

## RESEARCH VESSEL USAGE LOG

Vessel Name & No. MORAY V38 Date 12 July 05  
Area of Operation York R. - From Tue Marsh to West Pt  
Purpose of Trip Testing new Chlorophyll Probe

Time	Events / Comments
0915	Left Vims
1400	Arrived Back At Vims
1430	Secured

### - EQUIPMENT PERFORMANCE -

Please Check ☒ Each Category to Confirm Performance Was Satisfactory

☒ Propulsion    ☐ Trailer    ☒ Electrical    ☒ Controls    ☒ Safety Gear    ☒ Deck Gear  
☐ Cell Phone    ☐ VHF    ☐ GPS

Please Specify Exceptions: \_\_\_\_\_

Total Time Underway 4 Hrs. 45 Mins.  
Total Time Moored — Hrs. — Mins.  
Total Time of Use 4 Hrs. 45 Mins.

Vessel Rental Rate

90 Per day

Account Nos.	Rental Chg.	Fuel Used	Fuel Rate	Fuel Chg.	Other Chgs.*	Total Chgs.
703831	90	35.5	1.90	67.45		157.45

\*Please Specify: \_\_\_\_\_

Total Charges **157.45**

### Personnel on Board

Scientific Crew Members

Alex Cherkalyuk	Steve Snyder
Mack Hatiz	
Ken Moore	

Vessel Service Center Crew


If Vessel Was Trailered - Tow Vehicle Operator

*Steve Snyder*  
Vessel Operator

# Shallow Water Monitoring – Dataflow Field Sheet

Date: 12 July Cruise Location: HLF - Cruise  
 Personnel: Alex, Mark, Ken St  
 Sample Location: AO  
 Sample Time: 08:15 DF 6600 ID: 44 Sample Bottle #: 1

## DF 6600 Data (on station):

Dissolved Oxygen (%): 118.1  
 Dissolved Oxygen (mg/l): 8.42  
 Water Temperature: 21.69  
 pH: 8.36

## Station Conditions:

Station Depth: 11.4  
 Air Temp: 25.5  
 Cloud Cover (0-6): 2  
 Wind Speed (0-5): 2.5  
 Wind Direction: 330 NW  
 Wave Condition (0-5): 1  
 Precipitation Type (10-16): 0  
 Tide Stage (E, F, H, L): 2

## Light Attenuation Data:

Profile 1 Time: 08:20  
 Profile 2 Time: 08:25  
 Profile 3 Time: 08:30

## YSI-600 for Verification:

600 Sonde ID: 41  
 Time (on DF): 08:20  
 Dissolved Oxygen (%): 118.6  
 Dissolved Oxygen (mg/l): 8.44  
 Water Temperature: 21.76  
 pH: 8.37

## Other Data:

Secchi Depth: 6.9  
 Winkler DO Time (on DF): 08:20

## Sample Filtration:

Chl Amt Filter: 5  
 TSS Amt Filter: 100  
 PP Amt Filter: 1

## Comments:

Started computer in Basin - 7:00  
Stopped 08:15  
Left Basin 08:30  
WP 87 - 08:20

## DF 6600 (averages - lab use only):

Latitude: 37.234632  
 Longitude: -122.320470  
 Depth: 11.43  
 Water Temp: 21.67  
 Salinity: 17.92  
 pH: 8.4  
 Dissolved Oxygen (%): 118.52  
 Dissolved Oxygen (mg/l): 8.44  
 Turbidity: 2.31  
 Chlorophyll: 0.32

## Winkler Dissolved Oxygen:

Winkler DO: 0  
 Corrected Winkler DO: 0

# Shallow Water Monitoring – Dataflow Field Sheet

Sample Location: A1  
 Sample Time: 091944 DF 6600 ID: 44 Sample Bottle #: 2

## DF 6600 Data (on station):

Dissolved Oxygen (%): 122.8  
 Dissolved Oxygen (mg/l): 11.36  
 Water Temperature: 27.96  
 pH: 8.57

## Station Conditions:

Station Depth: 10.35m  
 Air Temp: 28.5  
 Cloud Cover (0-6): 2  
 Wind Speed (0-5): 3.07 m/s  
 Wind Direction: 270 (W)  
 Wave Condition (0-5): 1  
 Precipitation Type (10-16): 10  
 Tide Stage (E, F, H, L): E

## Light Attenuation Data:

Profile 1 Time: 0919  
 Profile 2 Time: \_\_\_\_\_  
 Profile 3 Time: \_\_\_\_\_

## YSI-600 for Verification:

600 Sonde ID: 41  
 Time (on DF): 092033  
 Dissolved Oxygen (%): 120.8  
 Dissolved Oxygen (mg/l): 11.23  
 Water Temperature: 27.92  
 pH: 8.40

## Other Data:

Secchi Depth: 1.3  
 Winkler DO Time (on DF): —

## Sample Filtration:

Chl Amt Filter: 5  
 TSS Amt Filter: 400  
 PP Amt Filter: —

## Comments:

WP88  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## DF 6600 (averages - lab use only):

Latitude: 37.231163  
 Longitude: -76.383065  
 Depth:  $\bar{x}$  = 10.35  
 Water Temp:  $\bar{x}$  = 27.96  
 Salinity:  $\bar{x}$  = 18.50  
 pH:  $\bar{x}$  = 8.4  
 Dissolved Oxygen (%):  $\bar{y}$  = 122.65  
 Dissolved Oxygen (mg/l):  $\bar{x}$  = 11.36  
 Turbidity:  $\bar{y}$  = 1.53  
 Chlorophyll:  $\bar{x}$  = 5.01

## Winkler Dissolved Oxygen:

Winkler DO: —  
 Corrected Winkler DO: —

Shallow Water Monitoring – Dataflow Field Sheet

Sample Location: A2  
Sample Time: 093328 DF 6600 ID: #4 Sample Bottle #: 43

**DF 6600 Data (on station):**

Dissolved Oxygen (%): 117.0  
Dissolved Oxygen (mg/l): 8.25  
Water Temperature: 28.13  
pH: 8.13

**Station Conditions:**

Station Depth: 9.96  
Air Temp: 27.2  
Cloud Cover (0-6): 2  
Wind Speed (0-5): 6.4  
Wind Direction: WNW  
Wave Condition (0-5): 1  
Precipitation Type (10-16): 10  
Tide Stage (E, F, H, L): F

**Light Attenuation Data:**

Profile 1 Time: 0935  
Profile 2 Time: \_\_\_\_\_  
Profile 3 Time: \_\_\_\_\_

**YSI-600 for Verification:**

600 Sonde ID: #1  
Time (on DF): 093521  
Dissolved Oxygen (%): 118.0  
Dissolved Oxygen (mg/l): 8.29  
Water Temperature: 28.20  
pH: 8.16

**Other Data:**

Secchi Depth: 1.0 m

Winkler DO Time (on DF): —

**Sample Filtration:**

Chl Amt Filter: 5  
TSS Amt Filter: 400  
PP Amt Filter: —

**Comments:**

WP 87 ~~WP 87~~  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**DF 6600 (averages - lab use only):**

Latitude: 37.239943  
Longitude: -76.437163  
Depth:  $\bar{x} = 9.97$   
Water Temp:  $\bar{x} = 28.11$   
Salinity:  $\bar{x} = 18.31$   
pH:  $\bar{x} = 8.1$   
Dissolved Oxygen (%):  $\bar{x} = 116.57$   
Dissolved Oxygen (mg/l):  $\bar{x} = 8.23$   
Turbidity:  $\bar{x} = 2.90$   
Chlorophyll:  $\bar{x} = 10.09$

**Winkler Dissolved Oxygen:**

Winkler DO: —  
Corrected Winkler DO: —

Shallow Water Monitoring – Dataflow Field Sheet

Sample Location: A3  
Sample Time: 095000 DF 6600 ID: #4 Sample Bottle #: 4

**DF 6600 Data (on station):**

Dissolved Oxygen (%): 99.30  
Dissolved Oxygen (mg/l): 7.05  
Water Temperature: 27.78  
pH: 7.98

**Station Conditions:**

Station Depth: 11.2  
Air Temp: 28.6  
Cloud Cover (0-6): 2  
Wind Speed (0-5): 7.6  
Wind Direction: W  
Wave Condition (0-5): 1  
Precipitation Type (10-16): 10  
Tide Stage (E, F, H, L): F

**Light Attenuation Data:**

Profile 1 Time: 0952  
Profile 2 Time: \_\_\_\_\_  
Profile 3 Time: \_\_\_\_\_

**YSI-600 for Verification:**

600 Sonde ID: #1  
Time (on DF): 095157  
Dissolved Oxygen (%): 99.2  
Dissolved Oxygen (mg/l): 7.03  
Water Temperature: 27.85  
pH: 8.01

**Other Data:**

Secchi Depth: 0.9m  
Winkler DO Time (on DF): -

**Sample Filtration:**

Chl Amt Filter: 5  
TSS Amt Filter: 400  
PP Amt Filter: -

**Comments:**

WP 90  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**DF 6600 (averages - lab use only):**

Latitude: 37.238918  
Longitude: -76.488992  
Depth:  $\bar{x}$  11.23  
Water Temp:  $\bar{x}$  27.36  
Salinity:  $\bar{x}$  18.01  
pH:  $\bar{x}$  8.0  
Dissolved Oxygen (%):  $\bar{x}$  101.16  
Dissolved Oxygen (mg/l):  $\bar{x}$  7.18  
Turbidity:  $\bar{x}$  4.35  
Chlorophyll:  $\bar{x}$  7.10

**Winkler Dissolved Oxygen:**

Winkler DO: \_\_\_\_\_  
Corrected Winkler DO: \_\_\_\_\_

# Shallow Water Monitoring – Dataflow Field Sheet

Sample Location: A 4  
 Sample Time: 100542 DF 6600 ID: #4 Sample Bottle #: 5

## DF 6600 Data (on station):

Dissolved Oxygen (%): 107.2  
 Dissolved Oxygen (mg/l): 7.60  
 Water Temperature: 28.4  
 pH: 7.97

## Station Conditions:

Station Depth: 16.10  
 Air Temp: 29.4  
 Cloud Cover (0-6): 2  
 Wind Speed (0-5): 4.7 mph  
 Wind Direction: WNW  
 Wave Condition (0-5): 1  
 Precipitation Type (10-16): 10  
 Tide Stage (E, F, H, L): F

## Light Attenuation Data:

Profile 1 Time: 1007  
 Profile 2 Time:         
 Profile 3 Time:       

## YSI-600 for Verification:

600 Sonde ID: #1  
 Time (on DF): 100614  
 Dissolved Oxygen (%): 107.8  
 Dissolved Oxygen (mg/l): 7.63  
 Water Temperature: 28.46  
 pH: 8.00

## Other Data:

Secchi Depth: 0.8m

Winkler DO Time (on DF): —

## Sample Filtration:

Chl Amt Filter: 5  
 TSS Amt Filter: 490  
 PP Amt Filter: —

## Comments:

Did not take Wny Point

## DF 6600 (averages - lab use only):

Latitude: 37.268418  
 Longitude: -76.532655  
 Depth:  $\bar{x}$ : 16.17  
 Water Temp:  $\bar{x}$ : 28.39  
 Salinity:  $\bar{x}$ : 16.5  
 pH:  $\bar{x}$ : 8.0  
 Dissolved Oxygen (%):  $\bar{x}$ : 107.1  
 Dissolved Oxygen (mg/l):  $\bar{x}$ : 7.60  
 Turbidity:  $\bar{x}$ : 5.44  
 Chlorophyll:  $\bar{x}$ : 6.60

## Winkler Dissolved Oxygen:

Winkler DO: —  
 Corrected Winkler DO: —

# Shallow Water Monitoring – Dataflow Field Sheet

Sample Location: A5  
 Sample Time: 102256 DF 6600 ID: #4 Sample Bottle #: 6

## DF 6600 Data (on station):

Dissolved Oxygen (%): 102.6  
 Dissolved Oxygen (mg/l): 7.29  
 Water Temperature: 28.72  
 pH: 7.86

## Station Conditions:

Station Depth: 5.18  
 Air Temp: 27.8  
 Cloud Cover (0-6): 2  
 Wind Speed (0-5): 2.1  
 Wind Direction: WNW  
 Wave Condition (0-5): 0  
 Precipitation Type (10-16): 10  
 Tide Stage (E, F, H, L): E

## Light Attenuation Data:

Profile 1 Time: 1023  
 Profile 2 Time: \_\_\_\_\_  
 Profile 3 Time: \_\_\_\_\_

## YSI-600 for Verification:

600 Sonde ID: #1  
 Time (on DF): 102337  
 Dissolved Oxygen (%): 103.1  
 Dissolved Oxygen (mg/l): 7.35  
 Water Temperature: 28.36  
 pH: 7.90

## Other Data:

Secchi Depth: 0.8m

Winkler DO Time (on DF): -

## Sample Filtration:

Chl Amt Filter: 5  
 TSS Amt Filter: 300  
 PP Amt Filter: -

## Comments:

WP91  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## DF 6600 (averages - lab use only):

Latitude: 37.294065  
 Longitude: -76.570537  
 Depth:  $\bar{x}$  = 5.13  
 Water Temp:  $\bar{x}$  = 28.69  
 Salinity:  $\bar{x}$  = 15.50  
 pH:  $\bar{x}$  = 7.9  
 Dissolved Oxygen (%):  $\bar{x}$  = 102.7  
 Dissolved Oxygen (mg/l):  $\bar{x}$  = 7.29  
 Turbidity:  $\bar{x}$  = 4.85  
 Chlorophyll:  $\bar{x}$  = 6.87

## Winkler Dissolved Oxygen:

Winkler DO: -  
 Corrected Winkler DO: -

# Shallow Water Monitoring – Dataflow Field Sheet

Sample Location: AG  
 Sample Time: 104135 DF 6600 ID: 114 Sample Bottle #: 7

## DF 6600 Data (on station):

Dissolved Oxygen (%): 104.9  
 Dissolved Oxygen (mg/l): 7.45  
 Water Temperature: 29.18  
 pH: 7.80

## Station Conditions:

Station Depth: 4.51  
 Air Temp: 29.9  
 Cloud Cover (0-6): 2  
 Wind Speed (0-5): 5.4  
 Wind Direction: WNW  
 Wave Condition (0-5): 1  
 Precipitation Type (10-16): 10  
 Tide Stage (E, F, H, L): F

## Light Attenuation Data:

Profile 1 Time: 1042  
 Profile 2 Time: \_\_\_\_\_  
 Profile 3 Time: \_\_\_\_\_

## YSI-600 for Verification:

600 Sonde ID: 711  
 Time (on DF): 1041201  
 Dissolved Oxygen (%): 105.7  
 Dissolved Oxygen (mg/l): 7.50  
 Water Temperature: 29.20  
 pH: 7.83

## Other Data:

Secchi Depth: 0.7m  
 Winkler DO Time (on DF): —

## Sample Filtration:

Chl Amt Filter: 5  
 TSS Amt Filter: 400  
 PP Amt Filter: —

## Comments:

Computer 3799d Bldg on River & East Station  
Restarted  
WP 92  
Thick Plastic Boat Skirted to shade. Move to other side  
Dial North side of question mark. Results

## DF 6600 (averages - lab use only):

Latitude: 37.337290  
 Longitude: -76.63052  
 Depth:  $\bar{x}$  4.4  
 Water Temp:  $\bar{x}$  29.19  
 Salinity:  $\bar{x}$  13.85  
 pH:  $\bar{x}$  7.8  
 Dissolved Oxygen (%):  $\bar{x}$  104.9  
 Dissolved Oxygen (mg/l):  $\bar{x}$  7.45  
 Turbidity:  $\bar{x}$  16.18  
 Chlorophyll:  $\bar{x}$  10.30

## Winkler Dissolved Oxygen:

Winkler DO: —  
 Corrected Winkler DO: —



# Shallow Water Monitoring – Dataflow Field Sheet

Sample Location: A7 48  
 Sample Time: 110132 DF 6600 ID: #4 Sample Bottle #: 8 9  
112538

## DF 6600 Data (on station):

Dissolved Oxygen (%): 107.3 105.70  
 Dissolved Oxygen (mg/l): 7.72 7.65  
 Water Temperature: 28.99 29.22  
 pH: 7.75 7.58

## YSI-600 for Verification:

600 Sonde ID: #1  
 Time (on DF): 110210 112640  
 Dissolved Oxygen (%): 107.4 111.9  
 Dissolved Oxygen (mg/l): 7.70 8.10  
 Water Temperature: 29.05 29.32  
 pH: 7.78 7.70

## Station Conditions:

Station Depth: 9.42 5.31  
 Air Temp: 30.2 30.5  
 Cloud Cover (0-6): 3 3  
 Wind Speed (0-5): 7.4 mph 6.9 mph  
 Wind Direction: W W  
 Wave Condition (0-5): 2 2  
 Precipitation Type (10-16): 10 10  
 Tide Stage (E, F, H, L): F F

## Other Data:

Secchi Depth: 0.6m 0.5m  
 Winkler DO Time (on DF): —

## Light Attenuation Data:

Profile 1 Time: 110622 1128  
 Profile 2 Time: —  
 Profile 3 Time: —

## Sample Filtration:

Chl Amt Filter: 5  
 TSS Amt Filter: 300  
 PP Amt Filter: —

## Comments:

WP 93  
WP 94  
—  
—  
—

## DF 6600 (averages - lab use only):

Latitude: 37.390052 37.431528  
 Longitude: -76.661758 -76.751333  
 Depth:  $\bar{x}$  = 9.59 5.73  
 Water Temp:  $\bar{x}$  = 28.99 29.25  
 Salinity:  $\bar{x}$  = 12.34 10.15  
 pH:  $\bar{x}$  = 7.74 7.6  
 Dissolved Oxygen (%):  $\bar{x}$  = 106.43 105.61  
 Dissolved Oxygen (mg/l):  $\bar{x}$  = 7.65 7.65  
 Turbidity:  $\bar{x}$  = 13.15 12.90  
 Chlorophyll:  $\bar{x}$  = 3.04 15.25

## Winkler Dissolved Oxygen:

Winkler DO: —  
 Corrected Winkler DO: —

Revised 8-21-03

Pen = Station A8 BTL # 9 - WP 94