# Mooring Element	Length[m]	Buoy[kg]	<pre>Height[m] (middle)</pre>	dZ[m]	dX[m]	dY[m]	Tension[Top Bot	-	_	e[deg] Bottom
1 37in ORE	0.94	300.00	88.59	6.0	32.4	0.0	0.0 30	6.1 5	5.7	11.5
2 1/2 shackle	0.08	-0.30	88.08	6.0	32.3	0.0	306.1 30	5.8 11	1.5	11.5
3 3/8 wire rope	80.03	-0.33					305.8 28	1.0 11	1.5	24.5
4 1/2 shac+3/8shac	0.12	-0.42	12.67	1.3	5.8	0.0	281.0 28	0.7 24	1.5	24.6
5 Trpl 16 in Viny	1.50	56.00	11.93	1.2	5.4	0.0	280.7 33	3.6 24	1.6	21.1
6 1/2 shac+3/8shac	0.12	-0.42	11.19	1.2	5.1	0.0	333.6 33	3.2 21	1.1	21.1
7 Aanderaa RCM-7	0.55	-18.30	10.88	1.1	5.0	0.0	333.2 31	6.3 21	1.1	22.6
8 1/2 shackle	0.08	-0.30	10.59	1.1	4.9	0.0	316.3 31	6.0 22	2.6	22.6
9 3/8 wire rope	5.00	-0.33					316.0 31	4.5 22	2.6	22.9
10 1/2 shackle	0.08	-0.30	5.90	0.7	2.9	0.0	314.5 31	4.2 22	2.9	22.9
11 1/2 swivel	0.14	-0.65	5.80	0.7	2.8	0.0	314.2 31	3.6 22	2.9	23.0
12 1/2 shackle	0.08	-0.30	5.70	0.7	2.8	0.0	313.6 31	3.3 23	3.0	23.0
13 EG&G 8242	0.94	-28.00	5.23	0.7	2.6	0.0	313.3 28	7.8 23	3.0	25.3
14 5/8 shackle	0.07	-0.65	4.77	0.6	2.4	0.0	287.8 28	7.2 25	5.3	25.4
15 1 chain SL	5.00	-13.00					287.2 23	0.2 25	5.4	32.3
16 2 Railway Wheels	0.35	915.00	0.17	0.0	0.0	0.0	230.2	32	2.3	

Height[m]	U [m/s]	V [m/s]	W [m/s]	Density [kg/m^3]	
120.00	2.00	0.00	0.00	1025.00	
10.00	0.60	0.00	0.00	1025.00	
0.00	0.00	0.00	0.00	1025.00	

This is a sub-surface solution. Total Tension on Anchor [kg] = 230.2 Vertical load [kg] = 195.0 Horizontal load [kg] = 122.4 Safe wet anchor mass = 598.5 [kg] = 1316.8 [lb] Safe dry steel anchor mass = 688.0 [kg] = 1513.5 [lb] Safe dry concrete anchor mass = 920.8 [kg] = 2025.8 [lb] Weight under anchor = 1145.2 [kg] (negative is down)