

Figure A.1-3

Sampling Location in Little Roberts Lake,
Doris North Project, 2014

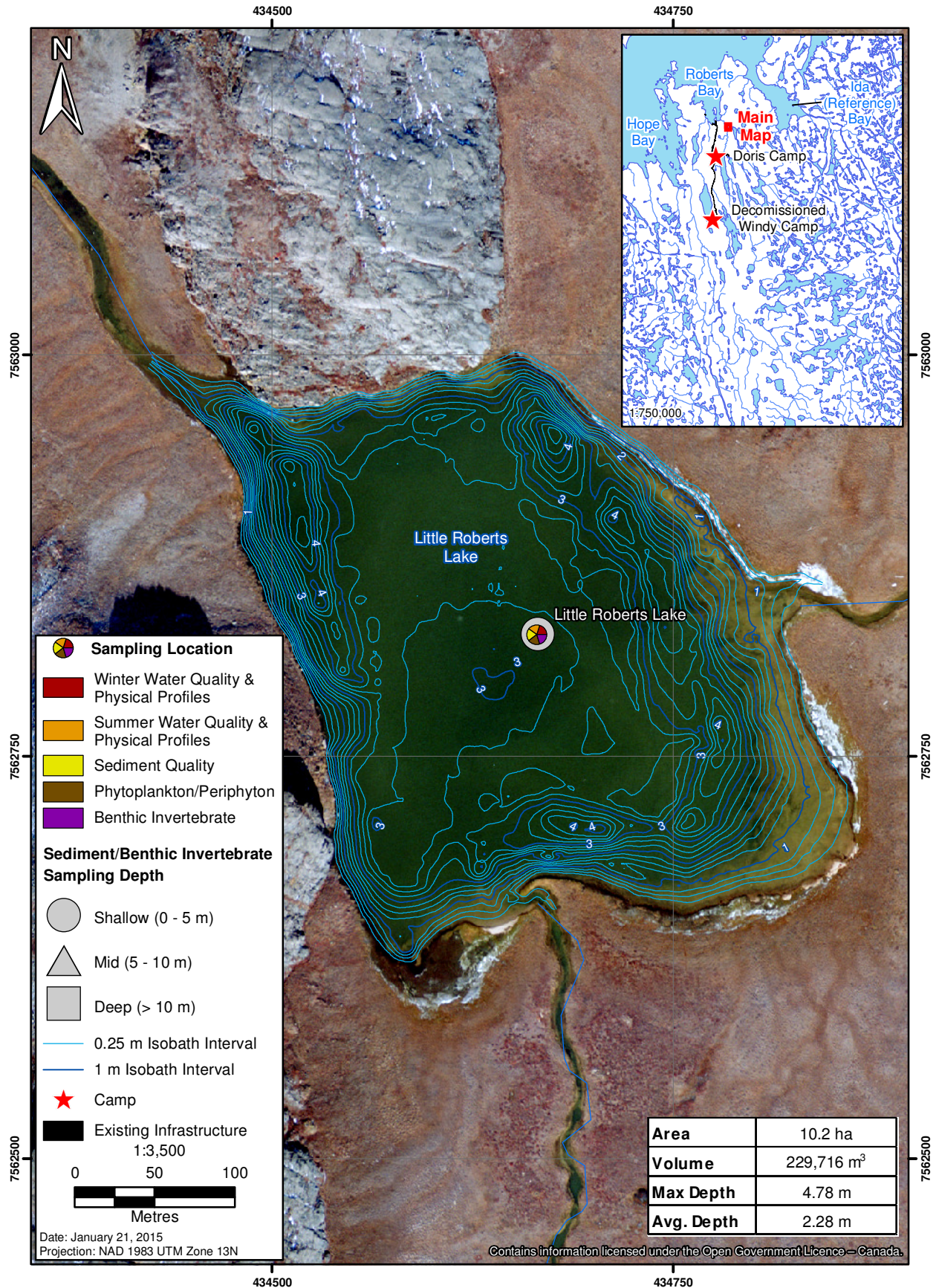


Figure A.1-4

Sampling Location in Reference Lake B,
Doris North Project, 2014

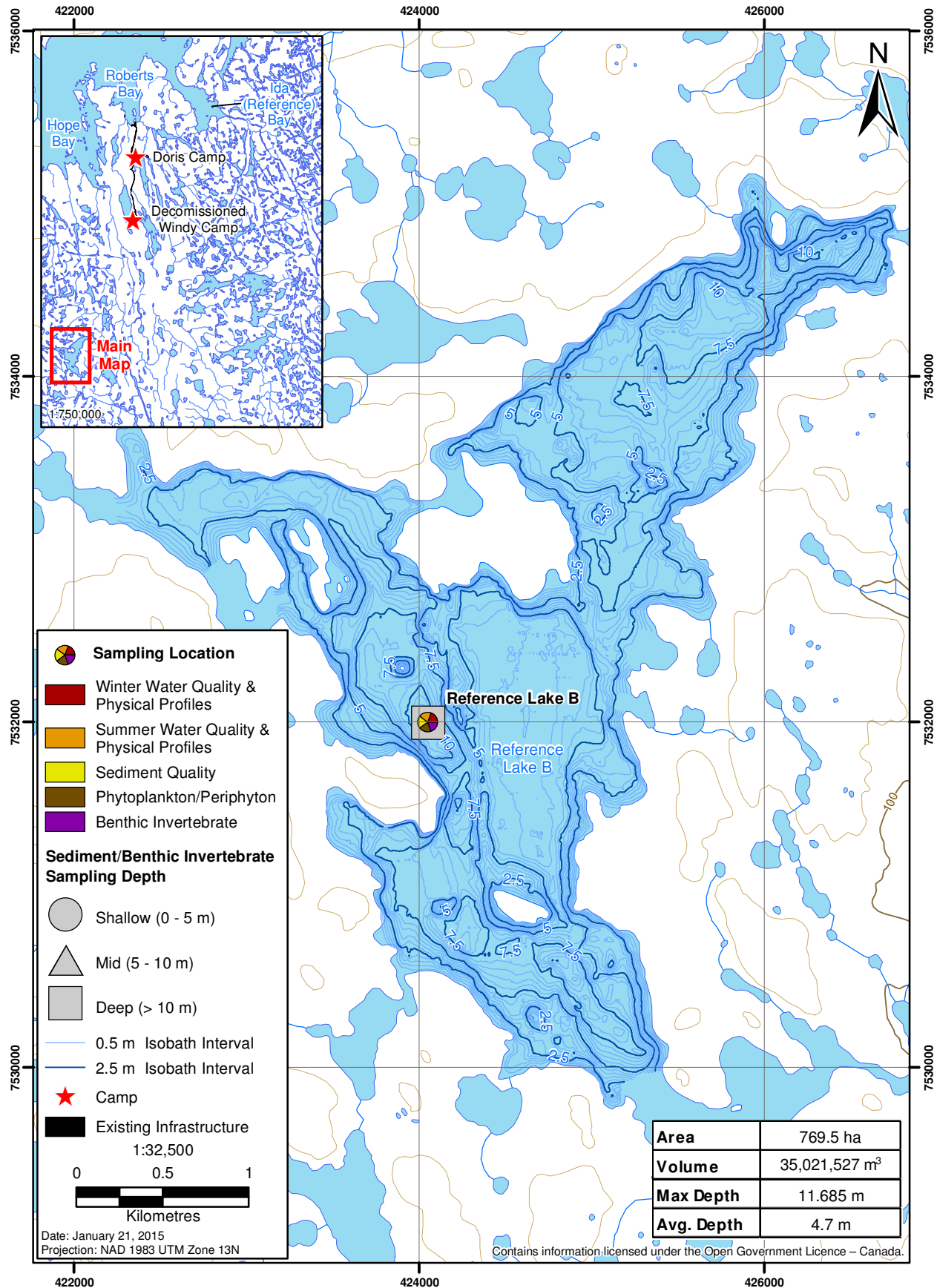


Figure A.1-5

Sampling Location in Reference Lake D,
Doris North Project, 2014

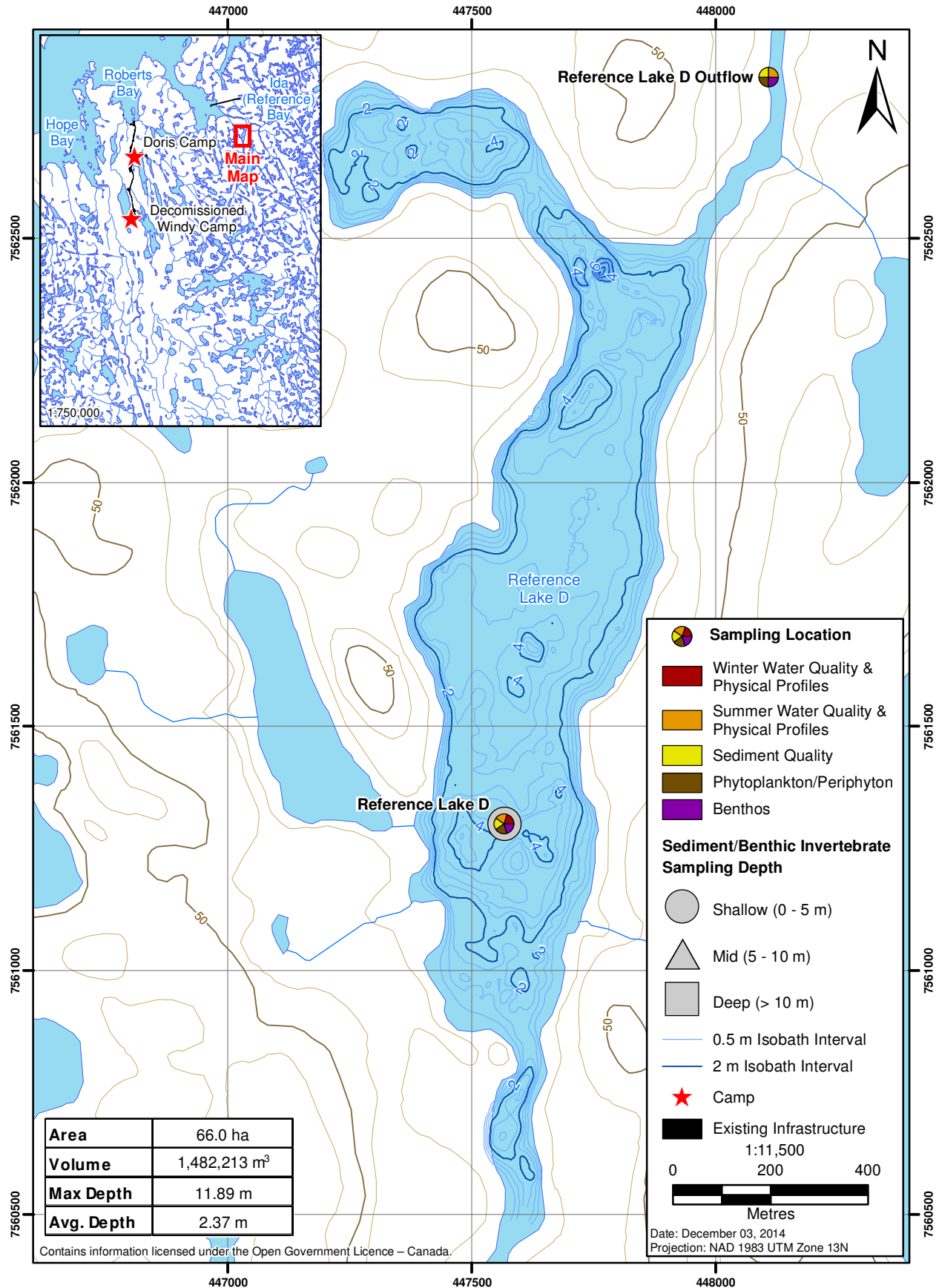


Figure A.1-6

Sampling Locations in Roberts Bay,
Doris North Project, 2014

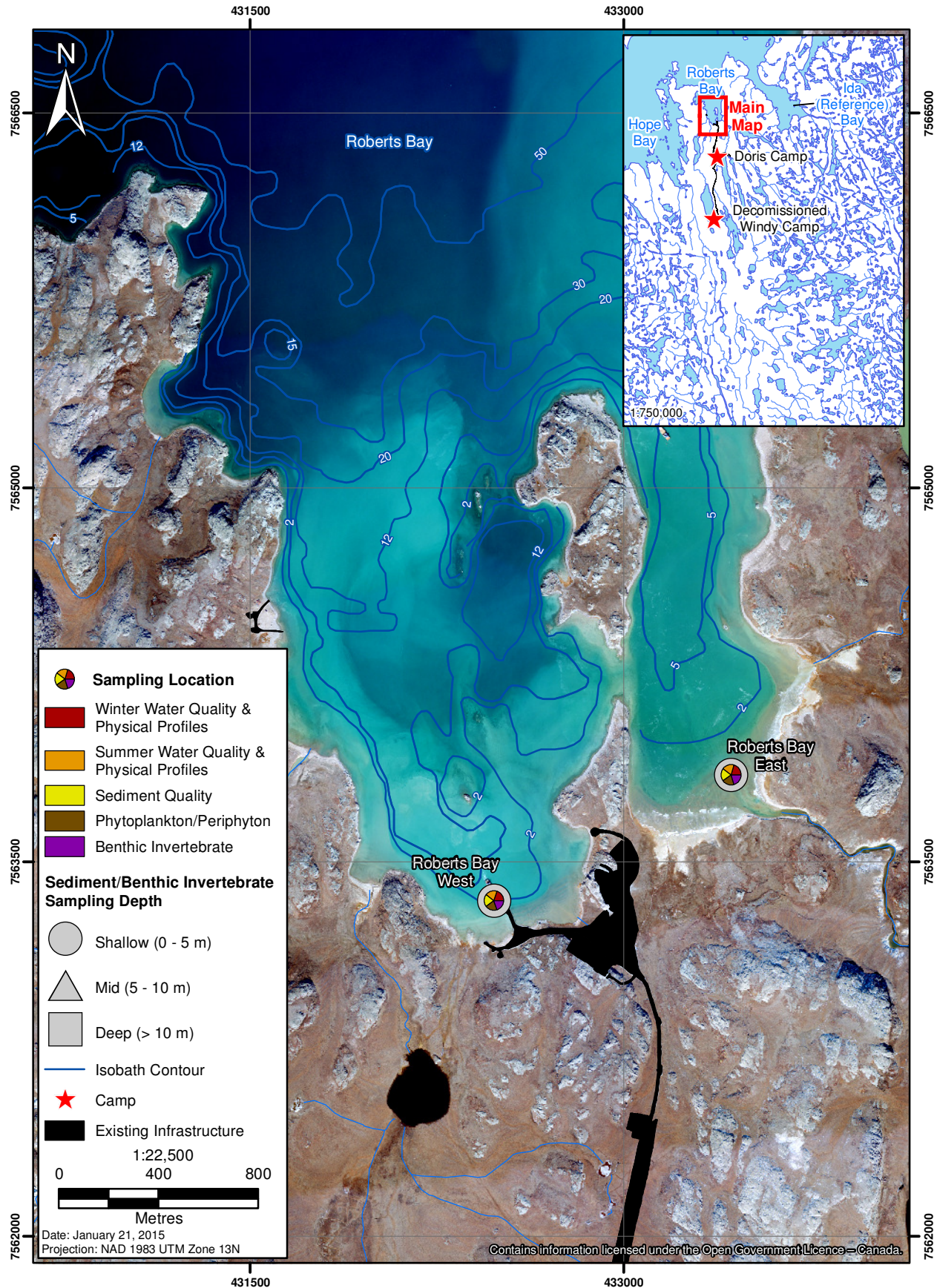
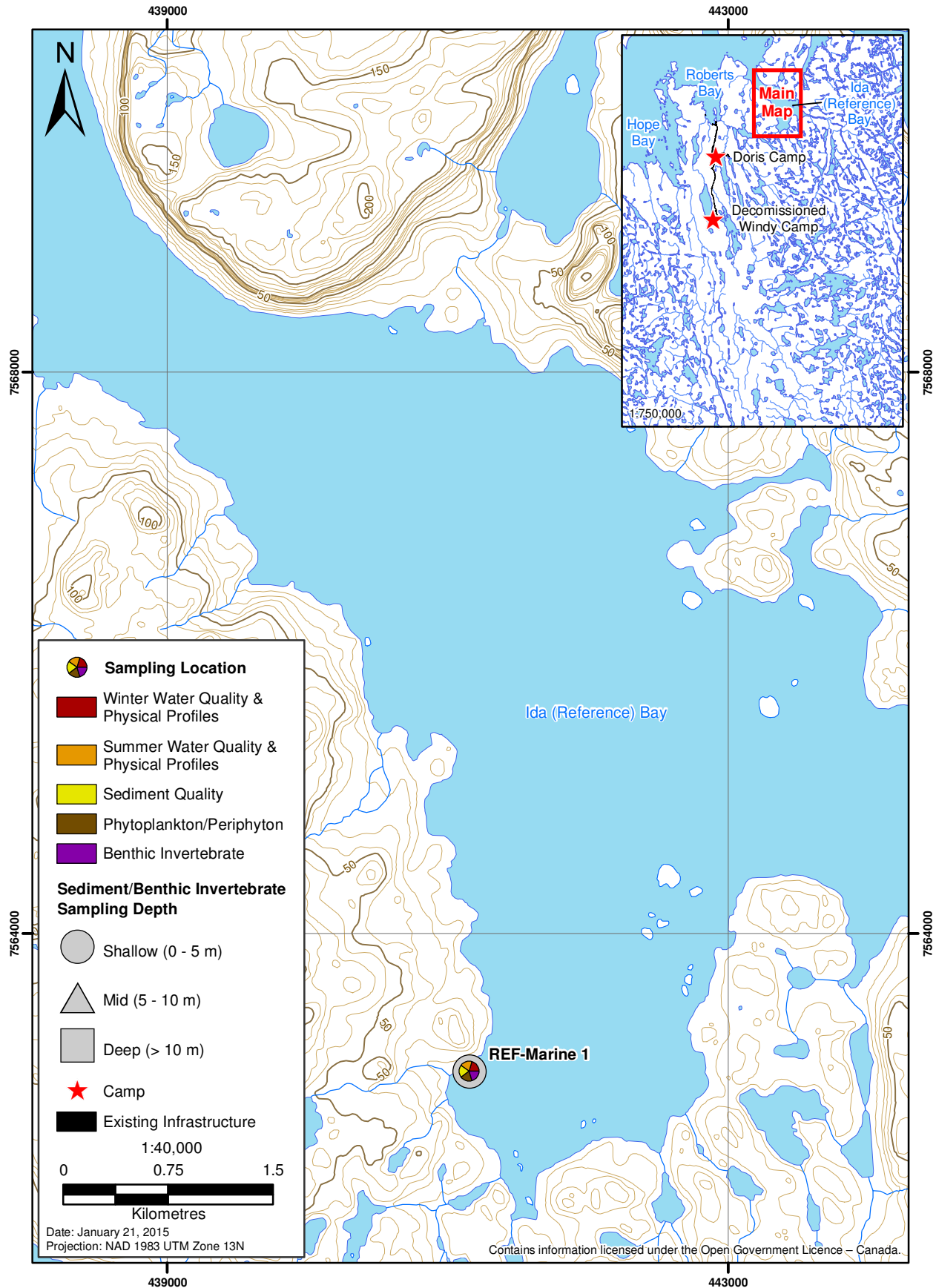


Figure A.1-7

Sampling Location in Ida (Reference) Bay,
Doris North Project, 2014



A.2 2014 PHYSICAL PROFILES AND SECCHI DEPTHS

The following sections present the Secchi depth data and the physical profiles collected from April to September 2014 at stream, lake, and marine sites.

A.2.1 Stream Data

Stream water temperatures measured between June 18 and September 18, 2014 are shown in Table A.2-1.

Table A.2-1. Stream Water Temperatures, Doris North Project, 2014

Stream	Date			
	June 18-19	July 16-17	August 14-16	September 17-18
Doris Outflow	5.5°C	7.8°C	11.2°C	2.9°C
Roberts Outflow	3.6°C	6.0°C	9.6°C	3.3°C
Little Roberts Outflow	3.3°C	11.5°C	9.9°C	2.2°C
Reference B Outflow	2.9°C	14.2°C	9.3°C	0.6°C
Reference D Outflow	1.3°C	7.4°C	11.2°C	1.1°C

A.2.2 Lake Data

Lake Secchi depths and calculated euphotic zone depths (1% light level) are shown in Table A.2-2. Figures A.2-1 to A.2-5 show the temperature and dissolved oxygen profiles collected at lake sites from April to September 2014; Annex A.2-1 provides the profile data in tabular form.

Table A.2-2. Lake Secchi Depths and Euphotic Zone Depths, Doris North Project, 2014

Lake Site	Sampling Date	Secchi Depth (Ds) (m)	Euphotic Zone Depth 1% Light Level (m)
Large Lake Site			
Doris Lake South	July 20, 2014	1.15	3.1
	August 19, 2014	1.2	3.2
	September 20, 2014	1.5	4.1
Doris Lake North	July 20, 2014	1.2	3.2
	August 19, 2014	1.2	3.2
	September 20, 2014	1.3	3.5
Reference Lake B	July 19, 2014	3.7	10.0*
	August 23, 2014	6.5	17.6*
	September 18, 2014	6.5	17.6*
Small Lake Site			
Little Roberts Lake	July 19, 2014	1.15	3.1*
	August 17, 2014	1.2	3.2*
	September 19, 2014	1.8	4.9*
Reference Lake D	July 19, 2014	1.5	4.1*
	August 18, 2014	2.4	6.5*
	September 19, 2014	3.8	10.3*

Note: * indicates that the euphotic zone extended to the bottom of the water column.

Figure A.2-1

Temperature and Dissolved Oxygen Profiles
in Doris Lake South, Doris North Project, 2014

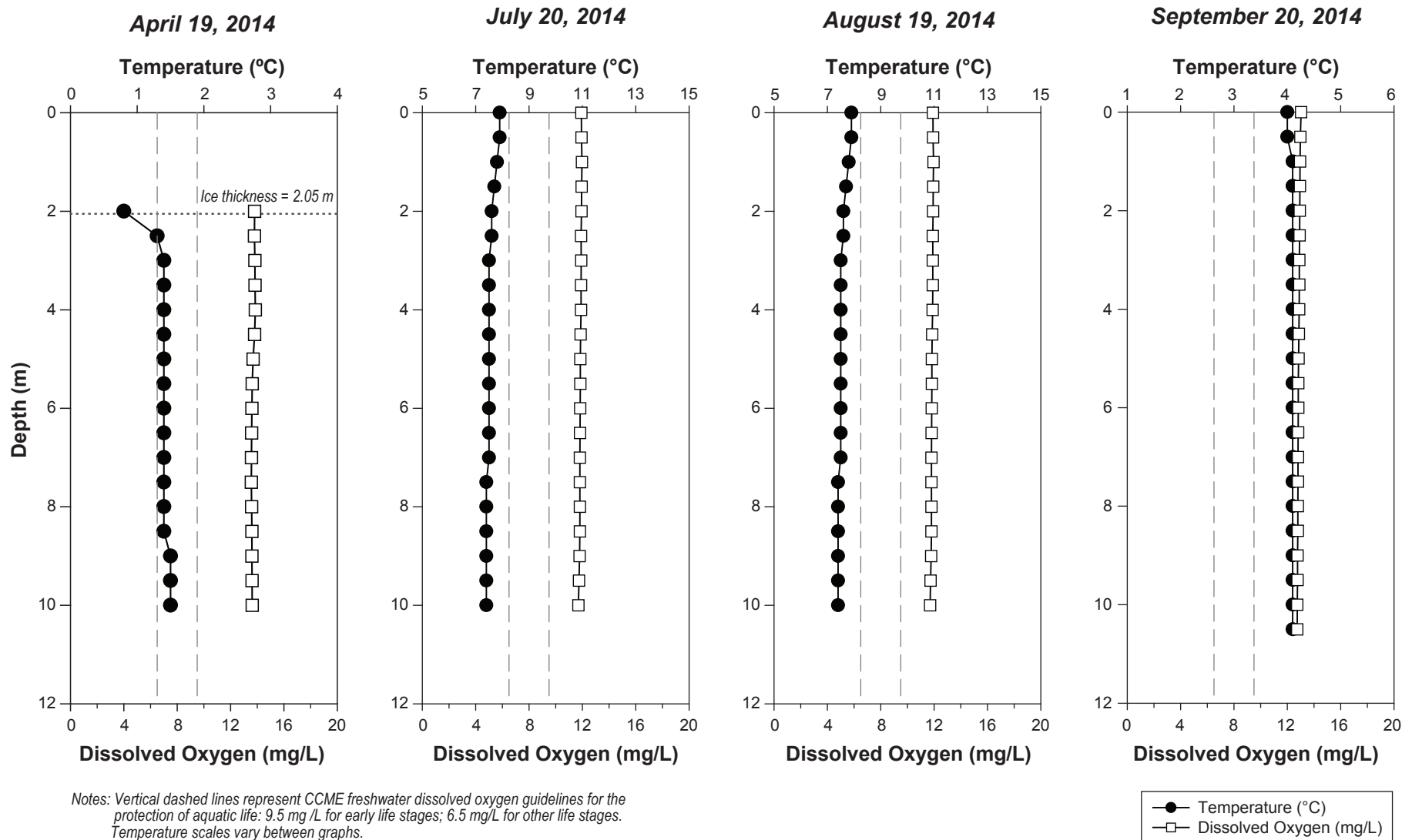


Figure A.2-2

Temperature and Dissolved Oxygen Profiles
in Doris Lake North, Doris North Project, 2014

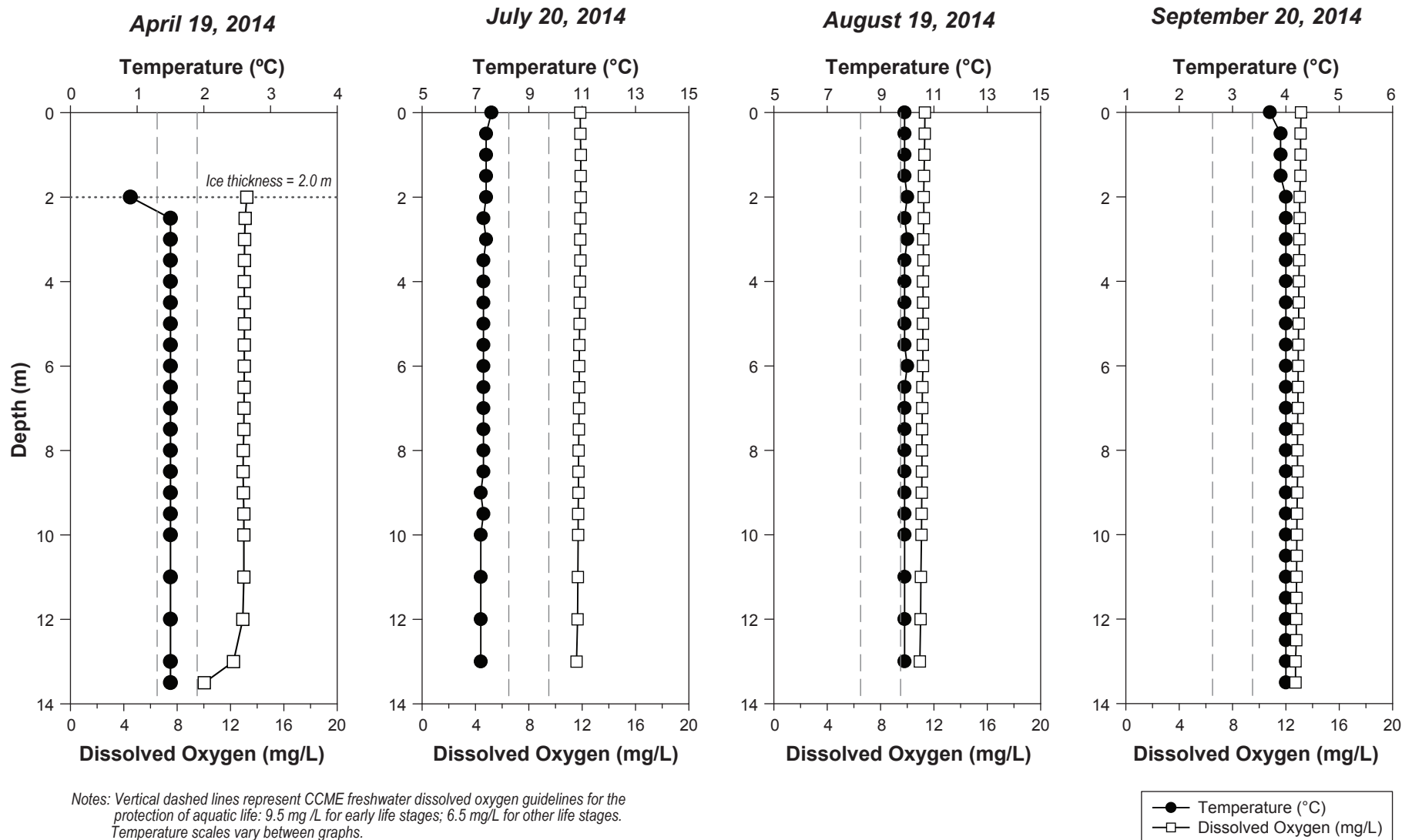


Figure A.2-3

Temperature and Dissolved Oxygen Profiles
in Reference Lake B, Doris North Project, 2014

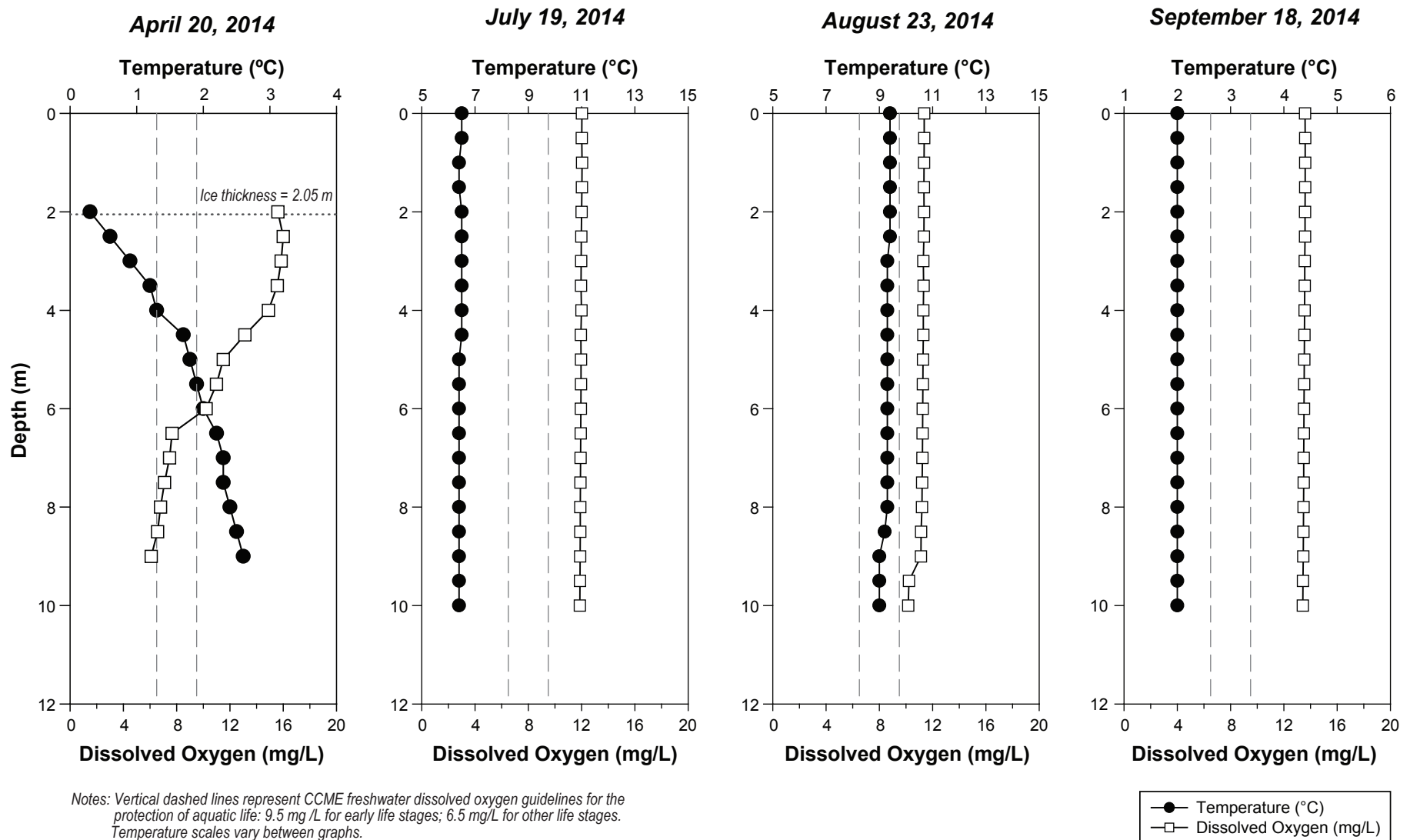


Figure A.2-4

Temperature and Dissolved Oxygen Profiles
in Little Roberts Lake, Doris North Project, 2014

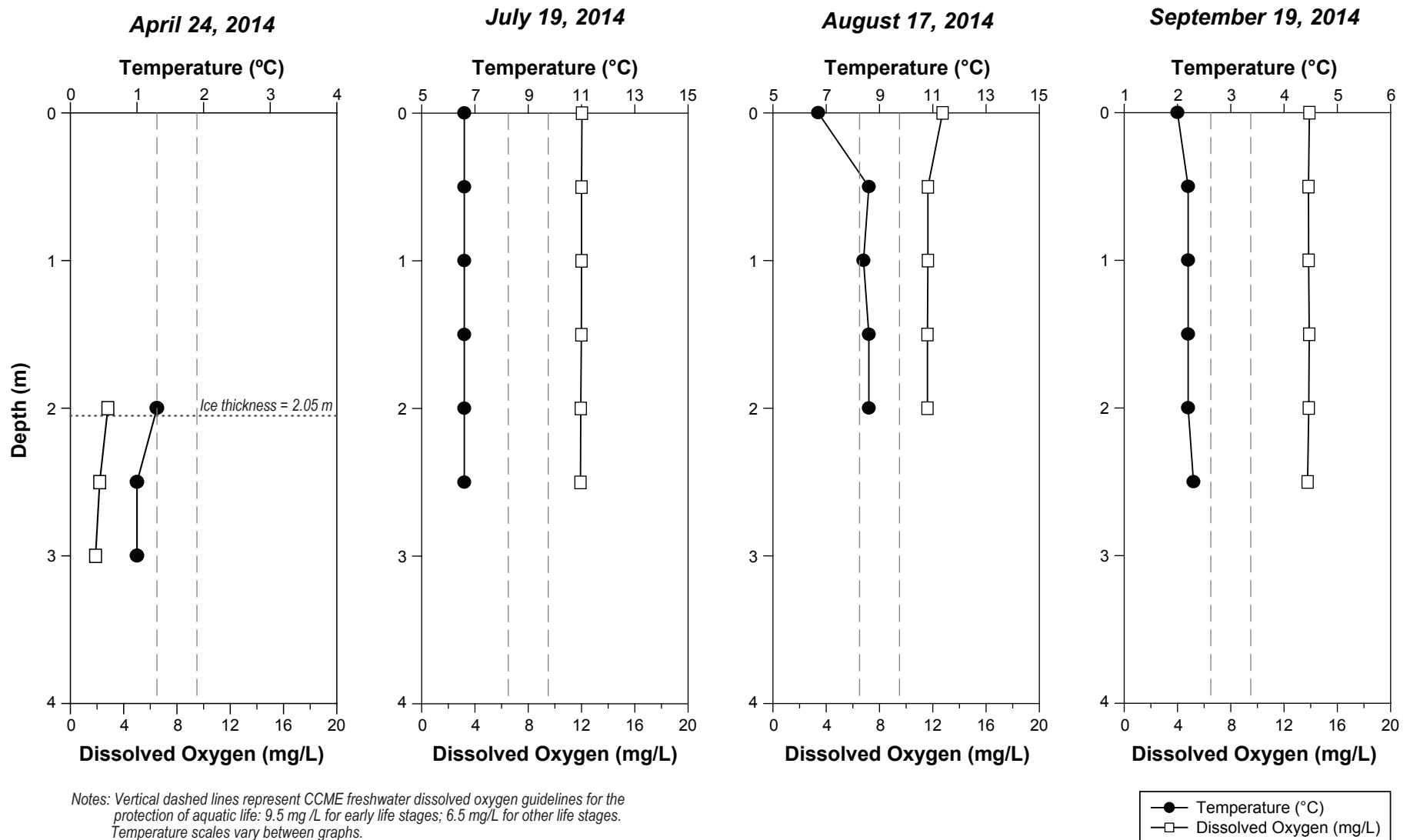
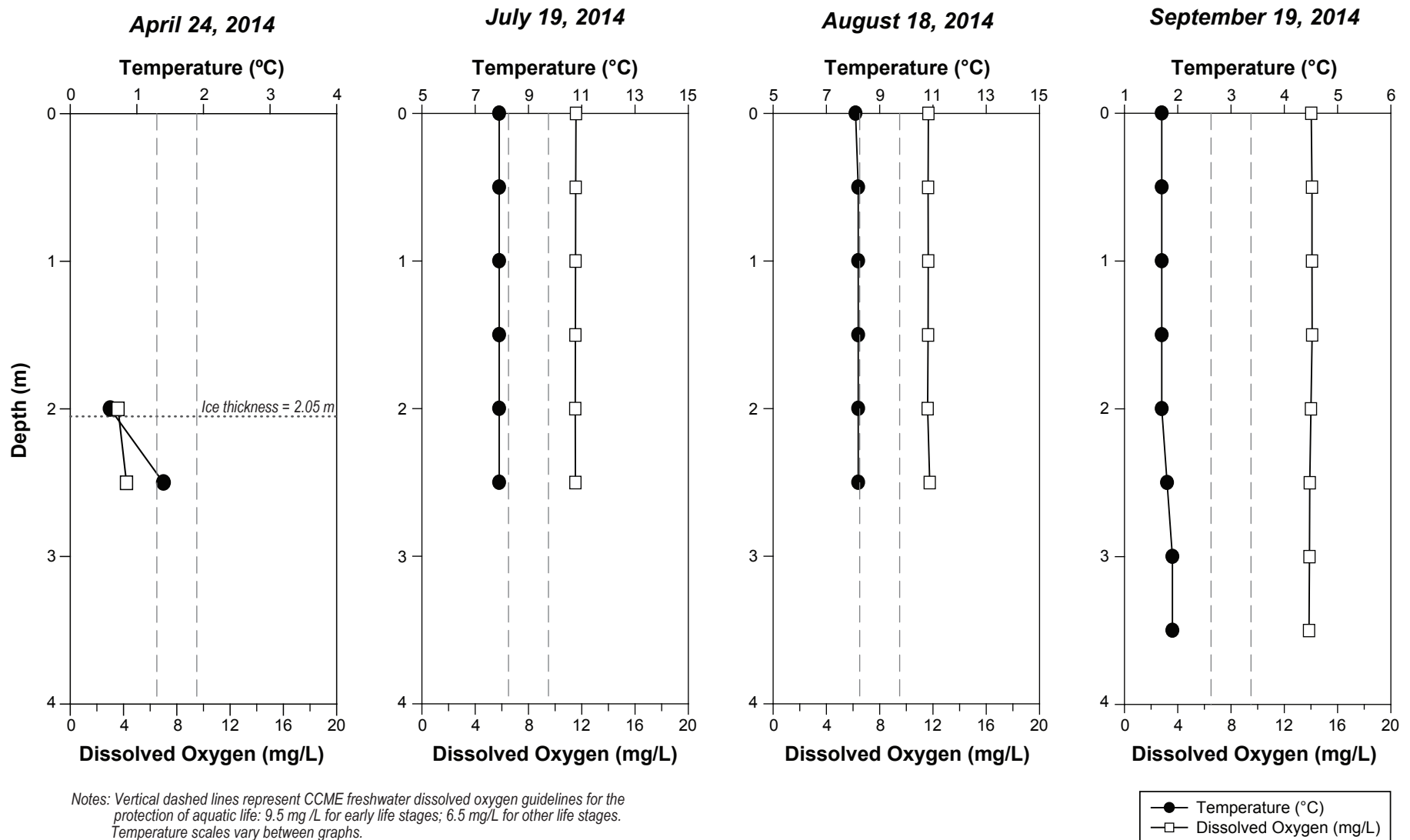


Figure A.2-5

Temperature and Dissolved Oxygen Profiles
in Reference Lake D, Doris North Project, 2014



Annex A.2-1. Temperature and Dissolved Oxygen Profiles, Lake Sites, Doris North Project, 2014

Doris Lake South			
19-Apr-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
2.0	0.8	13.79	96.50
2.5	1.3	13.78	97.80
3.0	1.4	13.82	98.20
3.5	1.4	13.83	98.30
4.0	1.4	13.85	98.40
4.5	1.4	13.79	98.10
5.0	1.4	13.68	97.30
5.5	1.4	13.62	96.90
6.0	1.4	13.6	96.70
6.5	1.4	13.57	96.50
7.0	1.4	13.56	96.40
7.5	1.4	13.55	96.40
8.0	1.4	13.57	96.40
8.5	1.4	13.6	96.70
9.0	1.5	13.59	96.90
9.5	1.5	13.61	97.00
10.0	1.5	13.62	97.10

Doris Lake South			
20-Jul-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	7.9	11.92	100.6
0.5	7.9	11.93	100.6
1.0	7.8	11.96	100.5
1.5	7.7	11.94	100.2
2.0	7.6	11.93	99.8
2.5	7.6	11.9	99.5
3.0	7.5	11.91	99.3
3.5	7.5	11.9	99.3
4.0	7.5	11.89	99.1
4.5	7.5	11.86	98.9
5.0	7.5	11.84	98.8
5.5	7.5	11.84	98.7
6.0	7.5	11.83	98.7
6.5	7.5	11.82	98.6
7.0	7.5	11.8	98.3
7.5	7.4	11.81	98.3
8.0	7.4	11.8	98.2
8.5	7.4	11.8	98.1
9.0	7.4	11.78	98
9.5	7.4	11.74	97.6
10.0	7.4	11.7	97.3

Doris Lake South			
19-Aug-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	9.1	11.83	101.6
0.5	10.0	11.53	102.1
1.0	10.0	11.49	101.8
1.5	10.0	11.47	101.6
2.0	10.0	11.46	101.5
2.5	10.0	11.45	101.4
3.0	10.0	11.44	101.3
3.5	10.0	11.43	101.2
4.0	10.0	11.42	101.2
4.5	10.0	11.41	101.0
5.0	10.0	11.40	101.0
5.5	10.0	11.39	100.9
6.0	10.0	11.37	100.7
6.5	10.0	11.37	100.7
7.0	10.0	11.36	100.6
7.5	10.0	11.36	100.6
8.0	10.0	11.34	100.4
8.5	10.0	11.34	100.4
9.0	10.0	11.33	100.3
9.5	10.0	11.31	100.2

Doris Lake South			
20-Sep-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	4	13.04	99.4
0.5	4	12.98	99.3
1.0	4.1	12.96	99.2
1.5	4.1	12.95	99.1
2.0	4.1	12.94	98.9
2.5	4.1	12.93	98.9
3.0	4.1	12.91	98.7
3.5	4.1	12.91	98.7
4.0	4.1	12.89	98.6
4.5	4.1	12.87	98.4
5.0	4.1	12.85	98.3
5.5	4.1	12.83	98.2
6.0	4.1	12.83	98.1
6.5	4.1	12.82	98
7.0	4.1	12.81	98
7.5	4.1	12.81	97.9
8.0	4.1	12.79	97.8
8.5	4.1	12.79	97.8
9.0	4.1	12.77	97.7
9.5	4.1	12.77	97.6
10.0	4.1	12.75	97.6
10.5	4.1	12.75	97.5

Doris Lake North			
19-Apr-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
2.0	0.9	13.22	93.2
2.5	1.5	13.09	93.4
3.0	1.5	13.05	93.1
3.5	1.5	13.04	93.0
4.0	1.5	13.03	93.0
4.5	1.5	13.03	92.9
5.0	1.5	13.04	93.0
5.5	1.5	13.03	92.9
6.0	1.5	13.03	92.9
6.5	1.5	13.02	92.9
7.0	1.5	13.01	92.8
7.5	1.5	12.99	92.7
8.0	1.5	12.95	92.4
8.5	1.5	12.94	92.2
9.0	1.5	12.96	92.4
9.5	1.5	12.99	92.7
10.0	1.5	13.00	92.7
11.0	1.5	12.99	92.6
12.0	1.5	12.92	92.2
13.0	1.5	12.22	87.1
13.5	1.5	10.03	71.7

Doris Lake North			
20-Jul-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	7.6	11.85	98.8
0.5	7.4	11.86	98.9
1.0	7.4	11.90	98.9
1.5	7.4	11.88	98.8
2.0	7.4	11.88	98.8
2.5	7.3	11.86	98.6
3.0	7.4	11.85	98.5
3.5	7.3	11.86	98.4
4.0	7.3	11.83	98.2
4.5	7.3	11.82	98.1
5.0	7.3	11.81	98.0
5.5	7.3	11.78	97.8
6.0	7.3	11.77	97.7
6.5	7.3	11.77	97.6
7.0	7.3	11.76	97.6
7.5	7.3	11.75	97.5
8.0	7.3	11.73	97.4
8.5	7.3	11.72	97.2
9.0	7.2	11.72	97.1
9.5	7.3	11.69	97.0
10.0	7.2	11.70	96.9
11.0	7.2	11.67	96.6
12.0	7.2	11.65	96.5
13.0	7.2	11.57	95.7

Doris Lake North			
19-Aug-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	9.9	11.33	100.1
0.5	9.9	11.32	100.0
1.0	9.9	11.29	99.8
1.5	9.9	11.26	99.7
2.0	10.0	11.24	99.6
2.5	9.9	11.25	99.4
3.0	10.0	11.21	99.4
3.5	9.9	11.22	99.2
4.0	9.9	11.18	99.0
4.5	9.9	11.19	98.0
5.0	9.9	11.18	98.8
5.5	9.9	11.17	98.7
6.0	10.0	11.18	98.7
6.5	9.9	11.14	98.4
7.0	9.9	11.13	98.4
7.5	9.9	11.12	98.0
8.0	9.9	11.11	98.2
8.5	9.9	11.10	98.1
9.0	9.9	11.09	98.0
9.5	9.9	11.08	97.9
10.0	9.9	11.07	97.8
11.0	9.9	11.03	97.6
12.0	9.9	11.01	97.3
13.0	9.9	10.95	96.8

Doris Lake North			
20-Sep-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	3.7	13.14	99.6
0.5	3.9	13.10	99.7
1.0	3.9	13.10	99.6
1.5	3.9	13.09	99.6
2.0	4.0	13.04	99.5
2.5	4.0	13.04	99.5
3.0	4.0	13.02	99.3
3.5	4.0	13.00	99.2
4.0	4.0	12.98	99.0
4.5	4.0	12.97	98.9
5.0	4.0	12.96	98.8
5.5	4.0	12.94	98.6
6.0	4.0	12.93	98.6
6.5	4.0	12.92	98.5
7.0	4.0	12.90	98.4
7.5	4.0	12.88	98.3
8.0	4.0	12.87	98.2
8.5	4.0	12.88	98.2
9.0	4.0	12.86	98.0
9.5	4.0	12.84	97.9
10.0	4.0	12.83	97.9
10.5	4.0	12.82	97.8
11.0	4.0	12.81	97.7
11.5	4.0	12.79	97.6
12.0	4.0	12.78	97.5
12.5	4.0	12.78	97.5
13.0	4.0	12.73	97.2
13.5	4.0	12.73	97.1

Annex A.2-1. Temperature and Dissolved Oxygen Profiles, Lake Sites, Doris North Project, 2014

Reference Lake B			
20-Apr-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
2.0	0.3	15.60	107.6
2.5	0.6	15.99	111.2
3.0	0.9	15.84	111.1
3.5	1.2	15.55	110.0
4.0	1.3	14.88	105.5
4.5	1.7	13.12	94.1
5.0	1.8	11.50	82.7
5.5	1.9	10.98	79.2
6.0	2.0	10.21	73.8
6.5	2.2	7.65	55.6
7.0	2.3	7.46	54.4
7.5	2.3	7.08	51.6
8.0	2.4	6.78	49.5
8.5	2.5	6.56	48.1
9.0	2.6	6.08	44.6

Reference Lake B			
19-Jul-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	6.5	12.02	97.8
0.5	6.5	12.01	97.7
1.0	6.4	12.03	97.6
1.5	6.4	12.02	97.6
2.0	6.5	11.99	97.5
2.5	6.5	11.97	97.4
3.0	6.5	11.96	97.3
3.5	6.5	11.95	97.2
4.0	6.5	11.98	97.2
4.5	6.5	11.94	97.1
5.0	6.4	11.95	97.0
5.5	6.4	11.95	96.9
6.0	6.4	11.94	96.8
6.5	6.4	11.93	96.8
7.0	6.4	11.92	96.7
7.5	6.4	11.91	96.6
8.0	6.4	11.90	96.5
8.5	6.4	11.89	96.5
9.0	6.4	11.88	96.4
9.5	6.4	11.87	96.3
10.0	6.4	11.86	96.2

Reference Lake B			
23-Aug-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	9.4	11.37	99.3
0.5	9.4	11.37	99.3
1.0	9.4	11.36	99.2
1.5	9.4	11.35	99.1
2.0	9.4	11.36	99.2
2.5	9.4	11.35	99.1
3.0	9.3	11.30	98.5
3.5	9.3	11.33	98.7
4.0	9.3	11.31	98.5
4.5	9.3	11.30	98.5
5.0	9.3	11.28	98.3
5.5	9.3	11.27	98.2
6.0	9.3	11.26	98.1
6.5	9.3	11.25	98.1
7.0	9.3	11.24	98.0
7.5	9.3	11.22	97.8
8.0	9.3	11.20	97.6
8.5	9.2	11.14	96.9
9.0	9.0	11.13	96.3
9.5	9.0	10.23	88.5
10.0	9.0	10.17	88.0

Reference Lake B			
18-Sep-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	2.0	13.59	98.2
0.5	2.0	13.60	98.3
1.0	2.0	13.60	98.3
1.5	2.0	13.60	98.3
2.0	2.0	13.59	98.3
2.5	2.0	13.59	98.2
3.0	2.0	13.57	98.1
3.5	2.0	13.57	98.1
4.0	2.0	13.56	98.0
4.5	2.0	13.55	97.9
5.0	2.0	13.54	97.9
5.5	2.0	13.53	97.8
6.0	2.0	13.52	97.7
6.5	2.0	13.51	97.7
7.0	2.0	13.49	97.6
7.5	2.0	13.49	97.5
8.0	2.0	13.48	97.4
8.5	2.0	13.47	97.4
9.0	2.0	13.46	97.3
9.5	2.0	13.44	97.2
10.0	2.0	13.43	97.1

Little Roberts Lake			
24-Apr-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
2.0	1.3	2.81	20.0
2.5	1.0	2.20	15.5
3.0	1.0	1.88	13.3

Little Roberts Lake			
19-Jul-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	6.6	12.03	98.7
0.5	6.6	12.00	97.9
1.0	6.6	11.99	97.8
1.5	6.6	11.98	97.7
2.0	6.6	11.94	97.4
2.5	6.6	11.92	97.1

Little Roberts Lake			
17-Aug-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	6.7	12.74	98.6
0.5	8.6	11.64	99.5
1.0	8.4	11.64	99.5
1.5	8.6	11.60	99.4
2.0	8.6	11.60	99.3

Little Roberts Lake			
19-Sep-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	2.0	13.90	100.7
0.5	2.2	13.84	100.6
1.0	2.2	13.85	100.7
1.5	2.2	13.89	100.6
2.0	2.2	13.86	100.7
2.5	2.3	13.77	100.1

Reference Lake D			
24-Apr-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
2.0	0.6	3.58	24.9
2.5	1.4	4.22	30.0

Reference Lake D			
19-Jul-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	7.9	11.56	97.3
0.5	7.9	11.54	97.2
1.0	7.9	11.53	97.1
1.5	7.9	11.52	97.0
2.0	7.9	11.51	96.9
2.5	7.9	11.52	97.0

Reference Lake D			
18-Aug-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	8.1	11.66	98.8
0.5	8.2	11.64	98.8
1.0	8.2	11.65	98.8
1.5	8.2	11.64	98.7
2.0	8.2	11.61	98.5
2.5	8.2	11.76	98.7

Reference Lake D			
19-Sep-14			
Depth	Temperature	Dissolved Oxygen	Dissolved Oxygen
(m)	(°C)	(mg/L)	Saturation (%)
0.0	1.7	14.03	100.6
0.5	1.7	14.08	101.0
1.0	1.7	14.08	100.9
1.5	1.7	14.09	101.0
2.0	1.7	14.00	100.7
2.5	1.8	13.92	100.4
3.0	1.9	13.89	100.2
3.5	1.9	13.86	100.0

A.2.3 Marine Data

Marine Secchi depths and calculated euphotic zone depths (1% light level) are shown in Table A.2-3. Figures A.2-6 to A.2-8 show the temperature, dissolved oxygen, and salinity profiles collected at marine sites from April to September 2014; Annexes A.2-2 and A.2-3 provide the profile data in tabular form.

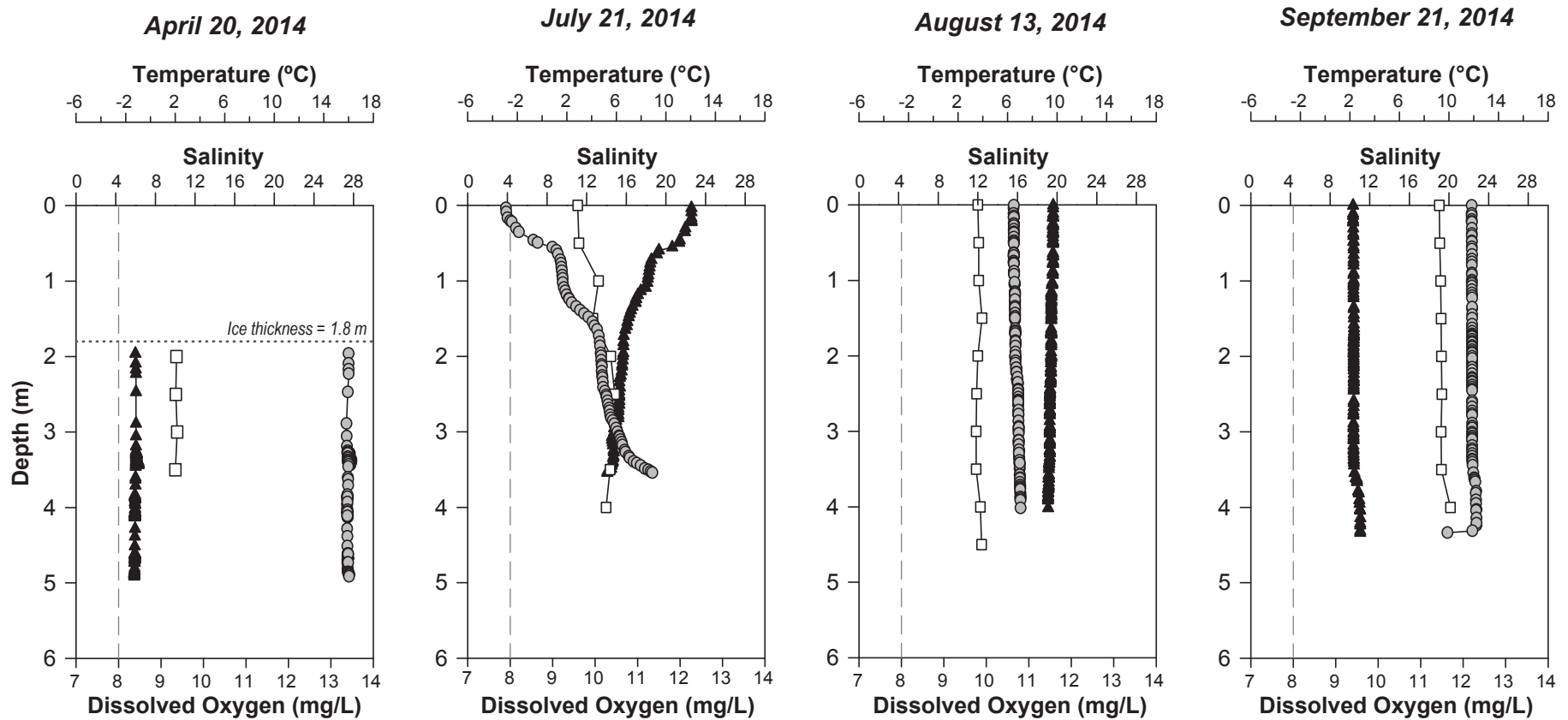
Table A.2-3. Marine Secchi Depths and Euphotic Zone Depths, Doris North Project, 2014

Marine Site	Sampling Date	Secchi Depth (D _s) (m)	Euphotic Zone Depth 1% Light Level (m)
RBW	July 21, 2014	1.3	3.5
	August 13, 2014	Bottom (5.0)	-
	September 21, 2014	Bottom (4.75)	-
RBE	July 21, 2014	Bottom (0.8)	-
	August 14, 2014	Bottom (0.4)	-
	September 21, 2014	Bottom (0.8)	-
REF-Marine 1	July 20, 2014	1.2	3.2
	August 21, 2014	Bottom (4.7)	-
	September 21, 2014	Bottom (4.6)	-

Note: - indicates that the euphotic zone depth was not calculated because the Secchi depth extended to the bottom of the water column.

Figure A.2-6

Temperature, Salinity, and Dissolved Oxygen Profiles
at Marine Site RBW, Doris North Project, 2014



Notes: Vertical dashed lines represent the CCME interim guideline for the minimum concentration of dissolved oxygen in marine and estuarine waters (8.0 mg/L).

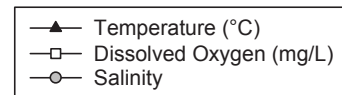
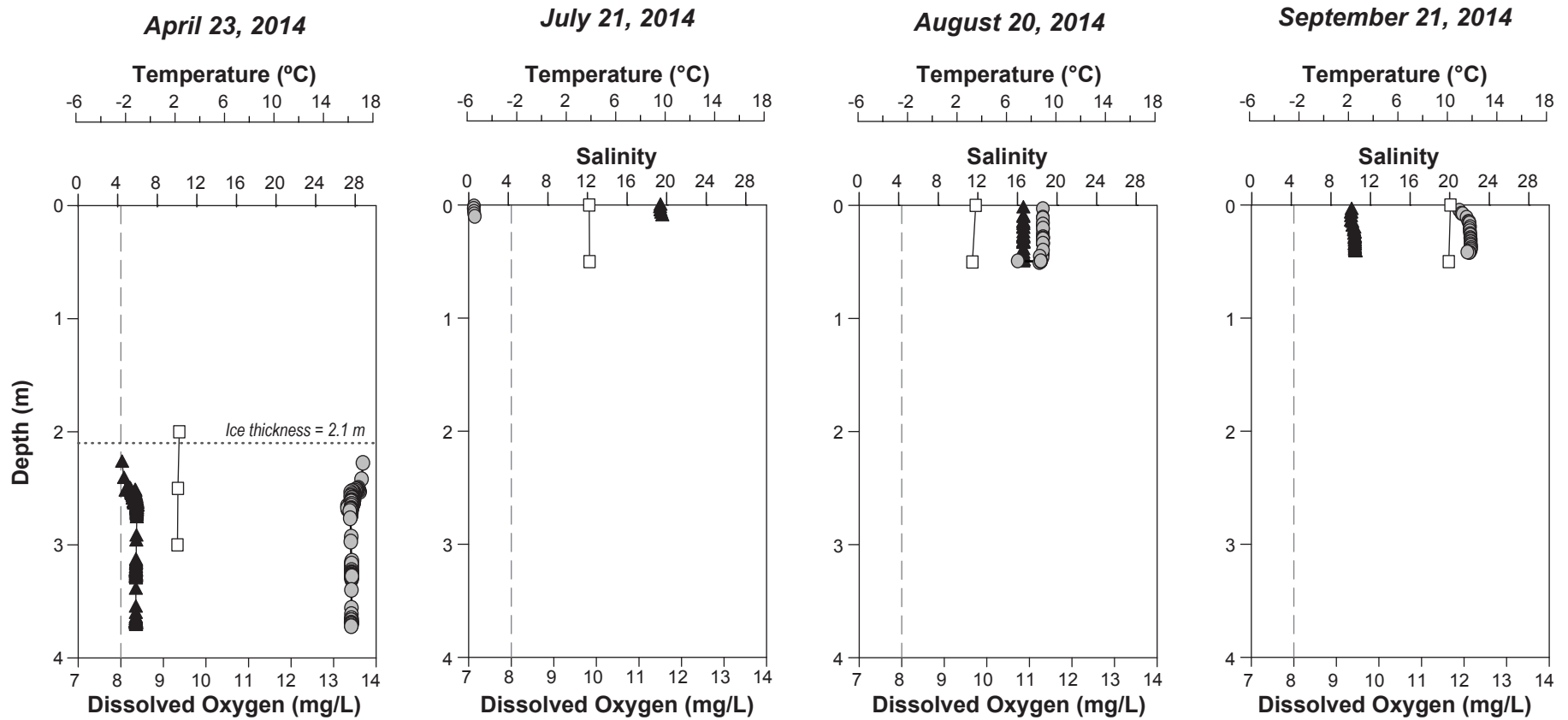


Figure A.2-7

Temperature, Salinity, and Dissolved Oxygen Profiles
at Marine Site RBE, Doris North Project, 2014



Notes: Vertical dashed lines represent the CCME interim guideline for the minimum concentration of dissolved oxygen in marine and estuarine waters (8.0 mg/L).

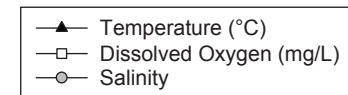
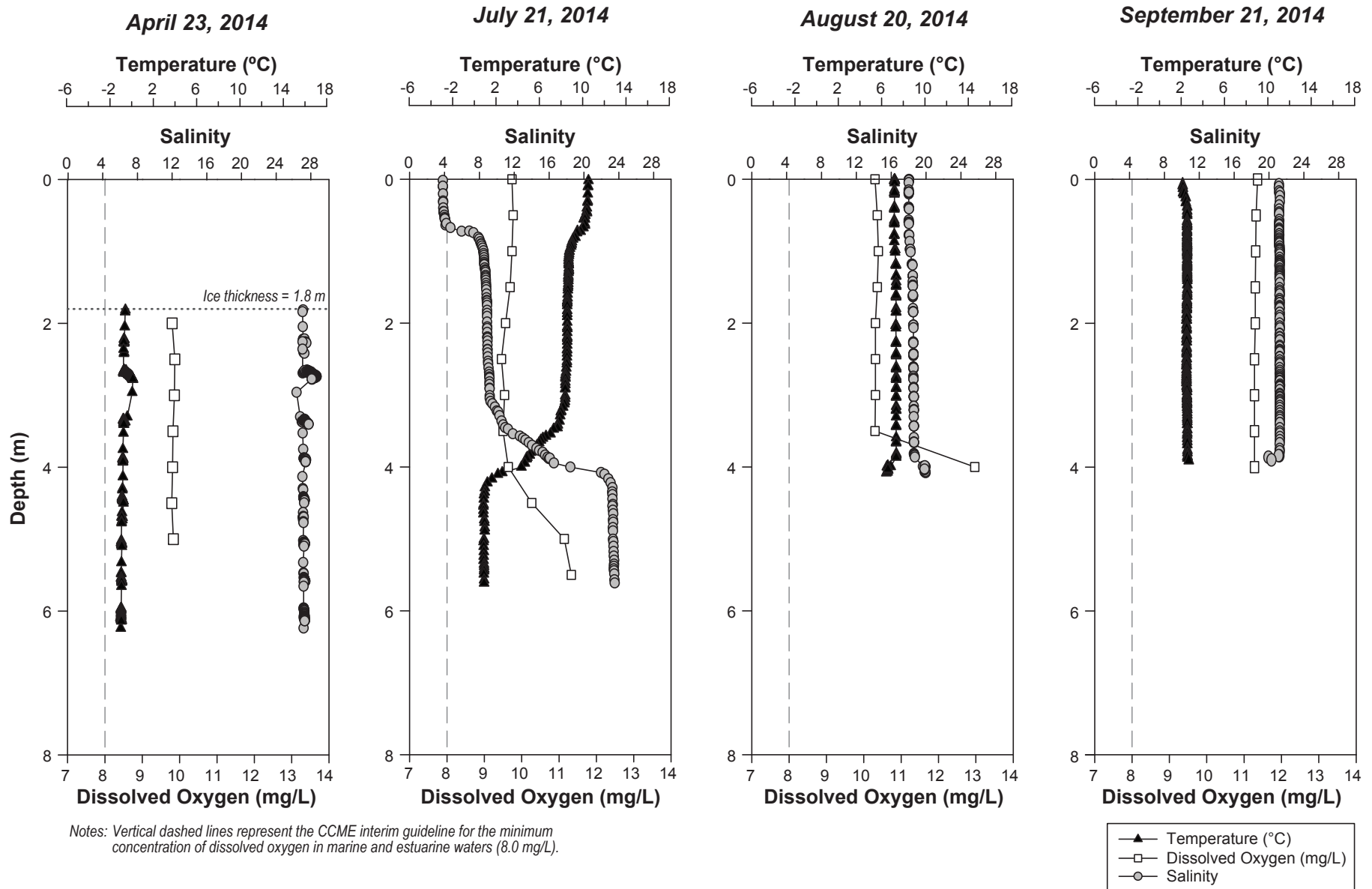


Figure A.2-8

Temperature, Salinity, and Dissolved Oxygen Profiles
at Marine Site REF-Marine 1, Doris North Project, 2014



Annex A.2-2. Temperature and Salinity Profiles, Marine Sites, Doris North Project, 2014

RBW		
20-Apr-14		
Depth	Temperature	Salinity
(m)	(°C)	
1.96	-1.2	27.5
2.09	-1.2	27.5
2.17	-1.2	27.5
2.23	-1.2	27.5
2.47	-1.2	27.4
2.89	-1.2	27.3
3.05	-1.2	27.3
3.19	-1.2	27.3
3.25	-1.2	27.4
3.27	-1.2	27.4
3.29	-1.2	27.4
3.27	-1.2	27.5
3.29	-1.2	27.5
3.32	-1.2	27.5
3.34	-1.2	27.5
3.33	-1.2	27.6
3.34	-1.2	27.6
3.38	-1.1	27.6
3.38	-1.1	27.6
3.37	-1.1	27.6
3.39	-1.1	27.6
3.37	-1.1	27.6
3.37	-1.1	27.6
3.38	-1.1	27.7
3.38	-1.1	27.7
3.38	-1.1	27.7
3.37	-1.1	27.7
3.38	-1.1	27.7
3.36	-1.1	27.8
3.39	-1.1	27.7
3.41	-1.1	27.7
3.38	-1.1	27.7
3.39	-1.1	27.7
3.39	-1.1	27.7
3.39	-1.1	27.7
3.38	-1.1	27.7
3.39	-1.1	27.7
3.38	-1.1	27.7
3.39	-1.1	27.8
3.38	-1.1	27.8
3.34	-1.1	27.5
3.29	-1.1	27.6
3.28	-1.1	27.6

RBW		
20-Apr-14		
Depth	Temperature	Salinity
(m)	(°C)	
3.30	-1.1	27.6
3.31	-1.1	27.6
3.29	-1.1	27.6
3.28	-1.1	27.6
3.29	-1.1	27.6
3.28	-1.1	27.6
3.29	-1.1	27.6
3.29	-1.1	27.6
3.30	-1.1	27.6
3.30	-1.1	27.6
3.31	-1.1	27.5
3.34	-1.1	27.5
3.34	-1.1	27.5
3.34	-1.1	27.5
3.35	-1.1	27.6
3.36	-1.1	27.6
3.36	-1.1	27.6
3.36	-1.1	27.6
3.36	-1.1	27.6
3.36	-1.1	27.6
3.36	-1.1	27.7
3.37	-1.1	27.6
3.35	-1.1	27.4
3.34	-1.1	27.5
3.35	-1.1	27.5
3.35	-1.1	27.5
3.35	-1.1	27.5
3.36	-1.1	27.6
3.36	-1.1	27.6
3.36	-1.1	27.6
3.36	-1.1	27.6
3.36	-1.1	27.6
3.37	-1.1	27.6
3.37	-1.1	27.6
3.37	-1.1	27.7
3.36	-1.1	27.7
3.36	-1.1	27.7
3.36	-1.1	27.7
3.37	-1.1	27.7
3.37	-1.1	27.7
3.36	-1.1	27.7
3.36	-1.1	27.7
3.37	-1.1	27.7
3.37	-1.1	27.6

RBW		
20-Apr-14		
Depth	Temperature	Salinity
(m)	(°C)	
3.38	-1.1	27.6
3.38	-1.1	27.6
3.39	-1.1	27.6
3.40	-1.1	27.5
3.41	-1.1	27.5
3.40	-1.1	27.5
3.40	-1.1	27.6
3.41	-1.1	27.6
3.40	-1.1	27.6
3.41	-1.0	27.6
3.41	-1.1	27.6
3.41	-1.1	27.6
3.41	-1.1	27.6
3.41	-1.1	27.6
3.41	-1.1	27.6
3.41	-1.1	27.6
3.42	-1.1	27.6
3.41	-1.1	27.6
3.42	-1.1	27.6
3.41	-1.1	27.6
3.42	-1.1	27.6
3.41	-1.1	27.6
3.41	-1.1	27.6
3.41	-1.1	27.6
3.42	-1.1	27.7
3.42	-1.1	27.7
3.41	-1.1	27.7
3.41	-1.1	27.7
3.41	-1.0	27.7
3.42	-1.0	27.7
3.42	-1.0	27.7
3.42	-1.0	27.7
3.40	-1.0	27.6
3.40	-1.0	27.6
3.41	-1.0	27.5
3.41	-1.0	27.5
3.38	-1.1	27.4
3.40	-1.1	27.4
3.40	-1.1	27.4
3.41	-1.1	27.5
3.41	-1.1	27.5

Annex A.2-2. Temperature and Salinity Profiles, Marine Sites, Doris North Project, 2014

RBW		
20-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
3.41	-1.1	27.5
3.41	-1.1	27.5
3.41	-1.1	27.5
3.42	-1.1	27.5
3.41	-1.1	27.6
3.42	-1.1	27.6
3.43	-1.1	27.6
3.40	-1.1	27.6
3.42	-1.1	27.6
3.42	-1.1	27.6
3.42	-1.1	27.6
3.41	-1.1	27.6
3.42	-1.1	27.6
3.41	-1.1	27.6
3.42	-1.1	27.6
3.43	-1.0	27.7
3.42	-1.0	27.7
3.42	-1.0	27.7
3.42	-1.0	27.7
3.42	-1.0	27.7
3.42	-1.0	27.7
3.43	-1.0	27.7
3.42	-1.0	27.7
3.43	-1.0	27.7
3.43	-1.0	27.7
3.44	-1.0	27.7
3.42	-1.0	27.7
3.43	-1.0	27.7
3.42	-1.0	27.5
3.39	-1.0	27.5
3.41	-1.0	27.5
3.40	-1.1	27.5
3.41	-1.0	27.5
3.40	-1.1	27.5
3.41	-1.1	27.5
3.40	-1.1	27.5
3.40	-1.0	27.5
3.40	-1.0	27.5
3.37	-1.1	27.5
3.36	-1.1	27.5
3.31	-1.1	27.4

RBW		
20-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
3.28	-1.1	27.4
3.33	-1.1	27.4
3.35	-1.1	27.4
3.37	-1.2	27.4
3.38	-1.2	27.5
3.39	-1.2	27.5
3.40	-1.2	27.5
3.43	-1.2	27.5
3.46	-1.2	27.5
3.60	-1.2	27.4
3.63	-1.2	27.4
3.71	-1.2	27.4
3.88	-1.2	27.4
3.96	-1.2	27.4
4.02	-1.2	27.3
3.95	-1.2	27.4
3.87	-1.2	27.4
3.85	-1.3	27.4
3.89	-1.2	27.3
3.86	-1.2	27.4
3.84	-1.3	27.4
3.85	-1.3	27.4
3.83	-1.3	27.4
3.86	-1.3	27.4
3.93	-1.3	27.4
4.03	-1.3	27.4
4.08	-1.3	27.4
4.07	-1.3	27.4
4.08	-1.3	27.4
4.07	-1.3	27.4
4.09	-1.3	27.4
4.09	-1.3	27.4
4.09	-1.3	27.4
4.10	-1.3	27.4
4.09	-1.2	27.4
4.11	-1.2	27.4
4.11	-1.2	27.4
4.13	-1.3	27.4
4.11	-1.3	27.4
4.12	-1.3	27.4
4.12	-1.3	27.4
4.11	-1.2	27.4

RBW		
20-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
4.13	-1.3	27.4
4.12	-1.2	27.4
4.10	-1.2	27.4
4.10	-1.2	27.4
4.08	-1.2	27.4
4.07	-1.2	27.4
4.06	-1.2	27.4
4.06	-1.2	27.4
4.07	-1.2	27.3
4.06	-1.2	27.4
4.11	-1.2	27.4
4.28	-1.2	27.4
4.38	-1.3	27.4
4.51	-1.3	27.4
4.63	-1.3	27.4
4.73	-1.3	27.4
4.70	-1.3	27.4
4.67	-1.3	27.4
4.69	-1.3	27.4
4.68	-1.3	27.4
4.68	-1.3	27.4
4.67	-1.3	27.4
4.68	-1.3	27.4
4.68	-1.3	27.4
4.68	-1.3	27.4
4.68	-1.3	27.4
4.68	-1.3	27.4
4.68	-1.3	27.4
4.67	-1.3	27.4
4.68	-1.2	27.4
4.67	-1.2	27.4
4.66	-1.2	27.4
4.64	-1.2	27.4
4.65	-1.3	27.4
4.63	-1.2	27.4
4.62	-1.2	27.4
4.63	-1.2	27.4
4.62	-1.3	27.4
4.63	-1.3	27.4
4.62	-1.3	27.4
4.61	-1.2	27.4
4.62	-1.2	27.4

Annex A.2-2. Temperature and Salinity Profiles, Marine Sites, Doris North Project, 2014

RBW		
20-Apr-14		
Depth (m)	Temperature (°C)	Salinity
4.61	-1.3	27.4
4.62	-1.3	27.4
4.62	-1.3	27.4
4.62	-1.3	27.4
4.73	-1.3	27.4
4.80	-1.3	27.4
4.84	-1.3	27.4
4.83	-1.3	27.4
4.73	-1.3	27.5
4.85	-1.3	27.4
4.86	-1.3	27.4
4.88	-1.3	27.5
4.88	-1.3	27.5
4.89	-1.3	27.5
4.90	-1.3	27.5
4.91	-1.3	27.5

RBW		
21-Jul-14		
Depth (m)	Temperature (°C)	Salinity
0.03	12.1	3.9
0.09	12.1	3.9
0.16	12.1	4.0
0.20	12.1	4.3
0.22	12.1	4.5
0.30	11.6	4.9
0.35	11.5	5.2
0.46	11.1	6.6
0.49	11.1	7.0
0.55	10.5	8.5
0.60	9.4	9.0
0.64	9.3	9.1
0.72	8.8	9.3
0.77	8.7	9.4
0.82	8.7	9.5
0.87	8.6	9.5
0.93	8.6	9.5
0.97	8.5	9.6
1.03	8.5	9.6
1.09	8.4	9.7
1.13	8.0	9.8

RBW		
21-Jul-14		
Depth (m)	Temperature (°C)	Salinity
1.19	7.7	10.0
1.23	7.6	10.2
1.24	7.6	10.2
1.29	7.6	10.5
1.34	7.3	10.9
1.39	7.2	11.3
1.43	7.1	11.7
1.48	7.0	12.2
1.54	6.9	12.6
1.60	6.8	12.8
1.64	6.7	13.1
1.73	6.6	13.2
1.81	6.6	13.3
1.86	6.6	13.4
1.96	6.6	13.4
1.99	6.5	13.5
2.05	6.5	13.5
2.11	6.5	13.5
2.13	6.5	13.5
2.20	6.4	13.5
2.26	6.4	13.6
2.28	6.3	13.6
2.34	6.2	13.6
2.41	6.3	13.7
2.46	6.2	13.8
2.51	6.2	14.0
2.53	6.2	14.0
2.59	6.2	14.1
2.64	6.2	14.2
2.69	6.2	14.3
2.72	6.2	14.3
2.78	6.2	14.4
2.81	6.2	14.5
2.85	6.0	14.6
2.89	5.9	14.8
2.95	5.8	15.0
3.00	5.8	15.1
3.05	5.7	15.3
3.07	5.6	15.3
3.10	5.7	15.4
3.14	5.7	15.5
3.17	5.7	15.6

RBW		
21-Jul-14		
Depth (m)	Temperature (°C)	Salinity
3.24	5.8	15.8
3.27	5.8	15.9
3.32	5.8	16.2
3.34	5.7	16.3
3.39	5.7	16.7
3.41	5.7	17.1
3.45	5.6	17.5
3.49	5.6	17.9
3.50	5.5	18.2
3.53	5.3	18.5
3.54	5.3	18.6

RBW		
13-Aug-14		
Depth (m)	Temperature (°C)	Salinity
0.05	9.7	15.6
0.01	9.7	15.6
0.11	9.7	15.6
0.16	9.7	15.6
0.17	9.7	15.6
0.15	9.7	15.6
0.17	9.7	15.6
0.25	9.7	15.6
0.25	9.7	15.6
0.28	9.7	15.6
0.27	9.7	15.6
0.25	9.7	15.6
0.28	9.7	15.6
0.32	9.7	15.6
0.39	9.7	15.6
0.36	9.7	15.6
0.38	9.7	15.6
0.37	9.7	15.6
0.36	9.7	15.6
0.37	9.7	15.6
0.43	9.7	15.6
0.48	9.7	15.6
0.50	9.7	15.6
0.48	9.7	15.6
0.48	9.7	15.6

Annex A.2-2. Temperature and Salinity Profiles, Marine Sites, Doris North Project, 2014

RBW		
13-Aug-14		
Depth	Temperature	
(m)	(°C)	Salinity
0.50	9.7	15.6
0.50	9.7	15.6
0.52	9.7	15.6
0.68	9.7	15.6
0.67	9.7	15.6
0.63	9.7	15.6
0.64	9.7	15.6
0.68	9.7	15.6
0.67	9.7	15.6
0.75	9.7	15.6
0.78	9.7	15.6
0.77	9.7	15.6
0.77	9.7	15.6
0.78	9.7	15.6
0.89	9.7	15.6
0.89	9.6	15.7
0.92	9.7	15.7
0.88	9.7	15.6
0.92	9.6	15.7
1.06	9.6	15.7
1.04	9.6	15.7
1.05	9.6	15.7
1.04	9.6	15.7
1.03	9.6	15.7
1.18	9.5	15.7
1.21	9.5	15.7
1.15	9.5	15.7
1.16	9.5	15.7
1.16	9.5	15.8
1.20	9.5	15.8
1.18	9.5	15.7
1.27	9.5	15.8
1.40	9.5	15.7
1.29	9.5	15.7
1.28	9.5	15.7
1.38	9.5	15.7
1.32	9.5	15.7
1.26	9.5	15.7
1.38	9.5	15.8
1.35	9.5	15.7
1.36	9.5	15.7
1.46	9.5	15.8

RBW		
13-Aug-14		
Depth	Temperature	
(m)	(°C)	Salinity
1.46	9.5	15.8
1.52	9.5	15.8
1.43	9.5	15.8
1.48	9.5	15.8
1.52	9.5	15.8
1.50	9.5	15.8
1.70	9.5	15.8
1.64	9.5	15.8
1.72	9.5	15.8
1.71	9.5	15.8
1.68	9.5	15.8
1.67	9.5	15.8
1.70	9.5	15.8
1.69	9.5	15.8
1.68	9.5	15.8
1.71	9.5	15.8
1.80	9.5	15.8
1.84	9.5	15.8
1.84	9.5	15.8
1.84	9.5	15.8
1.82	9.5	15.8
1.87	9.5	15.8
1.95	9.5	15.8
2.01	9.5	15.8
2.02	9.5	15.8
2.01	9.5	15.8
2.04	9.5	15.8
2.01	9.5	15.8
2.00	9.5	15.8
2.07	9.5	15.8
2.10	9.5	15.8
2.22	9.5	15.9
2.16	9.5	15.9
2.21	9.5	15.9
2.16	9.5	15.9
2.20	9.5	15.9
2.16	9.5	15.9
2.22	9.5	15.9
2.22	9.5	15.9
2.31	9.5	15.9
2.33	9.5	16.0
2.31	9.5	15.9
2.30	9.5	16.0

RBW		
13-Aug-14		
Depth	Temperature	
(m)	(°C)	Salinity
2.37	9.4	16.0
2.28	9.5	16.0
2.36	9.5	16.0
2.35	9.5	16.0
2.49	9.4	16.1
2.48	9.4	16.1
2.44	9.4	16.1
2.51	9.4	16.1
2.44	9.4	16.1
2.52	9.4	16.1
2.46	9.4	16.1
2.50	9.4	16.1
2.55	9.4	16.1
2.63	9.4	16.1
2.59	9.4	16.1
2.65	9.4	16.1
2.59	9.4	16.1
2.60	9.4	16.1
2.65	9.4	16.1
2.61	9.4	16.1
2.61	9.4	16.1
2.75	9.4	16.1
2.78	9.4	16.1
2.74	9.4	16.1
2.73	9.4	16.1
2.78	9.4	16.1
2.72	9.4	16.1
2.77	9.4	16.1
2.86	9.4	16.1
2.98	9.4	16.1
2.97	9.4	16.1
2.94	9.4	16.1
3.00	9.4	16.1
2.94	9.4	16.1
3.01	9.4	16.1
2.95	9.4	16.1
3.03	9.4	16.1
3.16	9.4	16.1
3.13	9.4	16.1
3.12	9.4	16.1
3.14	9.4	16.1
3.15	9.4	16.1
3.12	9.4	16.1

Annex A.2-2. Temperature and Salinity Profiles, Marine Sites, Doris North Project, 2014

RBW		
13-Aug-14		
Depth	Temperature	
(m)	(°C)	Salinity
3.18	9.4	16.1
3.35	9.4	16.2
3.26	9.4	16.1
3.26	9.4	16.2
3.34	9.4	16.2
3.25	9.4	16.2
3.29	9.4	16.1
3.43	9.4	16.2
3.39	9.4	16.2
3.50	9.3	16.2
3.42	9.4	16.2
3.43	9.4	16.2
3.47	9.3	16.2
3.42	9.3	16.2
3.58	9.3	16.2
3.58	9.3	16.2
3.62	9.3	16.2
3.58	9.3	16.2
3.62	9.3	16.2
3.61	9.3	16.2
3.62	9.3	16.2
3.68	9.3	16.2
3.76	9.3	16.3
3.72	9.3	16.3
3.71	9.3	16.3
3.74	9.3	16.3
3.76	9.3	16.3
3.81	9.3	16.3
3.86	9.3	16.3
3.82	9.3	16.3
3.87	9.3	16.3
3.77	9.3	16.3
3.87	9.3	16.3
3.89	9.3	16.3
3.91	9.3	16.3
4.02	9.3	16.3

RBW		
21-Sep-14		
Depth	Temperature	
(m)	(°C)	Salinity
0.00	2.3	22.3

RBW		
21-Sep-14		
Depth	Temperature	
(m)	(°C)	Salinity
0.11	2.3	22.3
0.14	2.3	22.3
0.19	2.3	22.3
0.21	2.3	22.3
0.22	2.3	22.3
0.30	2.3	22.3
0.37	2.3	22.3
0.40	2.3	22.3
0.47	2.3	22.3
0.48	2.3	22.3
0.55	2.3	22.3
0.58	2.3	22.3
0.65	2.3	22.3
0.71	2.3	22.3
0.75	2.3	22.3
0.79	2.3	22.3
0.90	2.3	22.3
0.92	2.3	22.3
0.99	2.3	22.3
1.01	2.3	22.3
1.03	2.3	22.3
1.07	2.3	22.3
1.12	2.3	22.3
1.16	2.3	22.3
1.20	2.3	22.3
1.23	2.3	22.3
1.37	2.3	22.3
1.35	2.3	22.3
1.45	2.3	22.3
1.49	2.3	22.3
1.57	2.3	22.3
1.63	2.3	22.3
1.67	2.3	22.3
1.70	2.3	22.3
1.72	2.3	22.3
1.73	2.3	22.3
1.74	2.3	22.3
1.78	2.3	22.3
1.80	2.3	22.3
1.82	2.3	22.3
1.82	2.3	22.3
1.86	2.3	22.3

RBW		
21-Sep-14		
Depth	Temperature	
(m)	(°C)	Salinity
1.88	2.3	22.3
1.91	2.3	22.3
1.94	2.3	22.3
1.96	2.3	22.3
1.96	2.3	22.3
2.00	2.3	22.3
2.06	2.3	22.3
2.09	2.3	22.3
2.11	2.3	22.3
2.13	2.3	22.3
2.03	2.3	22.3
2.14	2.3	22.3
2.18	2.3	22.3
2.23	2.3	22.3
2.28	2.3	22.3
2.30	2.3	22.3
2.33	2.3	22.3
2.34	2.3	22.3
2.38	2.3	22.3
2.41	2.3	22.3
2.44	2.3	22.3
2.45	2.3	22.3
2.59	2.3	22.3
2.62	2.3	22.3
2.67	2.3	22.3
2.72	2.3	22.3
2.76	2.3	22.3
2.78	2.3	22.3
2.88	2.3	22.3
2.93	2.3	22.3
2.95	2.3	22.3
3.01	2.3	22.3
3.02	2.3	22.3
3.06	2.3	22.3
3.08	2.3	22.3
3.11	2.3	22.3
3.10	2.3	22.3
3.18	2.3	22.3
3.22	2.3	22.3
3.25	2.3	22.3
3.29	2.3	22.3
3.32	2.3	22.3
3.36	2.3	22.3

Annex A.2-2. Temperature and Salinity Profiles, Marine Sites, Doris North Project, 2014

RBW		
21-Sep-14		
Depth	Temperature	
(m)	(°C)	Salinity
3.38	2.3	22.4
3.40	2.3	22.4
3.44	2.3	22.4
3.54	2.4	22.5
3.61	2.5	22.5
3.62	2.6	22.6
3.64	2.6	22.6
3.66	2.6	22.6
3.79	2.7	22.8
3.81	2.7	22.7
3.90	2.8	22.7
3.95	2.8	22.7
4.03	2.8	22.8
4.04	2.8	22.7
4.14	2.8	22.8
4.24	2.8	22.8
4.21	2.8	22.8
4.31	2.8	22.4
4.34	2.8	19.8

RBE		
23-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
2.28	-2.5	28.7
2.42	-2.3	28.5
2.53	-2.2	28.4
2.52	-2.1	28.3
2.50	-2.0	28.2
2.51	-2.0	28.1
2.52	-1.9	28.1
2.52	-1.9	28.1
2.51	-1.8	28.0
2.51	-1.8	28.0
2.52	-1.8	27.9
2.53	-1.8	27.8
2.54	-1.8	27.7
2.55	-1.7	27.8
2.55	-1.7	27.8
2.56	-1.7	27.8
2.56	-1.7	27.8

RBE		
23-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
2.56	-1.7	27.8
2.56	-1.7	27.8
2.55	-1.7	27.8
2.56	-1.6	27.8
2.58	-1.6	27.7
2.60	-1.6	27.8
2.59	-1.6	27.6
2.60	-1.6	27.7
2.63	-1.5	27.7
2.64	-1.5	27.7
2.65	-1.5	27.7
2.64	-1.5	27.7
2.64	-1.5	27.7
2.63	-1.5	27.7
2.64	-1.5	27.7
2.64	-1.5	27.5
2.64	-1.5	27.4
2.60	-1.5	27.5
2.58	-1.4	27.6
2.58	-1.4	27.6
2.56	-1.4	27.6
2.54	-1.4	27.7
2.53	-1.4	27.6
2.53	-1.4	27.4
2.55	-1.4	27.5
2.57	-1.4	27.6
2.57	-1.4	27.6
2.58	-1.4	27.5
2.58	-1.4	27.5
2.57	-1.4	27.5
2.57	-1.4	27.5
2.57	-1.4	27.5
2.57	-1.4	27.5
2.58	-1.4	27.5
2.59	-1.4	27.6
2.57	-1.4	27.4
2.61	-1.4	27.6
2.60	-1.3	27.5
2.59	-1.3	27.6
2.58	-1.3	27.6
2.60	-1.3	27.6

RBE		
23-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
2.59	-1.3	27.6
2.61	-1.3	27.6
2.64	-1.3	27.5
2.69	-1.3	27.5
2.61	-1.3	27.6
2.62	-1.3	27.5
2.62	-1.3	27.5
2.64	-1.3	27.5
2.64	-1.3	27.4
2.64	-1.3	27.4
2.64	-1.3	27.3
2.65	-1.3	27.1
2.71	-1.3	27.5
2.64	-1.3	27.5
2.62	-1.3	27.5
2.61	-1.3	27.5
2.62	-1.3	27.5
2.62	-1.3	27.5
2.63	-1.3	27.5
2.63	-1.3	27.5
2.62	-1.3	27.4
2.62	-1.3	27.4
2.63	-1.3	27.4
2.64	-1.3	27.5
2.64	-1.3	27.5
2.64	-1.3	27.5
2.64	-1.3	27.4
2.66	-1.3	27.4
2.64	-1.3	27.5
2.61	-1.3	27.5
2.62	-1.3	27.5
2.61	-1.3	27.5
2.61	-1.3	27.5
2.61	-1.3	27.5
2.61	-1.3	27.5
2.62	-1.3	27.5
2.65	-1.3	27.5
2.65	-1.3	27.5
2.65	-1.3	27.4
2.67	-1.3	27.3
2.66	-1.3	27.3
2.66	-1.3	27.3
2.66	-1.3	27.4

Annex A.2-2. Temperature and Salinity Profiles, Marine Sites, Doris North Project, 2014

RBE		
23-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
2.66	-1.3	27.4
2.66	-1.3	27.4
2.66	-1.3	27.4
2.65	-1.3	27.4
2.66	-1.3	27.4
2.66	-1.3	27.4
2.67	-1.3	27.4
2.67	-1.3	27.4
2.62	-1.3	27.5
2.64	-1.3	27.5
2.67	-1.3	27.5
2.69	-1.3	27.5
2.68	-1.3	27.3
2.69	-1.3	27.2
2.69	-1.3	27.3
2.68	-1.3	27.1
2.71	-1.3	27.5
2.72	-1.3	27.5
2.73	-1.3	27.5
2.72	-1.3	27.5
2.75	-1.3	27.5
2.69	-1.3	27.5
2.73	-1.3	27.5
2.73	-1.3	27.5
2.74	-1.3	27.5
2.74	-1.3	27.5
2.71	-1.3	27.5
2.71	-1.3	27.5
2.65	-1.3	27.5
2.68	-1.3	27.5
2.69	-1.3	27.5
2.67	-1.3	27.5
2.64	-1.3	27.5
2.66	-1.3	27.5
2.68	-1.3	27.5
2.69	-1.3	27.5
2.70	-1.3	27.5
2.70	-1.3	27.5
2.66	-1.3	27.5
2.70	-1.3	27.5
2.69	-1.3	27.5
2.67	-1.3	27.5
2.68	-1.3	27.5

RBE		
23-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
2.70	-1.3	27.4
2.69	-1.3	27.5
2.68	-1.3	27.5
2.68	-1.3	27.5
2.68	-1.3	27.5
2.69	-1.3	27.5
2.69	-1.3	27.5
2.69	-1.3	27.4
2.69	-1.3	27.4
2.70	-1.3	27.3
2.77	-1.3	27.4
2.93	-1.3	27.5
2.97	-1.3	27.5
3.17	-1.3	27.5
3.15	-1.3	27.5
3.14	-1.3	27.5
3.18	-1.4	27.5
3.20	-1.4	27.5
3.18	-1.4	27.5
3.21	-1.4	27.5
3.23	-1.4	27.5
3.23	-1.4	27.5
3.24	-1.4	27.5
3.24	-1.4	27.5
3.24	-1.4	27.5
3.24	-1.4	27.5
3.23	-1.4	27.5
3.24	-1.4	27.5
3.21	-1.3	27.5
3.17	-1.4	27.5
3.23	-1.4	27.5
3.24	-1.4	27.5
3.25	-1.4	27.5
3.25	-1.4	27.5
3.26	-1.4	27.5
3.27	-1.4	27.5
3.27	-1.4	27.5
3.28	-1.4	27.5
3.30	-1.4	27.5
3.31	-1.4	27.5
3.30	-1.4	27.5
3.28	-1.4	27.5
3.27	-1.4	27.5

RBE		
23-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
3.27	-1.4	27.5
3.29	-1.3	27.5
3.29	-1.4	27.5
3.29	-1.4	27.5
3.30	-1.4	27.5
3.29	-1.4	27.5
3.28	-1.4	27.5
3.40	-1.4	27.5
3.56	-1.4	27.5
3.61	-1.4	27.5
3.69	-1.4	27.5
3.69	-1.4	27.5
3.71	-1.4	27.5
3.65	-1.4	27.5
3.68	-1.4	27.5
3.67	-1.4	27.5
3.65	-1.4	27.5
3.67	-1.4	27.5
3.69	-1.4	27.5
3.69	-1.4	27.5
3.69	-1.4	27.5
3.68	-1.4	27.5
3.68	-1.4	27.5
3.69	-1.4	27.5
3.67	-1.4	27.5
3.70	-1.4	27.5
3.70	-1.4	27.5
3.70	-1.4	27.5
3.70	-1.4	27.5
3.70	-1.4	27.5
3.71	-1.4	27.5
3.70	-1.4	27.5
3.70	-1.3	27.5
3.70	-1.3	27.5
3.69	-1.3	27.5
3.70	-1.3	27.5
3.71	-1.3	27.5
3.72	-1.3	27.5
3.72	-1.3	27.5

Annex A.2-2. Temperature and Salinity Profiles, Marine Sites, Doris North Project, 2014

RBE		
21-Jul-14		
Depth	Temperature	
(m)	(°C)	Salinity
0.01	9.4	0.5
0.03	9.4	0.5
0.06	9.5	0.5
0.08	9.5	0.6
0.10	9.6	0.6

RBE		
20-Aug-14		
Depth	Temperature	
(m)	(°C)	Salinity
0.03	7.2	18.5
0.18	7.2	18.5
0.15	7.2	18.5
0.11	7.2	18.5
0.11	7.2	18.5
0.28	7.2	18.5
0.21	7.2	18.5
0.17	7.2	18.5
0.25	7.2	18.5
0.33	7.2	18.5
0.20	7.2	18.5
0.29	7.2	18.5
0.33	7.2	18.5
0.28	7.2	18.5
0.29	7.2	18.5
0.34	7.2	18.5
0.30	7.2	18.5
0.43	7.2	18.5
0.34	7.2	18.5
0.46	7.2	18.5
0.34	7.2	18.5
0.40	7.2	18.5
0.45	7.2	18.2
0.51	7.2	18.2
0.49	7.2	18.3
0.50	7.2	18.3
0.49	7.2	16.0
0.49	7.2	18.3

RBE		
21-Sep-14		
Depth	Temperature	
(m)	(°C)	Salinity
0.05	2.1	21.0
0.07	2.0	21.2
0.08	2.0	21.3
0.11	2.0	21.7
0.15	2.0	21.9
0.15	2.0	22.0
0.16	2.1	22.0
0.19	2.2	22.0
0.21	2.3	22.0
0.24	2.3	22.0
0.23	2.3	22.0
0.25	2.3	22.0
0.27	2.3	22.1
0.29	2.3	22.1
0.29	2.4	22.1
0.30	2.3	22.1
0.31	2.3	22.1
0.32	2.3	22.1
0.33	2.3	22.1
0.34	2.4	22.1
0.36	2.3	22.1
0.36	2.4	22.1
0.38	2.3	22.1
0.39	2.4	22.1
0.40	2.3	22.1
0.42	2.4	22.0
0.42	2.4	21.9
0.42	2.4	21.8

REF-Marine 1		
24-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
1.81	-0.7	27.2
1.84	-0.7	27.2
2.05	-0.7	27.2
2.22	-0.8	27.2
2.22	-0.8	27.2
2.22	-0.8	27.4
2.27	-0.8	27.3
2.26	-0.8	27.4

REF-Marine 1		
24-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
2.26	-0.8	27.5
2.27	-0.8	27.5
2.27	-0.8	27.6
2.40	-0.8	27.3
2.42	-0.8	27.4
2.26	-0.8	27.2
2.36	-0.9	27.2
2.69	-0.9	27.2
2.68	-0.9	27.2
2.67	-0.9	27.3
2.67	-0.9	27.4
2.66	-0.8	27.4
2.66	-0.8	27.5
2.66	-0.8	27.6
2.65	-0.8	27.6
2.66	-0.8	27.6
2.65	-0.8	27.7
2.66	-0.8	27.7
2.66	-0.8	27.7
2.66	-0.7	27.8
2.67	-0.7	27.8
2.67	-0.7	27.9
2.67	-0.7	27.9
2.67	-0.7	28.0
2.68	-0.7	28.0
2.67	-0.7	28.1
2.68	-0.6	28.1
2.66	-0.6	27.4
2.67	-0.7	27.5
2.67	-0.7	27.6
2.68	-0.7	27.7
2.68	-0.6	27.8
2.68	-0.6	27.8
2.68	-0.6	27.9
2.68	-0.6	27.9
2.69	-0.6	28.0
2.69	-0.6	28.0
2.69	-0.5	28.0
2.69	-0.5	28.1
2.69	-0.5	28.1
2.69	-0.5	28.1
2.70	-0.5	28.2

Annex A.2-2. Temperature and Salinity Profiles, Marine Sites, Doris North Project, 2014

REF-Marine 1		
24-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
2.70	-0.4	28.2
2.71	-0.4	28.2
2.70	-0.4	28.3
2.71	-0.4	28.3
2.71	-0.4	28.3
2.71	-0.4	28.3
2.71	-0.4	28.4
2.71	-0.3	28.4
2.72	-0.3	28.4
2.72	-0.3	28.4
2.72	-0.3	28.5
2.72	-0.3	28.5
2.73	-0.3	28.5
2.72	-0.3	28.5
2.72	-0.2	28.5
2.73	-0.2	28.6
2.73	-0.2	28.6
2.73	-0.2	28.6
2.73	-0.2	28.6
2.74	-0.2	28.6
2.74	-0.2	28.6
2.74	-0.2	28.7
2.74	-0.2	28.7
2.74	-0.2	28.7
2.74	-0.2	28.6
2.74	-0.1	28.6
2.74	-0.1	28.6
2.74	-0.1	28.6
2.75	-0.1	28.6
2.76	-0.1	28.5
2.75	-0.1	28.5
2.75	-0.1	28.5
2.76	-0.1	28.4
2.75	-0.1	28.4
2.76	-0.1	28.4
2.75	-0.1	28.4
2.76	-0.1	28.3
2.76	-0.1	28.3
2.76	-0.1	28.3
2.77	0.0	28.3
2.76	0.0	28.2
2.77	0.0	28.2

REF-Marine 1		
24-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
2.77	0.0	28.2
2.77	0.0	28.2
2.78	0.0	28.2
2.77	0.0	28.2
2.78	0.0	28.2
2.77	0.0	28.1
2.96	-0.1	26.5
3.30	-0.5	26.9
3.37	-0.7	27.1
3.37	-0.8	27.1
3.35	-0.8	27.2
3.35	-0.8	27.3
3.34	-0.8	27.3
3.34	-0.9	27.4
3.33	-0.9	27.4
3.34	-0.9	27.4
3.34	-0.9	27.4
3.35	-0.9	27.4
3.35	-0.9	27.5
3.36	-0.9	27.5
3.35	-0.9	27.5
3.36	-0.9	27.5
3.37	-0.8	27.5
3.37	-0.8	27.5
3.38	-0.9	27.6
3.37	-0.9	27.6
3.37	-0.9	27.6
3.38	-0.9	27.6
3.38	-0.9	27.7
3.39	-0.9	27.7
3.39	-0.9	27.7
3.40	-0.8	27.7
3.39	-0.8	27.8
3.40	-0.8	27.8
3.40	-0.8	27.8
3.40	-0.8	27.8
3.52	-0.9	27.2
3.75	-0.9	27.2
3.87	-0.9	27.3
3.88	-0.9	27.3
3.88	-0.9	27.3
3.89	-0.9	27.4
3.89	-0.9	27.4

REF-Marine 1		
24-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
3.88	-0.9	27.4
3.88	-0.9	27.4
3.87	-0.9	27.3
3.88	-0.9	27.4
3.88	-0.9	27.4
3.88	-0.9	27.5
3.89	-0.9	27.5
3.88	-0.9	27.5
3.89	-0.9	27.5
3.90	-0.9	27.5
3.91	-0.9	27.5
3.91	-0.9	27.5
3.93	-0.9	27.5
3.92	-0.9	27.5
4.13	-0.9	27.1
4.30	-1.0	27.2
4.32	-1.0	27.2
4.41	-1.0	27.3
4.42	-1.0	27.3
4.44	-1.0	27.3
4.44	-1.0	27.3
4.43	-1.0	27.3
4.43	-1.0	27.3
4.44	-1.0	27.3
4.45	-1.0	27.3
4.45	-1.0	27.3
4.44	-1.0	27.3
4.44	-1.0	27.4
4.44	-1.0	27.4
4.46	-1.0	27.4
4.46	-0.9	27.4
4.47	-0.9	27.4
4.46	-0.9	27.4
4.47	-0.9	27.4
4.47	-0.9	27.4
4.50	-0.9	27.3
4.70	-1.0	27.2
4.73	-1.0	27.2
4.63	-1.0	27.2
4.69	-1.0	27.2
4.69	-1.0	27.3
4.70	-1.0	27.3
4.76	-1.0	27.2

Annex A.2-2. Temperature and Salinity Profiles, Marine Sites, Doris North Project, 2014

REF-Marine 1		
24-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
4.77	-1.1	27.3
5.02	-1.1	27.2
5.08	-1.1	27.2
5.06	-1.1	27.3
5.04	-1.1	27.3
5.05	-1.1	27.3
5.05	-1.1	27.3
5.04	-1.1	27.3
5.05	-1.1	27.3
5.05	-1.1	27.4
5.05	-1.1	27.4
5.05	-1.1	27.4
5.06	-1.0	27.4
5.06	-1.0	27.4
5.07	-1.0	27.4
5.07	-1.0	27.4
5.07	-1.0	27.4
5.10	-1.0	27.3
5.33	-1.1	27.2
5.47	-1.1	27.3
5.48	-1.1	27.3
5.53	-1.1	27.3
5.54	-1.1	27.3
5.54	-1.1	27.3
5.55	-1.1	27.3
5.56	-1.1	27.4
5.57	-1.1	27.4
5.57	-1.1	27.4
5.57	-1.1	27.4
5.57	-1.0	27.4
5.57	-1.0	27.4
5.57	-1.0	27.4
5.58	-1.0	27.4
5.58	-1.0	27.4
5.59	-1.0	27.4
5.59	-1.0	27.4
5.58	-1.0	27.5
5.59	-1.0	27.5
5.59	-1.0	27.4
5.59	-1.0	27.3
5.60	-1.0	27.3
5.66	-1.1	27.3
5.96	-1.1	27.3

REF-Marine 1		
24-Apr-14		
Depth	Temperature	
(m)	(°C)	Salinity
5.98	-1.1	27.3
5.97	-1.1	27.3
5.96	-1.1	27.3
5.98	-1.1	27.3
5.98	-1.1	27.3
5.99	-1.1	27.3
6.00	-1.1	27.4
6.02	-1.1	27.3
6.02	-1.1	27.4
6.04	-1.1	27.4
6.05	-1.1	27.4
6.06	-1.1	27.4
6.07	-1.1	27.4
6.08	-1.1	27.4
6.07	-1.1	27.3
6.10	-1.1	27.3
6.10	-1.1	27.3
6.24	-1.1	27.3
6.08	-1.1	27.3
6.09	-1.1	27.3
6.09	-1.1	27.3
6.09	-1.1	27.4
6.10	-1.1	27.4
6.10	-1.1	27.4
6.10	-1.1	27.4
6.11	-1.1	27.4
6.12	-1.1	27.4
6.11	-1.1	27.4
6.12	-1.1	27.4
6.13	-1.1	27.4
6.14	-1.1	27.4
6.13	-1.1	27.4
6.13	-1.0	27.4
6.12	-1.0	27.4
6.14	-1.1	27.4

REF-Marine 1		
20-Jul-14		
Depth	Temperature	
(m)	(°C)	Salinity
0.02	10.4	3.8
0.10	10.4	3.8

REF-Marine 1		
20-Jul-14		
Depth	Temperature	
(m)	(°C)	Salinity
0.10	10.4	3.8
0.20	10.4	3.8
0.30	10.3	3.8
0.32	10.3	3.8
0.40	10.3	3.9
0.45	10.2	3.9
0.47	10.3	3.9
0.45	10.3	3.9
0.50	10.1	4.0
0.53	10.0	4.0
0.55	10.0	4.0
0.55	10.0	4.1
0.55	10.1	4.0
0.64	10.1	4.1
0.61	10.1	4.2
0.67	10.0	4.7
0.72	9.7	6.0
0.72	9.4	6.8
0.74	9.4	7.3
0.81	9.2	7.9
0.83	9.0	8.0
0.87	8.9	8.1
0.90	8.8	8.2
0.90	8.9	8.2
0.93	8.8	8.3
0.96	8.7	8.4
1.00	8.7	8.5
1.00	8.7	8.5
1.03	8.6	8.5
1.06	8.6	8.5
1.09	8.6	8.5
1.12	8.6	8.6
1.16	8.6	8.6
1.18	8.6	8.6
1.19	8.6	8.6
1.23	8.6	8.6
1.26	8.6	8.7
1.27	8.6	8.7
1.30	8.6	8.7
1.34	8.6	8.7
1.36	8.6	8.7
1.38	8.6	8.7

Annex A.2-2. Temperature and Salinity Profiles, Marine Sites, Doris North Project, 2014

REF-Marine 1		
20-Jul-14		
Depth	Temperature	
(m)	(°C)	Salinity
1.41	8.6	8.8
1.45	8.6	8.8
1.48	8.5	8.8
1.50	8.5	8.8
1.54	8.5	8.8
1.59	8.5	8.8
1.65	8.5	8.8
1.69	8.5	8.9
1.71	8.5	8.9
1.69	8.5	8.9
1.72	8.5	8.9
1.76	8.5	8.9
1.82	8.5	8.9
1.86	8.5	8.9
1.91	8.5	8.9
1.99	8.5	8.9
2.05	8.5	8.9
2.07	8.5	8.9
2.13	8.5	8.9
2.19	8.5	8.9
2.20	8.5	8.9
2.21	8.5	8.9
2.25	8.5	8.9
2.30	8.5	8.9
2.36	8.5	8.9
2.37	8.5	8.9
2.42	8.5	8.9
2.47	8.4	9.0
2.53	8.4	9.0
2.57	8.4	9.0
2.62	8.4	9.1
2.68	8.4	9.1
2.72	8.3	9.1
2.75	8.3	9.2
2.77	8.3	9.2
2.82	8.3	9.2
2.85	8.3	9.2
2.91	8.3	9.2
2.91	8.3	9.2
3.01	8.3	9.2
3.05	8.3	9.2
3.09	8.3	9.3
3.12	8.2	9.5

REF-Marine 1		
20-Jul-14		
Depth	Temperature	
(m)	(°C)	Salinity
3.17	8.1	9.8
3.22	7.9	10.0
3.23	7.9	10.1
3.29	7.8	10.3
3.36	7.8	10.5
3.42	7.6	10.7
3.45	7.6	11.0
3.47	7.2	11.3
3.54	6.9	11.9
3.57	6.5	12.7
3.60	6.2	13.0
3.62	6.1	13.3
3.66	5.9	13.7
3.70	5.7	14.0
3.74	5.4	14.6
3.77	5.3	14.9
3.79	5.1	15.3
3.84	5.0	15.5
3.87	4.8	15.8
3.89	4.7	16.0
3.88	4.7	16.1
3.94	4.6	16.6
4.00	4.3	18.4
4.08	2.5	22.0
4.10	2.1	22.4
4.17	1.6	22.8
4.22	1.1	23.1
4.29	0.9	23.3
4.35	0.9	23.2
4.39	0.8	23.3
4.45	0.8	23.3
4.52	0.8	23.3
4.54	0.8	23.3
4.60	0.8	23.3
4.65	0.8	23.4
4.74	0.8	23.3
4.77	0.9	23.4
4.84	0.9	23.3
4.89	0.9	23.3
5.01	0.8	23.3
5.04	0.8	23.4
5.11	0.8	23.4
5.18	0.8	23.4

REF-Marine 1		
20-Jul-14		
Depth	Temperature	
(m)	(°C)	Salinity
5.24	0.8	23.4
5.30	0.8	23.5
5.35	0.8	23.5
5.38	0.8	23.4
5.42	0.8	23.4
5.45	0.8	23.5
5.49	0.8	23.5
5.57	0.8	23.5
5.61	0.8	23.5

REF-Marine 1		
21-Aug-14		
Depth	Temperature	
(m)	(°C)	Salinity
0.02	7.1	18.0
0.01	7.1	18.0
0.00	7.1	18.0
0.01	7.1	18.0
0.01	7.1	18.0
0.01	7.1	18.1
0.01	7.1	18.0
0.01	7.1	18.0
0.01	7.1	18.0
0.05	7.1	18.0
0.15	7.1	18.0
0.18	7.1	18.0
0.21	7.1	18.0
0.19	7.1	18.0
0.18	7.1	18.0
0.17	7.1	18.0
0.18	7.1	18.0
0.18	7.1	18.0
0.39	7.1	18.0
0.39	7.1	18.0
0.41	7.1	18.0
0.41	7.1	18.0
0.41	7.1	18.0
0.57	7.1	18.0
0.60	7.1	18.0
0.60	7.1	18.0
0.60	7.1	18.0

Annex A.2-2. Temperature and Salinity Profiles, Marine Sites, Doris North Project, 2014

REF-Marine 1		
21-Aug-14		
Depth	Temperature	
(m)	(°C)	Salinity
0.62	7.1	18.0
0.78	7.1	18.0
0.77	7.1	18.0
0.77	7.1	18.0
0.78	7.1	18.1
0.87	7.1	18.1
0.98	7.2	18.1
0.98	7.2	18.2
0.98	7.2	18.2
1.01	7.2	18.2
1.18	7.2	18.4
1.18	7.2	18.4
1.19	7.2	18.4
1.20	7.2	18.5
1.35	7.2	18.5
1.34	7.2	18.5
1.34	7.3	18.5
1.34	7.3	18.5
1.42	7.3	18.5
1.48	7.3	18.5
1.47	7.3	18.5
1.48	7.3	18.5
1.47	7.3	18.5
1.49	7.3	18.5
1.63	7.2	18.5
1.63	7.2	18.5
1.62	7.2	18.5
1.61	7.2	18.5
1.61	7.2	18.5
1.80	7.2	18.5
1.84	7.2	18.5
1.84	7.3	18.5
1.84	7.2	18.5
1.84	7.2	18.5
2.03	7.2	18.5
2.03	7.2	18.5
2.03	7.2	18.5
2.03	7.2	18.6
2.06	7.2	18.6
2.26	7.2	18.5
2.28	7.2	18.5
2.27	7.2	18.5

REF-Marine 1		
21-Aug-14		
Depth	Temperature	
(m)	(°C)	Salinity
2.27	7.2	18.6
2.28	7.2	18.6
2.45	7.3	18.5
2.44	7.3	18.6
2.43	7.3	18.6
2.42	7.3	18.6
2.43	7.2	18.6
2.43	7.2	18.6
2.61	7.3	18.5
2.62	7.3	18.6
2.62	7.3	18.6
2.63	7.3	18.6
2.63	7.3	18.6
2.63	7.3	18.6
2.74	7.2	18.6
2.77	7.3	18.6
2.77	7.3	18.6
2.77	7.3	18.6
2.77	7.3	18.6
2.77	7.3	18.6
2.78	7.3	18.6
2.91	7.3	18.6
2.89	7.3	18.6
2.90	7.3	18.6
2.91	7.3	18.6
3.02	7.3	18.6
3.02	7.3	18.6
3.03	7.3	18.6
3.03	7.3	18.6
3.15	7.3	18.6
3.21	7.3	18.6
3.20	7.3	18.6
3.21	7.3	18.6
3.21	7.3	18.6
3.30	7.3	18.6
3.43	7.3	18.6
3.43	7.3	18.6
3.43	7.3	18.6
3.43	7.3	18.6
3.59	7.3	18.6
3.65	7.3	18.6
3.66	7.3	18.6
3.66	7.3	18.6

REF-Marine 1		
21-Aug-14		
Depth	Temperature	
(m)	(°C)	Salinity
3.66	7.3	18.6
3.81	7.3	18.6
3.83	7.3	18.6
3.83	7.2	18.7
3.84	7.3	18.7
3.86	7.3	18.7
3.99	6.8	19.6
4.00	6.4	19.9
4.00	6.4	19.9
3.98	6.5	19.9
4.07	6.5	19.8
4.08	6.4	20.0
4.07	6.4	19.9
4.04	6.5	19.8
4.03	6.5	19.8

REF-Marine 1		
21-Sep-14		
Depth	Temperature	
(m)	(°C)	Salinity
0.08	2.1	21.1
0.11	2.1	21.1
0.18	2.1	21.2
0.20	2.2	21.3
0.24	2.4	21.3
0.31	2.4	21.2
0.37	2.5	21.2
0.43	2.5	21.2
0.47	2.5	21.2
0.49	2.5	21.2
0.57	2.5	21.2
0.61	2.5	21.2
0.61	2.5	21.2
0.63	2.5	21.2
0.65	2.5	21.2
0.69	2.5	21.2
0.71	2.5	21.2
0.73	2.5	21.2
0.77	2.5	21.2
0.77	2.5	21.2
0.80	2.5	21.2

Annex A.2-2. Temperature and Salinity Profiles, Marine Sites, Doris North Project, 2014

REF-Marine 1		
21-Sep-14		
Depth	Temperature	
(m)	(°C)	Salinity
0.83	2.5	21.2
0.85	2.5	21.2
0.87	2.5	21.2
0.89	2.5	21.2
0.91	2.5	21.2
0.93	2.5	21.2
0.90	2.5	21.2
0.94	2.5	21.2
0.97	2.5	21.2
0.99	2.5	21.2
1.00	2.5	21.2
1.00	2.5	21.2
1.03	2.5	21.2
1.05	2.5	21.2
1.10	2.5	21.2
1.13	2.5	21.2
1.15	2.5	21.2
1.17	2.5	21.2
1.18	2.5	21.2
1.20	2.5	21.2
1.21	2.5	21.2
1.25	2.5	21.2
1.28	2.5	21.2
1.29	2.5	21.2
1.31	2.5	21.2
1.33	2.5	21.2
1.35	2.5	21.2
1.37	2.5	21.2
1.39	2.5	21.2
1.45	2.5	21.2
1.52	2.5	21.2
1.56	2.5	21.2
1.58	2.5	21.2
1.61	2.5	21.2
1.61	2.5	21.2
1.67	2.5	21.2
1.70	2.5	21.2
1.70	2.5	21.2
1.73	2.5	21.2
1.73	2.5	21.2
1.77	2.5	21.2
1.79	2.5	21.2

REF-Marine 1		
21-Sep-14		
Depth	Temperature	
(m)	(°C)	Salinity
1.80	2.4	21.2
1.86	2.4	21.2
1.86	2.4	21.2
1.91	2.4	21.2
1.95	2.4	21.2
1.95	2.4	21.2
1.94	2.4	21.2
2.01	2.4	21.2
2.06	2.4	21.2
2.06	2.4	21.2
2.08	2.4	21.2
2.16	2.4	21.2
2.16	2.4	21.2
2.20	2.4	21.2
2.21	2.4	21.2
2.25	2.4	21.2
2.25	2.4	21.2
2.32	2.4	21.2
2.34	2.4	21.2
2.38	2.4	21.2
2.40	2.4	21.2
2.41	2.4	21.2
2.48	2.4	21.2
2.48	2.4	21.2
2.53	2.4	21.2
2.56	2.4	21.2
2.58	2.4	21.2
2.58	2.4	21.2
2.63	2.4	21.2
2.67	2.4	21.2
2.70	2.4	21.2
2.73	2.4	21.3
2.75	2.4	21.2
2.77	2.4	21.2
2.78	2.4	21.2
2.81	2.4	21.2
2.82	2.4	21.2
2.86	2.4	21.3
2.88	2.5	21.3
2.90	2.5	21.2
2.90	2.5	21.2
2.94	2.5	21.2
2.99	2.5	21.2

REF-Marine 1		
21-Sep-14		
Depth	Temperature	
(m)	(°C)	Salinity
3.01	2.5	21.2
3.03	2.5	21.2
3.04	2.5	21.2
3.08	2.5	21.3
3.12	2.5	21.3
3.10	2.5	21.2
3.12	2.5	21.3
3.16	2.5	21.3
3.19	2.5	21.2
3.23	2.5	21.2
3.26	2.5	21.2
3.30	2.5	21.2
3.32	2.5	21.2
3.35	2.5	21.2
3.40	2.5	21.2
3.40	2.5	21.2
3.47	2.5	21.2
3.52	2.5	21.2
3.54	2.5	21.2
3.59	2.5	21.3
3.63	2.5	21.2
3.68	2.5	21.2
3.76	2.5	21.2
3.79	2.5	21.2
3.84	2.5	21.2
3.84	2.5	21.1
3.86	2.5	19.9
3.90	2.6	20.3

Annex A.2-3. Dissolved Oxygen Profiles, Marine Sites, Doris North Project, 2014

RBW		
20-Apr-14		
Depth (m)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
2.0	10.12	82.5
2.5	10.07	81.8
3.0	10.20	81.6
3.5	10.02	81.5

RBW		
21-Jul-14		
Depth (m)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
0.0	9.59	104.8
0.5	9.62	103.8
1.0	10.08	106.1
1.5	9.95	101.5
2.0	10.37	101.2
2.5	10.46	101.6
3.0	10.51	101.5
3.5	10.35	99.2
4.0	10.26	97.0

RBW		
13-Aug-14		
Depth (m)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
0.0	9.80	102.5
0.5	9.82	102.4
1.0	9.82	102.4
1.5	9.90	103.2
2.0	9.80	102.1
2.5	9.77	101.7
3.0	9.76	101.6
3.5	9.76	101.6
4.0	9.86	102.1
4.5	9.89	102.5

RBW		
21-Sep-14		
Depth (m)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
0.0	11.44	100.5
0.5	11.45	100.7
1.0	11.47	100.8
1.5	11.48	100.9
2.0	11.49	101.0
2.5	11.50	101.1
3.0	11.48	100.9
3.5	11.49	101.3
4.0	11.70	104.2

RBE		
23-Apr-14		
Depth (m)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
2.0	10.17	82.4
2.5	10.04	81.6
3.0	9.98	81.1

RBE		
21-Jul-14		
Depth (m)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
0.0	9.83	101.0
0.5	9.84	101.3

RBE		
20-Aug-14		
Depth (m)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
0.0	9.74	98.7
0.5	9.66	98.4

RBE		
21-Sep-14		
Depth (m)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
0.0	11.68	102.2
0.5	11.64	102.6

REF-Marine 1		
24-Apr-14		
Depth (m)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
2.0	9.80	82.3
2.5	9.87	81.3
3.0	9.86	80.8
3.5	9.82	80.4
4.0	9.81	80.2
4.5	9.79	80.0
5.0	9.83	80.1

REF-Marine 1		
20-Jul-14		
Depth (m)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
0.0	9.74	103.1
0.5	9.77	103.1
1.0	9.74	99.5
1.5	9.69	99.1
2.0	9.57	97.5
2.5	9.46	96.1
3.0	9.54	96.6
3.5	9.50	96.0
4.0	9.64	95.2
4.5	10.27	97.3
5.0	11.14	95.3
5.5	11.33	95.6

REF-Marine 1		
21-Aug-14		
Depth (m)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
0.0	10.30	101.8
0.5	10.36	102.1
1.0	10.39	102.9
1.5	10.36	102.6
2.0	10.31	102.2
2.5	10.31	102.2
3.0	10.31	102.2
3.5	10.30	102.8
4.0	12.97	116.3

REF-Marine 1		
21-Sep-14		
Depth (m)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
0.0	11.36	99.9
0.5	11.32	100.0
1.0	11.31	99.9
1.5	11.30	99.9
2.0	11.30	99.8
2.5	11.28	99.8
3.0	11.28	99.7
3.5	11.28	99.7
4.0	11.28	99.9

A.3 2014 WATER QUALITY

The following sections present the water quality data collected from April to September 2014 from stream, lake, and marine sites, as well as the QA/QC water quality data. Only the variables that were subjected to an evaluation of effects (see main body of the report) are shown graphically. All water quality variables were screened against CCME water quality guidelines for the protection of aquatic life (CCME 2014a). CCME guidelines are included in all graphs, tables, and annexes.

A.3.1 Stream Data

Stream water quality data were collected monthly from June to September 2014. Figures A.3-1 to A.3-9 show monthly trends of select water quality variables. Annex A.3-1 presents the full 2014 stream water quality dataset.

A.3.2 Lake Data

Lake water quality data were collected in April (under-ice sampling) and monthly from July to September 2014. Figures A.3-10 to A.3-18 show seasonal trends for select water quality variables. Annex A.3-2 presents the full 2014 lake water quality dataset.

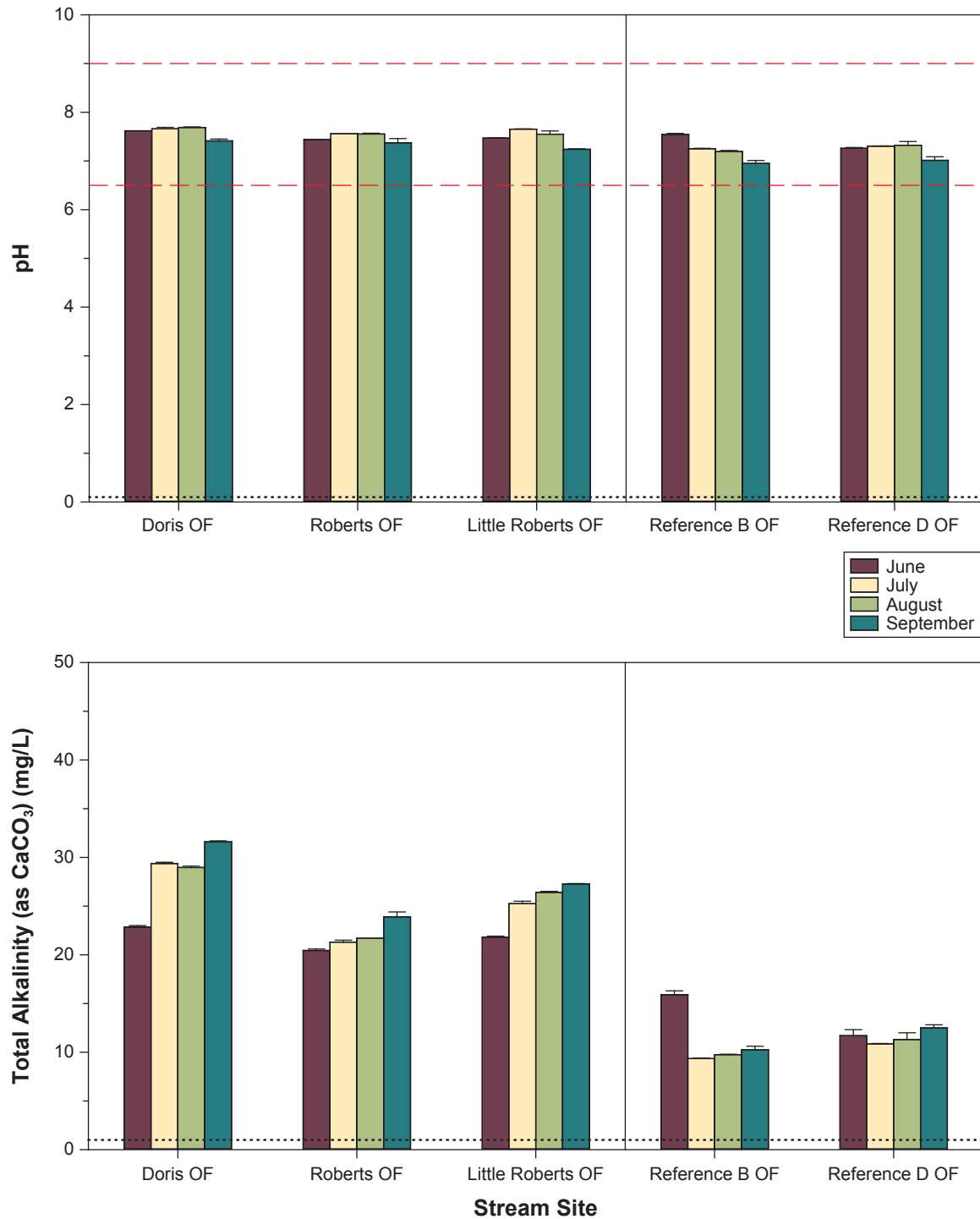
A.3.3 Marine Data

Marine water quality data were collected in April (under-ice sampling) and monthly from July to September 2014. Figures A.3-19 to A.3-27 show seasonal trends for select water quality variables. Annex A.3-3 presents the full 2014 marine water quality dataset.

A.3.4 Quality Assurance/Quality Control (QA/QC) Data

Annex A.3-4 presents the results of the QA/QC blank data (equipment, field, and travel blanks) collected to identify possible sources of contamination to water quality samples. A subset of blanks contained values above detection limits for select nutrients and metals; however, there was no obvious contamination of water quality samples that can be attributed to sampling equipment, sample collection, or sample transportation.

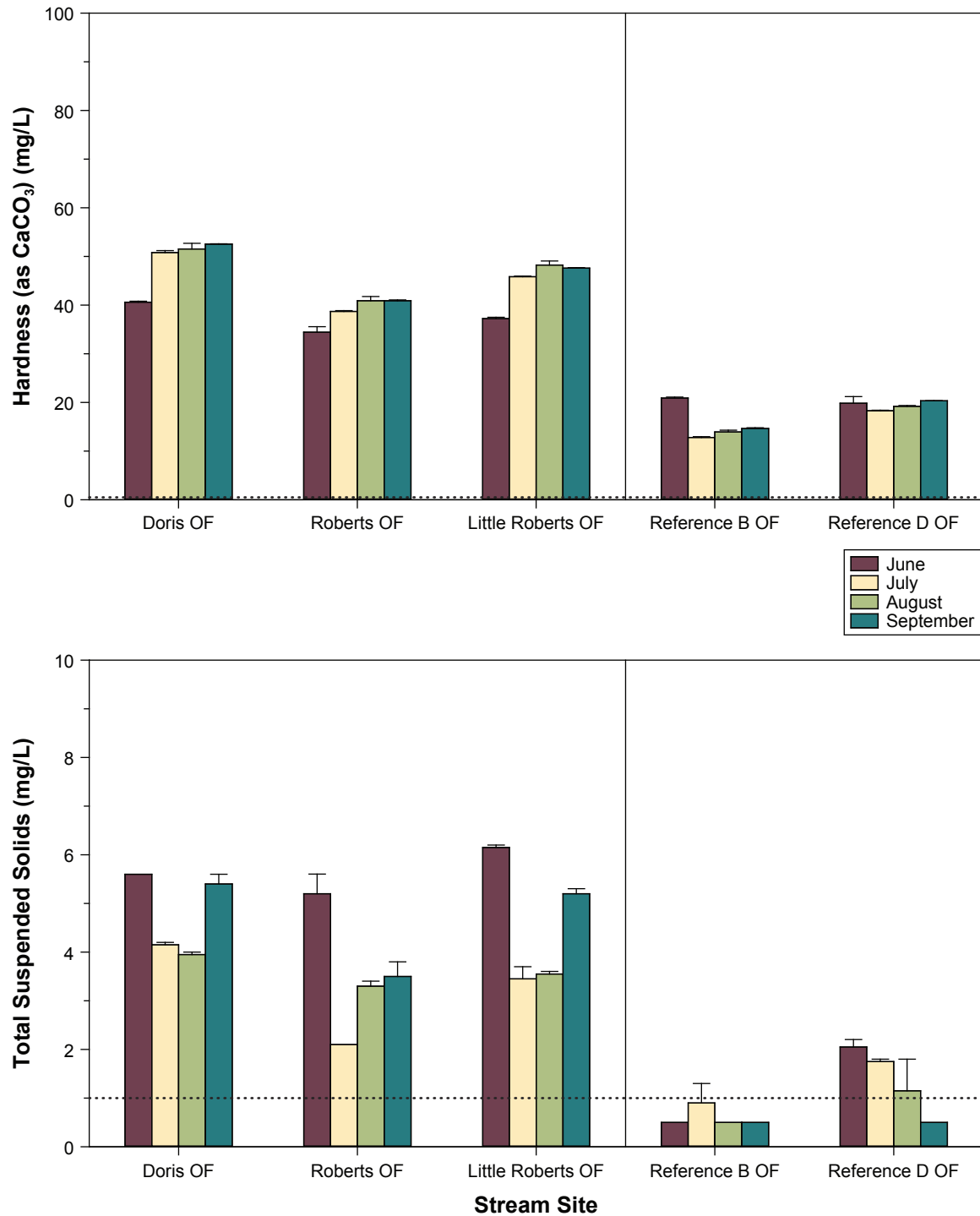
Figure A.3-1
pH and Total Alkalinity in
Stream Sites, Doris North Project, 2014



Notes: Error bars represent the standard error of the mean of replicates.
 Black dotted lines represent the analytical detection limits.
 Red dashed lines represent the CCME freshwater guideline pH range (6.5–9.0).
 pH is a required parameter for water quality monitoring as per Schedule 5, s. 7(1)(c) of the MMER.
 Total alkalinity is a required parameter for effluent characterization and water quality monitoring as per Schedule 5, s. 4(1) and s. 7(1)(c) of the MMER.

Figure A.3-2

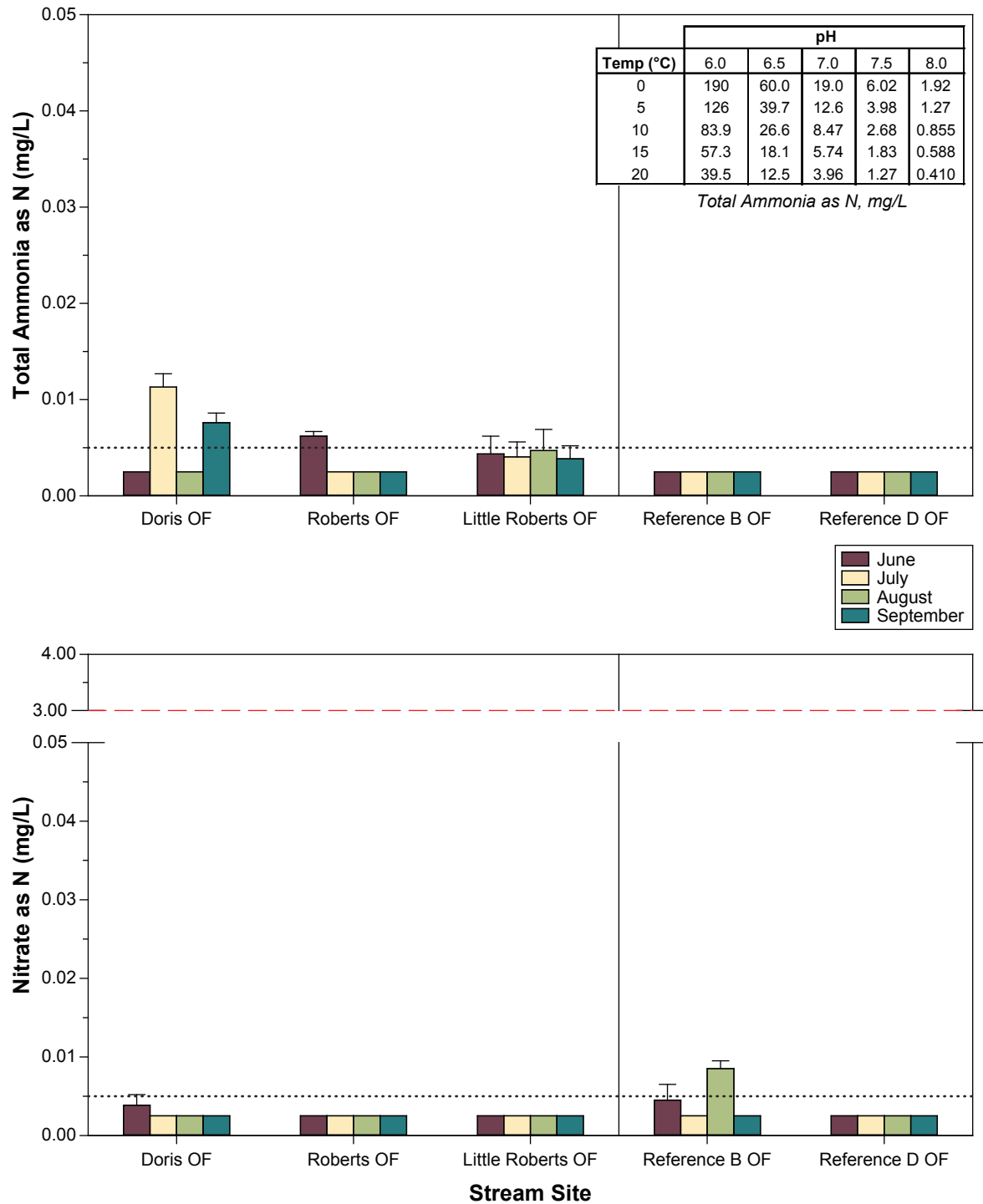
Hardness and Total Suspended Solids in Stream Sites, Doris North Project, 2014



Notes: Error bars represent the standard error of the mean of replicates.
 Black dotted lines represent the analytical detection limits; values below the detection limit are plotted at half the applicable detection limit.
 The CCME freshwater guideline for total suspended solids is dependent upon background levels.
 Hardness is a required parameter for effluent characterization and water quality monitoring as per Schedule 5, s. 4(1) and s. 7(1)(c) of the MMER.
 Total suspended solids are regulated as deleterious substances in effluents as per Schedule 4 of the MMER.

Figure A.3-3

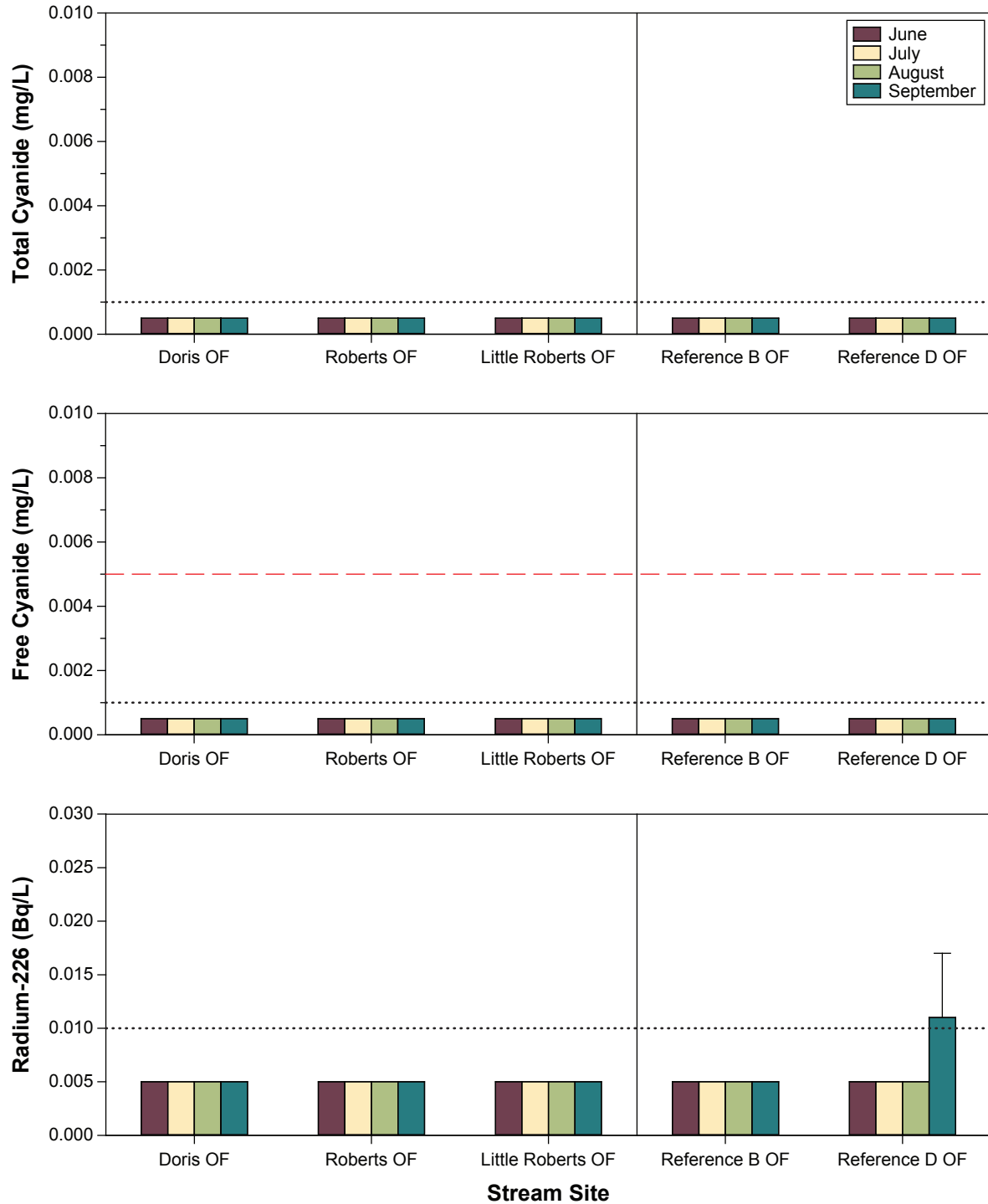
**Total Ammonia and Nitrate Concentrations
in Stream Sites, Doris North Project, 2014**



Notes: Error bars represent the standard error of the mean of replicates.
 Black dotted lines represent the analytical detection limits; values below the detection limit are plotted at half the applicable detection limit.
 Inset table shows the pH- and temperature-dependent CCME freshwater guideline for total ammonia.
 Red dashed line represents the CCME freshwater guideline for nitrate as N (3.0 mg/L; long-term concentration).
 Total ammonia and nitrate are required parameters for effluent characterization as per Schedule 5, s. 4(1) of the MMER.

Figure A.3-4

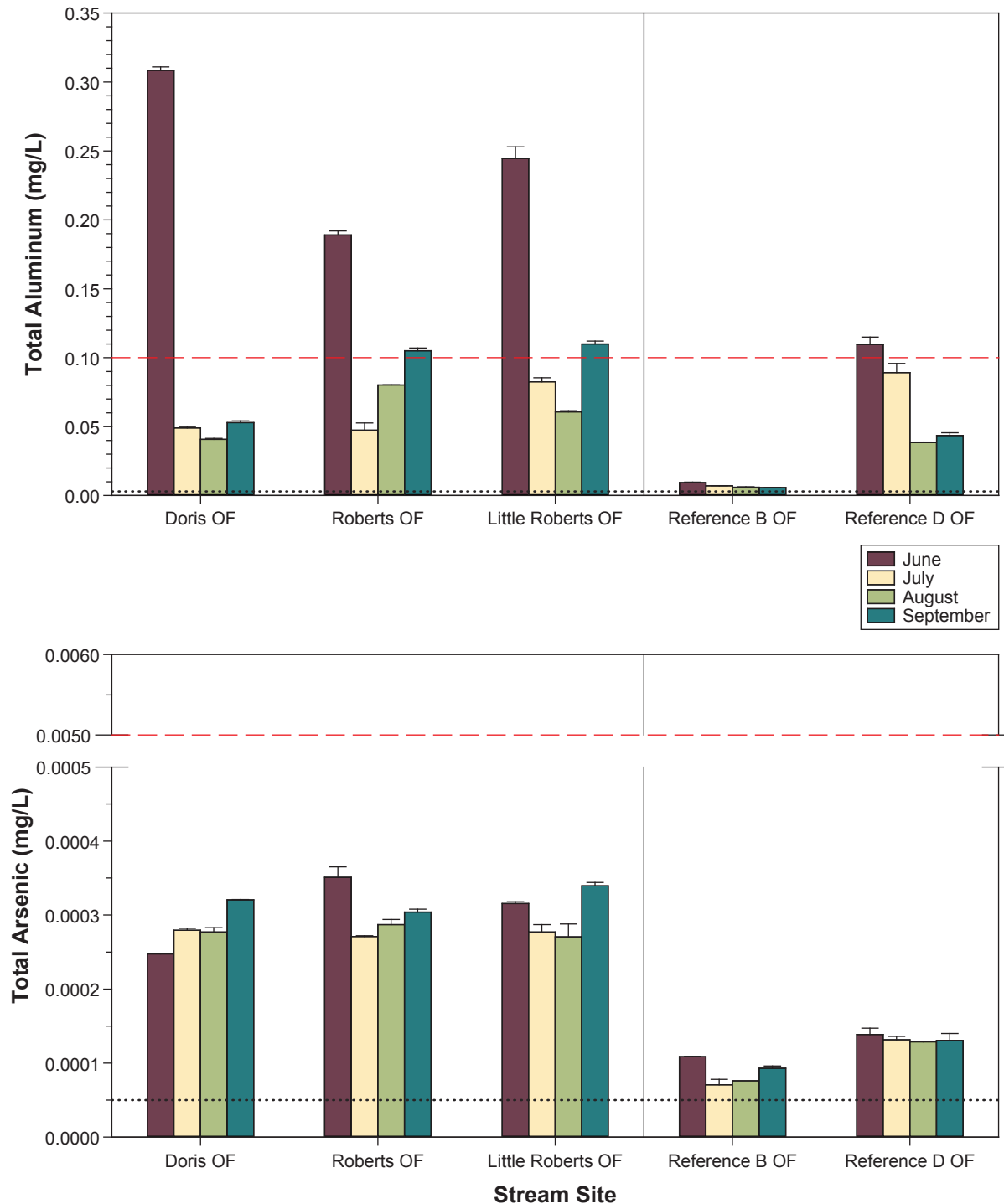
**Total Cyanide, Free Cyanide, and Radium-226
Concentrations in Stream Sites, Doris North Project, 2014**



Notes: Black dotted lines represent the analytical detection limits; values below the detection limit are plotted at half the applicable detection limit.
 All total cyanide, free cyanide, and radium-226 concentrations in stream samples were below the detection limit.
 Red dashed line represents the CCME freshwater guideline for free cyanide (0.005 mg/L).
 Total cyanide and radium-226 are regulated as deleterious substances in effluents as per Schedule 4 of the MMER.

Figure A.3-5

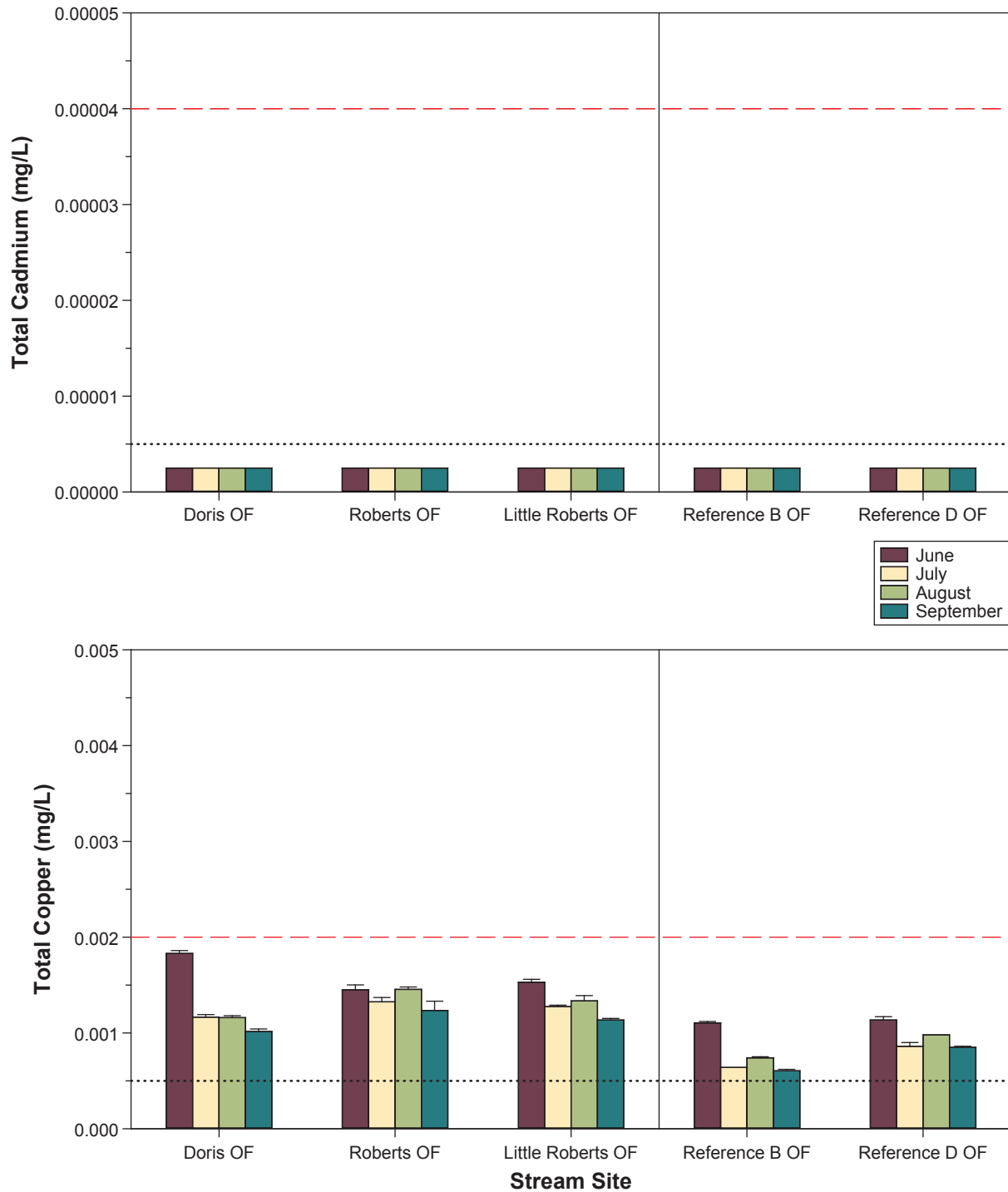
**Total Aluminum and Total Arsenic Concentrations
in Stream Sites, Doris North Project, 2014**



Notes: Error bars represent the standard error of the mean of replicates.
 Black dotted lines represent the analytical detection limits; values below the detection limit are plotted at half the applicable detection limit.
 Red dashed lines represent the pH-dependent CCME freshwater guideline for aluminum (0.005 mg/L at pH < 6.5; 0.1 mg/L at pH ≥ 6.5) and the CCME freshwater guideline for arsenic (0.005 mg/L).
 pH was greater than 6.5 in all stream samples.
 Total aluminum is a required parameter for effluent characterization as per Schedule 5, s. 4(1) of the MMER.
 Total arsenic is regulated as a deleterious substance in effluents as per Schedule 4 of the MMER.

Figure A.3-6

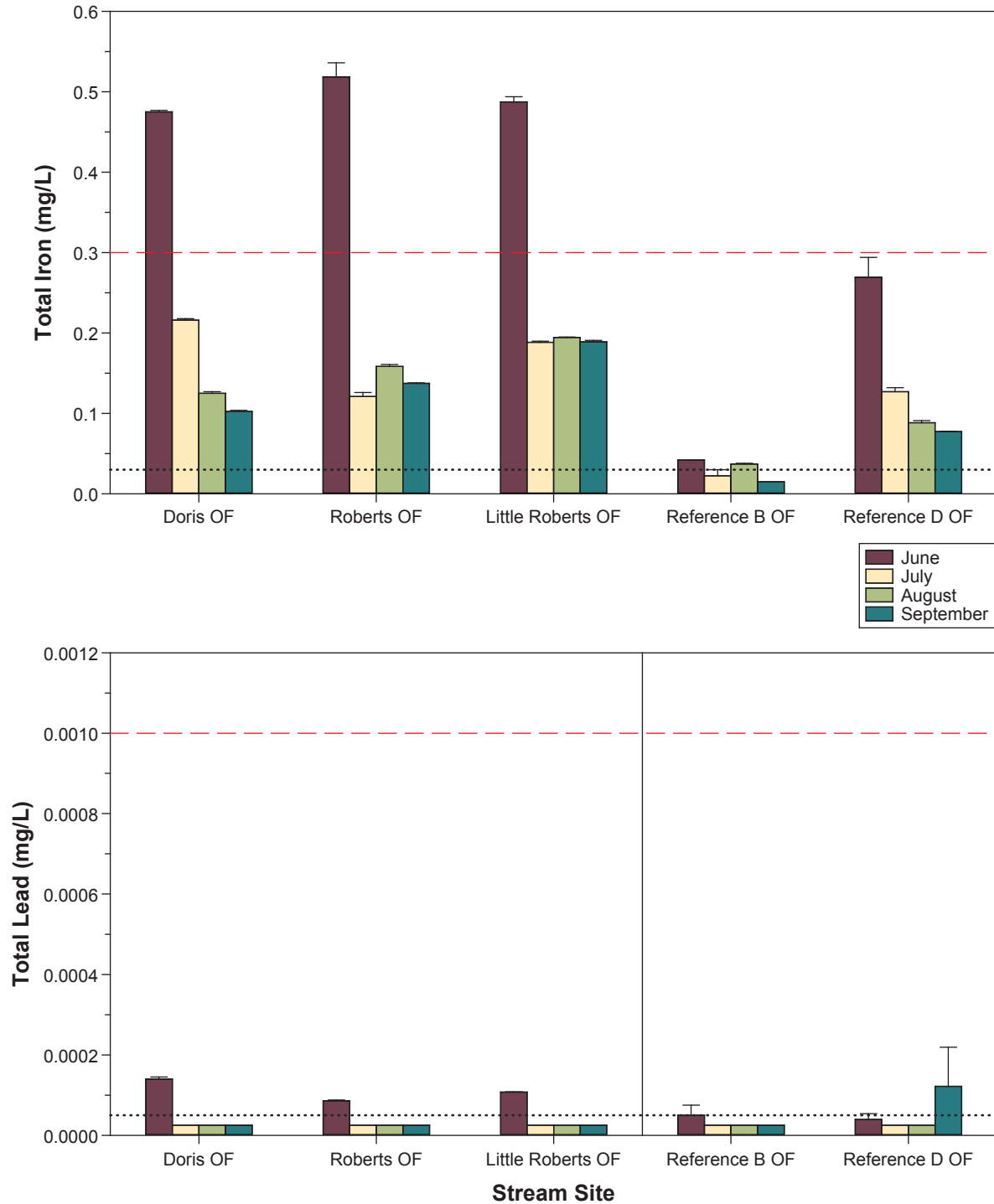
**Total Cadmium and Total Copper Concentrations
in Stream Sites, Doris North Project, 2014**



Notes: Error bars represent the standard error of the mean of replicates.
 Black dotted lines represent the analytical detection limits; values below the detection limit are plotted at half the applicable detection limit.
 The CCME freshwater guidelines for cadmium and copper are hardness dependent.
 Red dashed lines represent the minimum long-term site-specific CCME freshwater guidelines for cadmium (0.00004 mg/L) and for copper (0.002 mg/L) based on the hardness (as CaCO₃) range in streams of 12.6 to 52.7 mg/L.
 Mean total cadmium and total copper concentrations were always lower than applicable CCME guidelines.
 Total cadmium is a required parameter for effluent characterization as per Schedule 5, s. 4(1) of the MMER.
 Total copper is regulated as a deleterious substance in effluents as per Schedule 4 of the MMER.

Figure A.3-7

**Total Iron and Total Lead Concentrations
in Stream Sites, Doris North Project, 2014**



Notes: Error bars represent the standard error of the mean of replicates
 Black dotted lines represent the analytical detection limits; values below the detection limit are plotted at half the applicable detection limit.
 The CCME freshwater guideline for lead is hardness dependent.
 Red dashed lines represent the CCME freshwater guideline for iron (0.3 mg/L) and the site-specific CCME freshwater guideline for lead (0.001 mg/L) based on the hardness (as CaCO₃) range in streams of 12.6 to 52.7 mg/L.
 Total iron is a required parameter for effluent characterization as per Schedule 5, s. 4(1) of the MMER.
 Total lead is regulated as a deleterious substance in effluents as per Schedule 4 of the MMER.