**Vessel ID:** *On-Ship Potable Water Network Quality Tests Configurator*

| | |
|---|---|
| Company | ACME Maritime Inc. |
| Vessel | Venus |
| Health & Safety | Mr.J.Doe |
| Plan Revision | 30/10/2010 18:22 |

*= target vessel input values*

KITTIWAKE HELLAS S.A. monitoring innovation

**Potable Water Network:**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Holding tanks | 4 | labeled as | T | Tank capacity | 5.0 | mt., | 16 tablets/incr.ppm/tank | 63 total tblts |
| Outlets | 15 | labeled as | O | | | | | |
| Shower Outlets | 5 | labeled as | S | | | | | |
| Potable water hoses | 3 | labeled as | H | | | | | |
| HVAC test points | 5 | labeled as | A | | | | | |

**Time Periods**

| | | | | |
|---|---|---|---|---|
| **Pot.Water Bunkering** | every | 34 | days | (estimated "no less than") |
| **Chlorine Test** | every | 7 | days | |
| Random sampling | 8.3% | of outlets but nearest and furthest | | |
| **Superchlorination** | | | | |
| tanks & water nwk | every | 365 | days | |
| showerheads | every | 90 | days | |
| pot.water hoses | every | 180 | days | |
| HVAC | every | 90 | days | |
| **Bacteria Test** | | | | |
| Ecoli/coliform | every | 90 | days | |
| HPC (TVC) | every | 90 | days | |
| Random sampling | 25.0% | of outlets but nearest and furthest | | |
| **Temperature Test** | every | 30 | days | *Assumed O3 & O13 are the nearest and furthest hot water sentinel outlets* |

**Plan commencing** 13/01/2011

| Total test reagents (units) | | | | |
|---|---|---|---|---|
| 68 | 232 | 339 | 140 | 151 |

6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37

**Chlorine Tests** — Testing Points — *all values in ppm*

| Date | Test Description | T01 | T02 | T03 | T04 | O01 | O02 | O03 | O04 | O05 | O06 | O07 | O08 | O09 | O10 | O11 | O12 | O13 | O14 | O15 | S01 | S02 | S03 | S04 | S05 | H01 | H02 | H03 | A01 | A02 | A03 | A04 | A05 | Ttl | CHL HR | CHL HL | CHL LL | Ecoli Coli | TVC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13/01/2011 | Superchlorination Bf T+O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 38 | | 38 | | | |
| 13/01/2011 | Superchlorination Af T+O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 34 | 34 | | | | |
| 20/01/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 | | 4 | 12 | | |
| 27/01/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | | 4 | 10 | | |
| 03/02/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | | 4 | 10 | | |
| 10/02/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | | 4 | 9 | | |
| 17/02/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | | 4 | 13 | | |
| 24/02/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 | | 4 | 12 | | |
| 27/02/2011 | Superchlorination S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| 03/03/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | | 4 | 13 | | |
| 10/03/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | | 4 | 9 | | |
| 12/03/2011 | Superchlorination H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| 17/03/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 | | 4 | 12 | | |
| 24/03/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | | 4 | 13 | | |
| 27/03/2011 | Superchlorination A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| 31/03/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | | 4 | 10 | | |
| 07/04/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 | | 4 | 8 | | |
| 14/04/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 | | 4 | 12 | | |
| 21/04/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | | 4 | 10 | | |
| 28/04/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | | 4 | 11 | | |
| 05/05/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | | 4 | 11 | | |
| 12/05/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | | 4 | 11 | | |
| 14/05/2011 | Superchlorination S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| 19/05/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | | 4 | 13 | | |
| 26/05/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 | | 4 | 12 | | |
| 28/05/2011 | Superchlorination H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| 02/06/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | | 4 | 9 | | |
| 04/06/2011 | Superchlorination A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| 09/06/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | | 4 | 11 | | |
| 16/06/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | | 4 | 11 | | |
| 23/06/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 | | 4 | 12 | | |
| 30/06/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | | 4 | 10 | | |
| 07/07/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 | | 4 | 12 | | |
| 14/07/2011 | Superchlorination Bf T+O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 38 | | 38 | | | |
| 14/07/2011 | Superchlorination Af T+O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 34 | 34 | | | | |
| 21/07/2011 | Chlorine Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | | 4 | 11 | | |
| | **Total no. of tests** | 42 | 46 | 42 | 46 | 30 | 12 | 7 | 11 | 9 | 12 | 7 | 12 | 11 | 10 | 12 | 10 | 8 | 11 | 30 | 15 | 15 | 11 | 14 | 10 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 437 | 68 | 180 | 287 | | |

**Bacteria Tests** — Testing Points — *all values in CFU/ml*

| Date | Test Description | T01 | T02 | T03 | T04 | O01 | O02 | O03 | O04 | O05 | O06 | O07 | O08 | O09 | O10 | O11 | O12 | O13 | O14 | O15 | S01 | S02 | S03 | S04 | S05 | H01 | H02 | H03 | A01 | A02 | A03 | A04 | A05 | Ttl | CHL HR | CHL HL | CHL LL | Ecoli Coli | TVC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13/01/2011 | Ecoli/coliform | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | | | | 13 | |
| 23/01/2011 | HPC (TVC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | | | | | 13 |
| 15/02/2011 | Ecoli/coliform | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | | | | 11 | |
| 27/02/2011 | HPC (TVC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | | | | | 11 |
| 10/02/2011 | Ecoli/coliform | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | | | | 9 | |
| 17/02/2011 | HPC (TVC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 14 | | | | | 14 |
| 24/02/2011 | Ecoli/coliform | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | | | | 13 | |
| 03/03/2011 | HPC (TVC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 14 | | | | | 14 |
| 10/03/2011 | Ecoli/coliform | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | | | | 9 | |
| 17/03/2011 | HPC (TVC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 | | | | | 12 |
| 24/03/2011 | Ecoli/coliform | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 14 | | | | 14 | |
| 31/03/2011 | HPC (TVC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | | | | | 10 |
| 07/04/2011 | Ecoli/coliform | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 | | | | 8 | |
| 14/04/2011 | HPC (TVC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | | | | | 13 |
| 21/04/2011 | Ecoli/coliform | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | | | | 11 | |
| 21/07/2011 | HPC (TVC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 | | | | | 12 |
| | **Total no. of tests** | 16 | 16 | 16 | 16 | 16 | 3 | 2 | 4 | 3 | 6 | | 5 | 2 | 5 | 5 | 3 | 3 | 7 | 16 | 5 | 6 | 5 | 6 | 5 | | | | | | | | 16 | 187 | | | | 88 | 99 |

**Temperature Tests** — Testing Points — *all values in degrees Celsius (°C)*

| Date | Test Description | T01 | T02 | T03 | T04 | O01 | O02 | O03 | O04 | O05 | O06 | O07 | O08 | O09 | O10 | O11 | O12 | O13 | O14 | O15 | S01 | S02 | S03 | S04 | S05 | H01 | H02 | H03 | A01 | A02 | A03 | A04 | A05 | Ttl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13/01/2011 | Cold water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 13/01/2011 | Hot water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 12/02/2011 | Cold water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 12/02/2011 | Hot water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 14/03/2011 | Cold water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 14/03/2011 | Hot water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 13/04/2011 | Cold water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 13/04/2011 | Hot water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 13/05/2011 | Cold water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 13/05/2011 | Hot water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 12/06/2011 | Cold water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 12/06/2011 | Hot water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 12/07/2011 | Cold water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 12/07/2011 | Hot water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 11/08/2011 | Cold water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 11/08/2011 | Hot water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 10/09/2011 | Cold water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 10/09/2011 | Hot water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 10/10/2011 | Cold water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 10/10/2011 | Hot water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 09/11/2011 | Cold water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 09/11/2011 | Hot water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 09/12/2011 | Cold water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 09/12/2011 | Hot water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| | **Total no. of tests** | | | | | 24 | | 24 | | | | | | | | | | 24 | | 24 | | | | | 24 | | | | | | | | 24 | 144 |

**Tests Upon Pot. Water Bunkering** — Testing Points

| Date | Test Description | T01 | T02 | T03 | T04 | O01 | O02 | O03 | O04 | O05 | O06 | O07 | O08 | O09 | O10 | O11 | O12 | O13 | O14 | O15 | S01 | S02 | S03 | S04 | S05 | H01 | H02 | H03 | A01 | A02 | A03 | A04 | A05 | Ttl | CHL HR | CHL HL | CHL LL | Ecoli Coli | TVC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30/01/2011 | Chlorine Test (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4 | | |
| 30/01/2011 | Ecoli/coliform (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | |
| 30/01/2011 | HPC (TVC) (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| 28/02/2011 | Chlorine Test (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4 | | |
| 28/02/2011 | Ecoli/coliform (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | |
| 28/02/2011 | HPC (TVC) (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| 22/03/2011 | Chlorine Test (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4 | | |
| 22/03/2011 | Ecoli/coliform (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | |
| 22/03/2011 | HPC (TVC) (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| 20/04/2011 | Chlorine Test (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4 | | |
| 20/04/2011 | Ecoli/coliform (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | |
| 20/04/2011 | HPC (TVC) (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| 16/05/2011 | Chlorine Test (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4 | | |
| 16/05/2011 | Ecoli/coliform (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | |
| 16/05/2011 | HPC (TVC) (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| 19/05/2011 | Chlorine Test (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4 | | |
| 19/05/2011 | Ecoli/coliform (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | |
| 19/05/2011 | HPC (TVC) (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| 04/07/2011 | Chlorine Test (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4 | | |
| 04/07/2011 | Ecoli/coliform (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | |
| 04/07/2011 | HPC (TVC) (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| 22/08/2011 | Chlorine Test (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4 | | |
| 22/08/2011 | Ecoli/coliform (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | |
| 22/08/2011 | HPC (TVC) (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| 30/09/2011 | Chlorine Test (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4 | | |
| 30/09/2011 | Ecoli/coliform (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | |
| 30/09/2011 | HPC (TVC) (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| 13/10/2011 | Chlorine Test (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4 | | |
| 13/10/2011 | Ecoli/coliform (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | |
| 13/10/2011 | HPC (TVC) (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| 14/10/2011 | Chlorine Test (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4 | | |
| 14/10/2011 | Ecoli/coliform (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | |
| 14/10/2011 | HPC (TVC) (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| 06/11/2011 | Chlorine Test (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4 | | |
| 06/11/2011 | Ecoli/coliform (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | |
| 06/11/2011 | HPC (TVC) (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| 08/11/2011 | Chlorine Test (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4 | | |
| 08/11/2011 | Ecoli/coliform (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | |
| 08/11/2011 | HPC (TVC) (CFU/ml) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| | **Total no. of tests** | 39 | 39 | 39 | 39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 156 | | 52 | 52 | 52 | 52 |