Cyclotella caspia</i>	MS
5	<i>Leptocylindrus danicus</i>	MS
6	<i>Rhizosolenia fragilissima</i>	MS
7	<i>Chaetoceros socialis</i>	MS
8	<i>Chaetoceros lorenzianus</i> v. <i>solitarius</i>	MS
9	<i>Ditylum brightwellii</i>	MS
10	<i>Cerataulina pelagica</i>	MS
11	<i>Synedra tabulata</i>	MS
12	<i>Thalassionema nitzschioides</i>	MS
13	<i>Striatella unipunctata</i>	MS
14	<i>Licmophora Ehrenbergii</i>	MS
15	<i>Cocconeis scutellum</i>	MS
16	<i>Achnanthes brevipes</i>	MS
17	<i>Navicula lanceolata</i>	DS
18	<i>Nitzschia delicatissima</i>	MS
19	<i>Nitzschia palea</i>	DS
20	<i>Nitzschia tenuirostris</i>	MS
21	<i>Nitzschia</i> sp.	MS
	<b>DINOFLAGELLATE/ DYNOFLAGELLATES</b>	
22	<i>Prorocentrum compressum</i>	MS
23	<i>Prorocentrum minimum</i>	MS
24	<i>Prorocentrum micans</i>	MS
25	<i>Prorocentrum scutellum</i>	MS
26	<i>Dinophysis sacullus</i>	MS
27	<i>Dinophysis ovum</i>	MS
28	<i>Gymnodinium splendens</i>	MS
29	<i>Gymnodinium najadeum</i>	MS
30	<i>Gymnodinium wulffii</i>	MS
31	<i>Gymnodinium</i> sp.	MS
32	<i>Gyrodinium fusiforme</i>	MS
33	<i>Glenodinium pilula</i>	MS
34	<i>Peridinium granii</i>	MS
35	<i>Peridinium minusculum</i>	MS
36	<i>Peridinium steinii</i>	MS
37	<i>Peridinium brevipes</i>	MS
38	<i>Peridinium divergens</i>	MS
39	<i>Scrippsiella trochoidea</i>	MS
40	<i>Heterocapsa triquetra</i>	MS
41	<i>Goniaulax polyedra</i>	MS
42	<i>Goniaulax orientalis</i>	MS
43	<i>Ceratium furca</i>	MS
44	<i>Ceratium fusus</i>	MS
45	<i>Ceratium tripos</i>	MS
-	Dinoflagellate stadii vegetative	

<sup>1</sup> \* MS = specii marine si salmastricole/marine and brackish water species; DS = specii dulcicole si dulcicole salmastricole/fresh water and freshwater-brackish water species.

No.	Specii / Species	Ecological group*
	<b>ALTE GRUPE/OTHER GROUPS</b>	
46	<i>Scenedesmus quadricauda</i>	DS
47	<i>Scenedesmus acuminatus</i>	DS
48	<i>Scenedesmus ecornis</i>	DS
49	<i>Scenedesmus intermedius</i>	DS
50	<i>Oocystis Borgei</i>	DS
51	<i>Carteria</i> sp.	DS
52	<i>Merismopedia tenuissima</i>	DS
53	<i>Oscillatoria pseudogeminata</i>	DS
54	<i>Oscillatoria</i> sp.	MS
55	<i>Emiliana huxleyi</i>	MS
56	<i>Apedinella spinifera</i>	MS
57	<i>Eutreptia lanowii</i>	MS
58	<i>Hillea fusiformis</i>	MS
59	<i>Chroomonas acuta</i>	MS

**Table 1b. Quantities of phytoplankton in Constantza port waters (June 2001)**

St.	Layer	Density (cel·l <sup>-1</sup> )				Biomass (mg·m <sup>-3</sup> )			
		Diatoms	Dinoflagellates	Other groups	Total	Diatoms	Dinoflagellates	Other groups	Total
1	0	1779520	40320	49280	1869120	896.45	533.60	12.07	1442.12
	10	15360	16000	960	32320	12.32	347.23	0.51	360.06
<b>M</b>		<b>897440</b>	<b>28160</b>	<b>25120</b>	<b>950720</b>	<b>454.39</b>	<b>440.42</b>	<b>6.29</b>	<b>901.09</b>
2	0	762360	34720	1680	798760	271.45	463.86	0.22	735.53
	10	361400	16800	5320	383520	159.65	275.33	1.40	436.38
<b>M</b>		<b>561880</b>	<b>25760</b>	<b>3500</b>	<b>591140</b>	<b>215.55</b>	<b>369.60</b>	<b>0.81</b>	<b>585.96</b>
3	0	21206640	410040	2160	21618840	10573.89	895.03	0.94	11469.86
	10	35640	1440	2160	39240	13.57	17.45	0.39	31.41
<b>M</b>		<b>10621140</b>	<b>205740</b>	<b>2160</b>	<b>10829040</b>	<b>5293.73</b>	<b>456.24</b>	<b>0.67</b>	<b>5750.64</b>
4	0	12689920	114480	720	12805120	6233.79	459.88	0.79	6694.46
	10	12166300	103440	6000	12275740	5932.97	688.02	0.31	6621.30
<b>M</b>		<b>12428110</b>	<b>108960</b>	<b>3360</b>	<b>12540430</b>	<b>6083.38</b>	<b>573.95</b>	<b>0.55</b>	<b>6657.88</b>
5	0	21009600	448800	20800	21479200	10633.25	1121.35	3.25	11757.85
	10	21015260	192960	10560	21218780	10348.91	753.36	1.84	11104.11
<b>M</b>		<b>21012430</b>	<b>320880</b>	<b>15680</b>	<b>21348990</b>	<b>10491.08</b>	<b>937.36</b>	<b>2.55</b>	<b>11430.98</b>
6	0	8447940	367300	4480	8819720	4093.07	925.89	1.45	5020.41
	10	17590560	290800	13200	17894560	8858.52	1048.40	1.07	9907.99
<b>M</b>		<b>13019250</b>	<b>329050</b>	<b>8840</b>	<b>13357140</b>	<b>6475.80</b>	<b>987.15</b>	<b>1.26</b>	<b>7464.20</b>
7	0	427680	43200	2160	473040	142.26	459.28	1.13	602.67
	10	653580	35720	12920	702220	215.75	391.48	2.97	610.20
<b>M</b>		<b>540630</b>	<b>39460</b>	<b>7540</b>	<b>587630</b>	<b>179.01</b>	<b>425.38</b>	<b>2.05</b>	<b>606.44</b>
8	0	1277480	21760	0	1299240	586.26	259.33	0.00	845.59
	10	310500	31740	4140	346380	75.58	491.80	0.81	568.19
<b>M</b>		<b>793990</b>	<b>26750</b>	<b>2070</b>	<b>822810</b>	<b>330.92</b>	<b>375.57</b>	<b>0.41</b>	<b>706.89</b>
<b>M GEN.</b>		<b>7484359</b>	<b>135595</b>	<b>8534</b>	<b>7628488</b>	<b>3690.48</b>	<b>570.71</b>	<b>1.82</b>	<b>4263.01</b>

**Table 1c. Proportion of main phytoplankton in Constantza port waters (June 2001)**

St.	Density (cel·l <sup>-1</sup> )			Biomass (mg·m <sup>-3</sup> )		
	Diatoms	Dinoflagellates	Other groups	Diatoms	Dinoflagellates	Other groups
1	94.40	2.96	2.64	50.43	48.87	0.70
2	95.05	4.36	0.59	36.79	63.07	0.14
3	98.08	1.90	0.02	92.06	7.93	0.01
4	99.10	0.87	0.03	91.37	8.62	0.01
5	98.43	1.50	0.07	91.78	8.20	0.02
6	97.47	2.46	0.07	86.75	13.23	0.02
7	92.00	6.72	1.28	29.52	70.14	0.34
8	96.50	3.25	0.25	46.81	53.13	0.06
<b>M</b>	<b>96.38</b>	<b>3.00</b>	<b>0.62</b>	<b>65.69</b>	<b>34.15</b>	<b>0.16</b>

**Table 2a. Identified zooplanktonic species and their frequency (June 2001)**

No.	Taxoni / Taxa	Statia / Station							
		1	2	3	4	5	6	7	8
	<b>Holoplankton</b>								
1.	<i>Noctiluca scintillans</i>	+	+	+	+	+	+	+	+
2.	<i>Strombidium</i> sp.				+				
3.	<i>Tiarina fusus</i>	+		+	+				
4.	<i>Colurella</i> sp.			+	+	+			
5.	<i>Aurelia aurita</i>							+	+
6.	<i>Acartia clausi</i>	+		+	+	+		+	+
7.	<i>Paracalanus parvus</i>				+				
8.	<i>Centropages ponticus</i>			+	+				
9.	<i>Centropages spinosus</i>								+
10.	<i>Eurytemora affinis</i>					+			
11.	Pontelidae varia				+				
12.	Cyclopoida varia		+						
13.	Harpacticoida varia		+	+	+		+	+	
14.	<i>Pleopis polyphemoides</i>	+	+	+	+	+	+	+	+
15.	<i>Evadne tergestina</i>					+			
16.	<i>Evadne nordmani</i>					+			
17.	<i>Bosmina longirostris</i>			+	+				
	<b>Meroplankton</b>								
18.	Polychaeta - larvae				+	+			
19.	Bivalvia - larvae		+		+	+		+	
20.	<i>Balanus improvisus</i> - larvae	+	+	+	+	+	+	+	+
		5	6	9	14	10	4	7	6

**Table 2b Densities (ind. m<sup>-3</sup>) and biomasses (mg. m<sup>-3</sup>) of the total zooplanktons, registered in the upper sea layers (June 2001)**

St.	Total Zpk			Non-trophic Zpk			Trophic Zpk			Meroplankton			Holoplankton					
	D	B	D	B	D	B	D	B	D	B	D	B	Copepods		Cladocers		Other groups	
													D	B	D	B	D	B
1	1510	118.8	1323	116.4	187	2.407	148	2.19	12	0.193	2	0.018	25	0.000				
2	1697	114.9	1250	110.0	447	4.947	442	4.90	1	0.008	4	0.036	-	-				
3	16460	1255.0	13916	1224.6	2544	30.407	2263	29.12	8	0.135	126	1.134	147	0.010				
4	7359	388.4	3822	336.3	3537	52.161	3289	51.09	6	0.631	46	0.414	196	0.020				
5	6136	113.0	637	56.0	5499	56.978	5345	56.04	5	0.065	124	0.866	25	0.005				
6	30438	315.6	1470	129.3	28968	186.290	28959	186.17	1	0.042	8	0.072	-	-				
7	1593	143.9	1519	143.6	74	0.286	59	0.10	9	0.124	6	0.054	-	-				
8	747	64.8	735	64.6	12	0.176	5	0.05	3	0.083	4	0.036	-	-				

**Table 3 Taxonomic composition, densities (D-ind/m<sup>2</sup>) and biomasses (B-g/m<sup>2</sup>) of macrobenthic species (June 2001)**

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 8	
	D	B	D	B	D	B	D	B	D	B	D	B	D	B	D	B
<i>Phylodoce maculata</i>	-	-	20	0.012	-	-	-	-	-	-	40	0.024	-	-	-	-
<i>Nephtys hombergi</i>	400	0.24	500	0.300	20	0.012	-	-	-	-	120	0.072	60	0.036	40	0.024
<i>Neanthes succinea</i>	-	-	80	0.048	-	-	-	-	400	0.240	-	-	260	0.156	400	0.240
<i>Polydora limicola</i>	-	-	40	0.024	-	-	-	-	80	0.048	40	0.024	900	0.540	860	0.516
<i>Pygospio elegans</i>	-	-	-	-	-	-	-	-	-	-	400	0.240	-	-	-	-
<i>Melinna palmata</i>	-	-	-	-	-	-	-	-	-	-	400	0.240	20	0.012	-	-
<b>POLYCHAETA</b>	<b>400</b>	<b>0.24</b>	<b>640</b>	<b>0.384</b>	<b>20</b>	<b>0.012</b>	-	-	<b>480</b>	<b>0.288</b>	<b>660</b>	<b>0.396</b>	<b>1240</b>	<b>0.744</b>	<b>1300</b>	<b>0.780</b>
<i>Corbula mediterranea</i>	-	-	-	-	-	-	-	-	-	-	-	-	20	0.302	160	6.000
<i>Chione galina</i>	-	-	-	-	-	-	-	-	-	-	-	-	20	0.820	20	0.820
<i>Spisula subtruncata</i>	20	3.180	-	-	-	-	-	-	20	2.610	20	3.188	40	12.752	180	252.900
<i>Mya arenaria</i>	120	553.060	40	6.376	-	-	-	-	-	-	60	251.828	40	8.142	20	0.796
<i>Scapharca inaequalis</i>	-	-	-	-	-	-	-	-	-	-	-	-	20	44.00	60	141.00
<i>Cardium edule</i>	-	-	-	-	-	-	-	-	-	-	80	16.560	-	-	120	37.00
<i>Mytilus galloprovincialis</i>	-	-	-	-	-	-	-	-	-	-	-	-	20	0.200	-	-
<b>MOLLUSCS</b>	<b>140</b>	<b>556.240</b>	<b>40</b>	<b>6.376</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20</b>	<b>2.610</b>	<b>160</b>	<b>271.576</b>	<b>180</b>	<b>66.216</b>	<b>560</b>	<b>438.716</b>
<i>Balanus improvisus</i>	20	0.338	40	0.980	-	-	-	-	20	0.338	40	0.676	40	0.188	80	1.352
<i>Iphinoe elisae</i>	-	-	-	-	-	-	-	-	-	-	-	-	40	0.019	-	-
<i>Ampelisca diadema</i>	-	-	-	-	-	-	-	-	-	-	-	-	20	0.260	240	3.120
<i>Microdeutopus gryllotalpa</i>	-	-	180	0.041	-	-	-	-	-	-	-	-	20	0.004	-	-
<i>Amphipoda var.</i>	-	-	-	-	-	-	-	-	20	0.040	-	-	-	-	-	-
<i>Phytosica marina</i>	-	-	20	0.034	-	-	-	-	-	-	-	-	-	-	-	-
<b>CRUSTACEAN</b>	<b>20</b>	<b>0.338</b>	<b>240</b>	<b>1.055</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>40</b>	<b>0.378</b>	<b>40</b>	<b>0.676</b>	<b>120</b>	<b>0.471</b>	<b>320</b>	<b>4.472</b>
<i>Leptoplana alcinoidi</i>	-	-	-	-	-	-	-	-	-	-	20	0.600	-	-	-	-
<b>OTHER GROUPS</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20</b>	<b>0.600</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>TOTAL</b>	<b>560</b>	<b>556.818</b>	<b>920</b>	<b>7.815</b>	<b>20</b>	<b>0.012</b>	<b>-</b>	<b>-</b>	<b>540</b>	<b>3.276</b>	<b>880</b>	<b>273.248</b>	<b>1540</b>	<b>67.431</b>	<b>2180</b>	<b>444.048</b>