Date: 180705 | Station: P01 RT: constant RT: T-dependent $\begin{array}{c} 0246802246802 \\ 0246802246802 \\ 0246802246802 \\ 0246802246802 \\ 0246802246802 \\ 0246802246802 \\ 0246802246802 \\ 0246802246802 \\ 0246802246802 \\ 0246802246802 \\ 0246802246802 \\ 02468026802 \\ 02468026$ tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 120 120 100 80 100 80 down

Date: 180705 | Station: P02 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6

400

200

100

300

Depth [m]

200

100

300

400

Depth [m]

150

100

200

250

100

down

150

200

250

Date: 180705 | Station: P04 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 200 400 400 500 300 200 300 500 100 100

Date: 180705 | Station: P05 RT: constant RT: T-dependent 0 -2 -4 -6 -8 10 tau_factor: 0.8 2 4 6 8 tau_factor: 1 18 -20 -22 -24 -2 4 cast down tau_factor: 1.2 up correction pCO2 **-**22 **-**24 pCO2_RT_mean 0 · 2 · 4 · 6 · 8 · 10 tau_factor: 1.4 14 24 2 tau_factor: 1.6 12 -20 -22 -down

Date: 180705 | Station: P07 RT: constant RT: T-dependent 0 - 4 - 6 - 8 - 10 - 12 - 14 - 16 - 22 - 24 - 26 - 28 tau_factor: 0.8 0 - 2 - 4 - 6 - 8 - 10 - 12 - 14 - 16 - 18 - 20 - 22 - 24 - 26 - 28 tau_factor: 1 cast down tau_factor: 1.2 -- up correction pCO2 pCO2_RT_mean 0 - 4 - 6 - 8 - 10 - 12 - 14 - 16 - 22 - 24 - 26 - 28 tau_factor: 1.4 0 -2 -4 -6 -8 -10 -12 -14 tau_factor: 1.6 16 18 20 22 24 26 28 210 180 90 180 210 120 150 120 150 90 down

Date: 180705 | Station: P08 RT: constant RT: T-dependent 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 230 - 30 - 1 tau_factor: 0.8 0 - 4 - 6 - 8 - 10 - 12 - 14 - 16 - 18 - 22 - 24 - 26 - 28 - 30 - 1 tau_factor: 1 0 - 4 - 6 - 8 - 10 - 14 - 16 - 22 - 24 - 26 - 30 - 30 - 1 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean 0 2 4 6 8 10 12 14 16 18 20 22 24 26 30 tau_factor: 1.4 0 · 2 · 4 · 6 · 8 · 10 · 12 · 14 · 16 · 18 · 20 · 22 · 24 · 26 · 28 · 30 · tau_factor: 1.6

300

500

400

500

100

down

200

300

400

200

100

Depth [m]

Date: 180705 | Station: P09 RT: constant RT: T-dependent 0 -2 -4 -6 8 tau_factor: 0.8 10 12 -14 16 18 -20 -22 0 -2 · 6 8 tau_factor: 1 10 12 14 16 18 20 · 22 0 2 4 cast Depth [m] down tau_factor: 1.2 up correction pCO2 18 pCO2_RT_mean 22 -0 2 4 6 tau_factor: 1.4 8 10 12 14 16 18 -20 -22 0 2 4 6 tau_factor: 1.6 8 -10 -12 -14 16 18 -20 22 100 120 100 120 80 80 140 140 down

Date: 180705 | Station: P10 RT: constant RT: T-dependent 02468024680246802468 tau_factor: 0.8 02468024680246802468 1111122222333333 tau_factor: 1 02468024680246802468 cast down tau_factor: 1.2 Depth [m] up correction pCO2 pCO2_RT_mean 02468024680246802468 11111222222333333 tau_factor: 1.4 024680246802468024680 11111222223333333 tau_factor: 1.6 600 200 400 200 400 600

down

Date: 180705 | Station: P14 RT: constant RT: T-dependent 2 4 tau_factor: 0.8 6 -8 -10 -12 -14 -16 0 2 4 6 tau_factor: 1 8 -10 -12 -14 -16 0 cast 2 down Depth [m] tau_factor: 1.2 -- up correction 12 pCO2 14 pCO2_RT_mean 16 0 2 tau_factor: 1.4 6 8 10 12 -14 16 0 2 4 tau_factor: 1.6 6 8 10 12 **-**14 -16 -120 140 120 100 100 140 down

Date: 180707 | Station: P14 RT: constant RT: T-dependent 0 2 -4 tau_factor: 0.8 6 -8 -10 -12 -14 -16 0 2 · 4 tau_factor: 1 6 -8 -10 -12 -14 -16 0 cast 2 down 4 tau_factor: 1.2 Depth [m] up 6 correction pCO2 12 -14 pCO2_RT_mean 16 0 2 -4 · tau_factor: 1.4 6 -8 -10 -12 -14 -16 **-**0 **-**2 4 · tau_factor: 1.6 6 -8 -10 -12 -14 -16 -80 100 120 140 80 100 120 140

Date: 180709 | Station: P07 RT: constant RT: T-dependent tau_factor: 0.8 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 tau_factor: 1 cast down tau_factor: 1.2 -- up correction pCO2 pCO2_RT_mean 0 - 4 - 6 - 8 - 10 - 12 - 14 - 16 - 22 - 24 - 26 - 28 tau_factor: 1.4 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 tau_factor: 1.6 400 200 400 300 200 300 100 100 down

Date: 180709 | Station: P08 RT: constant RT: T-dependent 0 **-**2 **-**4 **-**6 **-**8 tau_factor: 0.8 10 -12 -14 -16 -18 20 -22 -24 0 2 4 6 8 tau_factor: 1 10 -12 -14 **-**16 **-**18 20 **-**22 **-**24 Depth [m] cast down tau_factor: 1.2 ---- up correction 18 pCO2 20 pCO2_RT_mean 22 24 0 **-**2 **-**4 **-**6 **-**8 tau_factor: 1.4 10 -12 **-**14 16 18 20 22 24 0 -2 -4 -6 -8 tau_factor: 1.6 10 -12 -14 -16 -18 -20 -22 -24 -175 175 125 150 100 150 100 125 down

Date: 180709 | Station: P09 RT: constant RT: T-dependent tau_factor: 0.8 0 - 4 - 6 - 8 - 10 - 12 - 14 - 16 - 18 - 20 - 22 - 24 - 26 - 28 tau_factor: 1 cast down tau_factor: 1.2 -- up correction pCO2 pCO2_RT_mean 0 - 2 - 4 - 6 - 8 - 10 - 12 - 14 - 16 - 22 - 24 - 26 - 28 tau_factor: 1.4 0 - 2 - 4 - 6 - 8 - 10 - 12 - 14 - 16 - 22 - 24 - 26 - 28 tau_factor: 1.6 400 200 200 300 400 300 100 100

Date: 180709 | Station: P10 RT: constant RT: T-dependent 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 230 - 30 - 1 tau_factor: 0.8 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 28 - 30 - 1 tau_factor: 1 0 - 2 - 4 - 6 - 8 - 10 - 14 - 16 - 22 - 24 - 26 - 28 - 30 - 1 cast down tau_factor: 1.2 -- up correction pCO2 pCO2_RT_mean 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 30 - 30 - 1 tau_factor: 1.4 0 - 2 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 30 - 1 tau_factor: 1.6

Depth [m]

300

200

100

500

400

100

down

300

200

500

400

300

250

200

250

150

100

down

300

200

150

100

Date: 180709 | Station: P12 RT: T-dependent RT: constant tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6

160

down

120

140

100

80

80

100

120

140

160

Depth [m]

Date: 180709 | Station: P14 RT: constant RT: T-dependent 0 2 -4 · 6 tau_factor: 0.8 8 10 12 -14 -16 18 0 . 2 -4 6 tau_factor: 1 8 -10 12 -14 -16 18 0 cast 2 · 4 down 6 tau_factor: 1.2 Depth [m] 10 12 -- up 8 correction 14 · pCO2 16pCO2_RT_mean 18 0 2 -4 6 tau_factor: 1.4 8 10 12 -14 16 18 0 2 · 4 6 tau_factor: 1.6 8 10 -12 **-**14 16 18 175 125 150 75 125 150 175 75 100 100

200

80

down

160

120

80

200

160

120

Depth [m]

Date: 180710 | Station: P14 RT: constant RT: T-dependent 2 tau_factor: 0.8 6 8 10 -12 **-**14 -16 0 2 tau_factor: 1 6 8 -10 12 -14 -16 0 cast 2 · down 4 Depth [m] tau_factor: 1.2 -- up correction 12 pCO2 14 pCO2_RT_mean 16 0 2 4 tau_factor: 1.4 6 -8 -10-12 -14 -16 0 2 4 tau_factor: 1.6 6 8 10 -12 **-**14 -16 100 120 140 80 100 120 140 80 down

Date: 180711 | Station: P14 RT: T-dependent RT: constant 0 2 -4 6 · tau_factor: 0.8 8 10 12 -14 16 18 0 -2 -6 tau_factor: 1 8 -10 12 14 -16 18 0 cast 2 . down 6 -Depth [m] tau_factor: 1.2 up correction 14 · pCO2 16 pCO2_RT_mean 18 0 2 -4 6 tau_factor: 1.4 8 10 12 14 16 18 0 2 · 4 6 tau_factor: 1.6 8 10 12 **-**14 16 **-**18 -

100

down

150

100

150

Date: 180716 | Station: P01 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 -- up correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6

600

down

400

200

600

400

200

Depth [m]

Date: 180716 | Station: P14 RT: constant RT: T-dependent 0 2 -4 tau_factor: 0.8 6 -8 . 10 12 -14 -16 0 -2 -4 · 6 tau_factor: 1 8 10 12 -14 -16 0 cast 2 down Depth [m] tau_factor: 1.2 6 --- up correction 12 pCO2 14 pCO2_RT_mean 16-0 -2 · 4 tau_factor: 1.4 6 8 10 12 -14 16 0 2 · 4 · tau_factor: 1.6 6 8 10 12 -14 16 100 150 100 150

Date: 180718 | Station: P01 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 600 400 400 600 200 200 down

Date: 180718 | Station: P02 RT: constant RT: T-dependent 2 -tau_factor: 0.8 10-18 -0 -2 · tau_factor: 1 12 -18 -cast down tau_factor: 1.2 up 8 -14 correction pCO2 pCO2_RT_mean 0 -tau_factor: 1.4 8 . **-**tau_factor: 1.6 14 · 18 -

down

Depth [m]

Date: 180718 | Station: P03 RT: constant RT: T-dependent 0 - 2 - 4 - 6 - 8 - 10 - 14 - 16 - 22 - 24 - 26 - 30 tau_factor: 0.8 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 28 - 30 tau_factor: 1 0 - 2 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 28 - 30 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 tau_factor: 1.4 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 30 tau_factor: 1.6

600

400

600

down

200

400

200

Depth [m]

Date: 180718 | Station: P04 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 -- up correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6

Depth [m]

400

200

600

down

200

400

600

Depth [m]

down

down

Depth [m]

200

100

500

200

300

100

down

400

500

400

Date: 180718 | Station: P10 RT: constant RT: T-dependent 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 230 - 30 - 1 tau_factor: 0.8 0 - 4 - 6 - 8 - 10 - 12 - 14 - 16 - 18 - 22 - 24 - 26 - 28 - 30 - 1 tau_factor: 1 cast down tau_factor: 1.2 -- up correction pCO2 pCO2_RT_mean 0 - 4 - 6 - 8 - 10 - 12 - 14 - 16 - 18 - 22 - 24 - 26 - 28 - 30 - 1 tau_factor: 1.4 tau_factor: 1.6

400

200

600

800

Depth [m]

400

600

800

down

100

down

150

Depth [m]

26

100

200

300

300

down

100

200

100

Depth [m]

Date: 180718 | Station: P14 RT: constant RT: T-dependent 0 2 · 4 tau_factor: 0.8 6 · 8 10 -12 14 16 18 0 2 4 · 6 tau_factor: 1 8 10 12 14 16 -18 0 cast 2 4 · down Depth [m] tau_factor: 1.2 6 up correction pCO2 14 16 pCO2_RT_mean 18 0 2 4 · 6 tau_factor: 1.4 8 10 12 14 -16 18 0 2 4 tau_factor: 1.6 6 8 10 12 -14 -16

200

150

18

50

100

150

200 50

down

down

Depth [m]

down

Date: 180718 | Station: PX1 RT: constant RT: T-dependent 0 2 -4 · 6 tau_factor: 0.8 8 10 12 -14 16 18 0 -2 -4 6 tau_factor: 1 8 -10 12 -14 -16 18 0 cast 2 · down 6 tau_factor: 1.2 Depth [m] 10 12 up 8 correction 14 · pCO2 16 pCO2_RT_mean 18 0 2 -6 tau_factor: 1.4 8 10 12 14 16 18 0 2 4 6 tau_factor: 1.6 8 10 -12 -14 16 **-**18 -100 180 220

100

down

140

180

220

Date: 180718 | Station: PX2 RT: constant RT: T-dependent 0 - 4 - 6 - 8 - 10 - 14 - 16 - 12 - 14 - 16 - 22 - 26 - 23 - 32 - 1 tau_factor: 0.8 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 224 - 26 - 230 - 32 - 32 - 32 - 32 - 322 - 332 - 322 - 322 - 322 - 322 - 322 - 322 - 322 - 322 - 322 tau_factor: 1 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 30 - 32 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean 0 - 4 - 6 - 10 - 14 - 16 - 120 - 122 - 1230 tau_factor: 1.4 0 - 2 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 30 - 32 - 1 tau_factor: 1.6

400

600

200

down

Depth [m]

400

200

Date: 180720 | Station: P14 RT: constant RT: T-dependent tau_factor: 0.8 10-12 -18 -0 -tau_factor: 1 12 -14 -16-18 -cast down tau_factor: 1.2 -- up 8 -14 correction pCO2 18 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 16 -18 -

down

Depth [m]

Date: 180723 | Station: P01 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 Ophth [m] 2 4 6 8 8 10 12 14 14 16 16 20 20 22 24 26 28 cast down tau_factor: 1.2 -- up correction pCO2 pCO2_RT_mean tau_factor: 1.4 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 28 tau_factor: 1.6

500

400

500

300

400

200

100

200

100

down

600

400

200

600

down

200

400

Depth [m]

400

200

600

600

down

400

200

Depth [m]

200

150

100

16 -18 -20 -22 -24 -26 -

50

100

150

200

50

down

400

300

200

100

Depth [m]

200

100

300

400

down

Date: 180723 | Station: P07 RT: constant RT: T-dependent 02468 10121416 182224633333334 tau_factor: 0.8 024-80-104-114-1180-11222268-11222268-1122223334tau_factor: 1 024-8-102-114-116-224-228-332-34cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean 024-68-114-168-1-1468-1 tau_factor: 1.4 024-68-104-114-1180-12224-122223334tau_factor: 1.6

600

800

400

200

600

200

400

800

down

Depth [m]

down

Date: 180723 | Station: P10 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 024-8-102-114-116-224-228-332-34cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean 024-68-114-168-1-1468-1 tau_factor: 1.4 024-68-104-114-1180-12224-122223334tau_factor: 1.6

800

down

400

200

600

800

400

200

600

Depth [m]

down

Date: 180723 | Station: P12 RT: constant RT: T-dependent 2 tau_factor: 0.8 12 -14 -0 . tau_factor: 1 14 · 18 -cast down tau_factor: 1.2 Depth [m] 8 up correction pCO2 18 pCO2_RT_mean 20 -tau_factor: 1.4 20 · tau_factor: 1.6 14 -16 -18 -

--

down Date: 180723 | Station: P14 RT: constant RT: T-dependent 0 2 · 4 tau_factor: 0.8 6 -8 . 10 12 -14 -16 0 2 · 4 6 tau_factor: 1 8 . 10 -12 -14 -16 0 cast 2 down tau_factor: 1.2 Depth [m] 6 --- up correction 12 pCO2 14 pCO2_RT_mean 16 0 2 tau_factor: 1.4 6 8 10 12 -14 16 0 2 4 tau_factor: 1.6 6 8 10 12 -14 -16-100 200 250 100 200 250 150 150 down

Date: 180723 | Station: P06 RT: constant RT: T-dependent 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 230 - 32 - 32 - 1 tau_factor: 0.8 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 224 - 26 - 230 - 32 - 32 - 32 - 32 - 332 tau_factor: 1 0 - 2 - 4 - 6 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 30 - 32 - 32 - 1 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean 0 - 4 - 6 - 10 - 14 - 16 - 120 - 122 - 1230 tau_factor: 1.4 0 - 4 - 6 - 10 - 14 - 16 - 122 - 14 - 122 - 123 - 123 - 124 - 125 tau_factor: 1.6

600

400

200

600

down

400

200

Depth [m]

200 50

down

Date: 180725 | Station: P14 RT: constant RT: T-dependent 0 2 -4 tau_factor: 0.8 6 8 . 10 -12 -14 -16 0 2 -4 6 tau_factor: 1 8 10 -12 -14 -16 0 cast 2 · down Depth [m] tau_factor: 1.2 6 up correction 12 pCO2 14 pCO2_RT_mean 16-0 2 4 tau_factor: 1.4 6 8 10 12 -14 16 0 2 4 tau_factor: 1.6 6 8 10 12 -14 16

250

50

down

100

150

200

200

100

50

150

down

down

300

400

200

200

100

300

400

down

Date: 180730 | Station: P04 RT: constant RT: T-dependent 0 2 4 6 8 tau_factor: 0.8 10 12 14 16 18 20 22 24 26 0 2 4 6 8 tau_factor: 1 10 **-**12 **-**14 -16 18 20 22 24 26 0 - 2 - 4 - 6 - 8 - 10 - 12 - 14 - 16 - 18 - 20 - 22 - 24 - 26 cast down tau_factor: 1.2 -- up correction pCO2 pCO2_RT_mean 0 -2 -4 -6 -8 -10 -12 tau_factor: 1.4 14 16 18 20 22 24 26 0 2 4 6 8 10 12 14 tau_factor: 1.6 16 -18 -20 -22 -24 -

400

300

Depth [m]

26

100

400

100

down

200

300

Date: 180730 | Station: P05 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 600 800 800 400 600 200 200 400 down

Date: 180730 | Station: P07 RT: constant RT: T-dependent CONTROL CONTRO tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 Depth [m] up correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 600 600 100 400 500 100 300 500 200 300 200 400 down

Date: 180730 | Station: P08 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 600 600 400 400 200 200 down

350 100

down

Date: 180730 | Station: P10 RT: constant RT: T-dependent tau_factor: 0.8 024-80-104-114-1180-11222268-11222268-1122223334tau_factor: 1 024-8-102-146-180-1224-226-332-334cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean 024-68-114-168-1-1468-1 tau_factor: 1.4 024-68-104-114-1180-12224-122223334tau_factor: 1.6 600 600 200 400 200 400 down

Date: 180730 | Station: P11 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 600 600 400 200 200 400 down

Date: 180730 | Station: P12 RT: constant RT: T-dependent 02468024680246802468 tau_factor: 0.8 02468024680246802468 1111122222333333 tau_factor: 1 02468024680246802468 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean 02468024680246802468 11111222222333333 tau_factor: 1.4 02468024680246802468 tau_factor: 1.6 400 800

400

600

800

200

down

600

200

Date: 180730 | Station: P14 RT: constant RT: T-dependent 2 -4 · tau_factor: 0.8 6 -8 -10 -12 -14 0 2 -4 tau_factor: 1 6 8 -10 12 -14 cast 2 down Depth [m] tau_factor: 1.2 -- up correction pCO2 12 pCO2_RT_mean 14 0 -2 · 4 · tau_factor: 1.4 6 · 8 -10 12 14 2 -4 tau_factor: 1.6 6 8 10 12 -14 -

140

180

220

100

220

down

180

100

140

Date: 180730 | Station: P06 RT: constant RT: T-dependent 0 2 -4 · 6 tau_factor: 0.8 8 -10 12 14 -16-18 20 0 -2 -4 6 · tau_factor: 1 8 10 -12 14 16 18 -20 0 cast 2 4 down 6 tau_factor: 1.2 Depth [m] -- up correction 14 pCO2 16 pCO2_RT_mean 18 20 0 2 4 6 tau_factor: 1.4 8 10 -12 -14 -16 18 -20 0 2 · 4 6 tau_factor: 1.6 8 10 -12 -14 -16 -18 20 -240 80 200 240 120 160 200 120 160 80 down

Date: 180730 | Station: P13 RT: T-dependent RT: constant tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 600 400 400 600 200 200 down

Date: 180731 | Station: P14 RT: constant RT: T-dependent 0 2 -4 tau_factor: 0.8 6 -8 . 10 12 -14 -16 0 2 -4 · 6 tau_factor: 1 8 10 12 -14 -16 0 cast 2 down Depth [m] tau_factor: 1.2 6 -- up correction 12 pCO2 14 pCO2_RT_mean 16 0 2 -4 tau_factor: 1.4 6 8 10 12 14 16 0 2 · 4 · tau_factor: 1.6 6 8 10 12 14 16-

250

250

down

100

150

200

100

150

200

down

down

Date: 180802 | Station: P04 RT: constant RT: T-dependent 02468024680246802468 tau_factor: 0.8 02468024680246802468 1111122222333333 tau_factor: 1 02468024680246802468 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean 02468024680246802468 11111222222333333 tau_factor: 1.4 02468024680246802468 tau_factor: 1.6

800

down

200

400

600

800

600

200

400

Date: 180802 | Station: P05 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 30 - 32 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean 0 - 4 - 6 - 10 - 14 - 16 - 120 - 122 - 1230 tau_factor: 1.4 0 - 4 - 6 - 8 - 10 - 12 - 14 - 16 - 12 - 22 - 23 - 32 - 1 tau_factor: 1.6 400 400 600 600 200 200 down

Date: 180802 | Station: P07 RT: constant RT: T-dependent tau_factor: 0.8 024680246802468024680 tau_factor: 1 024680246802468024680 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 400 600 400 600 200 200 down

Date: 180802 | Station: P08 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 600 600 400 200 400 200 down

Date: 180802 | Station: P09 RT: constant RT: T-dependent 0 2 4 6 tau_factor: 0.8 8 10 12 14 -16 -18 -20 -22 0 2 4 6 8 tau_factor: 1 10 12 **-**16-18 -20 -22 0 Depth [m] 10:00 14:00 16 cast down tau_factor: 1.2 -- up correction pCO2 18 pCO2_RT_mean 22 0 2 4 6 tau_factor: 1.4 8 10 12 -14 16 18 -20 -22 0 2 4 6 tau_factor: 1.6 8 10 12 -14 -16 -18 -20 -22 300 200 300 100 100 200 down

Date: 180802 | Station: P10 RT: constant RT: T-dependent tau_factor: 0.8 02468024680246802468 1111680246802468 tau_factor: 1 02468024680246802468 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean 02468024680246802468 1111122222333333 tau_factor: 1.4 02468024680246802468 tau_factor: 1.6

800

down

200

600

800

400

600

200

400

Date: 180802 | Station: P11 RT: constant RT: T-dependent 0246802468024680246 tau_factor: 0.8 0246802468024680246 tau_factor: 1 024680246802468022468802246880333336 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean 024680246802468024680246802333333 tau_factor: 1.4 0246802468024680246 tau_factor: 1.6 600 600 200 400 400 200 down

300

200

100

down

400

300

200

100

400

Date: 180802 | Station: P13 RT: constant RT: T-dependent 0046800146800046800 0046800146800046800 0046800146800046800 004680014680046800046800 004680014680046800 004680014680046800 004680014680046800 004680014680046800 004680014680046800 0046800146800046800 0046800146 tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 800 600 200 400 200 400 600 800 down

Date: 180806 | Station: P01 RT: T-dependent RT: constant tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 750 500 500 750 250 250 down

Date: 180806 | Station: P02 RT: constant RT: T-dependent 0.0446800.744000.7446800.7446800.7446000.7446800.744600.744600.744600.744600.7 tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 Depth [m] up correction pCO2 pCO2_RT_mean 024680246802468024680 11111222222333333 tau_factor: 1.4 024680246802468024680 tau_factor: 1.6 600 800 600 800 200 400 200 400 down

Date: 180806 | Station: P04 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 600 800 600 400 200 400 800 200

down

600

400

200

800

down

200

400

600

800

Date: 180806 | Station: P07 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 600 600 200 400 200 400 down

Date: 180806 | Station: P08 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 02468024680246802468 tau_factor: 1.6 600 200 400 600 200 400 down

Date: 180806 | Station: P10 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 600 200 600 200 400 400 down

Date: 180806 | Station: P11 RT: constant RT: T-dependent 0246802468024680246 tau_factor: 0.8 02468 102468 1014168 10222468 33334 36 tau_factor: 1 02468014680246802468033346 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean 02468024680246802468024680246802333333 tau_factor: 1.4 0246802468024680246 tau_factor: 1.6

600

400

200

800

down

200

400

800

600

Date: 180806 | Station: P12 RT: constant RT: T-dependent 024680246802468024680 11111222222333333334 tau_factor: 0.8 024680246802468024680 1111122222223333334 tau_factor: 1 024680246802468024680046800 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean 024680246802468024680 11111122222333334 tau_factor: 1.4 024680246802468024680 11111222222333333334 tau_factor: 1.6

600

200

400

800

down

200

800

600

400

Date: 180806 | Station: P14 RT: constant RT: T-dependent 0 2 -4 6 tau_factor: 0.8 8 10 12 -14 16 18 0 -2 -6 tau_factor: 1 8 -10 12 14 -16 18 0 cast 2 down 6 -Depth [m] tau_factor: 1.2 -- up correction 14 · pCO2 16 pCO2_RT_mean 18 0 -2 -4 tau_factor: 1.4 6 -8 . 10 12 14 16 18 0 2 · 4 · 6 tau_factor: 1.6 8 10 12 14 16 18 -250 250 100 200 100 200 150 150

down

Date: 180806 | Station: P06 RT: constant RT: T-dependent 0046800146800046800 0046800146800046800 0046800146800046800 004680014680046800046800 004680014680046800 004680014680046800 004680014680046800 004680014680046800 004680014680046800 0046800146800046800 0046800146 tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 Depth [m] up correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 600 600 800 200 400 200 400 800 down

Date: 180806 | Station: P13 RT: constant RT: T-dependent 024680246802468024680 1111122222233333334 tau_factor: 0.8 024680246802468024680 1111122222223333334 tau_factor: 1 024680246802468024680046800 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean 024680246802468024680 111111222222333334 tau_factor: 1.4 024680246802468024680 tau_factor: 1.6 1000 1250 1000 1250 250 500 750 250 750 500 down

Date: 180807 | Station: P14 RT: constant RT: T-dependent 2 -4 · tau_factor: 0.8 6 -8 -10 -12 -14 -16 0 2 · tau_factor: 1 6 -8 -10 -12 -14 -16 0 cast 2 down 4 -Depth [m] tau_factor: 1.2 6 --- up correction 12 pCO2 14 pCO2_RT_mean 16 0 2 · 4 tau_factor: 1.4 6 8 -10 -12 -14 -16 0 2 -4 · tau_factor: 1.6 6 8 10 -12 -14-16 250 250 100 200 100 200 150 150 down

Date: 180815 | Station: P01 RT: constant RT: T-dependent 024 68 1012 146 182 224 262 303 323 34 tau_factor: 0.8 024-80-104-114-1180-11222268-11222268-1122223334tau_factor: 1 0 - 4 - 6 - 8 - 10 - 12 - 14 - 18 - 22 - 24 - 26 - 230 - 32 - 34 - 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean 024-68-114-168-1-1468-1 tau_factor: 1.4 024-68-104-114-1180-12224-122223334tau_factor: 1.6 600

600

400

200

down

400

200

Date: 180815 | Station: P02 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6

600

400

200

800

down

200

400

600

800

Date: 180815 | Station: P03 RT: constant RT: T-dependent 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 22 - 24 - 230 - 32 - 32 - 1 tau_factor: 0.8 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 224 - 26 - 230 - 32 - 32 - 32 - 32 - 332 tau_factor: 1 0 - 2 - 4 - 6 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 30 - 32 - 32 - 1 cast down tau_factor: 1.2 -- up correction pCO2 pCO2_RT_mean 0 - 4 - 6 - 10 - 14 - 16 - 12 - 14 - 16 - 12 - 22 - 23 - 32 - 1 tau_factor: 1.4 0 - 4 - 6 - 10 - 14 - 16 - 122 - 14 - 122 - 123 - 123 - 124 - 125 tau_factor: 1.6

600

400

600

200

down

400

200

Date: 180815 | Station: P04 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 800 600 600 800 400 200 400 200

down

600

400

200

800

down

200

600

400

800

Date: 180815 | Station: P07 RT: constant RT: T-dependent ONA CONTROL ON A C tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 600 600 200 400 200 400 down

Date: 180815 | Station: P08 RT: constant RT: T-dependent 0246802468024680246 tau_factor: 0.8 024680246802468024680246802333333 tau_factor: 1 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean 0246802468024680246 tau_factor: 1.4 0246802468024680246 tau_factor: 1.6

600

400

600

200

down

400

200

Date: 180815 | Station: P09 RT: constant RT: T-dependent tau_factor: 0.8 18 -0 -2 · tau_factor: 1 12 -18 -cast down 6 tau_factor: 1.2 Depth [m] 8 12 14 -- up 8 correction pCO2 pCO2_RT_mean tau_factor: 1.4 8 . **-**tau_factor: 1.6 10 -

18 -20 -

down

800

down

200

400

600

400

200

800

600

Date: 180815 | Station: P11 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 02-4-6-8-10-12-14-18-22-24-226-230-332cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean tau_factor: 1.4 024-68-102-146-1222468-12222683324tau_factor: 1.6

600

600

200

400

800

200

down

400

800

Date: 180815 | Station: P12 RT: constant RT: T-dependent 004680004688000468800004688000468800046880004688000468800046880004688000468800468000468800468800048800046880004688000468800046880004688000468800046880004688000468000468000468000468000468000468000468000468000468000488000468000468000468000468000468000468000468000468000468000468000 tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6

750

1000

750

500

250

1000

down

250

500

Date: 180815 | Station: P14 RT: constant RT: T-dependent 0 2 · 4 tau_factor: 0.8 6 -8 . 10 12 -14 -16 0 2 -4 6 tau_factor: 1 8 . 10 -12 -14 -16 0 cast 2 · down tau_factor: 1.2 Depth [m] 6 up correction 12 pCO2 14 pCO2_RT_mean 16 0 -2 tau_factor: 1.4 6 8 10 12 -14 16 0 2 4 tau_factor: 1.6 6 8 10 12 -14 16-

200

175

150

225

down

150

175

200

Date: 180815 | Station: P06 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6

600

400

200

800

down

200

600

400

Date: 180815 | Station: P13 RT: constant RT: T-dependent 02468024680246802468 tau_factor: 0.8 02468024680246802468 1111122222333333 tau_factor: 1 02468024680246802468 cast down tau_factor: 1.2 Depth [m] up correction pCO2 pCO2_RT_mean 02468024680246802468 1111122222333333 tau_factor: 1.4 02468024680246802468 tau_factor: 1.6 1250 1250 1000 750 500 1000 750 250 250 500 down

Date: 180816 | Station: P14 RT: constant RT: T-dependent 0 2 -4 tau_factor: 0.8 6 -8 -10 -12 -14 -16 0 -2 · 4 · tau_factor: 1 6 -8 -10 -12 -14 -16 0 cast 2 down tau_factor: 1.2 Depth [m] -- up correction 12 pCO2 14 pCO2_RT_mean 16 -0 2 tau_factor: 1.4 6 8 -10 -12 -14 -16 0 2 tau_factor: 1.6 6 8 10 -12 **-**14 -16-150 200 200 250 250 150 down

Date: 180820 | Station: P01 RT: constant RT: T-dependent tau_factor: 0.8 tau_factor: 1 cast down tau_factor: 1.2 up Depth [m] correction pCO2 pCO2_RT_mean tau_factor: 1.4 tau_factor: 1.6 1000 1000 500 750 250 500 750 250 down

600

800

400

24

200

600

400

800

down

Date: 180820 | Station: P12 RT: constant RT: T-dependent tau_factor: 0.8 0 - 4 - 6 - 8 - 10 - 14 - 16 - 18 - 224 - 26 - 230 - 32 - 32 - 32 - 32 - 332 tau_factor: 1 0 - 2 - 4 - 6 - 10 - 14 - 16 - 18 - 22 - 24 - 26 - 30 - 32 - 32 - 1 cast down tau_factor: 1.2 -- up correction pCO2 pCO2_RT_mean 0 - 4 - 6 - 10 - 14 - 16 - 122 - 14 - 122 - 123 - 123 - 124 - 125 tau_factor: 1.4 0 - 4 - 6 - 10 - 14 - 16 - 122 - 14 - 122 - 123 - 123 - 124 - 125 tau_factor: 1.6

750

750

250

down

500

500

250

Date: 180820 | Station: P14 RT: constant RT: T-dependent 2 tau_factor: 0.8 6 -8 -10 -12 **-**14 -16 0 2 · tau_factor: 1 6 -8 -10 -12 -14 -16 0 cast 2 down 4 -Depth [m] tau_factor: 1.2 up 6 correction 12 pCO2 14 pCO2_RT_mean 16 2 · tau_factor: 1.4 6 8 -10-12 -14 -16 0 2 · 4 · tau_factor: 1.6 6 8 10 -12 -14-16 400 400 200 300 300 200 down

Date: 180820 | Station: P13 RT: constant RT: T-dependent 0246802468024680246 tau_factor: 0.8 0246802468024680246 tau_factor: 1 cast down tau_factor: 1.2 Depth [m] up correction pCO2 pCO2_RT_mean 02468024680246802468024680246802333333 tau_factor: 1.4 0246802468024680246 tau_factor: 1.6 900 900 300 600 300 600

down