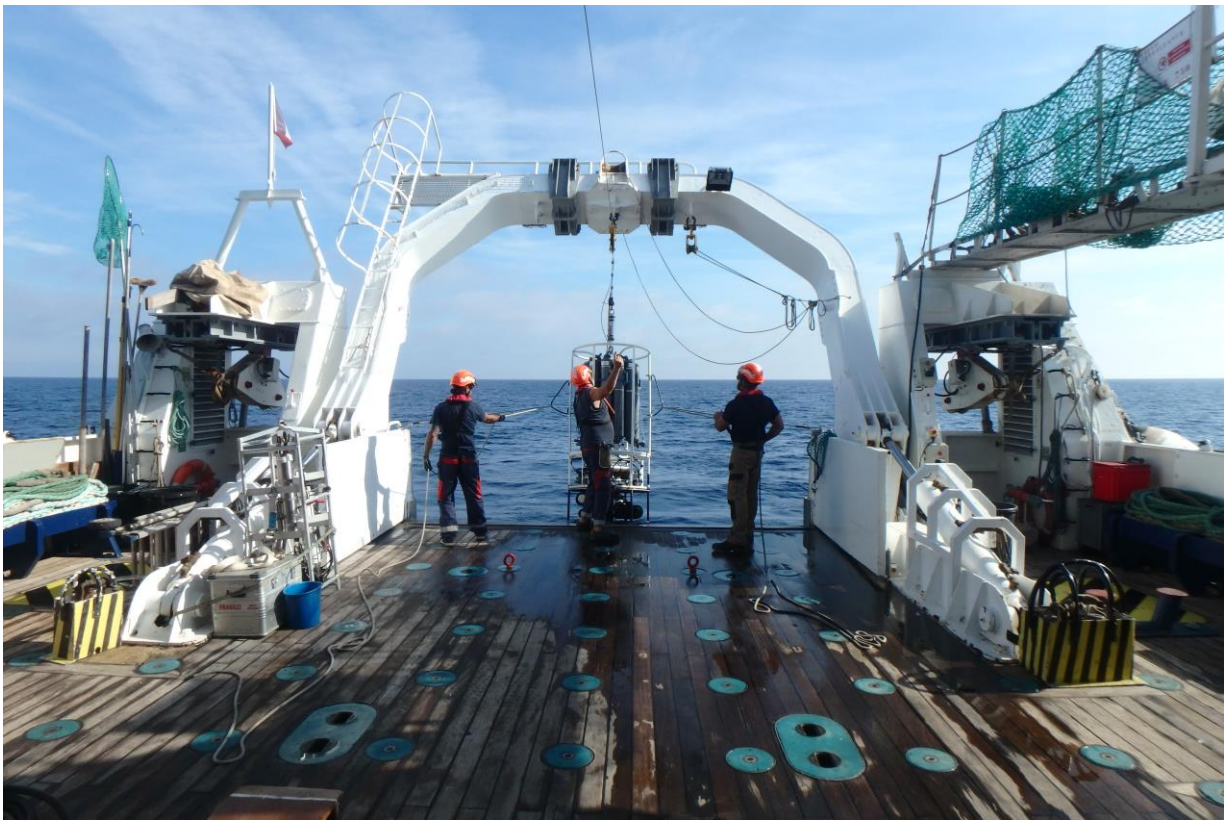
BOUSSOLE PROJECT

CTD Data catalogue for 2023

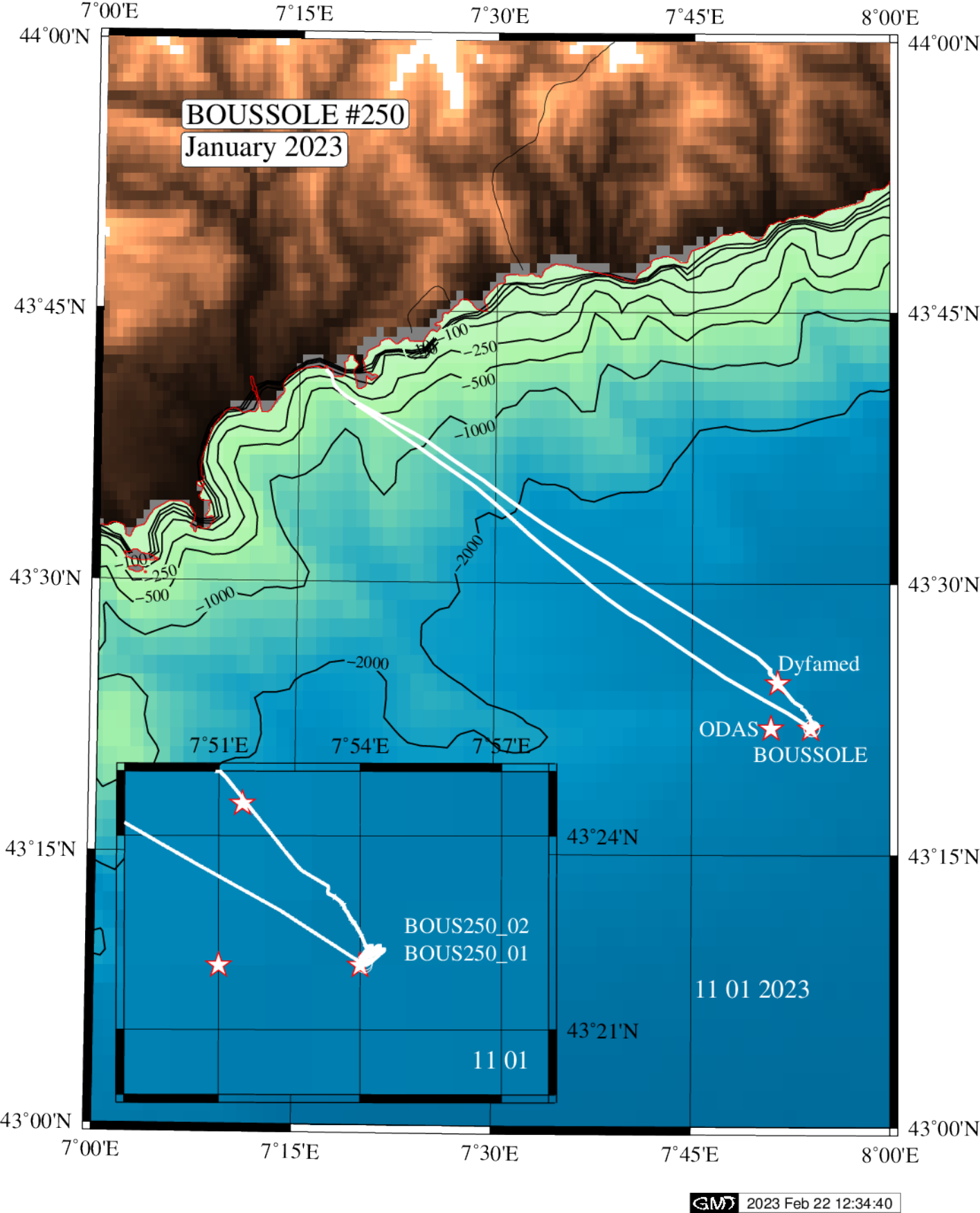
Cruise 250 to cruise 261

Institut de la Mer de Villefranche (IMEV), 06230 Villefranche sur mer, France



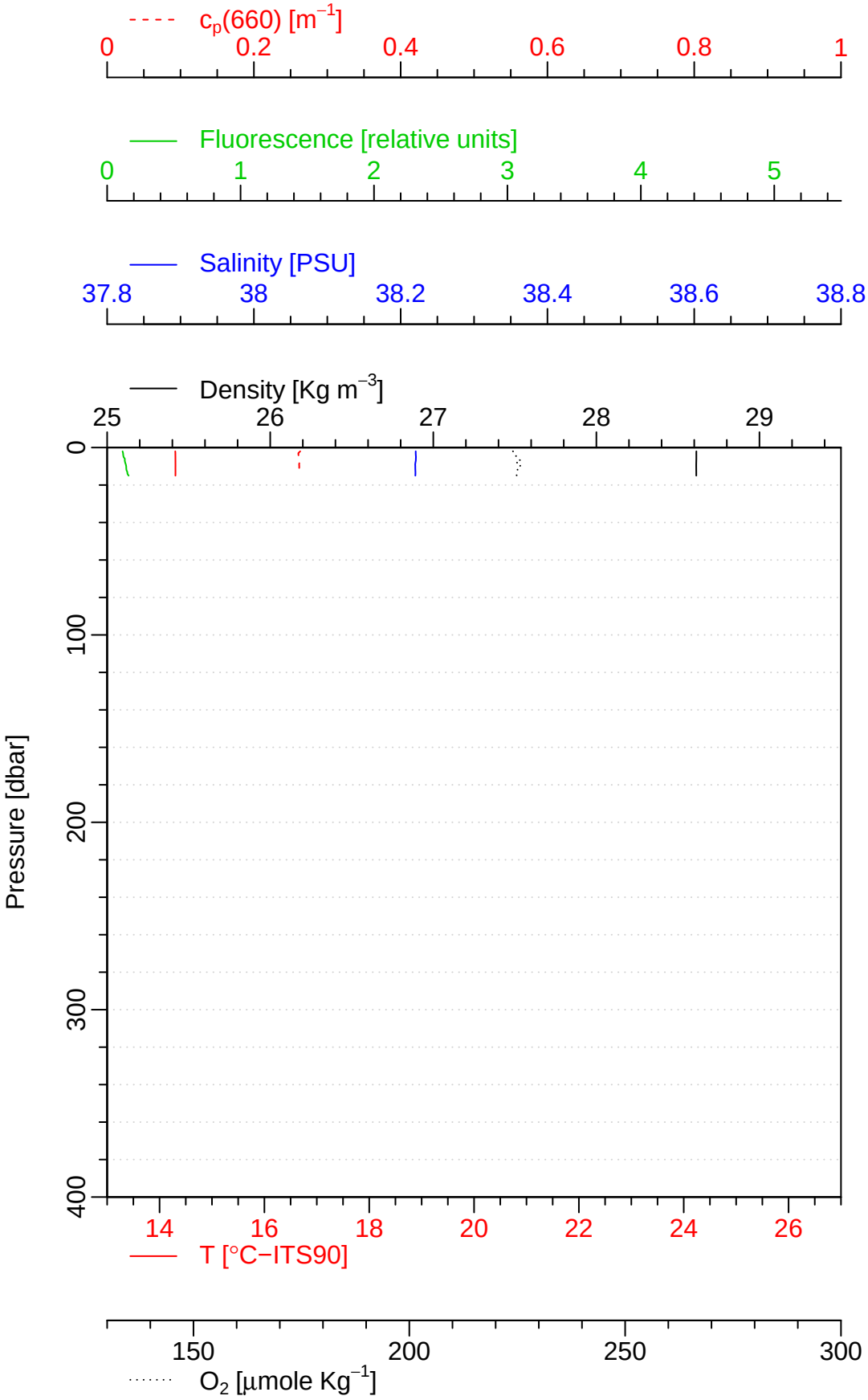
Deployment of the CTD Rosette + IOP package at the BOUSSOLE site from the deck of the R/V *L'Europe*

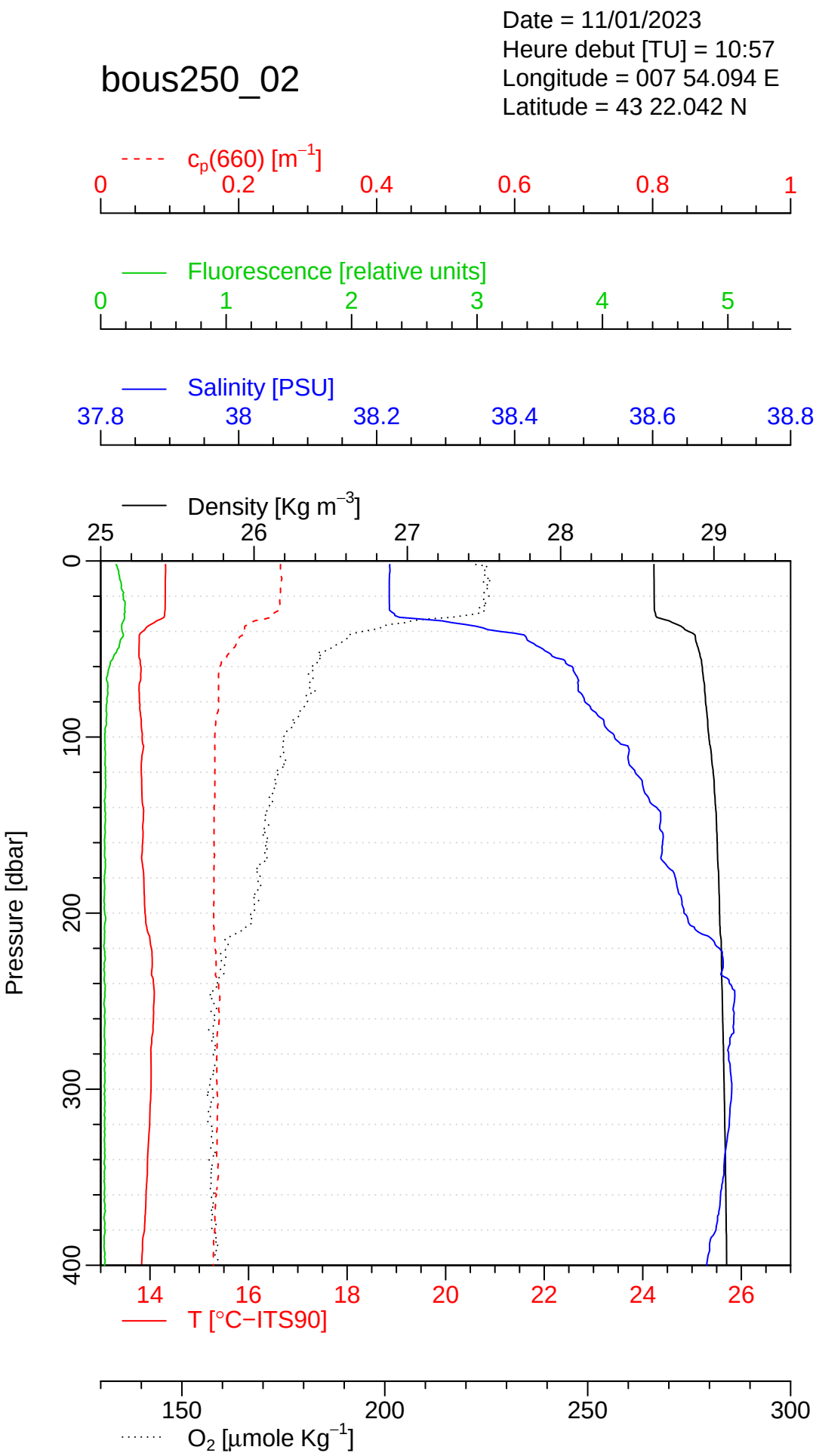
ESA/ESRIN contract N° 4000119096/17/I-BG


BOUSSOLE #250
January 2023
7°00'E
7°15'E
7°30'E
7°45'E
8°00'E
44°00'N
43°45'N
43°30'N
43°15'N
43°00'N
-100
-250
-500
-1000
-2000
Dyfamed
ODAS
BOUSSOLE
7°51'E
7°54'E
7°57'E
43°24'N
43°21'N
BOUS250_02
BOUS250_01
11 01
11 01 2023
GMT 2023 Feb 22 12:34:40

bous250_01

Date = 11/01/2023
Heure debut [TU] = 10:25
Longitude = 007 54.089 E
Latitude = 43 22.004 N




bous250_02
Date = 11/01/2023
Heure debut [TU] = 10:57
Longitude = 007 54.094 E
Latitude = 43 22.042 N
c_p(660) [m^-1]
0 0.2 0.4 0.6 0.8 1
Fluorescence [relative units]
0 1 2 3 4 5
Salinity [PSU]
37.8 38 38.2 38.4 38.6 38.8
Density [Kg m^-3]
25 26 27 28 29
Pressure [dbar]
0 100 200 300 400
14 16 18 20 22 24 26
T [°C−ITS90]
150 200 250 300
O2 [µmole Kg^-1]

Date: 01/12/2024

Instrument configuration file: D:\Melek\boussole\Data\CTD\data&process\2023\B250\raw\BOUS250_01.XMLCON

Configuration report for SBE 911plus/917plus CTD

```
Frequency channels suppressed : 0
Voltage words suppressed      : 0
Computer interface            : RS-232C
Deck unit                     : SBE11plus Firmware Version >= 5.0
Scans to average              : 1
NMEA position data added      : Yes
NMEA depth data added         : No
NMEA time added               : No
NMEA device connected to      : deck unit
Surface PAR voltage added     : No
Scan time added               : No
```

1) Frequency 0, Temperature

```
   Serial number : 5545
   Calibrated on : 12-Apr-22
   G             : 4.31344074e-003
   H             : 6.26377384e-004
   I             : 1.93525259e-005
   J             : 1.44189131e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

2) Frequency 1, Conductivity

```
   Serial number : 4097
   Calibrated on : 23-Mar-22
   G             : -9.93827440e+000
   H             : 1.22512976e+000
   I             : -2.11436380e-003
   J             : 2.09010787e-004
   CTcor         : 3.2500e-006
   CPcor         : -9.57000000e-008
   Slope         : 1.00000000
   Offset        : 0.00000
```

3) Frequency 2, Pressure, Digiquartz with TC

```
   Serial number : 0294
   Calibrated on : 28-Jun-22
   C1            : -4.258985e+004
   C2            : 1.749594e-001
   C3            : 1.368020e-002
   D1            : 3.936700e-002
   D2            : 0.000000e+000
   T1            : 3.021237e+001
   T2            : -2.856130e-004
   T3            : 4.591050e-006
   T4            : 1.633320e-009
   T5            : 0.000000e+000
   Slope         : 0.99998843
   Offset        : 1.00805
   AD590M        : 1.279180e-002
   AD590B        : -9.448050e+000
```

4) Frequency 3, Temperature, 2

```
   Serial number : 1378
   Calibrated on : 17-Jun-21
   G             : 4.83714772e-003
   H             : 6.70524923e-004
   I             : 2.63336304e-005
   J             : 2.14843005e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

5) Frequency 4, Conductivity, 2

```
Serial number : 2929
Calibrated on : 05-Mar-20
G             : -1.05951733e+001
H             : 1.41908901e+000
I             : 7.59510042e-004
J             : 2.04144674e-005
CTcor         : 3.2500e-006
CPcor         : -9.57000000e-008
Slope         : 1.00000000
Offset        : 0.00000
```

6) A/D voltage 0, Oxygen, SBE 43

```
Serial number : 0587
Calibrated on : 06-Jul-22
Equation      : Sea-Bird
Soc           : 4.86320e-001
Offset        : -5.21300e-001
A             : -4.53330e-003
B             : 1.70820e-004
C             : -2.49520e-006
E             : 3.60000e-002
Tau20         : 9.00000e-001
D1            : 1.92634e-004
D2            : -4.64803e-002
H1            : -3.30000e-002
H2            : 5.00000e+003
H3            : 1.45000e+003
```

7) A/D voltage 1, Free

8) A/D voltage 2, Fluorometer, Chelsea Aqua 3

```
Serial number : 088-094
Calibrated on : 12-Nov-2015
VB            : 0.311200
V1            : 2.082900
Vacetone      : 0.434600
Scale factor  : 1.000000
Slope         : 1.000000
Offset        : 0.000000
```

9) A/D voltage 3, Transmissometer, WET Labs C-Star

```
Serial number : 373-DR
Calibrated on : 20-oct-2021
M             : 19.6258
B             : -1.1579
Path length   : 0.250
```

10) A/D voltage 4, User Polynomial

```
Serial number : 171
Calibrated on : 19May2014
Sensor name   : RINKOIII_DO
A0            : 0.00000000
A1            : 1.00000000
A2            : 0.00000000
A3            : 0.00000000
```

11) A/D voltage 5, User Polynomial, 2

```
Serial number : 171
Calibrated on : 12May2014
Sensor name   : RINKOIII_Temp
A0            : -5.25367500
A1            : 16.66254000
A2            : -2.13105300
A3            : 0.45564880
```

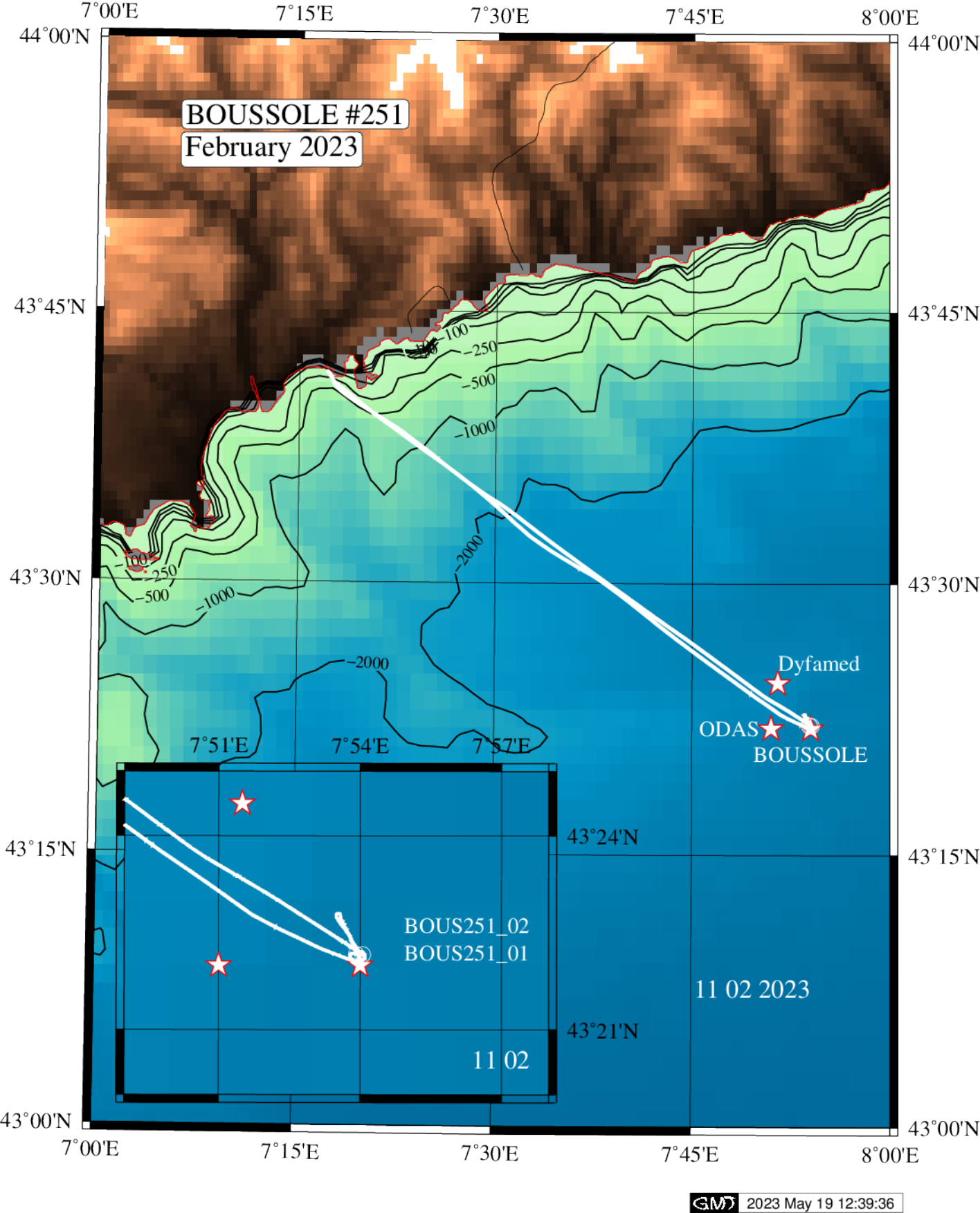
12) A/D voltage 6, Altimeter

```
Serial number : 310799
Calibrated on : 19-Oct-16
```

Scale factor : 15.000
Offset : 0.000

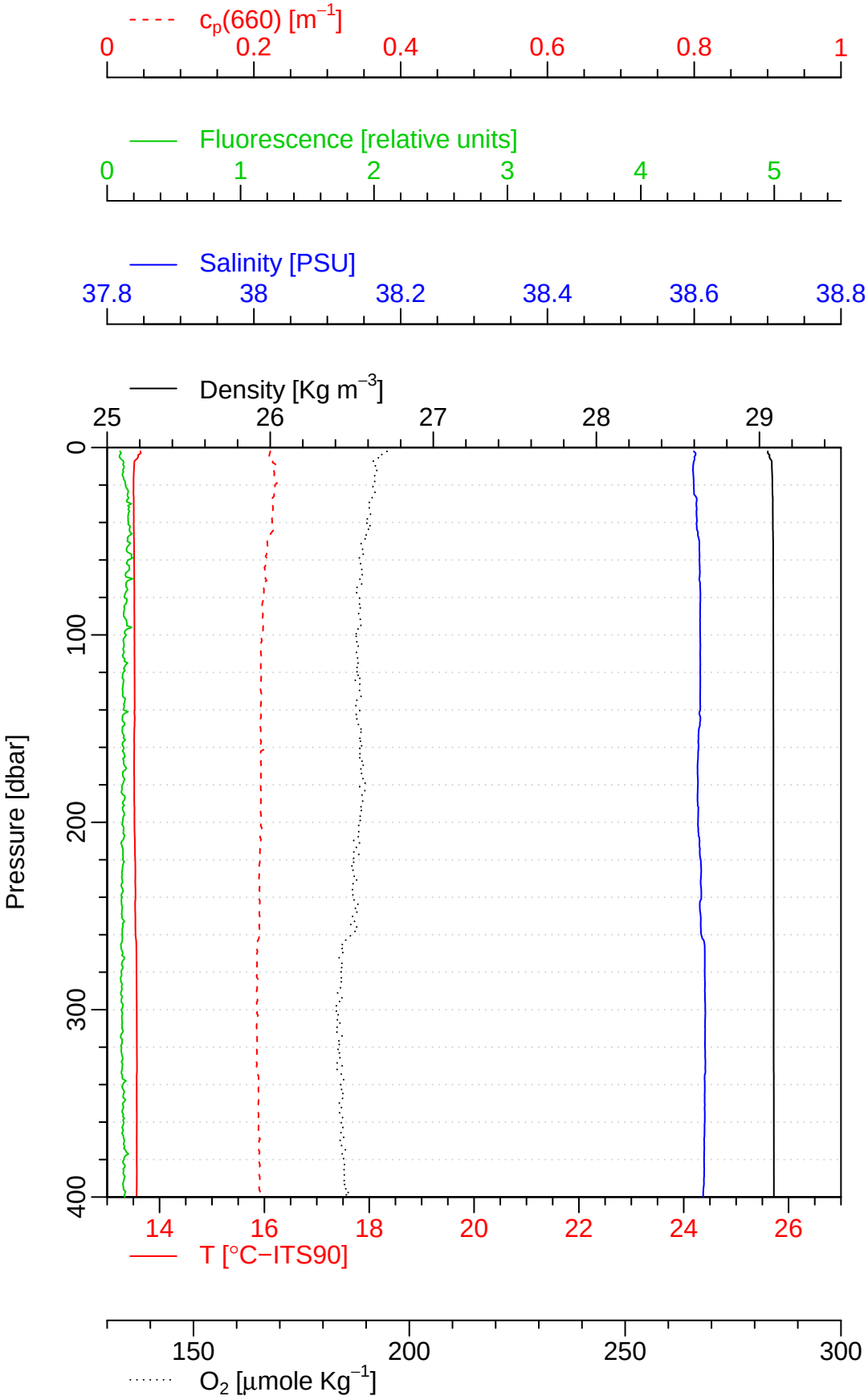
13) A/D voltage 7, Free

Scan length : 37


BOUSSOLE #251
February 2023
7°00'E
7°15'E
7°30'E
7°45'E
8°00'E
44°00'N
43°45'N
43°30'N
43°15'N
43°00'N
-100
-250
-500
-1000
-2000
Dyfamed
ODAS
BOUSSOLE
7°51'E
7°54'E
7°57'E
43°24'N
43°21'N
BOUS251_02
BOUS251_01
11 02
11 02 2023
GMT 2023 May 19 12:39:36

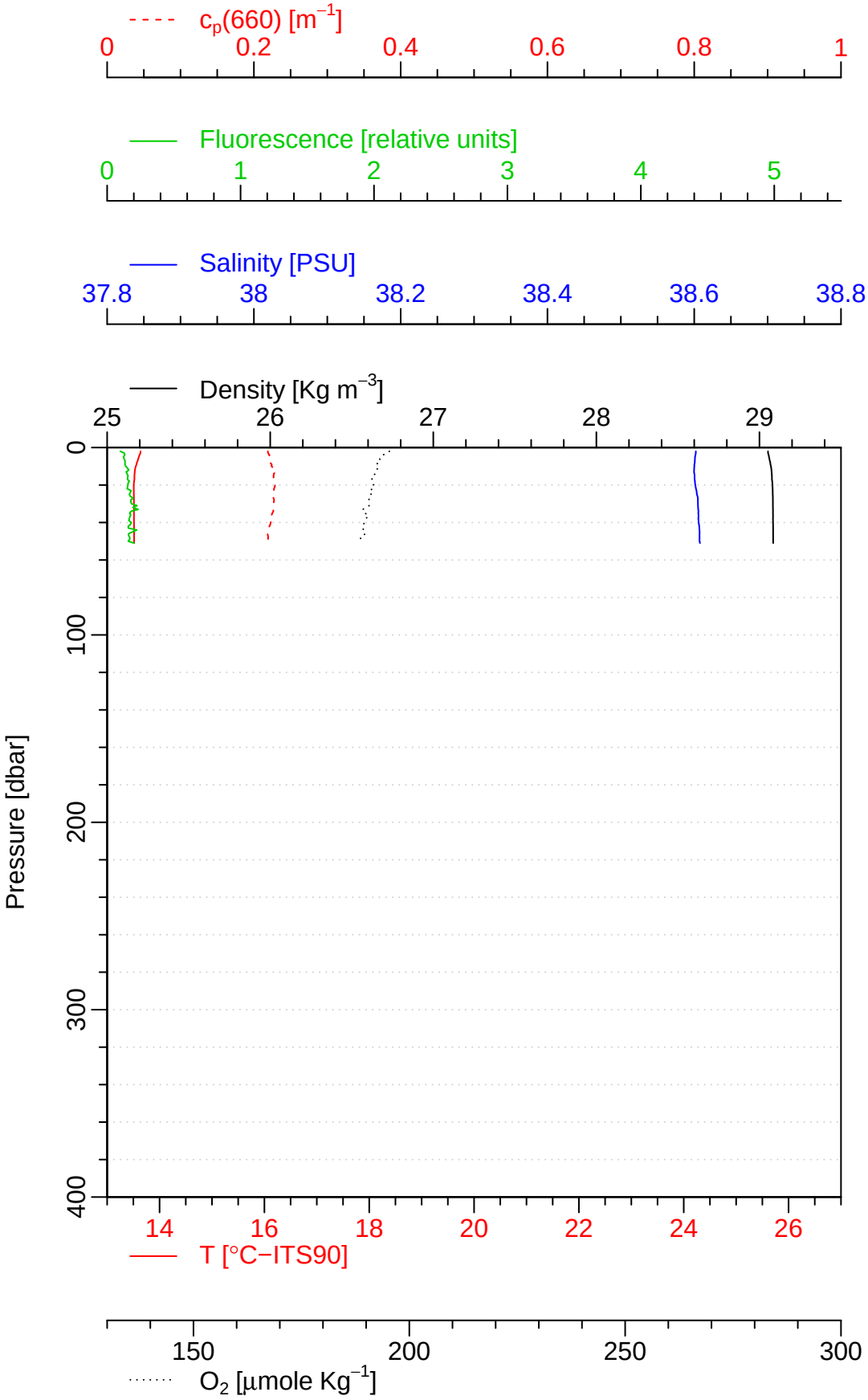
bous251_01

Date = 11/02/2023
Heure debut [TU] = 13:12
Longitude = 007 53.920 E
Latitude = 43 22.166 N



bous251_02

Date = 11/02/2023
Heure debut [TU] = 14:36
Longitude = 007 54.056 E
Latitude = 43 22.163 N



Date: 01/12/2024

Instrument configuration file: D:\Melek\boussole\Data\CTD\data&process\2023\B251\raw\BOUS251_01.XMLCON

Configuration report for SBE 911plus/917plus CTD

```
Frequency channels suppressed : 0
Voltage words suppressed      : 0
Computer interface            : RS-232C
Deck unit                     : SBE11plus Firmware Version >= 5.0
Scans to average              : 1
NMEA position data added      : Yes
NMEA depth data added         : No
NMEA time added               : No
NMEA device connected to      : PC
Surface PAR voltage added     : No
Scan time added               : No
```

1) Frequency 0, Temperature

```
   Serial number : 5545
   Calibrated on : 12-Apr-22
   G             : 4.31344074e-003
   H             : 6.26377384e-004
   I             : 1.93525259e-005
   J             : 1.44189131e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

2) Frequency 1, Conductivity

```
   Serial number : 4097
   Calibrated on : 23-Mar-22
   G             : -9.93827440e+000
   H             : 1.22512976e+000
   I             : -2.11436380e-003
   J             : 2.09010787e-004
   CTcor         : 3.2500e-006
   CPcor         : -9.57000000e-008
   Slope         : 1.00000000
   Offset        : 0.00000
```

3) Frequency 2, Pressure, Digiquartz with TC

```
   Serial number : 0294
   Calibrated on : 28-Jun-22
   C1            : -4.258985e+004
   C2            : 1.749594e-001
   C3            : 1.368020e-002
   D1            : 3.936700e-002
   D2            : 0.000000e+000
   T1            : 3.021237e+001
   T2            : -2.856130e-004
   T3            : 4.591050e-006
   T4            : 1.633320e-009
   T5            : 0.000000e+000
   Slope         : 0.99998843
   Offset        : 1.00805
   AD590M        : 1.279180e-002
   AD590B        : -9.448050e+000
```

4) Frequency 3, Temperature, 2

```
   Serial number : 1378
   Calibrated on : 17-Jun-21
   G             : 4.83714772e-003
   H             : 6.70524923e-004
   I             : 2.63336304e-005
   J             : 2.14843005e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

5) Frequency 4, Conductivity, 2

```
Serial number : 2929
Calibrated on : 05-Mar-20
G             : -1.05951733e+001
H             : 1.41908901e+000
I             : 7.59510042e-004
J             : 2.04144674e-005
CTcor         : 3.2500e-006
CPcor         : -9.57000000e-008
Slope         : 1.00000000
Offset        : 0.00000
```

6) A/D voltage 0, Oxygen, SBE 43

```
Serial number : 0587
Calibrated on : 06-Jul-22
Equation      : Sea-Bird
Soc           : 4.86320e-001
Offset        : -5.21300e-001
A             : -4.53330e-003
B             : 1.70820e-004
C             : -2.49520e-006
E             : 3.60000e-002
Tau20         : 9.00000e-001
D1            : 1.92634e-004
D2            : -4.64803e-002
H1            : -3.30000e-002
H2            : 5.00000e+003
H3            : 1.45000e+003
```

7) A/D voltage 1, Free

8) A/D voltage 2, Fluorometer, Chelsea Aqua 3

```
Serial number : 088-094
Calibrated on : 12-Nov-2015
VB            : 0.311200
V1            : 2.082900
Vacetone      : 0.434600
Scale factor  : 1.000000
Slope         : 1.000000
Offset        : 0.000000
```

9) A/D voltage 3, Transmissometer, WET Labs C-Star

```
Serial number : 373-DR
Calibrated on : 12-oct-2021
M             : 21.7581
B             : -1.2837
Path length   : 0.250
```

10) A/D voltage 4, User Polynomial

```
Serial number : 171
Calibrated on : 19May2014
Sensor name   : RINKOIII_DO
A0            : 0.00000000
A1            : 1.00000000
A2            : 0.00000000
A3            : 0.00000000
```

11) A/D voltage 5, User Polynomial, 2

```
Serial number : 171
Calibrated on : 12May2014
Sensor name   : RINKOIII_Temp
A0            : -5.25367500
A1            : 16.66254000
A2            : -2.13105300
A3            : 0.45564880
```

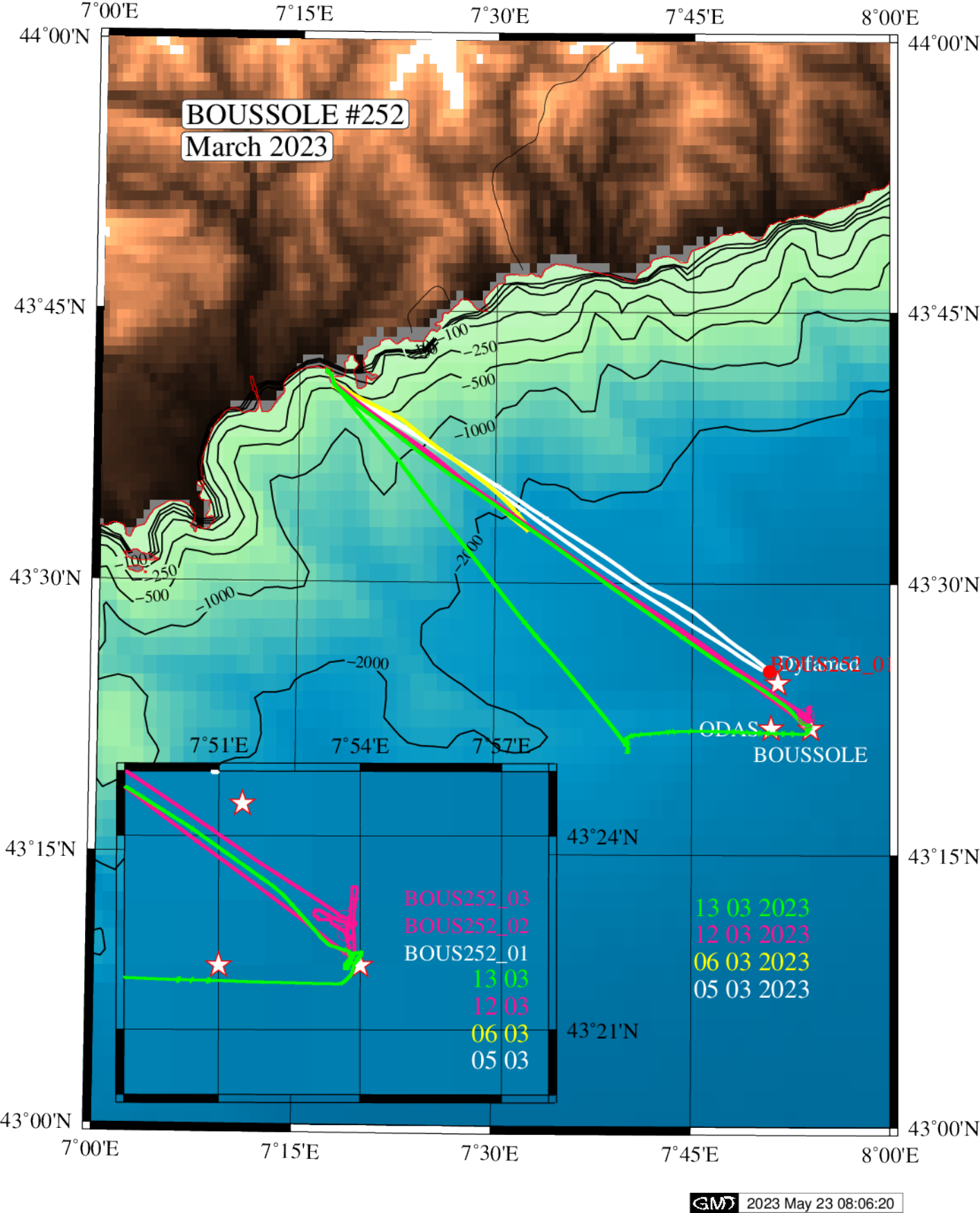
12) A/D voltage 6, Altimeter

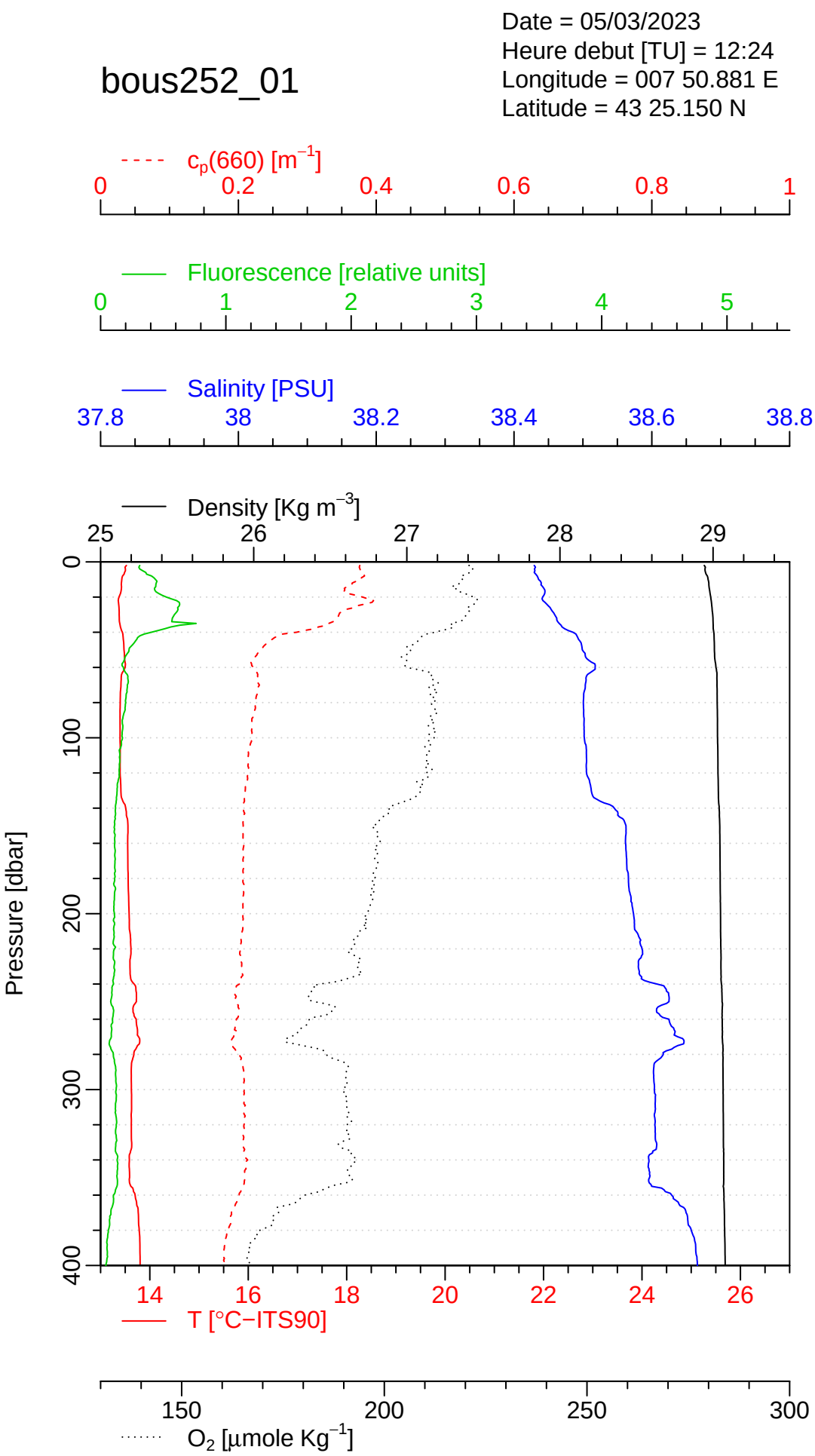
```
Serial number : 310799
Calibrated on : 19-Oct-16
```

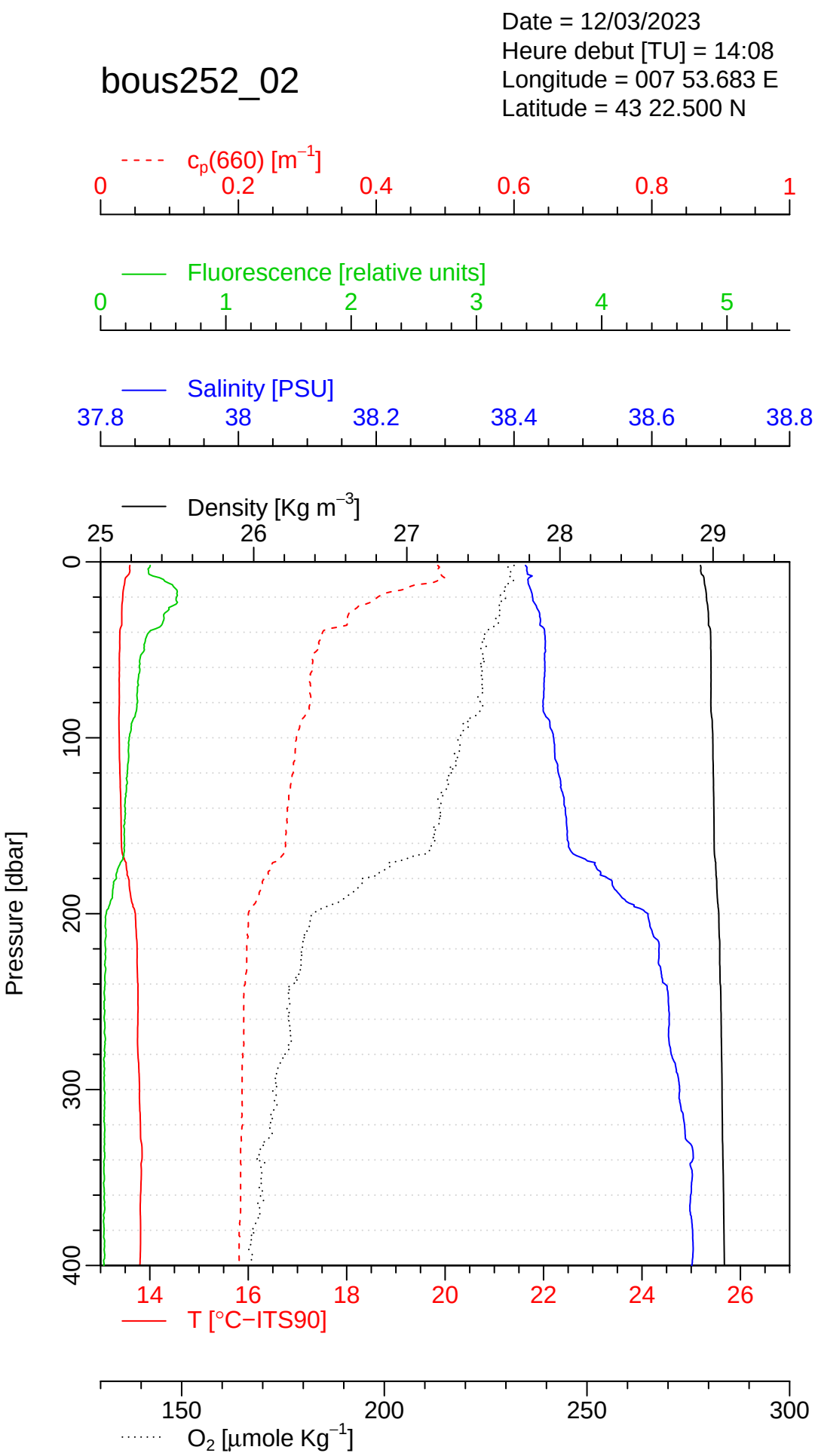
Scale factor : 15.000
Offset : 0.000

13) A/D voltage 7, Free

Scan length : 37

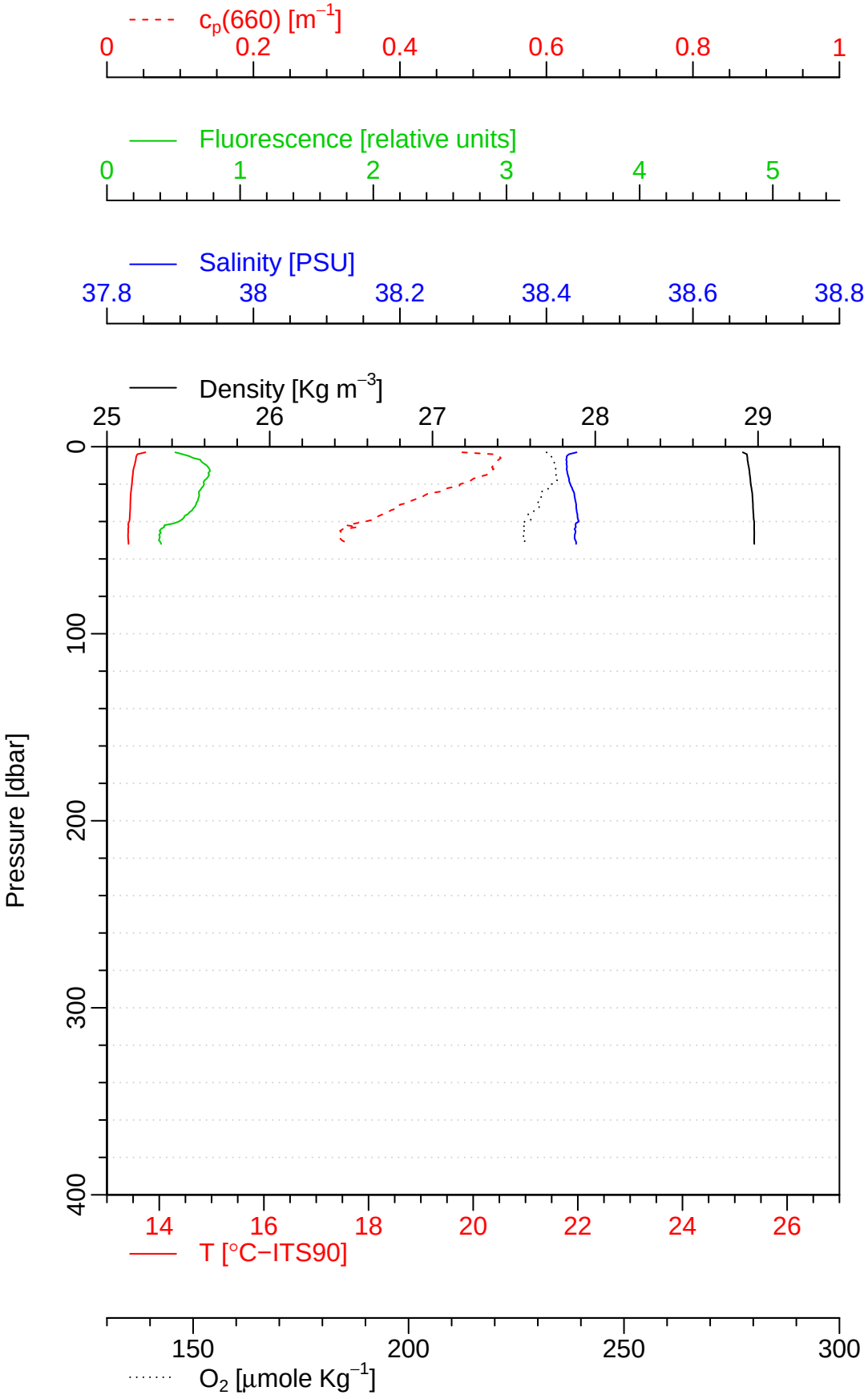

BOUSSOLE #252
March 2023
7°00'E
7°15'E
7°30'E
7°45'E
8°00'E
44°00'N
43°45'N
43°30'N
43°15'N
43°00'N
-100
-250
-500
-1000
-2000
Dyfamed
ODAS
BOUSSOLE
7°51'E
7°54'E
7°57'E
43°24'N
43°21'N
BOUS252_03
BOUS252_02
BOUS252_01
13 03
12 03
06 03
05 03
13 03 2023
12 03 2023
06 03 2023
05 03 2023
GMT 2023 May 23 08:06:20


bous252_01
Date = 05/03/2023
Heure debut [TU] = 12:24
Longitude = 007 50.881 E
Latitude = 43 25.150 N
c_p(660) [m^-1]
0 0.2 0.4 0.6 0.8 1
Fluorescence [relative units]
0 1 2 3 4 5
Salinity [PSU]
37.8 38 38.2 38.4 38.6 38.8
Density [Kg m^-3]
25 26 27 28 29
Pressure [dbar]
0 100 200 300 400
14 16 18 20 22 24 26
T [°C−ITS90]
150 200 250 300
O2 [µmole Kg^-1]


bous252_02
Date = 12/03/2023
Heure debut [TU] = 14:08
Longitude = 007 53.683 E
Latitude = 43 22.500 N
c_p(660) [m^-1]
0 0.2 0.4 0.6 0.8 1
Fluorescence [relative units]
0 1 2 3 4 5
Salinity [PSU]
37.8 38 38.2 38.4 38.6 38.8
Density [Kg m^-3]
25 26 27 28 29
Pressure [dbar]
0 100 200 300 400
14 16 18 20 22 24 26
T [°C−ITS90]
150 200 250 300
O2 [µmole Kg^-1]

bous252_03

Date = 12/03/2023
Heure debut [TU] = 15:43
Longitude = 007 53.669 E
Latitude = 43 22.726 N



Date: 01/12/2024

Instrument configuration file: D:\Melek\boussole\Data\CTD\data&process\2023\B252\raw\BOUS252_01.XMLCON

Configuration report for SBE 911plus/917plus CTD

```
Frequency channels suppressed : 0
Voltage words suppressed      : 0
Computer interface            : RS-232C
Deck unit                     : SBE11plus Firmware Version >= 5.0
Scans to average              : 1
NMEA position data added      : Yes
NMEA depth data added         : No
NMEA time added               : No
NMEA device connected to      : PC
Surface PAR voltage added     : No
Scan time added               : No
```

1) Frequency 0, Temperature

```
   Serial number : 5545
   Calibrated on : 12-Apr-22
   G             : 4.31344074e-003
   H             : 6.26377384e-004
   I             : 1.93525259e-005
   J             : 1.44189131e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

2) Frequency 1, Conductivity

```
   Serial number : 4097
   Calibrated on : 23-Mar-22
   G             : -9.93827440e+000
   H             : 1.22512976e+000
   I             : -2.11436380e-003
   J             : 2.09010787e-004
   CTcor         : 3.2500e-006
   CPcor         : -9.57000000e-008
   Slope         : 1.00000000
   Offset        : 0.00000
```

3) Frequency 2, Pressure, Digiquartz with TC

```
   Serial number : 0294
   Calibrated on : 28-Jun-22
   C1            : -4.258985e+004
   C2            : 1.749594e-001
   C3            : 1.368020e-002
   D1            : 3.936700e-002
   D2            : 0.000000e+000
   T1            : 3.021237e+001
   T2            : -2.856130e-004
   T3            : 4.591050e-006
   T4            : 1.633320e-009
   T5            : 0.000000e+000
   Slope         : 0.99998843
   Offset        : 1.00805
   AD590M        : 1.279180e-002
   AD590B        : -9.448050e+000
```

4) Frequency 3, Temperature, 2

```
   Serial number : 1378
   Calibrated on : 17-Jun-21
   G             : 4.83714772e-003
   H             : 6.70524923e-004
   I             : 2.63336304e-005
   J             : 2.14843005e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

5) Frequency 4, Conductivity, 2

```
Serial number : 1313
Calibrated on : 18-May-21
G             : -9.85039520e+000
H             : 1.33613831e+000
I             : -4.64958478e-004
J             : 1.12844381e-004
CTcor         : 3.2500e-006
CPcor         : -9.57000000e-008
Slope         : 1.00000000
Offset        : 0.00000
```

6) A/D voltage 0, Oxygen, SBE 43

```
Serial number : 0587
Calibrated on : 06-Jul-22
Equation      : Sea-Bird
Soc           : 4.86320e-001
Offset        : -5.21300e-001
A             : -4.53330e-003
B             : 1.70820e-004
C             : -2.49520e-006
E             : 3.60000e-002
Tau20         : 9.00000e-001
D1            : 1.92634e-004
D2            : -4.64803e-002
H1            : -3.30000e-002
H2            : 5.00000e+003
H3            : 1.45000e+003
```

7) A/D voltage 1, Free

8) A/D voltage 2, Fluorometer, Chelsea Aqua 3

```
Serial number : 088-094
Calibrated on : 12-Nov-2015
VB            : 0.311200
V1            : 2.082900
Vacetone      : 0.434600
Scale factor  : 1.000000
Slope         : 1.000000
Offset        : 0.000000
```

9) A/D voltage 3, Transmissometer, WET Labs C-Star

```
Serial number : 373-DR
Calibrated on : 12-oct-2021
M             : 21.7581
B             : -1.2837
Path length   : 0.250
```

10) A/D voltage 4, User Polynomial

```
Serial number : 171
Calibrated on : 19May2014
Sensor name   : RINKOIII_DO
A0            : 0.00000000
A1            : 1.00000000
A2            : 0.00000000
A3            : 0.00000000
```

11) A/D voltage 5, User Polynomial, 2

```
Serial number : 171
Calibrated on : 12May2014
Sensor name   : RINKOIII_Temp
A0            : -5.25367500
A1            : 16.66254000
A2            : -2.13105300
A3            : 0.45564880
```

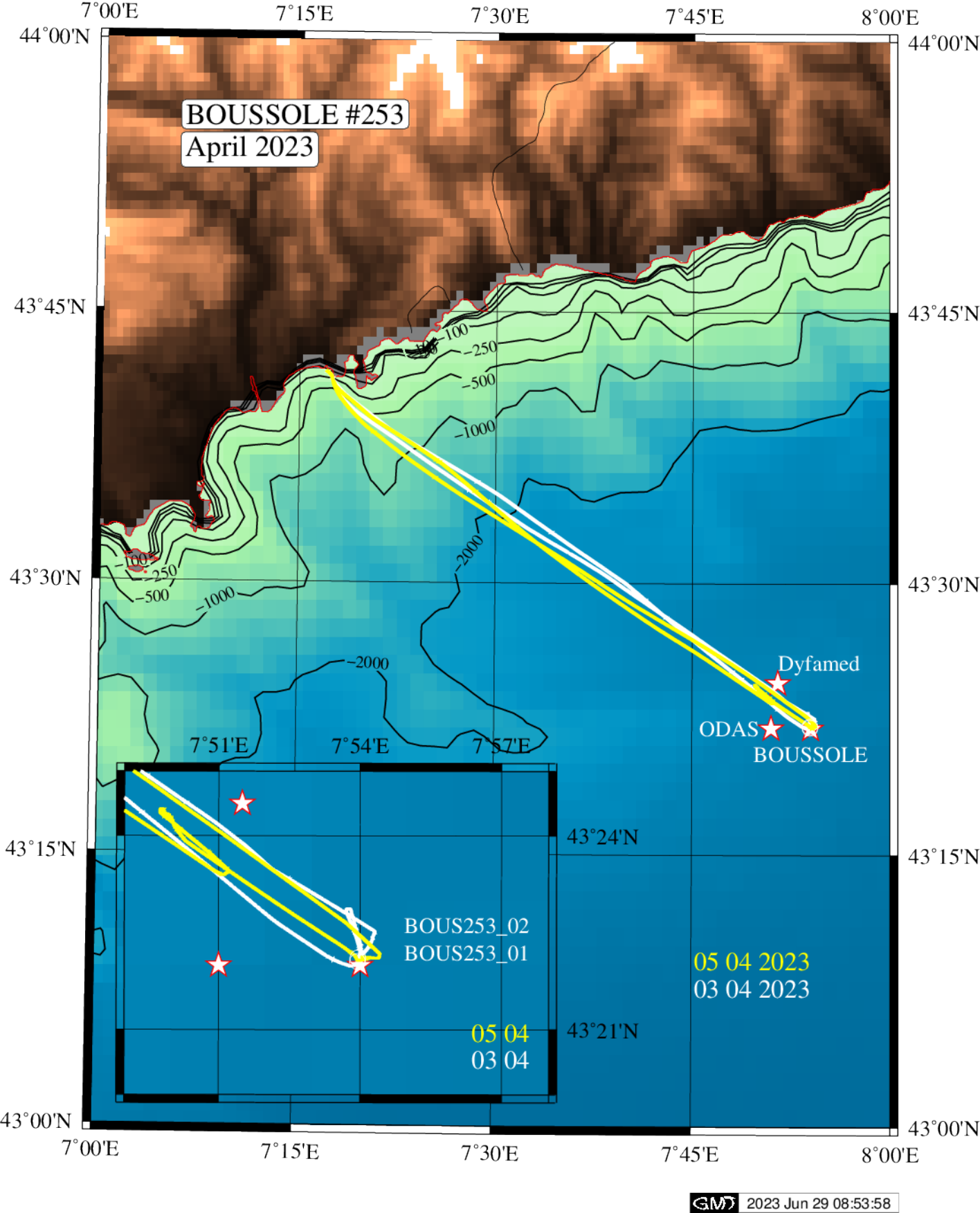
12) A/D voltage 6, Altimeter

```
Serial number : 310799
Calibrated on : 19-Oct-16
```

Scale factor : 15.000
Offset : 0.000

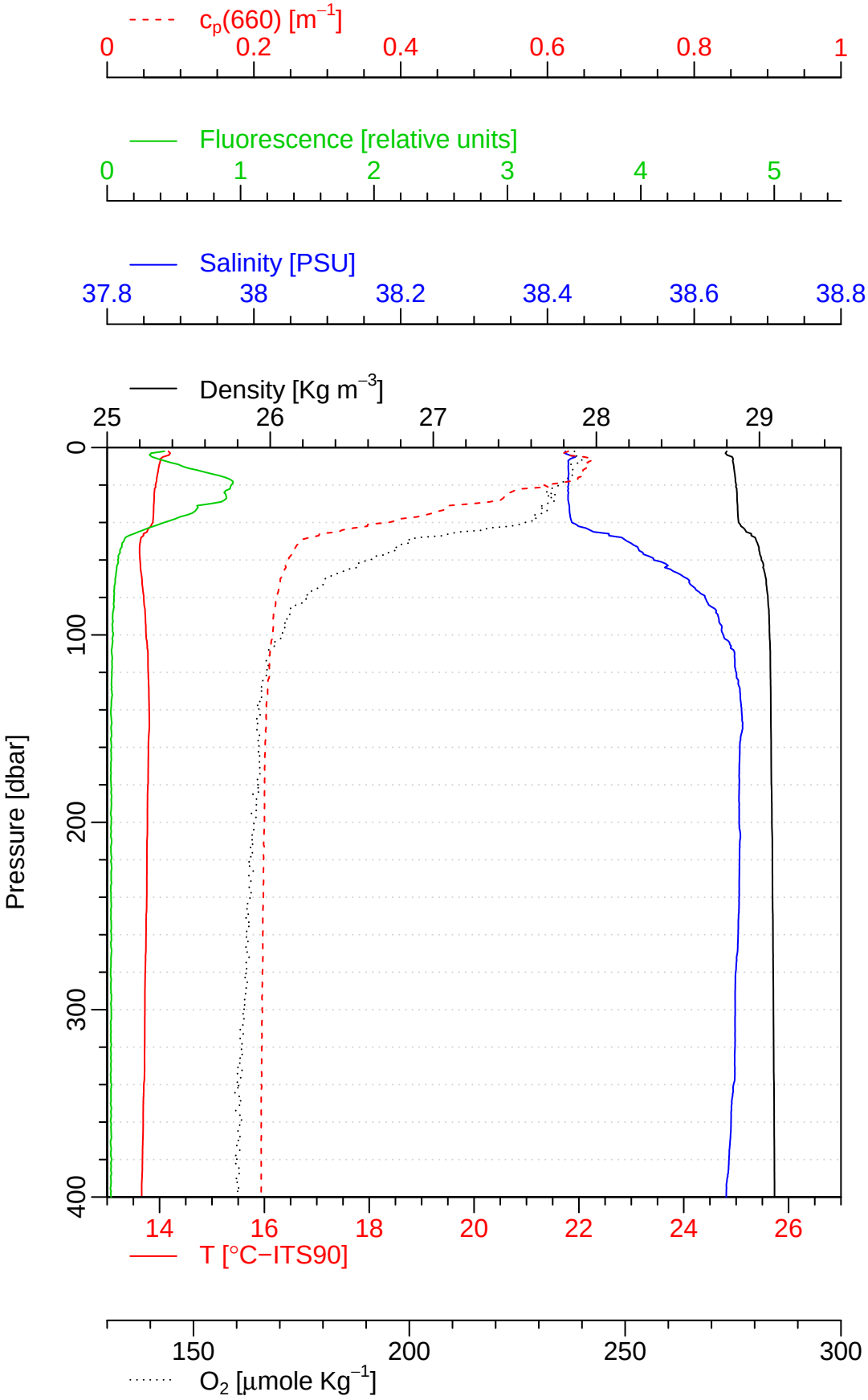
13) A/D voltage 7, Free

Scan length : 37


BOUSSOLE #253
April 2023
7°00'E
7°15'E
7°30'E
7°45'E
8°00'E
44°00'N
43°45'N
43°30'N
43°15'N
43°00'N
-100
-250
-500
-1000
-2000
Dyfamed
ODAS
BOUSSOLE
7°51'E
7°54'E
7°57'E
43°24'N
43°21'N
BOUS253_02
BOUS253_01
05 04 2023
03 04 2023
05 04
03 04
GMT 2023 Jun 29 08:53:58

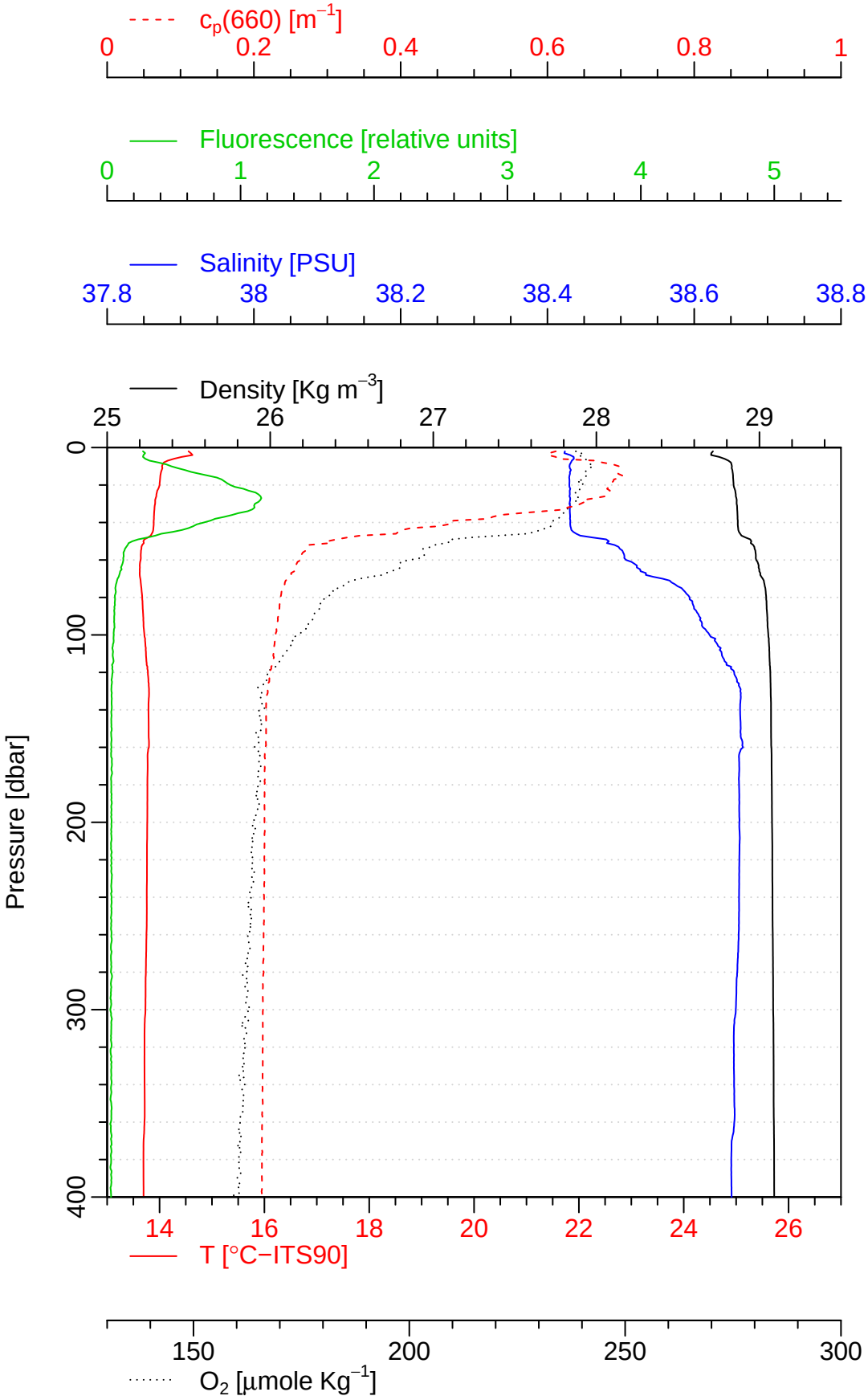
bous253_01

Date = 03/04/2023
Heure debut [TU] = 10:11
Longitude = 007 53.947 E
Latitude = 43 22.054 N



bous253_02

Date = 03/04/2023
Heure debut [TU] = 12:08
Longitude = 007 53.953 E
Latitude = 43 22.110 N



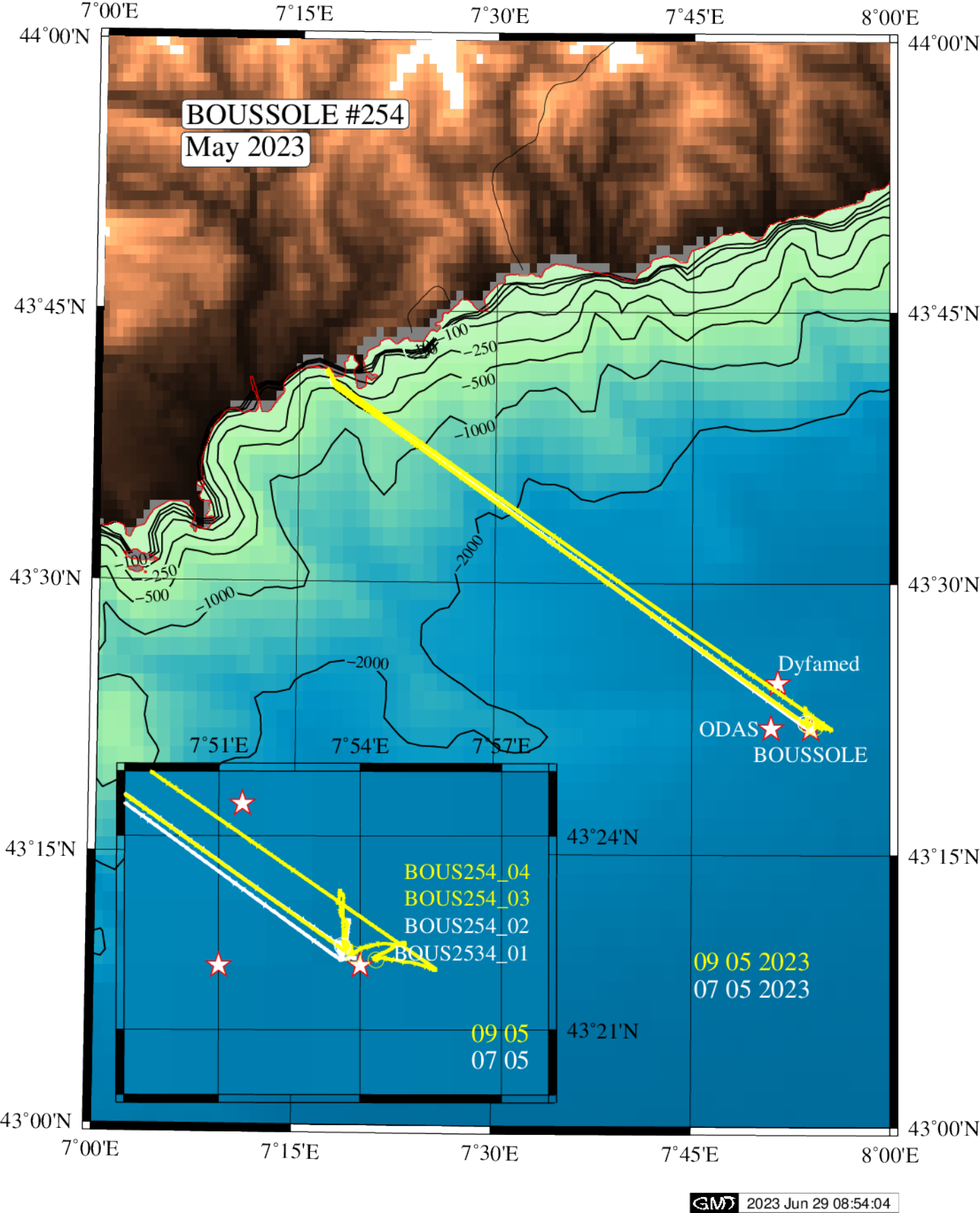
Date: 01/12/2024

Instrument configuration file: D:\Melek\boussole\Data\CTD\data&process\2023\B253\raw\BOUS253_01.XMLCON

Configuration report for SBE 911plus/917plus CTD

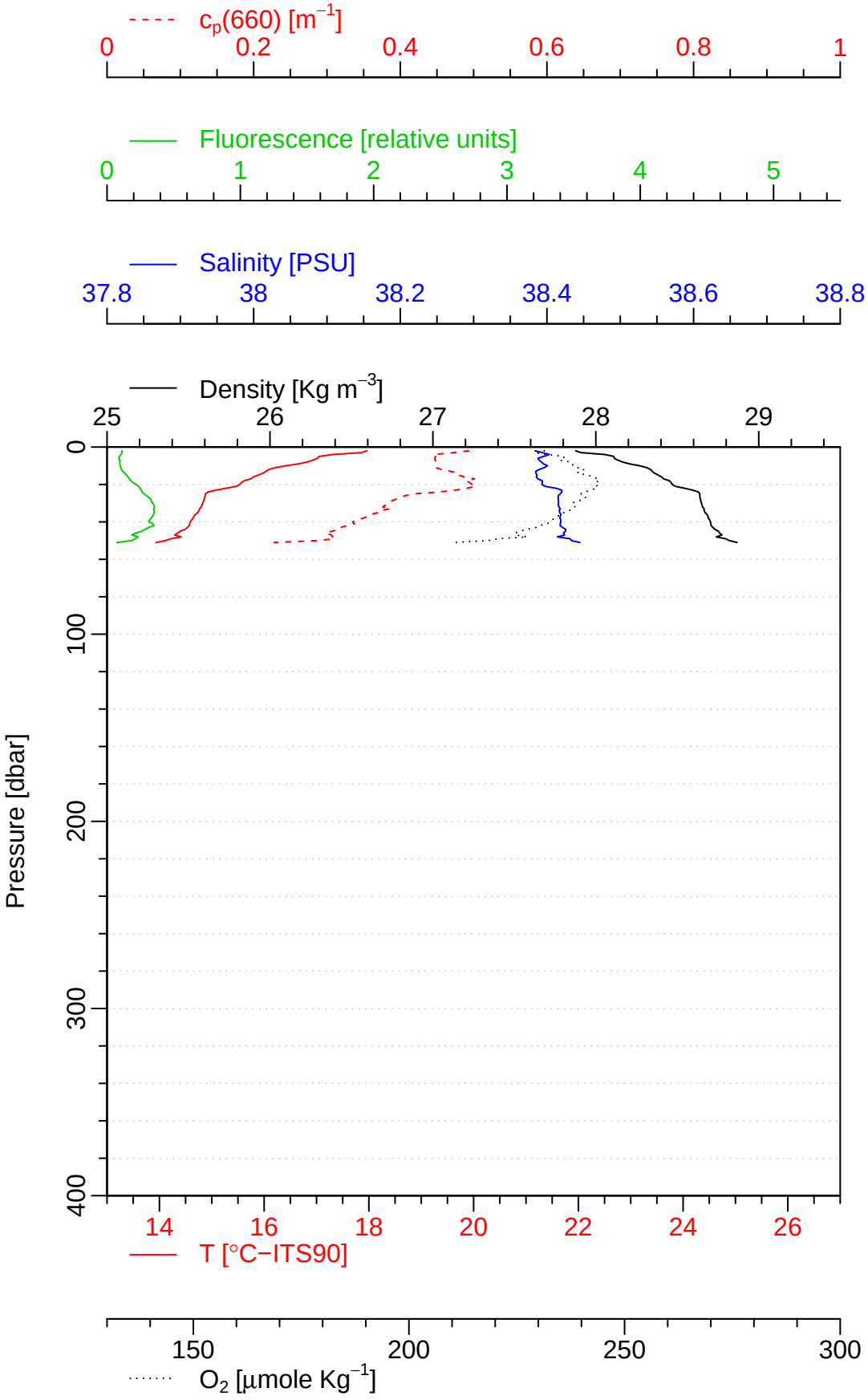
```
Frequency channels suppressed : 2
Voltage words suppressed      : 0
Computer interface            : RS-232C
Deck unit                     : SBE11plus Firmware Version >= 5.0
Scans to average              : 1
NMEA position data added      : Yes
NMEA depth data added         : No
NMEA time added               : No
NMEA device connected to      : PC
Surface PAR voltage added     : No
Scan time added               : No

1) Frequency 0, Temperature

   Serial number : 5545
   Calibrated on : 12-Apr-22
   G             : 4.31344074e-003
   H             : 6.26377384e-004
   I             : 1.93525259e-005
   J             : 1.44189131e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000

2) Frequency 1, Conductivity

   Serial number : 4097
   Calibrated on : 23-Mar-22
   G             : -9.93827440e+000
   H             : 1.22512976e+000
   I             : -2.11436380e-003
   J             : 2.09010787e-004
   CTcor         : 3.2500e-006
   CPcor         : -9.57000000e-008
   Slope         : 1.00000000
   Offset        : 0.00000

3) Frequency 2, Pressure, Digiquartz with TC

   Serial number : 0294
   Calibrated on : 28-Jun-22
   C1            : -4.258985e+004
   C2            : 1.749594e-001
   C3            : 1.368020e-002
   D1            : 3.936700e-002
   D2            : 0.000000e+000
   T1            : 3.021237e+001
   T2            : -2.856130e-004
   T3            : 4.591050e-006
   T4            : 1.633320e-009
   T5            : 0.000000e+000
   Slope         : 0.99998843
   Offset        : 1.00805
   AD590M        : 1.279180e-002
   AD590B        : -9.448050e+000

4) A/D voltage 0, Oxygen, SBE 43

   Serial number : 0587
   Calibrated on : 06-Jul-22
   Equation      : Sea-Bird
   Soc           : 4.86320e-001
   Offset        : -5.21300e-001
   A             : -4.53330e-003
   B             : 1.70820e-004
   C             : -2.49520e-006
   E             : 3.60000e-002
   Tau20         : 9.00000e-001
```

```
   D1            : 1.92634e-004
   D2            : -4.64803e-002
   H1            : -3.30000e-002
   H2            : 5.00000e+003
   H3            : 1.45000e+003

5) A/D voltage 1, Free

6) A/D voltage 2, Fluorometer, Chelsea Aqua 3

   Serial number : 088-094
   Calibrated on : 12-Nov-2015
   VB            : 0.311200
   V1            : 2.082900
   Vacetone      : 0.434600
   Scale factor  : 1.000000
   Slope         : 1.000000
   Offset        : 0.000000

7) A/D voltage 3, Transmissometer, WET Labs C-Star

   Serial number : 373-DR
   Calibrated on : 12-oct-2021
   M             : 21.7581
   B             : -1.2837
   Path length   : 0.250

8) A/D voltage 4, User Polynomial

   Serial number : 171
   Calibrated on : 19May2014
   Sensor name   : RINKOIII_DO
   A0            : 0.00000000
   A1            : 1.00000000
   A2            : 0.00000000
   A3            : 0.00000000

9) A/D voltage 5, User Polynomial, 2

   Serial number : 171
   Calibrated on : 12May2014
   Sensor name   : RINKOIII_Temp
   A0            : -5.25367500
   A1            : 16.66254000
   A2            : -2.13105300
   A3            : 0.45564880

10) A/D voltage 6, Altimeter

    Serial number : 310799
    Calibrated on : 19-Oct-16
    Scale factor  : 15.000
    Offset        : 0.000

11) A/D voltage 7, Free

Scan length                   : 31
```


BOUSSOLE #254
May 2023
7°00'E
7°15'E
7°30'E
7°45'E
8°00'E
44°00'N
43°45'N
43°30'N
43°15'N
43°00'N
-100
-250
-500
-1000
-2000
Dyfamed
ODAS
BOUSSOLE
7°51'E
7°54'E
7°57'E
43°24'N
43°21'N
BOUS254_04
BOUS254_03
BOUS254_02
BOUS2534_01
09 05 2023
07 05 2023
09 05
07 05
GMT 2023 Jun 29 08:54:04

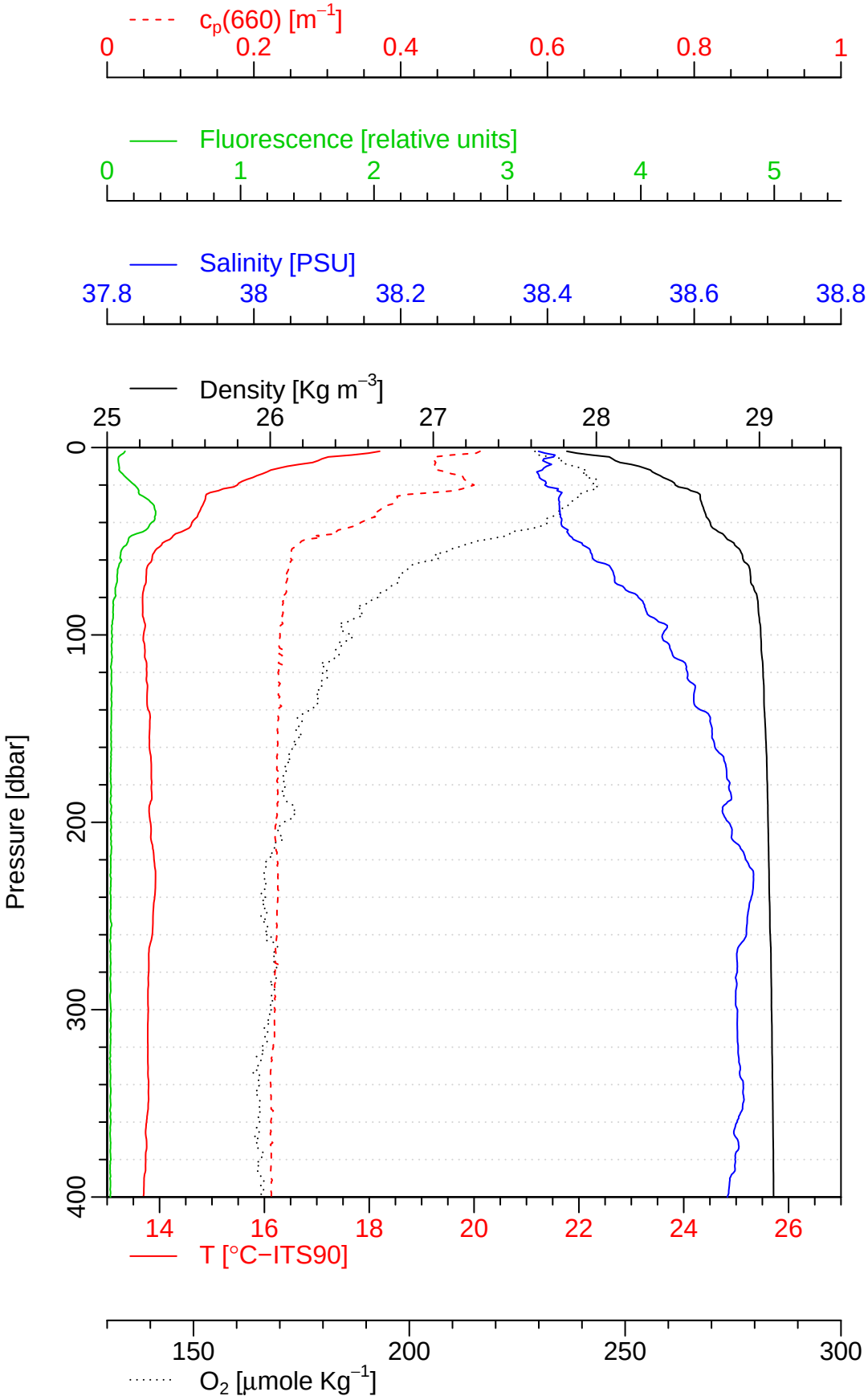
bous254_01

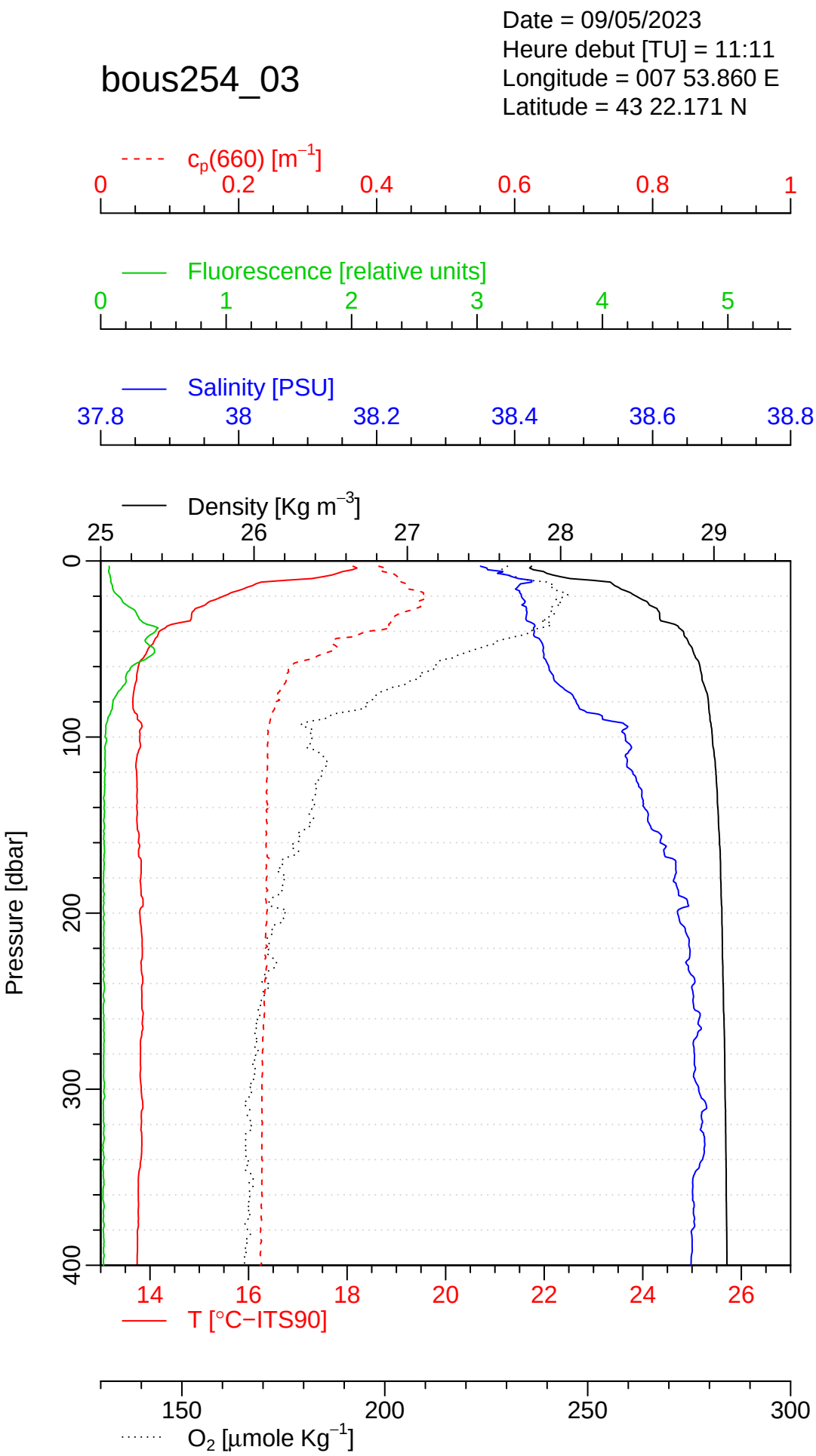
Date = 07/05/2023
Heure debut [TU] = 10:24
Longitude = 007 53.641 E
Latitude = 43 22.283 N



bous254_02

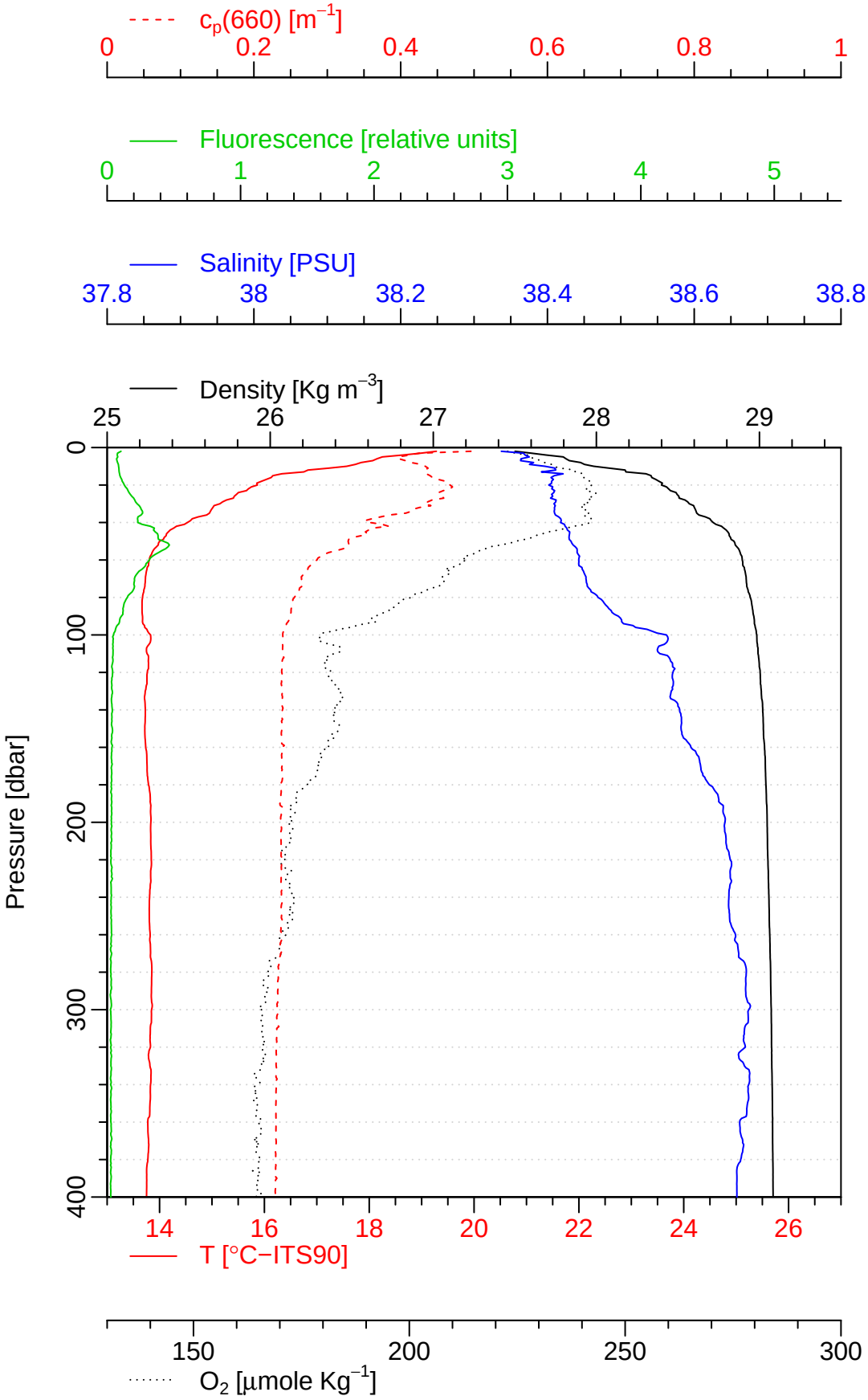
Date = 07/05/2023
Heure debut [TU] = 10:48
Longitude = 007 53.622 E
Latitude = 43 22.299 N




bous254_03
Date = 09/05/2023
Heure debut [TU] = 11:11
Longitude = 007 53.860 E
Latitude = 43 22.171 N
c_p(660) [m^-1]
0 0.2 0.4 0.6 0.8 1
Fluorescence [relative units]
0 1 2 3 4 5
Salinity [PSU]
37.8 38 38.2 38.4 38.6 38.8
Density [Kg m^-3]
25 26 27 28 29
Pressure [dbar]
0 100 200 300 400
14 16 18 20 22 24 26
T [°C−ITS90]
150 200 250 300
O2 [µmole Kg^-1]

bous254_04

Date = 09/05/2023
Heure debut [TU] = 12:51
Longitude = 007 54.340 E
Latitude = 43 22.080 N



Date: 01/12/2024

Instrument configuration file: D:\Melek\boussole\Data\CTD\data&process\2023\B254\raw\BOUS254_01.XMLCON

Configuration report for SBE 911plus/917plus CTD

```
Frequency channels suppressed : 2
Voltage words suppressed      : 0
Computer interface            : RS-232C
Deck unit                     : SBE11plus Firmware Version >= 5.0
Scans to average              : 1
NMEA position data added      : Yes
NMEA depth data added         : No
NMEA time added               : No
NMEA device connected to      : deck unit
Surface PAR voltage added     : No
Scan time added               : No
```

1) Frequency 0, Temperature

```
   Serial number : 5545
   Calibrated on : 12-Apr-22
   G             : 4.31344074e-003
   H             : 6.26377384e-004
   I             : 1.93525259e-005
   J             : 1.44189131e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

2) Frequency 1, Conductivity

```
   Serial number : 4097
   Calibrated on : 23-Mar-22
   G             : -9.93827440e+000
   H             : 1.22512976e+000
   I             : -2.11436380e-003
   J             : 2.09010787e-004
   CTcor         : 3.2500e-006
   CPcor         : -9.57000000e-008
   Slope         : 1.00000000
   Offset        : 0.00000
```

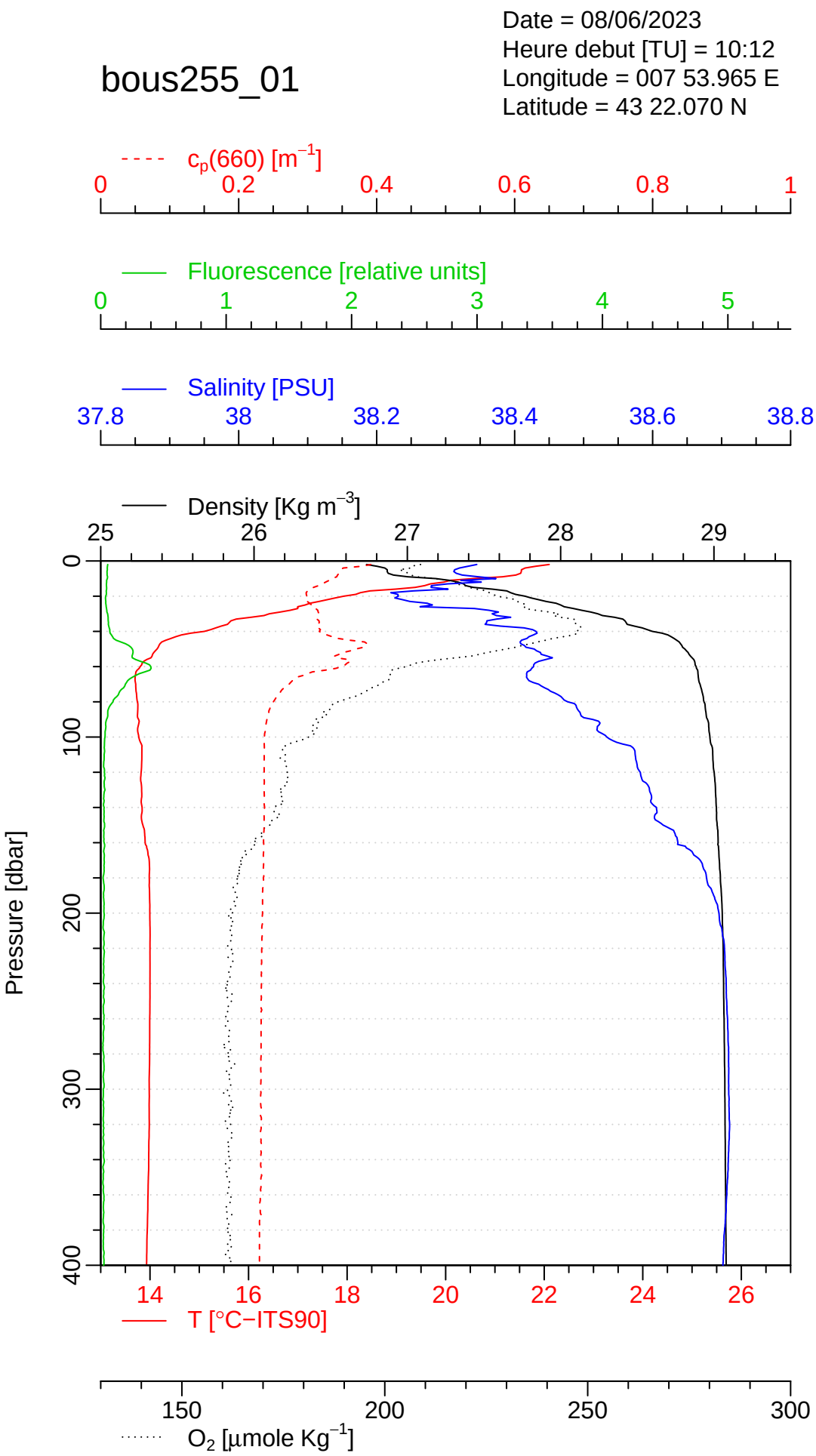
3) Frequency 2, Pressure, Digiquartz with TC

```
   Serial number : 0294
   Calibrated on : 28-Jun-22
   C1            : -4.258985e+004
   C2            : 1.749594e-001
   C3            : 1.368020e-002
   D1            : 3.936700e-002
   D2            : 0.000000e+000
   T1            : 3.021237e+001
   T2            : -2.856130e-004
   T3            : 4.591050e-006
   T4            : 1.633320e-009
   T5            : 0.000000e+000
   Slope         : 0.99998843
   Offset        : 1.00805
   AD590M        : 1.279180e-002
   AD590B        : -9.448050e+000
```

4) A/D voltage 0, Oxygen, SBE 43

```
   Serial number : 0587
   Calibrated on : 06-Jul-22
   Equation      : Sea-Bird
   Soc           : 4.86320e-001
   Offset        : -5.21300e-001
   A             : -4.53330e-003
   B             : 1.70820e-004
   C             : -2.49520e-006
   E             : 3.60000e-002
   Tau20         : 9.00000e-001
```

```
   D1            : 1.92634e-004
   D2            : -4.64803e-002
   H1            : -3.30000e-002
   H2            : 5.00000e+003
   H3            : 1.45000e+003

5) A/D voltage 1, Free

6) A/D voltage 2, Fluorometer, Chelsea Aqua 3

   Serial number : 088-094
   Calibrated on : 12-Nov-2015
   VB            : 0.311200
   V1            : 2.082900
   Vacetone      : 0.434600
   Scale factor  : 1.000000
   Slope         : 1.000000
   Offset        : 0.000000

7) A/D voltage 3, Transmissometer, WET Labs C-Star

   Serial number : 373-DR
   Calibrated on : 12-oct-2021
   M             : 21.7581
   B             : -1.2837
   Path length   : 0.250

8) A/D voltage 4, User Polynomial

   Serial number : 171
   Calibrated on : 19May2014
   Sensor name   : RINKOIII_DO
   A0            : 0.00000000
   A1            : 1.00000000
   A2            : 0.00000000
   A3            : 0.00000000

9) A/D voltage 5, User Polynomial, 2

   Serial number : 171
   Calibrated on : 12May2014
   Sensor name   : RINKOIII_Temp
   A0            : -5.25367500
   A1            : 16.66254000
   A2            : -2.13105300
   A3            : 0.45564880

10) A/D voltage 6, Altimeter

    Serial number : 310799
    Calibrated on : 19-Oct-16
    Scale factor  : 15.000
    Offset        : 0.000

11) A/D voltage 7, Free

Scan length                   : 31
```


bous255_01
Date = 08/06/2023
Heure debut [TU] = 10:12
Longitude = 007 53.965 E
Latitude = 43 22.070 N
c_p(660) [m^-1]
0 0.2 0.4 0.6 0.8 1
Fluorescence [relative units]
0 1 2 3 4 5
Salinity [PSU]
37.8 38 38.2 38.4 38.6 38.8
Density [Kg m^-3]
25 26 27 28 29
Pressure [dbar]
0 100 200 300 400
14 16 18 20 22 24 26
T [°C−ITS90]
150 200 250 300
O2 [µmole Kg^-1]

Date: 01/12/2024

Instrument configuration file: D:\Melek\boussole\Data\CTD\data&process\2023\B255\raw\BOUS255_01.XMLCON

Configuration report for SBE 911plus/917plus CTD

```
Frequency channels suppressed : 2
Voltage words suppressed      : 0
Computer interface            : RS-232C
Deck unit                     : SBE11plus Firmware Version >= 5.0
Scans to average              : 1
NMEA position data added      : No
NMEA depth data added         : No
NMEA time added               : No
Surface PAR voltage added     : No
Scan time added               : No
```

1) Frequency 0, Temperature

```
   Serial number : 5545
   Calibrated on : 12-Apr-22
   G             : 4.31344074e-003
   H             : 6.26377384e-004
   I             : 1.93525259e-005
   J             : 1.44189131e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

2) Frequency 1, Conductivity

```
   Serial number : 4097
   Calibrated on : 23-Mar-22
   G             : -9.93827440e+000
   H             : 1.22512976e+000
   I             : -2.11436380e-003
   J             : 2.09010787e-004
   CTcor         : 3.2500e-006
   CPcor         : -9.57000000e-008
   Slope         : 1.00000000
   Offset        : 0.00000
```

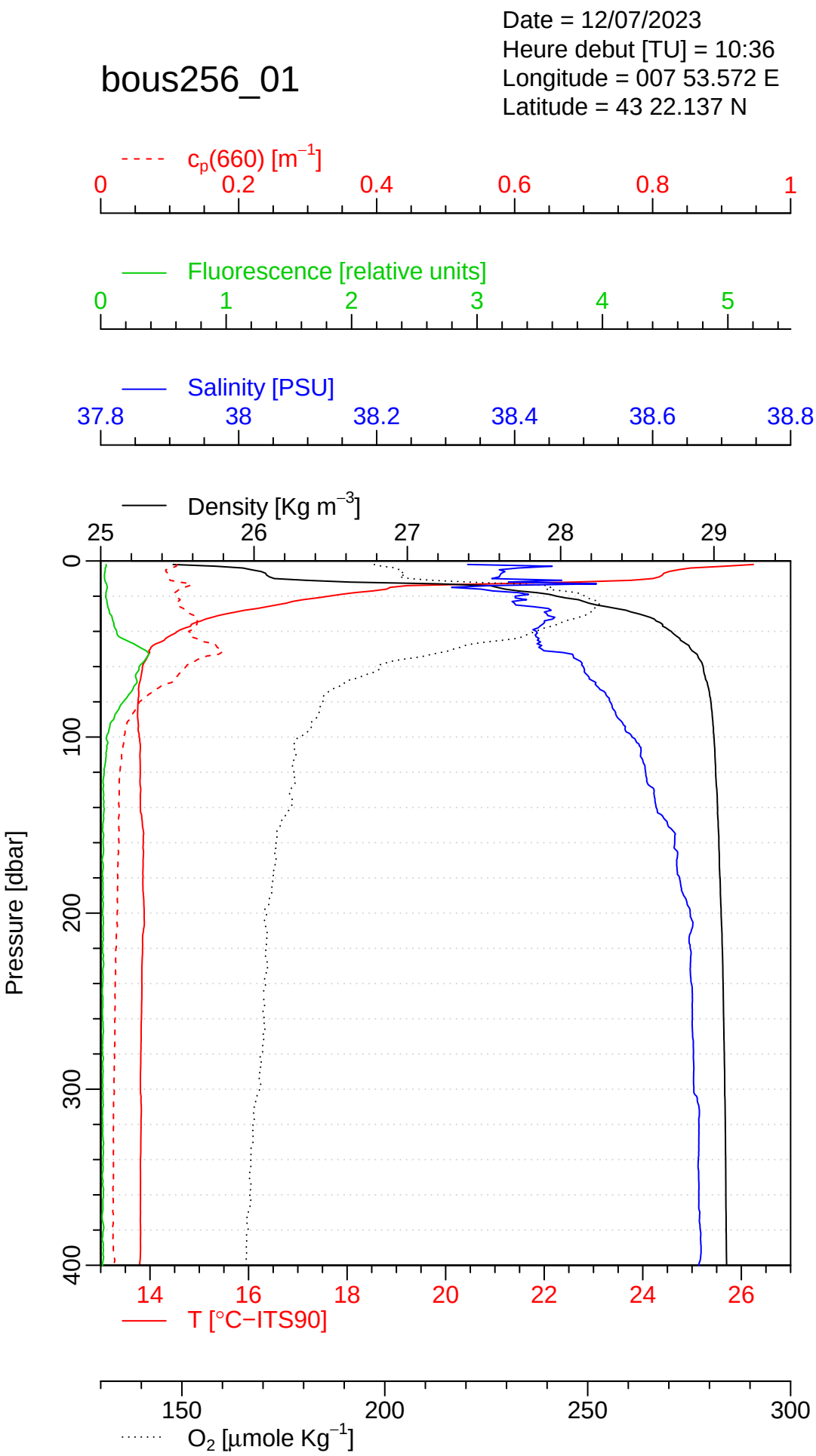
3) Frequency 2, Pressure, Digiquartz with TC

```
   Serial number : 0294
   Calibrated on : 28-Jun-22
   C1            : -4.258985e+004
   C2            : 1.749594e-001
   C3            : 1.368020e-002
   D1            : 3.936700e-002
   D2            : 0.000000e+000
   T1            : 3.021237e+001
   T2            : -2.856130e-004
   T3            : 4.591050e-006
   T4            : 1.633320e-009
   T5            : 0.000000e+000
   Slope         : 0.99998843
   Offset        : 1.00805
   AD590M        : 1.279180e-002
   AD590B        : -9.448050e+000
```

4) A/D voltage 0, Oxygen, SBE 43

```
   Serial number : 0587
   Calibrated on : 06-Jul-22
   Equation      : Sea-Bird
   Soc           : 4.86320e-001
   Offset        : -5.21300e-001
   A             : -4.53330e-003
   B             : 1.70820e-004
   C             : -2.49520e-006
   E             : 3.60000e-002
   Tau20         : 9.00000e-001
   D1            : 1.92634e-004
```

```
   D2            : -4.64803e-002
   H1            : -3.30000e-002
   H2            : 5.00000e+003
   H3            : 1.45000e+003

5) A/D voltage 1, Free

6) A/D voltage 2, Fluorometer, Chelsea Aqua 3

   Serial number : 088-094
   Calibrated on : 12-Nov-2015
   VB            : 0.311200
   V1            : 2.082900
   Vacetone      : 0.434600
   Scale factor  : 1.000000
   Slope         : 1.000000
   Offset        : 0.000000

7) A/D voltage 3, Transmissometer, WET Labs C-Star

   Serial number : 373-DR
   Calibrated on : 12-oct-2021
   M             : 21.7581
   B             : -1.2837
   Path length   : 0.250

8) A/D voltage 4, User Polynomial

   Serial number : 171
   Calibrated on : 19May2014
   Sensor name   : RINKOIII_DO
   A0            : 0.00000000
   A1            : 1.00000000
   A2            : 0.00000000
   A3            : 0.00000000

9) A/D voltage 5, User Polynomial, 2

   Serial number : 171
   Calibrated on : 12May2014
   Sensor name   : RINKOIII_Temp
   A0            : -5.25367500
   A1            : 16.66254000
   A2            : -2.13105300
   A3            : 0.45564880

10) A/D voltage 6, Altimeter

    Serial number : 310799
    Calibrated on : 19-Oct-16
    Scale factor  : 15.000
    Offset        : 0.000

11) A/D voltage 7, Free

Scan length                   : 24
```


bous256_01
Date = 12/07/2023
Heure debut [TU] = 10:36
Longitude = 007 53.572 E
Latitude = 43 22.137 N
c_p(660) [m^-1]
0 0.2 0.4 0.6 0.8 1
Fluorescence [relative units]
0 1 2 3 4 5
Salinity [PSU]
37.8 38 38.2 38.4 38.6 38.8
Density [Kg m^-3]
25 26 27 28 29
Pressure [dbar]
0 100 200 300 400
14 16 18 20 22 24 26
T [°C−ITS90]
150 200 250 300
O2 [µmole Kg^-1]

Date: 01/12/2024

Instrument configuration file: D:\Melek\boussole\Data\CTD\data&process\2023\B256\raw\bous256_01.XMLCON

Configuration report for SBE 911plus/917plus CTD

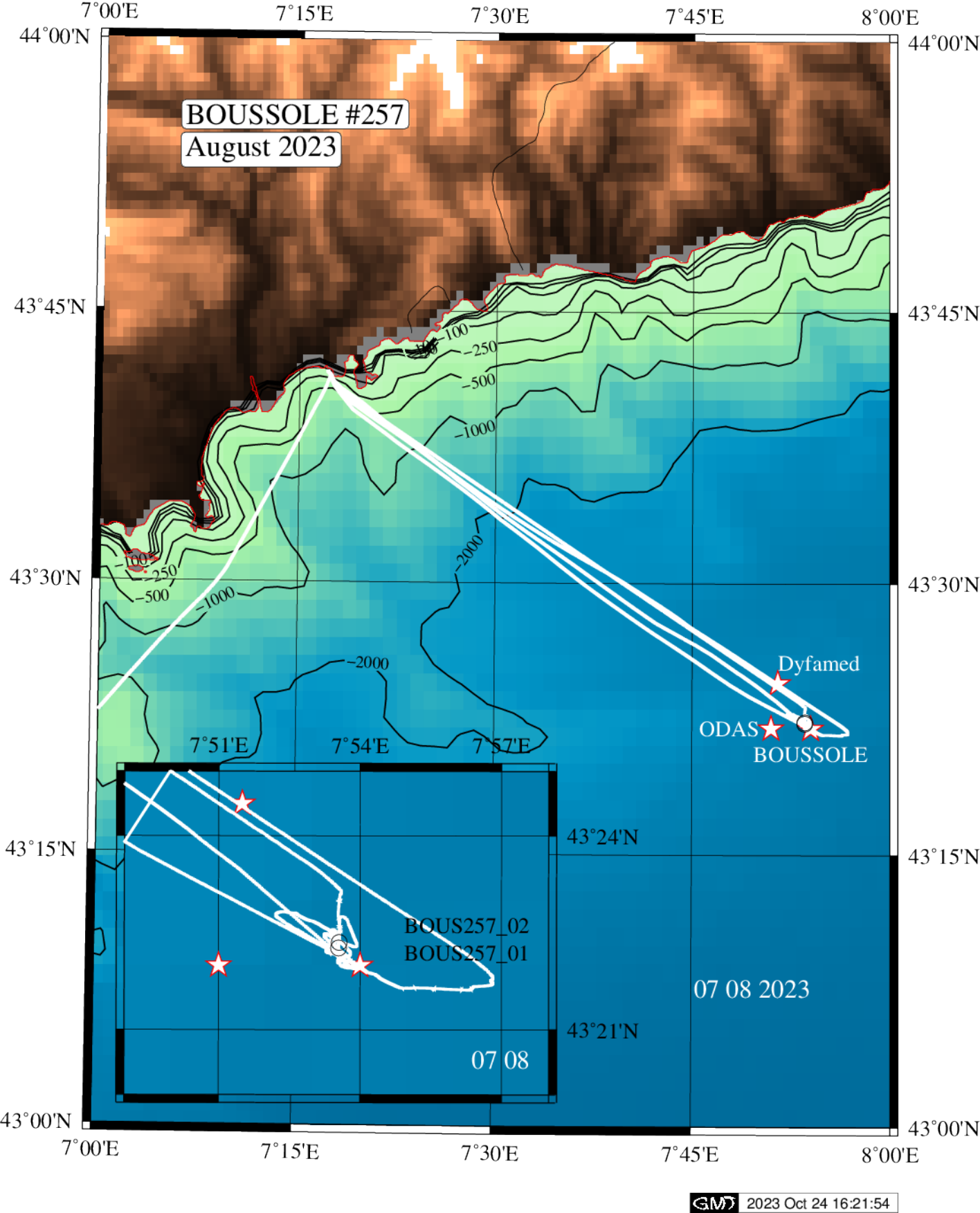
```
Frequency channels suppressed : 0
Voltage words suppressed      : 0
Computer interface            : RS-232C
Deck unit                     : SBE11plus Firmware Version >= 5.0
Scans to average              : 1
NMEA position data added      : No
NMEA depth data added         : No
NMEA time added               : No
Surface PAR voltage added     : No
Scan time added               : No

1) Frequency 0, Temperature

   Serial number : 2473
   Calibrated on : 24-Feb-23
   G             : 4.36741613e-003
   H             : 6.43394319e-004
   I             : 2.35326186e-005
   J             : 2.26161510e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000

2) Frequency 1, Conductivity

   Serial number : 2929
   Calibrated on : 19-Jan-23
   G             : -1.05974119e+001
   H             : 1.41947085e+000
   I             : 7.31552568e-004
   J             : 1.92703589e-005
   CTcor         : 3.2500e-006
   CPcor         : -9.57000000e-008
   Slope         : 1.00000000
   Offset        : 0.00000

3) Frequency 2, Pressure, Digiquartz with TC

   Serial number : 0294
   Calibrated on : 28-Jun-22
   C1            : -4.258985e+004
   C2            : 1.749594e-001
   C3            : 1.368020e-002
   D1            : 3.936700e-002
   D2            : 0.000000e+000
   T1            : 3.021237e+001
   T2            : -2.856130e-004
   T3            : 4.591050e-006
   T4            : 1.633320e-009
   T5            : 0.000000e+000
   Slope         : 0.99998843
   Offset        : 1.00805
   AD590M        : 1.279180e-002
   AD590B        : -9.448050e+000

4) Frequency 3, Temperature, 2

   Serial number : 5545
   Calibrated on : 12-Apr-22
   G             : 4.31344074e-003
   H             : 6.26377384e-004
   I             : 1.93525259e-005
   J             : 1.44189131e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000

5) Frequency 4, Conductivity, 2
```

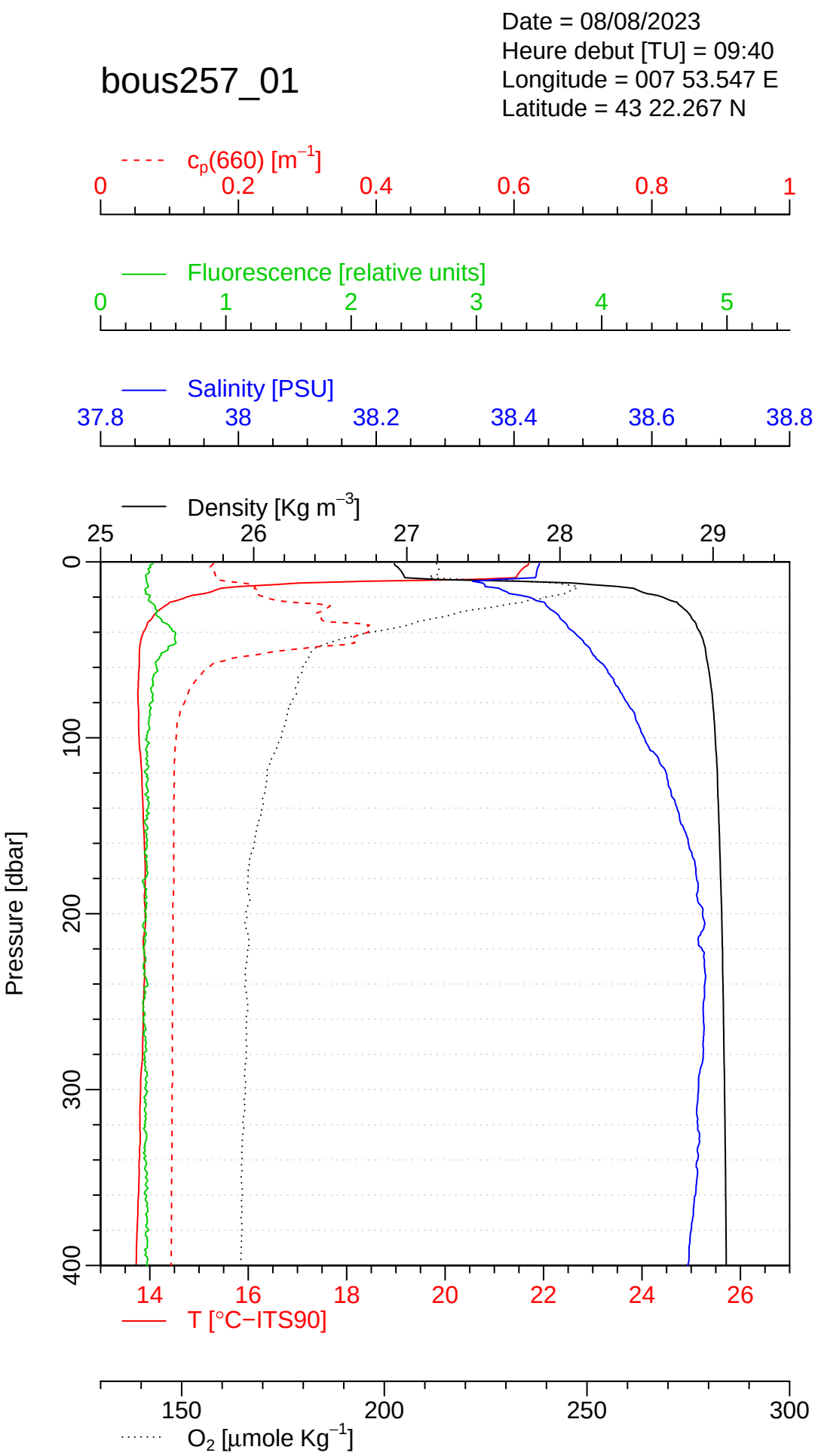
```
   Serial number : 4097
   Calibrated on : 23-Mar-22
   G             : -9.93827440e+000
   H             : 1.22512976e+000
   I             : -2.11436380e-003
   J             : 2.09010787e-004
   CTcor         : 3.2500e-006
   CPcor         : -9.57000000e-008
   Slope         : 1.00000000
   Offset        : 0.00000

6) A/D voltage 0, Oxygen, SBE 43

   Serial number : 0033
   Calibrated on : 10-Feb-23
   Equation      : Sea-Bird
   Soc           : 3.57530e-001
   Offset        : -6.80100e-001
   A             : -3.53190e-003
   B             : 1.45090e-004
   C             : -2.11490e-006
   E             : 3.60000e-002
   Tau20         : 1.38000e+000
   D1            : 1.92634e-004
   D2            : -4.64803e-002
   H1            : -3.30000e-002
   H2            : 5.00000e+003
   H3            : 1.45000e+003

7) A/D voltage 1, Free

8) A/D voltage 2, Fluorometer, Chelsea Aqua 3

   Serial number : 088-094
   Calibrated on : 12-Nov-2015
   VB            : 0.311200
   V1            : 2.082900
   Vacetone      : 0.434600
   Scale factor  : 1.000000
   Slope         : 1.000000
   Offset        : 0.000000

9) A/D voltage 3, Transmissometer, WET Labs C-Star

   Serial number : 887-DR
   Calibrated on : 04-mai-2023
   M             : 21.3128
   B             : -0.1279
   Path length   : 0.250

10) A/D voltage 4, User Polynomial

    Serial number : 171
    Calibrated on : 19May2014
    Sensor name   : RINKOIII_DO
    A0            : 0.00000000
    A1            : 1.00000000
    A2            : 0.00000000
    A3            : 0.00000000

11) A/D voltage 5, User Polynomial, 2

    Serial number : 171
    Calibrated on : 12May2014
    Sensor name   : RINKOIII_Temp
    A0            : -5.25367500
    A1            : 16.66254000
    A2            : -2.13105300
    A3            : 0.45564880

12) A/D voltage 6, Altimeter

    Serial number : 310799
    Calibrated on : 19-Oct-16
    Scale factor  : 15.000
```

Offset : 0.000

13) A/D voltage 7, Free

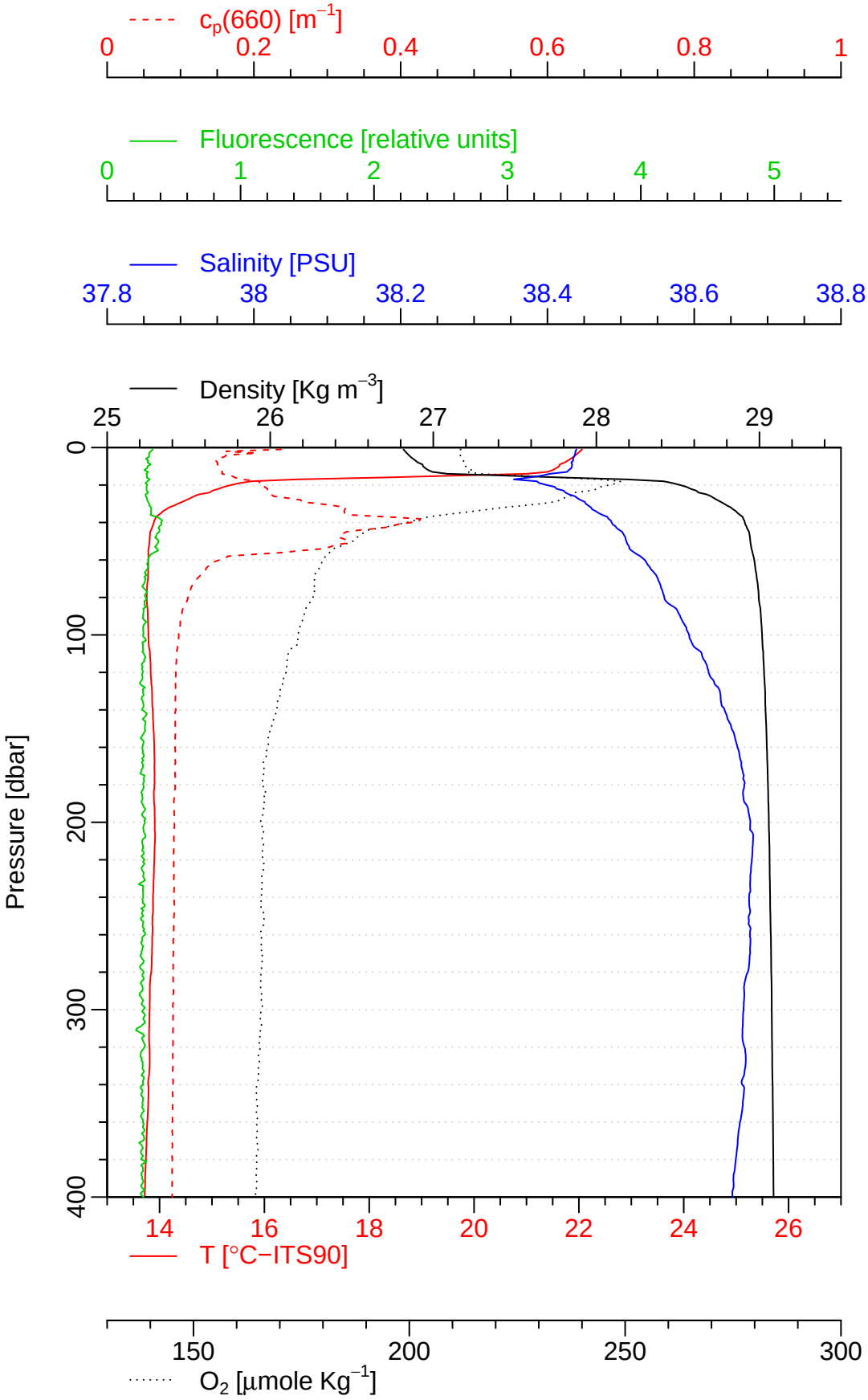
Scan length : 30


BOUSSOLE #257
August 2023
7°00'E
7°15'E
7°30'E
7°45'E
8°00'E
44°00'N
43°45'N
43°30'N
43°15'N
43°00'N
-100
-250
-500
-1000
-2000
Dyfamed
ODAS
BOUSSOLE
7°51'E
7°54'E
7°57'E
43°24'N
43°21'N
BOUS257_02
BOUS257_01
07 08
07 08 2023
GMT 2023 Oct 24 16:21:54


bous257_01
Date = 08/08/2023
Heure debut [TU] = 09:40
Longitude = 007 53.547 E
Latitude = 43 22.267 N
c_p(660) [m^-1]
0
0.2
0.4
0.6
0.8
1
Fluorescence [relative units]
0
1
2
3
4
5
Salinity [PSU]
37.8
38
38.2
38.4
38.6
38.8
Density [Kg m^-3]
25
26
27
28
29
Pressure [dbar]
0
100
200
300
400
14
16
18
20
22
24
26
T [°C−ITS90]
150
200
250
300
O2 [µmole Kg^-1]

bous257_02

Date = 08/08/2023
Heure debut [TU] = 12:15
Longitude = 007 53.558 E
Latitude = 43 22.349 N



Date: 01/12/2024

Instrument configuration file: D:\Melek\boussole\Data\CTD\data&process\2023\B257\raw\BOUS257_01.XMLCON

Configuration report for SBE 911plus/917plus CTD

```
Frequency channels suppressed : 2
Voltage words suppressed      : 1
Computer interface            : RS-232C
Deck unit                     : SBE11plus Firmware Version >= 5.0
Scans to average              : 1
NMEA position data added      : No
NMEA depth data added         : No
NMEA time added               : No
Surface PAR voltage added     : No
Scan time added               : No
```

1) Frequency 0, Temperature

```
   Serial number : 1539
   Calibrated on : 24-May-22
   G             : 4.83431104e-003
   H             : 6.67874820e-004
   I             : 2.35394781e-005
   J             : 1.71076968e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

2) Frequency 1, Conductivity

```
   Serial number : 2059
   Calibrated on : 05-Apr-22
   G             : -9.99272055e+000
   H             : 1.35964301e+000
   I             : -4.53815184e-003
   J             : 4.02327337e-004
   CTcor         : 3.2500e-006
   CPcor         : -9.57000000e-008
   Slope         : 1.00000000
   Offset        : 0.00000
```

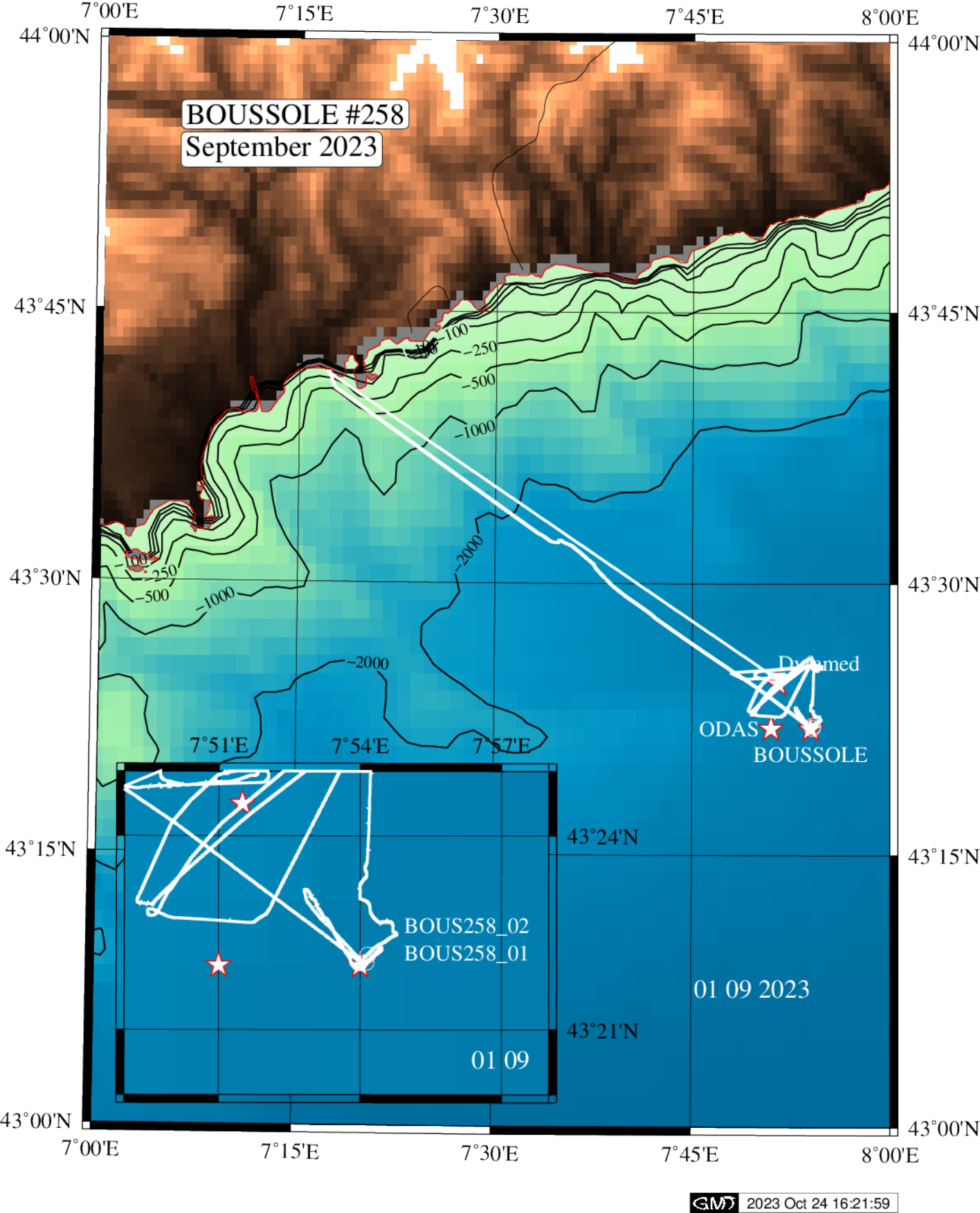
3) Frequency 2, Pressure, Digiquartz with TC

```
   Serial number : 0329
   Calibrated on : 04-Dec-09 (corr May-2017)
   C1            : -4.499631e+004
   C2            : 4.598757e-001
   C3            : 1.505020e-002
   D1            : 3.936600e-002
   D2            : 0.000000e+000
   T1            : 3.004570e+001
   T2            : -1.880753e-004
   T3            : 4.727060e-006
   T4            : -1.923520e-009
   T5            : 0.000000e+000
   Slope         : 0.99996509
   Offset        : -3.63016
   AD590M        : 1.280100e-002
   AD590B        : -9.240166e+000
```

4) A/D voltage 0, Oxygen, SBE 43

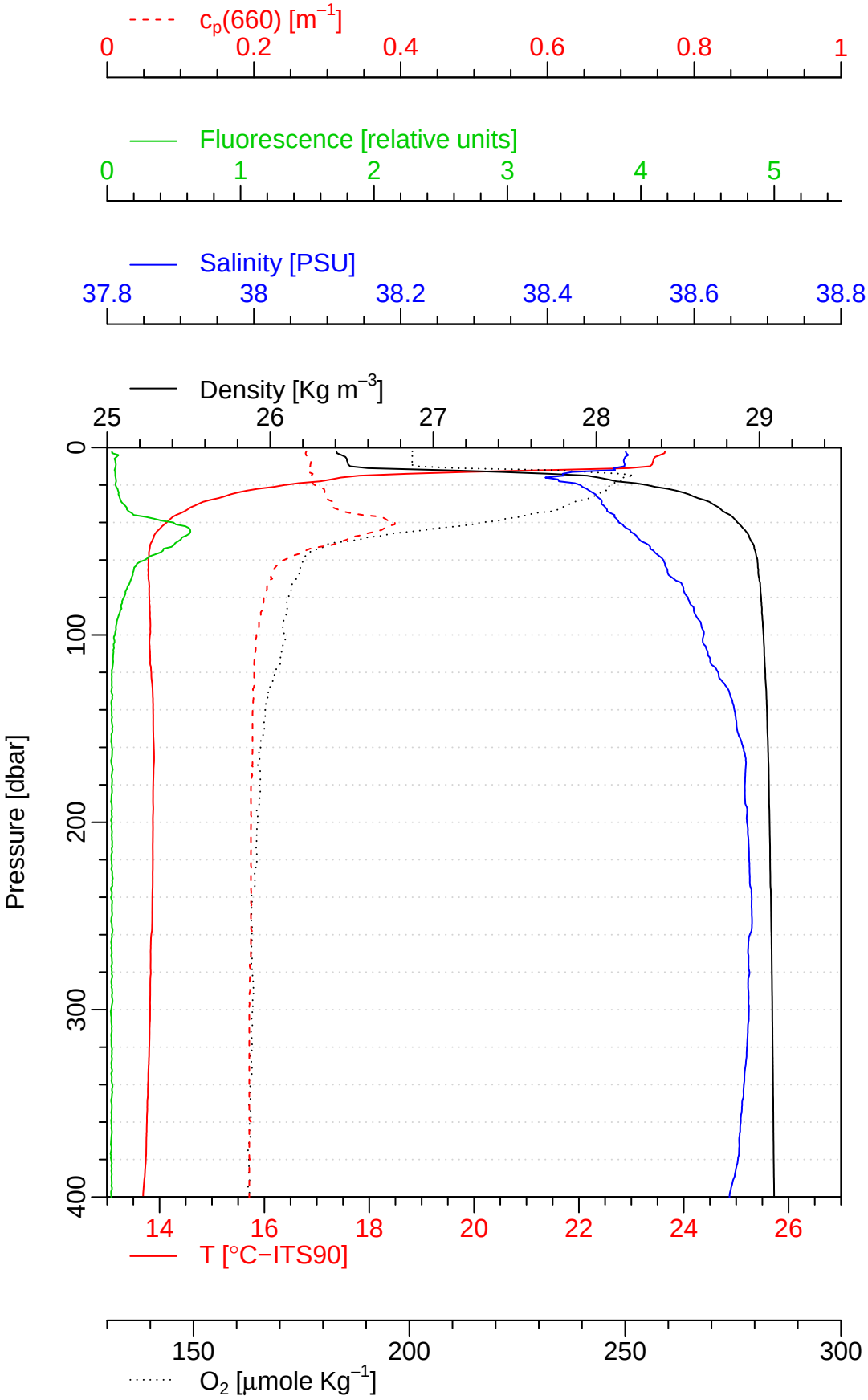
```
   Serial number : 0378
   Calibrated on : 18-May-21
   Equation      : Sea-Bird
   Soc           : 3.60130e-001
   Offset        : -6.52900e-001
   A             : -4.74250e-003
   B             : 2.16910e-004
   C             : -3.37400e-006
   E             : 3.60000e-002
   Tau20         : 1.21000e+000
   D1            : 1.92634e-004
```

```
   D2            : -4.64803e-002
   H1            : -3.30000e-002
   H2            : 5.00000e+003
   H3            : 1.45000e+003

5) A/D voltage 1, Free

6) A/D voltage 2, Fluorometer, Chelsea Aqua 3

   Serial number : 088-193
   Calibrated on : 11-jul-2019
   VB            : 0.406700
   V1            : 1.761800
   Vacetone      : 0.683330
   Scale factor  : 1.000000
   Slope         : 1.000000
   Offset        : -0.260000

7) A/D voltage 3, Free

8) A/D voltage 4, Transmissometer, WET Labs C-Star

   Serial number : 373-DR
   Calibrated on : 12-oct-2021
   M             : 21.7581
   B             : -1.2837
   Path length   : 0.250

9) A/D voltage 5, Free

Scan length                  : 21
```


BOUSSOLE #258
September 2023
7°00'E
7°15'E
7°30'E
7°45'E
8°00'E
44°00'N
43°45'N
43°30'N
43°15'N
43°00'N
-100
-250
-500
-1000
-2000
Dynamed
ODAS
BOUSSOLE
7°51'E
7°54'E
7°57'E
43°24'N
43°21'N
BOUS258_02
BOUS258_01
01 09
01 09 2023
GMT 2023 Oct 24 16:21:59

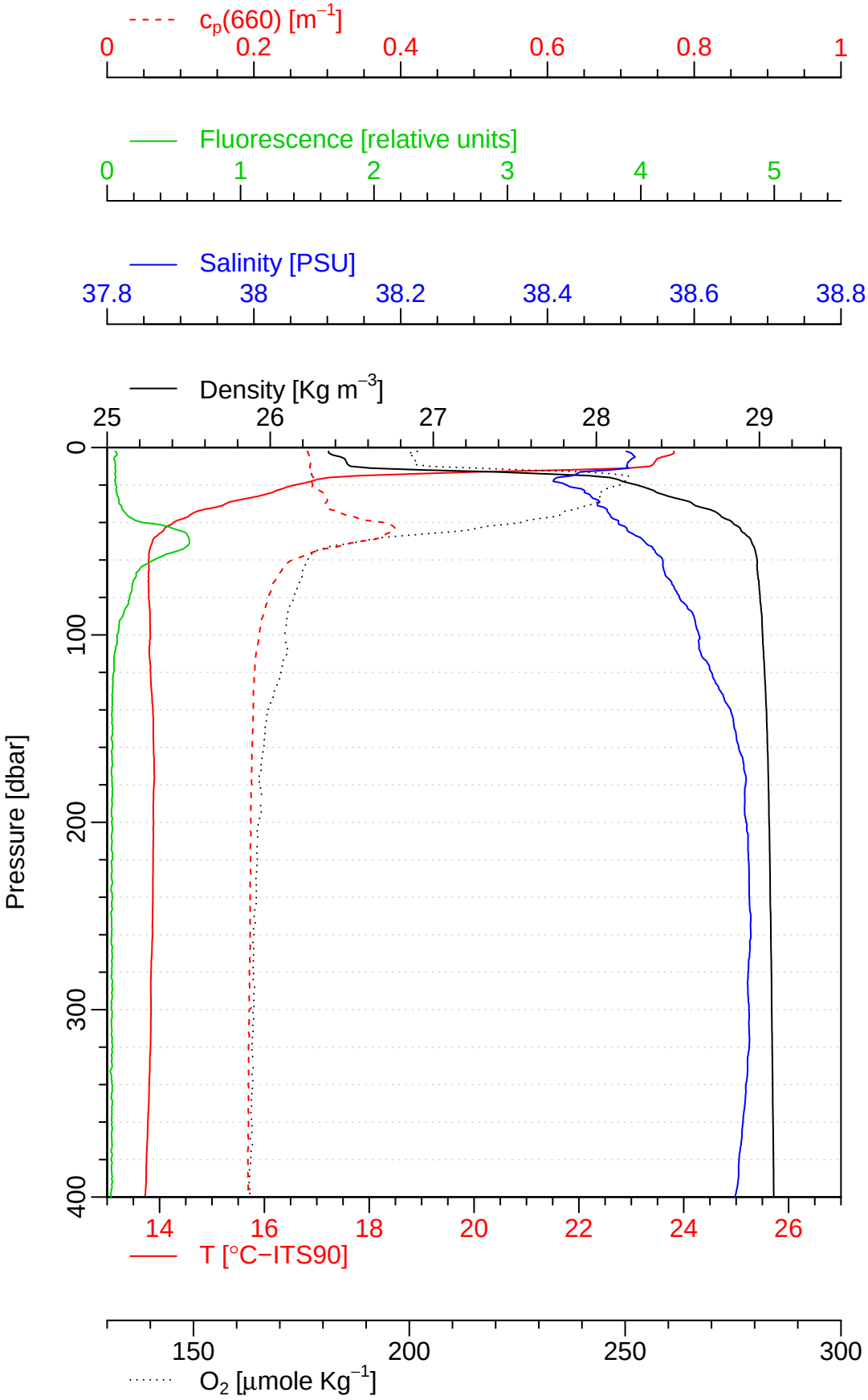
bous258_01

Date = 01/09/2023
Heure debut [TU] = 10:32
Longitude = 007 54.130 E
Latitude = 43 22.042 N



bous258_02

Date = 01/09/2023
Heure debut [TU] = 12:41
Longitude = 007 54.161 E
Latitude = 43 22.160 N



Date: 01/12/2024

Instrument configuration file: D:\Melek\boussole\Data\CTD\data&process\2023\B258\raw\BOUS258_01.XMLCON

Configuration report for SBE 911plus/917plus CTD

```
Frequency channels suppressed : 0
Voltage words suppressed      : 0
Computer interface            : RS-232C
Deck unit                     : SBE11plus Firmware Version >= 5.0
Scans to average              : 1
NMEA position data added      : Yes
NMEA depth data added         : No
NMEA time added               : No
NMEA device connected to      : PC
Surface PAR voltage added     : No
Scan time added               : No
```

1) Frequency 0, Temperature

```
   Serial number : 2473
   Calibrated on : 24-Feb-23
   G             : 4.36741613e-003
   H             : 6.43394319e-004
   I             : 2.35326186e-005
   J             : 2.26161510e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

2) Frequency 1, Conductivity

```
   Serial number : 2929
   Calibrated on : 19-Jan-23
   G             : -1.05974119e+001
   H             : 1.41947085e+000
   I             : 7.31552568e-004
   J             : 1.92703589e-005
   CTcor         : 3.2500e-006
   CPcor         : -9.57000000e-008
   Slope         : 1.00000000
   Offset        : 0.00000
```

3) Frequency 2, Pressure, Digiquartz with TC

```
   Serial number : 0294
   Calibrated on : 28-Jun-22
   C1            : -4.258985e+004
   C2            : 1.749594e-001
   C3            : 1.368020e-002
   D1            : 3.936700e-002
   D2            : 0.000000e+000
   T1            : 3.021237e+001
   T2            : -2.856130e-004
   T3            : 4.591050e-006
   T4            : 1.633320e-009
   T5            : 0.000000e+000
   Slope         : 0.99998843
   Offset        : 1.00805
   AD590M        : 1.279180e-002
   AD590B        : -9.448050e+000
```

4) Frequency 3, Temperature, 2

```
   Serial number : 5545
   Calibrated on : 12-Apr-22
   G             : 4.31344074e-003
   H             : 6.26377384e-004
   I             : 1.93525259e-005
   J             : 1.44189131e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

5) Frequency 4, Conductivity, 2

```
Serial number : 4097
Calibrated on : 23-Mar-22
G             : -9.93827440e+000
H             : 1.22512976e+000
I             : -2.11436380e-003
J             : 2.09010787e-004
CTcor         : 3.2500e-006
CPcor         : -9.57000000e-008
Slope         : 1.00000000
Offset        : 0.00000
```

6) A/D voltage 0, Oxygen, SBE 43

```
Serial number : 0033
Calibrated on : 10-Feb-23
Equation      : Sea-Bird
Soc           : 3.57530e-001
Offset        : -6.80100e-001
A             : -3.53190e-003
B             : 1.45090e-004
C             : -2.11490e-006
E             : 3.60000e-002
Tau20         : 1.38000e+000
D1            : 1.92634e-004
D2            : -4.64803e-002
H1            : -3.30000e-002
H2            : 5.00000e+003
H3            : 1.45000e+003
```

7) A/D voltage 1, Free

8) A/D voltage 2, Fluorometer, Chelsea Aqua 3

```
Serial number : 088-094
Calibrated on : 12-Nov-2015
VB            : 0.311200
V1            : 2.082900
Vacetone      : 0.434600
Scale factor  : 1.000000
Slope         : 1.000000
Offset        : 0.000000
```

9) A/D voltage 3, Transmissometer, WET Labs C-Star

```
Serial number : 887-DR
Calibrated on : 04-mai-2023
M             : 21.3128
B             : -0.1279
Path length   : 0.250
```

10) A/D voltage 4, User Polynomial

```
Serial number : 171
Calibrated on : 19May2014
Sensor name   : RINKOIII_DO
A0            : 0.00000000
A1            : 1.00000000
A2            : 0.00000000
A3            : 0.00000000
```

11) A/D voltage 5, User Polynomial, 2

```
Serial number : 171
Calibrated on : 12May2014
Sensor name   : RINKOIII_Temp
A0            : -5.25367500
A1            : 16.66254000
A2            : -2.13105300
A3            : 0.45564880
```

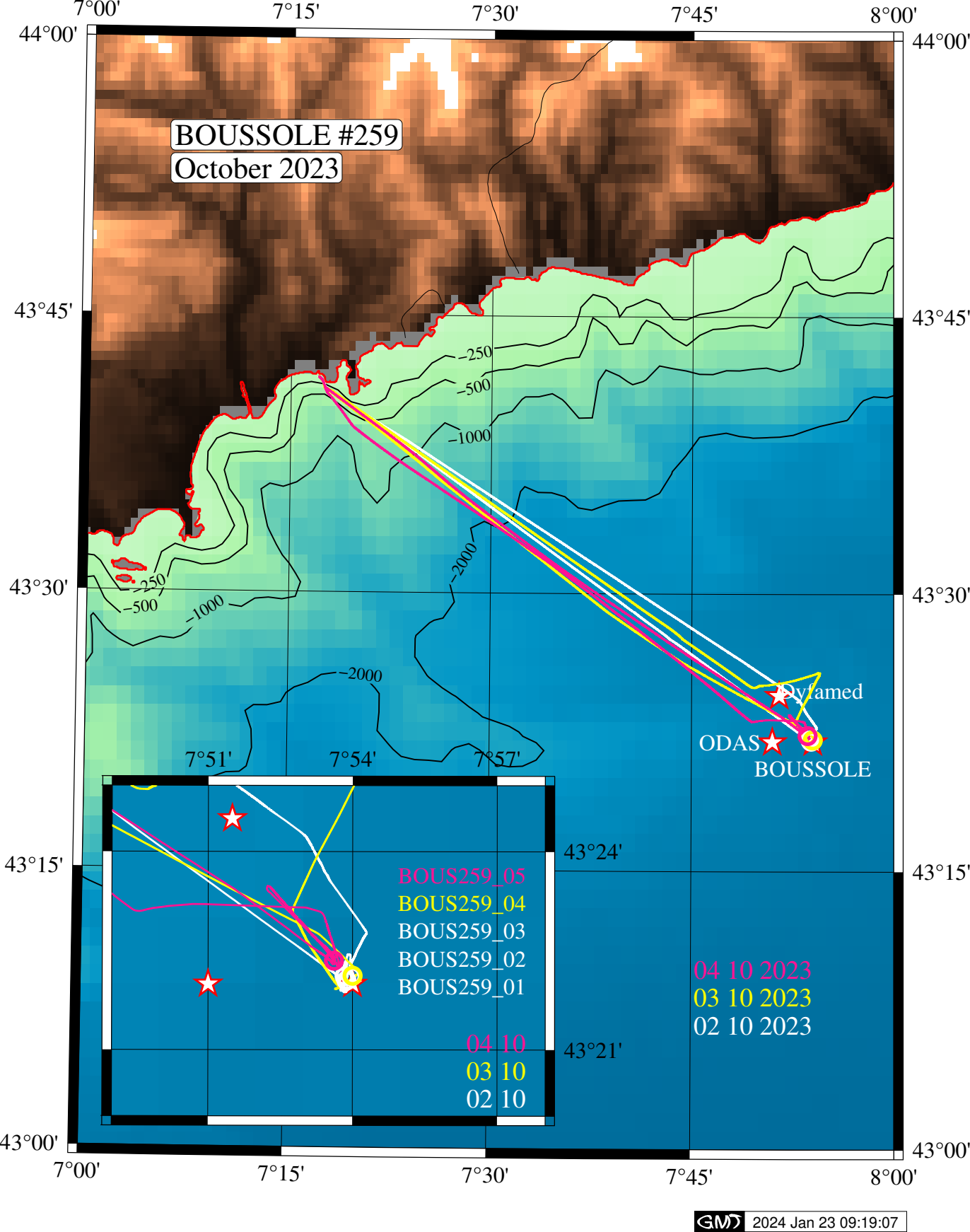
12) A/D voltage 6, Altimeter

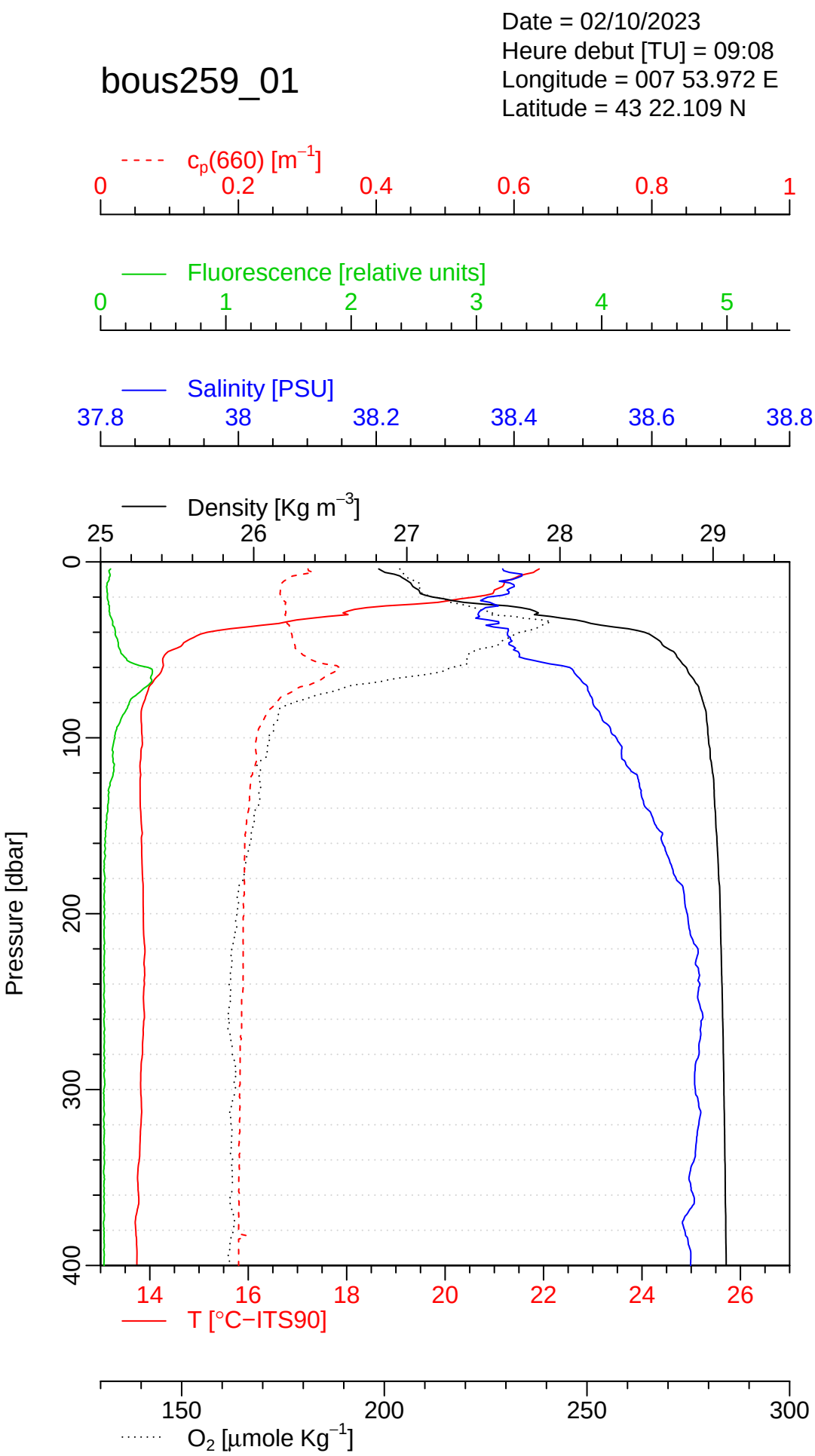
```
Serial number : 310799
Calibrated on : 19-Oct-16
```

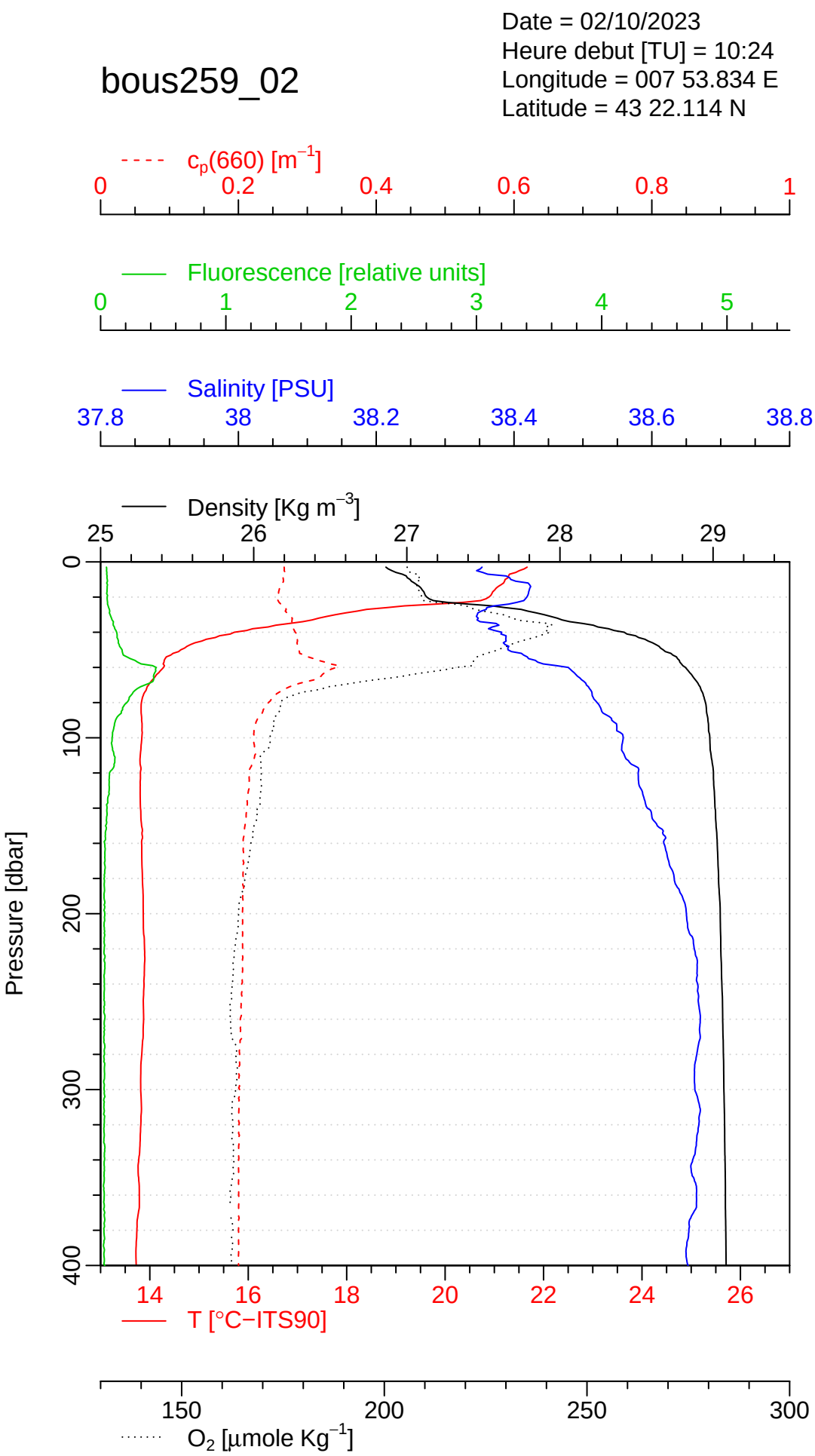
Scale factor : 15.000
Offset : 0.000

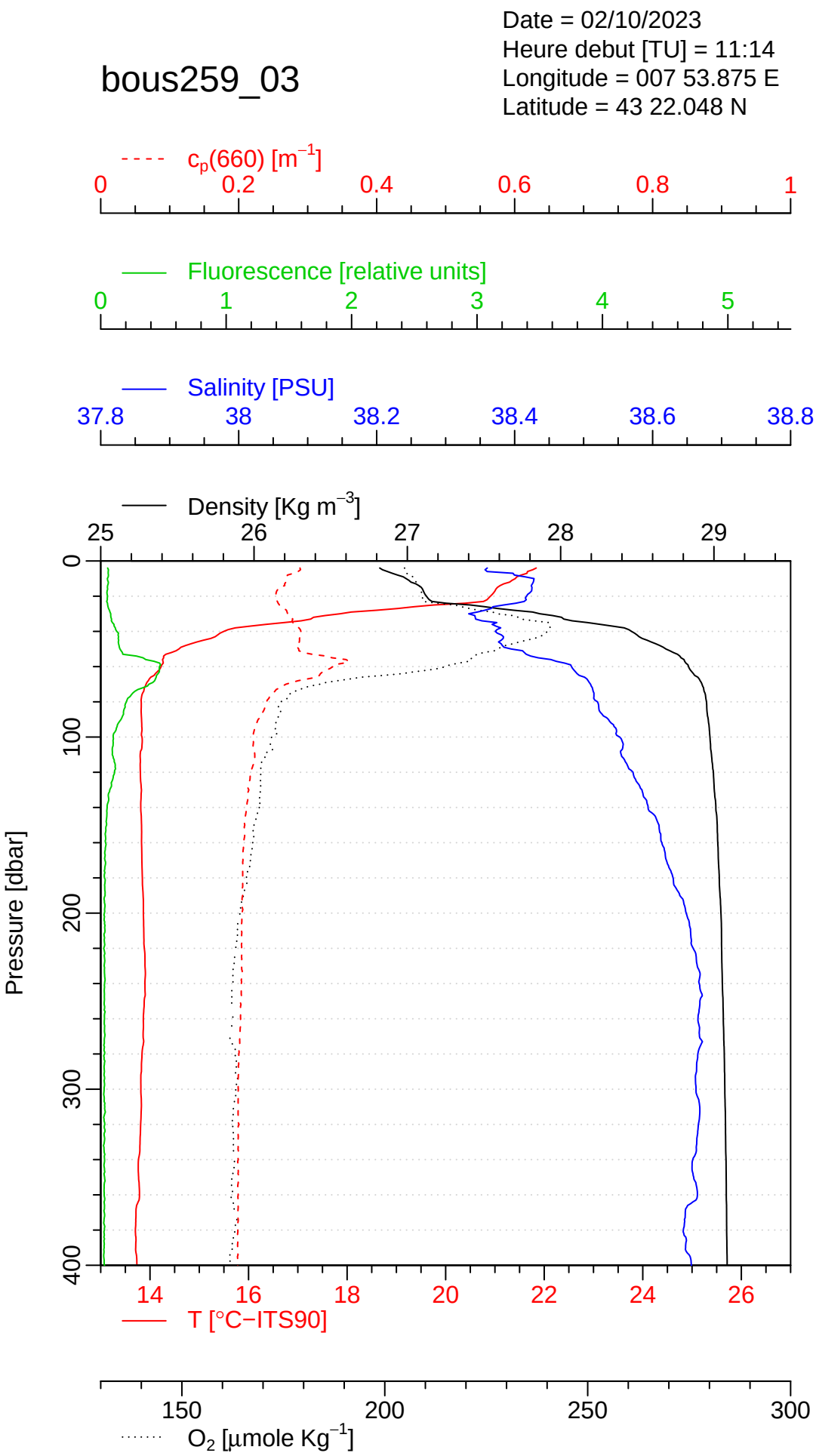
13) A/D voltage 7, Free

Scan length : 37


BOUSSOLE #259
October 2023
7°00'
7°15'
7°30'
7°45'
8°00'
44°00'
43°45'
43°30'
43°15'
43°00'
-250
-500
-1000
-2000
Dyfamed
ODAS
BOUSSOLE
7°51'
7°54'
7°57'
43°24'
43°21'
BOUS259_05
BOUS259_04
BOUS259_03
BOUS259_02
BOUS259_01
04 10
03 10
02 10
04 10 2023
03 10 2023
02 10 2023
GMT
2024 Jan 23 09:19:07

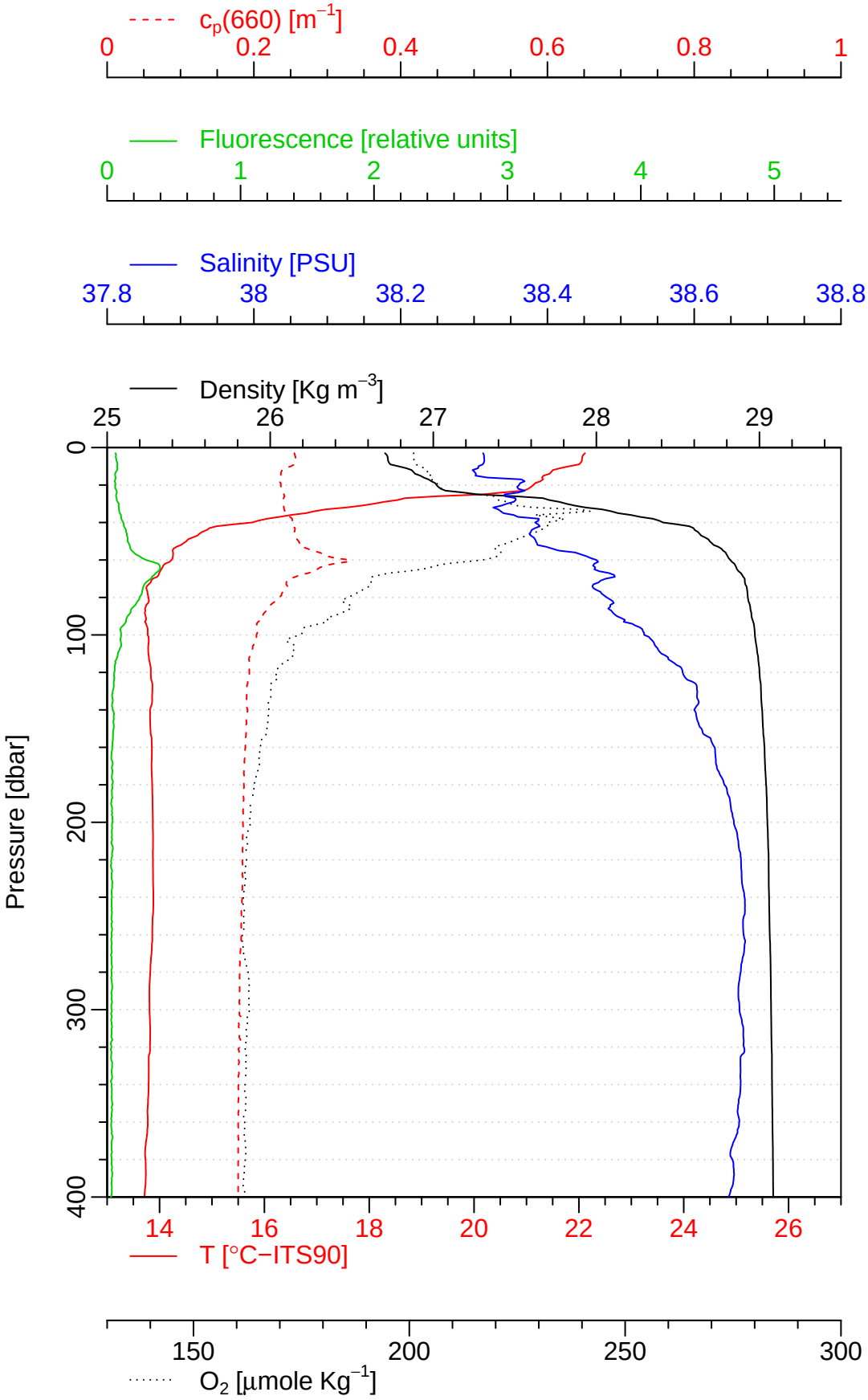

bous259_01
Date = 02/10/2023
Heure debut [TU] = 09:08
Longitude = 007 53.972 E
Latitude = 43 22.109 N
c_p(660) [m^-1]
0
0.2
0.4
0.6
0.8
1
Fluorescence [relative units]
0
1
2
3
4
5
Salinity [PSU]
37.8
38
38.2
38.4
38.6
38.8
Density [Kg m^-3]
25
26
27
28
29
Pressure [dbar]
0
100
200
300
400
14
16
18
20
22
24
26
T [°C−ITS90]
150
200
250
300
O2 [µmole Kg^-1]


bous259_02
Date = 02/10/2023
Heure debut [TU] = 10:24
Longitude = 007 53.834 E
Latitude = 43 22.114 N
c_p(660) [m^-1]
0 0.2 0.4 0.6 0.8 1
Fluorescence [relative units]
0 1 2 3 4 5
Salinity [PSU]
37.8 38 38.2 38.4 38.6 38.8
Density [Kg m^-3]
25 26 27 28 29
Pressure [dbar]
0 100 200 300 400
14 16 18 20 22 24 26
T [°C−ITS90]
150 200 250 300
O2 [µmole Kg^-1]


bous259_03
Date = 02/10/2023
Heure debut [TU] = 11:14
Longitude = 007 53.875 E
Latitude = 43 22.048 N
c_p(660) [m^-1]
0 0.2 0.4 0.6 0.8 1
Fluorescence [relative units]
0 1 2 3 4 5
Salinity [PSU]
37.8 38 38.2 38.4 38.6 38.8
Density [Kg m^-3]
25 26 27 28 29
Pressure [dbar]
0 100 200 300 400
14 16 18 20 22 24 26
T [°C−ITS90]
150 200 250 300
O2 [µmole Kg^-1]

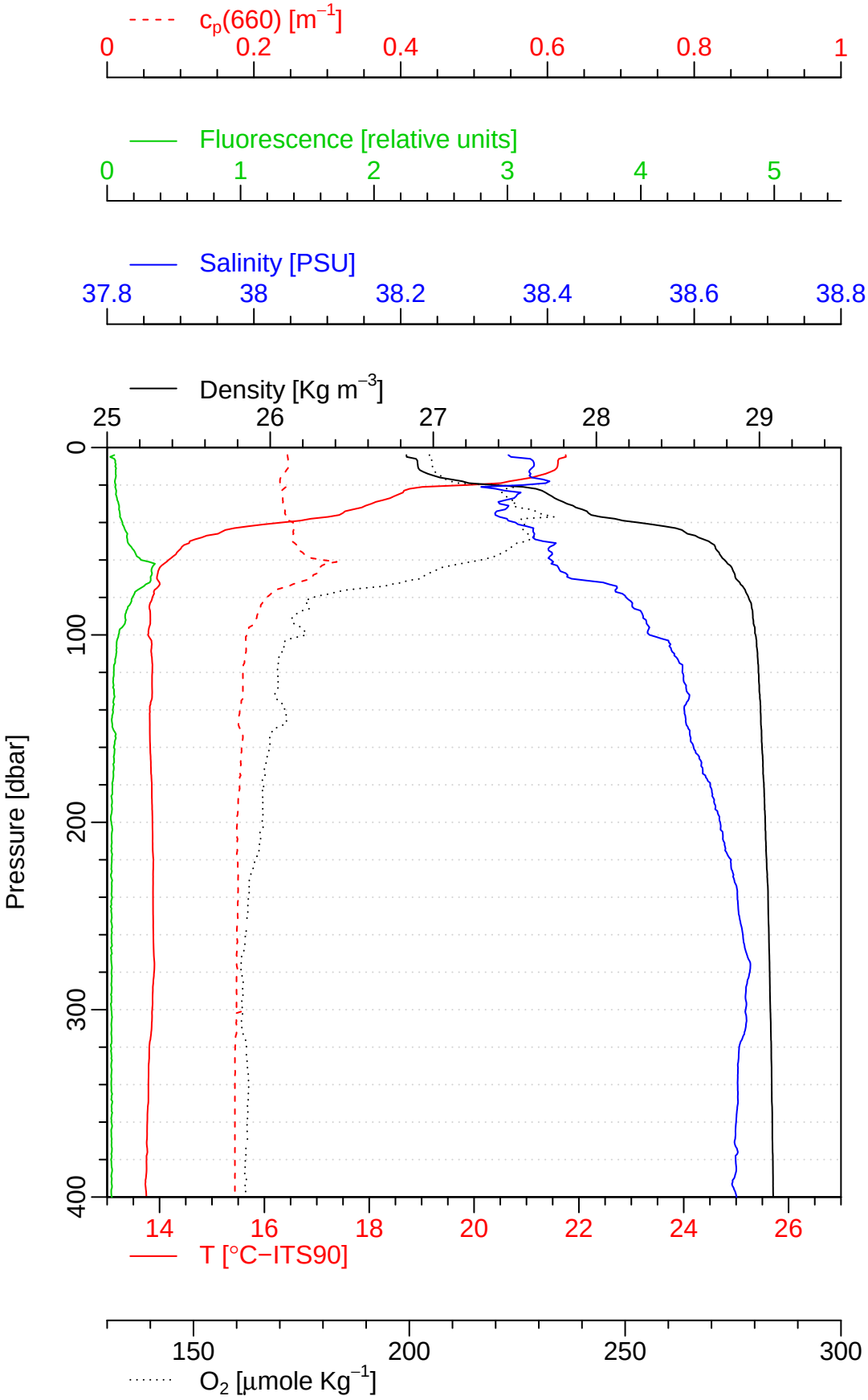
bous259_04

Date = 03/10/2023
Heure debut [TU] = 09:01
Longitude = 007 54.000 E
Latitude = 43 22.122 N



bous259_05

Date = 04/10/2023
Heure debut [TU] = 10:21
Longitude = 007 53.614 E
Latitude = 43 22.351 N



Date: 01/12/2024

Instrument configuration file: D:\Melek\boussole\Data\CTD\data&process\2023\B259\raw\BOUS259_01.XMLCON

Configuration report for SBE 911plus/917plus CTD

```
Frequency channels suppressed : 0
Voltage words suppressed      : 0
Computer interface            : RS-232C
Deck unit                     : SBE11plus Firmware Version >= 5.0
Scans to average              : 1
NMEA position data added      : Yes
NMEA depth data added         : No
NMEA time added               : No
NMEA device connected to      : PC
Surface PAR voltage added     : No
Scan time added               : No
```

1) Frequency 0, Temperature

```
   Serial number : 2473
   Calibrated on : 24-Feb-23
   G             : 4.36741613e-003
   H             : 6.43394319e-004
   I             : 2.35326186e-005
   J             : 2.26161510e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

2) Frequency 1, Conductivity

```
   Serial number : 2929
   Calibrated on : 19-Jan-23
   G             : -1.05974119e+001
   H             : 1.41947085e+000
   I             : 7.31552568e-004
   J             : 1.92703589e-005
   CTcor         : 3.2500e-006
   CPcor         : -9.57000000e-008
   Slope         : 1.00000000
   Offset        : 0.00000
```

3) Frequency 2, Pressure, Digiquartz with TC

```
   Serial number : 0294
   Calibrated on : 28-Jun-22
   C1            : -4.258985e+004
   C2            : 1.749594e-001
   C3            : 1.368020e-002
   D1            : 3.936700e-002
   D2            : 0.000000e+000
   T1            : 3.021237e+001
   T2            : -2.856130e-004
   T3            : 4.591050e-006
   T4            : 1.633320e-009
   T5            : 0.000000e+000
   Slope         : 0.99998843
   Offset        : 1.00805
   AD590M        : 1.279180e-002
   AD590B        : -9.448050e+000
```

4) Frequency 3, Temperature, 2

```
   Serial number : 5545
   Calibrated on : 12-Apr-22
   G             : 4.31344074e-003
   H             : 6.26377384e-004
   I             : 1.93525259e-005
   J             : 1.44189131e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

5) Frequency 4, Conductivity, 2

```
Serial number : 4097
Calibrated on : 23-Mar-22
G             : -9.93827440e+000
H             : 1.22512976e+000
I             : -2.11436380e-003
J             : 2.09010787e-004
CTcor         : 3.2500e-006
CPcor         : -9.57000000e-008
Slope         : 1.00000000
Offset        : 0.00000
```

6) A/D voltage 0, Oxygen, SBE 43

```
Serial number : 0033
Calibrated on : 10-Feb-23
Equation      : Sea-Bird
Soc           : 3.57530e-001
Offset        : -6.80100e-001
A             : -3.53190e-003
B             : 1.45090e-004
C             : -2.11490e-006
E             : 3.60000e-002
Tau20         : 1.38000e+000
D1            : 1.92634e-004
D2            : -4.64803e-002
H1            : -3.30000e-002
H2            : 5.00000e+003
H3            : 1.45000e+003
```

7) A/D voltage 1, Free

8) A/D voltage 2, Fluorometer, Chelsea Aqua 3

```
Serial number : 088-094
Calibrated on : 12-Nov-2015
VB            : 0.311200
V1            : 2.082900
Vacetone      : 0.434600
Scale factor  : 1.000000
Slope         : 1.000000
Offset        : 0.000000
```

9) A/D voltage 3, Transmissometer, WET Labs C-Star

```
Serial number : 887-PR
Calibrated on : 04-mai-2023
M             : 21.3128
B             : -0.1279
Path length   : 0.250
```

10) A/D voltage 4, User Polynomial

```
Serial number : 171
Calibrated on : 19May2014
Sensor name   : RINKOIII_DO
A0            : 0.00000000
A1            : 1.00000000
A2            : 0.00000000
A3            : 0.00000000
```

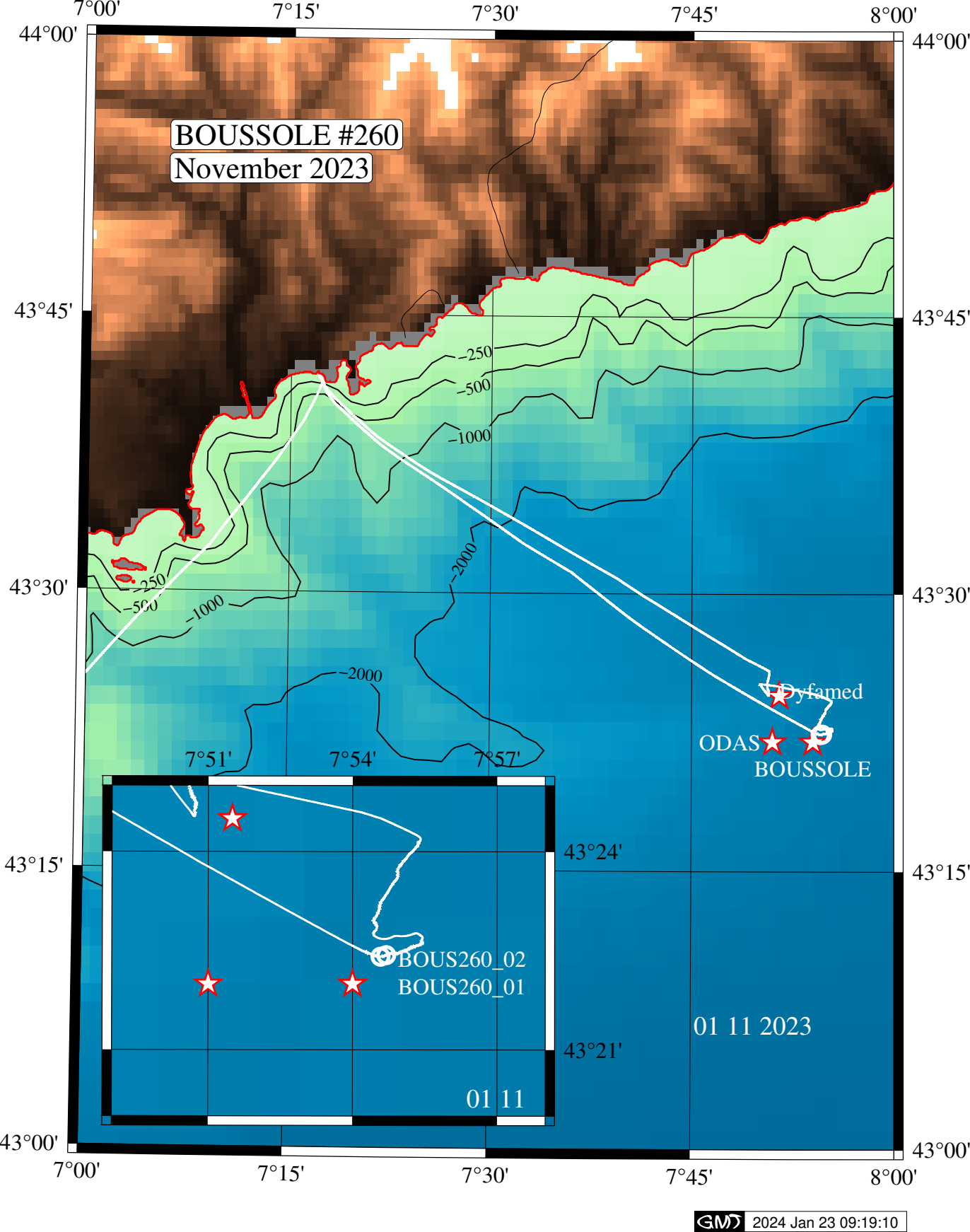
11) A/D voltage 5, User Polynomial, 2

```
Serial number : 171
Calibrated on : 12May2014
Sensor name   : RINKOIII_Temp
A0            : -5.25367500
A1            : 16.66254000
A2            : -2.13105300
A3            : 0.45564880
```

12) A/D voltage 6, Free

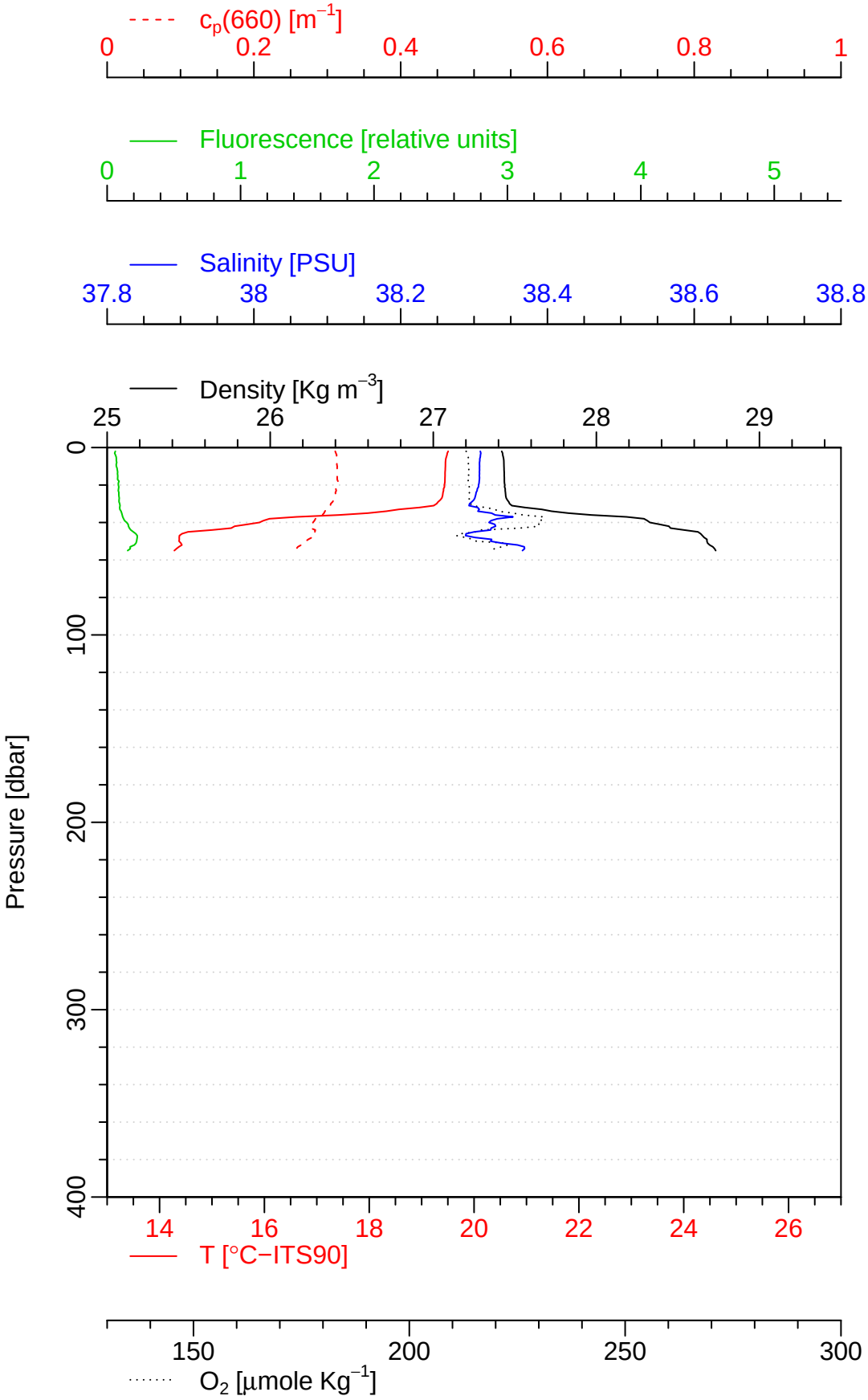
13) A/D voltage 7, Free

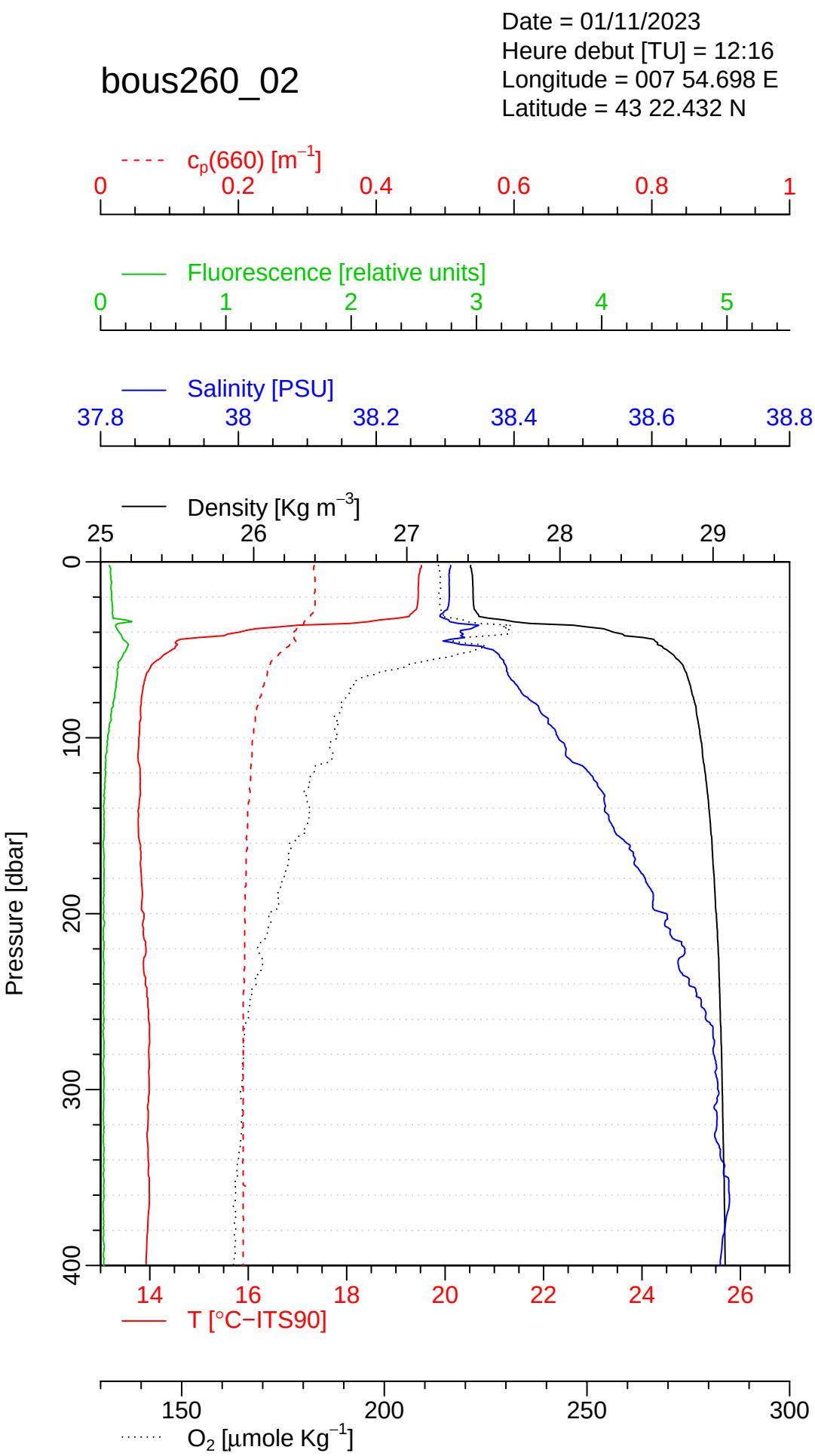
Scan length : 37


BOUSSOLE #260
November 2023
7°00'
7°15'
7°30'
7°45'
8°00'
44°00'
43°45'
43°30'
43°15'
43°00'
-250
-500
-1000
-2000
Dyfamed
ODAS
BOUSSOLE
7°51'
7°54'
7°57'
43°24'
43°21'
BOUS260_02
BOUS260_01
01 11
01 11 2023
GMT
2024 Jan 23 09:19:10

bous260_01

Date = 01/11/2023
Heure debut [TU] = 11:52
Longitude = 007 54.58 E
Latitude = 43 22.41 N




bous260_02
Date = 01/11/2023
Heure debut [TU] = 12:16
Longitude = 007 54.698 E
Latitude = 43 22.432 N
c_p(660) [m^-1]
0
0.2
0.4
0.6
0.8
1
Fluorescence [relative units]
0
1
2
3
4
5
Salinity [PSU]
37.8
38
38.2
38.4
38.6
38.8
Density [Kg m^-3]
25
26
27
28
29
Pressure [dbar]
0
100
200
300
400
14
16
18
20
22
24
26
T [°C−ITS90]
150
200
250
300
O2 [µmole Kg^-1]

Date: 01/12/2024

Instrument configuration file: D:\Melek\boussole\Data\CTD\data&process\2023\B260\raw\bous260_01.XMLCON

Configuration report for SBE 911plus/917plus CTD

```
Frequency channels suppressed : 0
Voltage words suppressed      : 0
Computer interface            : RS-232C
Deck unit                     : SBE11plus Firmware Version >= 5.0
Scans to average              : 1
NMEA position data added      : Yes
NMEA depth data added         : No
NMEA time added               : No
NMEA device connected to      : PC
Surface PAR voltage added     : No
Scan time added               : No
```

1) Frequency 0, Temperature

```
   Serial number : 2473
   Calibrated on : 24-Feb-23
   G             : 4.36741613e-003
   H             : 6.43394319e-004
   I             : 2.35326186e-005
   J             : 2.26161510e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

2) Frequency 1, Conductivity

```
   Serial number : 2929
   Calibrated on : 19-Jan-23
   G             : -1.05974119e+001
   H             : 1.41947085e+000
   I             : 7.31552568e-004
   J             : 1.92703589e-005
   CTcor         : 3.2500e-006
   CPcor         : -9.57000000e-008
   Slope         : 1.00000000
   Offset        : 0.00000
```

3) Frequency 2, Pressure, Digiquartz with TC

```
   Serial number : 0294
   Calibrated on : 28-Jun-22
   C1            : -4.258985e+004
   C2            : 1.749594e-001
   C3            : 1.368020e-002
   D1            : 3.936700e-002
   D2            : 0.000000e+000
   T1            : 3.021237e+001
   T2            : -2.856130e-004
   T3            : 4.591050e-006
   T4            : 1.633320e-009
   T5            : 0.000000e+000
   Slope         : 0.99998843
   Offset        : 1.00805
   AD590M        : 1.279180e-002
   AD590B        : -9.448050e+000
```

4) Frequency 3, Temperature, 2

```
   Serial number : 5545
   Calibrated on : 12-Apr-22
   G             : 4.31344074e-003
   H             : 6.26377384e-004
   I             : 1.93525259e-005
   J             : 1.44189131e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

5) Frequency 4, Conductivity, 2

```
Serial number : 4097
Calibrated on : 23-Mar-22
G             : -9.93827440e+000
H             : 1.22512976e+000
I             : -2.11436380e-003
J             : 2.09010787e-004
CTcor         : 3.2500e-006
CPcor         : -9.57000000e-008
Slope         : 1.00000000
Offset        : 0.00000
```

6) A/D voltage 0, Oxygen, SBE 43

```
Serial number : 0033
Calibrated on : 10-Feb-23
Equation      : Sea-Bird
Soc           : 3.57530e-001
Offset        : -6.80100e-001
A             : -3.53190e-003
B             : 1.45090e-004
C             : -2.11490e-006
E             : 3.60000e-002
Tau20         : 1.38000e+000
D1            : 1.92634e-004
D2            : -4.64803e-002
H1            : -3.30000e-002
H2            : 5.00000e+003
H3            : 1.45000e+003
```

7) A/D voltage 1, Free

8) A/D voltage 2, Fluorometer, Chelsea Aqua 3

```
Serial number : 088-094
Calibrated on : 12-Nov-2015
VB            : 0.311200
V1            : 2.082900
Vacetone      : 0.434600
Scale factor  : 1.000000
Slope         : 1.000000
Offset        : 0.000000
```

9) A/D voltage 3, Transmissometer, WET Labs C-Star

```
Serial number : 887-PR
Calibrated on : 04-mai-2023
M             : 21.3128
B             : -0.1279
Path length   : 0.250
```

10) A/D voltage 4, User Polynomial

```
Serial number : 171
Calibrated on : 19May2014
Sensor name   : RINKOIII_DO
A0            : 0.00000000
A1            : 1.00000000
A2            : 0.00000000
A3            : 0.00000000
```

11) A/D voltage 5, User Polynomial, 2

```
Serial number : 171
Calibrated on : 12May2014
Sensor name   : RINKOIII_Temp
A0            : -5.25367500
A1            : 16.66254000
A2            : -2.13105300
A3            : 0.45564880
```

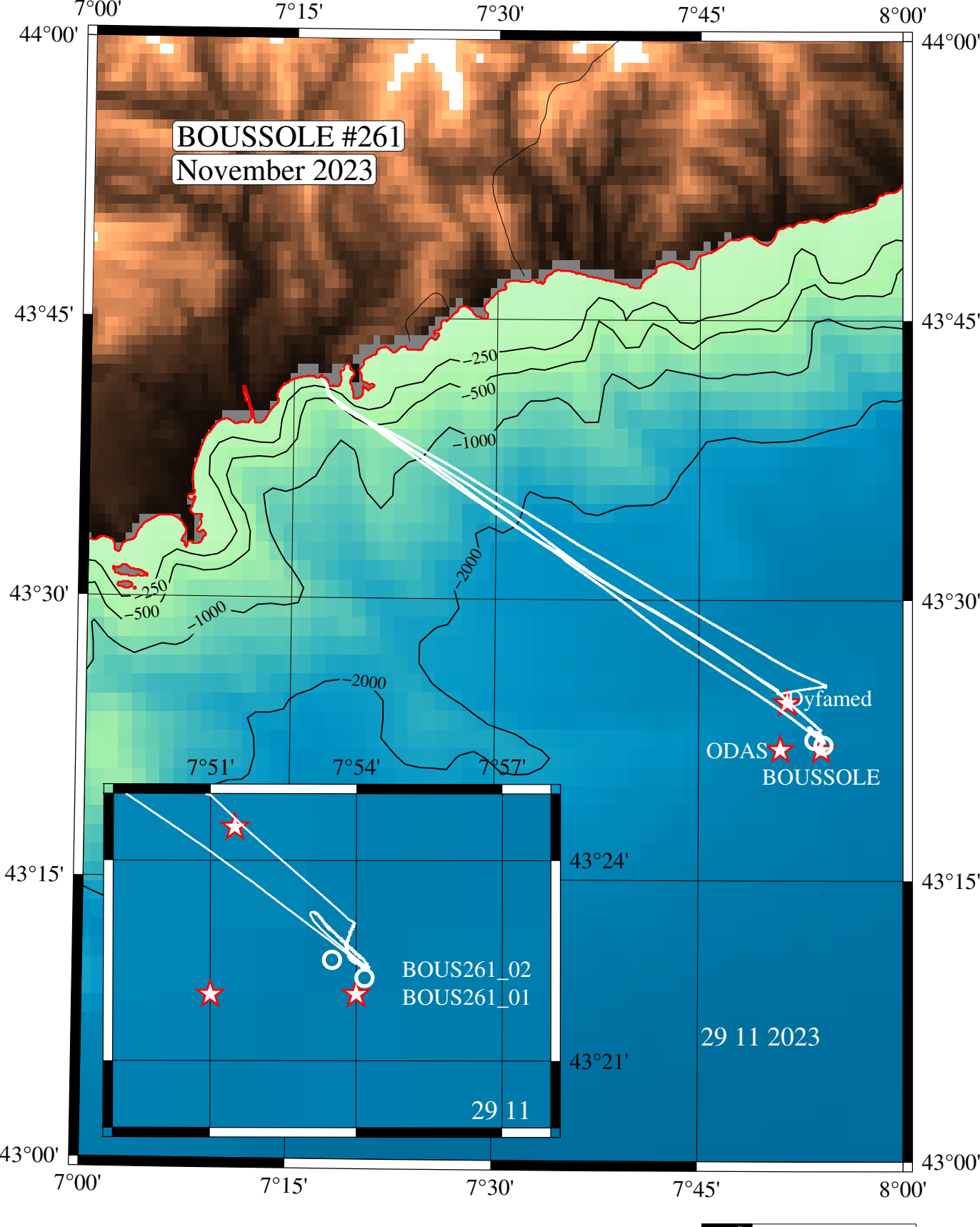
12) A/D voltage 6, Altimeter

```
Serial number : 310799
Calibrated on : 19-Oct-16
```

Scale factor : 15.000
Offset : 0.000

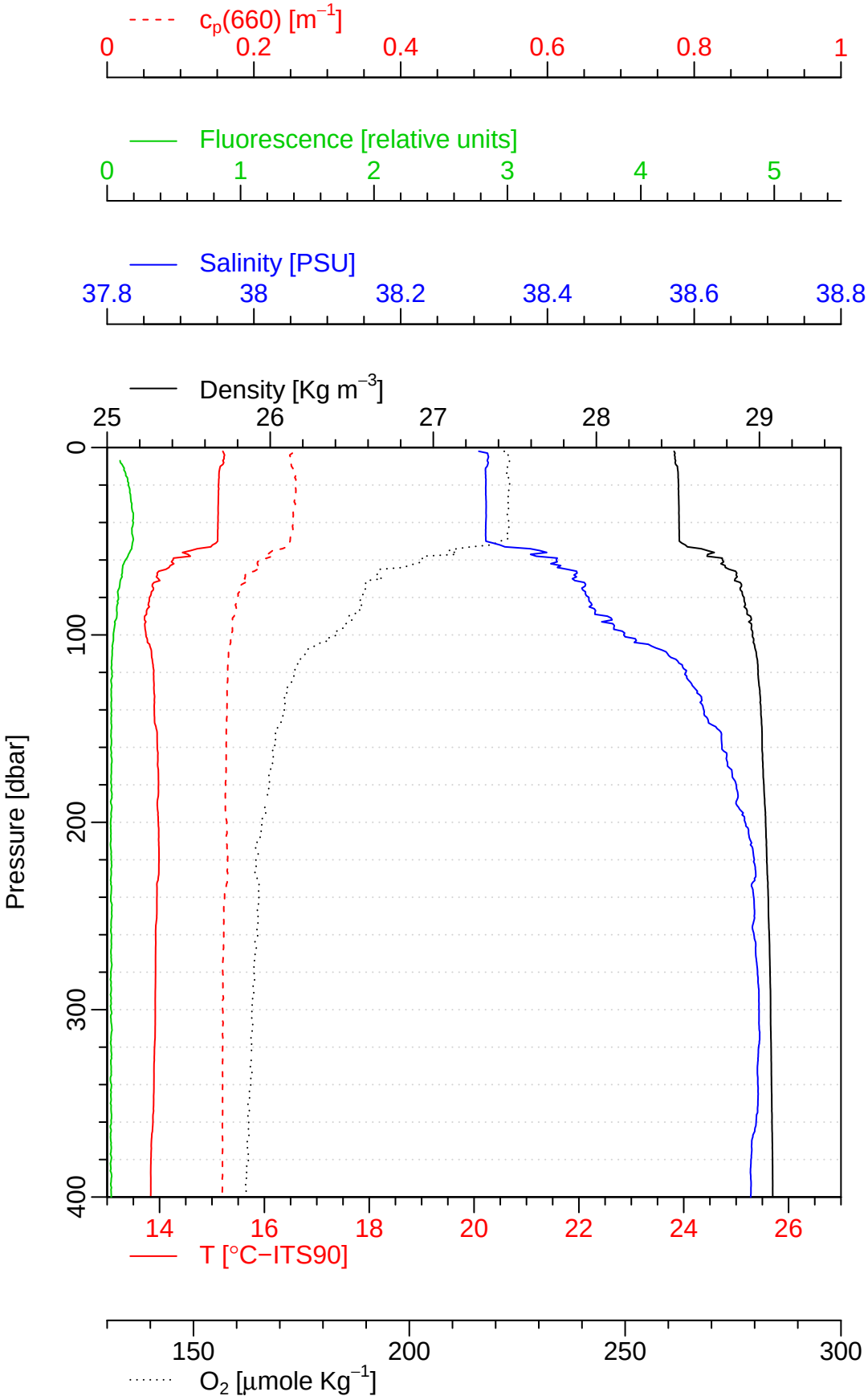
13) A/D voltage 7, Free

Scan length : 37


BOUSSOLE #261
November 2023
7°00'
7°15'
7°30'
7°45'
8°00'
44°00'
43°45'
43°30'
43°15'
43°00'
-250
-500
-1000
-2000
Dyfamed
ODAS
BOUSSOLE
7°51'
7°54'
7°57'
43°24'
43°21'
BOUS261_02
BOUS261_01
29 11
29 11 2023
GMT
2024 Jan 23 09:19:13

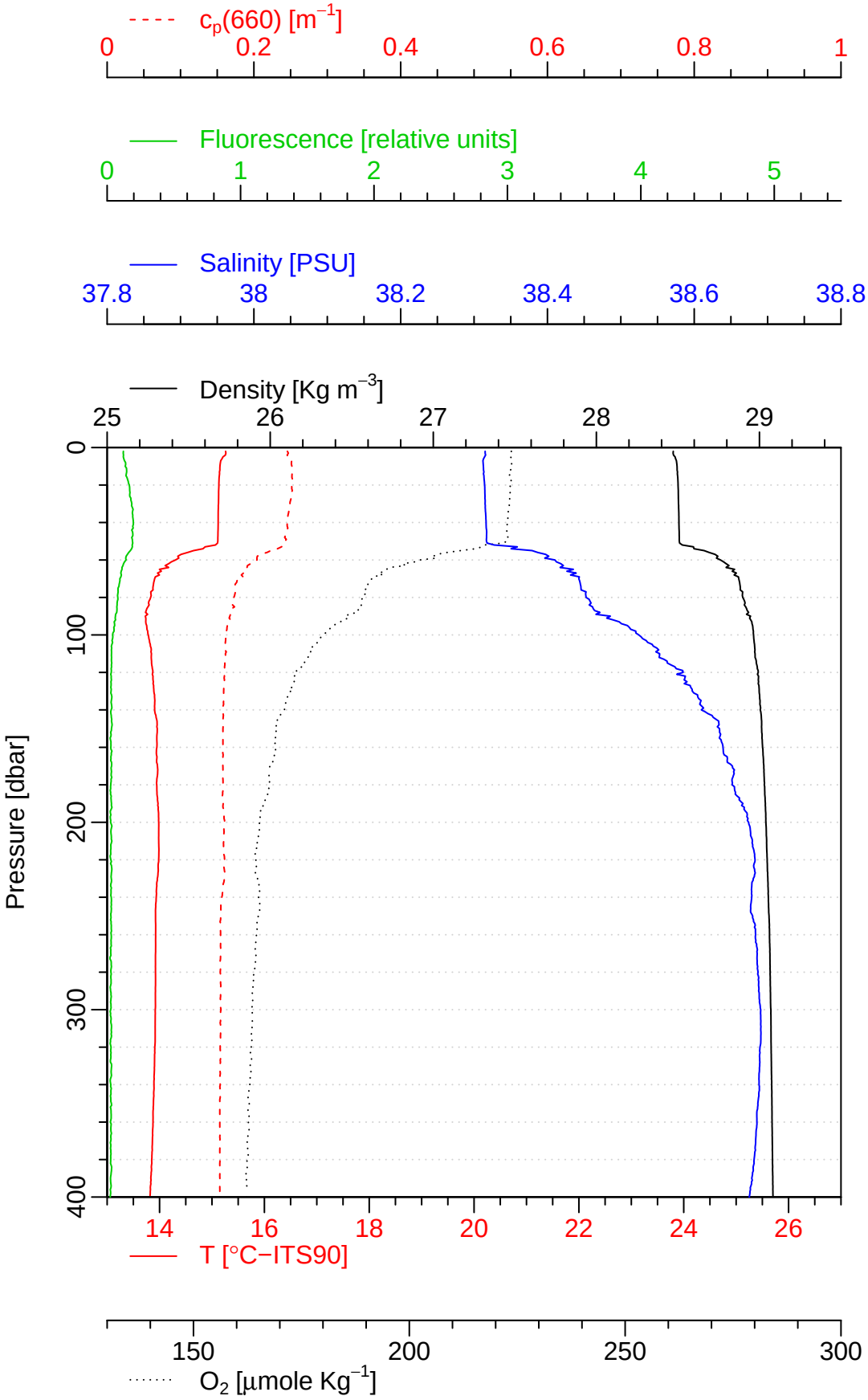
bous261_01

Date = 29/11/2023
Heure debut [TU] = 11:56
Longitude = 007 54.170 E
Latitude = 43 22.242 N



bous261_02

Date = 29/11/2023
Heure debut [TU] = 12:56
Longitude = 007 53.502 E
Latitude = 43 22.514 N



Date: 01/12/2024

Instrument configuration file: D:\Melek\boussole\Data\CTD\data&process\2023\B261\raw\BOUS261_01.XMLCON

Configuration report for SBE 911plus/917plus CTD

```
Frequency channels suppressed : 0
Voltage words suppressed      : 0
Computer interface            : RS-232C
Deck unit                     : SBE11plus Firmware Version >= 5.0
Scans to average              : 1
NMEA position data added      : Yes
NMEA depth data added         : No
NMEA time added               : No
NMEA device connected to      : PC
Surface PAR voltage added     : No
Scan time added               : No
```

1) Frequency 0, Temperature

```
   Serial number : 2473
   Calibrated on : 24-Feb-23
   G             : 4.36741613e-003
   H             : 6.43394319e-004
   I             : 2.35326186e-005
   J             : 2.26161510e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

2) Frequency 1, Conductivity

```
   Serial number : 2929
   Calibrated on : 19-Jan-23
   G             : -1.05974119e+001
   H             : 1.41947085e+000
   I             : 7.31552568e-004
   J             : 1.92703589e-005
   CTcor         : 3.2500e-006
   CPcor         : -9.57000000e-008
   Slope         : 1.00000000
   Offset        : 0.00000
```

3) Frequency 2, Pressure, Digiquartz with TC

```
   Serial number : 0294
   Calibrated on : 28-Jun-22
   C1            : -4.258985e+004
   C2            : 1.749594e-001
   C3            : 1.368020e-002
   D1            : 3.936700e-002
   D2            : 0.000000e+000
   T1            : 3.021237e+001
   T2            : -2.856130e-004
   T3            : 4.591050e-006
   T4            : 1.633320e-009
   T5            : 0.000000e+000
   Slope         : 0.99998843
   Offset        : 1.00805
   AD590M        : 1.279180e-002
   AD590B        : -9.448050e+000
```

4) Frequency 3, Temperature, 2

```
   Serial number : 5545
   Calibrated on : 12-Apr-22
   G             : 4.31344074e-003
   H             : 6.26377384e-004
   I             : 1.93525259e-005
   J             : 1.44189131e-006
   F0            : 1000.000
   Slope         : 1.00000000
   Offset        : 0.0000
```

5) Frequency 4, Conductivity, 2

```
Serial number : 4097
Calibrated on : 23-Mar-22
G             : -9.93827440e+000
H             : 1.22512976e+000
I             : -2.11436380e-003
J             : 2.09010787e-004
CTcor         : 3.2500e-006
CPcor         : -9.57000000e-008
Slope         : 1.00000000
Offset        : 0.00000
```

6) A/D voltage 0, Oxygen, SBE 43

```
Serial number : 0033
Calibrated on : 10-Feb-23
Equation      : Sea-Bird
Soc           : 3.57530e-001
Offset        : -6.80100e-001
A             : -3.53190e-003
B             : 1.45090e-004
C             : -2.11490e-006
E             : 3.60000e-002
Tau20         : 1.38000e+000
D1            : 1.92634e-004
D2            : -4.64803e-002
H1            : -3.30000e-002
H2            : 5.00000e+003
H3            : 1.45000e+003
```

7) A/D voltage 1, Free

8) A/D voltage 2, Fluorometer, Chelsea Aqua 3

```
Serial number : 088-094
Calibrated on : 12-Nov-2015
VB            : 0.311200
V1            : 2.082900
Vacetone      : 0.434600
Scale factor  : 1.000000
Slope         : 1.000000
Offset        : 0.000000
```

9) A/D voltage 3, Transmissometer, WET Labs C-Star

```
Serial number : 887-PR
Calibrated on : 04-mai-2023
M             : 21.3128
B             : -0.1279
Path length   : 0.250
```

10) A/D voltage 4, User Polynomial

```
Serial number : 171
Calibrated on : 19May2014
Sensor name   : RINKOIII_DO
A0            : 0.00000000
A1            : 1.00000000
A2            : 0.00000000
A3            : 0.00000000
```

11) A/D voltage 5, User Polynomial, 2

```
Serial number : 171
Calibrated on : 12May2014
Sensor name   : RINKOIII_Temp
A0            : -5.25367500
A1            : 16.66254000
A2            : -2.13105300
A3            : 0.45564880
```

12) A/D voltage 6, Altimeter

```
Serial number : 310799
Calibrated on : 19-Oct-16
```

Scale factor : 15.000
Offset : 0.000

13) A/D voltage 7, Free

Scan length : 37

Problems identified during the cruises

BOUSSOLE #250
The IOP package was not available for this cruise. The instruments were still under calibration at Hobi Instruments Service.

BOUSSOLE #251
The CTD of the IOP package could not be installed on the package with the other instruments because it was still under calibrations at SeaBird. Therefore, the data from the CTD of the Rosette will be used for the data processing.

All operations were performed in a single day. The R/V L'Europe is slower than the R/V Téthys II, so the working time on station was shorter than usually. Therefore, it was not possible to perform the CTD cast including a 0.2 µm filter installed on the inlet tube of the a-Sphere for the dissolved matter absorption measurements because of the lack of time.

BOUSSOLE #252
During the DYFAMED cruise, problems appeared on the two conductivity sensors of the CTD. The CTD was deployed again after cleaning the conductivity sensors cables on the CTD: one of the two sensors worked correctly, the other was always faulty.

The last day, it appeared that there was no more nitrogen in the nitrogen container: it had completely evaporated. Nevertheless, all the samples inside the container were still cold. They were put in the onboard freezer at -40°C, then they were transferred in the freezer at -80°C when we returned to the lab.

It was not possible to perform the CTD cast including a 0.2 µm filter installed on the inlet tube of the a-Sphere for the dissolved matter absorption measurements because of the lack of time due to the bad weather.

BOUSSOLE #253
It appeared after the cruise that the cable which connects the Hydroscat-6 (backscattering meter) to the Hydro DAS (data logger of the IOP package) was damaged. It probably happened the first day during the transport of the equipment from the lab to the ship. After checking the data, it appeared that the Hydroscat-6 functioned only during the CTD 01 cast until 225 m depth. It did not work during the CTD 02 cast. Therefore, the dark measurements could not be acquired.

BOUSSOLE #254
CTD 03: there was not enough water to sample for HPLC and a_p parameters at 5 m depth. So, these parameters were sampled at 5 m depth from the CTD 04.

BOUSSOLE#255 & #256
This cruise took on the *R/V Sagitta III* because of the unavailability of both the R/V *Téthys II* and R/V *L'Europe* and only one day was allocated for BOUSSOLE and MOOSE operations, so the operations were reduced:

- the carousel water sampler installed on the rosette-CTD for this cruise was smaller than the one commonly used on the BOUSSOLE cruises. Therefore, a Niskin bottle was deployed at 5 m for TSM sampling, in addition to the Niskins of the rosette.

- The IOP package could not be affixed as usually on the main rosette-CTD for the deployment because it would have been too heavy for the gantry of the R/V *Sagitta III*.

- the time available for operations was reduced according to the working time of the crew.

So, it was not possible to perform an IOP cast with a 0.2 µm filter installed on the inlet tube of the a-Sphere because of the lack of time.

BOUSSOLE#257
No problems.

BOUSSOLE #258
BOUSSOLE operations could not be performed the second day. At the beginning of the day, a leak was detected on the hydraulic system during the ascent of the deep CTD cast for MOOSE program. The CTD was recovered urgently, all the operations had to be stopped and we returned to the Nice harbour.

BOUSSOLE #259
CTD 01: the cap of the backscattering meter was not removed from the instrument by mistake. So, it was decided to use this cast for the dark measurements and to perform another cast (CTD 02) without the cap immediately after this cast. Unfortunately, it appeared next that this dark could not be used for the data processing because the cap was not properly installed on the instrument.

BOUSSOLE #260
It was not possible to perform an IOP cast with a 0.2 µm filter installed on the inlet tube of the a-Sphere for the dissolved matter absorption measurements because of the lack of time.

BOUSSOLE #261
No problems.