ONONDAGA LAKE PRE-DESIGN INVESTIGATION PHASE VI 2010 WATER QUALITY MONITORING FOR CONSTRUCTION BASELINE DATA SUMMARY REPORT

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C_P	beam attenuation coefficient
CLP	Contract Laboratory Program
DUSR	Data Usability Summary Report
CPOI	chemical parameter of interest
mph	miles per hour
nm	Nanometer
NYSDEC	New York State Department of Environmental Conservation
ORP	oxidation/reduction potential
PCB	polychlorinated biphenyl
PDI	Pre-design investigation
QAPP	Quality Assurance Project Plan
QA/QC	quality assurance/quality control
SAP	Sampling and Analysis Plan
SOP	Standard Operating Procedure
SU	Syracuse University
SVOC	semivolatile organic compound
Tn	Turbidity
TSS	total suspended solids
UFI	Upstate Freshwater Institute
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

EXECUTIVE SUMMARY

This data summary report describes water quality monitoring conducted on behalf of Honeywell during October and November 2010 in the littoral and profundal regions of Onondaga Lake as part of the Phase VI Pre-Design Investigation (PDI). Monitoring activities were conducted to obtain an initial understanding of baseline water quality conditions near proposed in-lake remediation areas prior to the start of dredging. This report describes the sample locations, data collection methods, analyses and testing performed, and includes a summary of results.

The primary objective of this sampling program was to obtain an understanding of baseline chemical and optical (i.e., turbidity/water clarity) water quality levels near proposed dredging and capping remediation areas where water quality monitoring during construction activities may occur. The sampling program collected data over a range of natural forcing conditions that can affect various components of water quality, including tributary runoff, wind-driven waves, and typical lake currents to understand how these forcing conditions affect water quality within Onondaga Lake.

Sampling and analyses were conducted in accordance with Addendum 3 to the Onondaga Lake Phase VI PDI Work Plan (Parsons, 2010a), the Onondaga Lake PDI: Phase I Sampling and Analysis Plan (SAP) (Parsons, 2005), and the revised Onondaga Lake PDI Quality Assurance Project Plan (QAPP) (Parsons, 2010b).

This Data Summary Report does not present an analysis of data collected as part of the 2010 field activities. An assessment of the data will be presented with the 2011 Water Quality Monitoring for Construction Baseline Work Plan, in the context of evaluating whether any modifications are warranted based on the results of the 2010 measurements. In addition, a Baseline Water Quality Data Report will be submitted after the 2011 field season which will also include data assessment.

DISCRETE WATER COLUMN SAMPLING

Discrete water column samples were collected during three sampling events: October 25 to 26, 2010 (Sampling Event 1); November 9 to 10, 2010 (Sampling Event 2); and November 16 and 18, 2010 (Sampling Event 3). All three sampling events occurred after lake turnover (which took place in 2010 on or about October 18) and, therefore, represent thermally-mixed lake conditions.

DISCRETE OPTICAL/TURBIDITY MONITORING USING RAPID PROFILING INSTRUMENATION

During the three discrete sampling events, a second vessel collected spatially detailed water quality information with rapid profiling instrumentation. Profiling was also conducted on three additional occasions to provide weekly optical/turbidity data for the six-week 2010 field program (a total of six discrete optical/turbidity monitoring samples).

CONTINUOUS TURBIDITY MONITORING

Continuous turbidity measurements were collected at mid-depth within the water column at buoyed stations to understand how turbidity levels in the primary sediment remediation areas change in response to natural forcing conditions. Four continuous turbidity monitoring stations (T1, T2, T3, and T4; see Figure 1 and Table 1 for approximate water depths) were deployed for approximately six weeks (October 18 through November 23, 2010).

SECTION 1

INTRODUCTION

This Data Summary Report describes water quality monitoring conducted on behalf of Honeywell during October and November 2010 in the littoral and profundal regions of Onondaga Lake as part of the Phase VI PDI. Monitoring activities were conducted to obtain an initial understanding of baseline water quality conditions near proposed in-lake remediation areas prior to the start of dredging. This report describes the sample locations, data collection methods, analyses and testing performed, and includes a summary of results.

Sampling and analyses were conducted in accordance with Addendum 3 to the Onondaga Lake Phase VI PDI Work Plan (Parsons, 2010a), the Onondaga Lake PDI: Phase I SAP (Parsons, 2005), and the revised Onondaga Lake PDI QAPP (Parsons, 2010b).

This Data Summary Report does not present an analysis of data collected as part of the 2010 field activities. An assessment of the data will be presented with the 2011 Water Quality Monitoring for Construction Baseline Work Plan, in the context of evaluating whether any modifications are warranted based on the results of the 2010 measurements. In addition, a Baseline Water Quality Data Report will be submitted after the 2011 field season which will also include data assessment.

1.1 2010 BASELINE WATER QUALITY MONITORING

The primary objective of this sampling program was to obtain an understanding of baseline chemical and optical (e.g., turbidity/water clarity) water quality conditions near proposed dredging and capping remediation areas. Data were collected over a range of natural forcing conditions that can affect various components of water quality, including tributary runoff, wind-driven waves, and typical lake currents to understand how these forcing conditions affect water quality within Onondaga Lake. The information collected as part of this sampling program will be used to:

- Guide development of additional baseline monitoring to be conducted in 2011
- Assess repeatability of results from two years of data (2010 and 2011)
- Develop a water quality monitoring plan as part of the overall construction monitoring program for the dredging and capping activities within the lake

1.2 REPORT ORGANIZATION

This report is organized into the following sections:

- Section 1: Introduction
- Section 2: 2010 Field Activities
- Section 3: Data Management
- Section 4: References

SECTION 2

2010 FIELD ACTIVIITES

Water quality samples were collected and processed using methods developed during the Phase I PDI and as described in Appendix A of the Phase VI PDI Work Plan – Addendum 3 (Parsons, 2010a).

Figures 1 and 2 illustrate the 2010 sample locations and Table 1 presents a summary of the 2010 field program, which consisted of: (1) three discrete sampling events with a focus on water quality conditions near the primary sediment remediation areas, (2) six weekly lake-wide monitoring events that included rapid profiling instrumentation, and (3) continuous measurement of turbidity at multiple locations within the lake. Each of these activities is described below.

2.1 DISCRETE WATER COLUMN SAMPLING

Discrete water column samples were collected during three sampling events: October 25 to 26, 2010 (Sampling Event 1); November 9 to 10, 2010 (Sampling Event 2); and November 16 and 18, 2010 (Sampling Event 3). All three sampling events occurred after lake turnover (which took place in 2010 on or about October 18) and, therefore, represent thermally-mixed lake conditions. In addition to lake turnover, Sampling Event 1 was conducted during a moderate rainfall event (approximately 0.5 inches of rain) and Sampling Event 2 commenced on November 9 following 10- to 20-miles-per-hour (mph) winds from the west on the prior day (November 8). The final sampling event (November 16 and 18) was conducted over two non-continuous days due to high winds (20 plus mph) occurring on the intermediate day (November 17).

For this discrete water column sampling effort, grab samples were collected from mid-depth within the water column at four locations within the major remediation areas (T1, T2, T3, and T4), seven locations outside of the major remediation areas (A1, A2, B1, C1, D1, E1, and E2), and two profundal zone sites (North Deep and South Deep), as shown on Figure 1. These sampling locations were chosen to assess water quality conditions both within the remediation area as well as within 500 ft. of remediation area boundaries, potentially representing an area that would be outside the limits of silt curtain placement during remediation. Locations greater than 1,000 ft. outside of proposed remediation areas were also selected to obtain a representative baseline measurement for assessing system-wide impacts.

The sampling was conducted in accordance with Appendix A to Addendum 3 – Surface Water Quality Monitoring and Sampling Standard Operating Procedure (SOP), with one modification. Due to the large sample volume required by the analytical laboratory, a Teflon-lined submersible pump with Teflon-lined tubing was substituted for the Kemmerer bottle sampler, for all but the volatile organic compound chemical parameters of interest [VOC CPOIs]**.** The New York State Department of Environmental Conservation (NYSDEC) verbally approved this change in the field.

Collected samples were analyzed for a suite of parameters. Chemistry analyses (mercury [total and filtered], methylmercury [total], VOC CPOIs, polychlorinated biphenyls [PCBs], and semivolatile organic compounds [SVOC] CPOIs) were conducted to establish baseline concentrations of these constituents. Measurements of turbidity (Tn), the beam attenuation coefficient at 660 Nanometer (nm) (c_P660), and total suspended solids (TSS) were taken to provide baseline information on particle concentrations and impacts on water clarity. Components of phosphorus (total phosphorus, total dissolved phosphorus, soluble reactive phosphorus) and inorganic nitrogen (nitrate, nitrite, ammonia) were also monitored to provide baseline information on phytoplankton nutrients and forms of nitrogen. Field measurements for pH, temperature, oxidation/reduction potential (ORP), and specific conductance were also collected.

Average water depths over the three sampling events are provided in Table 1. Analytical results from this sampling are presented in Table 2. Results from field measurements are included in Appendix A. Chemistry data, as specified above, are presented in Table 2, while several graphs displaying the phosphorus, nitrogen, chlorophyll, turbidity, and beam attenuation data are provided in Appendix B.

Current velocity was measured with a Marsh-McBirney Flo-Mate Portable Velocity Meter (Model 2000) during the three discrete water column monitoring events. Measurements were collected at three depths (surface, mid-depth, and near bottom) near each of the four continuous turbidity monitoring stations (T1, T2, T3, and T4 on Figure 1) in accordance with Appendix A to Addendum 3 – Surface Water Quality Monitoring and Sampling SOP. Velocity measurement results are presented in Table 3, while several graphs displaying the turbidity data are provided in Appendix E.

2.2 DISCRETE OPTICAL/TURBIDITY MONITORING USING RAPID PROFILING INSTRUMENATION

On October 25, November 9, and November 16, 2010, a second vessel collected spatially detailed water quality information with rapid profiling instrumentation during the three discrete sampling events. Profiling was conducted with a Sea-Bird probe package[1] at three stations along each of four transects, and at North Deep and South Deep (see Figure 1), for a total of 14 profiles per sampling event. Profiling was also conducted during three additional occasions (October 14, October 28, and November 5) to provide weekly optical/turbidity data for the 6-week 2010 field program (a total of six discrete optical/turbidity monitoring samples). The rapid profiling was conducted in accordance with methods described in the 2008 Book 1 Work Plan (Upstate Freshwater Institute [UFI] and Syracuse University [SU], 2008). The rapid profiling measured light scattering, including turbidity and the beam attenuation coefficient at 660 nm (**c**660). Other sensors in the rapid profiling package (i.e., temperature, specific conductance, optical

[1] The Sea-Bird Electronics, Inc. package of instruments contains:

1.) temperature, specific conductance, pressure - SBE 25 SEALOGGER CTD (Sea-Bird Electronics) 2. Chlorophyll - WETStar Fluorometer (WET Labs) 3.) Beam attenuation coefficient - C-star transmissometer (WET Labs) 4.) Photosynthetically Active Radiation (PAR) sensor (LI-COR Environmental) 5.) Optical Backscattering (OBS) - OBS-3 (D&A Instruments; UFI calibrates for turbidity), 6.) datalogger that stores and integrates all of the above components (Sea-Bird Electronics)

backscattering, chlorophyll, and photosynthetically active radiance) provide additional information on stratification, tracer(s) patterns, and light penetration. The measured parameters and sampling dates are listed in Table 1. Results from this monitoring are presented in Appendix C.

Weekly profiles were also conducted using an *in situ* ultraviolet spectrophotometer (ISUS)[2], at ten sites (six along the long axis of the lake and four additional sites to form a lateral at South Deep) as part of Honeywell's Book 1 Baseline Monitoring Program (UFI and SU, 2008). This monitoring program was supplemented with two additional lateral transects in the south basin, one additional transect in the north basin, and one additional location outside of remediation area B as shown on Figure 2, in order to provide increased spatial resolution adjacent to the major remediation areas. A total of 23 locations were monitored, including 10 from the Book 1 Baseline Monitoring Program (ISUS-5, -9, -12, -13, -15, -18, -22, -27, and -34, in addition to 13 supplemental locations (ISUS-6 through ISUS-8 and ISUS-37 through ISUS-46). Data obtained are presented in Appendix D. These additional measurements were conducted on October 18 and 25, and November 1, 11, 15, and 29, 2010.

2.3 CONTINUOUS TURBIDITY MONITORING

Continuous turbidity measurements were collected at mid-depth within the water column at buoyed stations to understand how turbidity levels in the primary sediment remediation areas change in response to natural forcing conditions. Four continuous turbidity monitoring stations (T1, T2, T3, and T4; see Figure 1 and Table 1 for approximate water depth) were deployed for approximately six weeks (October 18 through November 23, 2010) in accordance with Appendix A to Addendum 3 – Surface Water Quality Monitoring and Sampling SOP. Data obtained using multi-parameter sondes (turbidity, temperature, and pH) suspended from buoys at each of the four stations are presented in Appendix E. The turbidity monitoring station located at T1 was stolen on two occasions and had to be replaced, so, a reduced turbidity dataset was collected from this location (October 18 through November 2, 2010).

[2] The ISUS package of instruments contains:

1. nitrate probe - Satlantic ISUS sensor (Satlantic Instruments), 2.) turbidity and chlorophyll - ECO FLNTU combination fluorometer and turbidity sensor (WET Labs), 3.) beam attenuation coefficient - C-star transmissometer (WET Labs), 4.) scalar PAR sensor (Biospherical Instruments), 5.) temperature, specific conductance, and pressure - CTD 37I sensor (Sea-Bird Electronics), 6.) datalogger that stores and integrates all of the above components (WET Labs)

SECTION 3

DATA MANAGEMENT & QA/QC

3.1 DATA MANAGEMENT

3.1.1 Field Database

An electronic database was developed for the Phase VI PDI to ensure consistency in field sample ID assignment and compatibility with the Locus Focus data management system in use on behalf of Honeywell. The database recorded sample descriptions, assigned field sample IDs, and reproduced chains of custody. The data collection program for this Phase VI field effort was similar to that used during Phases I through V of the PDI.

3.1.2 Quality Assurance/Quality Control

Field quality assurance/quality control (QA/QC) consisted of the collection and analysis of field duplicates, and matrix spike/matrix spike duplicate samples at a frequency of one per 20 samples (one per event) for chemistry data and field triplicates for conventional water quality parameters (e.g., phosphorous and nitrogen). All field QA/QC samples were identified using standard sample identifiers and collected in accordance with the revised Onondaga Lake PDI QAPP (Parsons, 2010b).

3.1.3 Sample Holding

Samples were collected and handled according to the procedures outlined in the Phase I PDI SAP (Parsons, 2005) and revised QAPP (Parsons, 2010b).

3.1.4 Sample Collection and Recordkeeping

Samples were collected and managed by the field database as described above. Sample recordkeeping and database entry were conducted in accordance with the Phase I PDI SAP (Parsons, 2005) and the revised QAPP (Parsons, 2010b) on each of the sampling vessels.

3.1.5 Data Validation

Analytical data generated during the investigation activities were reviewed and validated in accordance with the approved Phase I SAP (Parsons, 2005) and revised QAPP (Parsons, 2010b). Data validation of Level II through Level IV analytical deliverables was performed (task dependent) in accordance with guidance provided by the U.S. Environmental Protection Agency (USEPA) and adapted to the QA/QC criteria in the USEPA Contract Laboratory Program (CLP) and USEPA SW-846. Following validation, the results were incorporated into the Locus Focus data management system.

3.2 QUALITY ASSURANCE/QUALITY CONTROL

The sample names, QA/QC procedures, sample collection, data entry, and data validation for this portion of the work were conducted in accordance with the Phase I PDI SAP (Parsons, 2005). The one deviation from these procedures was related to the substitution of a submersible

pump with Teflon-lined tubing for the Kemmerer bottle sampler, as noted in Section 2.1, and was discussed with NYSDEC prior to execution of the work.

Analytical data were collected in accordance with the revised Onondaga Lake PDI QAPP (Parsons, 2010b). The data were evaluated in relation to the established laboratory and project control limits for accuracy and precision with factors impacting data quality being identified in the laboratory analytical report. Results of this evaluation are presented in the Data Usability Summary Report (DUSR) (Appendix F).

SECTION 4

REFERENCES

Parsons, 2005. Onondaga Lake Phase I Pre-Design Investigation: Sampling and Analysis Plan. Prepared for Honeywell, Morristown, New Jersey and Syracuse, New York.

Parsons, 2010a. Onondaga Lake Pre-Design Investigation: Phase VI Addendum 3. Prepared for Honeywell, Morristown, New Jersey and Syracuse, New York.

Parsons, 2010b. Onondaga Lake Pre-Design Investigation: Revised Quality Assurance Project Plan. Prepared for Honeywell, Morristown, New Jersey. Syracuse, New York.

UFI and SU, 2008. Onondaga Lake Baseline Monitoring Book 1 Deep Basin Water and

Zooplankton Monitoring Work Plan for 2008. Prepared for Honeywell, Inc., East Syracuse, NY. Upstate Freshwater Institute and Syracuse University, Syracuse, NY. May 2008

TABLES

TABLE 1
WATER QUALITY SAMPLING LOCATIONS AND ANALYSES CONDUCTED

Description	Corresponding Map Symbol (Figure #)	Number of locations	Number of sampling events	Vertical Sampling intervals	Monitoring Locations		Approx. Total Water Depth[1] (ft)	Approx. Sample Depth[1] (ft)	Mercury [total & filtered]	Methylmercury [total]	VOCs (CPOIs)[2]	PCBs	SVOCs (CPOIs)[2]	Rapid profiling parameters[3]	Field measurements[4]	Current velocity[5]	Table/Appendix presenting field data
					Station ID	Corresponding Database Sample ID			number of samples								
Discrete Water	▲ (Figure 1)	13	3 (Oct 25 to 26; Nov 9 to 10; Nov 16 & 18)	mid-depth	T1	OL-SW-40313	10.5	5	3	3	3	3	3		3		Table 2, Appendices A & B
					T2	OL-SW-10194	10	5	3	3	3	3	3		3		Table 2, Appendices A & B
					T3	OL-SW-60328	8	4	5	5	5	5	5		3		Table 2, Appendices A & B
					T4	OL-SW-60329	6.5	3	3	3	3	3	3		3		Table 2, Appendices A & B
					A1	OL-SW-80224	45	22.5	3	3	3	3	3		3		Table 2, Appendices A & B
					A2	OL-SW-80225	50	25	3	3	3	3	3		3		Table 2, Appendices A & B
					B1	OL-SW-80226	58	29	3	3	3	3	3		3		Table 2, Appendices A & B
					C1	OL-SW-80227	51	25.5	3	3	3	3	3		3		Table 2, Appendices A & B
					D1	OL-SW-80228	57.3	29	3	3	3	3	3		3		Table 2, Appendices A & B
					E1	OL-SW-80229	42	21	3	3	3	3	3		3		Table 2, Appendices A & B
					E2	OL-SW-80230	44	22	4	4	4	4	4		3		Table 2, Appendices A & B
					North Deep	DEEP_N	62	31	3	3	3	3	3		3		Table 2, Appendices A & B
					South Deep	DEEP_S	66	33	3	3	3	3	3		3		Table 2, Appendices A & B
Discrete Turbidity	● (Figure 1)	14	6 (Oct 14; Oct 25; Oct 28; Nov 5; Nov 9; Nov 16)	Continuous	T1	OL-SW-40313	11	--						6			Appendix C
					T1-1	OL-SW-80231	37	--						6			Appendix C
					T1-2	OL-SW-40314	2	--						6			Appendix C
					T2	OL-SW-10194	10	--						6			Appendix C
					T2-1	OL-SW-80232	35	--						6			Appendix C
					T2-2	OL-SW-10195	3	--						6			Appendix C
					T3	OL-SW-60328	7	--						6			Appendix C
					T3-1	OL-SW-60330	22	--						6			Appendix C
					T3-2	OL-SW-60331	3	--						6			Appendix C
					T4	OL-SW-60329	6	--						6			Appendix C
					T4-1	OL-SW-60332	22	--						6			Appendix C
					T4-2	OL-SW-60333	4	--						6			Appendix C
					NorthDeep	DEEP_N	58	--						6			Appendix C
					SouthDeep	DEEP_S	61	--						6			Appendix C

TABLE 1
WATER QUALITY SAMPLING LOCATIONS AND ANALYSES CONDUCTED

Description	Corresponding Map Symbol (Figure #)	Number of locations	Number of sampling events	Vertical Sampling intervals	Monitoring Locations: Station ID	Monitoring Locations: Corresponding Database Sample ID	Approx. Total Water Depth[1] (ft)	Approx. Sample Depth[1] (ft)	Mercury [total & filtered]	Methylmercury [total]	VOCs (CPOIs)[2]	PCBs	SVOCs (CPOIs)[2]	Rapid profiling parameters[3]	Field measurements[4]	Current velocity[5]	Table/Appendix presenting field data
									number of samples								
Discrete Turbidity **Book 1 Baseline Monitoring Program (supplemental locations in bold and italics)**	◉ (Figure 2)	23	6 (Oct 18; Oct 25; Nov 1; Nov 11; Nov 15; Nov 29)	Continuous	ISUS-5	--	40	--						6			Appendix D
					ISUS-6	--	30	--						6			Appendix D
					ISUS-7	--	6	--						6			Appendix D
					ISUS-8	--	54	--						6			Appendix D
					ISUS-9	--	32	--						6			Appendix D
					ISUS-11	--	61	--						6			Appendix D
					ISUS-12	--	59	--						6			Appendix D
					ISUS-13	--	59	--						6			Appendix D
					ISUS-15	--	27	--						6			Appendix D
					ISUS-18	--	61	--						6			Appendix D
					ISUS-22	--	54	--						6			Appendix D
					ISUS-27	--	57	--						6			Appendix D
					ISUS-34	--	34	--						6			Appendix D
					ISUS-37	--	6	--						6			Appendix D
					ISUS-38	--	37	--						6			Appendix D
					ISUS-39	--	24	--						6			Appendix D
					ISUS-40	--	52	--						6			Appendix D
					ISUS-41	--	52	--						6			Appendix D
					ISUS-42	--	28	--						6			Appendix D
					ISUS-43	--	49	--						6			Appendix D
					ISUS-44	--	7	--						6			Appendix D
					ISUS-45	--	42	--						6			Appendix D
					ISUS-46	--	37	--						6			Appendix D
Current Velocity/ Continuous Turbidity[6]	□ (Figure 1)	4	3	surface, mid-depth, near	T1	OL-SW-40313	10.5	0, 5, 9								9	Table 3, Appendix E
					T2	OL-SW-10194	10	0, 5, 9								9	Table 3, Appendix E
					T3	OL-SW-60328	8	0, 4, 7								9	Table 3, Appendix E
					T4	OL-SW-60329	6.5	0, 3, 5.5								9	Table 3, Appendix E

Notes:

1. These depths represent conditions during discrete water sampling during the October 25 and 26 event. Depths recorded during the other two sampling events were no more than 1 foot different with the exception of OL-SW-40313 where the water depth was approximately 2.5 feet shallower during the November 9 to 10, 2010 event.
2. CPOI list for VOCs are the same compounds as those listed in the Revised PDI QUAPP (Parsons, 2010).
3. Rapid profiling parameters included turbidity, temperature, beam attenuation coefficient, specific conductance, chlorophyll, and photosynthetically active radiance. Non-ISUS profiles also included optical backscattering.
4. Field measurements included pH, temperature, specific conductance, and oxidation-reduction potential.
5. Current velocity measurements were recorded at surface, mid-depth, and near bottom for a total of three velocities per event.
6. Continuous turbidity measurements were recorded at mid-depth, logged every 10 minutes.

			Location	DEEP_N		DEEP_N		DEEP_N		DEEP_S		DEEP_S		DEEP_S		FIELD QC		FIELD QC		FIELD QC		OL-SW-10194		OL-SW-10194		OL-SW-10194		OL-SW-10194	
			Sample Depth	31-31 FT		31-31 FT		32-32 FT		33-33 FT		33.5-33.5 FT		33.5-33.5 FT								5-5 FT		4.4-4.4 FT		4.4-4.4 Ft		4.4-4.4 Ft	
			Field Sample ID	OL-1353-01		OL-1358-03		OL-1378-01		OL-1354-03		OL-1358-05		OL-1379-01		OL-1356-05		OL-1360-07		OL-1380-05		OL-1355-03		OL-1360-01		OL-1360-01A		OL-1360-01B	
			Abbreviated ID	North Deep		North Deep		North Deep		South Deep		South Deep		South Deep								T2		T2		T2		T2	
			Sample Date	10/25/2010		11/9/2010		11/16/2010		10/25/2010		11/9/2010		11/16/2010		10/26/2010		11/10/2010		11/18/2010		10/26/2010		11/10/2010		11/10/2010		11/10/2010	
			SDG	1044039|C0J260540|UFICHM2010-045		UFICHM2010-050|C0K100473|1046015		1047013|UFICHM2010-051|C0K170502		C0J260541|UFICHM2010-045|1044038		UFICHM2010-050|C0K100473|1046015		1047014|UFICHM2010-051|C0K170498		1044041|C0J270570		C0K110569|1046024		1047037|C0K200411		1044040|UFICHM2010-045|C0J270568		C0K110569|1046024		UFICHM2010-050		UFICHM2010-050	
			Matrix	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
			Sample Purpose	Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		EB		EB		EB		Regular sample		Regular sample		Regular sample		Regular sample	
			Sample Type	Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Blank water (field)		Blank water (field)		Blank water (field)		Surface water		Surface water		Surface water		Surface water	
Method	Parameter Name	Units	Filtered																										
E1630	METHYL MERCURY	ug/L	N	8.40E-05	J	1.22E-04		6.70E-05		6.40E-05	J	1.21E-04		6.20E-05		2.00E-05	U	2.00E-05	U	2.00E-05	U	1.02E-04		1.07E-04					
E1631	MERCURY	ug/L	N	0.00061		0.0012	J	0.00088		0.00091		0.0046	J	0.0014		0.00012	U	0.0118	J	0.00035	J	0.0015		0.0014	J				
E1631	MERCURY	ug/L	Y	0.00013	J	0.00028	J	0.00027	J	0.00012	U	0.00028	J	0.00042	J	0.00012	U	0.0012	J	0.00016	J	0.00012	U	0.00022	J				
SM2540D	Total Suspended Solids	mg/L	N	2.8	J	2	J	2	J	2.8	J	2.4	J	2.4	J	4	U	4	U	4	U	4	U	2	J				
SW8082	AROCLOR-1016	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1221	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1232	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1242	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1248	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1254	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0055	J				
SW8082	AROCLOR-1260	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1262	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1268	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	PCBS, N.O.S.	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0055	J				
SW8260	1,2,3-TRICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	1,2,4-TRICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	1,2-DICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	1,3,5-TRICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	1,3-DICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	1,4-DICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	BENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	0.14	J	0.16	J	1	U	1	U				
SW8260	CHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	ETHYLBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	O-XYLENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	TOLUENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	0.83	J	0.88	J	1	U	1	U				
SW8260	XYLENES, M & P	ug/L	N	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U				
SW8260	XYLENES, TOTAL	ug/L	N	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U				
SW8270	ACENAPHTHENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.035	J	0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	ACENAPHTHYLENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.047	J	0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	ANTHRACENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.13	J	0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	BENZO(A)ANTHRACENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	1.4		0.26	U	0.19	U	0.062	J	0.21	U	0.19	U				
SW8270	BENZO(A)PYRENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	1.1		0.067	J	0.19	U	0.051	J	0.21	U	0.19	U				
SW8270	BENZO(B)FLUORANTHENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	1.6		0.079	J	0.19	U	0.13	J	0.21	U	0.19	U				
SW8270	BENZO(G,H,I)PERYLENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.78		0.25	J	0.19	U	0.3		0.21	U	0.19	U				
SW8270	BENZO(K)FLUORANTHENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.75		0.12	J	0.19	U	0.2		0.21	U	0.19	U				
SW8270	CHRYSENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	1.3		0.26	U	0.19	U	0.11	J	0.21	U	0.19	U				
SW8270	DIBENZO(A,H)ANTHRACENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.81		0.46		0.19	U	0.37		0.21	U	0.19	U				
SW8270	FLUORANTHENE	ug/L	N	0.033	J	0.19	U	0.38		0.032	J	0.19	U	1.7		0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	FLUORENE	ug/L	N	0.032	J	0.19	U	0.2	U	0.062	J	0.19	U	0.54		0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	INDENO(1,2,3-CD)PYRENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.97		0.23	J	0.19	U	0.25		0.21	U	0.19	U				
SW8270	NAPHTHALENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.19	U	0.13	J	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	PHENANTHRENE	ug/L	N	0.17	J	0.19	U	0.27		0.35		0.19	U	0.32		0.2	J	0.19	U	0.19	U	0.12	J	0.19	U				
SW8270	PHENOL	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.19	U	0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	PYRENE	ug/L	N	0.03	J	0.19	U	0.15	J	0.02	J	0.19	U	1.5		0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
UFI SOP	AMMONIA	mg/L	N	0.322		0.245		0.193		0.298		0.245		0.214								0.328				0.232		0.242	
UFI SOP	Beam Attenuation Coefficient	1/m	N	1.89		2.46		2.04		2.44		3.73		2.08								2.14				2.49		2.1	
UFI SOP	CHLOROPHYLL-A	ug/L	N	2.4		3.4		5.4		2.9		4.2		5.6								1.2				4.6	J	4.7	J
UFI SOP	NITRITE	mg/l	N	0.049		0.073		0.097		0.049		0.072		0.094								0.049				0.072		0.072	
UFI SOP	NITROGEN, NITRATE-NITRITE	mg/L	N	1.832		1.709		1.875		1.999		2.03		1.999								1.886				1.797		1.766	
UFI SOP	PHOSPHORUS, DISSOLVED (AS P)	ug/l	Y	27.9		25.1		19.1		24.6		22.1		19.5								24.6				24.5		24.5	
UFI SOP	PHOSPHORUS, TOTAL (AS P)	mg/L	N	0.0414		0.0359		0.0301		0.0381		0.0393		0.0328								0.0371				0.0376		0.0352	
UFI SOP	REACTIVE PHOSPHATE	mg/L	N	0.0213		0.0177		0.0144		0.0178		0.0149		0.0129								0.0188				0.0167		0.0165	
UFI SOP	TURBIDITY	NTU	N	1.9		1.9		1.2		2.5		2.8		1.3								1.7				1.8		2	

			Location	OL-SW-10194	OL-SW-10194	OL-SW-40313	OL-SW-40313	OL-SW-40313	OL-SW-60328	OL-SW-60328	OL-SW-60328	OL-SW-60328	OL-SW-60328	OL-SW-60328	OL-SW-60328	OL-SW-60328
			Sample Depth	4.4-4.4 Ft	5-5 FT	5-5 FT	3.95-4 FT	5-5 FT	4-4 FT	4-4 FT	3.8-3.8 FT	3.8-3.8 FT	4-4 FT	4-4 Ft	4-4 Ft	4-4 Ft
			Field Sample ID	OL-1360-01C	OL-1380-02	OL-1353-04	OL-1359-02	OL-1380-01	OL-1356-01	OL-1356-02	OL-1360-03	OL-1360-04	OL-1380-03	OL-1380-03A	OL-1380-03B	OL-1380-03C
			Abbreviated ID	T2	T2	T1	T1	T1	T3	T3	T3	T3	T3	T3	T3	T3
			Sample Date	11/10/2010	11/18/2010	10/25/2010	11/10/2010	11/18/2010	10/26/2010	10/26/2010	11/10/2010	11/10/2010	11/18/2010	11/18/2010	11/18/2010	11/18/2010
			SDG	UFICHM2010-050	UFICHM2010-051|1047037|C0K200411	1044039|C0J260540|UFICHM2010-045	UFICHM2010-050|1046025|C0K110574	UFICHM2010-051|1047037|C0K200411	1044041|C0J270570|UFICHM2010-045	1044041|C0J270570	UFICHM2010-050|C0K110569|1046024	C0K110569|1046024	1047037|C0K200411	UFICHM2010-051	UFICHM2010-051	UFICHM2010-051
			Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Field duplicate	Regular sample	Field duplicate	Regular sample	Regular sample	Regular sample	Regular sample
			Sample Type	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water
Method	Parameter Name	Units	Filtered													
E1630	METHYL MERCURY	ug/L	N		5.10E-05	9.80E-05 J	7.40E-05	5.60E-05	8.60E-05	1.00E-04	1.26E-04	1.08E-04	1.00E-04			
E1631	MERCURY	ug/L	N		0.0021	0.00091	0.00083	0.0017	0.00071	0.00071	0.003 J	0.0035 J	0.0132			
E1631	MERCURY	ug/L	Y		0.00026 J	0.00012 U	0.00015 J	0.00029 J	0.00012 U	0.00012 U	0.00035 J	0.00034 J	0.00036 J			
SM2540D	Total Suspended Solids	mg/L	N		4 U	2 J	4 U	4 U	5.2	4	2.4 J	2.8 J	3.2 J			
SW8082	AROCLOR-1016	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1221	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1232	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1242	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1248	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1254	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0095 J	0.0089 J	0.0095 U			
SW8082	AROCLOR-1260	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1262	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1268	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	PCBS, N.O.S.	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0095 J	0.0089 J	0.0095 U			
SW8260	1,2,3-TRICHLOROBENZENE	ug/L	N		1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	1,2,4-TRICHLOROBENZENE	ug/L	N		1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	1,2-DICHLOROBENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	1,3,5-TRICHLOROBENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	1,3-DICHLOROBENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	1,4-DICHLOROBENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	BENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	CHLOROBENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	ETHYLBENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	O-XYLENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	TOLUENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	XYLENES, M & P	ug/L	N		2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U			
SW8260	XYLENES, TOTAL	ug/L	N		3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U			
SW8270	ACENAPHTHENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	ACENAPHTHYLENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	ANTHRACENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	BENZO(A)ANTHRACENE	ug/L	N		0.19 U	0.077 J	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	BENZO(A)PYRENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	BENZO(B)FLUORANTHENE	ug/L	N		0.19 U	0.041 J	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	BENZO(G,H,I)PERYLENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	BENZO(K)FLUORANTHENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	CHRYSENE	ug/L	N		0.19 U	0.063 J	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	DIBENZO(A,H)ANTHRACENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	FLUORANTHENE	ug/L	N		0.19 U	0.048 J	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.016 J	0.031 J			
SW8270	FLUORENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.029 J	0.2 U	0.2 U	0.19 U			
SW8270	INDENO(1,2,3-CD)PYRENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	NAPHTHALENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	PHENANTHRENE	ug/L	N		0.19 U	0.091 J	0.2 U	0.2 U	0.12 J	0.19 J	0.2 U	0.2 U	0.058 J			
SW8270	PHENOL	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	PYRENE	ug/L	N		0.016 J	0.06 J	0.2 U	0.2 U	0.022 J	0.034 J	0.2 U	0.2 U	0.026 J			
UFI SOP	AMMONIA	mg/L	N	0.241	0.219	0.309	0.233	0.21	0.295		0.251			0.212	0.21	0.205
UFI SOP	Beam Attenuation Coefficient	1/m	N	2.36	1.66	2.27	2.19	2.63	5.41		2.88			4.6	4.43	4.43
UFI SOP	CHLOROPHYLL-A	ug/L	N	5.5 J	2.1	3.3	5.4 J	2.8	1.3		4.3 J			4.5	4.6	3.6
UFI SOP	NITRITE	mg/l	N	0.071	0.091	0.049	0.074	0.089	0.04		0.062			0.092	0.091	0.09
UFI SOP	NITROGEN, NITRATE-NITRITE	mg/L	N	1.774	2.099	1.917	1.645	1.983	1.869		3.023			2.262	2.415	2.146
UFI SOP	PHOSPHORUS, DISSOLVED (AS P)	ug/l	Y	26.5	20.1	26.6	24.5	20.4	21		22.8			18.8	19.1	19.7
UFI SOP	PHOSPHORUS, TOTAL (AS P)	mg/L	N	0.0373	0.0276	0.0407	0.0366	0.0309	0.0411		0.039			0.0348	0.0365	0.0347
UFI SOP	REACTIVE PHOSPHATE	mg/L	N	0.0167	0.0137	0.0192	0.0176	0.0144	0.0154		0.0135			0.0129	0.0128	0.0128
UFI SOP	TURBIDITY	NTU	N	1.8	1.4	2.1	1.6	2.4	5.8		2.5			3.9	4.1	3.9

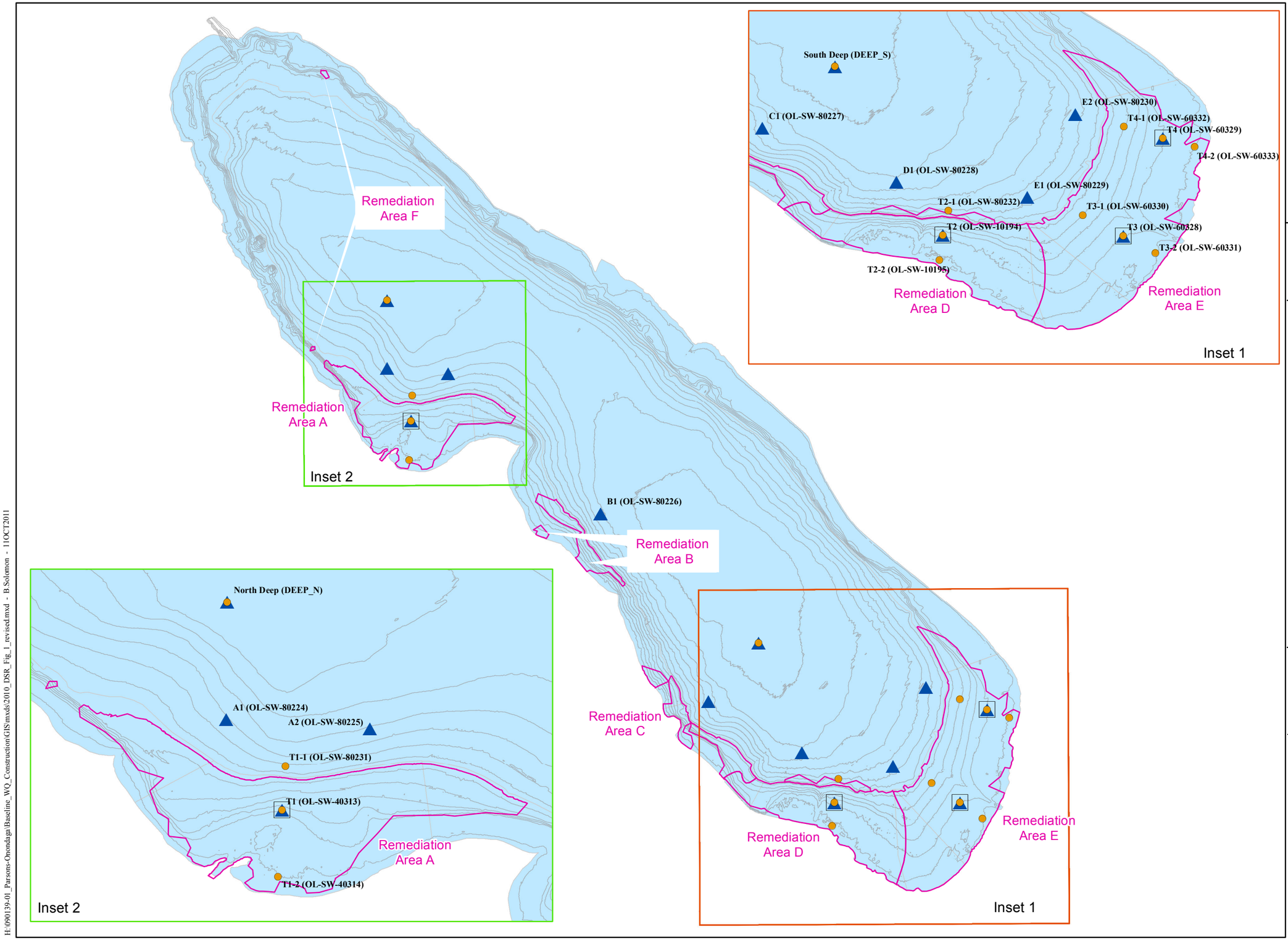
			Location	OL-SW-60329	OL-SW-60329	OL-SW-60329	OL-SW-80224	OL-SW-80224	OL-SW-80224	OL-SW-80225	OL-SW-80225	OL-SW-80225	OL-SW-80226	OL-SW-80226	OL-SW-80226	OL-SW-80227
			Sample Depth	3-3 FT	3.6-3.6 FT	3.5-3.5 FT	22.5-22.5 FT	22-22 FT	22-22 FT	25-25 FT	24.5-24.5 FT	25-25 FT	29-29 FT	29-29 FT	30-30 FT	25.5-25.5 FT
			Field Sample ID	OL-1356-03	OL-1360-05	OL-1380-04	OL-1353-02	OL-1359-01	OL-1378-02	OL-1353-03	OL-1358-02	OL-1378-03	OL-1354-01	OL-1359-03	OL-1378-04	OL-1354-02
			Abbreviated ID	T4	T4	T4	A1	A1	A1	A2	A2	A2	B1	B1	B1	C1
			Sample Date	10/26/2010	11/10/2010	11/18/2010	10/25/2010	11/10/2010	11/16/2010	10/25/2010	11/9/2010	11/16/2010	10/25/2010	11/10/2010	11/16/2010	10/25/2010
			SDG	1044041|C0J270570|UFICHM2010-045	UFICHM2010-050|C0K110569|1046024	UFICHM2010-051|1047037|C0K200411	1044039|C0J260540|UFICHM2010-045	UFICHM2010-050|1046025|C0K110574	1047013|UFICHM2010-051|C0K170502	1044039|C0J260540|UFICHM2010-045	UFICHM2010-050|C0K100473|1046015	1047013|UFICHM2010-051|C0K170502	C0J260541|UFICHM2010-045|1044038	UFICHM2010-050|1046025|C0K110574	1047013|UFICHM2010-051|C0K170502	C0J260541|UFICHM2010-045|1044038
			Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
			Sample Type	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water
Method	Parameter Name	Units	Filtered													
E1630	METHYL MERCURY	ug/L	N	8.80E-05	7.20E-05	1.00E-04	9.00E-05 J	7.80E-05	5.80E-05	6.20E-05 J	1.53E-04	6.40E-05	6.70E-05 J	7.90E-05	5.80E-05	7.80E-05 J
E1631	MERCURY	ug/L	N	0.00081	0.00071 J	0.0199	0.00079	0.00099	0.00093	0.00068	0.0012 J	0.0011	0.00095	0.0012	0.0012	0.0011
E1631	MERCURY	ug/L	Y	0.00012 U	0.00024 J	0.00041 J	0.00012 U	0.00026 J	0.00028 J	0.00012 U	0.00023 J	0.00025 J	0.00012 U	0.00014 J	0.00021 J	0.00012 U
SM2540D	Total Suspended Solids	mg/L	N	4.4	2 J	37.2	2.4 J	4 U	4 U	2 J	4 U	2 J	3.6 J	2 J	4 U	3.2 J
SW8082	AROCLOR-1016	ug/L	N	0.01 U	0.0096 U	0.0095 U	0.01 U	0.0095 U	0.0098 U	0.01 U	0.0097 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U
SW8082	AROCLOR-1221	ug/L	N	0.01 U	0.0096 U	0.0095 U	0.01 U	0.0095 U	0.0098 U	0.01 U	0.0097 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U
SW8082	AROCLOR-1232	ug/L	N	0.01 U	0.0096 U	0.0095 U	0.01 U	0.0095 U	0.0098 U	0.01 U	0.0097 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U
SW8082	AROCLOR-1242	ug/L	N	0.01 U	0.0096 U	0.0095 U	0.01 U	0.0095 U	0.0098 U	0.01 U	0.0097 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U
SW8082	AROCLOR-1248	ug/L	N	0.01 U	0.0096 U	0.0095 U	0.01 U	0.0095 U	0.0098 U	0.01 U	0.0097 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U
SW8082	AROCLOR-1254	ug/L	N	0.01 U	0.0096 U	0.0095 U	0.01 U	0.0095 U	0.0098 U	0.01 U	0.0097 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U
SW8082	AROCLOR-1260	ug/L	N	0.01 U	0.0096 U	0.0095 U	0.01 U	0.0095 U	0.0098 U	0.01 U	0.0097 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U
SW8082	AROCLOR-1262	ug/L	N	0.01 U	0.0096 U	0.0095 U	0.01 U	0.0095 U	0.0098 U	0.01 U	0.0097 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U
SW8082	AROCLOR-1268	ug/L	N	0.01 U	0.0096 U	0.0095 U	0.01 U	0.0095 U	0.0098 U	0.01 U	0.0097 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U
SW8082	PCBS, N.O.S.	ug/L	N	0.01 U	0.0096 U	0.0095 U	0.01 U	0.0095 U	0.0098 U	0.01 U	0.0097 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U
SW8260	1,2,3-TRICHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U
SW8260	1,2,4-TRICHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U
SW8260	1,2-DICHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	1,3,5-TRICHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	1,3-DICHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	1,4-DICHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	BENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	CHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	ETHYLBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	O-XYLENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	TOLUENE	ug/L	N	1 U	1 U	1 U	1 U	0.16 J	1 U	1 U	0.24 J	1 U	1 U	1 U	1 U	1 U
SW8260	XYLENES, M & P	ug/L	N	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
SW8260	XYLENES, TOTAL	ug/L	N	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
SW8270	ACENAPHTHENE	ug/L	N	0.21 U	0.2 U	0.19 U	0.23 U	0.2 U	0.2 U	0.23 U	0.19 U	0.2 U	0.26 U	0.19 U	0.19 U	0.21 U
SW8270	ACENAPHTHYLENE	ug/L	N	0.21 U	0.2 U	0.19 U	0.23 U	0.2 U	0.2 U	0.23 U	0.19 U	0.2 U	0.26 U	0.19 U	0.19 U	0.21 U
SW8270	ANTHRACENE	ug/L	N	0.21 U	0.2 U	0.19 U	0.23 U	0.2 U	0.2 U	0.022 J	0.19 U	0.094 J	0.26 U	0.19 U	1.3	0.21 U
SW8270	BENZO(A)ANTHRACENE	ug/L	N	0.21 U	0.2 U	0.19 U	0.23 U	0.2 U	0.2 U	0.23 U	0.19 U	1	0.26 U	0.19 U	11	0.21 U
SW8270	BENZO(A)PYRENE	ug/L	N	0.21 U	0.2 U	0.19 U	0.23 U	0.2 U	0.2 U	0.23 U	0.19 U	0.47	0.26 U	0.19 U	8.9	0.21 U
SW8270	BENZO(B)FLUORANTHENE	ug/L	N	0.21 U	0.2 U	0.19 U	0.23 U	0.2 U	0.2 U	0.23 U	0.19 U	1	0.26 U	0.19 U	12	0.21 U
SW8270	BENZO(G,H,I)PERYLENE	ug/L	N	0.21 U	0.2 U	0.19 U	0.23 U	0.2 U	0.2 U	0.23 U	0.19 U	0.17 J	0.26 U	0.19 U	12	0.21 U
SW8270	BENZO(K)FLUORANTHENE	ug/L	N	0.21 U	0.2 U	0.19 U	0.23 U	0.2 U	0.2 U	0.23 U	0.19 U	0.2 U	0.26 U	0.19 U	10	0.21 U
SW8270	CHRYSENE	ug/L	N	0.21 U	0.2 U	0.19 U	0.23 U	0.2 U	0.2 U	0.23 U	0.19 U	0.88	0.26 U	0.19 U	11	0.21 U
SW8270	DIBENZO(A,H)ANTHRACENE	ug/L	N	0.21 U	0.2 U	0.19 U	0.23 U	0.2 U	0.2 U	0.23 U	0.19 U	0.2 U	0.26 U	0.19 U	11	0.21 U
SW8270	FLUORANTHENE	ug/L	N	0.026 J	0.2 U	0.061 J	0.02 J	0.2 U	0.2 U	0.067 J	0.19 U	2	0.26 U	0.19 U	4.9	0.019 J
SW8270	FLUORENE	ug/L	N	0.21 U	0.2 U	0.19 U	0.23 U	0.2 U	0.2 U	0.061 J	0.19 U	0.2 U	0.26 U	0.19 U	0.57	0.21 U
SW8270	INDENO(1,2,3-CD)PYRENE	ug/L	N	0.21 U	0.2 U	0.19 U	0.23 U	0.2 U	0.2 U	0.23 U	0.19 U	0.47	0.26 U	0.19 U	11	0.21 U
SW8270	NAPHTHALENE	ug/L	N	0.21 U	0.2 U	0.069 J	0.23 U	0.2 U	0.2 U	0.23 U	0.19 U	0.2 U	0.26 U	0.19 U	0.19 U	0.21 U
SW8270	PHENANTHRENE	ug/L	N	0.1 J	0.2 U	0.043 J	0.22 J	0.2 U	0.052 J	0.51	0.19 U	0.3	0.22 J	0.19 U	0.5	0.14 J
SW8270	PHENOL	ug/L	N	0.21 U	0.2 U	0.19 U	0.23 U	0.2 U	0.2 U	0.23 U	0.19 U	0.2 U	0.26 U	0.19 U	0.19 U	0.21 U
SW8270	PYRENE	ug/L	N	0.03 J	0.2 U	0.049 J	0.23 U	0.2 U	0.2 U	0.026 J	0.19 U	1.6	0.025 J	0.19 U	5.4	0.21 U
UFI SOP	AMMONIA	mg/L	N	0.288	0.221	0.13	0.323	0.24	0.199	0.319	0.258	0.196	0.298	0.238	0.209	0.308
UFI SOP	Beam Attenuation Coefficient	1/m	N	5.21	1.4	54.45	2.36	2.06	1.87	2.19	2.68	1.83	2.19	2.4	1.74	2.14
UFI SOP	CHLOROPHYLL-A	ug/L	N	0.2 J	1.3 J	2.3	2.7	3.3 J	4.9	0.3 J	3.4	4.5	1.2	4.2 J	3.4	1.6
UFI SOP	NITRITE	mg/l	N	0.039	0.064	0.024	0.05	0.075	0.097	0.051	0.074	0.099	0.049	0.075	0.093	0.05
UFI SOP	NITROGEN, NITRATE-NITRITE	mg/L	N	2.111	1.767	2.249	1.847	1.716	1.972	1.908	2.013 J	1.862	2.195	1.693	1.939	2.01
UFI SOP	PHOSPHORUS, DISSOLVED (AS P)	ug/l	Y	20.4	24.1	12.1	29.6	25.1	20.7	28.6	24.8	21.1	24.3	24.1	20.4	25.6
UFI SOP	PHOSPHORUS, TOTAL (AS P)	mg/L	N	0.0421	0.0302	0.0606	0.0424	0.0366	0.0312	0.0388	0.0349	0.0318	0.0348	0.0363	0.0309	0.0381
UFI SOP	REACTIVE PHOSPHATE	mg/L	N	0.0138	0.0161	0.0064	0.0218	0.0181	0.0152	0.0213	0.0175	0.0152	0.0175	0.0172	0.0146	0.0185
UFI SOP	TURBIDITY	NTU	N	5.9	1.1	62.8	1.8	1.7	1.3	2.2	2.1	1.2	2.2	1.8	1.2	3.1

			Location	OL-SW-80227	OL-SW-80227	OL-SW-80228	OL-SW-80228	OL-SW-80228	OL-SW-80229	OL-SW-80229	OL-SW-80229	OL-SW-80230	OL-SW-80230	OL-SW-80230	OL-SW-80230
			Sample Depth	25-25 FT	25.5-25.5 FT	29-29 FT	28.2-28.2 FT	28.5-28.5 FT	21-21 FT	20.9-20.9 FT	21-21 FT	22-22 FT	21-21 FT	21-21 FT	21-21 FT
			Field Sample ID	OL-1358-04	OL-1378-05	OL-1355-01	OL-1359-04	OL-1379-02	OL-1355-02	OL-1360-02	OL-1379-03	OL-1356-04	OL-1360-06	OL-1379-04	OL-1379-05
			Abbreviated ID	C1	C1	D1	D1	D1	E1	E1	E1	E2	E2	E2	E2
			Sample Date	11/9/2010	11/16/2010	10/26/2010	11/10/2010	11/16/2010	10/26/2010	11/10/2010	11/16/2010	10/26/2010	11/10/2010	11/16/2010	11/16/2010
			SDG	UFICHM2010-050|C0K100473|1046015	1047013|UFICHM2010-051|C0K170502	1044040|UFICHM2010-045|C0J270568	UFICHM2010-050|1046025|C0K110574	1047014|UFICHM2010-051|C0K170498	1044040|UFICHM2010-045|C0J270568	UFICHM2010-050|C0K110569|1046024	1047014|UFICHM2010-051|C0K170498	1044041|C0J270570|UFICHM2010-045	UFICHM2010-050|C0K110569|1046024	1047014|UFICHM2010-051|C0K170498	1047014|C0K170498
			Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Field duplicate
			Sample Type	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water
Method	Parameter Name	Units	Filtered												
E1630	METHYL MERCURY	ug/L	N	1.09E-04	5.80E-05	9.00E-05	8.90E-05	5.50E-05	8.20E-05	1.07E-04	6.00E-05	1.02E-04	7.00E-05	5.50E-05	6.20E-05
E1631	MERCURY	ug/L	N	0.00071 J	0.0013	0.0009	0.0019	0.003	0.00093	0.0033 J	0.0014	0.0006	0.0023 J	0.002	0.0014
E1631	MERCURY	ug/L	Y	0.00034 J	0.00032 J	0.00028 J	0.00021 J	0.00032 J	0.00012 U	0.00027 J	0.00035 J	0.00012 U	0.00016 J	0.00034 J	0.00036 J
SM2540D	Total Suspended Solids	mg/L	N	2 J	4 U	4 U	4 U	2.4 J	2 J	2.4 J	2.4 J	4 U	2.4 J	2.4 J	2.4 J
SW8082	AROCLOR-1016	ug/L	N	0.0094 U	0.0096 U	0.01 U	0.0096 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U	0.0097 U	0.0095 U	0.0095 U
SW8082	AROCLOR-1221	ug/L	N	0.0094 U	0.0096 U	0.01 U	0.0096 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U	0.0097 U	0.0095 U	0.0095 U
SW8082	AROCLOR-1232	ug/L	N	0.0094 U	0.0096 U	0.01 U	0.0096 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U	0.0097 U	0.0095 U	0.0095 U
SW8082	AROCLOR-1242	ug/L	N	0.0094 U	0.0096 U	0.01 U	0.0096 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U	0.0097 U	0.0095 U	0.0095 U
SW8082	AROCLOR-1248	ug/L	N	0.0094 U	0.0096 U	0.01 U	0.0096 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U	0.0097 U	0.0095 U	0.0095 U
SW8082	AROCLOR-1254	ug/L	N	0.0094 U	0.0096 U	0.01 U	0.0096 U	0.0096 U	0.01 U	0.0065 J	0.0096 U	0.01 U	0.0028 J	0.0095 U	0.0095 U
SW8082	AROCLOR-1260	ug/L	N	0.0094 U	0.0096 U	0.01 U	0.0096 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U	0.0097 U	0.0095 U	0.0095 U
SW8082	AROCLOR-1262	ug/L	N	0.0094 U	0.0096 U	0.01 U	0.0096 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U	0.0097 U	0.0095 U	0.0095 U
SW8082	AROCLOR-1268	ug/L	N	0.0094 U	0.0096 U	0.01 U	0.0096 U	0.0096 U	0.01 U	0.0098 U	0.0096 U	0.01 U	0.0097 U	0.0095 U	0.0095 U
SW8082	PCBS, N.O.S.	ug/L	N	0.0094 U	0.0096 U	0.01 U	0.0096 U	0.0096 U	0.01 U	0.0065 J	0.0096 U	0.01 U	0.0028 J	0.0095 U	0.0095 U
SW8260	1,2,3-TRICHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	1,2,4-TRICHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	1,2-DICHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	1,3,5-TRICHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	1,3-DICHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	1,4-DICHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	BENZENE	ug/L	N	1 U	0.12 J	1 U	1 U	0.14 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	CHLOROBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	ETHYLBENZENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	O-XYLENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	TOLUENE	ug/L	N	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260	XYLENES, M & P	ug/L	N	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
SW8260	XYLENES, TOTAL	ug/L	N	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
SW8270	ACENAPHTHENE	ug/L	N	0.19 U	0.2 U	0.21 U	0.2 U	0.19 U	0.21 U	0.19 U	0.2 U	0.21 U	0.19 U	0.19 U	0.19 U
SW8270	ACENAPHTHYLENE	ug/L	N	0.19 U	0.2 U	0.21 U	0.2 U	0.19 U	0.21 U	0.19 U	0.2 U	0.21 U	0.19 U	0.19 U	0.19 U
SW8270	ANTHRACENE	ug/L	N	0.19 U	0.027 J	0.21 U	0.2 U	0.018 J	0.21 U	0.19 U	0.2 U	0.21 U	0.19 U	0.033 J	0.19 U
SW8270	BENZO(A)ANTHRACENE	ug/L	N	0.19 U	0.59	0.21 U	0.2 U	0.19 U	0.21 U	0.19 U	0.2 U	0.21 U	0.19 U	0.28 J	0.19 UJ
SW8270	BENZO(A)PYRENE	ug/L	N	0.19 U	0.35	0.21 U	0.2 U	0.19 U	0.21 U	0.19 U	0.2 U	0.21 U	0.19 U	0.11 J	0.19 U
SW8270	BENZO(B)FLUORANTHENE	ug/L	N	0.19 U	0.37	0.21 U	0.2 U	0.19 U	0.21 U	0.19 U	0.2 U	0.21 U	0.19 U	0.24 J	0.19 UJ
SW8270	BENZO(G,H,I)PERYLENE	ug/L	N	0.19 U	0.14 J	0.21 U	0.2 U	0.19 U	0.21 U	0.19 U	0.2 U	0.21 U	0.19 U	0.19 U	0.19 U
SW8270	BENZO(K)FLUORANTHENE	ug/L	N	0.19 U	0.23	0.21 U	0.2 U	0.19 U	0.21 U	0.19 U	0.2 U	0.21 U	0.19 U	0.19 U	0.19 U
SW8270	CHRYSENE	ug/L	N	0.19 U	0.44	0.21 U	0.2 U	0.19 U	0.21 U	0.19 U	0.2 U	0.21 U	0.19 U	0.24 J	0.19 UJ
SW8270	DIBENZO(A,H)ANTHRACENE	ug/L	N	0.19 U	0.2 U	0.21 U	0.2 U	0.19 U	0.21 U	0.19 U	0.2 U	0.21 U	0.19 U	0.19 U	0.19 U
SW8270	FLUORANTHENE	ug/L	N	0.19 U	0.72	0.21 U	0.2 U	0.045 J	0.21 U	0.19 U	0.034 J	0.21 U	0.19 U	0.8 J	0.2 J
SW8270	FLUORENE	ug/L	N	0.19 U	0.2 U	0.21 U	0.2 U	0.19 U	0.21 U	0.19 U	0.2 U	0.21 U	0.19 U	0.19 U	0.19 U
SW8270	INDENO(1,2,3-CD)PYRENE	ug/L	N	0.19 U	0.43	0.21 U	0.2 U	0.19 U	0.21 U	0.19 U	0.2 U	0.21 U	0.19 U	0.19 U	0.19 U
SW8270	NAPHTHALENE	ug/L	N	0.19 U	0.2 U	0.21 U	0.2 U	0.19 U	0.21 U	0.19 U	0.032 J	0.21 U	0.19 U	0.19 U	0.12 J
SW8270	PHENANTHRENE	ug/L	N	0.19 U	0.066 J	0.079 J	0.2 U	0.081 J	0.088 J	0.19 U	0.12 J	0.085 J	0.19 U	0.29	0.45
SW8270	PHENOL	ug/L	N	0.19 U	0.2 U	0.21 U	0.2 U	0.19 U	0.21 U	0.19 U	0.2 U	0.21 U	0.19 U	0.19 U	0.19 U
SW8270	PYRENE	ug/L	N	0.19 U	0.64	0.21 U	0.2 U	0.039 J	0.21 U	0.19 U	0.034 J	0.21 U	0.19 U	0.64 J	0.05 J
UFI SOP	AMMONIA	mg/L	N	0.245	0.213	0.332	0.24	0.22	0.329	0.248	0.21	0.324	0.232	0.204	
UFI SOP	Beam Attenuation Coefficient	1/m	N	2.77	1.87	2.31	2.62	1.74	2.05	2.98	1.91	2.31	3.14	1.87	
UFI SOP	CHLOROPHYLL-A	ug/L	N	4.2	2.6	1.7	4.7 J	1.4	0.6	5.3 J	3.4	2.5	5.9 J	2.7	
UFI SOP	NITRITE	mg/l	N	0.074	0.093	0.047	0.074	0.091	0.048	0.073	0.096	0.046	0.072	0.093	
UFI SOP	NITROGEN, NITRATE-NITRITE	mg/L	N	1.998 J	1.995	1.798	1.809	2.154	1.767	1.796	2.139	1.933	1.849	2.036	
UFI SOP	PHOSPHORUS, DISSOLVED (AS P)	ug/l	Y	24.1	20.1	24.3	24.5	20.7	25	23.8	19.1	25.3	22.4	18.5	
UFI SOP	PHOSPHORUS, TOTAL (AS P)	mg/L	N	0.0373	0.0305	0.0375	0.0366	0.0305	0.0365	0.0386	0.0305	0.0355	0.0386	0.0295	
UFI SOP	REACTIVE PHOSPHATE	mg/L	N	0.0172	0.0142	0.0184	0.0164	0.0149	0.0187	0.0156	0.013	0.0195	0.0154	0.0125	
UFI SOP	TURBIDITY	NTU	N	2.2	1.4	2.1	2.1	1.6	2.2	2.4	1.4	1.8	2.2	1.3	

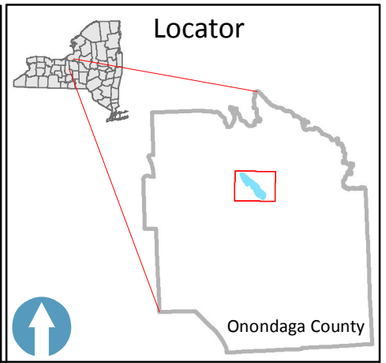
Table 3
Velocity Measurement Data

Station ID	Location ID	Date	Velocity (cm/s)	Depth (ft)
T1	OL-SW-40313	10/25/2010	0.07	0
			0.07	5
			0.02	9
		11/10/2010	0	0
			0	4
			0.09	6
		11/18/2010	0	0
			0	5
			0	9
T2	OL-SW-10194	10/26/2010	0.12	0
			0.02	5
			0	9
		11/10/2010	0	0
			0	4
			0	7.5
		11/18/2010	0.07	0
			0.03	5
			0	9
T3	OL-SW-60328	10/26/2010	0	0
			0	4
			0	7
		11/10/2010	0	0
			0	3
			0	7
		11/18/2010	0.09	0
			0.07	4
			0.07	7
T4	OL-SW-60329	10/26/2010	0.1	0
			0	3.2
			0	5.5
		11/10/2010	0	0
			0	3
			0	6
		11/18/2010	0.03	0
			0	3.5
			0	6

FIGURES



Locator



Scale

0 1,000 2,000 4,000 Feet

Legend

- Discrete Turbidity Monitoring
- Water Column Sample Locations
- Continuous Turbidity Monitoring and Discrete Current Velocity Monitoring Station
- Remediation Areas
- 2007 Bathymetry (5 ft interval)

Reference:
Bathymetric survey performed by CR Environmental, Inc. for Honeywell in 2007.

Figure 1
2010 Baseline Water Quality Monitoring Locations
Onondaga Lake

Honeywell
PARSONS
ANCHOR QEA
UPSTATE FRESHWATER INSTITUTE

090139-01 task21 OCT 2011

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ISUS-34

Remediation Area F

ISUS-27

ISUS-46

ISUS-45

ISUS-22

ISUS-44

Remediation Area A

ISUS-43

ISUS-18

Remediation Area B

ISUS-15

ISUS-12

ISUS-13

ISUS-42

ISUS-41

ISUS-11

ISUS-7

ISUS-8

ISUS-6

ISUS-9

ISUS-5

Remediation Area C

ISUS-40

ISUS-38

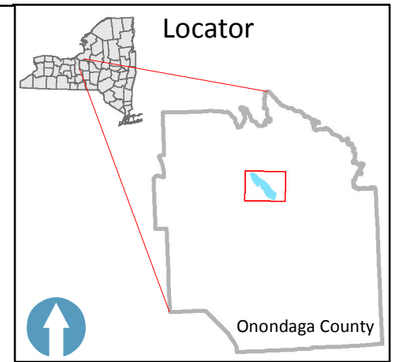
ISUS-39

Remediation Area E

ISUS-37

Remediation Area D

Locator



Scale

Feet

0 1,000 2,000 4,000

Legend

Rapid Profile turbidity monitoring locations

- Ongoing Book 1 location
- Location added as part of 2010 monitoring program
- 2007 Bathymetry (5 ft interval)

Reference:
Bathymetric survey performed by CR Environmental, Inc. for Honeywell in 2007.

Figure 2
2010 Baseline Water Quality Monitoring Locations
Onondaga Lake -

Rapid Profiling Locations

Honeywell
PARSONS
ANCHOR QEA
UPSTATE FRESHWATER INSTITUTE

090139-01 task21 OCT 2011

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APPENDIX A

FIELD PROBE DATA

APPENDIX A
FIELD PROBE DATA

Station ID	Location ID	Reading Date	Reading Depth	Temperature (deg C)	pH (S.U.)	Turbidity (NTU)	ORP (mV)	Conductivity (mS)	DO (mg/L)
North Deep	DEEP_N	10/25/2010	31-31 Ft	12.61	7.86	1.4	186.1	1.32	MALF
		11/9/2010	31-31 Ft	10.17	7.62	0	43	1.836	11.05
		11/16/2010	32-32 Ft	9.67	8.06	0.8	172.2	1.217	MALF
South Deep	DEEP_S	10/25/2010	33-33 Ft	12.52	7.99	1.7	300.3	1.317	8.68
		11/9/2010	33.5-33.5 Ft	10.1	8.2	0	122.5	1.824	12.04
		11/16/2010	33.5-33.5 Ft	9.65	8.21	2.2	225.3	1.224	MALF
T2	OL-SW-10194	10/26/2010	5-5 Ft	12.62	8.05	1.1	244	1.323	8.37
		11/10/2010	4.4-4.4 Ft	11.47	8.2	0	54.8	1.85	12.16
		11/18/2010	5-5 Ft	9.34	8.07	1.2	310.3	1.229	MALF
T1	OL-SW-40313	10/25/2010	5-5 Ft	12.68	8.01	1.4	211.9	1.323	8.61
		11/10/2010	3.95-4 Ft	9.75	8.2	0	99	1.798	12
		11/18/2010	5-5 Ft	9.22	8.13	2.4	289.9	1.172	MALF
T3	OL-SW-60328	10/26/2010	4-4 Ft	12.81	7.94	6	254.1	1.347	8.85
		11/10/2010	3.8-3.8 Ft	10.53	8.15	0	105.4	1.877	12.2
		11/18/2010	4-4 Ft	9.15	8.1	3.1	185.5	1.219	MALF
T4	OL-SW-60329	10/26/2010	3.2-3.2 ft	13.66	7.92	4.6	264.7	1.354	8.88
		11/10/2010	3.6-3.6 Ft	10.38	8.25	0	109.3	1.827	12.4
		11/18/2010	3.5-3.5 Ft	8.7	8.03	47.9	176.1	1.038	MALF
		11/18/2010	NA	8.7	8.03	47.9	176.1	1.038	MALF
A1	OL-SW-80224	10/25/2010	22.5-22.5 Ft	12.64	7.92	1.4	252.9	1.323	8.35
		11/10/2010	22-22 Ft	9.77	8.12	0	46.2	1.811	11.83
		11/16/2010	22-22 Ft	9.59	8.06	2.1	246	1.215	MALF
A2	OL-SW-80225	10/25/2010	25-25 Ft	10.18	7.98	1.5	202.6	1.321	8.66
		11/9/2010	24.5-24.5 Ft	10.18	8.01	0	104.5	1.83	11.37
		11/16/2010	25-25 Ft	9.61	8.07	2.1	266.7	1.215	MALF
B1	OL-SW-80226	10/25/2010	29-29 Ft	12.57	8.06	1.7	231.4	1.319	8.89
		11/10/2010	29-29 Ft	10.06	8.2	0	105.2	1.812	11.64
		11/16/2010	30-30 Ft	9.58	8.16	2.2	187.2	1.219	MALF
B2	OL-SW-80227	10/25/2010	25.5-25.5 Ft	12.49	7.99	1.9	302.8	1.316	8.66
		11/9/2010	25-25 Ft	10.09	8.12	0	115	1.819	12.16
		11/16/2010	25.5-25.5 Ft	9.62	8.08	2.1	241.7	1.223	MALF
D1	OL-SW-80228	10/26/2010	29-29 Ft	12.54	8	1.6	232.8	1.319	8.65
		11/10/2010	28.2-28.2 Ft	10.02	8.27	0	108.7	1.816	11.8
		11/16/2010	28.5-28.5 Ft	9.64	8.08	2.4	195.1	1.229	MALF
E1	OL-SW-80229	10/26/2010	21-21 Ft	12.5	7.97	1.7	269	1.319	8.65
		11/10/2010	20.9-20.9 Ft	10.24	8.23	0	108.4	1.82	11.68
		11/16/2010	21-21 Ft	9.69	8.13	2.3	257.2	1.227	MALF
E2	OL-SW-80230	10/26/2010	22-22 Ft	12.95	7.92	1.4	274.1	1.324	8.88
		11/10/2010	21-21 Ft	10.17	8.21	0	105.8	1.812	11.7
		11/10/2010	NA	10.17	8.21	0	105.8	1.812	11.7
		11/16/2010	21-21 Ft	9.66	8.14	2.3	265	1.227	MALF

Note:
MALF - Dissolved Oxygen (DO) probe malfunctioning.

APPENDIX B

DISCRETE WATER COLUMN SAMPLING PLOTS

(phosphorus, nitrogen, chlorophyll, beam attenuation, turbidity)

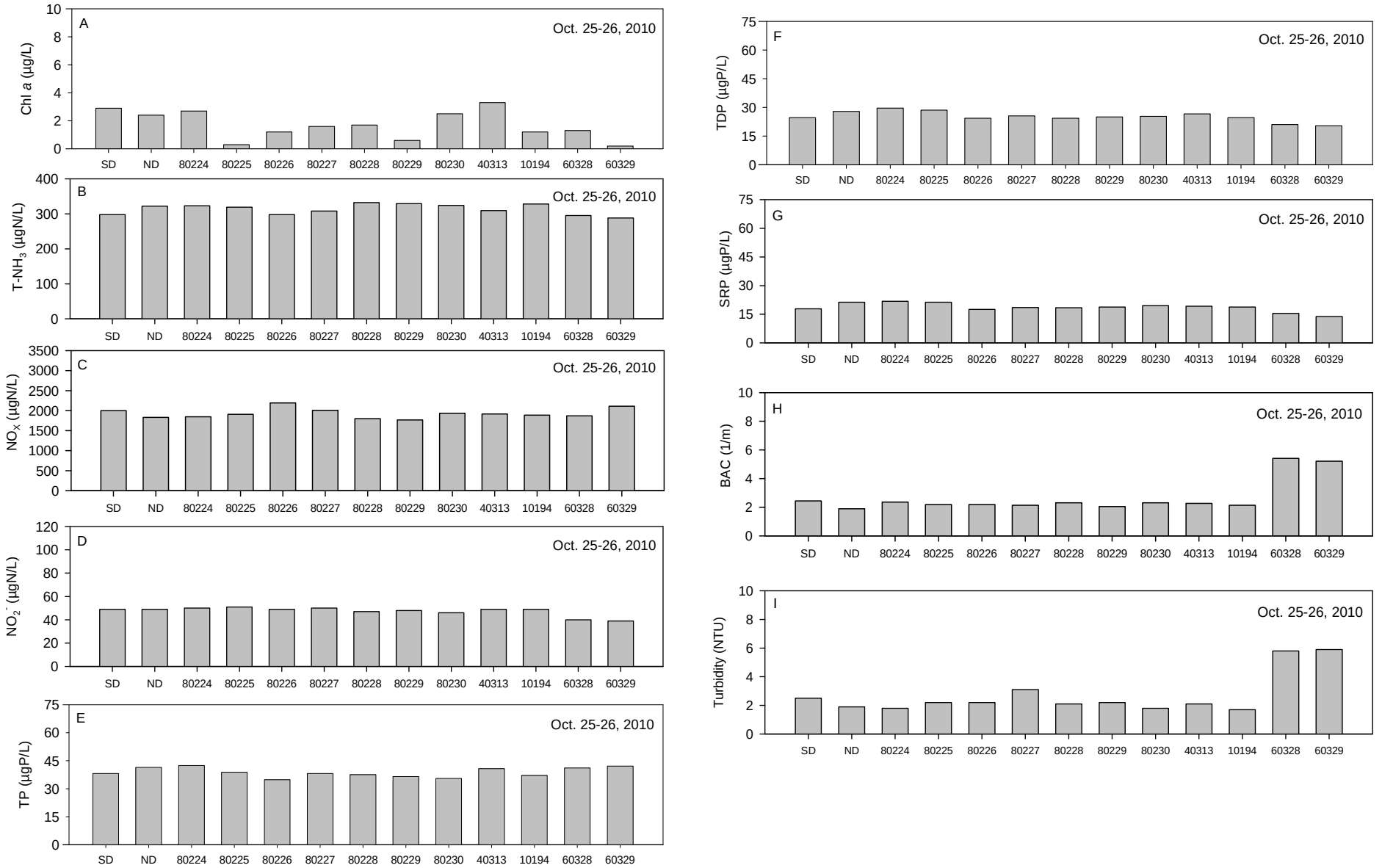


Figure 1. Analytical results for samples collected from 13 locations in Onondaga Lake on October 25 and 26, 2010: (A) chlorophyll *a*, (B) total ammonia, (C) nitrate + nitrite, (D) nitrite, (E) total phosphorus, (F) total dissolved phosphorus, (G) soluble reactive phosphorus, (H) beam attenuation coefficient, and (I) turbidity.

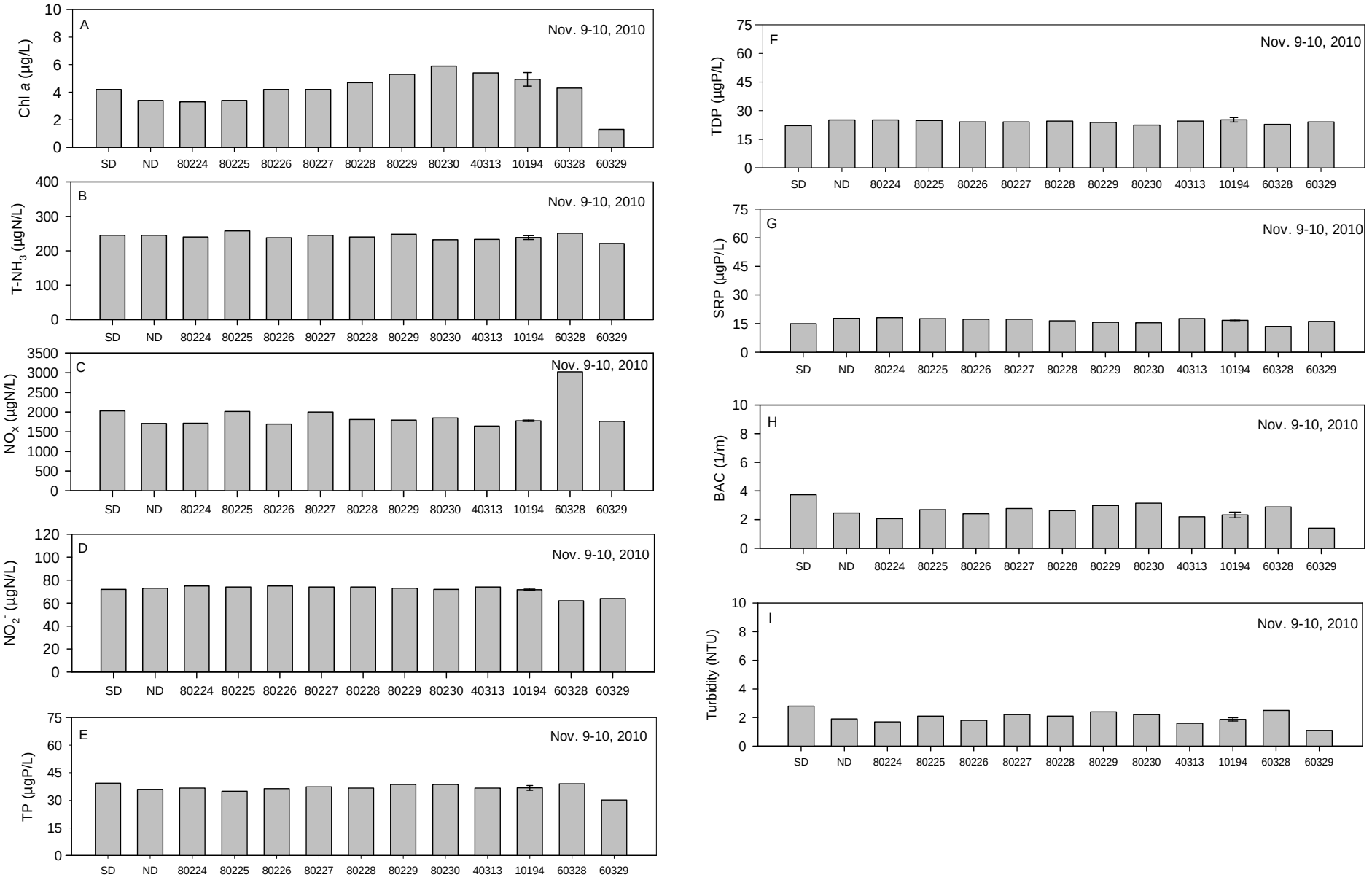


Figure 2. Analytical results for samples collected from 13 locations in Onondaga Lake on November 9 and 10, 2010: (A) chlorophyll *a*, (B) total ammonia, (C) nitrate + nitrite, (D) nitrite, (E) total phosphorus, (F) total dissolved phosphorus, (G) soluble reactive phosphorus, (H) beam attenuation coefficient, and (I) turbidity. Error bars for site 10194 represent ± 1 standard deviation of the mean value determined from field triplicates.

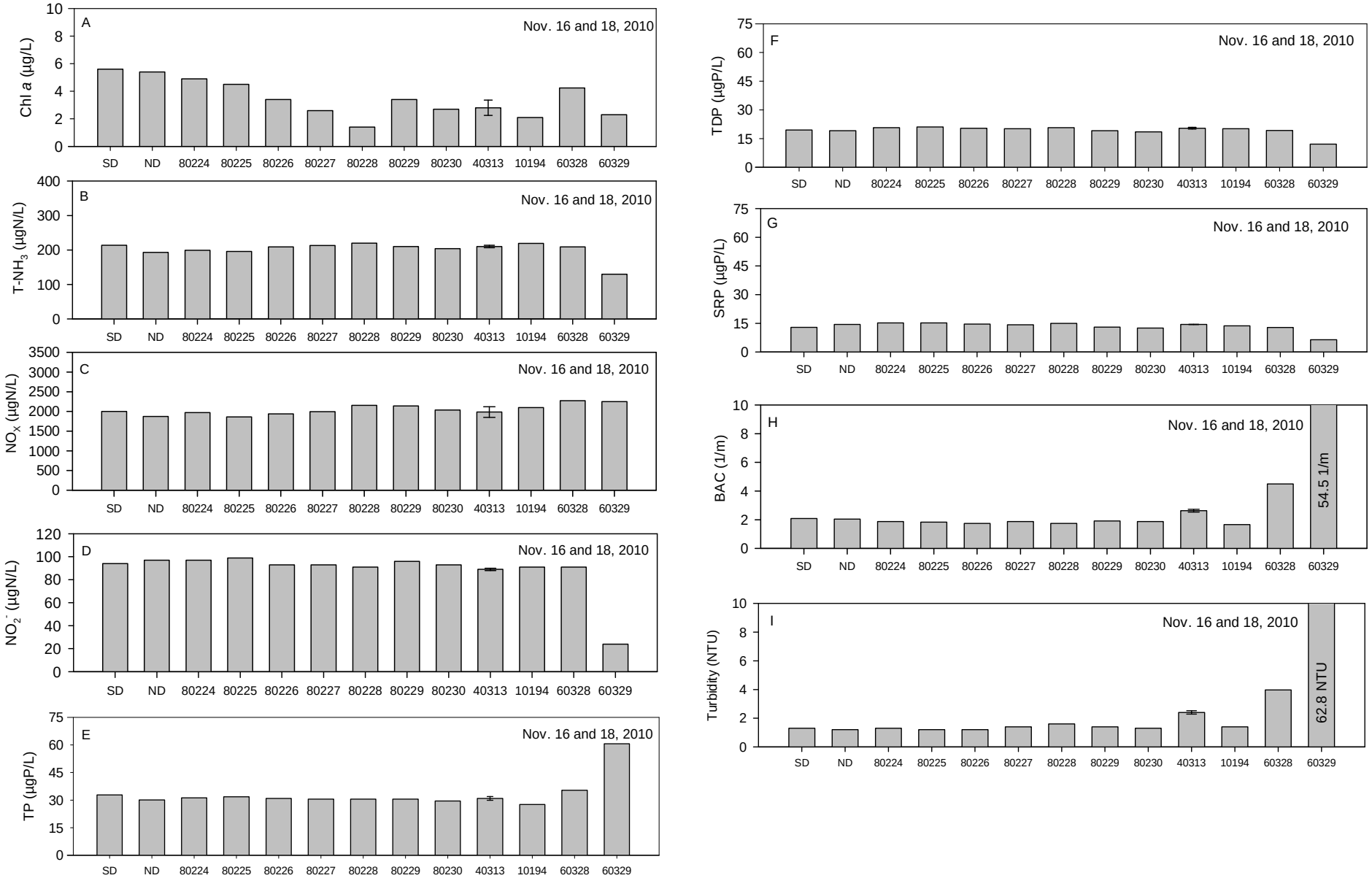


Figure 3. Analytical results for samples collected from 13 locations in Onondaga Lake on November 16 and 18, 2010: (A) chlorophyll *a*, (B) total ammonia, (C) nitrate + nitrite, (D) nitrite, (E) total phosphorus, (F) total dissolved phosphorus, (G) soluble reactive phosphorus, (H) beam attenuation coefficient, and (I) turbidity. Error bars for site 40313 represent ± 1 standard deviation of the mean value determined from field triplicates.

APPENDIX C

2010 SEABIRD PROFILES PRE-DREDGE MONITORING TRANSECTS

2010 SeaBird Profiles

Pre-Dredge Monitoring Transects

October – November 2010

Prepared by:
Upstate Freshwater Institute
October 2011

10/14/2010

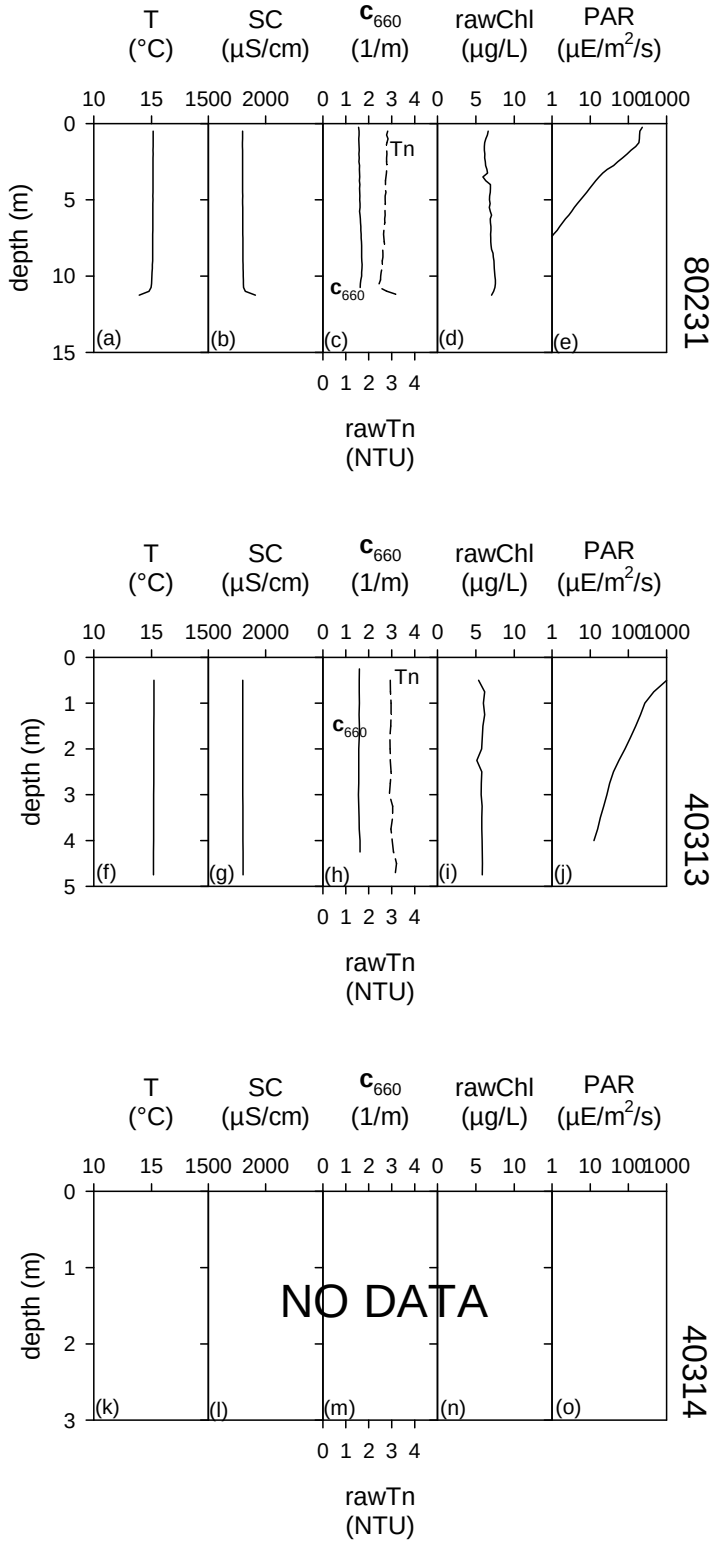


Figure 1. Pre-Dredge Monitoring profiles on October 14, 2010 at transect T1 for sites: (a) 80231 temperature (T), (b) 80231 specific conductivity (SC), (c) 80231 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 80231 chlorophyll a (chl),(e) 80231 photosynthetic active radiation (PAR), (f) 40313 T, (g) 40313 SC, (h) 40313 Tn and $\mathbf{c}_{660}$, (i) 40313 chl, (j) 40313 PAR, (k) 40314 T, (l) 40314 SC, (m) 40314 Tn and $\mathbf{c}_{660}$, (n) 40314 chl, (o) 40314 PAR.

10/14/2010

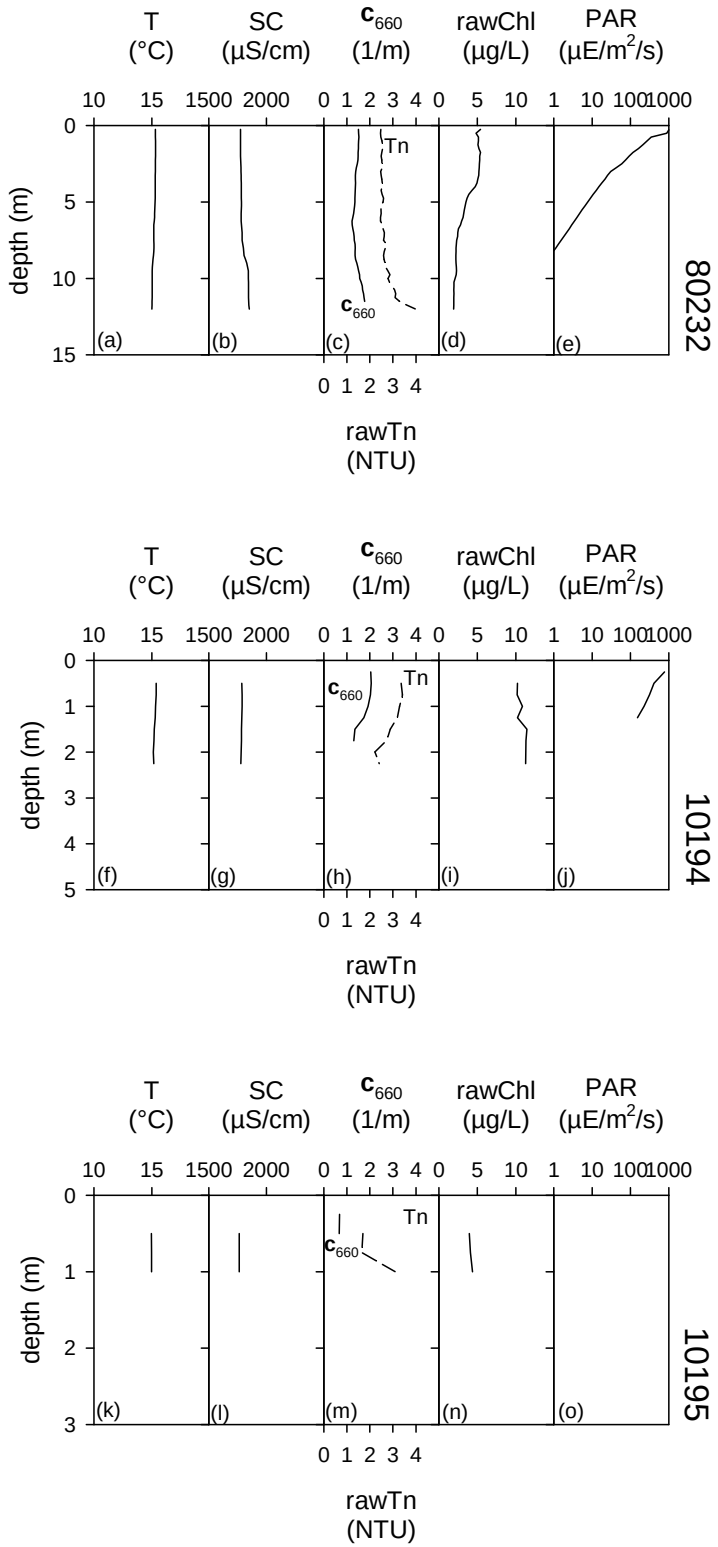


Figure 2. Pre-Dredge Monitoring profiles on October 14, 2010 at transect T2 for sites: (a) 80232 temperature (T), (b) 80232 specific conductivity (SC), (c) 80232 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 80232 chlorophyll a (chl),(e) 80232 photosynthetic active radiation (PAR), (f) 10194 T, (g) 10194 SC, (h) 10194 Tn and $\mathbf{c}_{660}$, (i) 10194 chl, (j) 10194 PAR, (k) 10195 T, (l) 10195 SC, (m) 10195 Tn and $\mathbf{c}_{660}$, (n) 10195 chl, (o) 10195 PAR.

10/14/2010

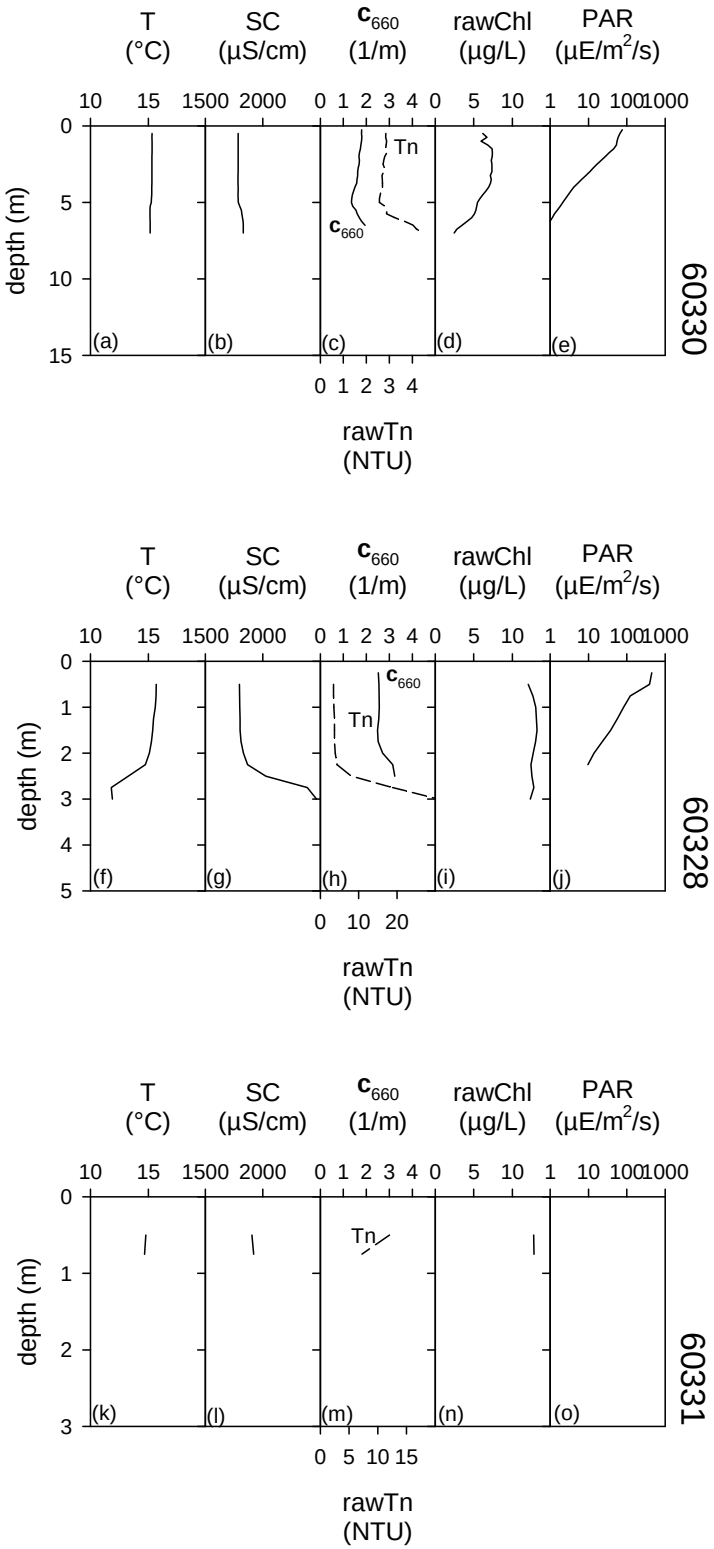


Figure 3. Pre-Dredge Monitoring profiles on October 14, 2010 at transect T3 for sites: (a) 60330 temperature (T), (b) 60330 specific conductivity (SC), (c) 60330 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 60330 chlorophyll a (chl),(e) 60330 photosynthetic active radiation (PAR), (f) 60328 T, (g) 60328 SC, (h) 60328 Tn and $\mathbf{c}_{660}$, (i) 60328 chl, (j)60328 PAR, (k) 60331 T, (l) 60331 SC, (m) 60331 Tn and $\mathbf{c}_{660}$, (n) 60331 chl, (o) 60331 PAR.

10/14/2010

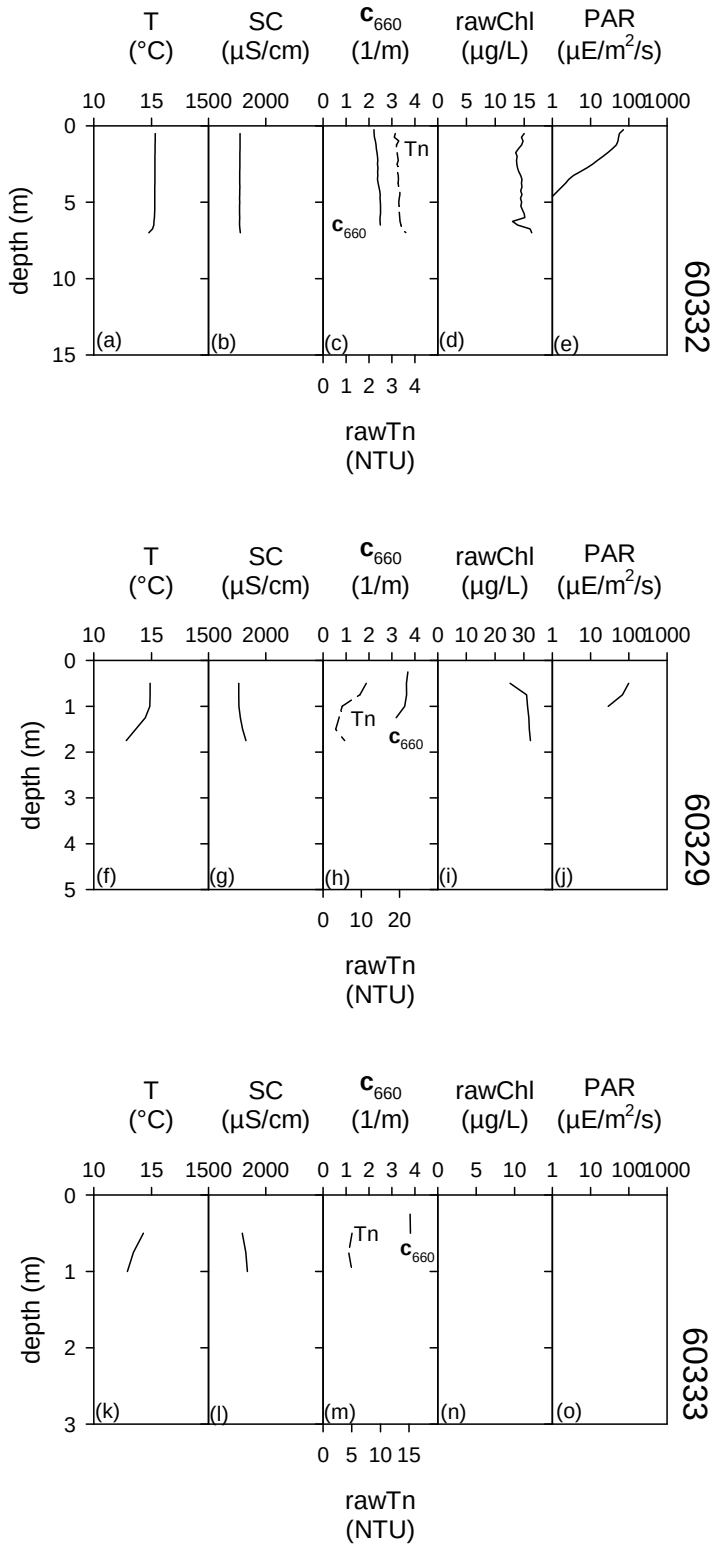


Figure 4. Pre-Dredge Monitoring profiles on October 14, 2010 at transect T4 for sites: (a) 60332 temperature (T), (b) 60332 specific conductivity (SC), (c) 60332 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 60332 chlorophyll a (chl),(e) 60332 photosynthetic active radiation (PAR), (f) 60329 T, (g) 60329 SC, (h) 60329 Tn and $\mathbf{c}_{660}$, (i) 60329 chl, (j)60329 PAR, (k) 60333 T, (l) 60333 SC, (m) 60333 Tn and $\mathbf{c}_{660}$, (n) 60333 chl, (o) 60333 PAR.

10/14/2010

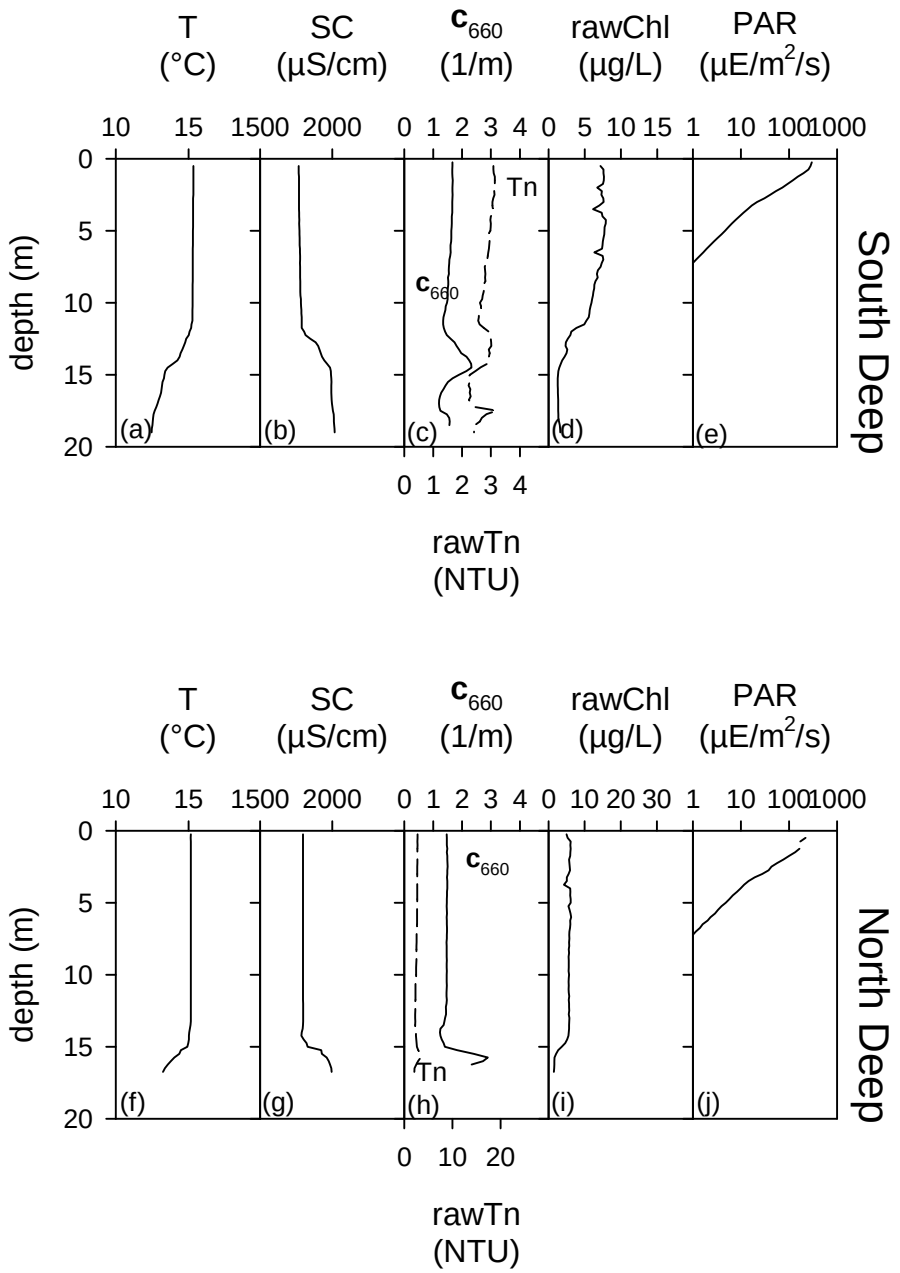


Figure 5. Pre-Dredge Monitoring profiles on October 14, 2010 at South Deep and North Deep: (a) South Deep temperature (T), (b) South Deep specific conductivity (SC), (c) South Deep turbidity (Tn) and $\mathbf{c}_{660}$, (d) South Deep chlorophyll a (chl),(e) South Deep photosynthetic active radiation (PAR), (f) North Deep T, (g) North Deep SC, (h) North Deep Tn and $\mathbf{c}_{660}$, (i) North Deep chl, (j)North Deep PAR.

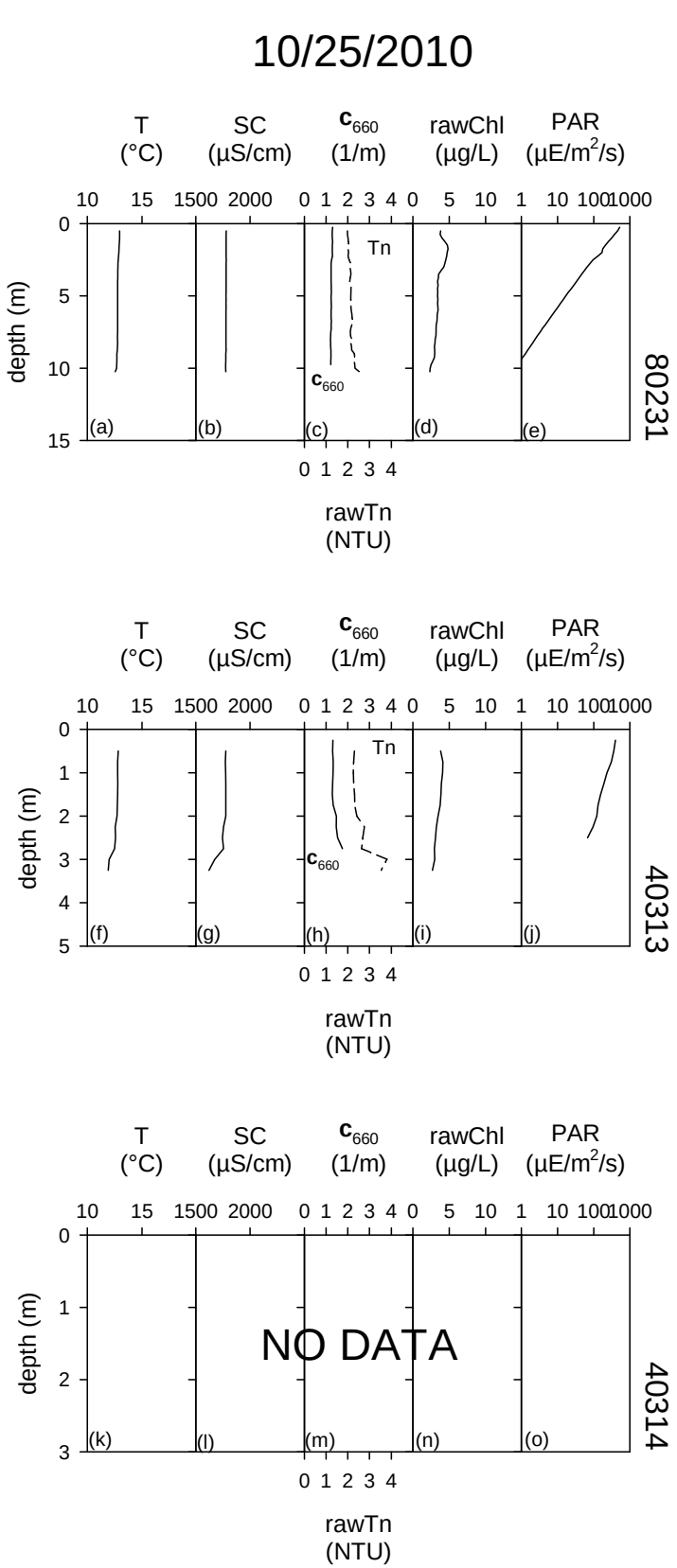


Figure 6. Pre-Dredge Monitoring profiles on October 25, 2010 at transect T1 for sites: (a) 80231 temperature (T), (b) 80231 specific conductivity (SC), (c) 80231 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 80231 chlorophyll a (chl),(e) 80231 photosynthetic active radiation (PAR), (f) 40313 T, (g) 40313 SC, (h) 40313 Tn and $\mathbf{c}_{660}$, (i) 40313 chl, (j) 40313 PAR, (k) 40314 T, (l) 40314 SC, (m) 40314 Tn and $\mathbf{c}_{660}$, (n) 40314 chl, (o) 40314 PAR.

10/25/2010

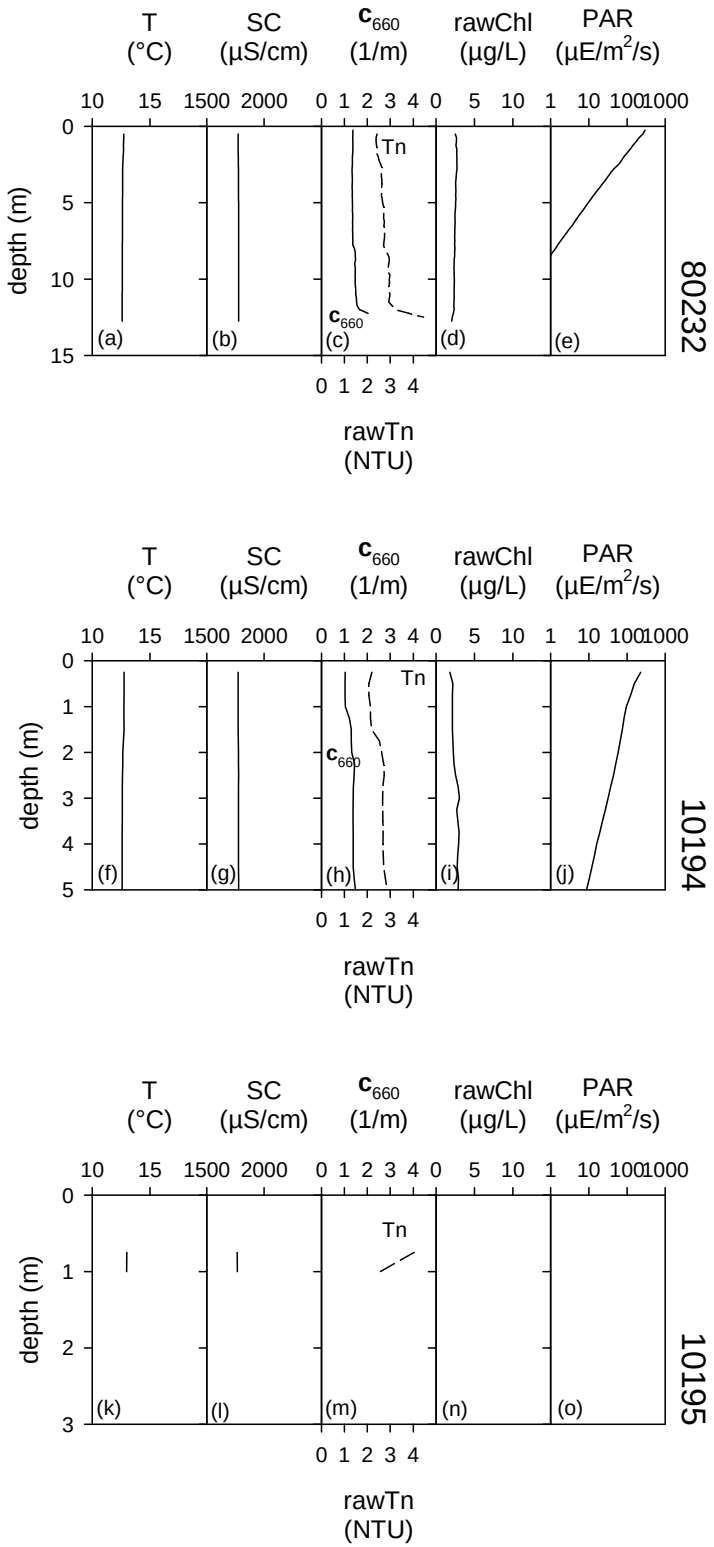


Figure 7. Pre-Dredge Monitoring profiles on October 25, 2010 at transect T2 for sites: (a) 80232 temperature (T), (b) 80232 specific conductivity (SC), (c) 80232 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 80232 chlorophyll a (chl),(e) 80232 photosynthetic active radiation (PAR), (f) 10194 T, (g) 10194 SC, (h) 10194 Tn and $\mathbf{c}_{660}$, (i) 10194 chl, (j) 10194 PAR, (k) 10195 T, (l) 10195 SC, (m) 10195 Tn and $\mathbf{c}_{660}$, (n) 10195 chl, (o) 10195 PAR.

10/25/2010

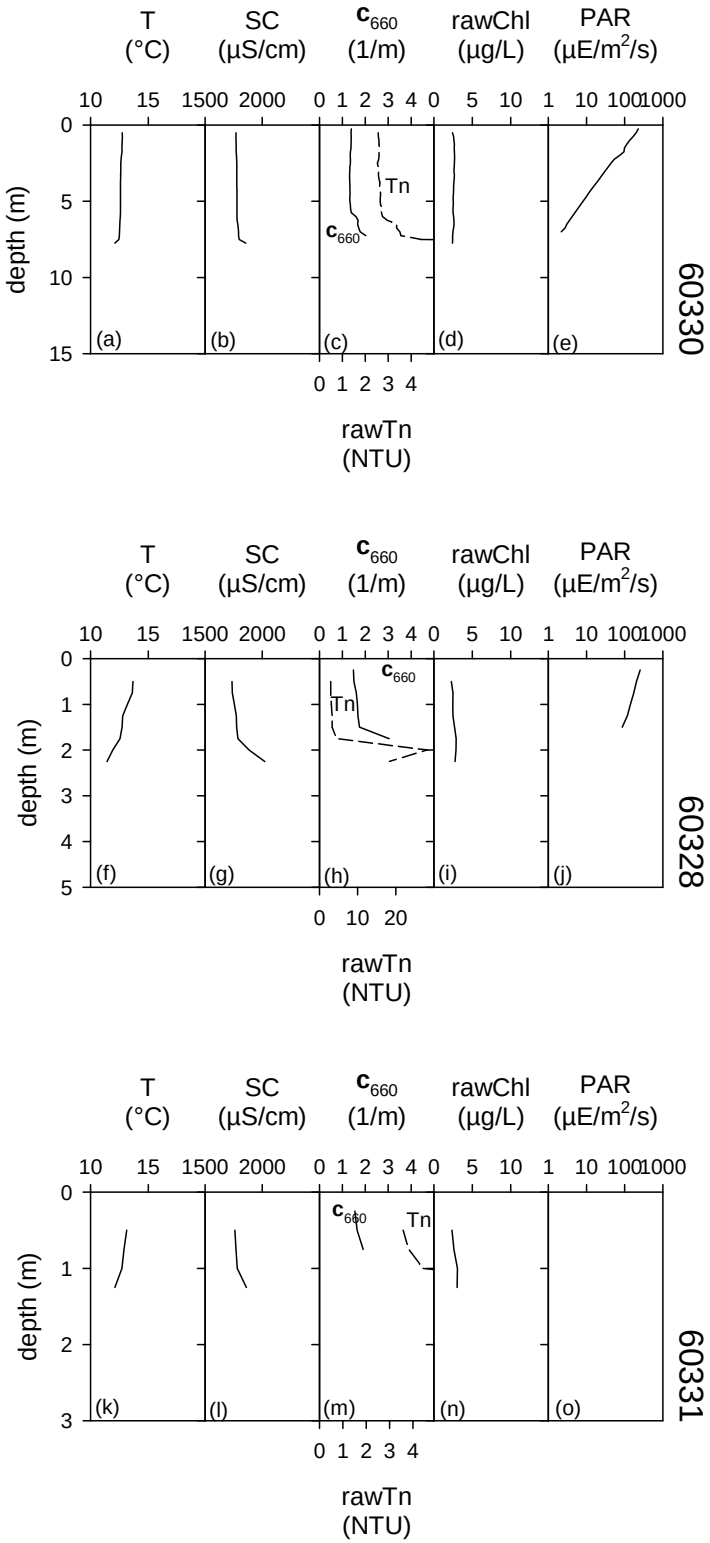


Figure 8. Pre-Dredge Monitoring profiles on October 25, 2010 at transect T3 for sites: (a) 60330 temperature (T), (b) 60330 specific conductivity (SC), (c) 60330 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 60330 chlorophyll a (chl),(e) 60330 photosynthetic active radiation (PAR), (f) 60328 T, (g) 60328 SC, (h) 60328 Tn and $\mathbf{c}_{660}$, (i) 60328 chl, (j)60328 PAR, (k) 60331 T, (l) 60331 SC, (m) 60331 Tn and $\mathbf{c}_{660}$, (n) 60331 chl, (o) 60331 PAR.

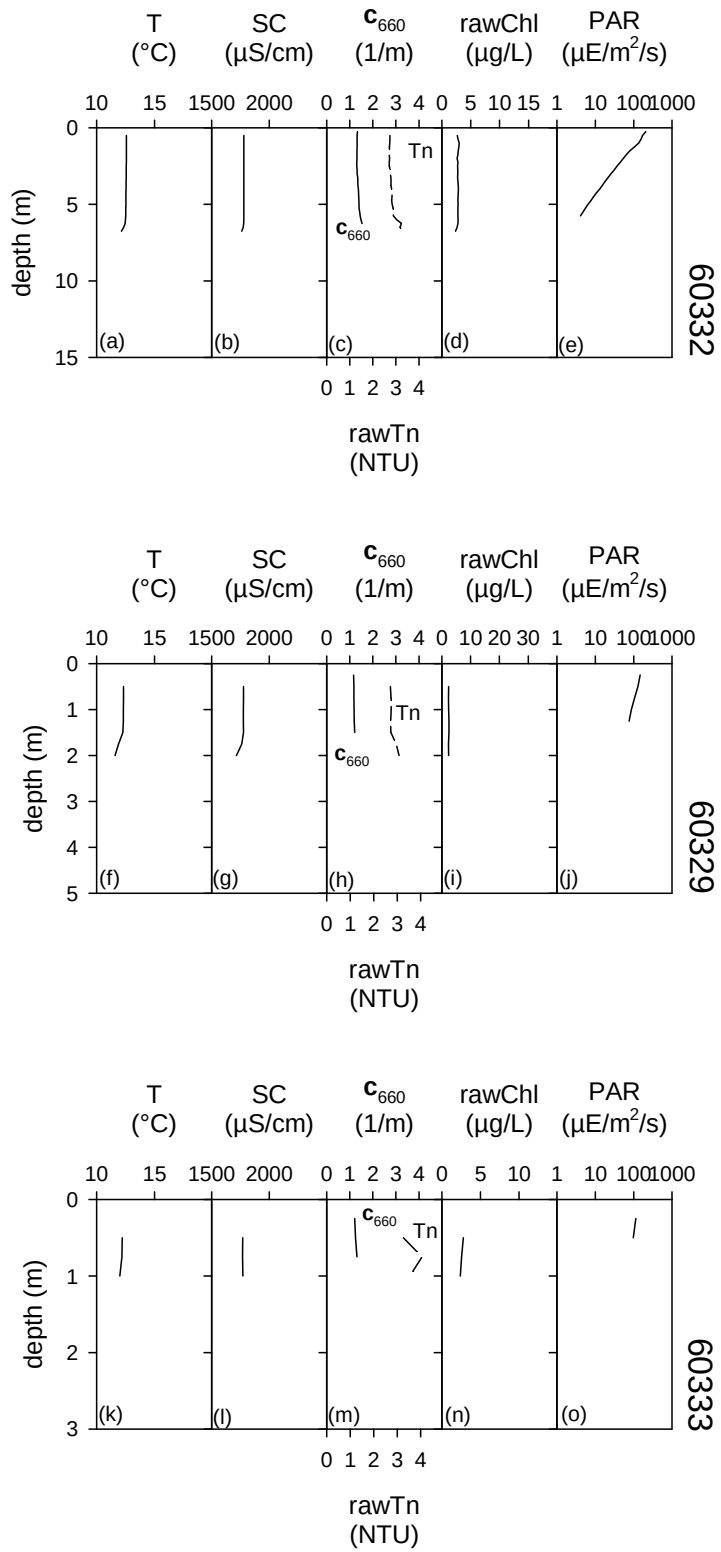


Figure 9. Pre-Dredge Monitoring profiles on October 25, 2010 at transect T4 for sites: (a) 60332 temperature (T), (b) 60332 specific conductivity (SC), (c) 60332 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 60332 chlorophyll a (chl),(e) 60332 photosynthetic active radiation (PAR), (f) 60329 T, (g) 60329 SC, (h) 60329 Tn and $\mathbf{c}_{660}$, (i) 60329 chl, (j)60329 PAR, (k) 60333 T, (l) 60333 SC, (m) 60333 Tn and $\mathbf{c}_{660}$, (n) 60333 chl, (o) 60333 PAR.

10/25/2010

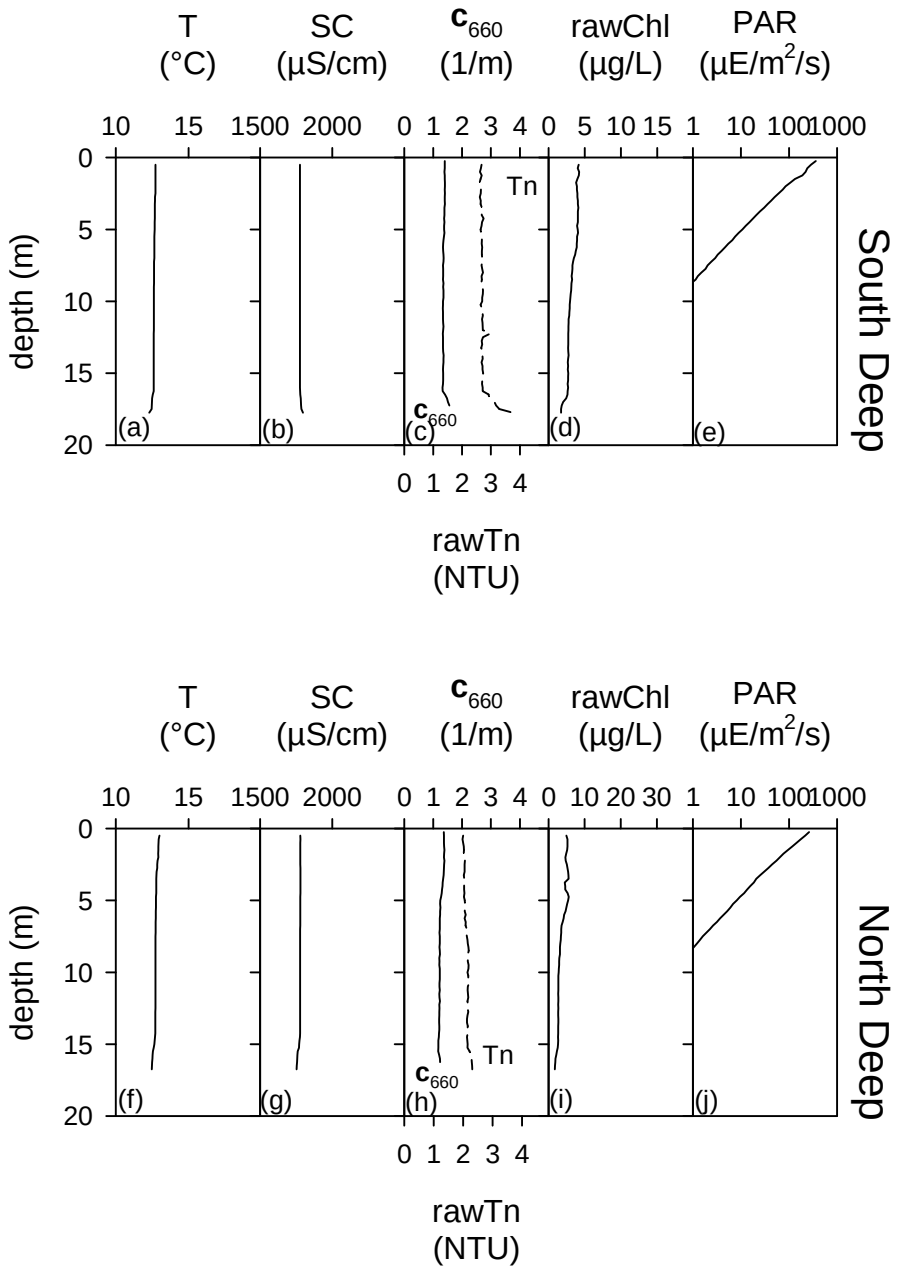


Figure 10. Pre-Dredge Monitoring profiles on October 25, 2010 at South Deep and North Deep: (a) South Deep temperature (T), (b) South Deep specific conductivity (SC), (c) South Deep turbidity (Tn) and $\mathbf{c}_{660}$, (d) South Deep chlorophyll a (chl),(e) South Deep photosynthetic active radiation (PAR), (f) North Deep T, (g) North Deep SC, (h) North Deep Tn and $\mathbf{c}_{660}$, (i) North Deep chl, (j)North Deep PAR.

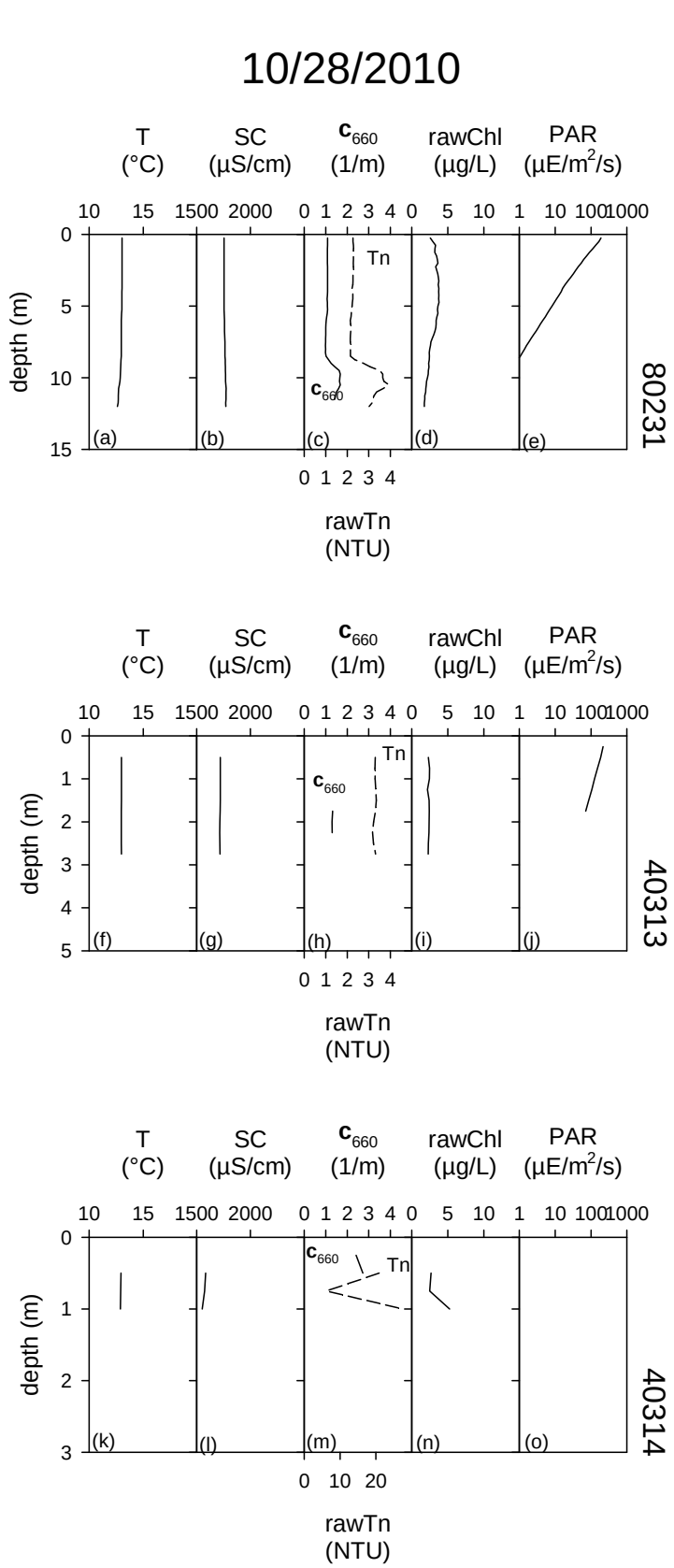


Figure 11. Pre-Dredge Monitoring profiles on October 28, 2010 at transect T1 for sites: (a) 80231 temperature (T), (b) 80231 specific conductivity (SC), (c) 80231 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 80231 chlorophyll a (chl),(e) 80231 photosynthetic active radiation (PAR), (f) 40313 T, (g) 40313 SC, (h) 40313 Tn and $\mathbf{c}_{660}$, (i) 40313 chl, (j) 40313 PAR, (k) 40314 T, (l) 40314 SC, (m) 40314 Tn and $\mathbf{c}_{660}$, (n) 40314 chl, (o) 40314 PAR.

10/28/2010

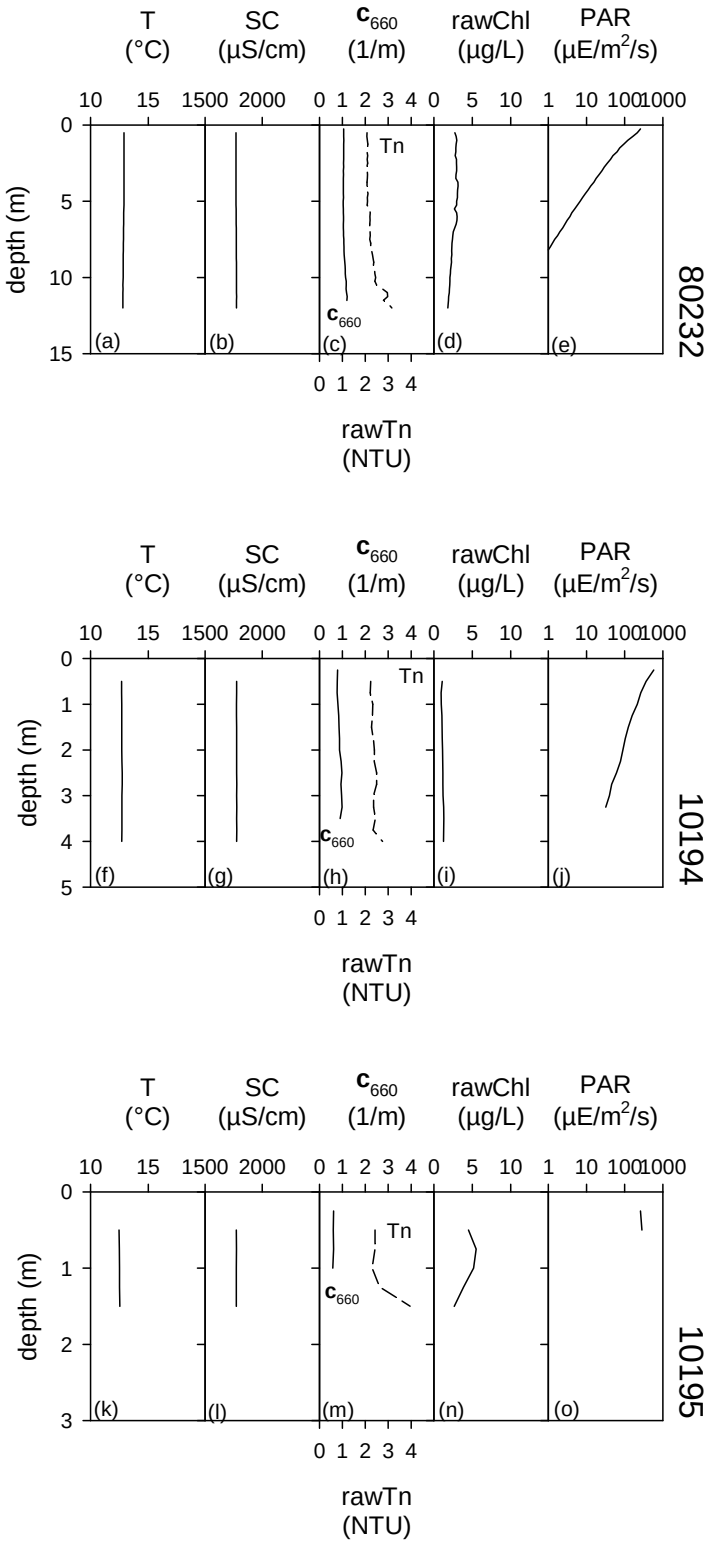


Figure 12. Pre-Dredge Monitoring profiles on October 28, 2010 at transect T2 for sites: (a) 80232 temperature (T), (b) 80232 specific conductivity (SC), (c) 80232 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 80232 chlorophyll a (chl),(e) 80232 photosynthetic active radiation (PAR), (f) 10194 T, (g) 10194 SC, (h) 10194 Tn and $\mathbf{c}_{660}$, (i) 10194 chl, (j) 10194 PAR, (k) 10195 T, (l) 10195 SC, (m) 10195 Tn and $\mathbf{c}_{660}$, (n) 10195 chl, (o) 10195 PAR.

10/28/2010

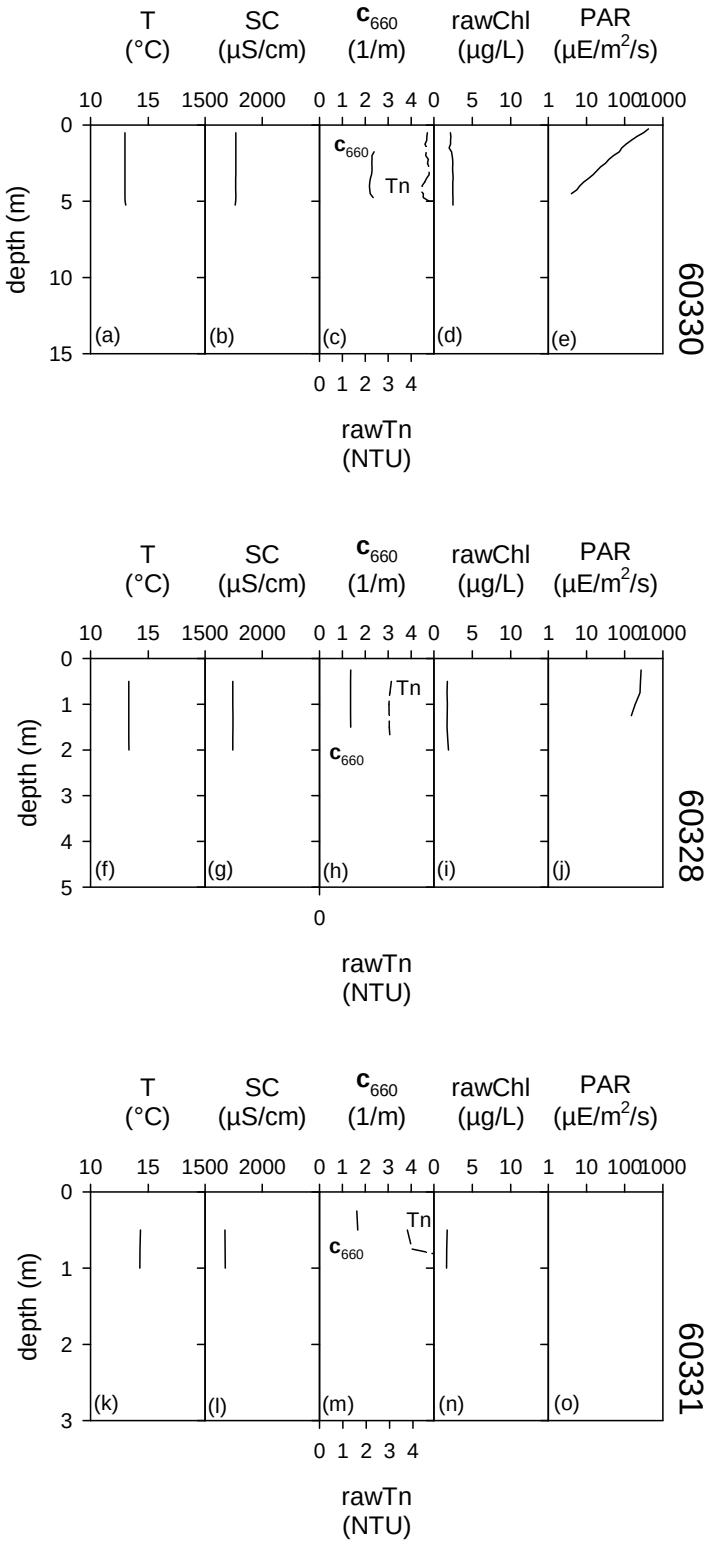


Figure 13. Pre-Dredge Monitoring profiles on October 28, 2010 at transect T3 for sites: (a) 60330 temperature (T), (b) 60330 specific conductivity (SC), (c) 60330 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 60330 chlorophyll a (chl),(e) 60330 photosynthetic active radiation (PAR), (f) 60328 T, (g) 60328 SC, (h) 60328 Tn and $\mathbf{c}_{660}$, (i) 60328 chl, (j)60328 PAR, (k) 60331 T, (l) 60331 SC, (m) 60331 Tn and $\mathbf{c}_{660}$, (n) 60331 chl, (o) 60331 PAR.

10/28/2010

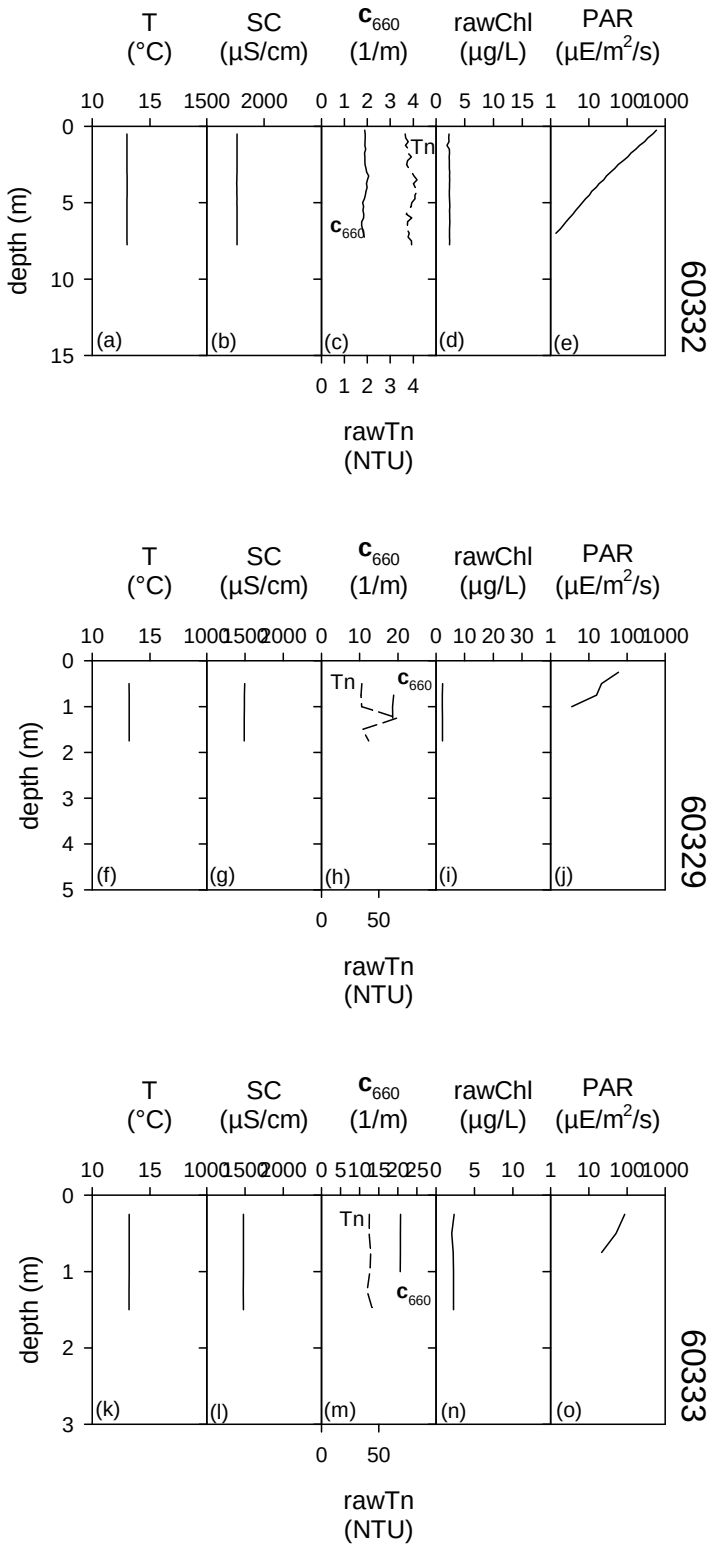


Figure 14. Pre-Dredge Monitoring profiles on October 28, 2010 at transect T4 for sites: (a) 60332 temperature (T), (b) 60332 specific conductivity (SC), (c) 60332 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 60332 chlorophyll a (chl),(e) 60332 photosynthetic active radiation (PAR), (f) 60329 T, (g) 60329 SC, (h) 60329 Tn and $\mathbf{c}_{660}$, (i) 60329 chl, (j)60329 PAR, (k) 60333 T, (l) 60333 SC, (m) 60333 Tn and $\mathbf{c}_{660}$, (n) 60333 chl, (o) 60333 PAR.

10/28/2010

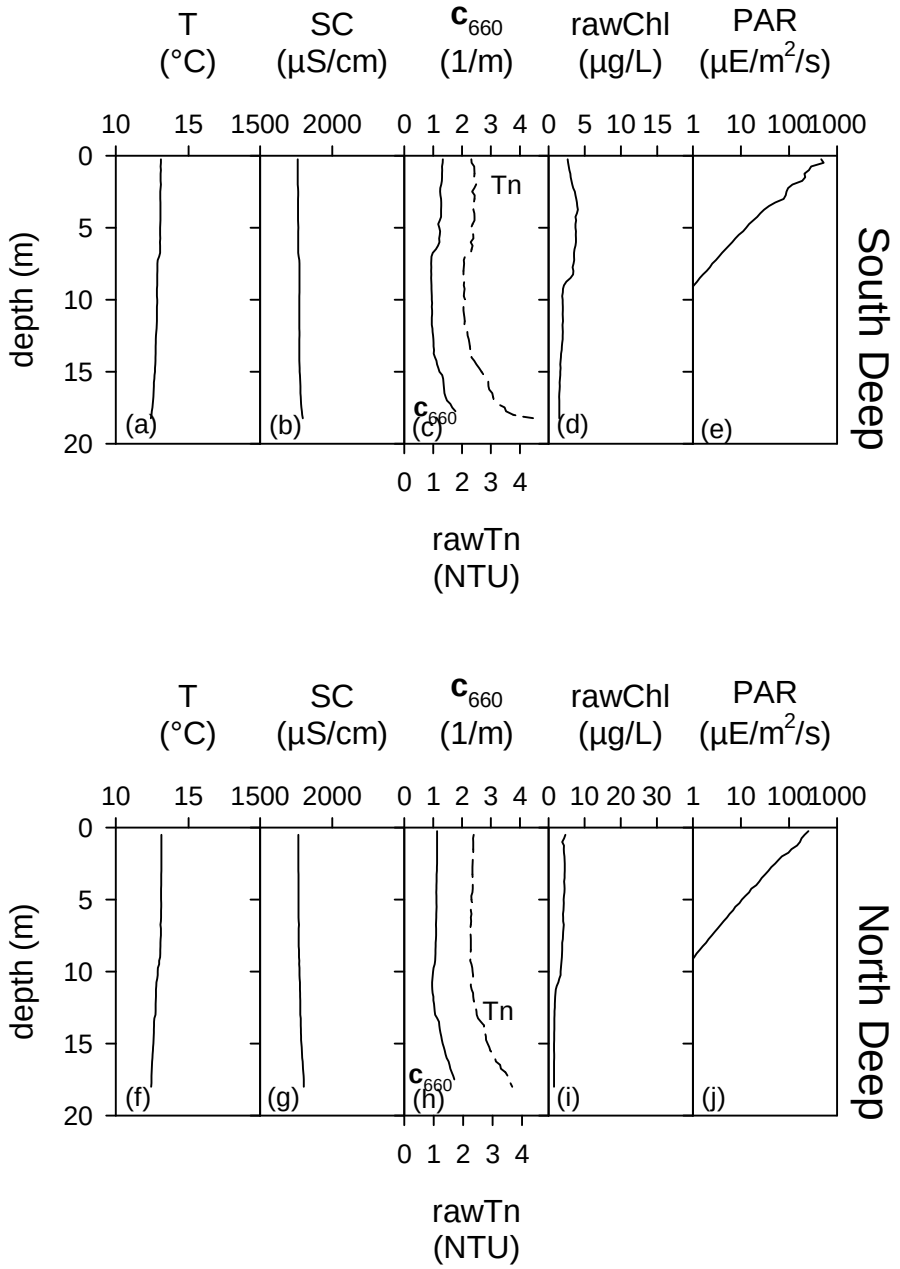


Figure 15. Pre-Dredge Monitoring profiles on October 28, 2010 at South Deep and North Deep: (a) South Deep temperature (T), (b) South Deep specific conductivity (SC), (c) South Deep turbidity (Tn) and $\mathbf{c}_{660}$, (d) South Deep chlorophyll a (chl),(e) South Deep photosynthetic active radiation (PAR), (f) North Deep T, (g) North Deep SC, (h) North Deep Tn and $\mathbf{c}_{660}$, (i) North Deep chl, (j)North Deep PAR.

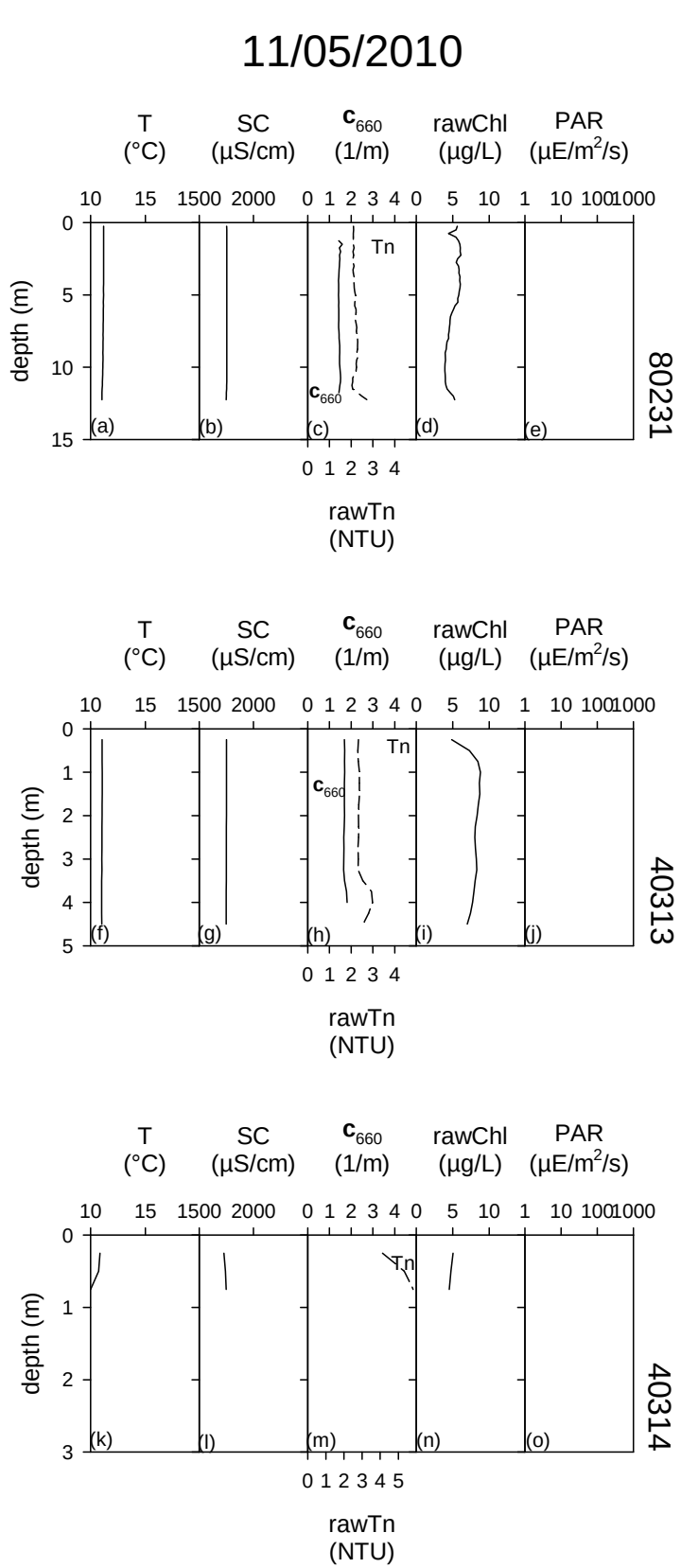


Figure 16. Pre-Dredge Monitoring profiles on November 5, 2010 at transect T1 for sites: (a) 80231 temperature (T), (b) 80231 specific conductivity (SC), (c) 80231 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 80231 chlorophyll a (chl),(e) 80231 photosynthetic active radiation (PAR), (f) 40313 T, (g) 40313 SC, (h) 40313 Tn and $\mathbf{c}_{660}$, (i) 40313 chl, (j) 40313 PAR, (k) 40314 T, (l) 40314 SC, (m) 40314 Tn and $\mathbf{c}_{660}$, (n) 40314 chl, (o) 40314 PAR.

11/05/2010

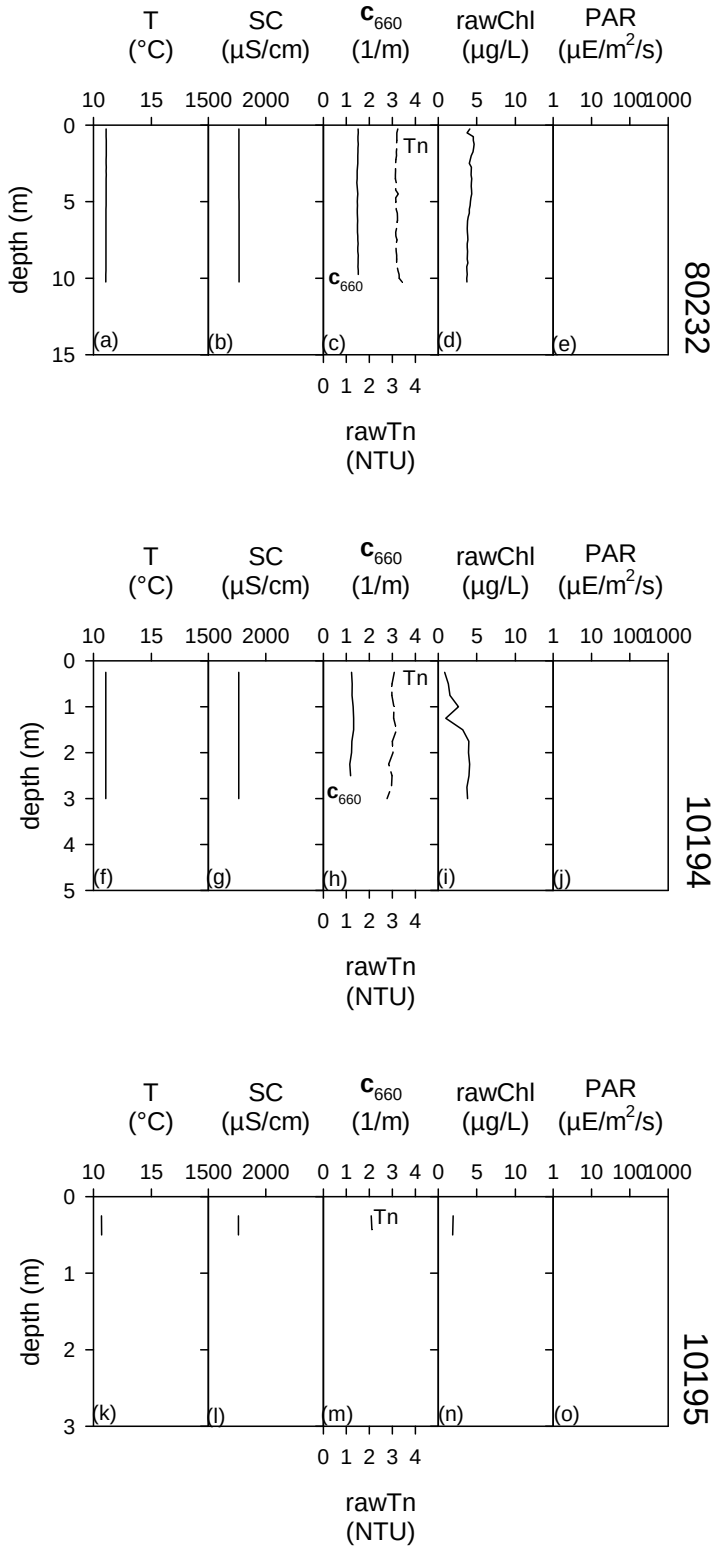


Figure 17. Pre-Dredge Monitoring profiles on November 5, 2010 at transect T2 for sites: (a) 80232 temperature (T), (b) 80232 specific conductivity (SC), (c) 80232 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 80232 chlorophyll a (chl),(e) 80232 photosynthetic active radiation (PAR), (f) 10194 T, (g) 10194 SC, (h) 10194 Tn and $\mathbf{c}_{660}$, (i) 10194 chl, (j) 10194 PAR, (k) 10195 T, (l) 10195 SC, (m) 10195 Tn and $\mathbf{c}_{660}$, (n) 10195 chl, (o) 10195 PAR.

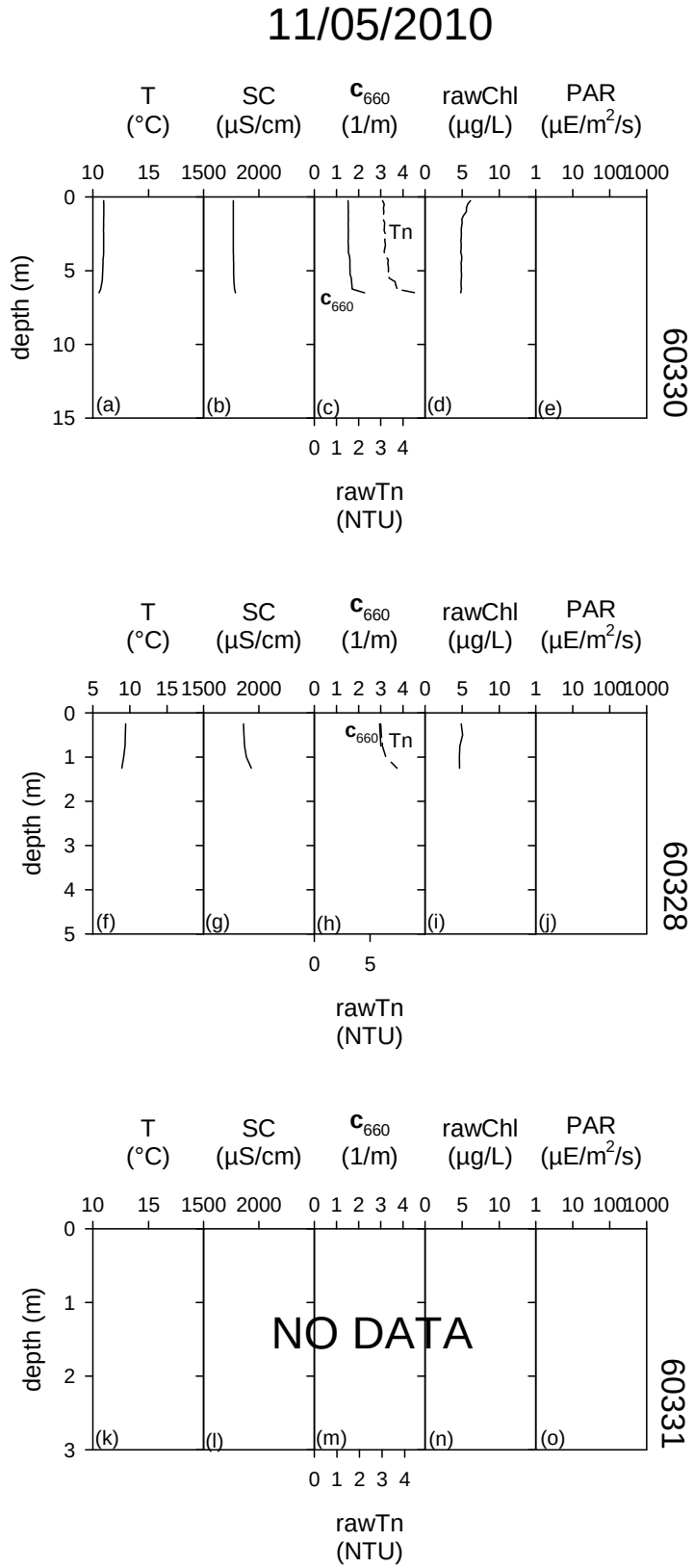


Figure 18. Pre-Dredge Monitoring profiles on November 5, 2010 at transect T3 for sites: (a) 60330 temperature (T), (b) 60330 specific conductivity (SC), (c) 60330 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 60330 chlorophyll a (chl),(e) 60330 photosynthetic active radiation (PAR), (f) 60328 T, (g) 60328 SC, (h) 60328 Tn and $\mathbf{c}_{660}$, (i) 60328 chl, (j)60328 PAR, (k) 60331 T, (l) 60331 SC, (m) 60331 Tn and $\mathbf{c}_{660}$, (n) 60331 chl, (o) 60331 PAR.

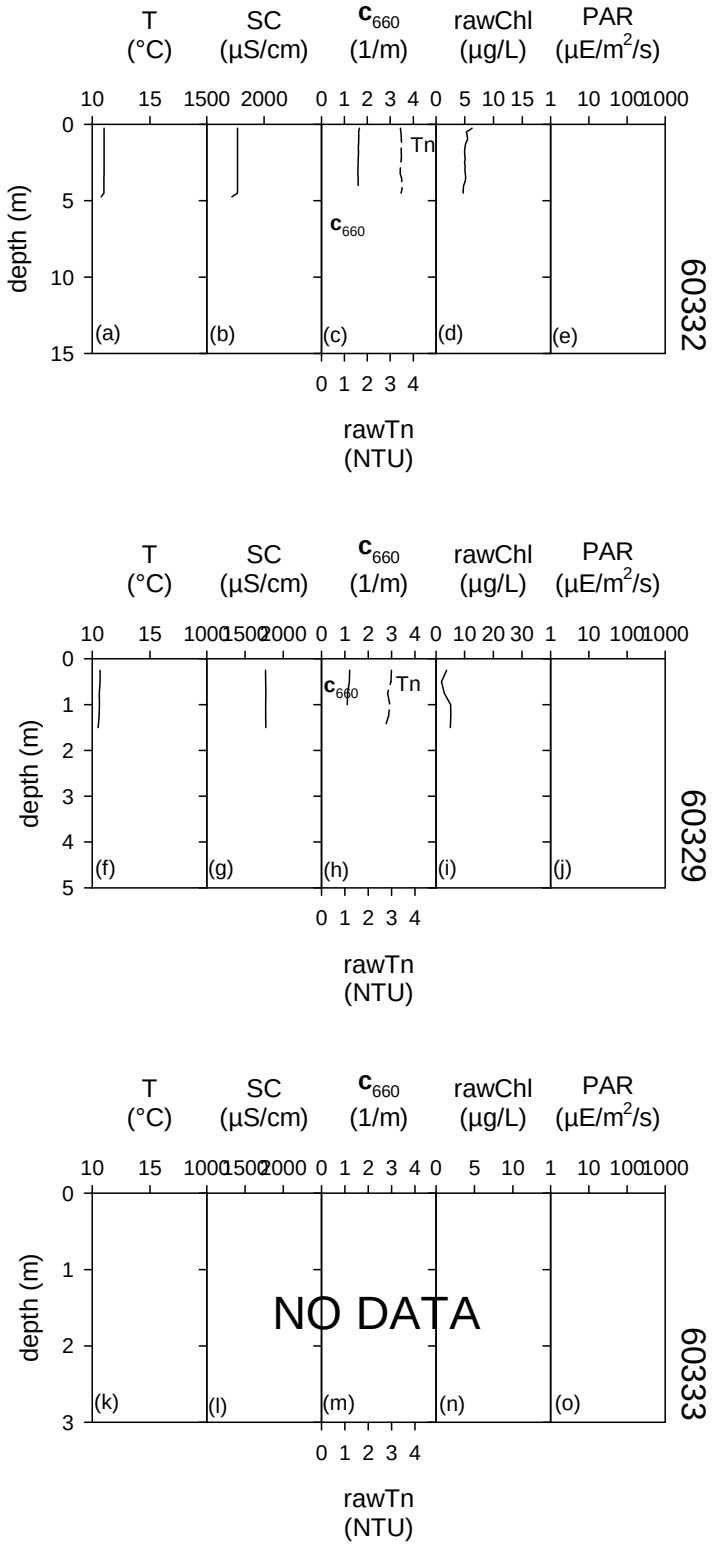


Figure 19. Pre-Dredge Monitoring profiles on November 5, 2010 at transect T4 for sites: (a) 60332 temperature (T), (b) 60332 specific conductivity (SC), (c) 60332 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 60332 chlorophyll a (chl),(e) 60332 photosynthetic active radiation (PAR), (f) 60329 T, (g) 60329 SC, (h) 60329 Tn and $\mathbf{c}_{660}$, (i) 60329 chl, (j)60329 PAR, (k) 60333 T, (l) 60333 SC, (m) 60333 Tn and $\mathbf{c}_{660}$, (n) 60333 chl, (o) 60333 PAR.

11/05/2010

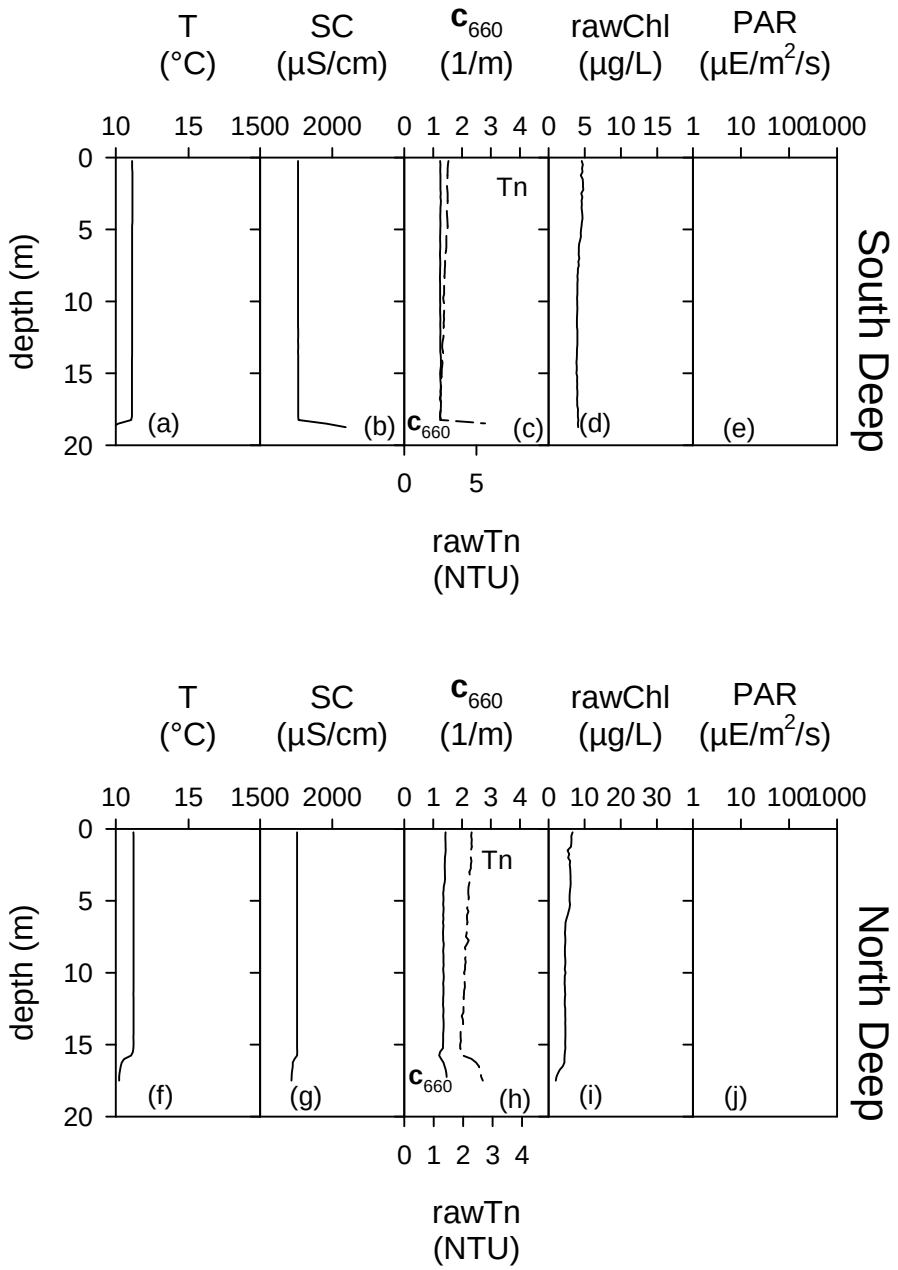


Figure 20. Pre-Dredge Monitoring profiles on November 5, 2010 at South Deep and North Deep: (a) South Deep temperature (T), (b) South Deep specific conductivity (SC), (c) South Deep turbidity (Tn) and $\mathbf{c}_{660}$, (d) South Deep chlorophyll a (chl),(e) South Deep photosynthetic active radiation (PAR), (f) North Deep T, (g) North Deep SC, (h) North Deep Tn and $\mathbf{c}_{660}$, (i) North Deep chl, (j)North Deep PAR.

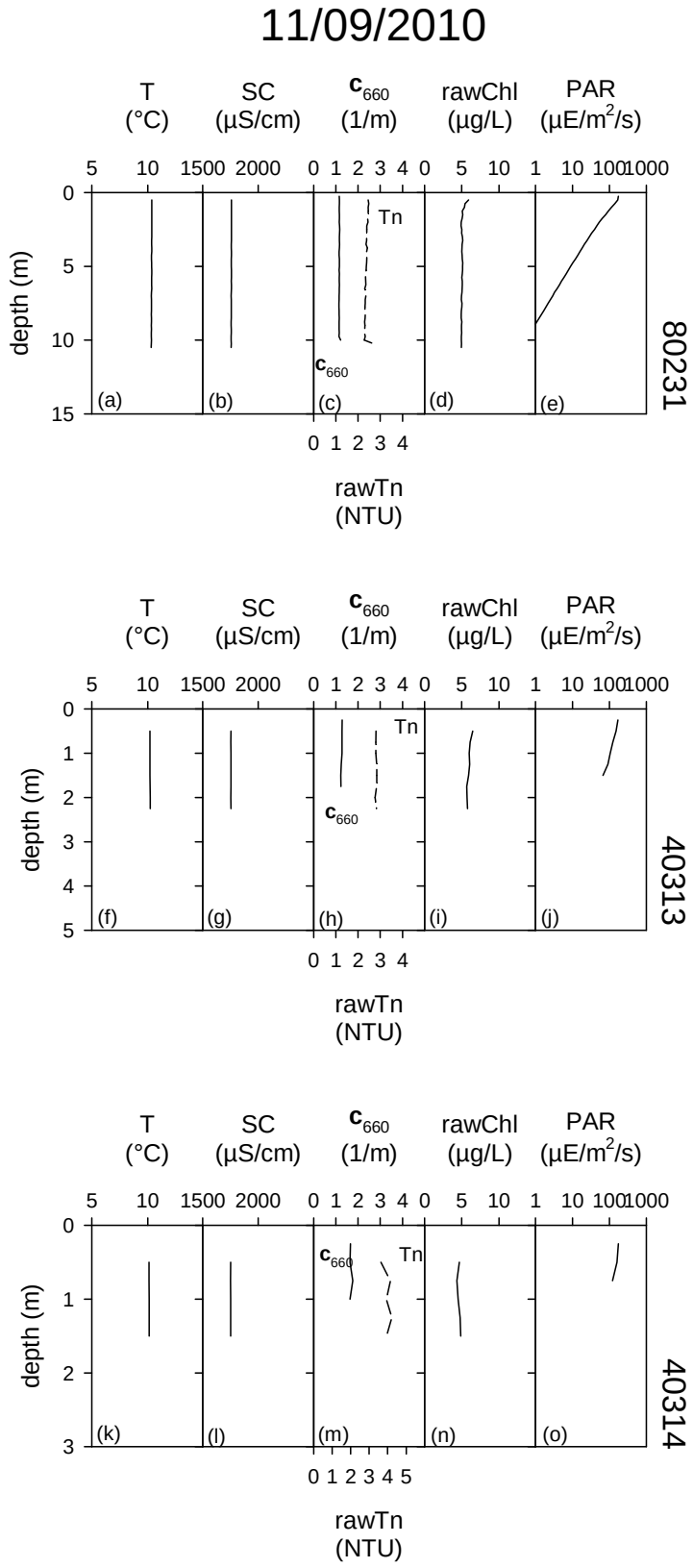


Figure 21. Pre-Dredge Monitoring profiles on November 9, 2010 at transect T1 for sites: (a) 80231 temperature (T), (b) 80231 specific conductivity (SC), (c) 80231 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 80231 chlorophyll a (chl),(e) 80231 photosynthetic active radiation (PAR), (f) 40313 T, (g) 40313 SC, (h) 40313 Tn and $\mathbf{c}_{660}$, (i) 40313 chl, (j) 40313 PAR, (k) 40314 T, (l) 40314 SC, (m) 40314 Tn and $\mathbf{c}_{660}$, (n) 40314 chl, (o) 40314 PAR.

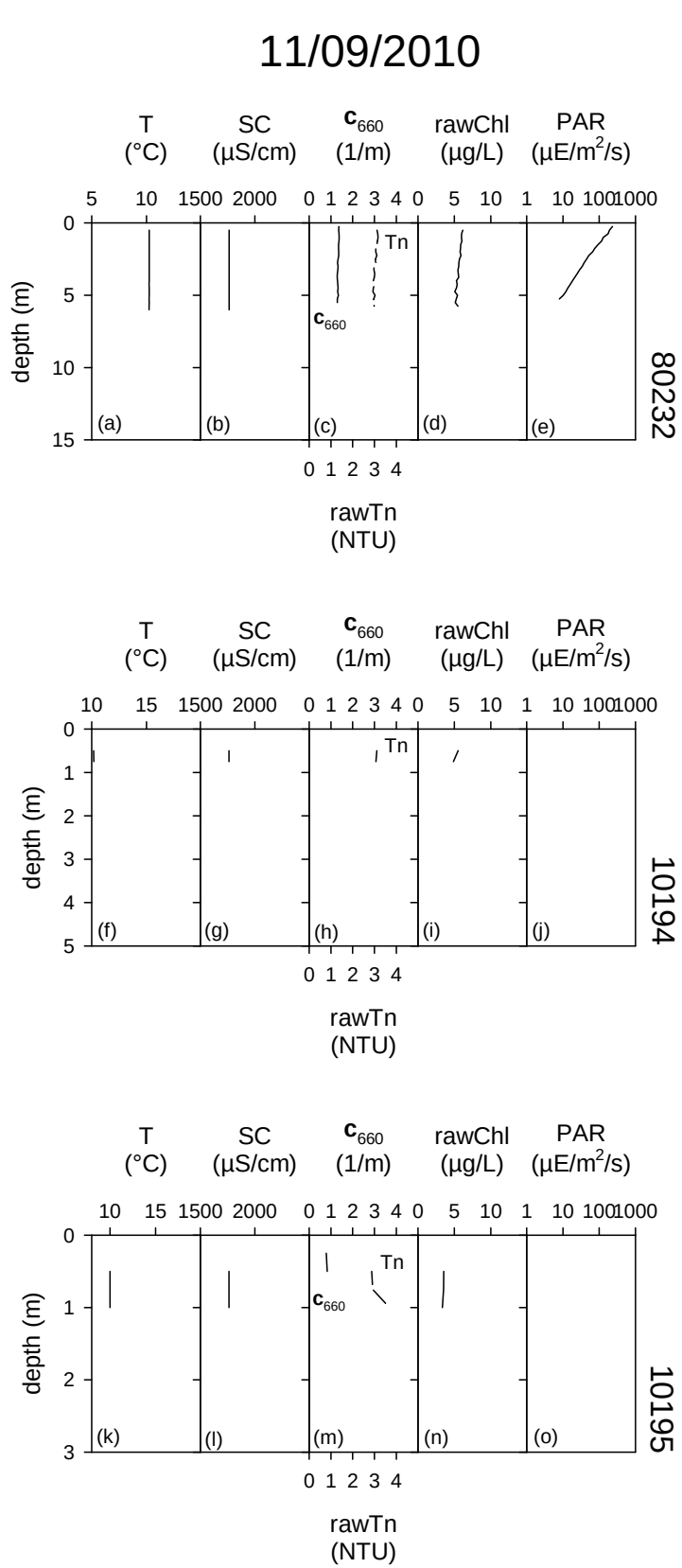


Figure 22. Pre-Dredge Monitoring profiles on November 9, 2010 at transect T2 for sites: (a) 80232 temperature (T), (b) 80232 specific conductivity (SC), (c) 80232 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 80232 chlorophyll a (chl),(e) 80232 photosynthetic active radiation (PAR), (f) 10194 T, (g) 10194 SC, (h) 10194 Tn and $\mathbf{c}_{660}$, (i) 10194 chl, (j) 10194 PAR, (k) 10195 T, (l) 10195 SC, (m) 10195 Tn and $\mathbf{c}_{660}$, (n) 10195 chl, (o) 10195 PAR.

11/09/2010

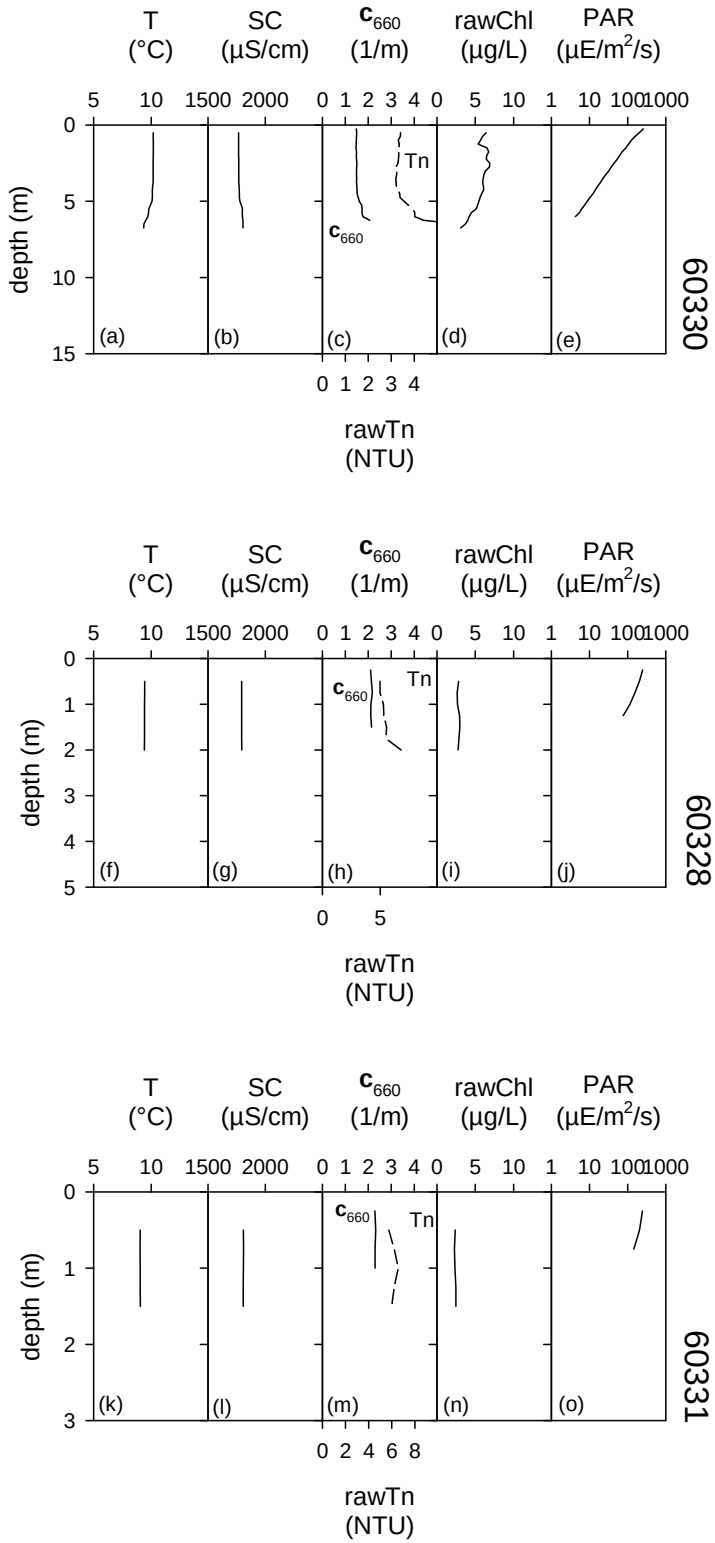


Figure 23. Pre-Dredge Monitoring profiles on November 9, 2010 at transect T3 for sites: (a) 60330 temperature (T), (b) 60330 specific conductivity (SC), (c) 60330 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 60330 chlorophyll a (chl),(e) 60330 photosynthetic active radiation (PAR), (f) 60328 T, (g) 60328 SC, (h) 60328 Tn and $\mathbf{c}_{660}$, (i) 60328 chl, (j)60328 PAR, (k) 60331 T, (l) 60331 SC, (m) 60331 Tn and $\mathbf{c}_{660}$, (n) 60331 chl, (o) 60331 PAR.

11/09/2010

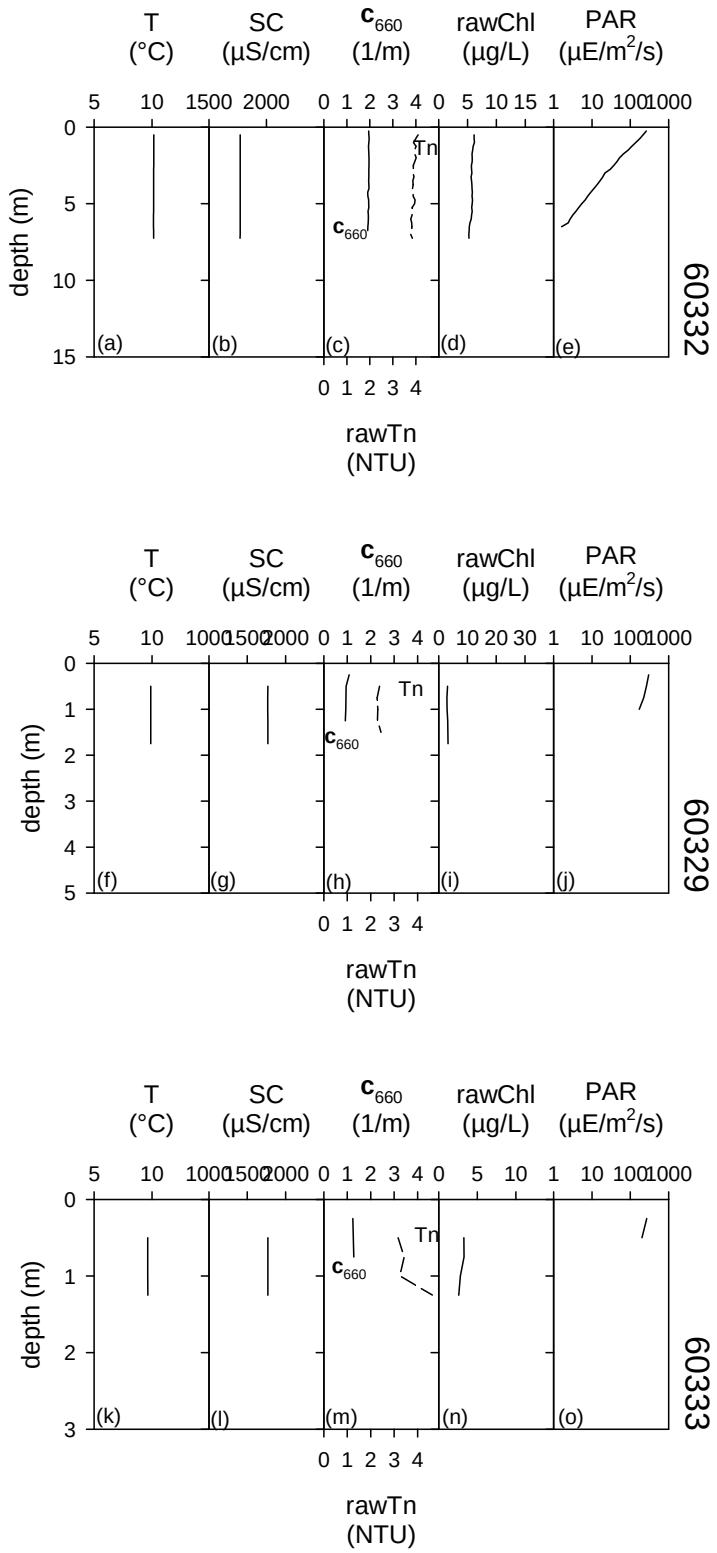


Figure 24. Pre-Dredge Monitoring profiles on November 9, 2010 at transect T4 for sites: (a) 60332 temperature (T), (b) 60332 specific conductivity (SC), (c) 60332 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 60332 chlorophyll a (chl),(e) 60332 photosynthetic active radiation (PAR), (f) 60329 T, (g) 60329 SC, (h) 60329 Tn and $\mathbf{c}_{660}$, (i) 60329 chl, (j)60329 PAR, (k) 60333 T, (l) 60333 SC, (m) 60333 Tn and $\mathbf{c}_{660}$, (n) 60333 chl, (o) 60333 PAR.

11/09/2010

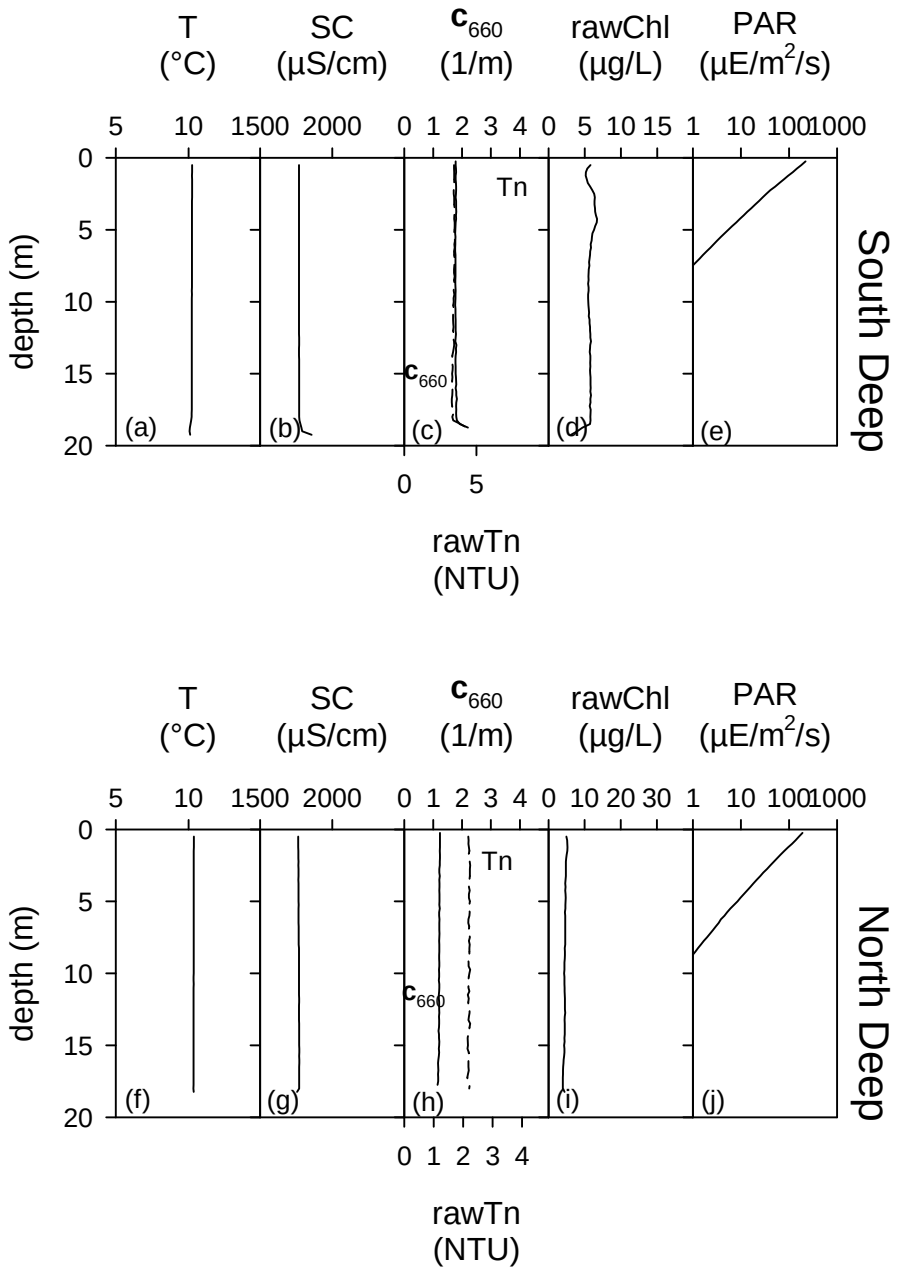


Figure 25. Pre-Dredge Monitoring profiles on November 9, 2010 at South Deep and North Deep: (a) South Deep temperature (T), (b) South Deep specific conductivity (SC), (c) South Deep turbidity (Tn) and $\mathbf{c}_{660}$, (d) South Deep chlorophyll a (chl),(e) South Deep photosynthetic active radiation (PAR), (f) North Deep T, (g) North Deep SC, (h) North Deep Tn and $\mathbf{c}_{660}$, (i) North Deep chl, (j)North Deep PAR.

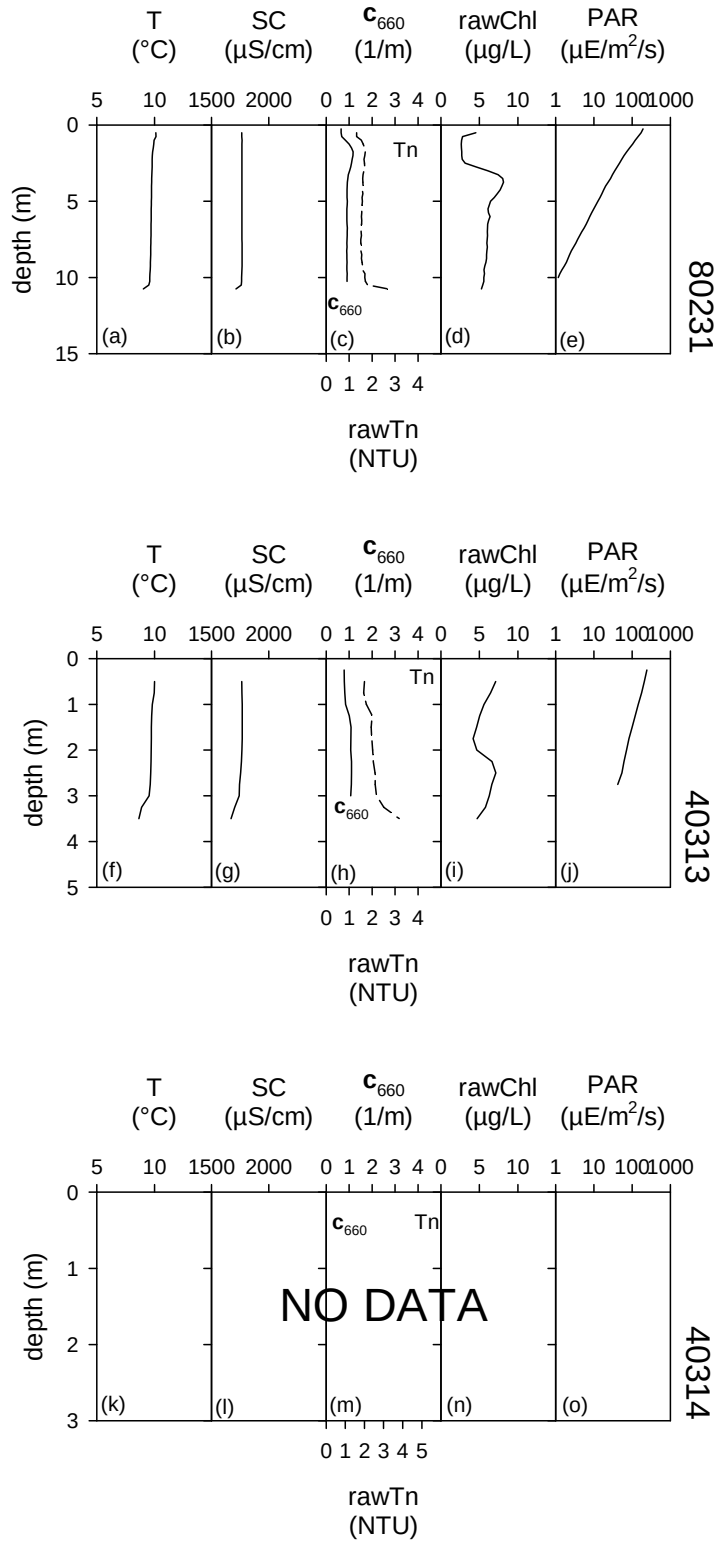


Figure 26. Pre-Dredge Monitoring profiles on November 16, 2010 at transect T1 for sites: (a) 80231 temperature (T), (b) 80231 specific conductivity (SC), (c) 80231 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 80231 chlorophyll a (chl),(e) 80231 photosynthetic active radiation (PAR), (f) 40313 T, (g) 40313 SC, (h) 40313 Tn and $\mathbf{c}_{660}$, (i) 40313 chl, (j) 40313 PAR, (k) 40314 T, (l) 40314 SC, (m) 40314 Tn and $\mathbf{c}_{660}$, (n) 40314 chl, (o) 40314 PAR.

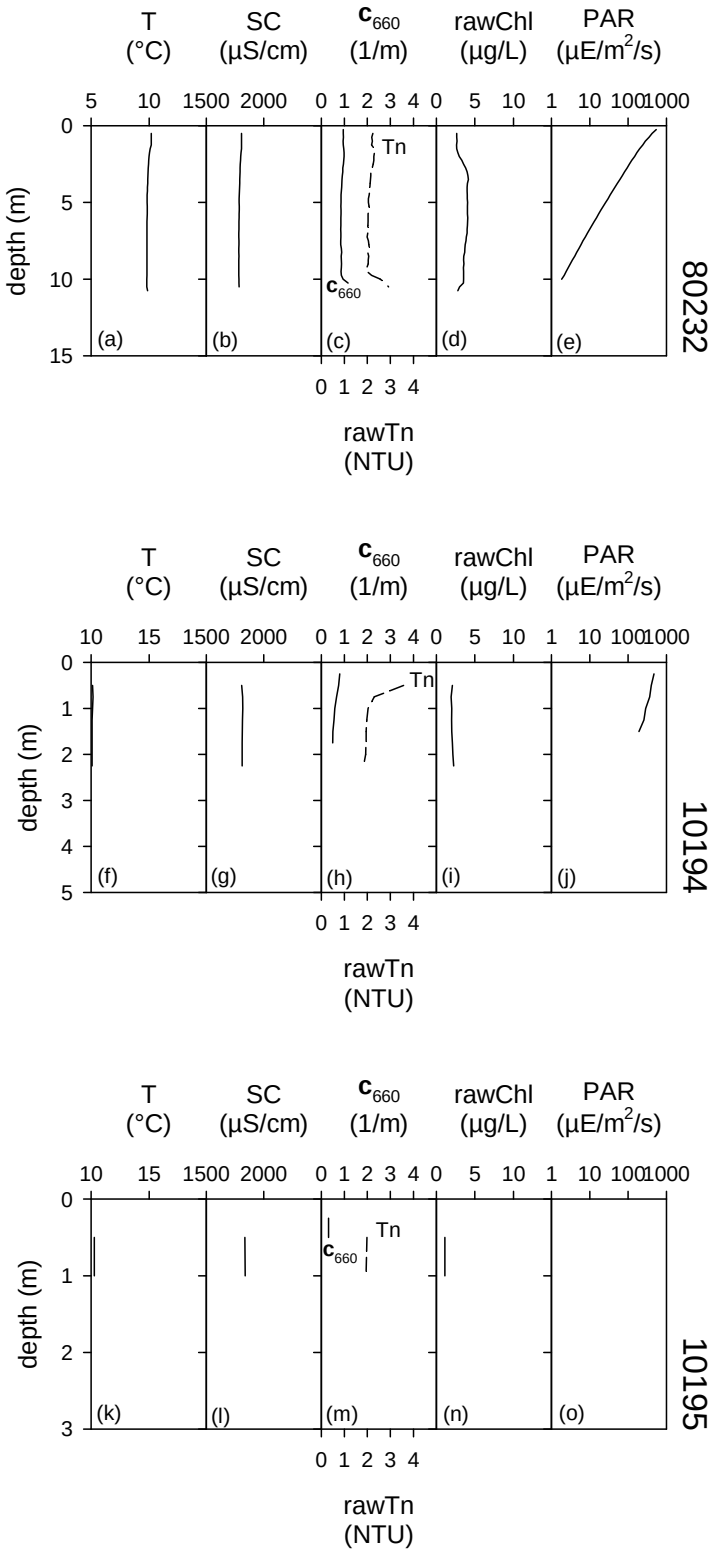


Figure 27. Pre-Dredge Monitoring profiles on November 16, 2010 at transect T2 for sites: (a) 80232 temperature (T), (b) 80232 specific conductivity (SC), (c) 80232 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 80232 chlorophyll a (chl),(e) 80232 photosynthetic active radiation (PAR), (f) 10194 T, (g) 10194 SC, (h) 10194 Tn and $\mathbf{c}_{660}$, (i) 10194 chl, (j) 10194 PAR, (k) 10195 T, (l) 10195 SC, (m) 10195 Tn and $\mathbf{c}_{660}$, (n) 10195 chl, (o) 10195 PAR.

11/16/2010

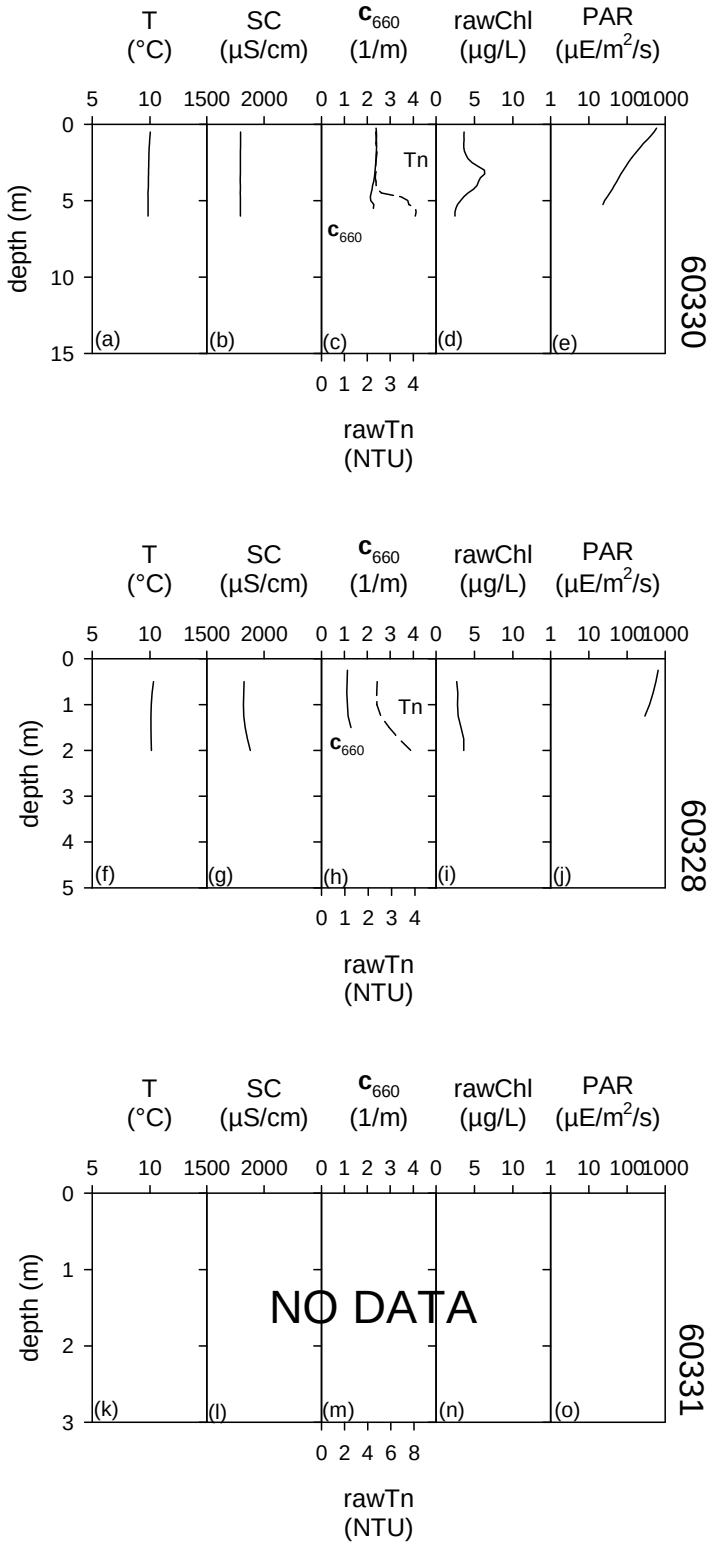


Figure 28. Pre-Dredge Monitoring profiles on November 16, 2010 at transect T3 for sites: (a) 60330 temperature (T), (b) 60330 specific conductivity (SC), (c) 60330 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 60330 chlorophyll a (chl),(e) 60330 photosynthetic active radiation (PAR), (f) 60328 T, (g) 60328 SC, (h) 60328 Tn and $\mathbf{c}_{660}$, (i) 60328 chl, (j)60328 PAR, (k) 60331 T, (l) 60331 SC, (m) 60331 Tn and $\mathbf{c}_{660}$, (n) 60331 chl, (o) 60331 PAR.

11/16/2010

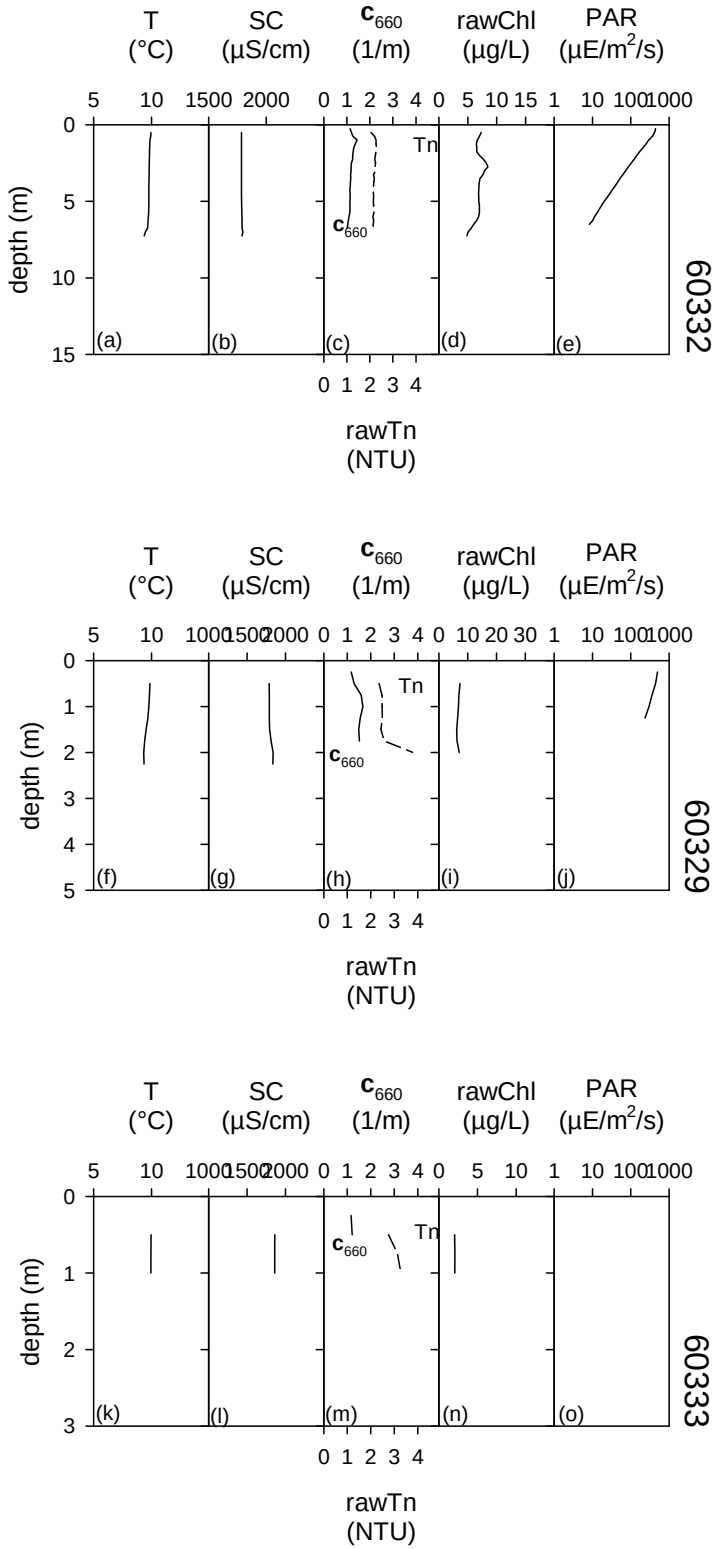


Figure 29. Pre-Dredge Monitoring profiles on November 16, 2010 at transect T4 for sites: (a) 60332 temperature (T), (b) 60332 specific conductivity (SC), (c) 60332 turbidity (Tn) and $\mathbf{c}_{660}$, (d) 60332 chlorophyll a (chl),(e) 60332 photosynthetic active radiation (PAR), (f) 60329 T, (g) 60329 SC, (h) 60329 Tn and $\mathbf{c}_{660}$, (i) 60329 chl, (j)60329 PAR, (k) 60333 T, (l) 60333 SC, (m) 60333 Tn and $\mathbf{c}_{660}$, (n) 60333 chl, (o) 60333 PAR.

11/16/2010

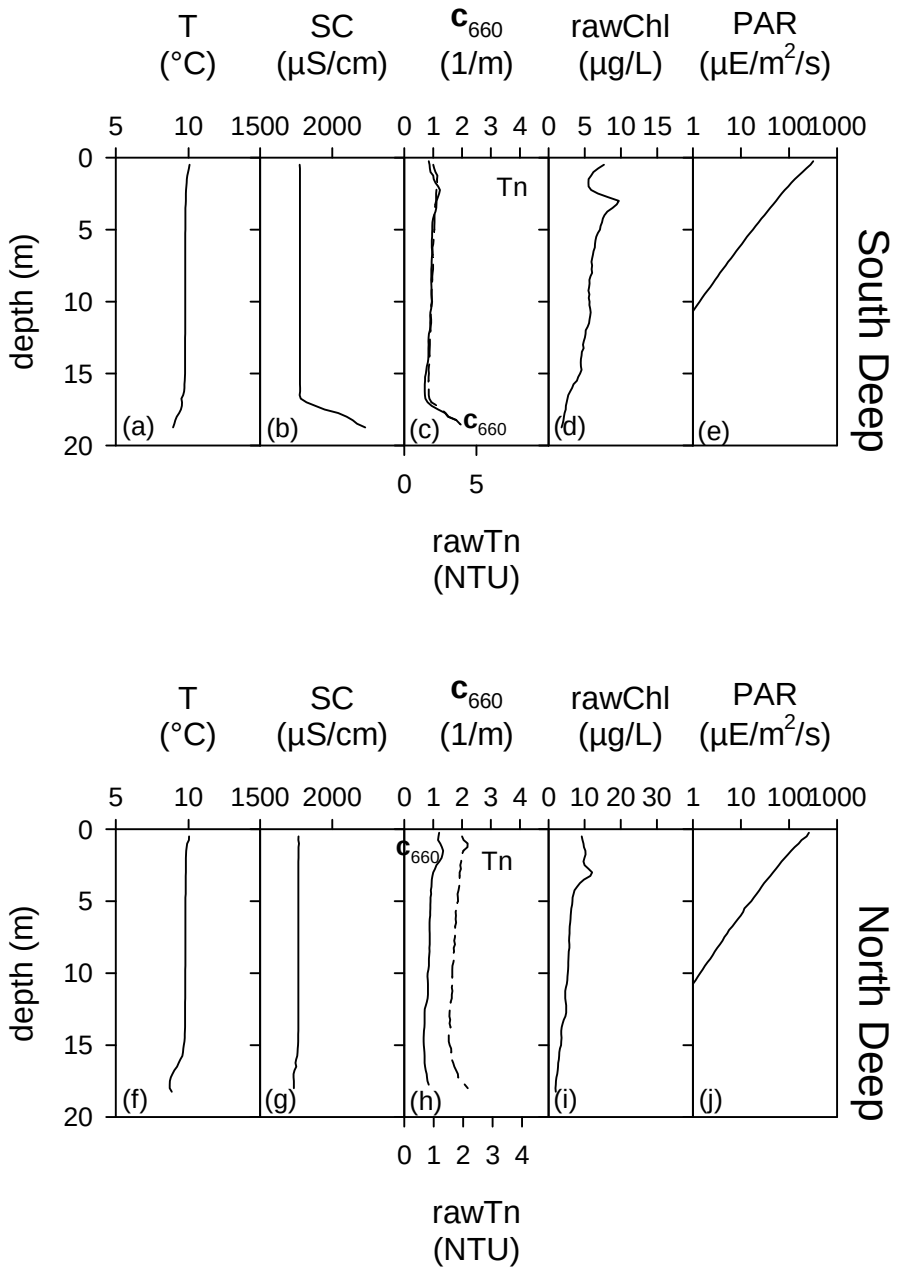
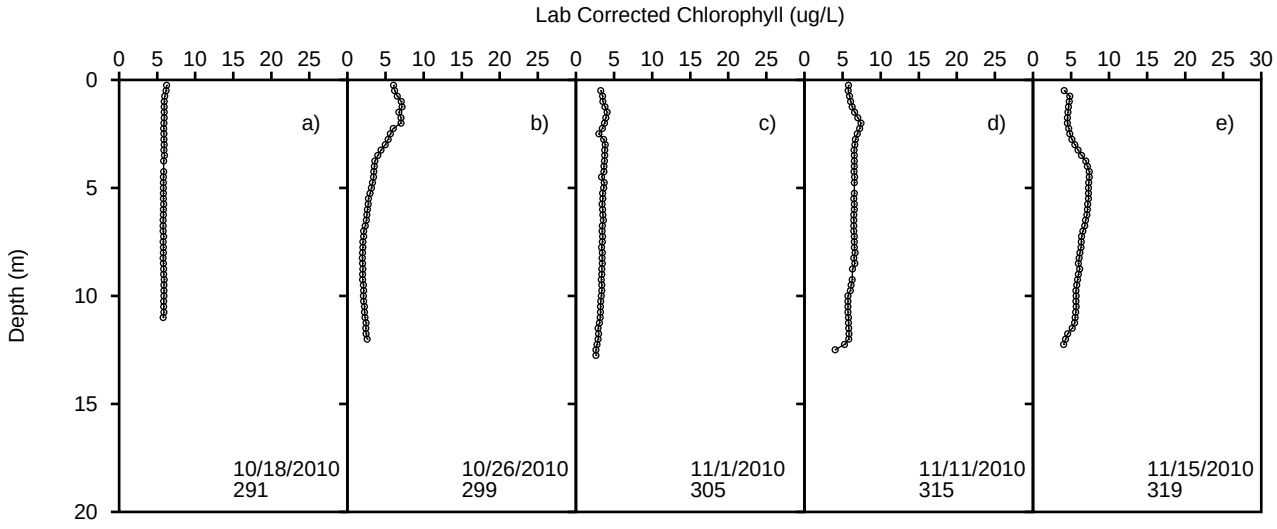


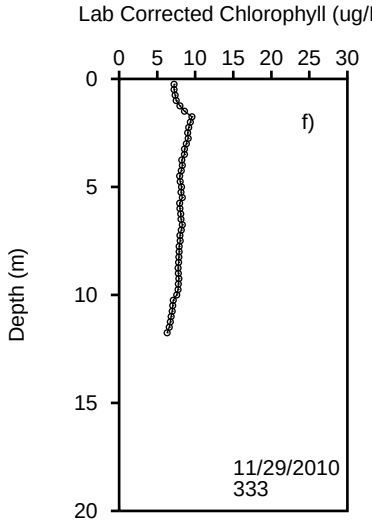
Figure 30. Pre-Dredge Monitoring profiles on November 16, 2010 at South Deep and North Deep: (a) South Deep temperature (T), (b) South Deep specific conductivity (SC), (c) South Deep turbidity (Tn) and $\mathbf{c}_{660}$, (d) South Deep chlorophyll a (chl),(e) South Deep photosynthetic active radiation (PAR), (f) North Deep T, (g) North Deep SC, (h) North Deep Tn and $\mathbf{c}_{660}$, (i) North Deep chl, (j)North Deep PAR.

APPENDIX D

IN SITU ULTRAVIOLET SPECTROPHOTOMETER (ISUS) PROFILES

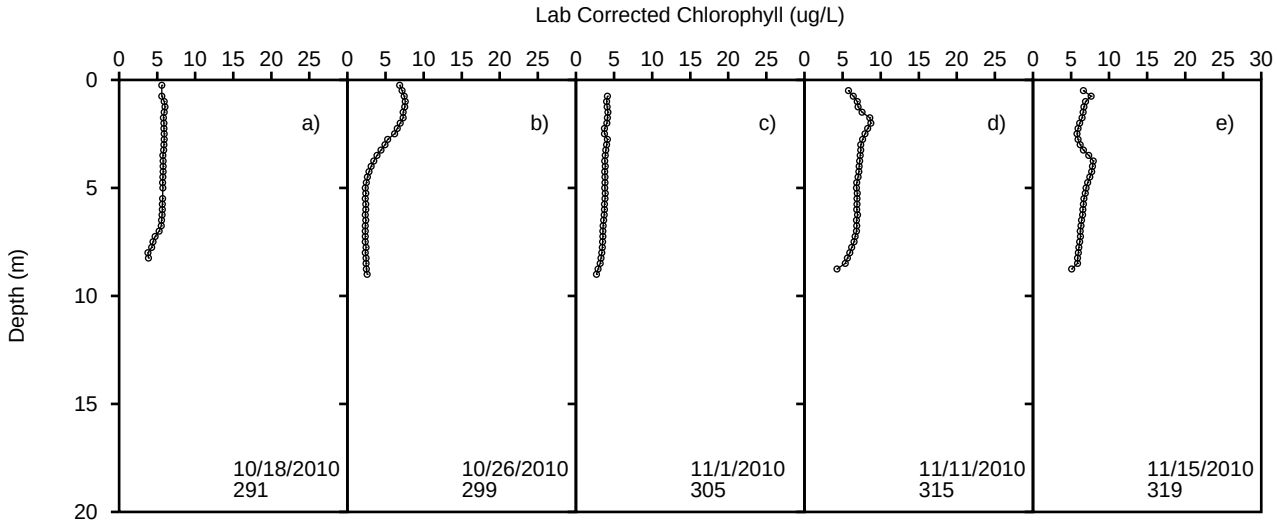
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-5

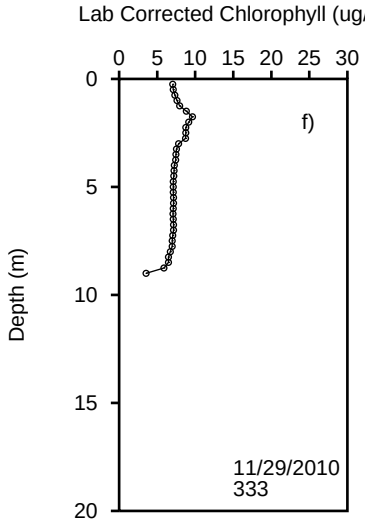




Wed Oct 12 08:08:13 2011

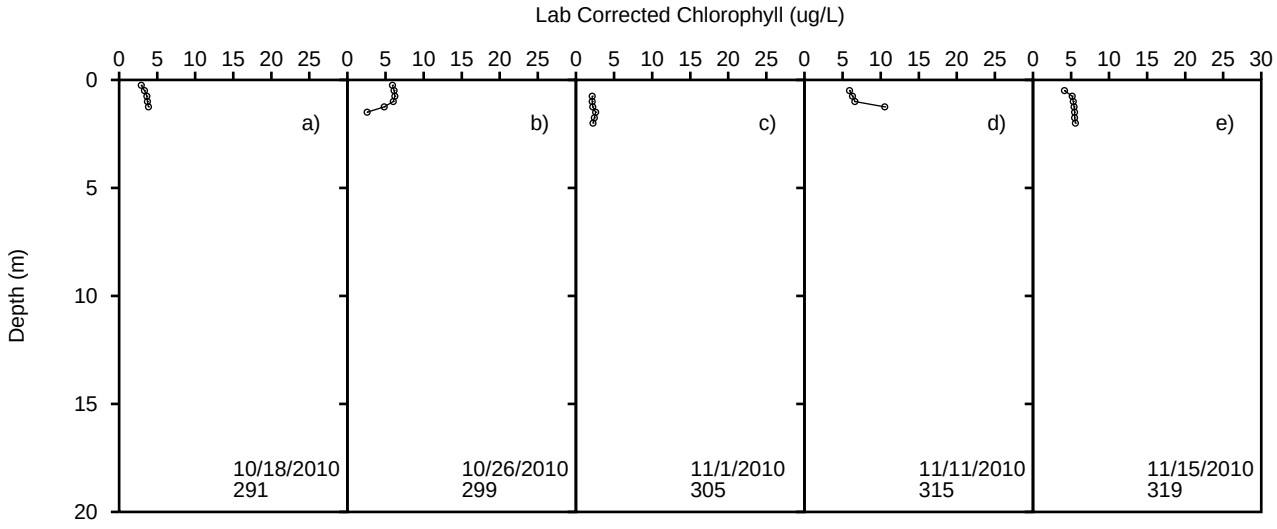
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-6

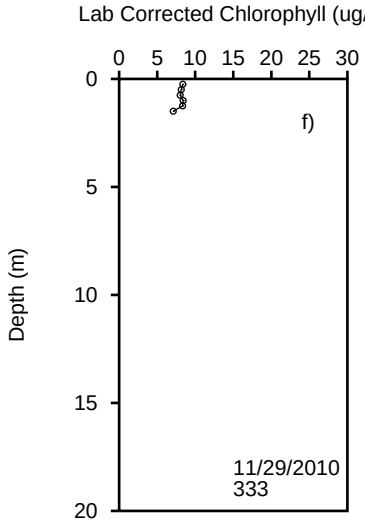




Wed Oct 12 08:09:34 2011

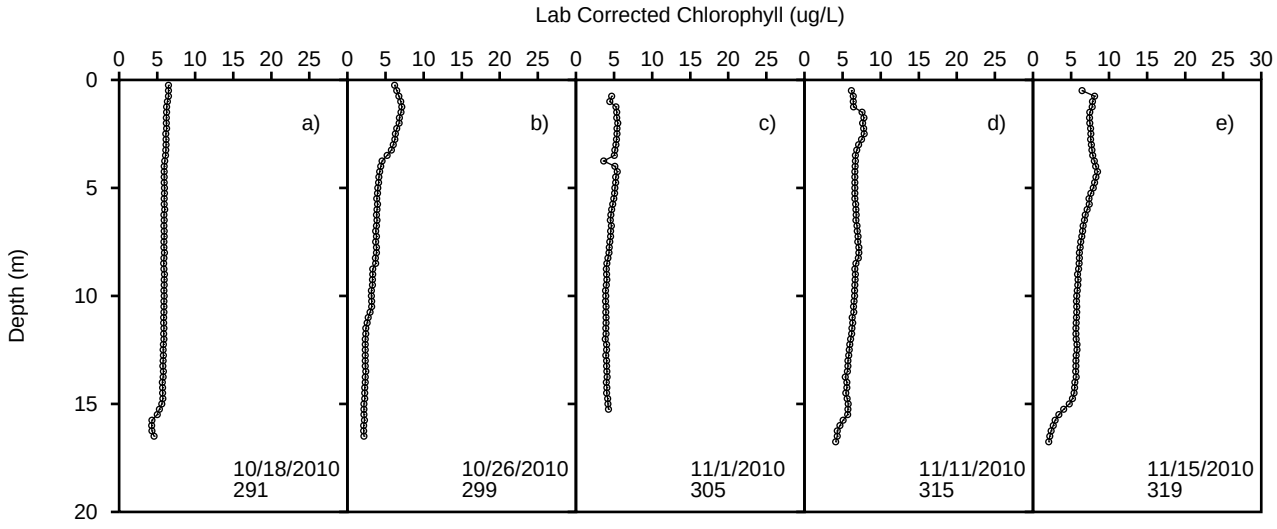
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-7

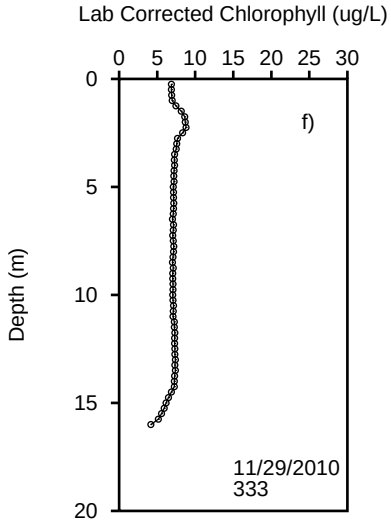




Wed Oct 12 08:11:25 2011

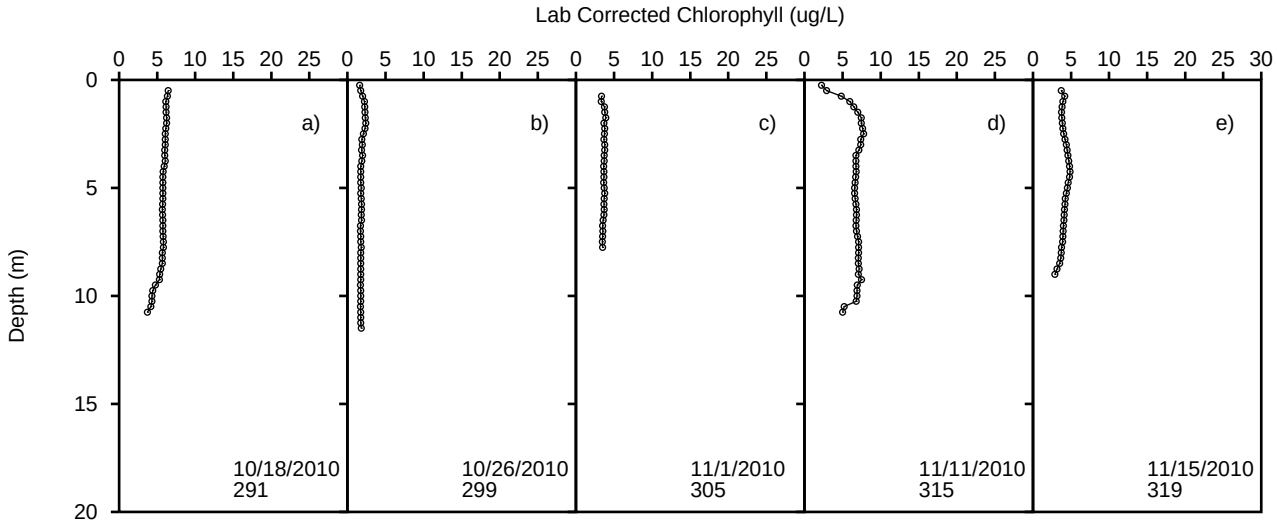
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-8

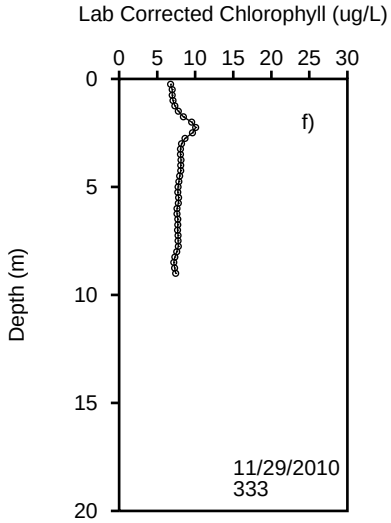




Wed Oct 12 08:14:25 2011

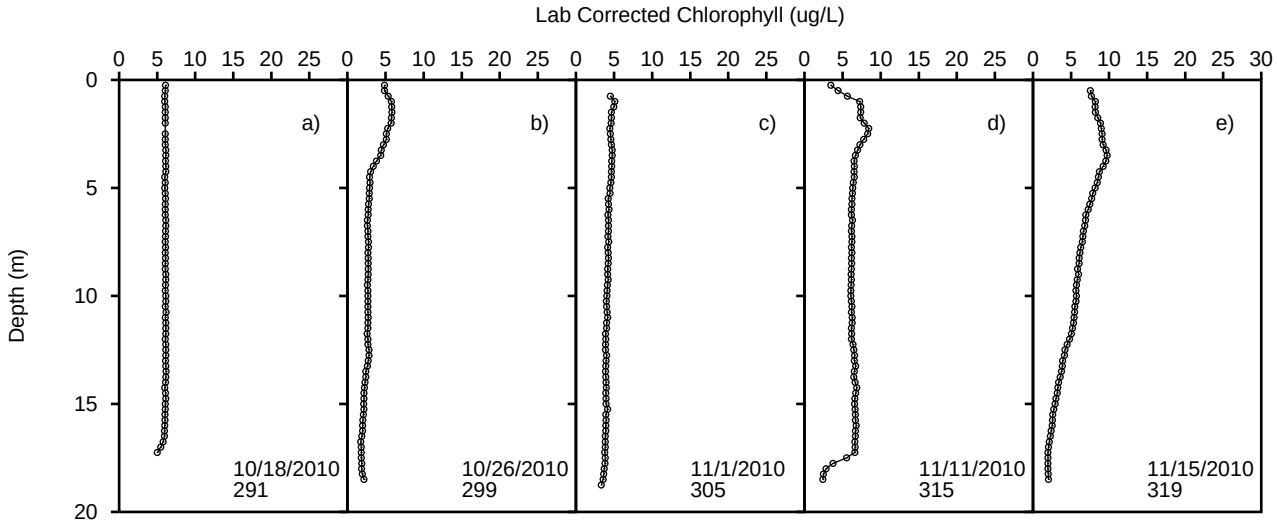
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-9

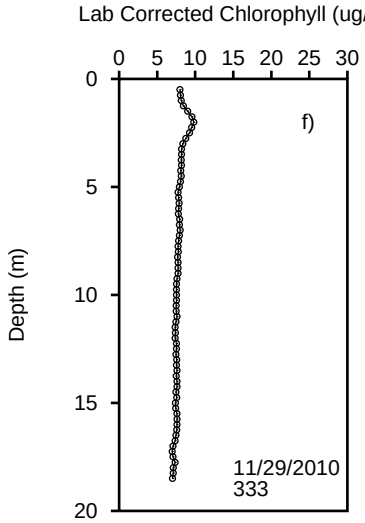




Wed Oct 12 08:15:17 2011

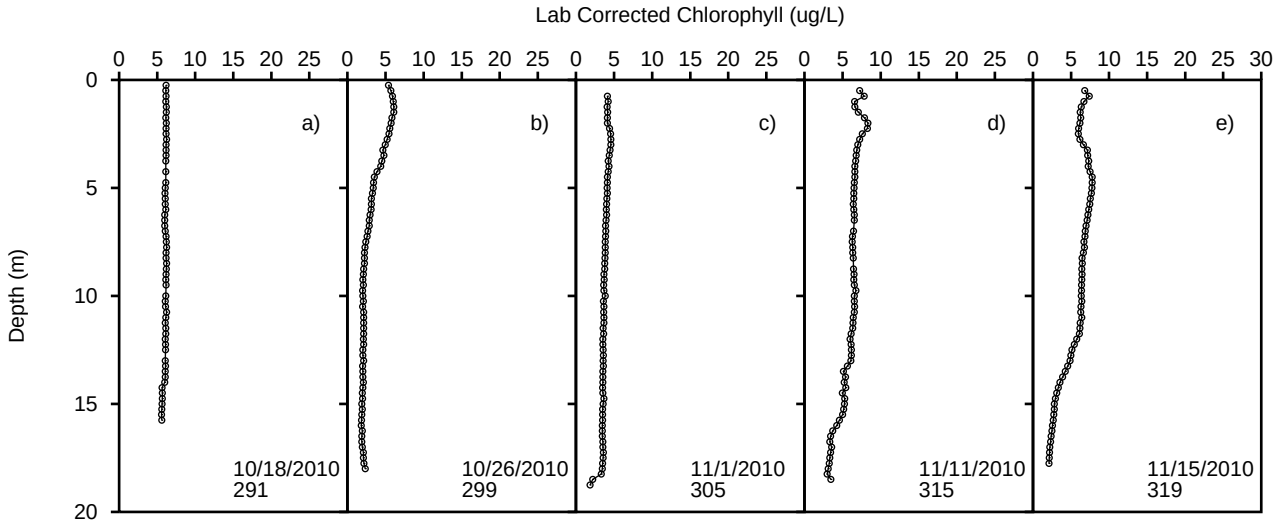
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-11

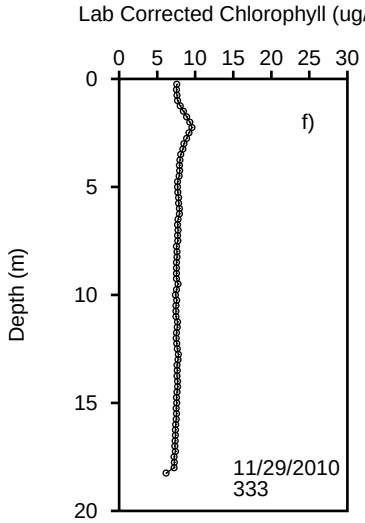




Wed Oct 12 08:18:05 2011

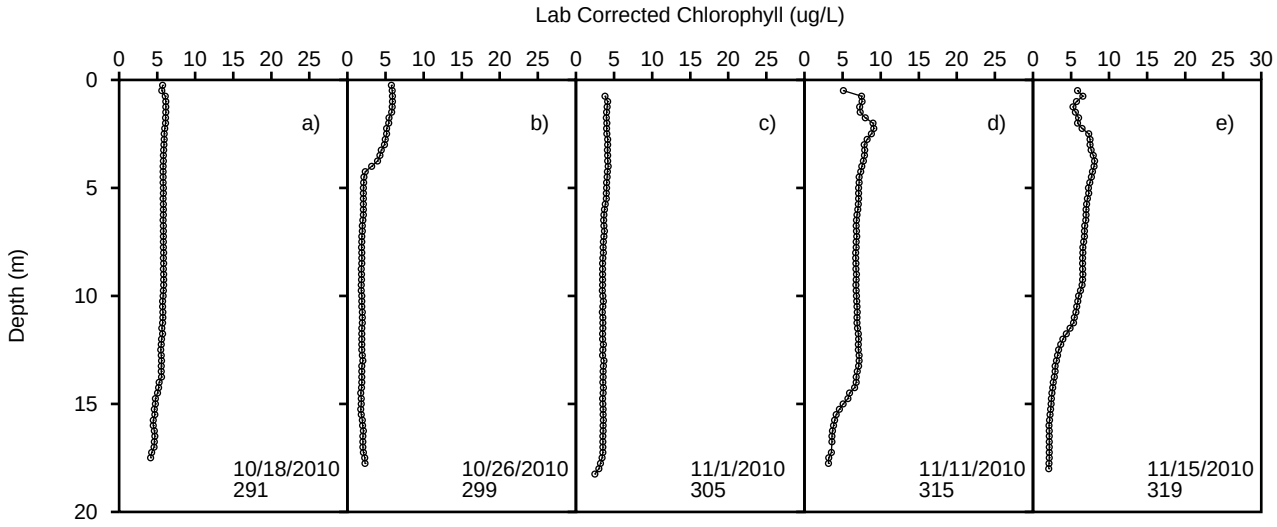
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-12

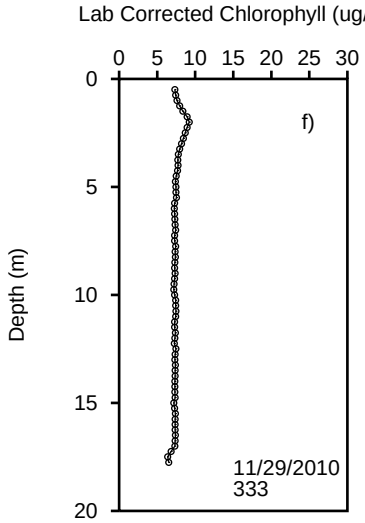




Wed Oct 12 08:20:51 2011

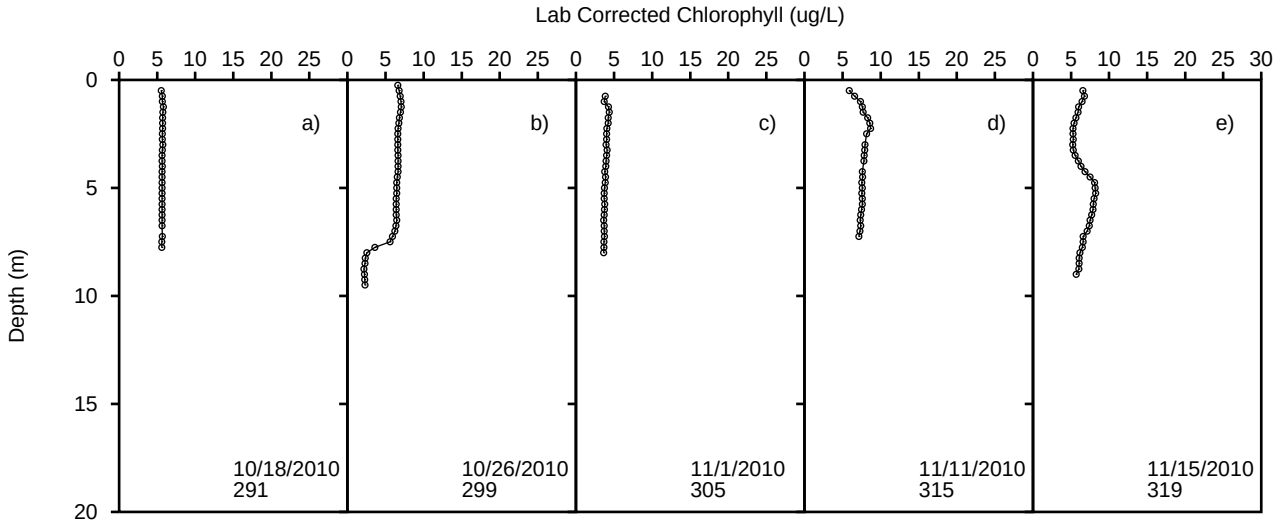
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-13

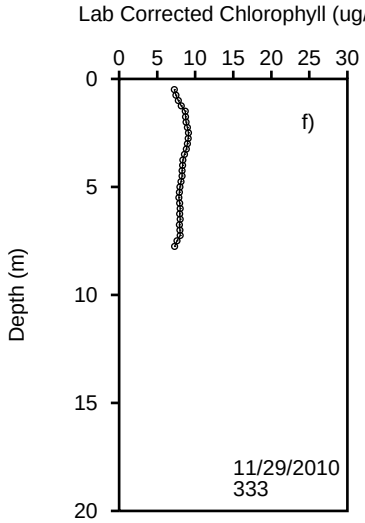




Wed Oct 12 08:22:52 2011

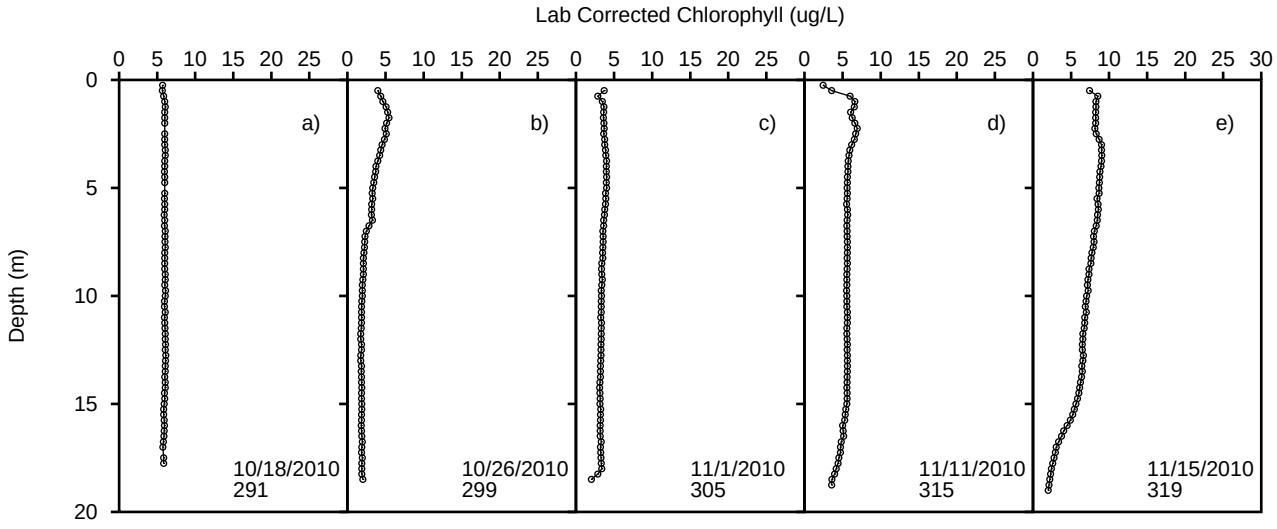
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-15

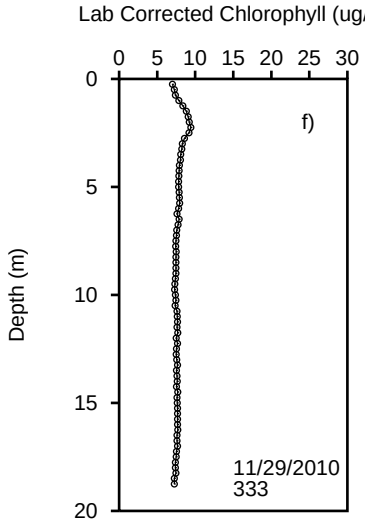




Wed Oct 12 08:26:19 2011

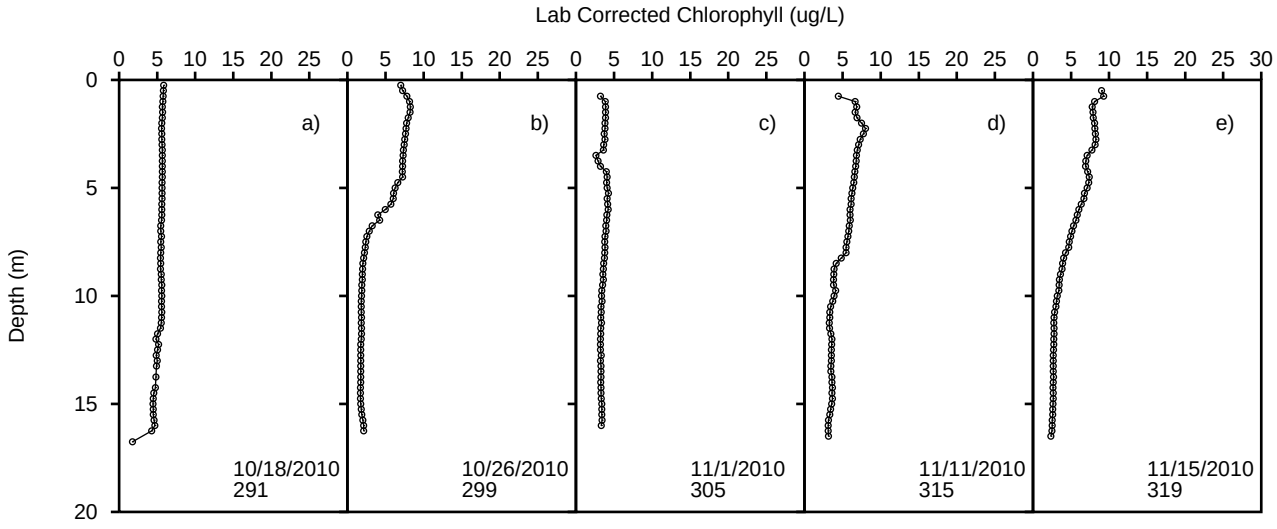
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-18

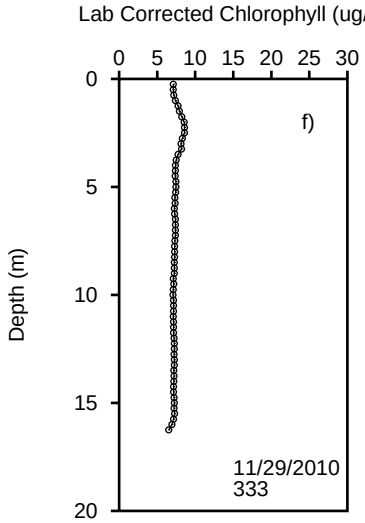




Wed Oct 12 08:29:12 2011

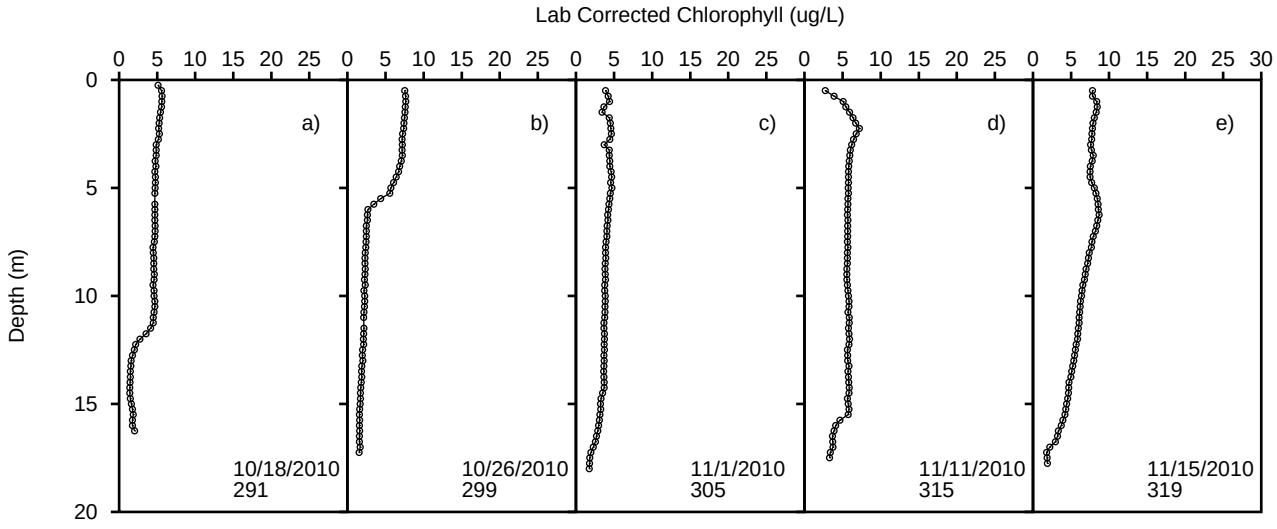
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-22

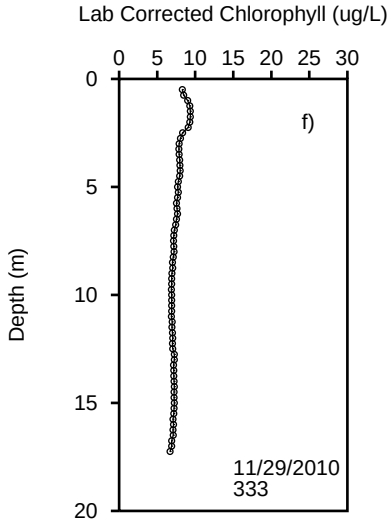




Wed Oct 12 08:33:21 2011

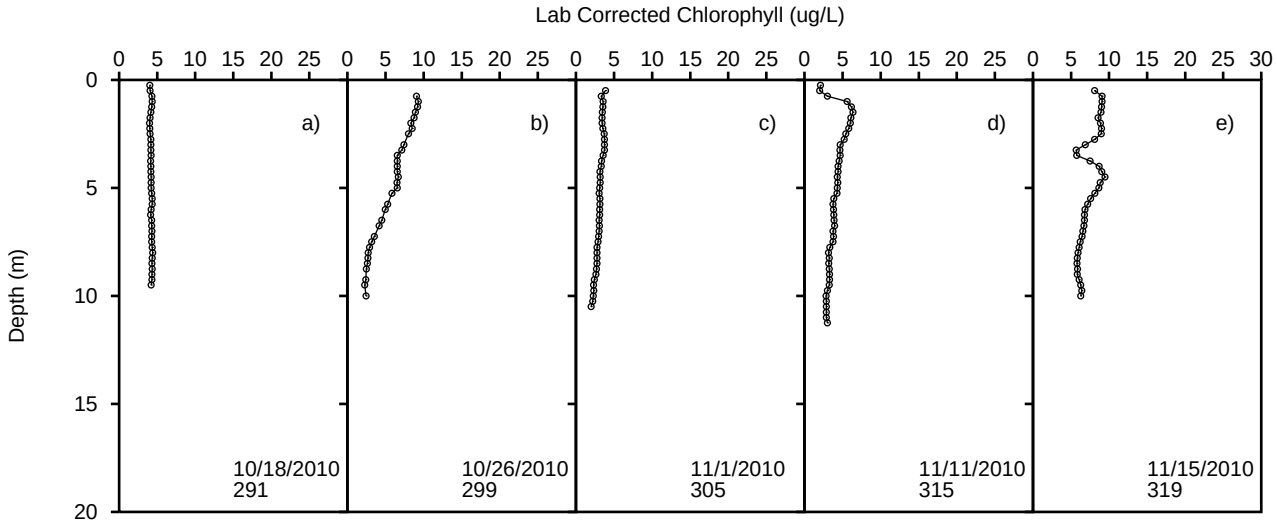
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-27

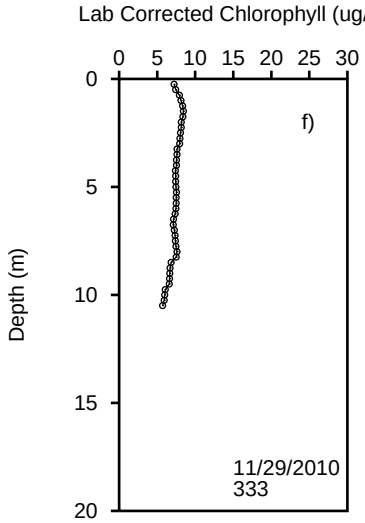




Wed Oct 12 08:35:42 2011

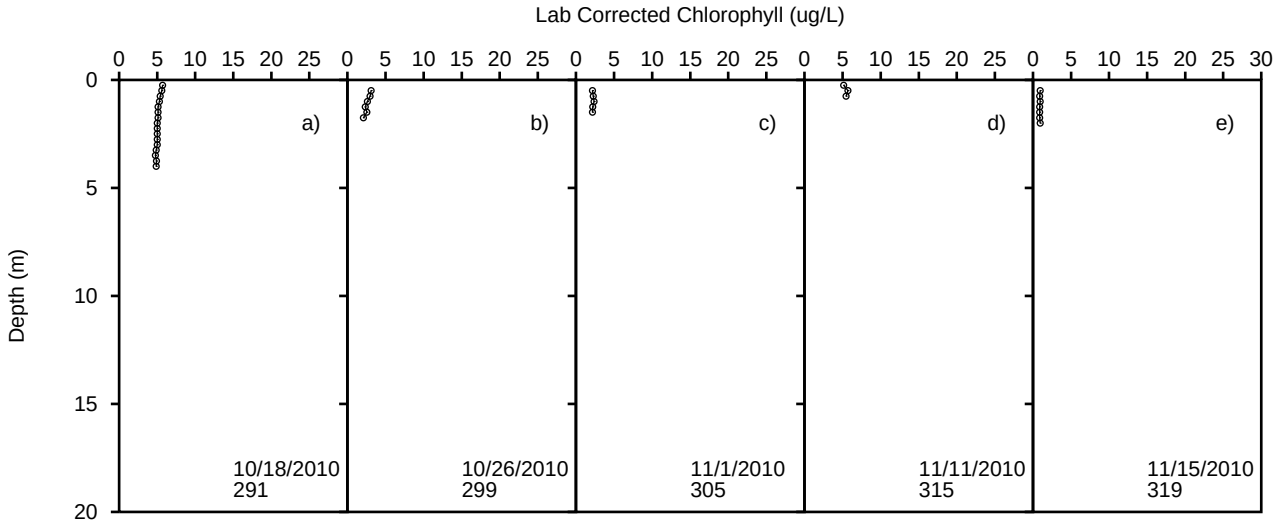
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-34

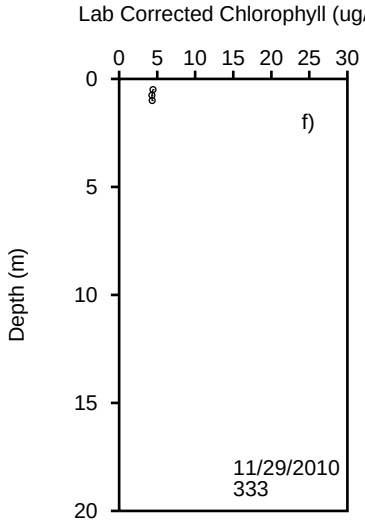




Wed Oct 12 08:36:30 2011

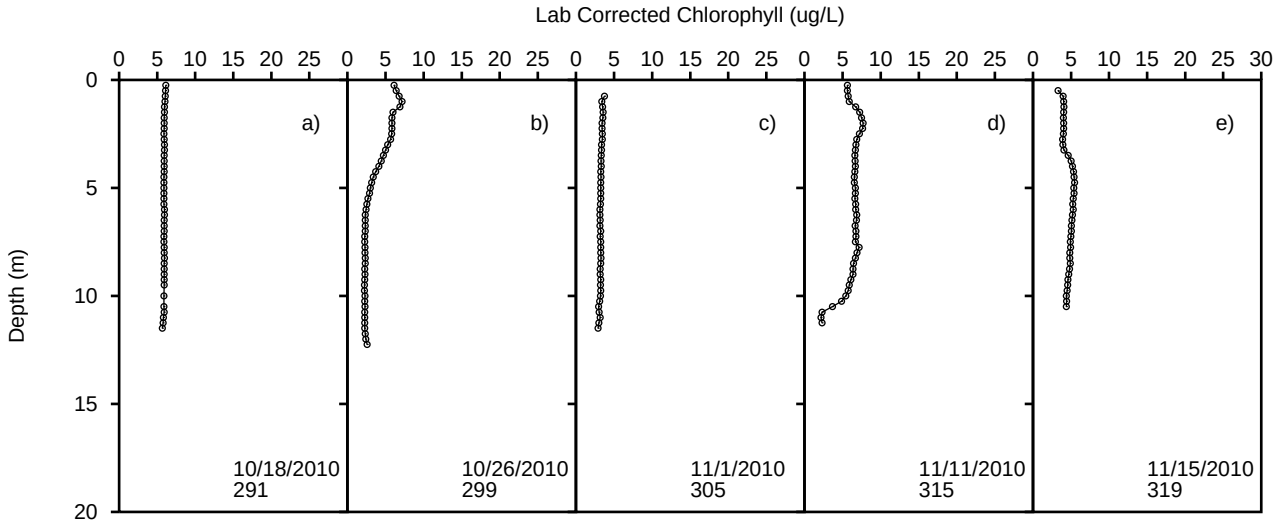
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-37

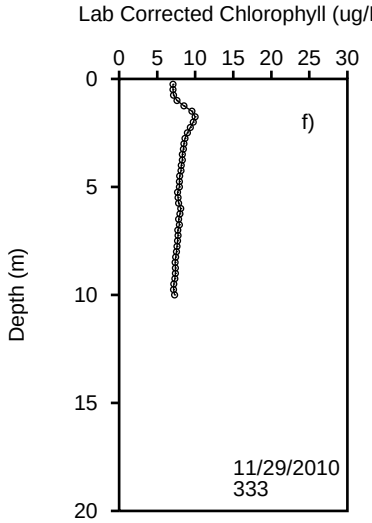




Tue Oct 11 15:57:51 2011

2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-38





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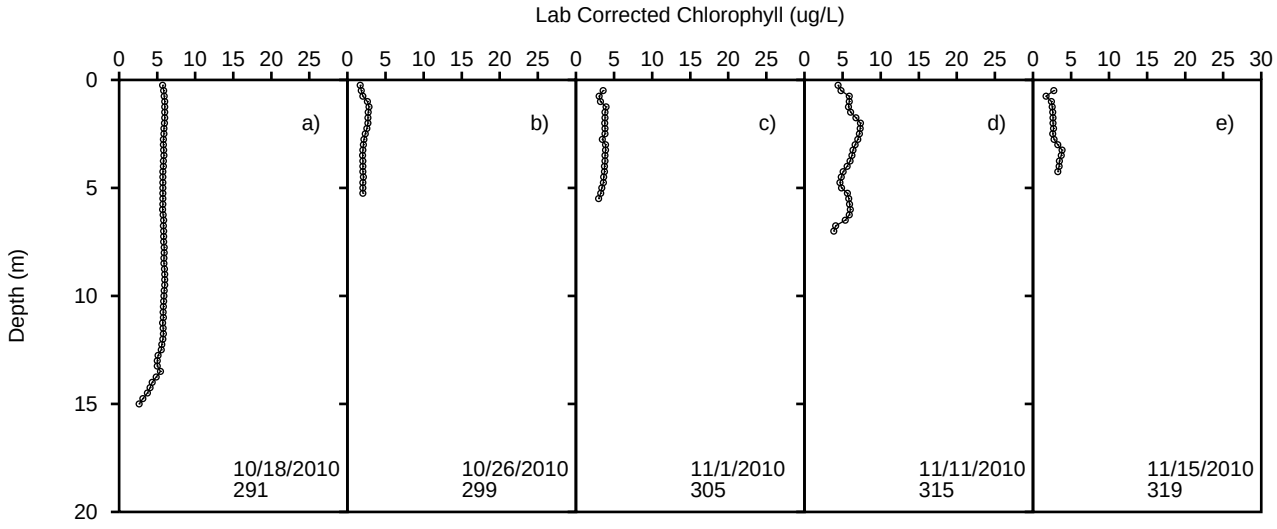
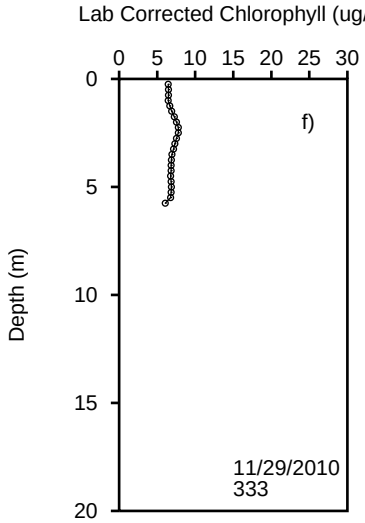
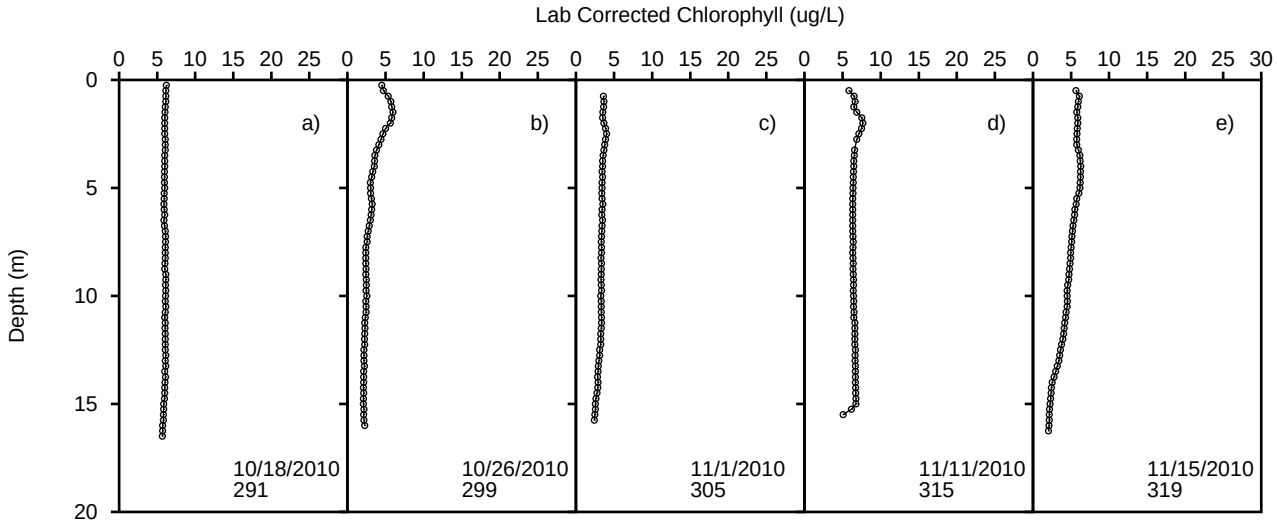
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-39

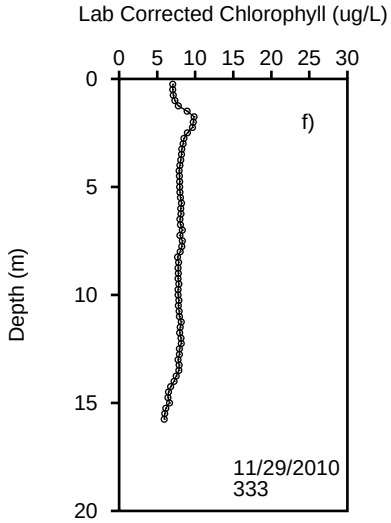




Tue Oct 11 16:00:43 2011

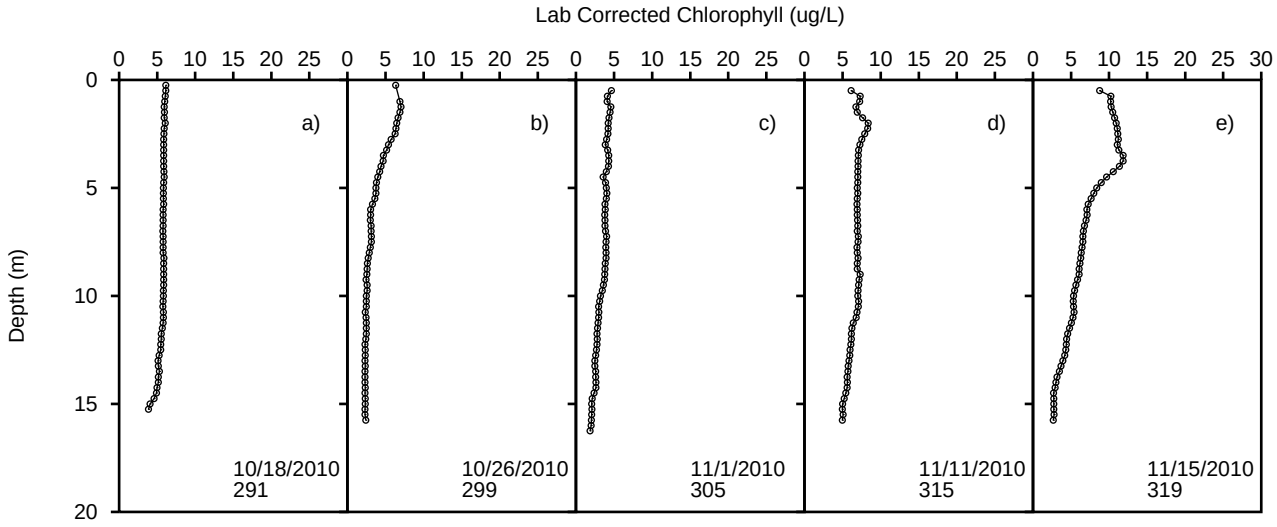
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-40

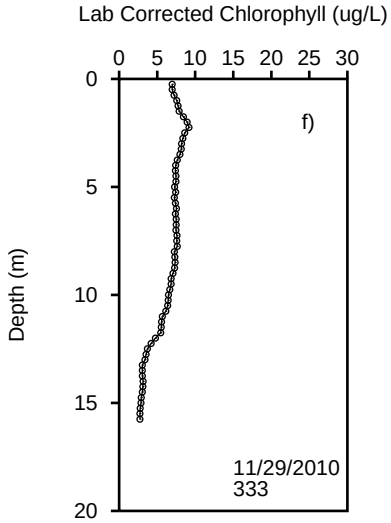




Tue Oct 11 16:01:36 2011

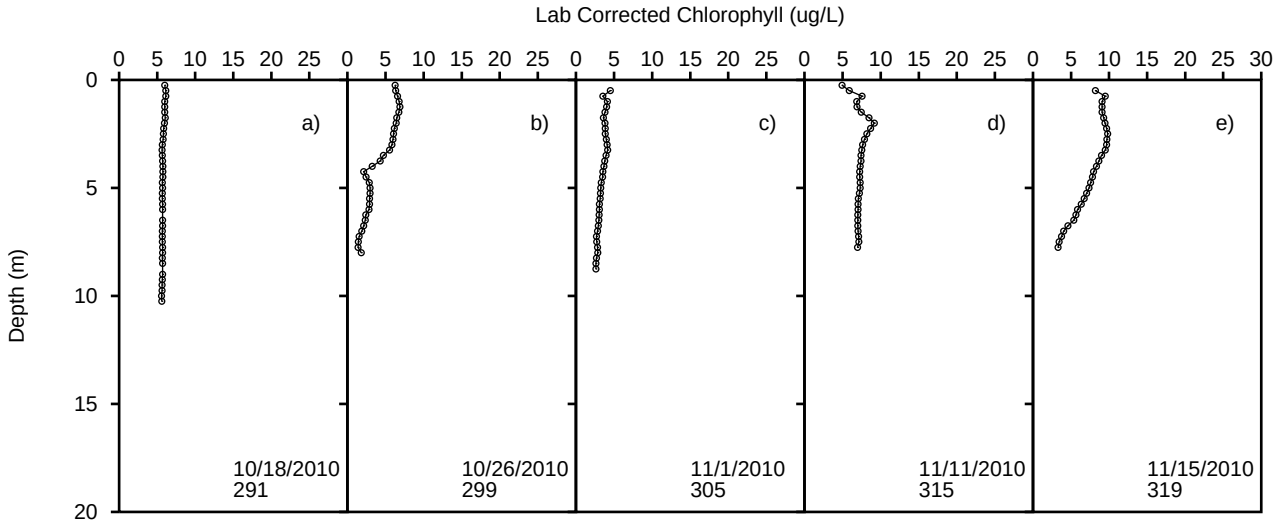
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-41

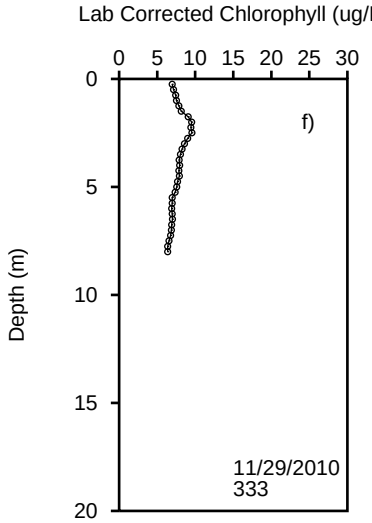




Tue Oct 11 16:02:30 2011

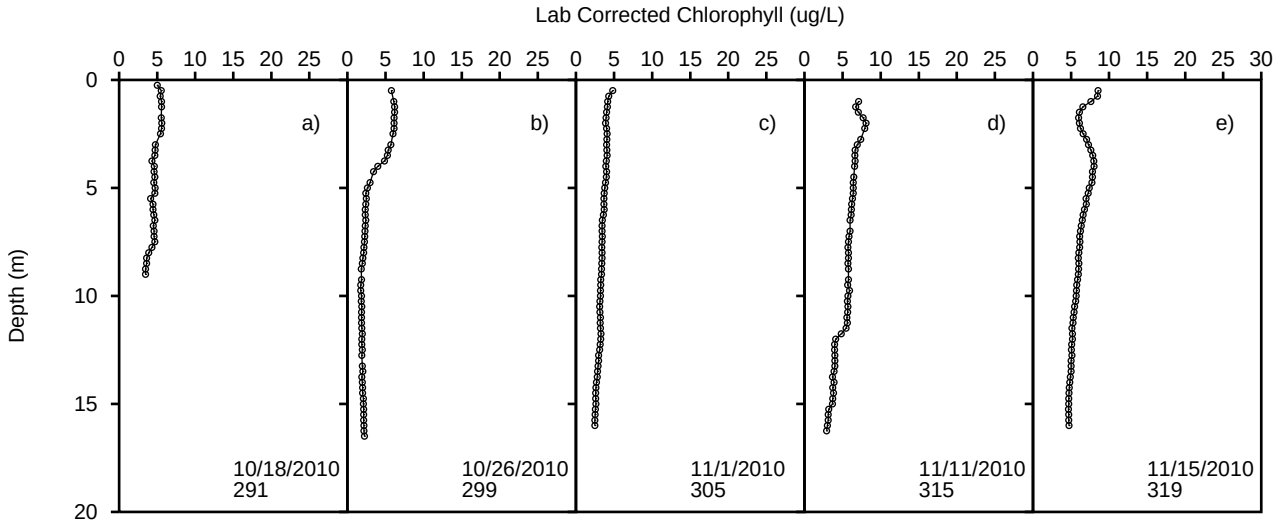
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-42

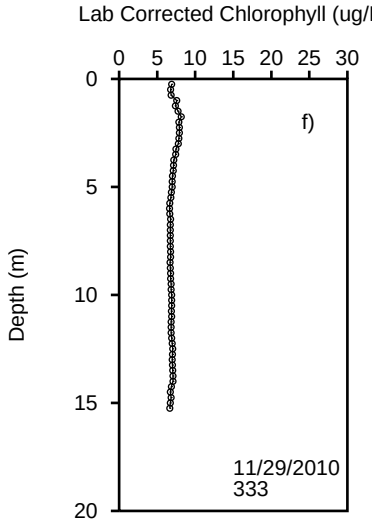




Wed Oct 12 07:58:34 2011

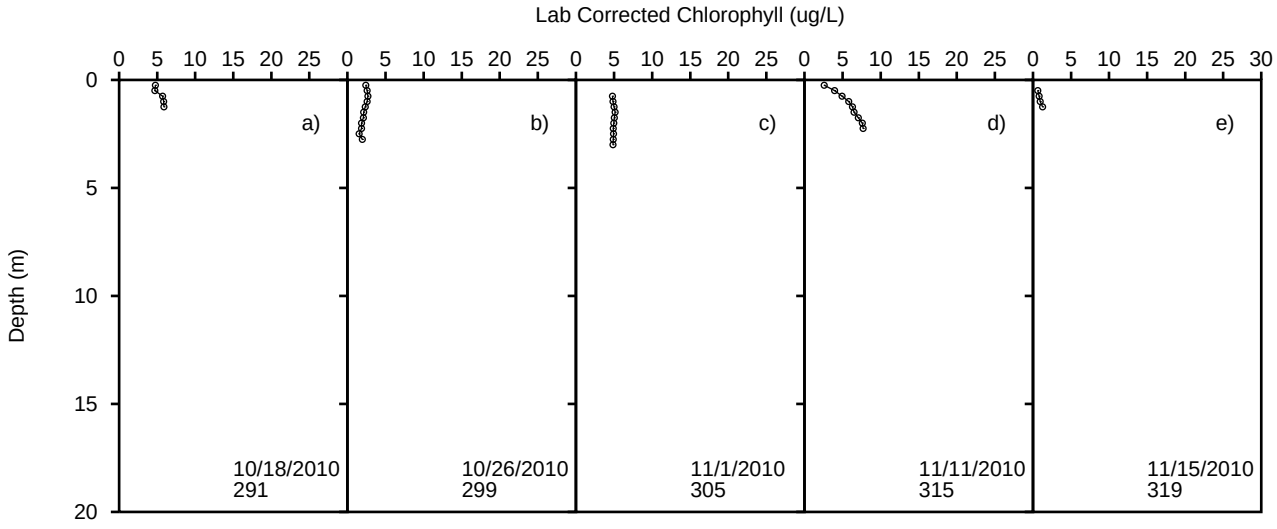
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-43

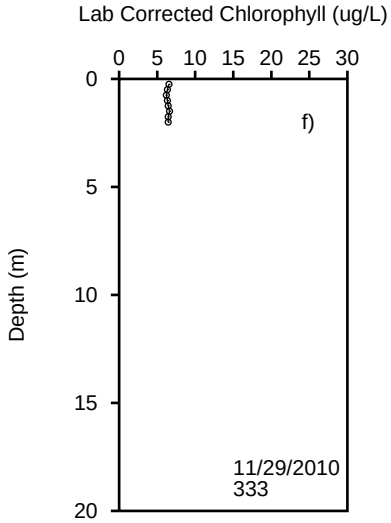




Wed Oct 12 07:59:58 2011

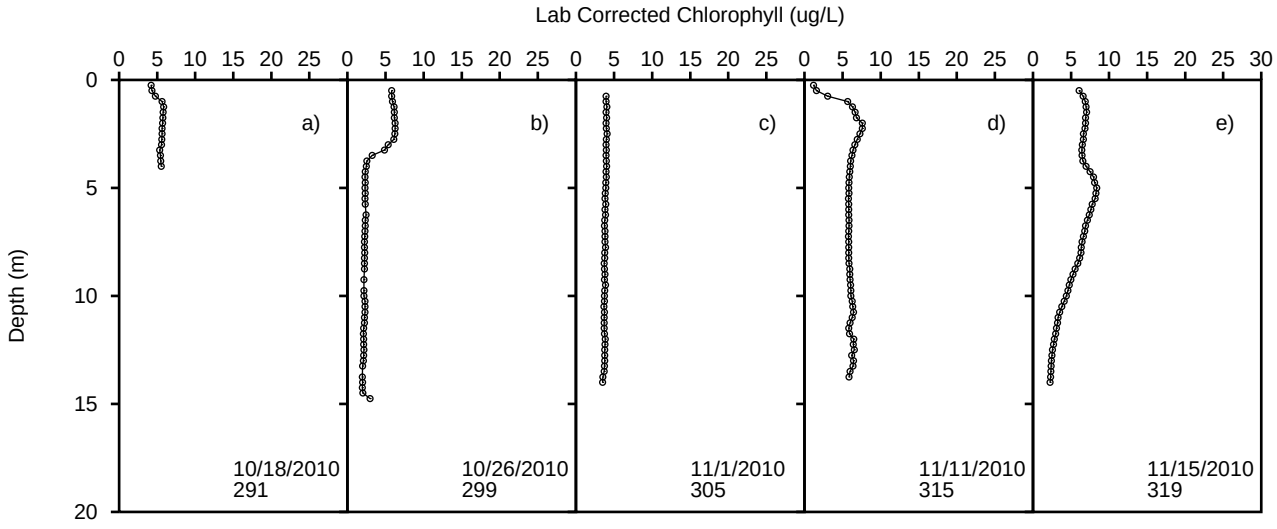
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-44

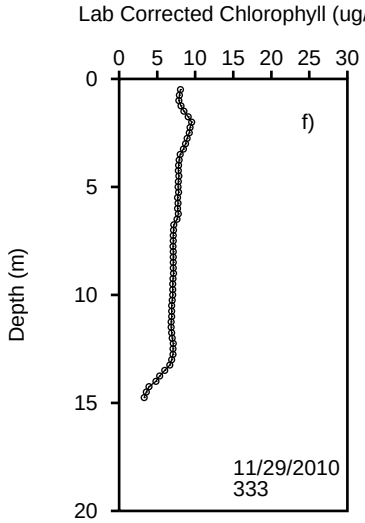




Wed Oct 12 08:01:45 2011

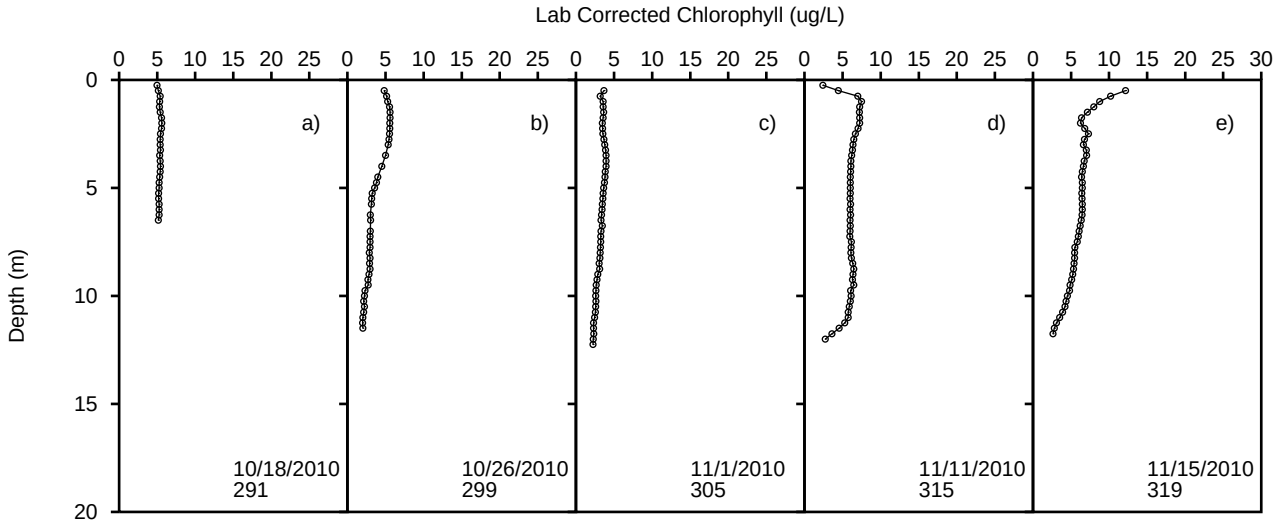
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-45

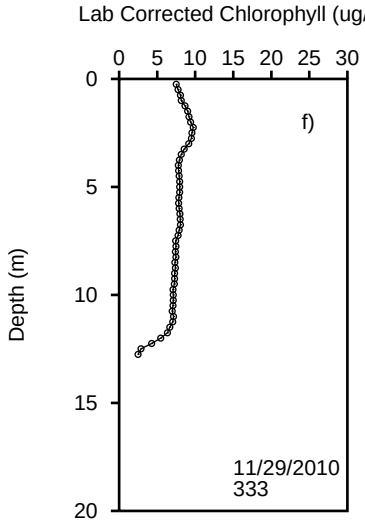




Wed Oct 12 08:02:25 2011

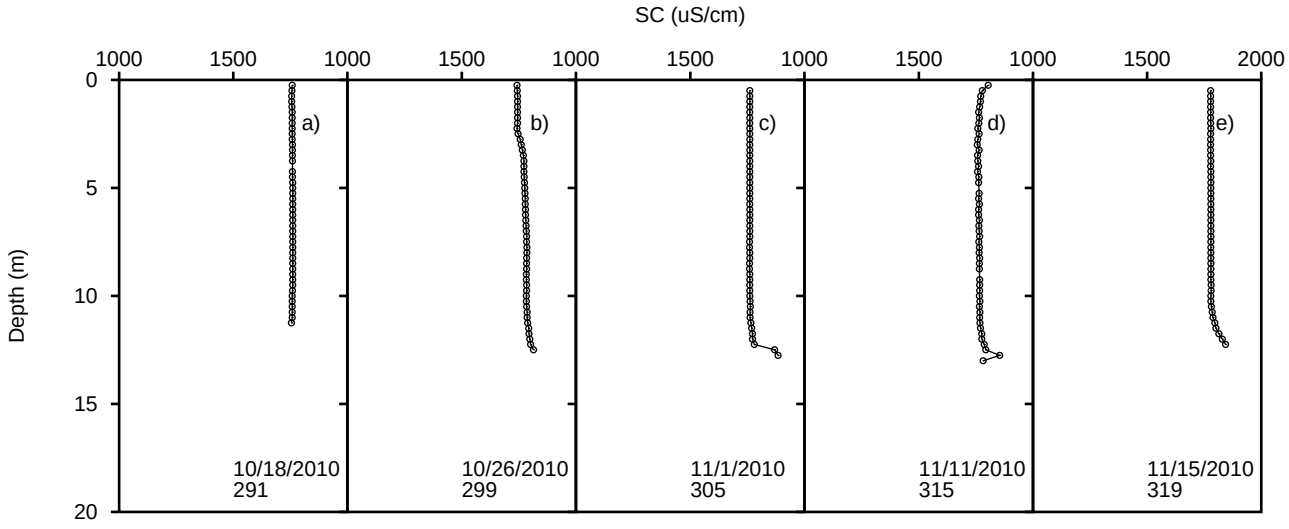
2010 Lab Corrected Chlorophyll Profiles for Onondaga Lake ISUS-46

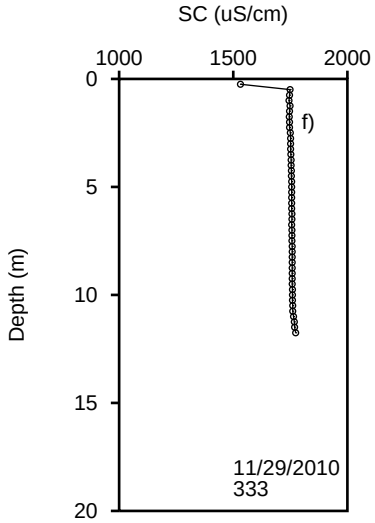




Wed Oct 12 08:04:30 2011

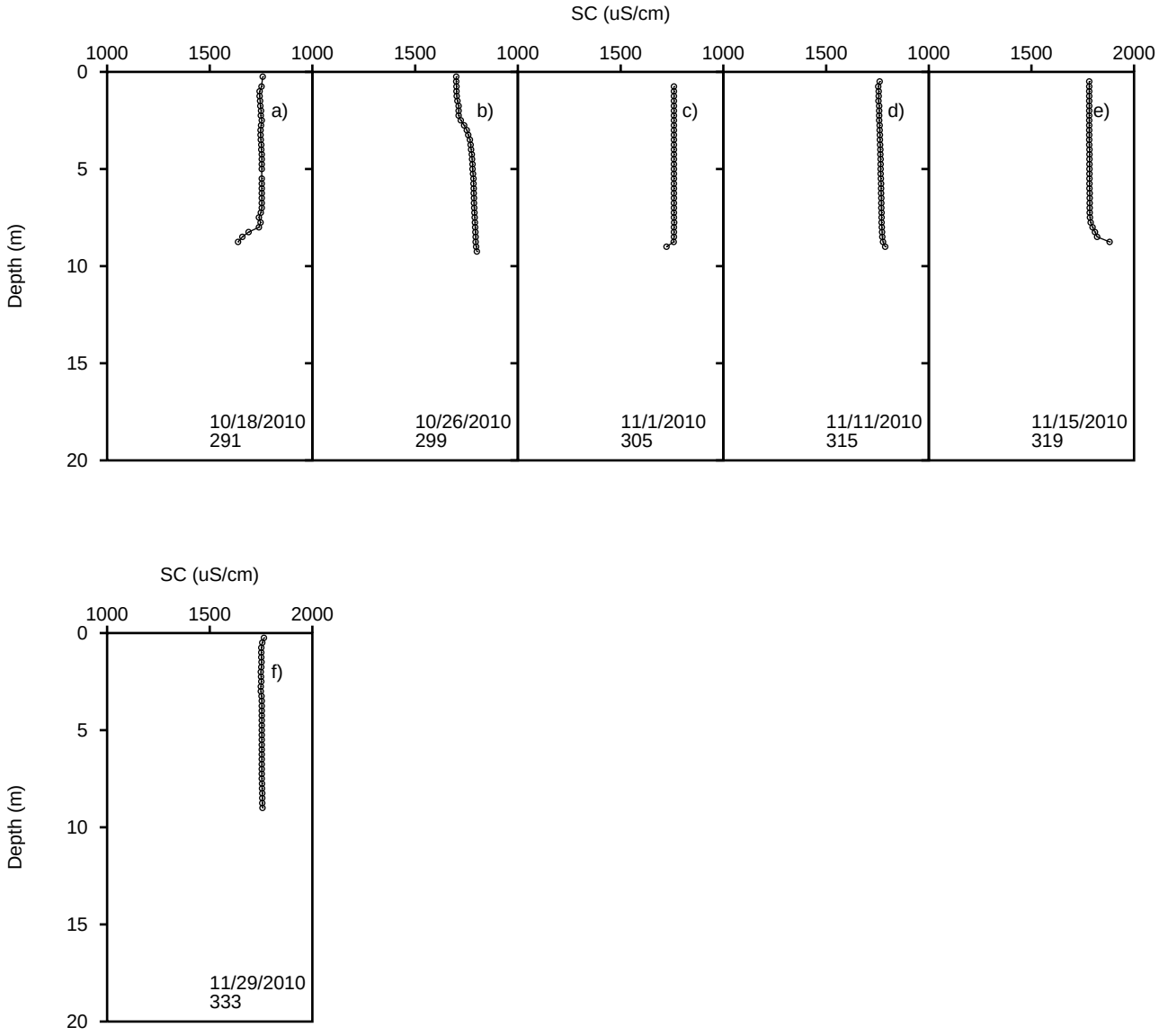
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-5





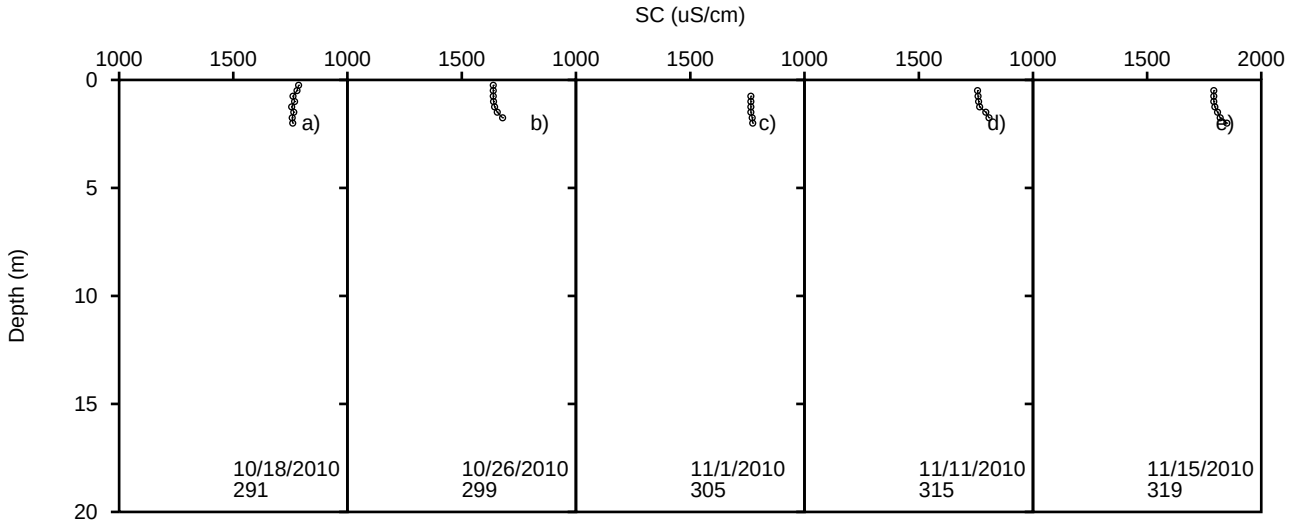
Wed Oct 12 08:08:08 2011

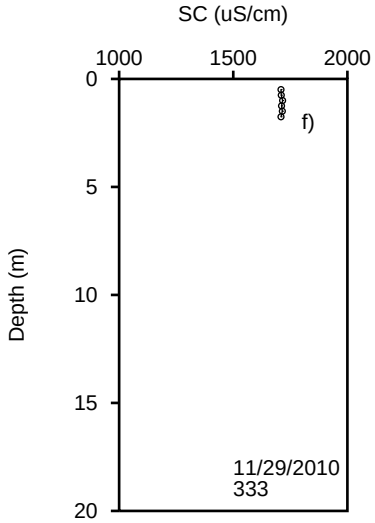
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-6



Wed Oct 12 08:09:30 2011

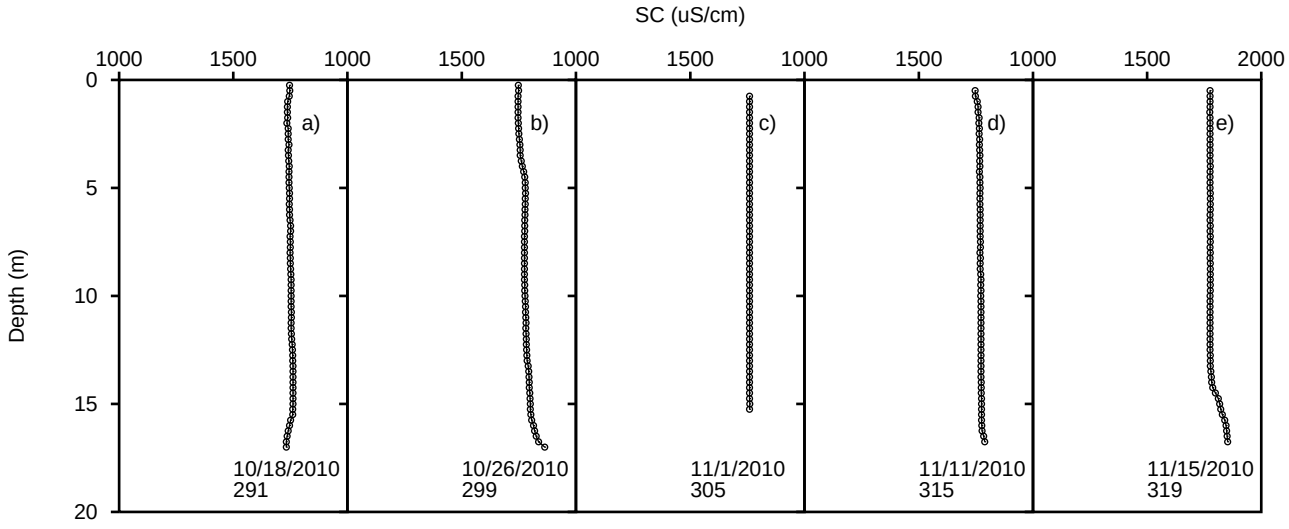
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-7

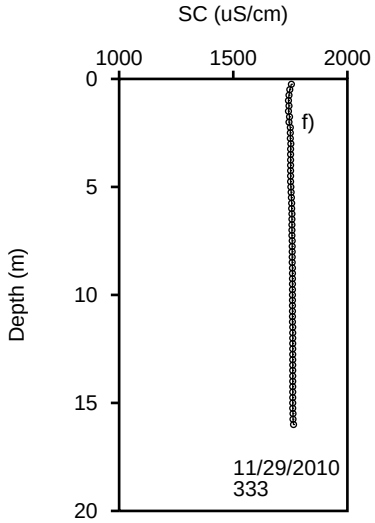




Wed Oct 12 08:11:22 2011

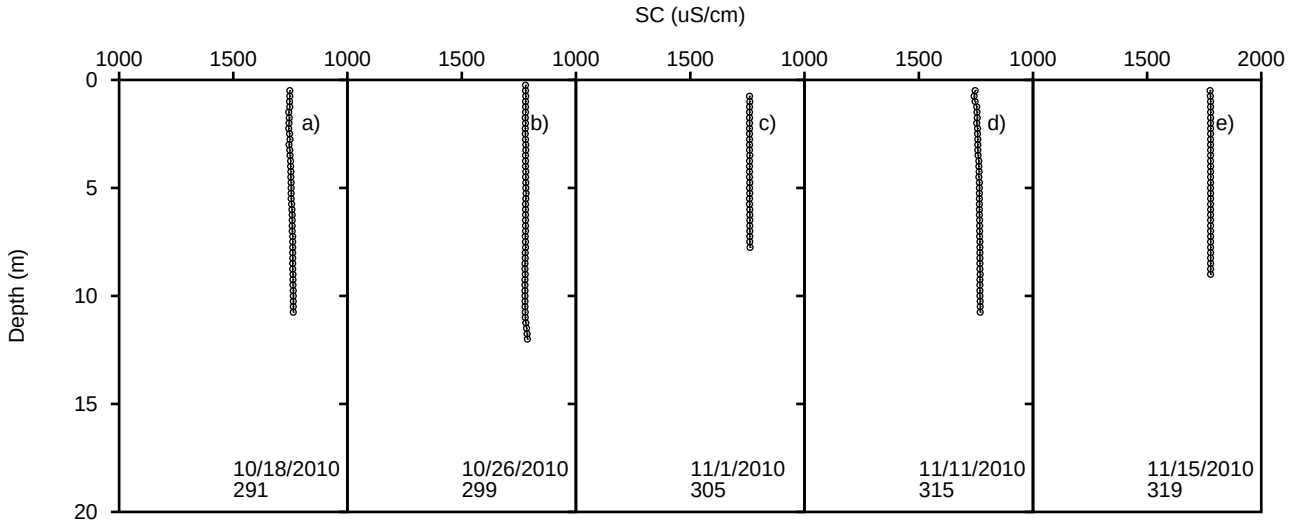
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-8

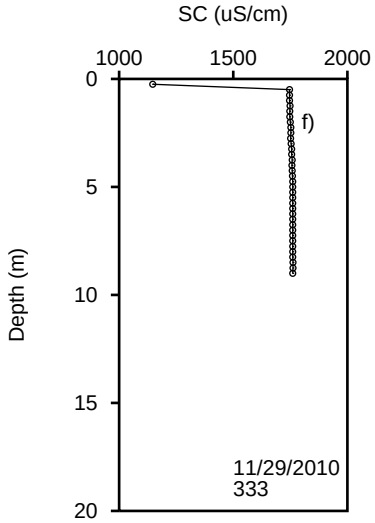




Wed Oct 12 08:14:21 2011

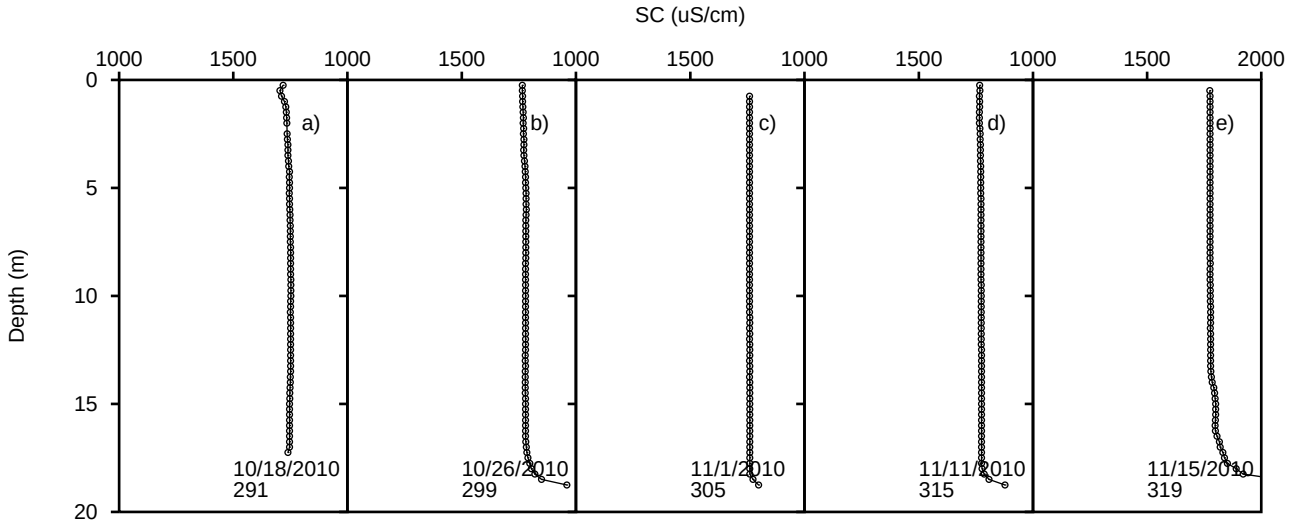
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-9

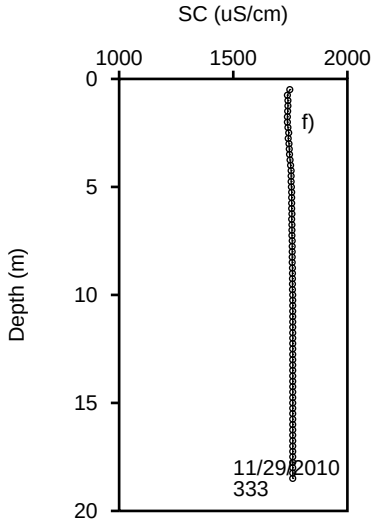




Wed Oct 12 08:15:13 2011

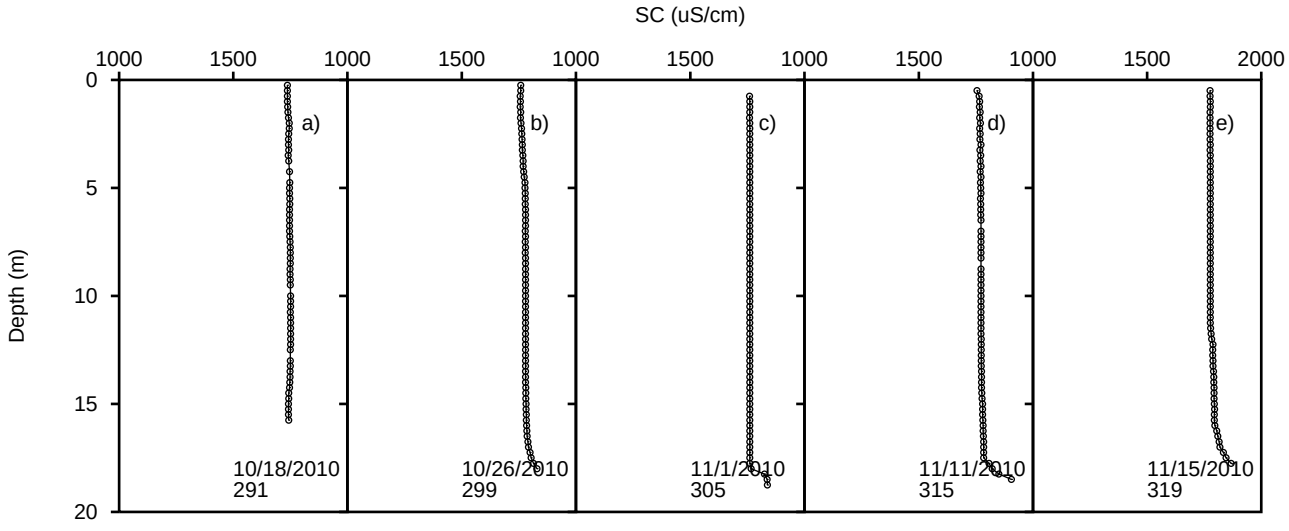
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-11

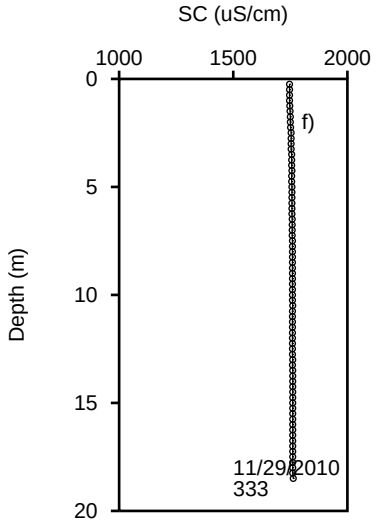




Wed Oct 12 08:18:01 2011

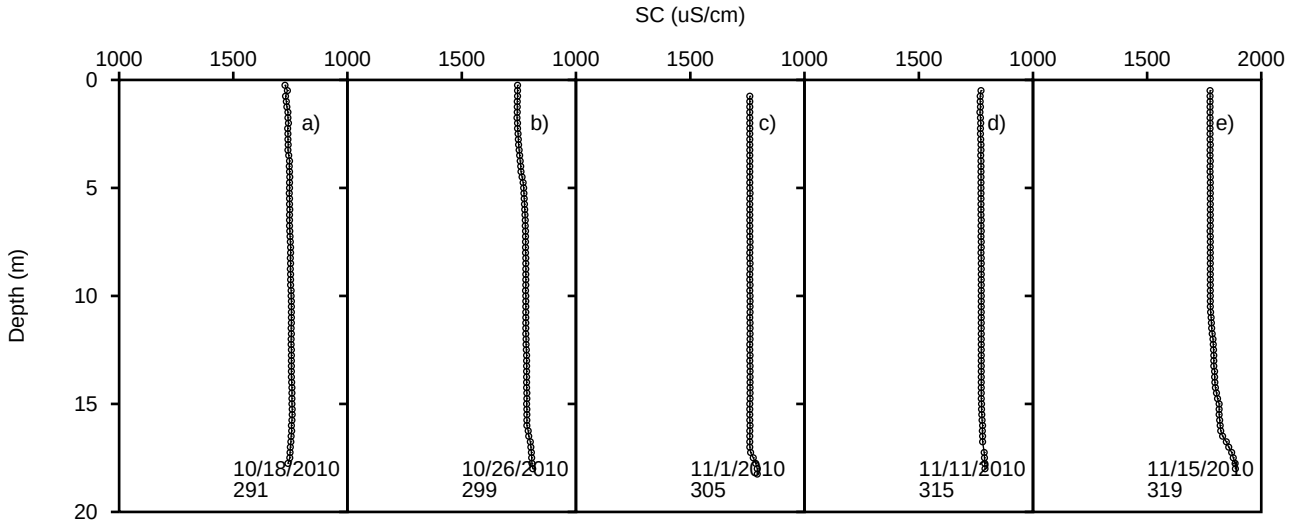
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-12

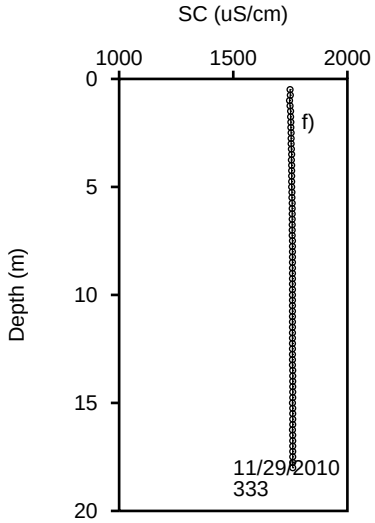




Wed Oct 12 08:20:47 2011

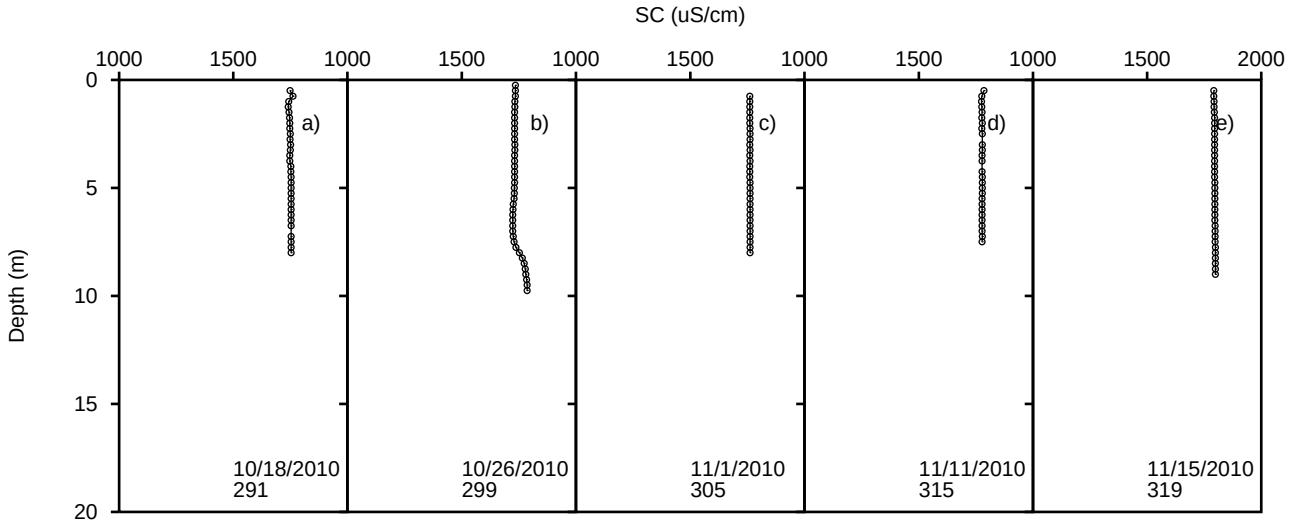
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-13

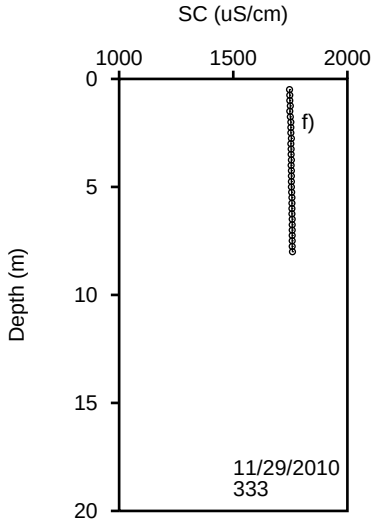




Wed Oct 12 08:22:48 2011

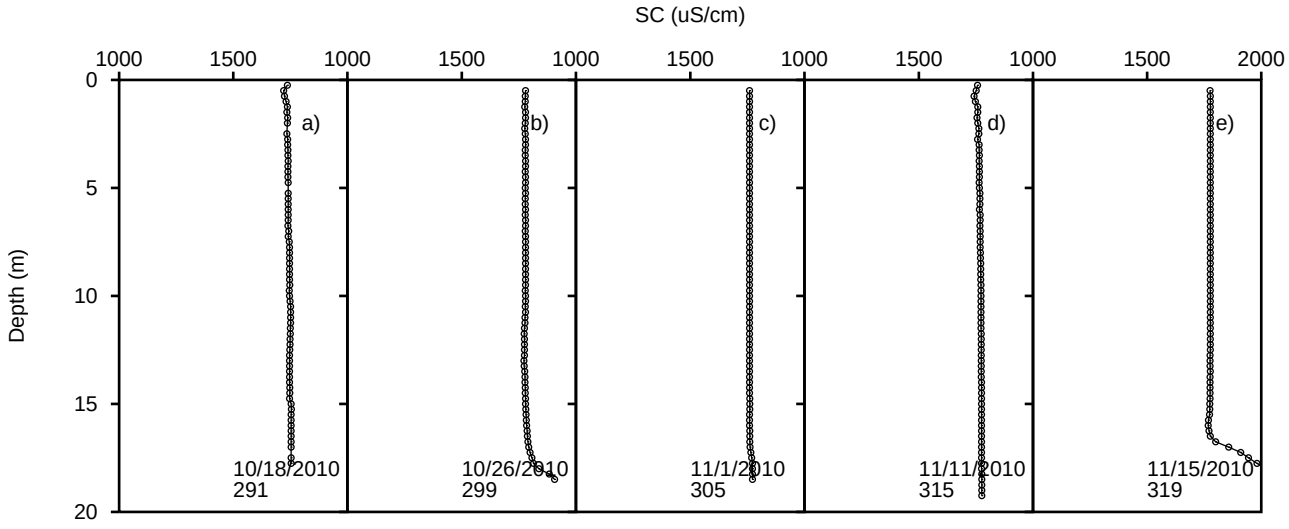
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-15

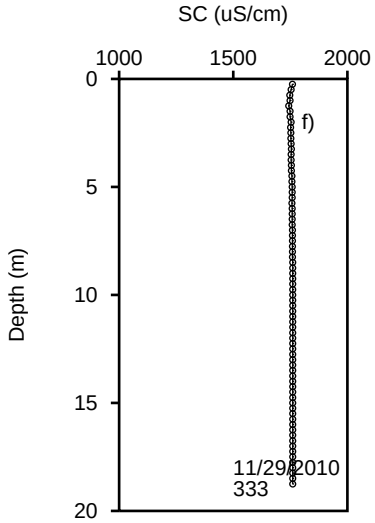




Wed Oct 12 08:26:13 2011

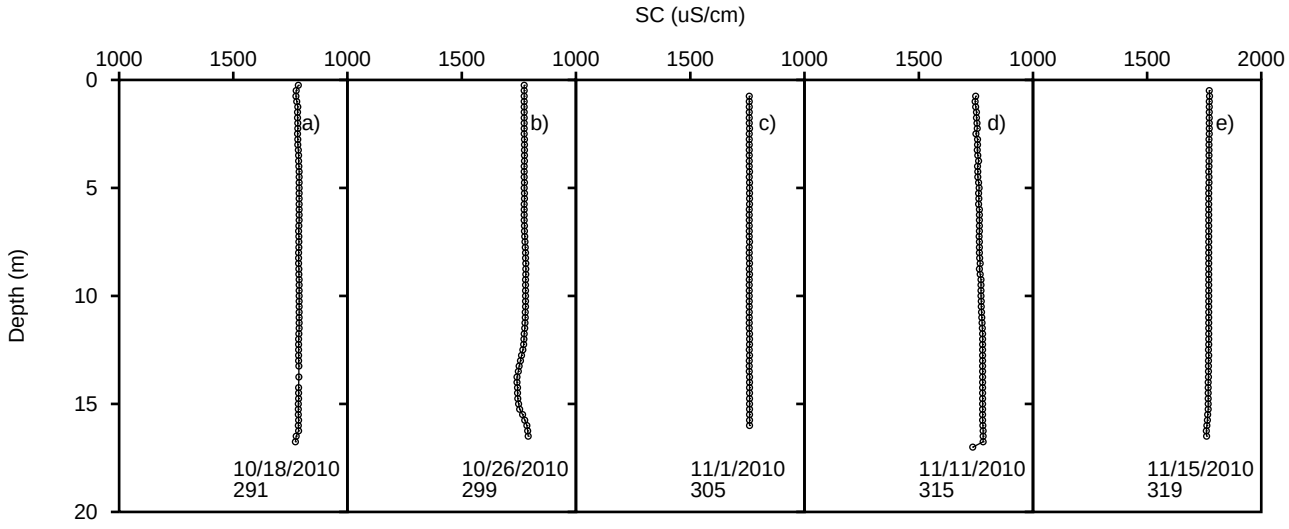
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-18

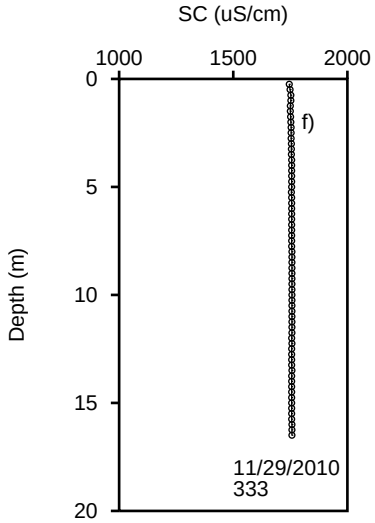




Wed Oct 12 08:29:08 2011

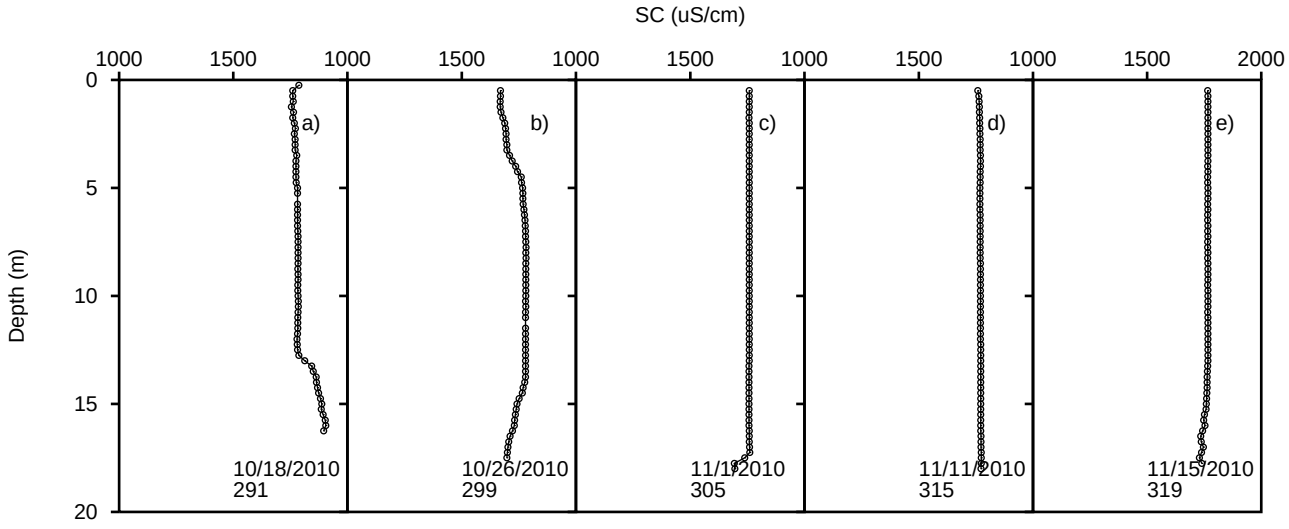
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-22

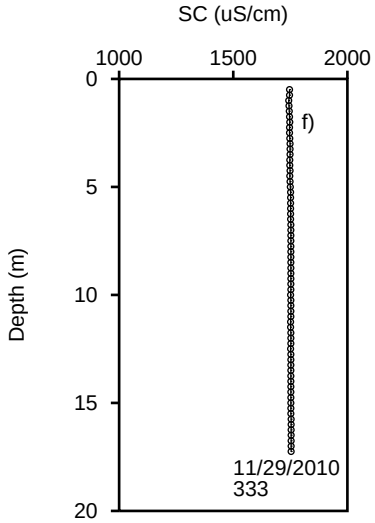




Wed Oct 12 08:33:16 2011

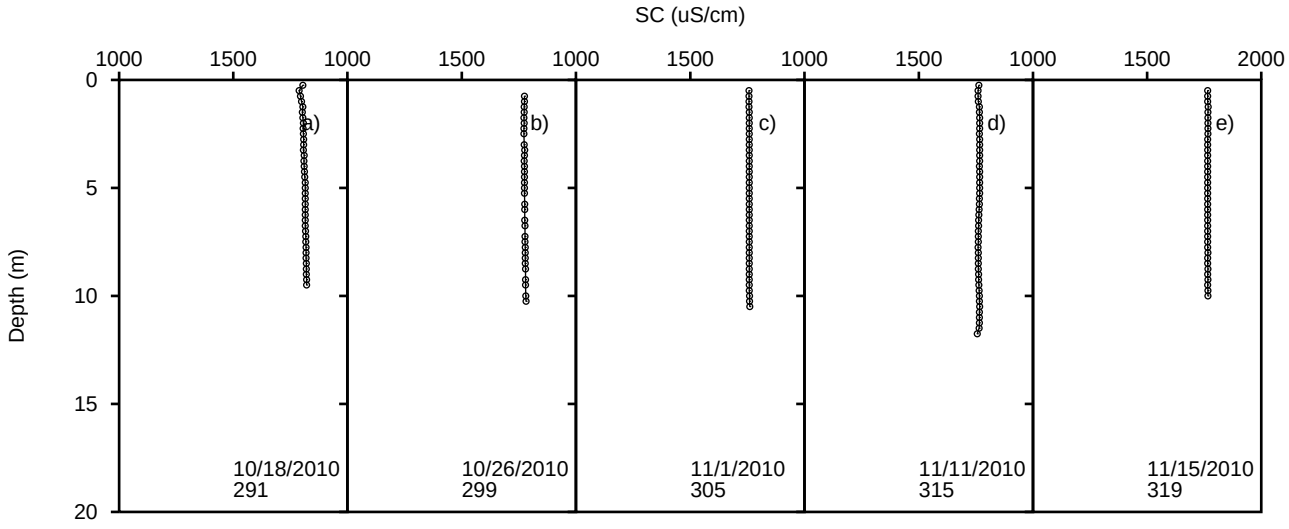
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-27

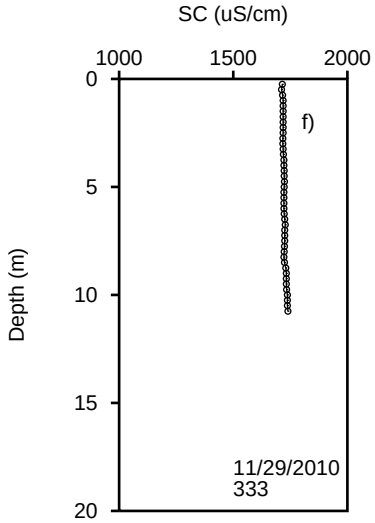




Wed Oct 12 08:35:36 2011

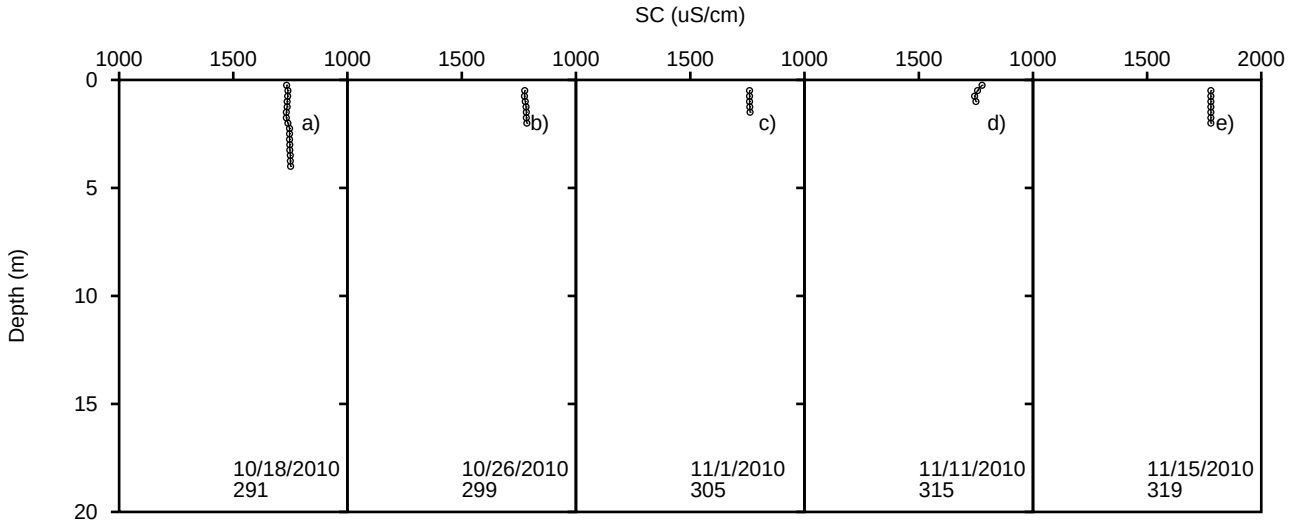
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-34

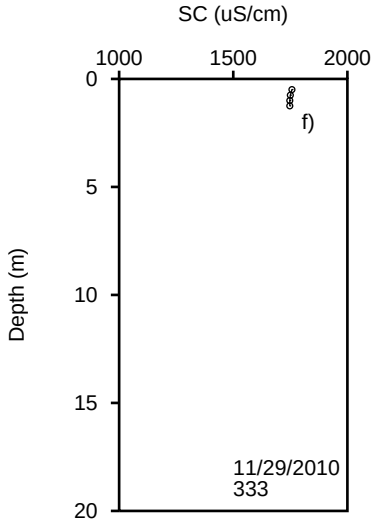




Wed Oct 12 08:36:10 2011

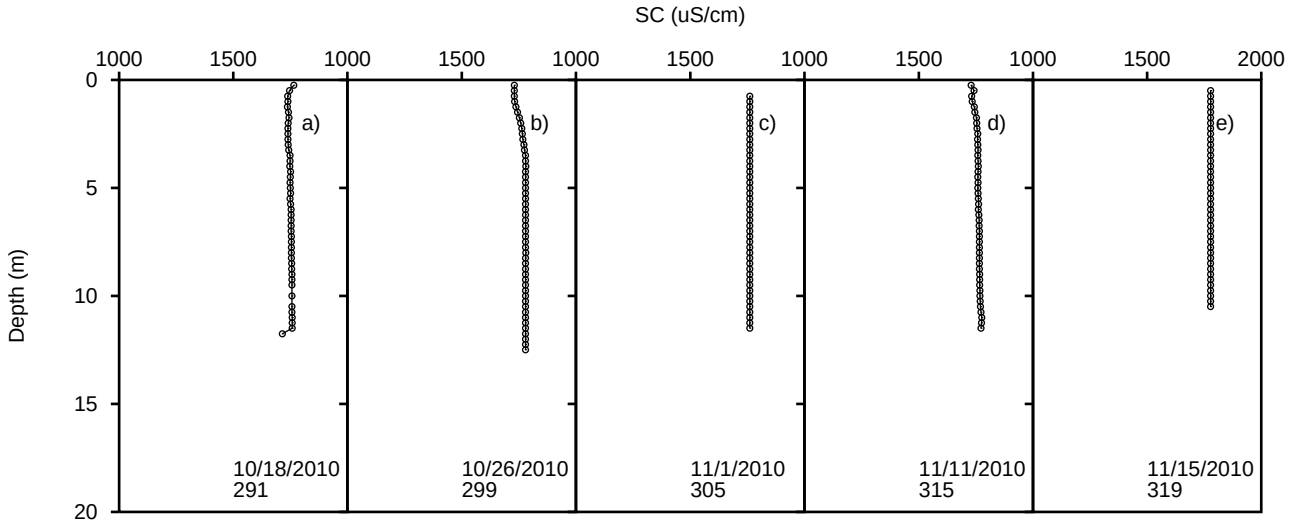
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-37

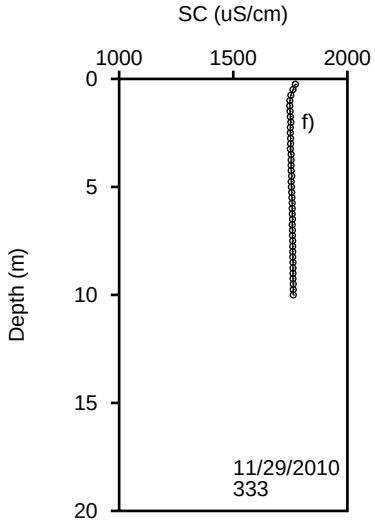




Tue Oct 11 15:57:41 2011

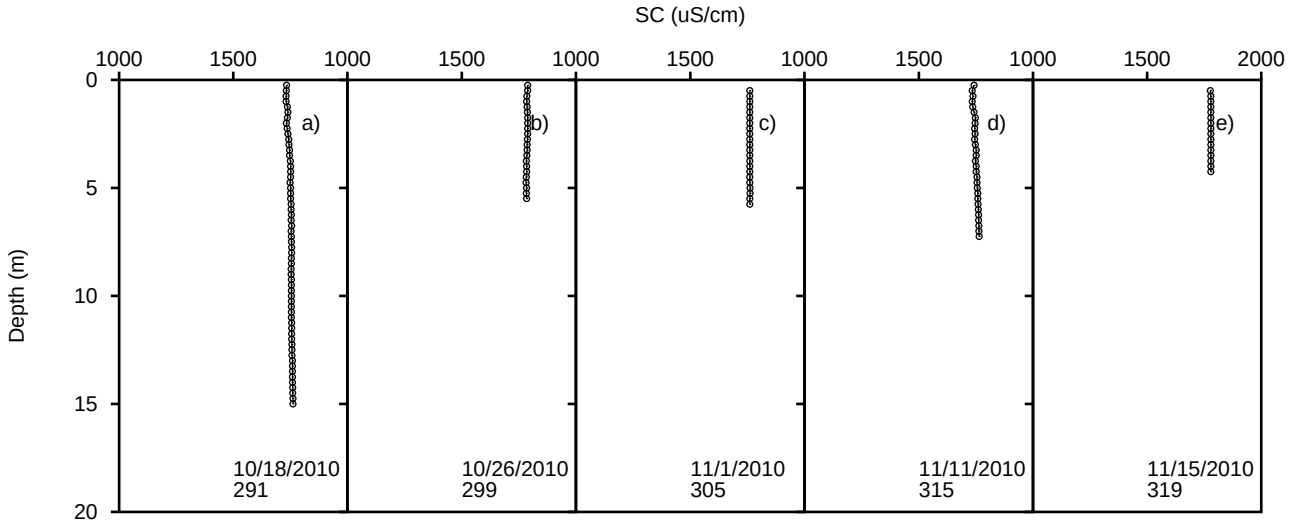
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-38

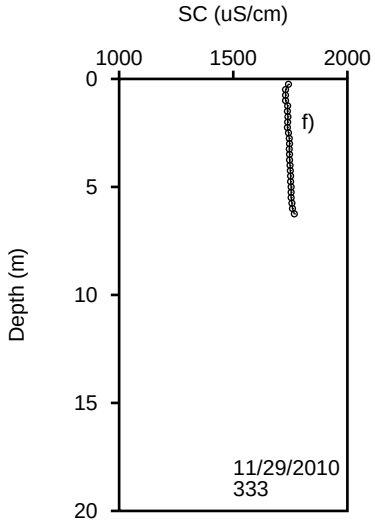




Tue Oct 11 15:59:02 2011

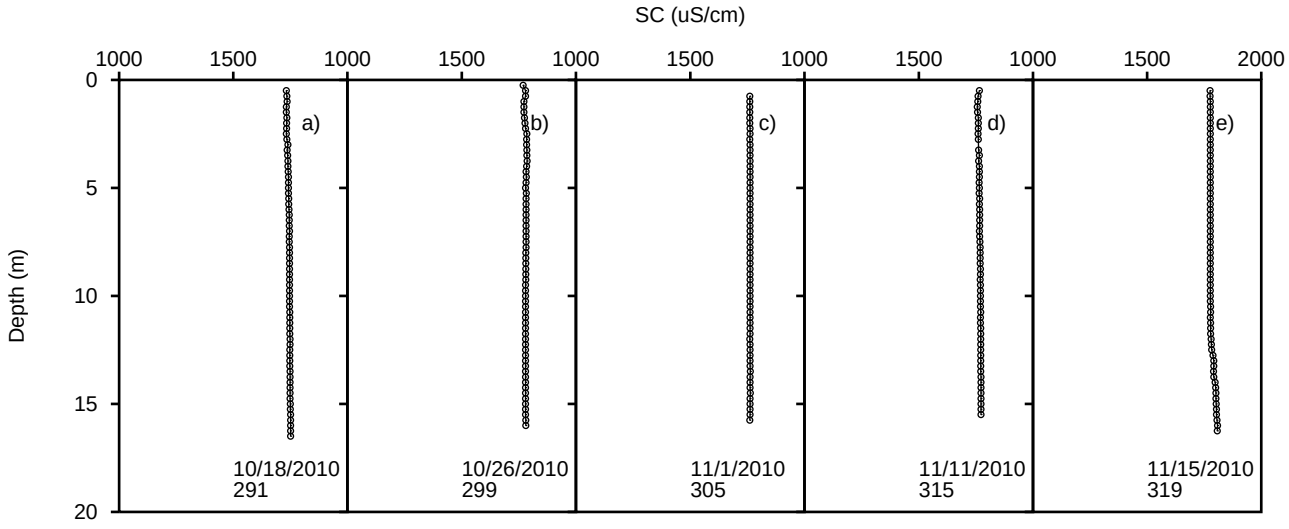
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-39

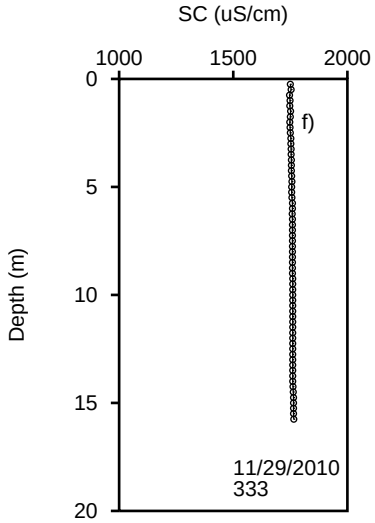




Tue Oct 11 16:00:38 2011

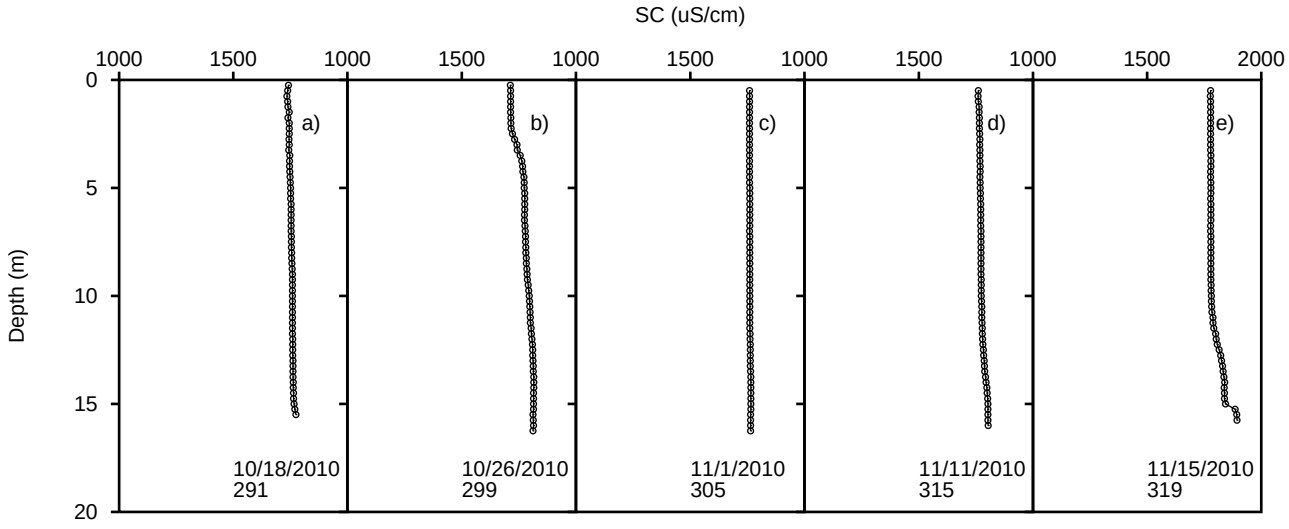
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-40

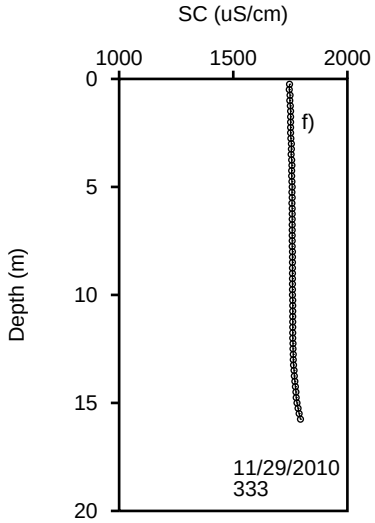




Tue Oct 11 16:01:30 2011

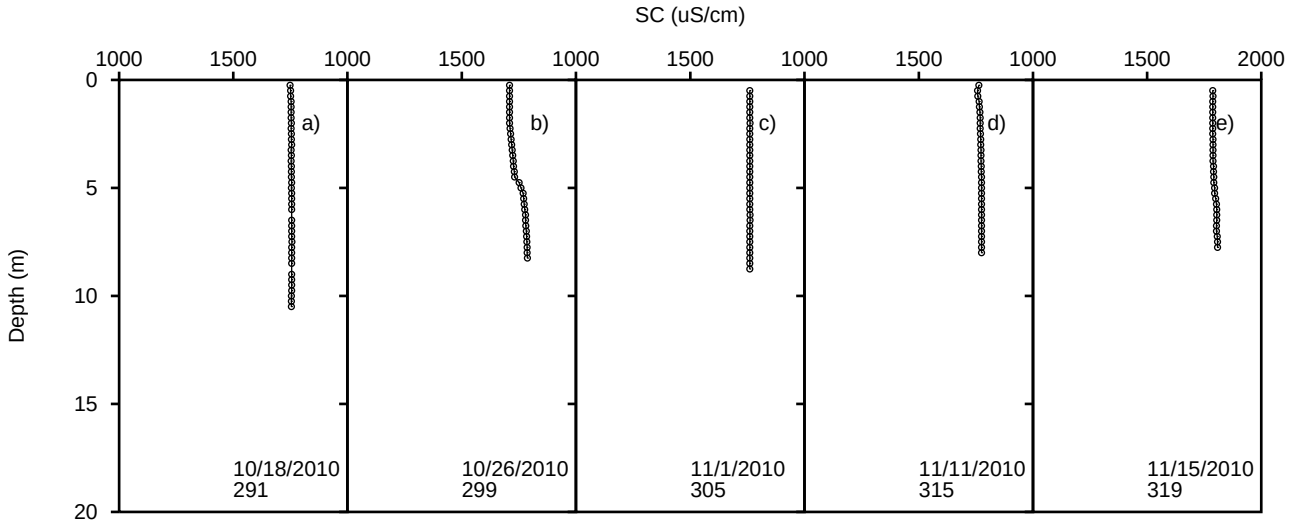
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-41

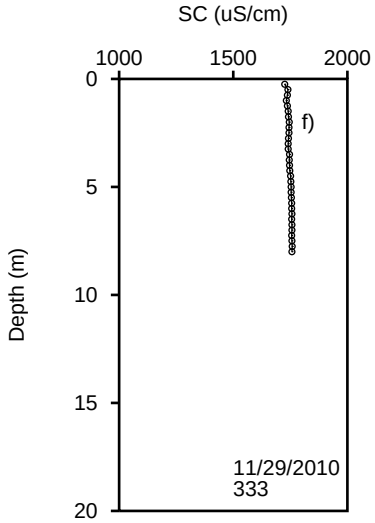




Tue Oct 11 16:02:22 2011

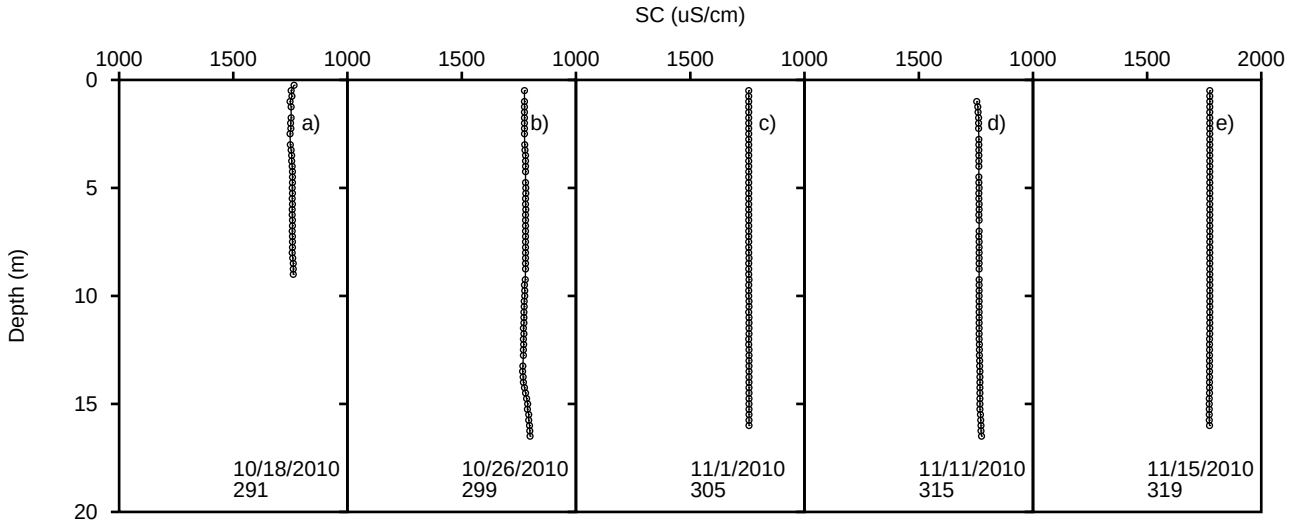
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-42

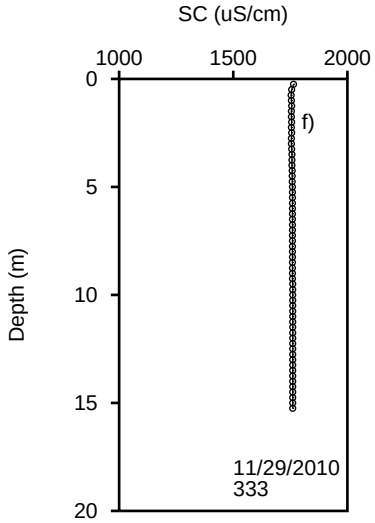




Wed Oct 12 07:58:19 2011

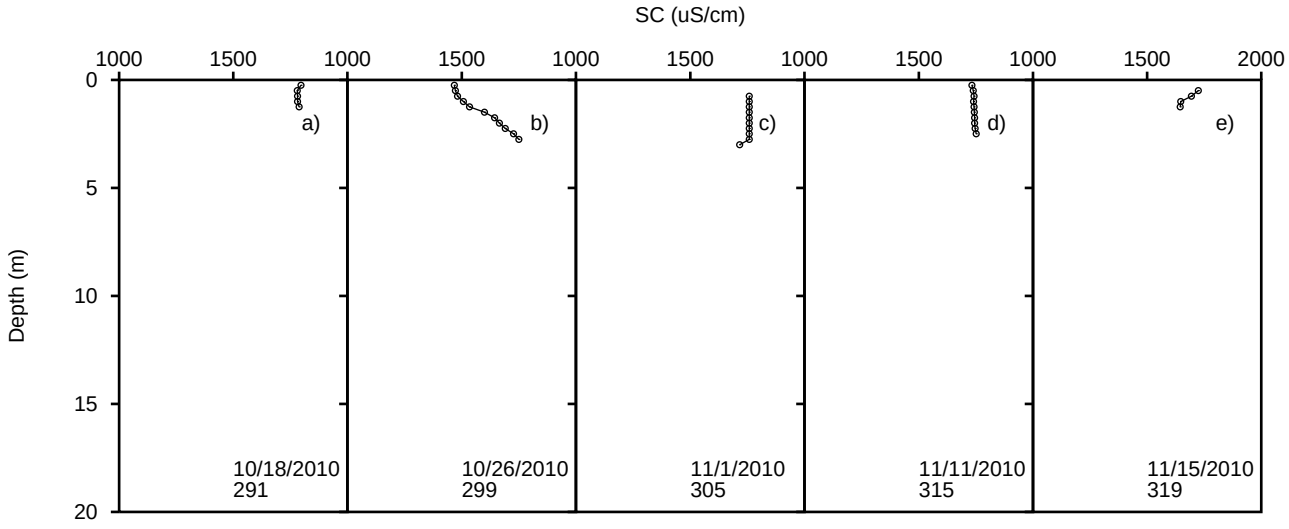
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-43

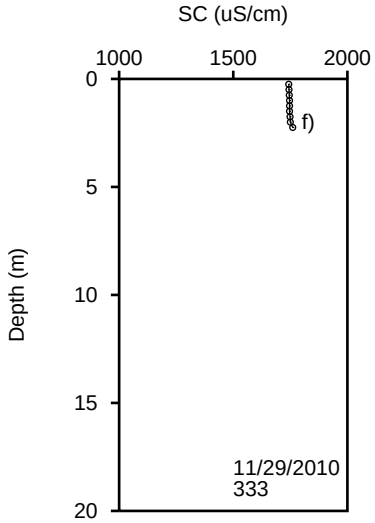




Wed Oct 12 07:59:53 2011

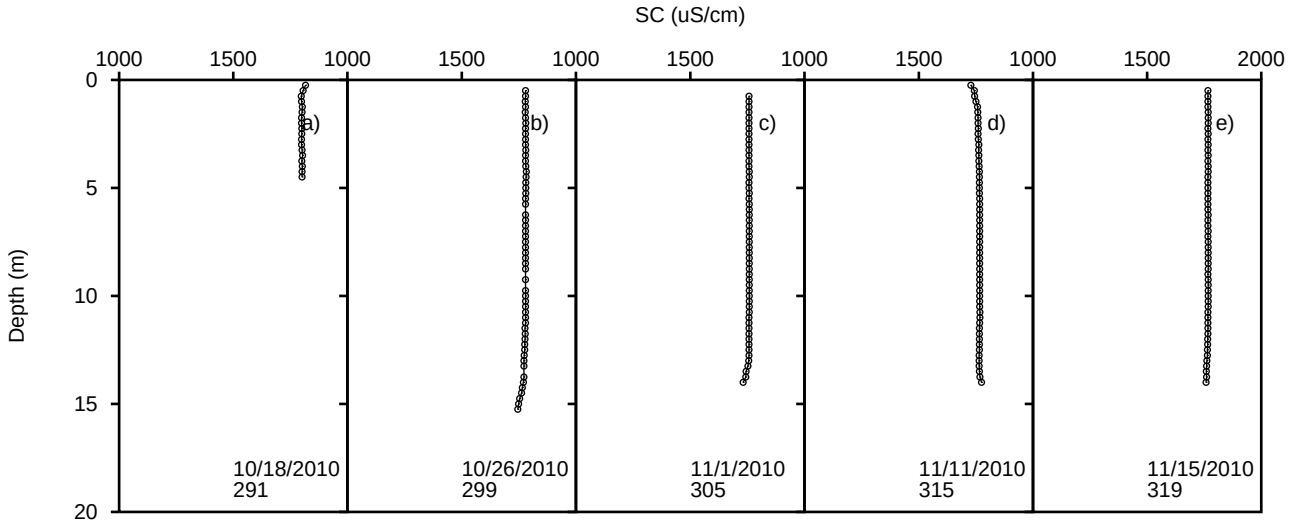
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-44

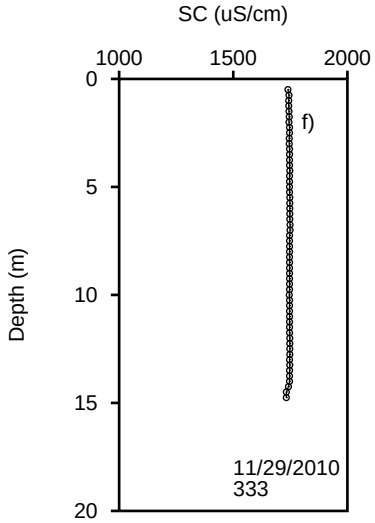




Wed Oct 12 08:01:39 2011

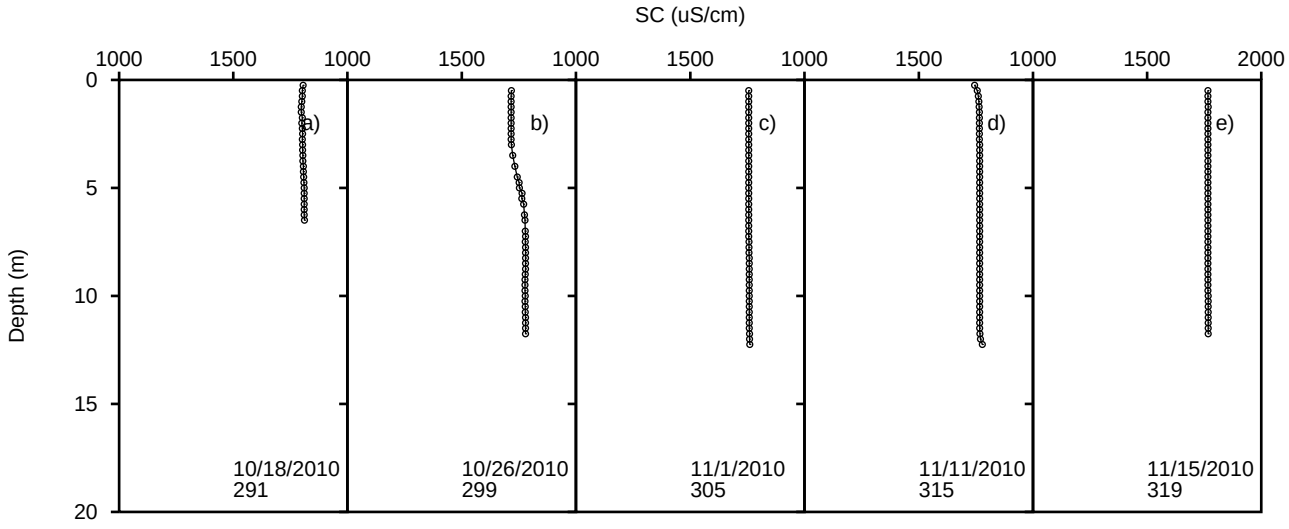
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-45

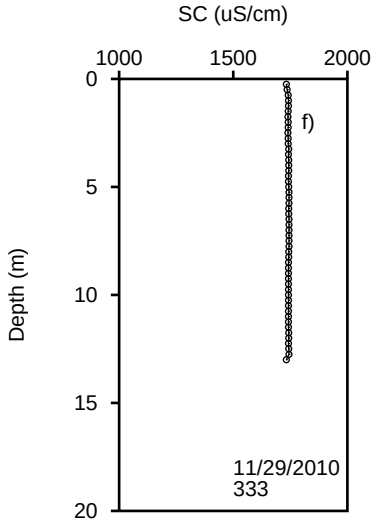




Wed Oct 12 08:02:21 2011

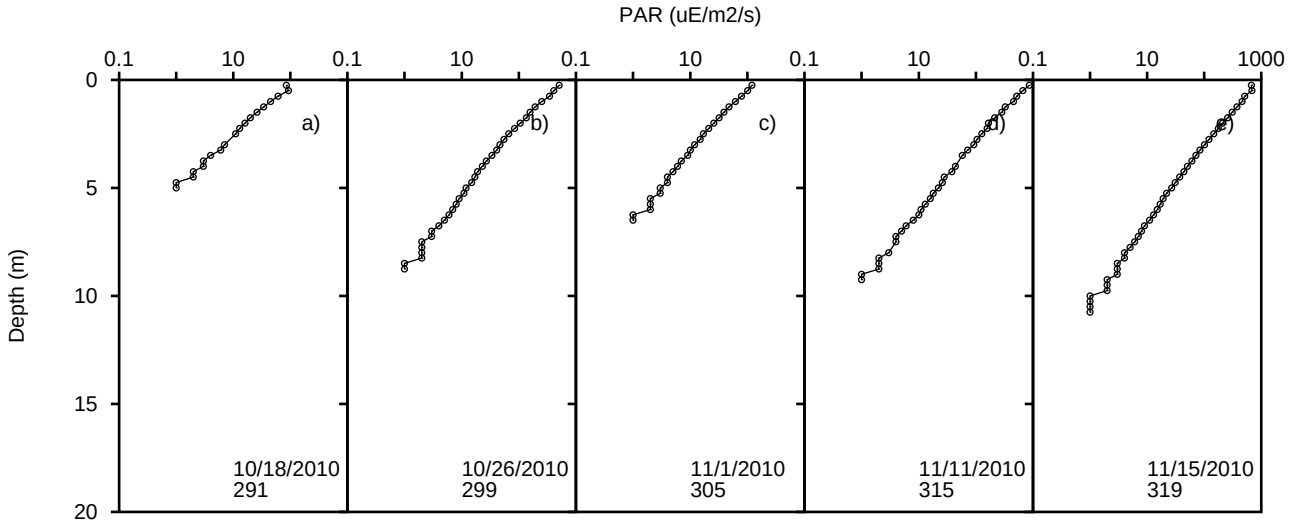
2010 Specific Conductivity Profiles for Onondaga Lake ISUS-46

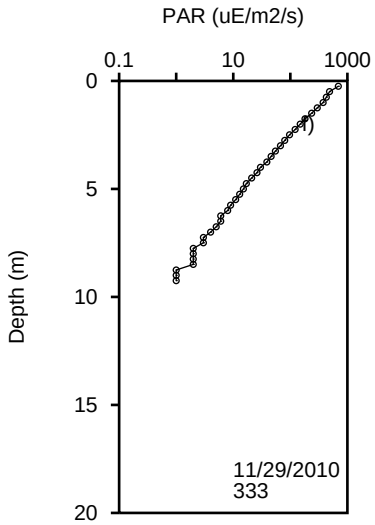




Wed Oct 12 08:04:26 2011

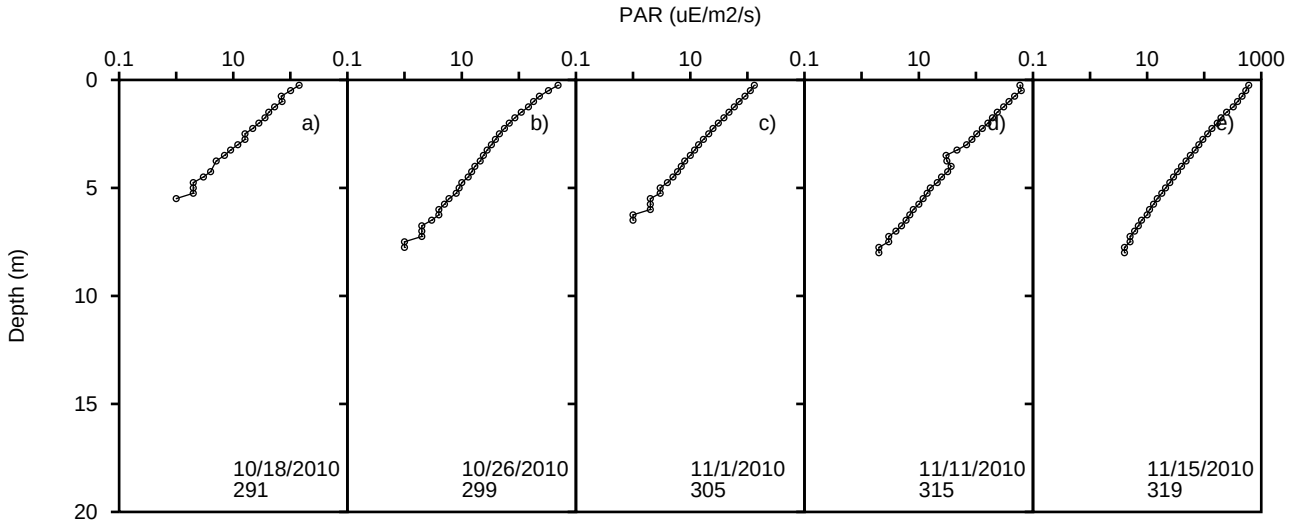
2010 PAR Profiles for Onondaga Lake ISUS-5

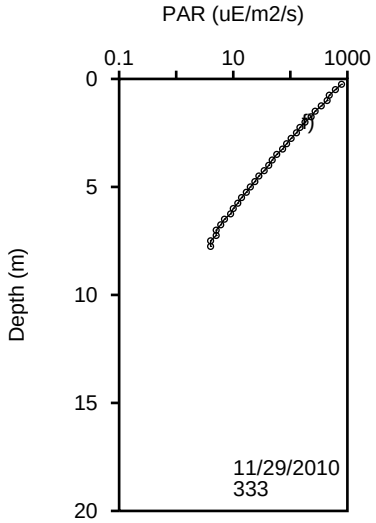




Wed Oct 12 08:08:16 2011

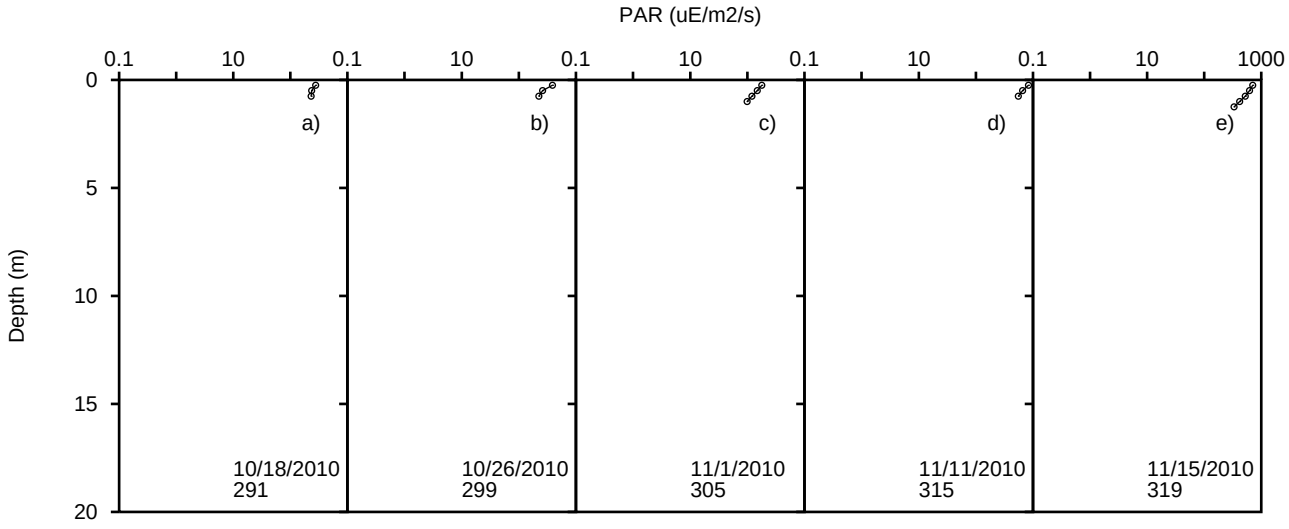
2010 PAR Profiles for Onondaga Lake ISUS-6

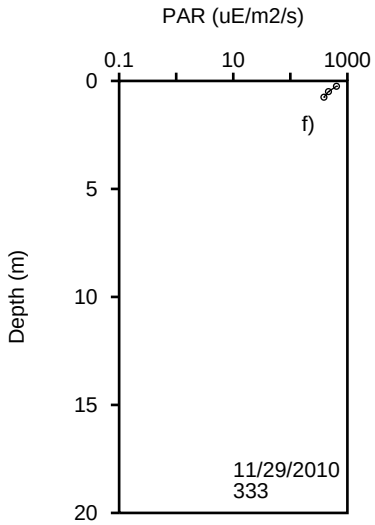




Wed Oct 12 08:09:37 2011

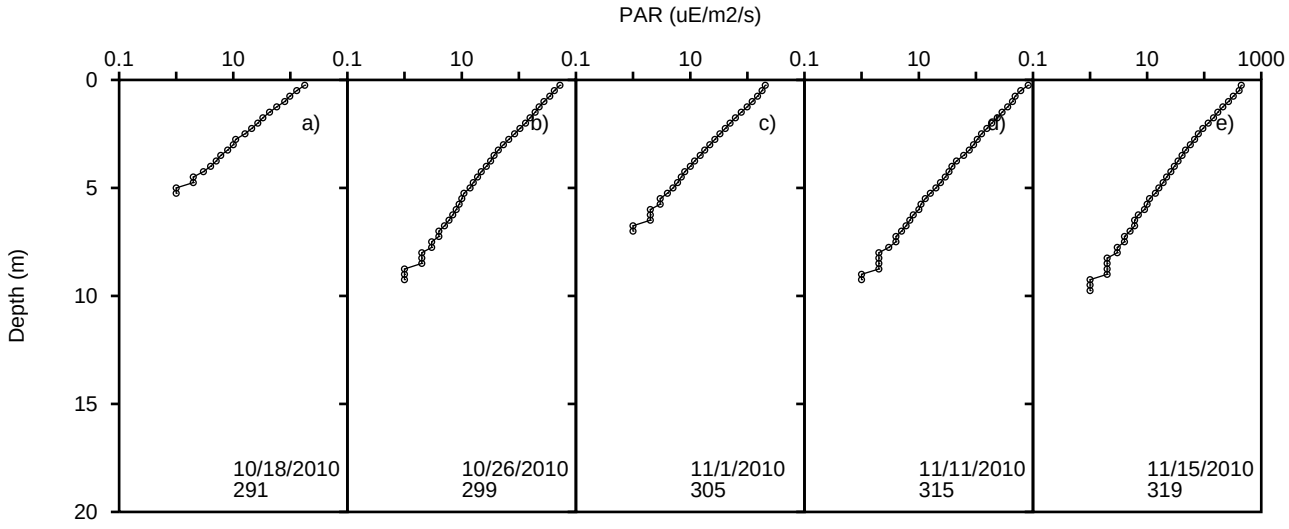
2010 PAR Profiles for Onondaga Lake ISUS-7

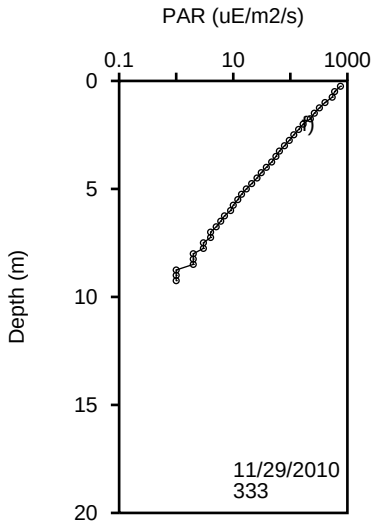




Wed Oct 12 08:11:28 2011

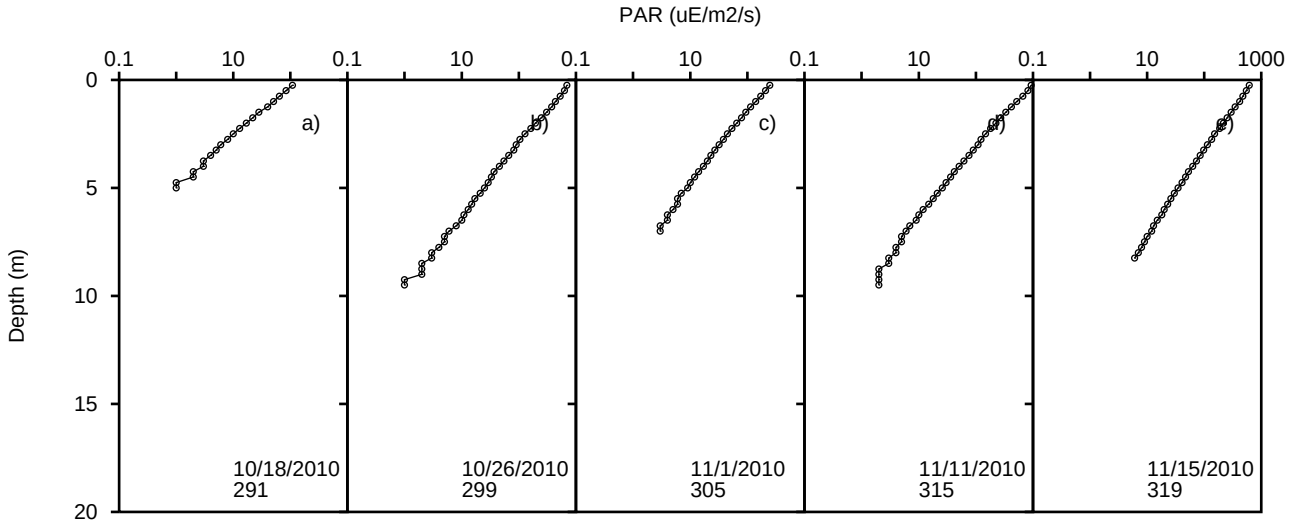
2010 PAR Profiles for Onondaga Lake ISUS-8

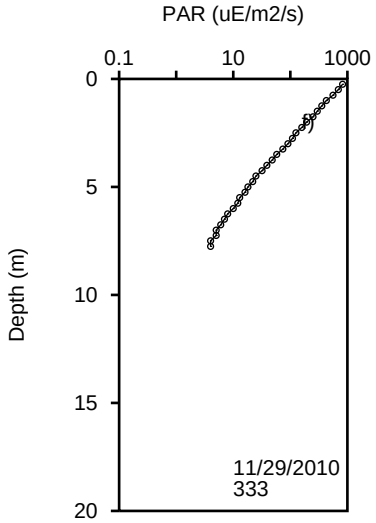




Wed Oct 12 08:14:27 2011

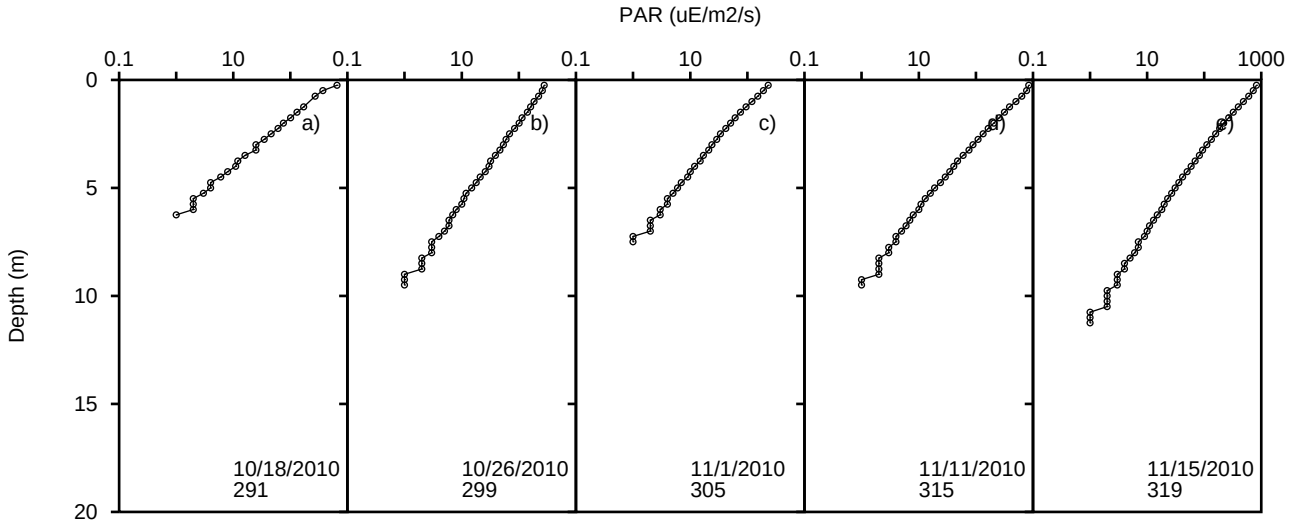
2010 PAR Profiles for Onondaga Lake ISUS-9

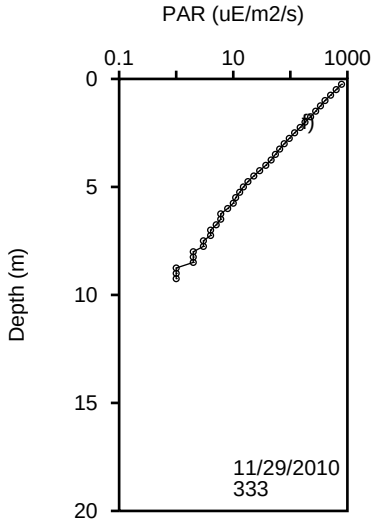




Wed Oct 12 08:15:21 2011

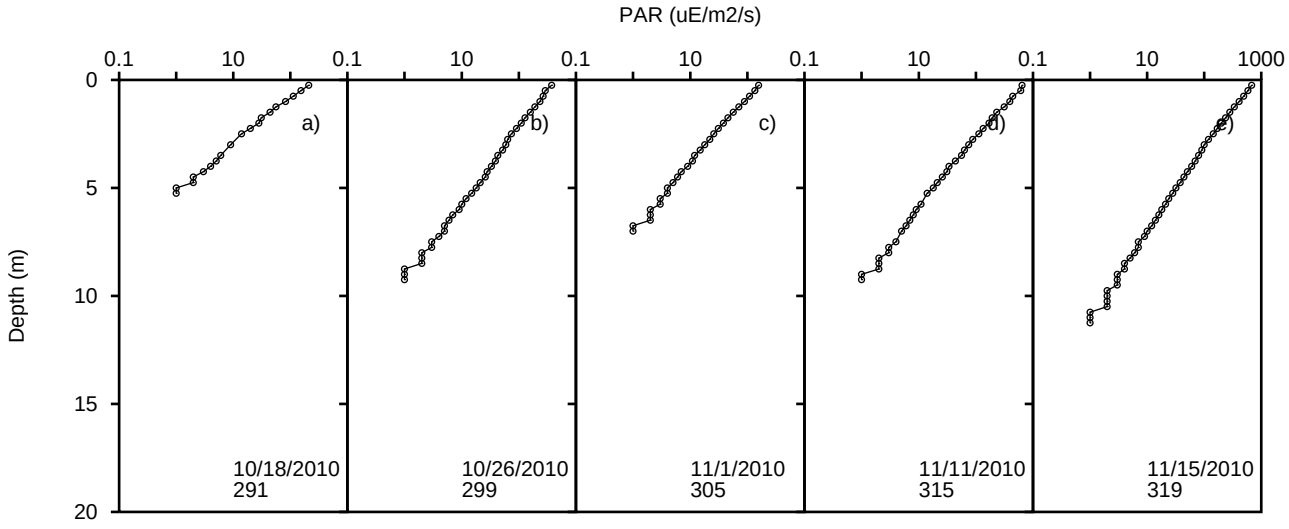
2010 PAR Profiles for Onondaga Lake ISUS-11

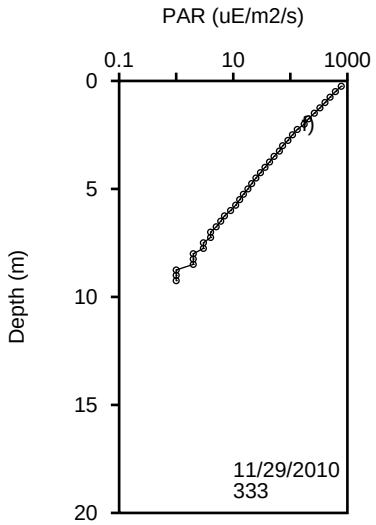




Wed Oct 12 08:18:07 2011

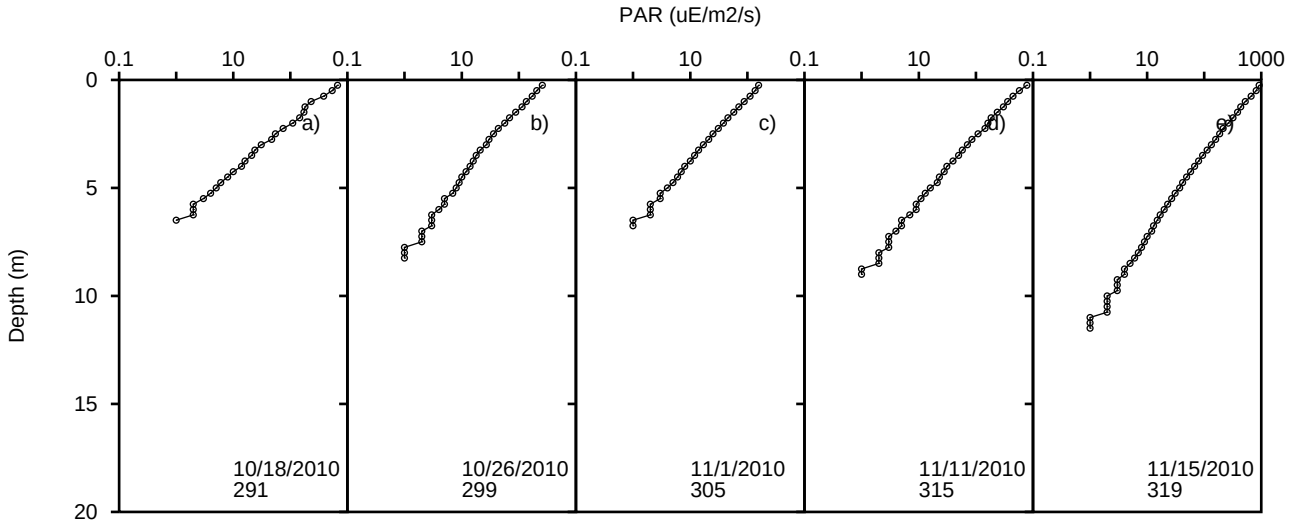
2010 PAR Profiles for Onondaga Lake ISUS-12

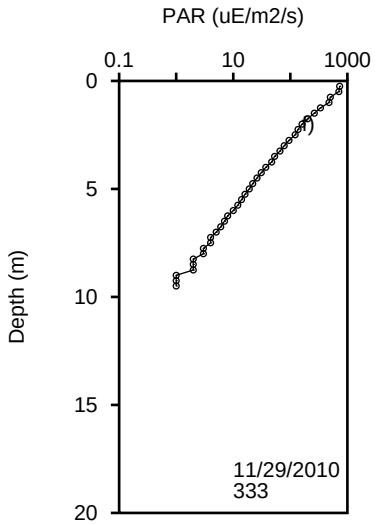




Wed Oct 12 08:20:54 2011

2010 PAR Profiles for Onondaga Lake ISUS-13





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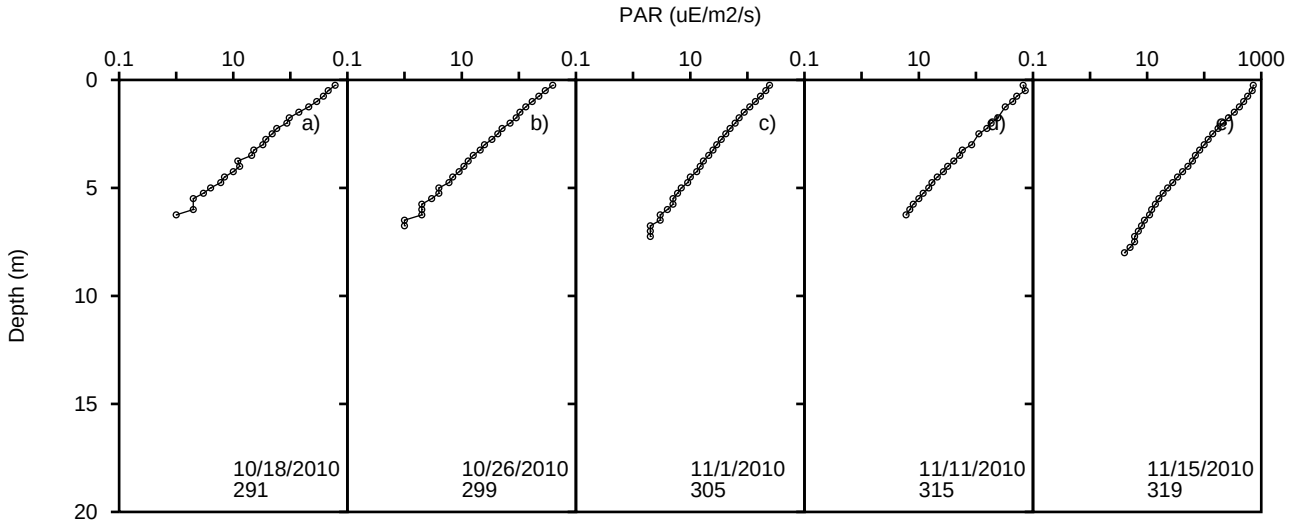
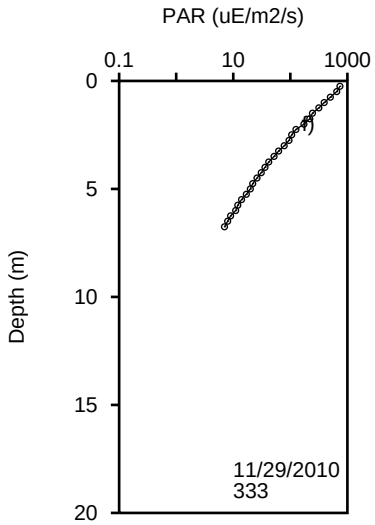
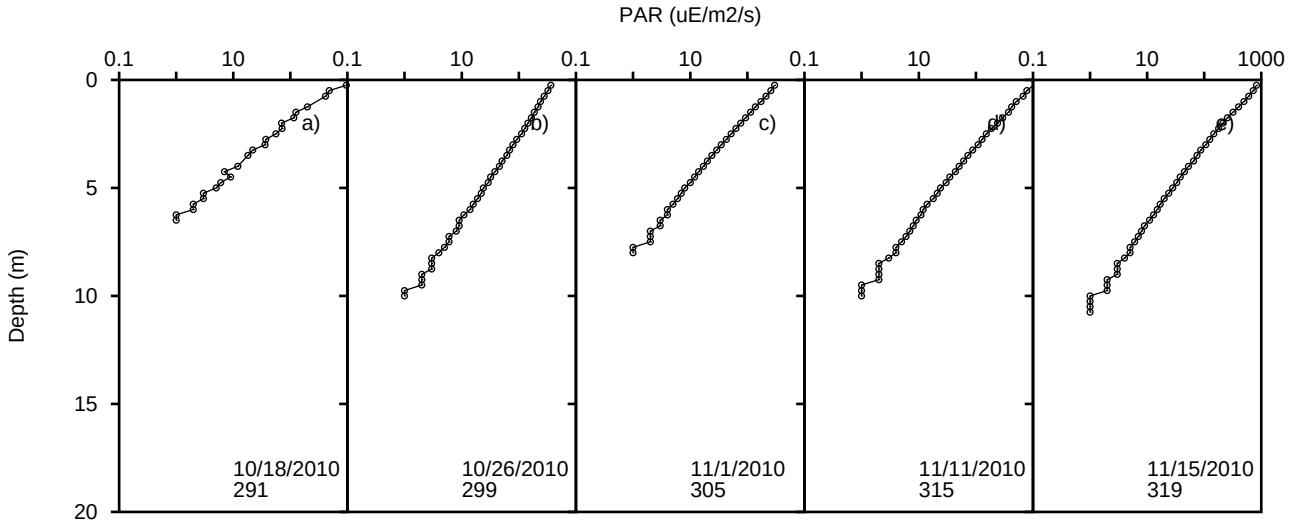
2010 PAR Profiles for Onondaga Lake ISUS-15

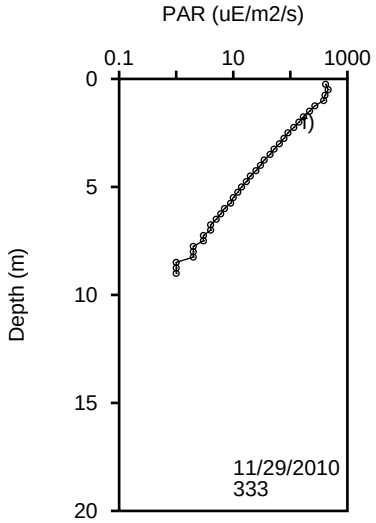




Wed Oct 12 08:26:22 2011

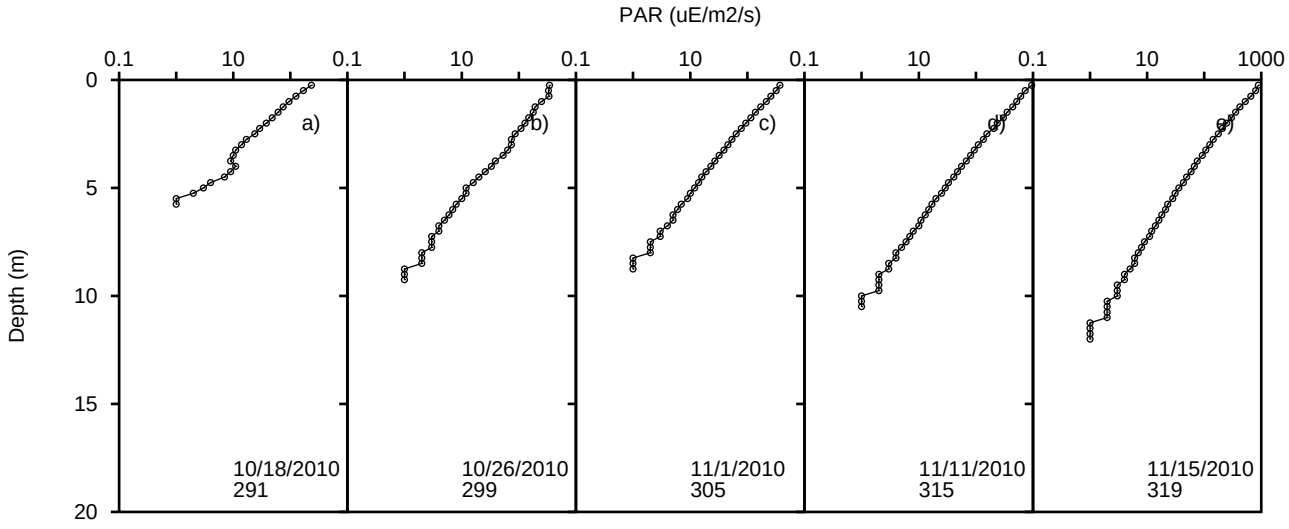
2010 PAR Profiles for Onondaga Lake ISUS-18

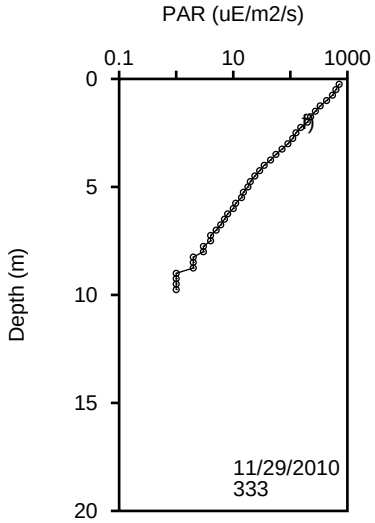




Wed Oct 12 08:29:15 2011

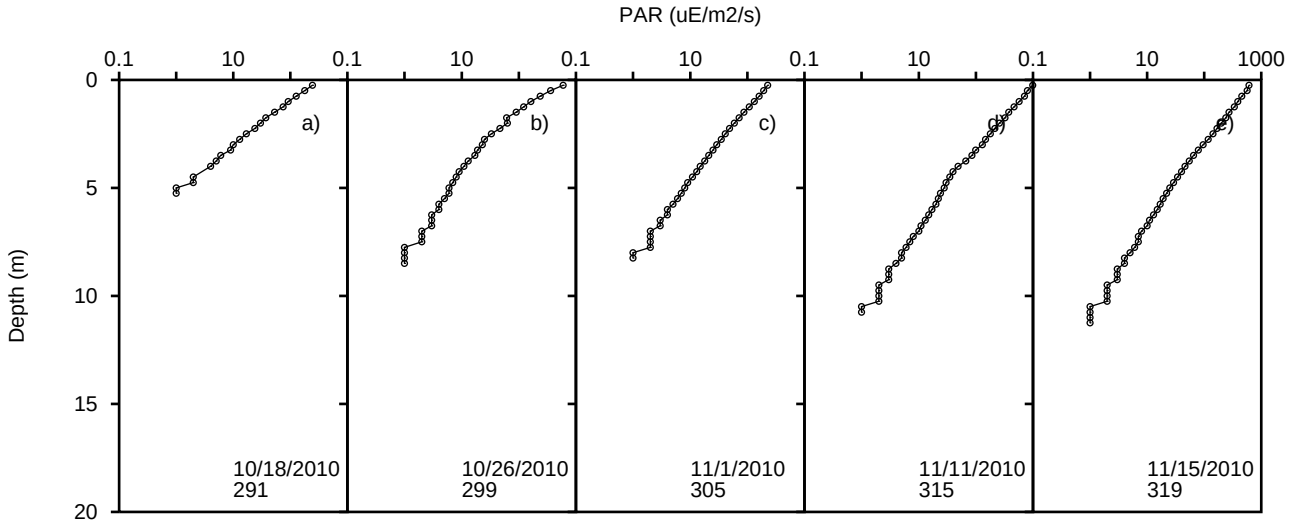
2010 PAR Profiles for Onondaga Lake ISUS-22

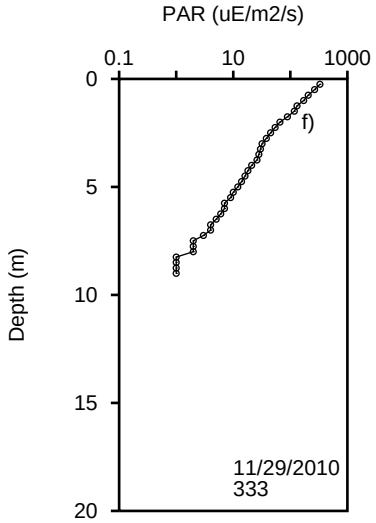




Wed Oct 12 08:33:24 2011

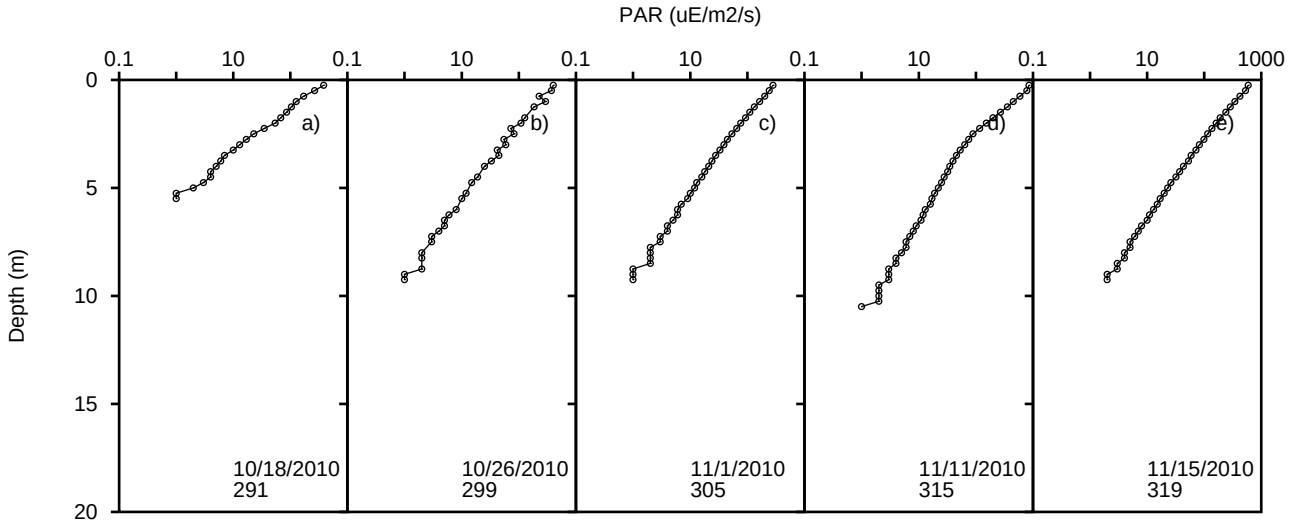
2010 PAR Profiles for Onondaga Lake ISUS-27

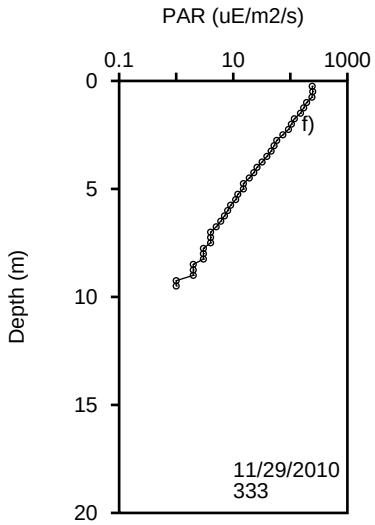




Wed Oct 12 08:35:45 2011

2010 PAR Profiles for Onondaga Lake ISUS-34





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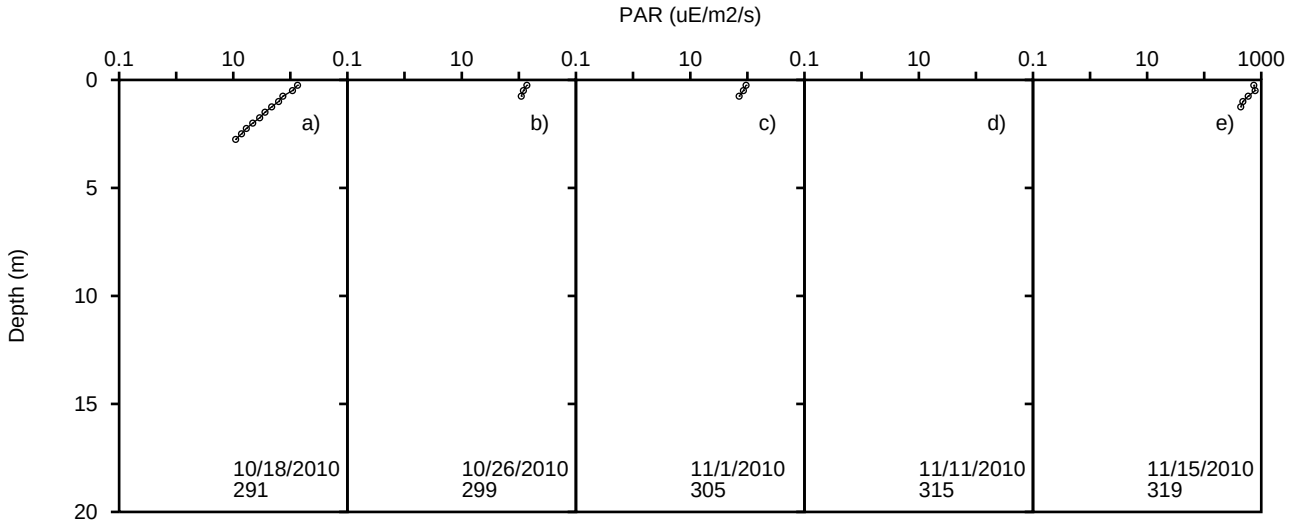
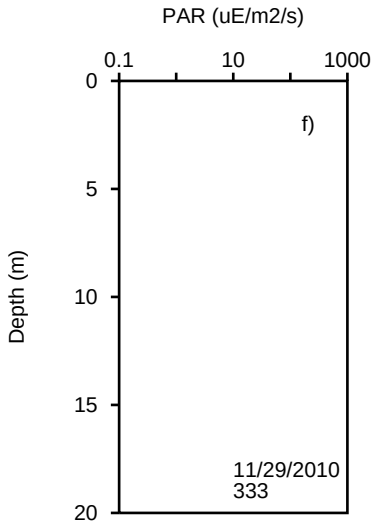
2010 PAR Profiles for Onondaga Lake ISUS-37





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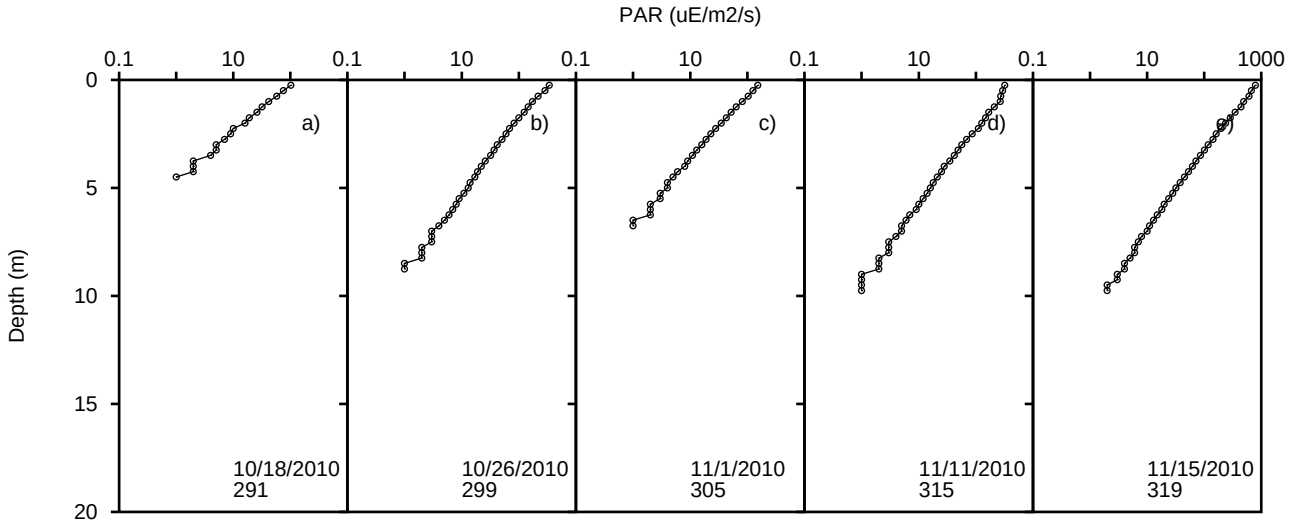
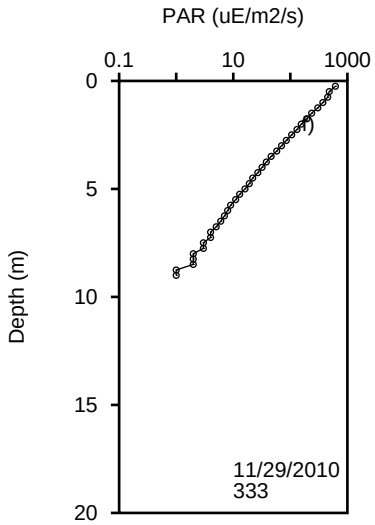
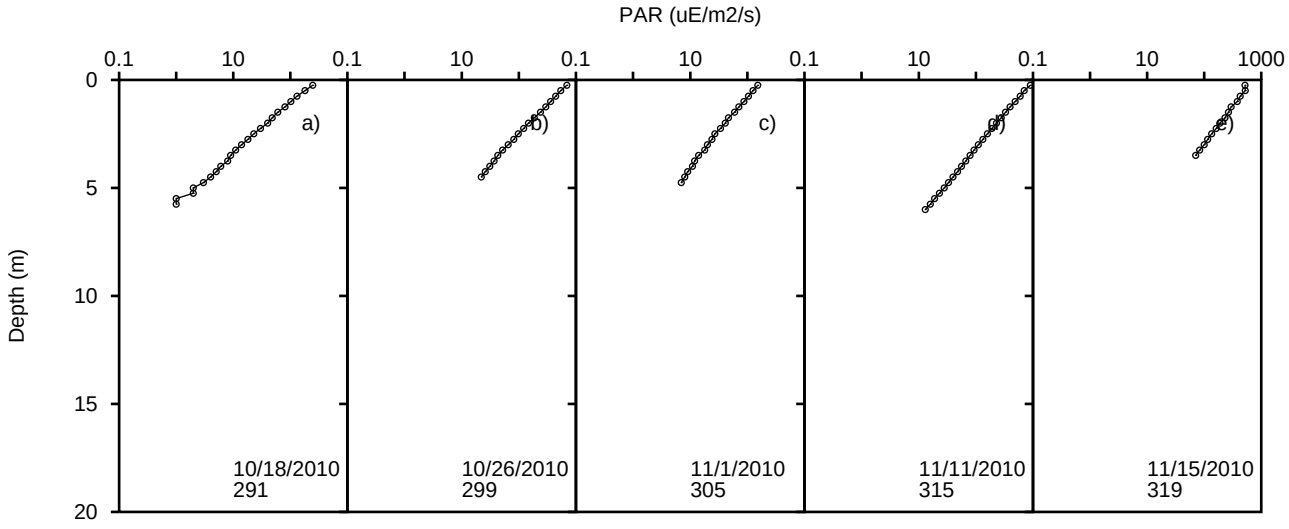
2010 PAR Profiles for Onondaga Lake ISUS-38

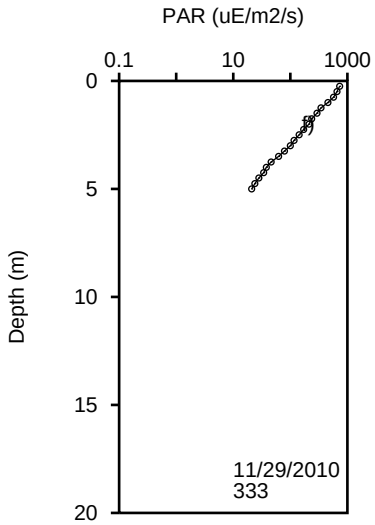




Tue Oct 11 15:59:38 2011

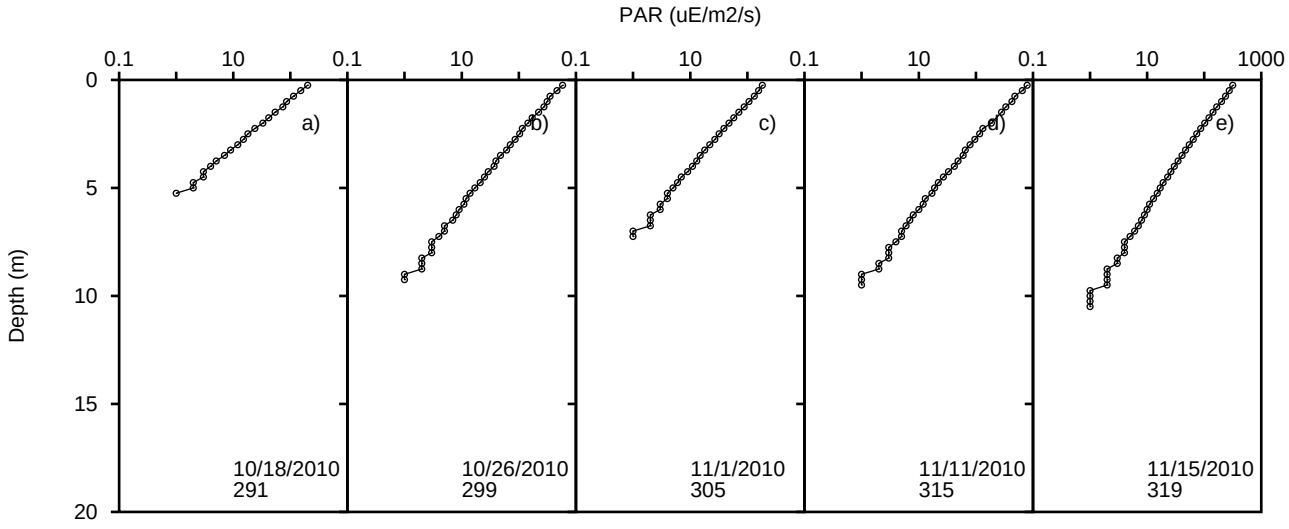
2010 PAR Profiles for Onondaga Lake ISUS-39

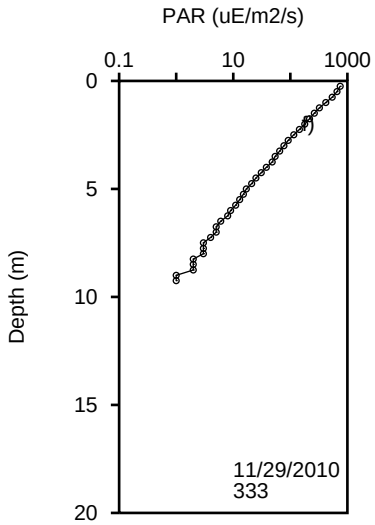




Tue Oct 11 16:00:45 2011

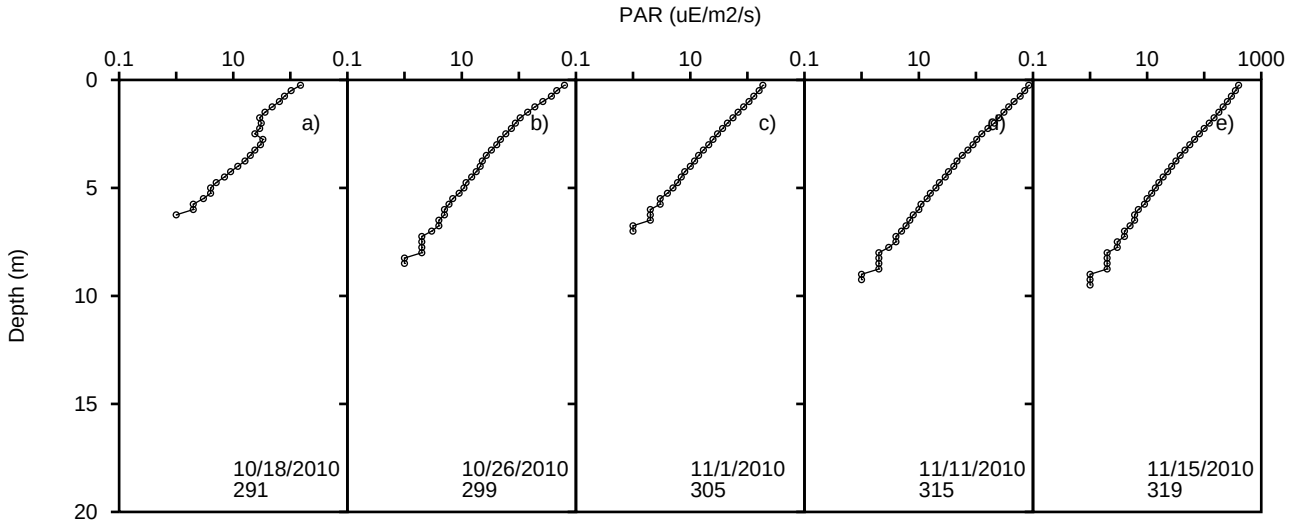
2010 PAR Profiles for Onondaga Lake ISUS-40

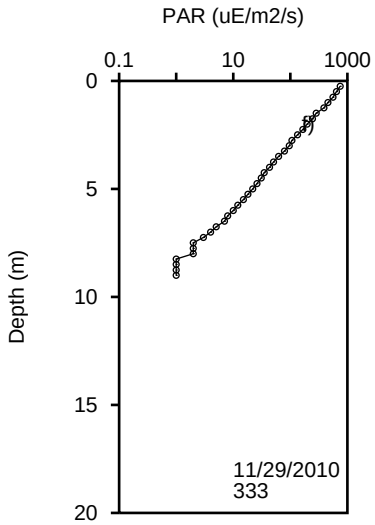




Tue Oct 11 16:01:39 2011

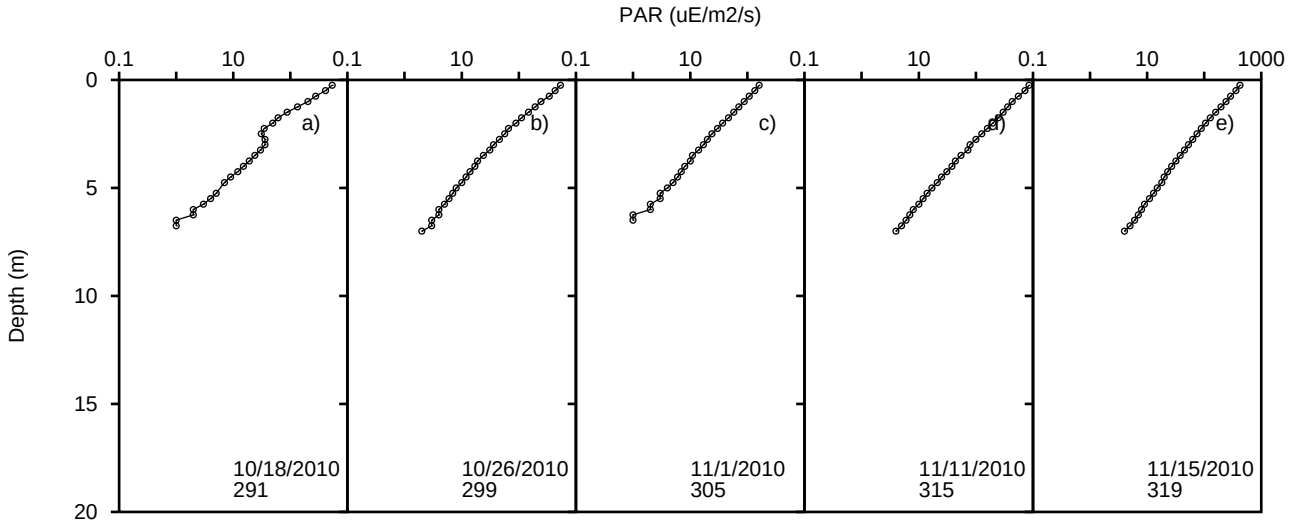
2010 PAR Profiles for Onondaga Lake ISUS-41

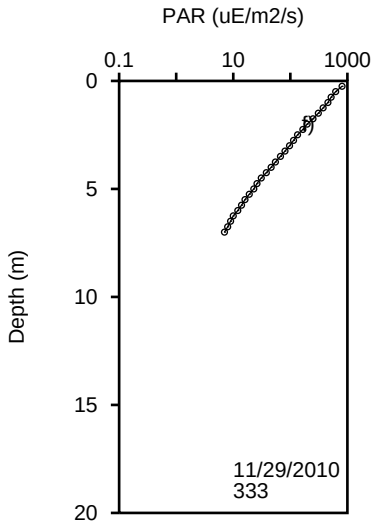




Tue Oct 11 16:02:33 2011

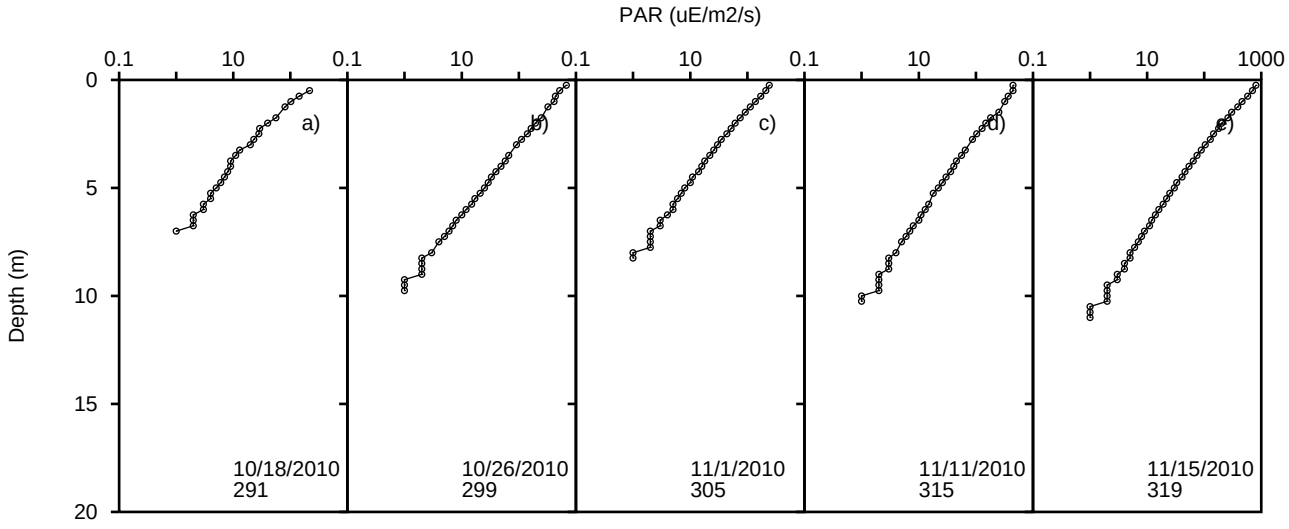
2010 PAR Profiles for Onondaga Lake ISUS-42

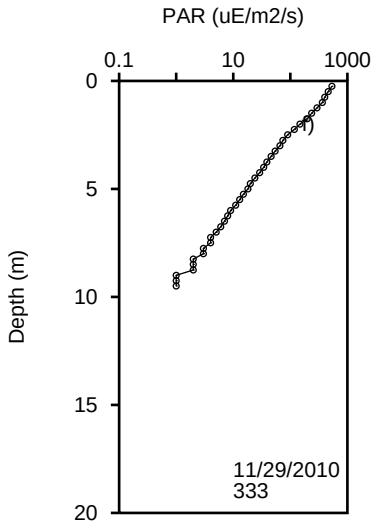




Wed Oct 12 07:58:40 2011

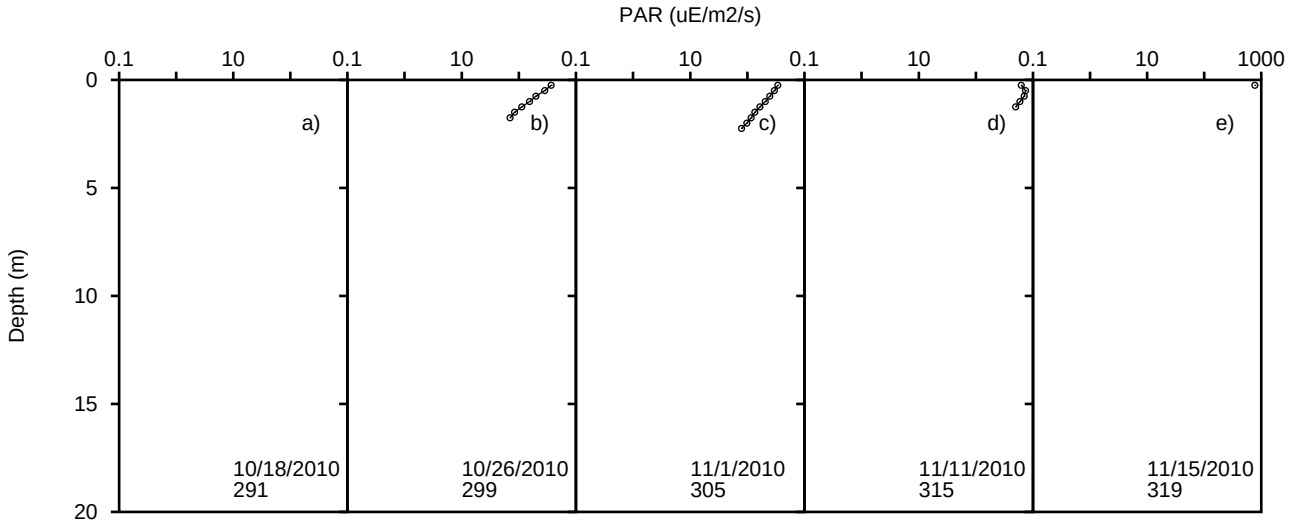
2010 PAR Profiles for Onondaga Lake ISUS-43

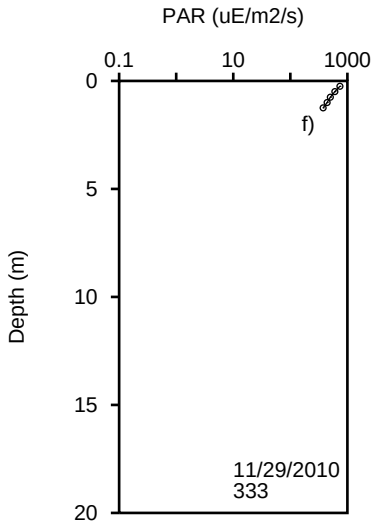




Wed Oct 12 08:00:00 2011

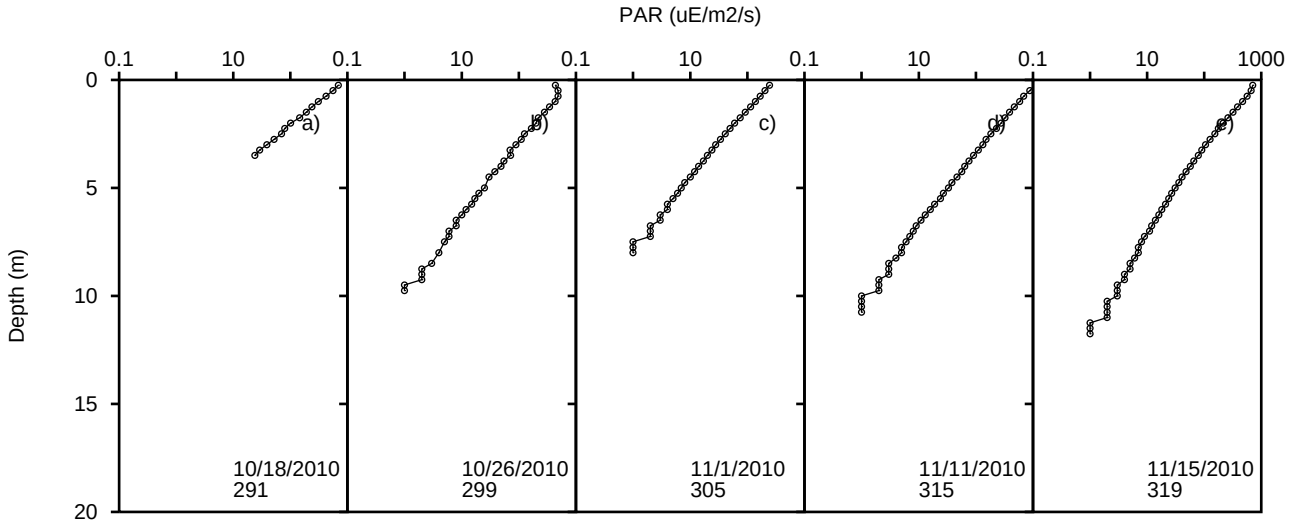
2010 PAR Profiles for Onondaga Lake ISUS-44

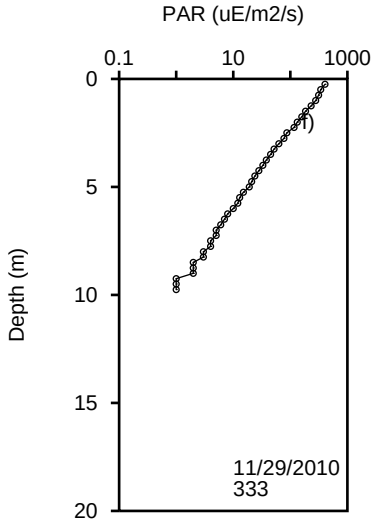




Wed Oct 12 08:01:48 2011

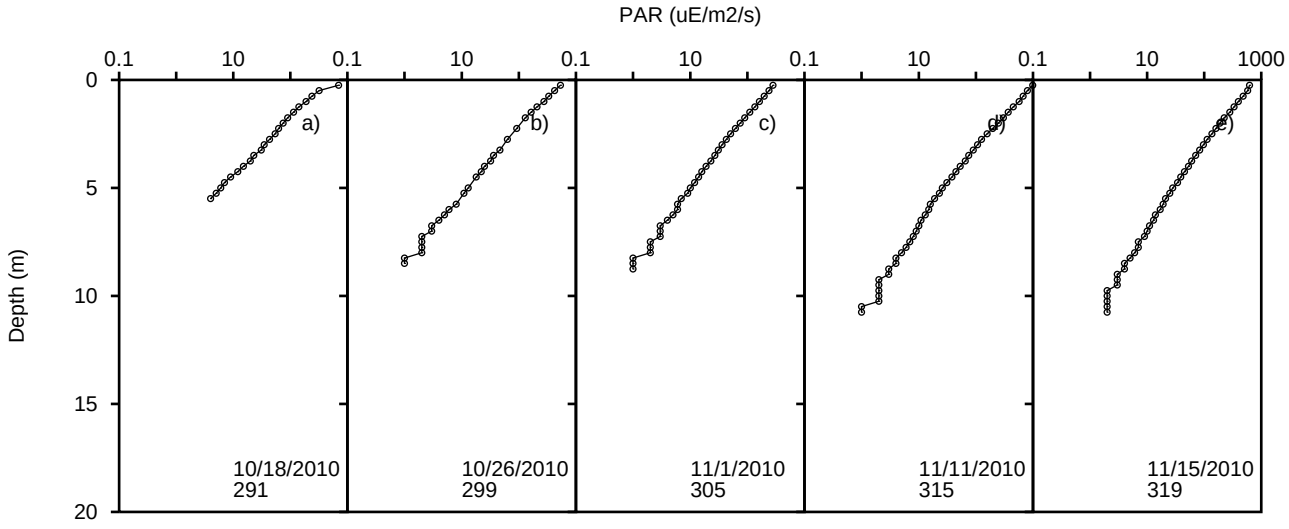
2010 PAR Profiles for Onondaga Lake ISUS-45

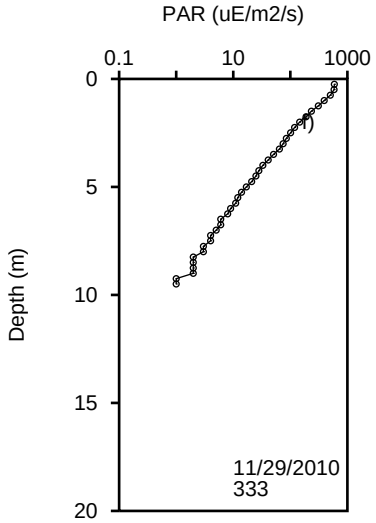




Wed Oct 12 08:02:28 2011

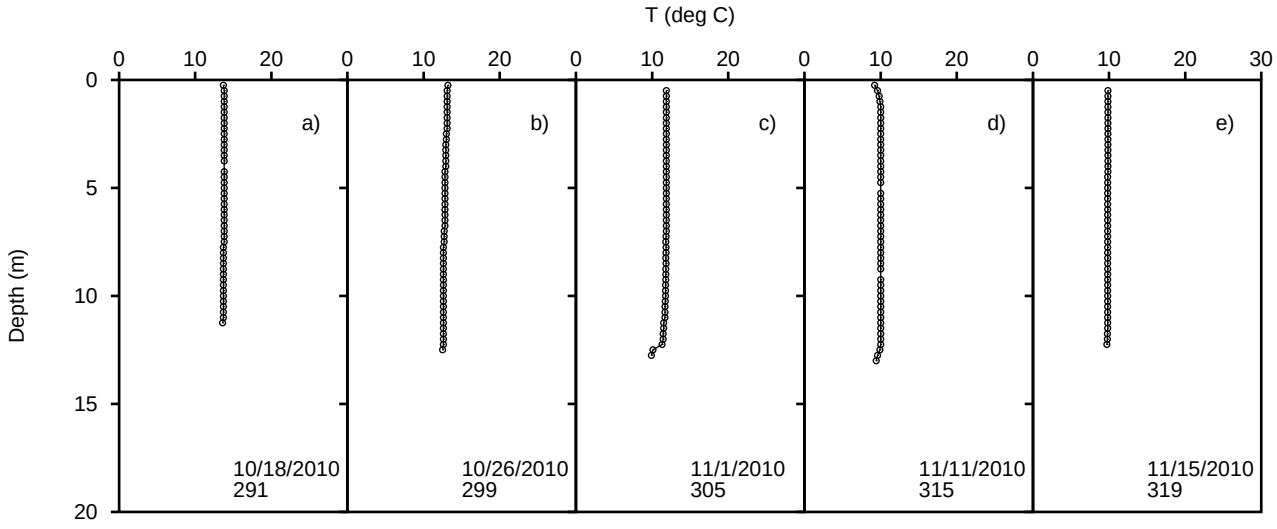
2010 PAR Profiles for Onondaga Lake ISUS-46

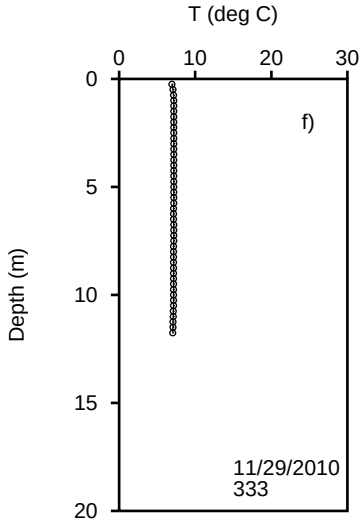




Wed Oct 12 08:04:33 2011

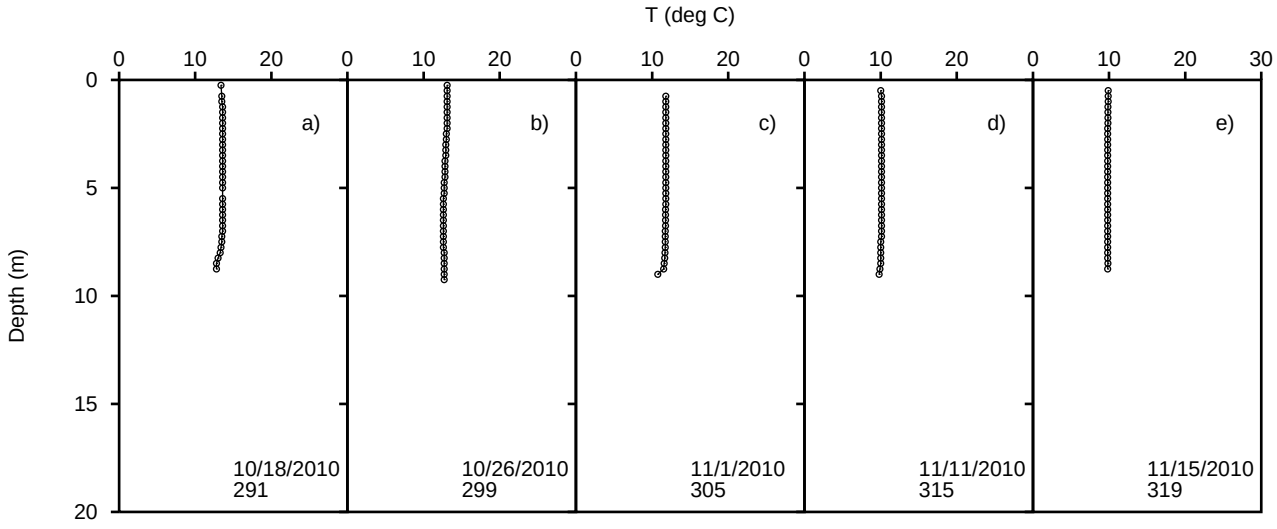
2010 Temperature Profiles for Onondaga Lake ISUS-5

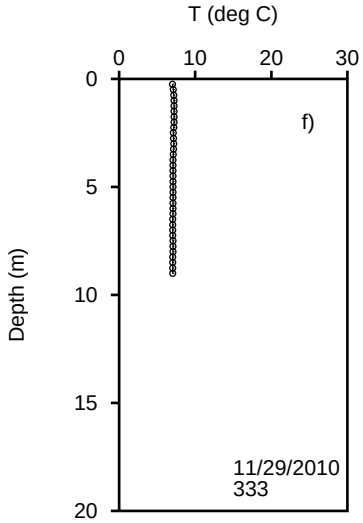




Wed Oct 12 08:08:06 2011

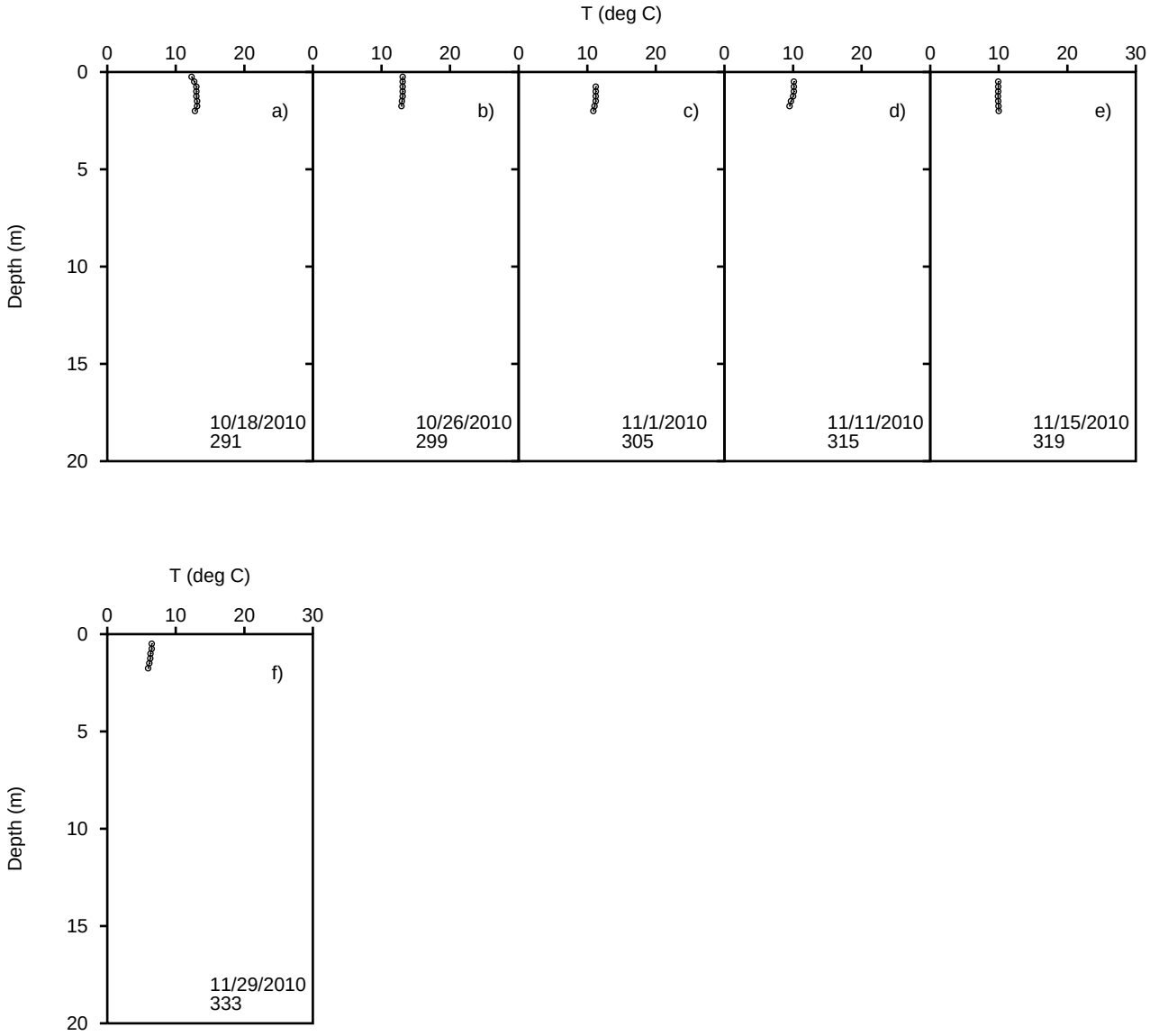
2010 Temperature Profiles for Onondaga Lake ISUS-6





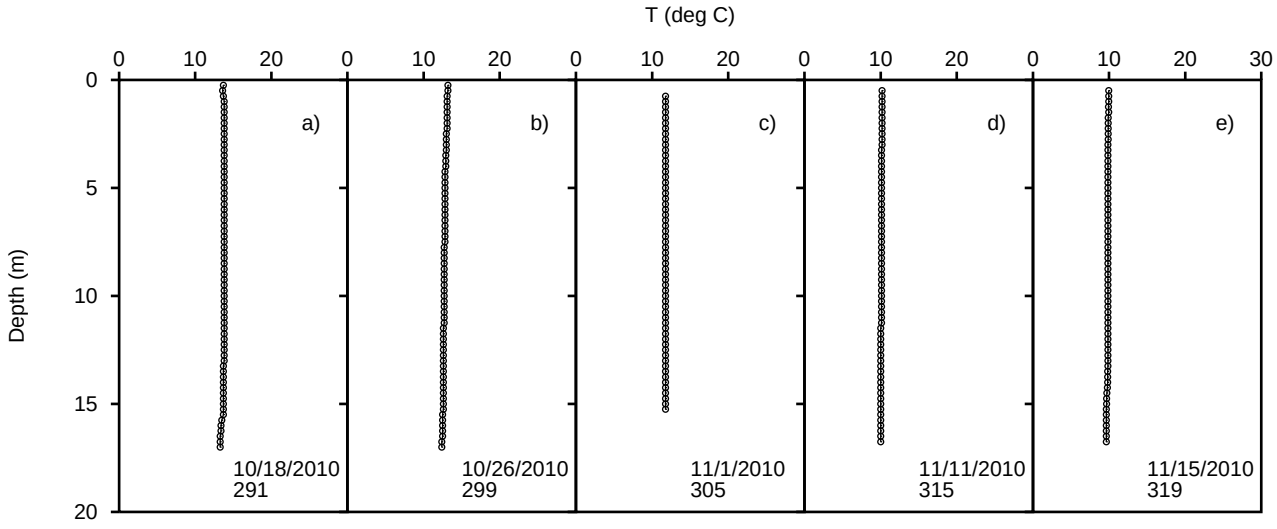
Wed Oct 12 08:09:28 2011

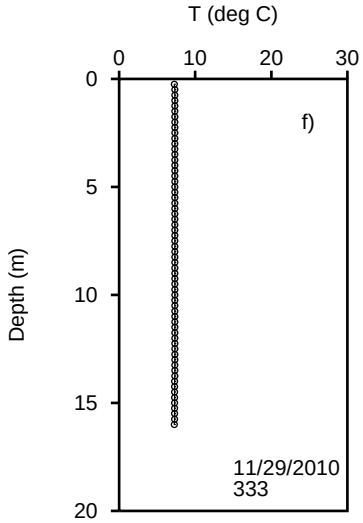
2010 Temperature Profiles for Onondaga Lake ISUS-7



Wed Oct 12 08:11:20 2011

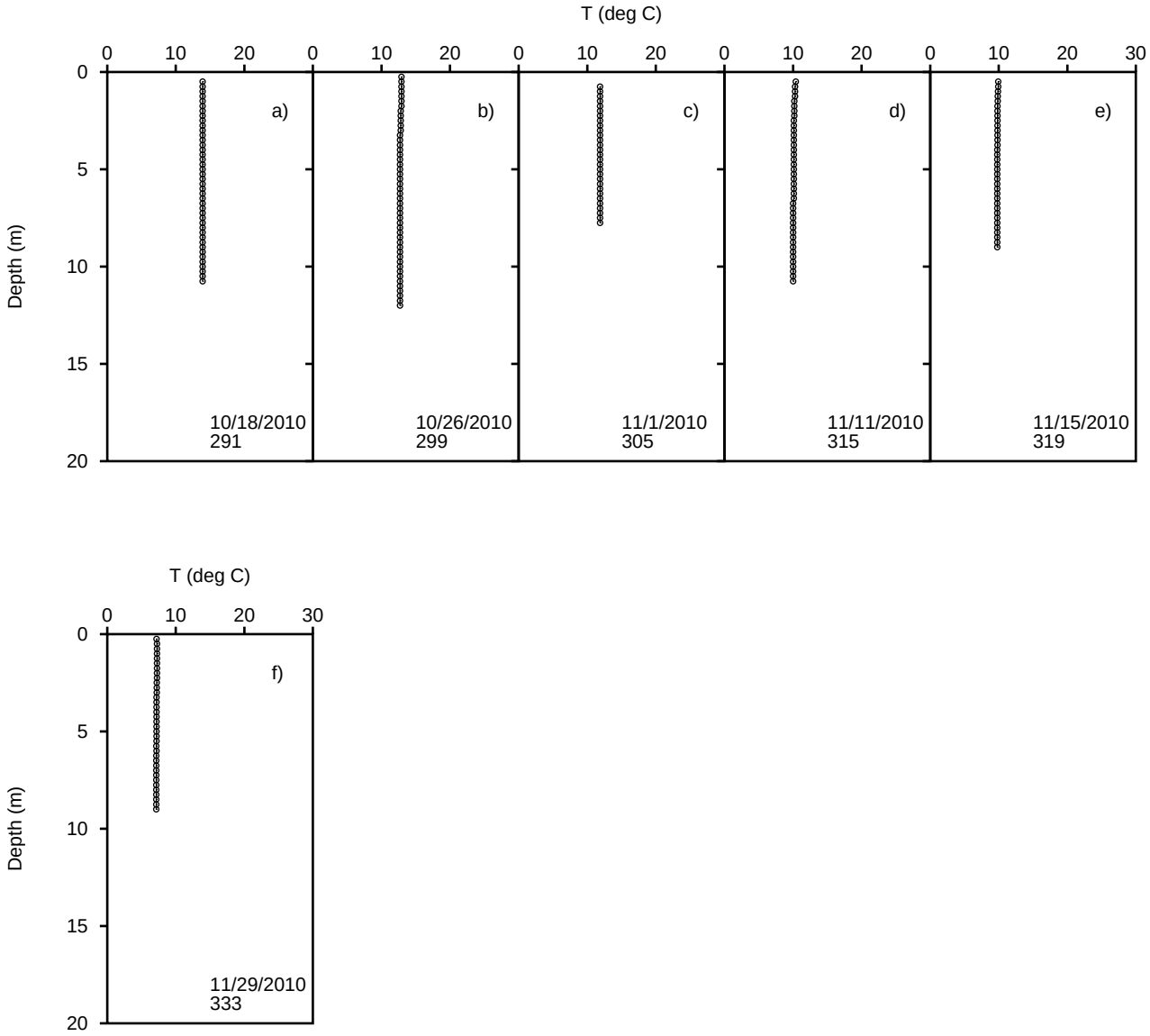
2010 Temperature Profiles for Onondaga Lake ISUS-8





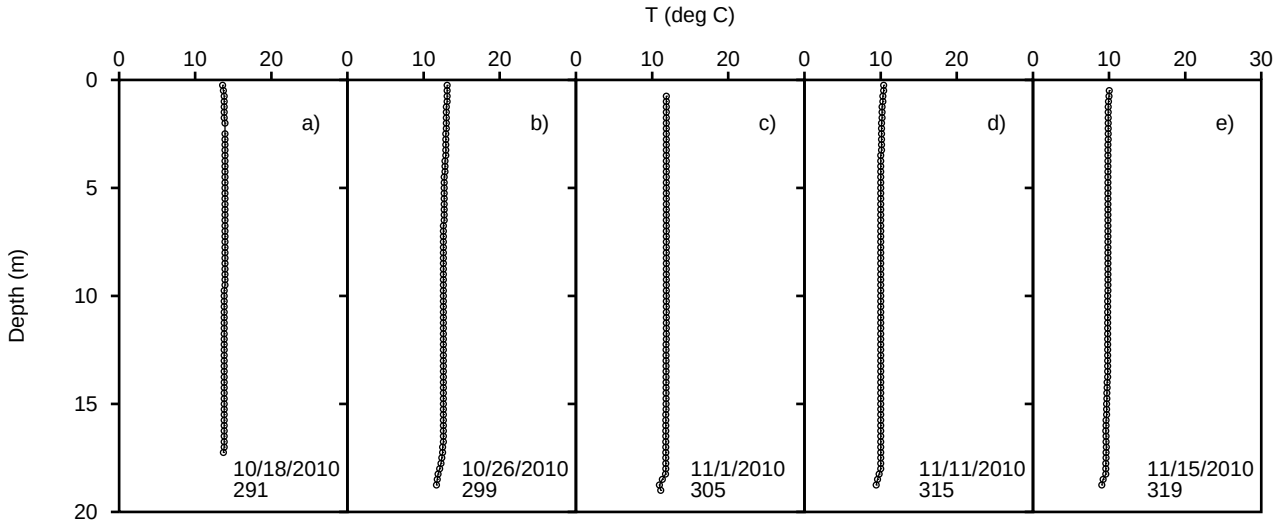
Wed Oct 12 08:14:20 2011

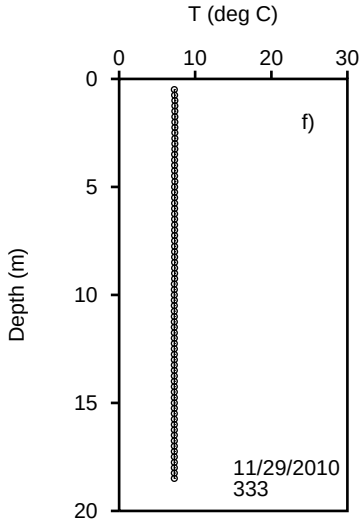
2010 Temperature Profiles for Onondaga Lake ISUS-9



Wed Oct 12 08:15:11 2011

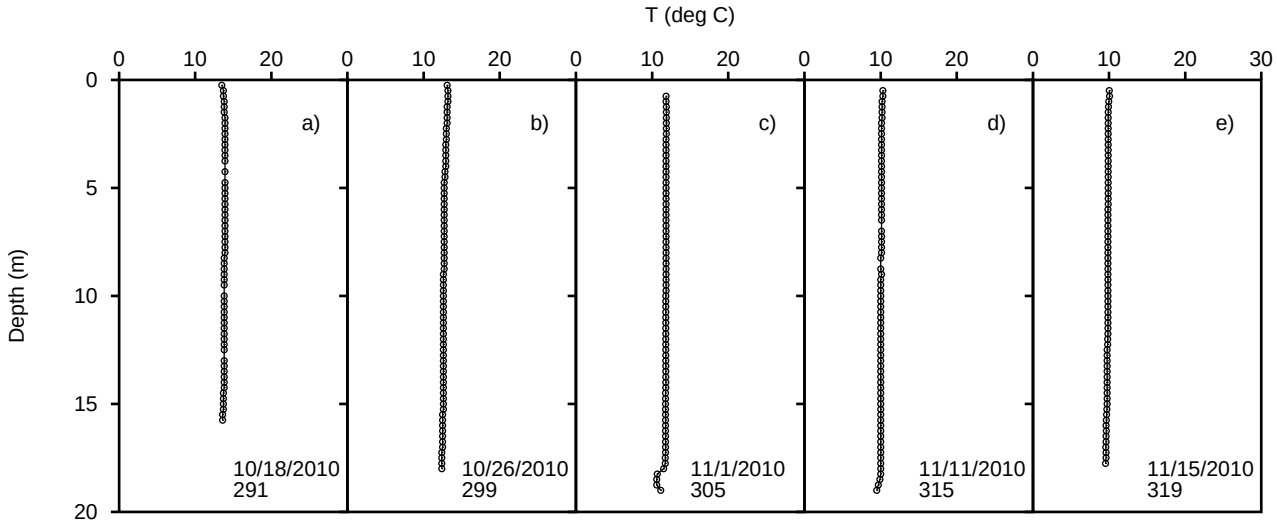
2010 Temperature Profiles for Onondaga Lake ISUS-11

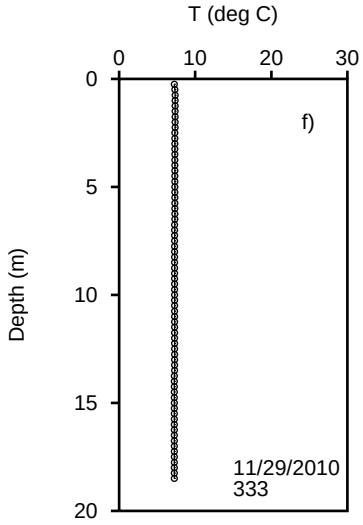




Wed Oct 12 08:18:00 2011

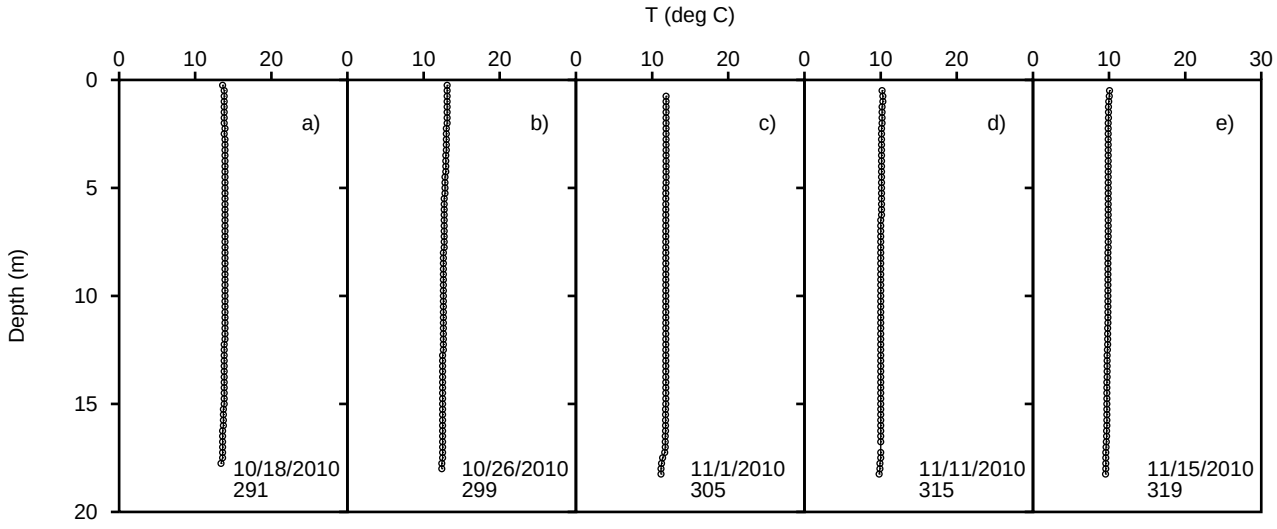
2010 Temperature Profiles for Onondaga Lake ISUS-12

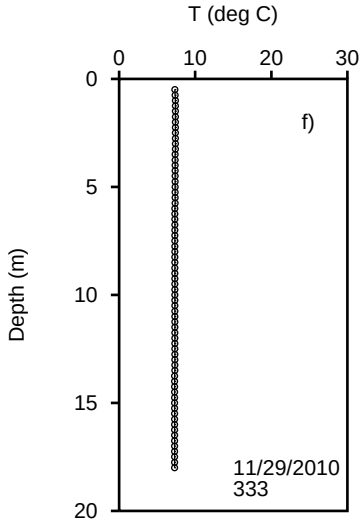




Wed Oct 12 08:20:41 2011

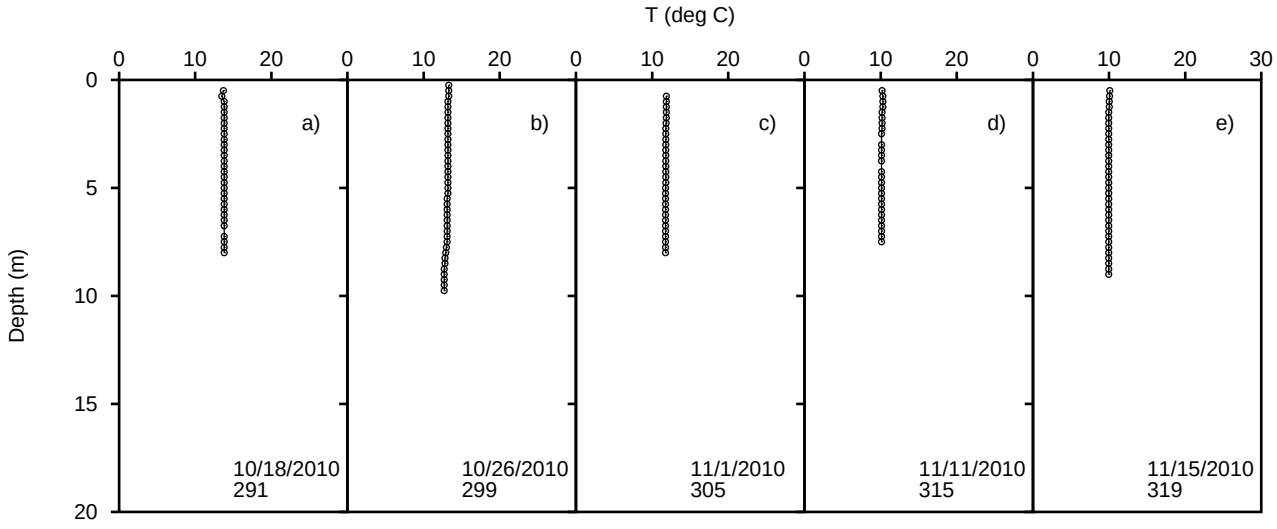
2010 Temperature Profiles for Onondaga Lake ISUS-13

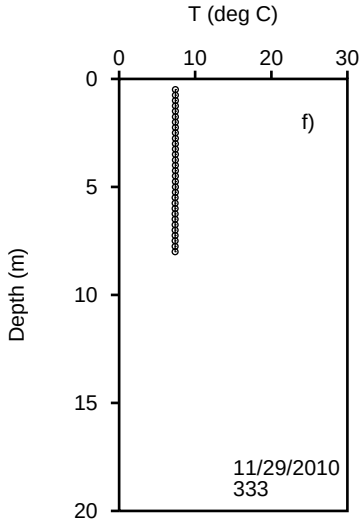




Wed Oct 12 08:22:46 2011

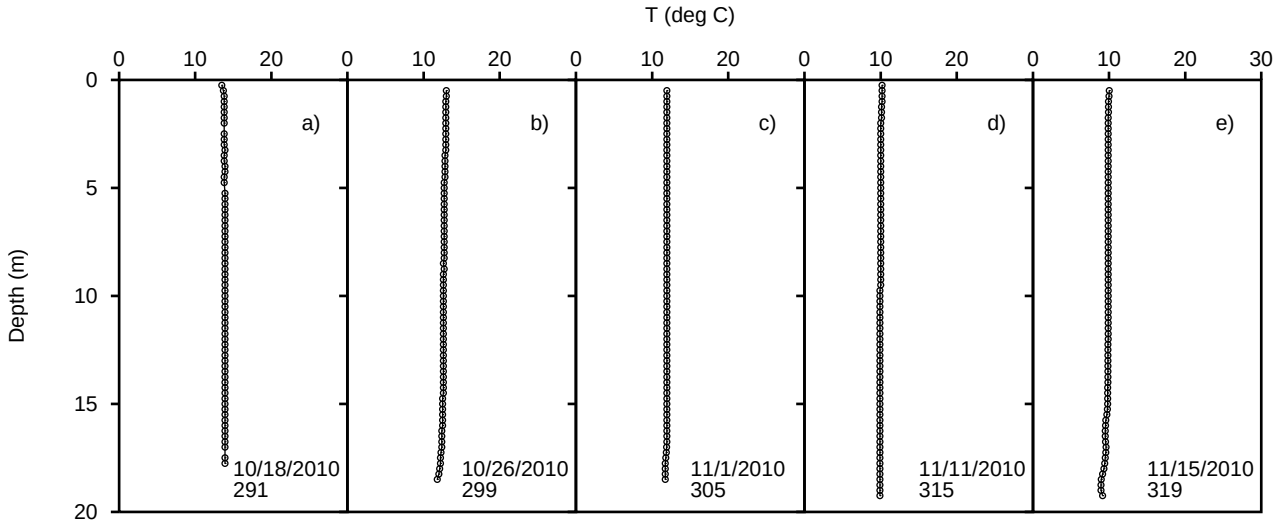
2010 Temperature Profiles for Onondaga Lake ISUS-15

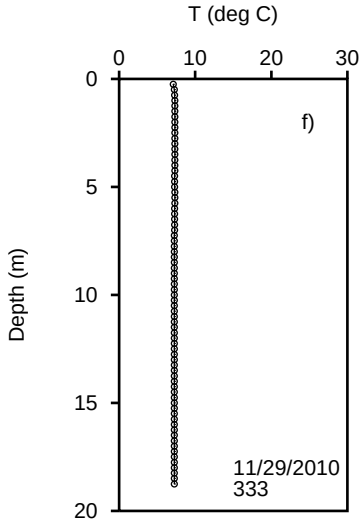




Wed Oct 12 08:26:08 2011

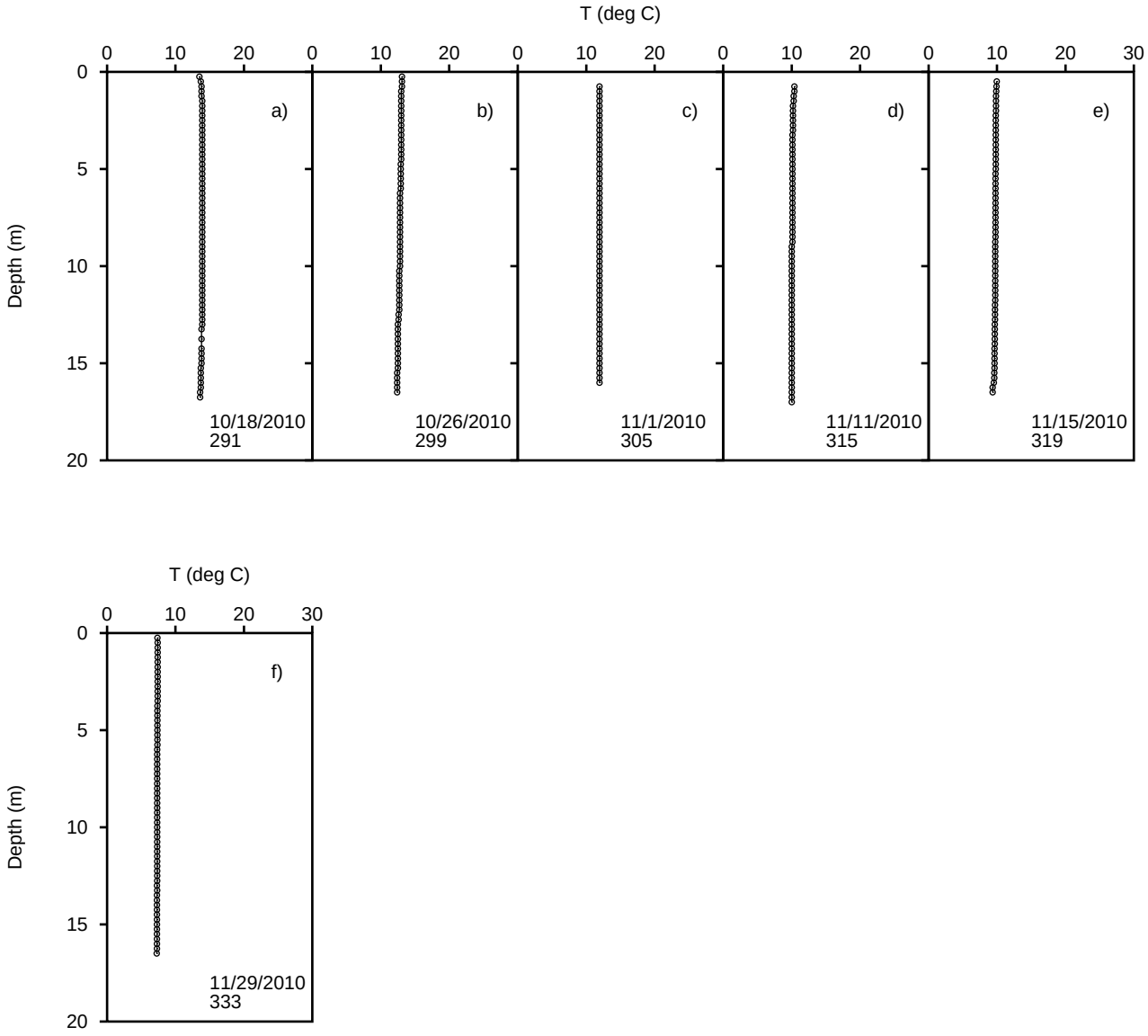
2010 Temperature Profiles for Onondaga Lake ISUS-18





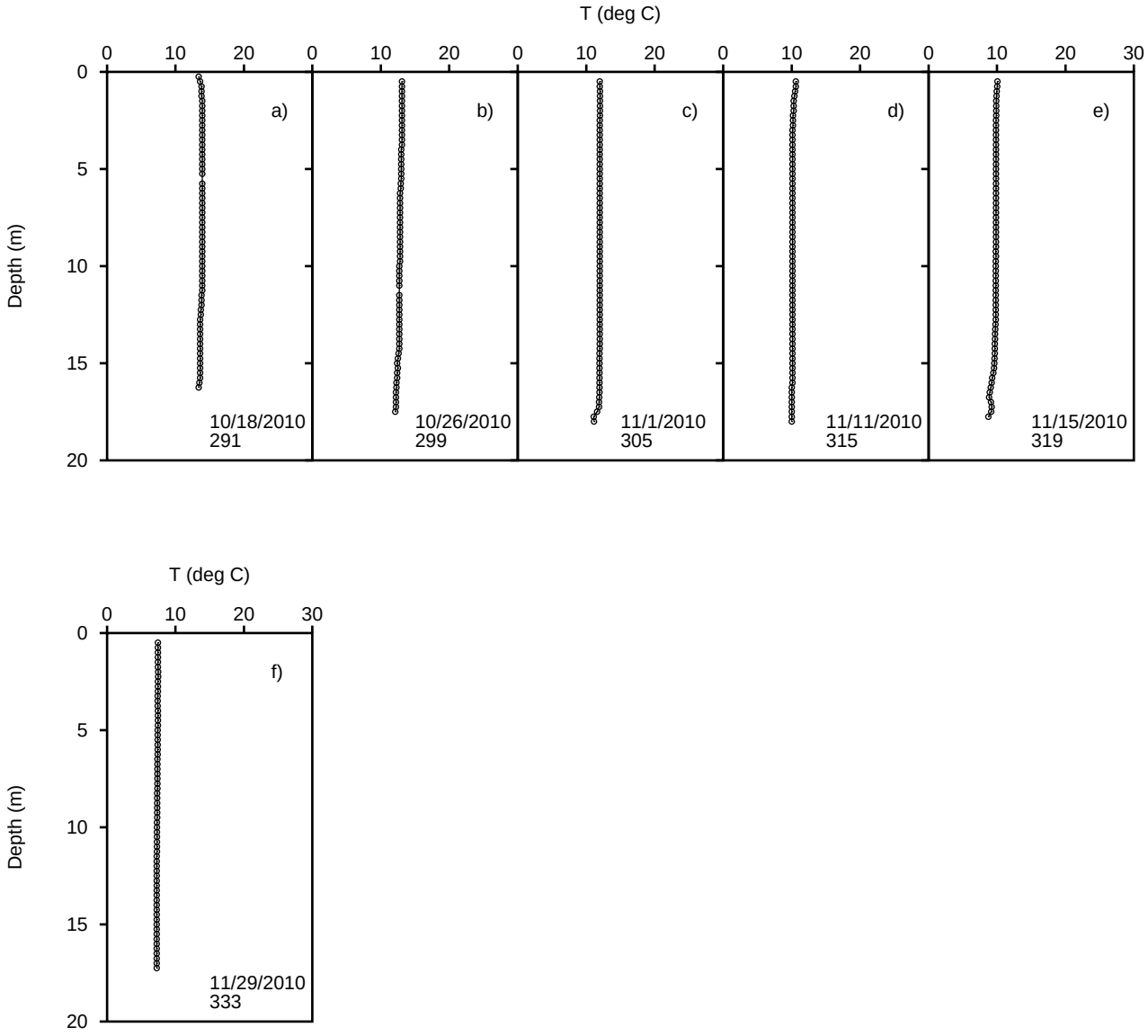
Wed Oct 12 08:29:02 2011

2010 Temperature Profiles for Onondaga Lake ISUS-22



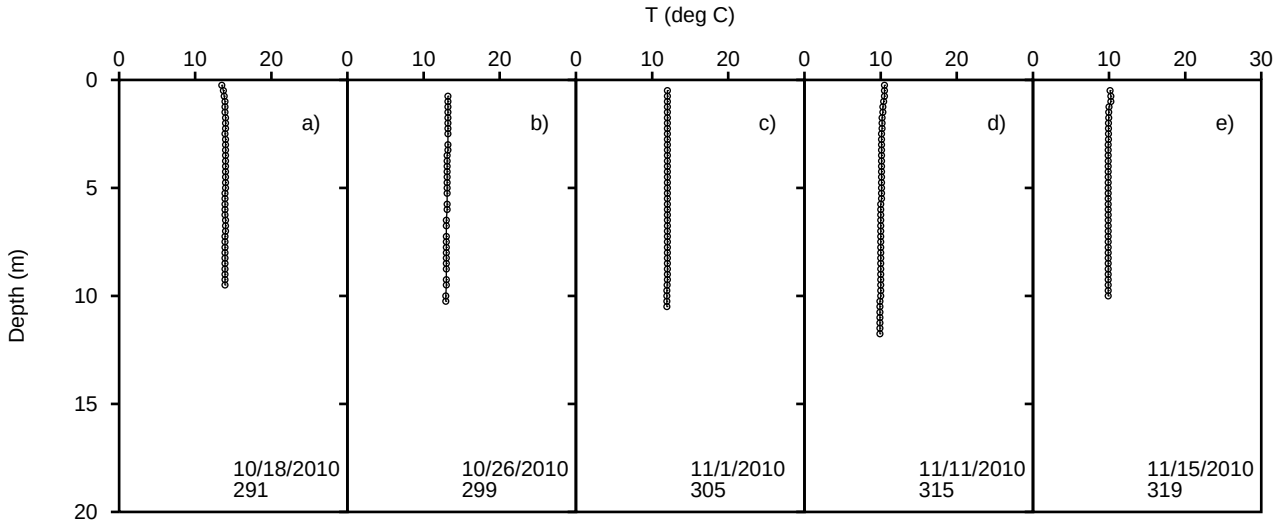
Wed Oct 12 08:33:12 2011

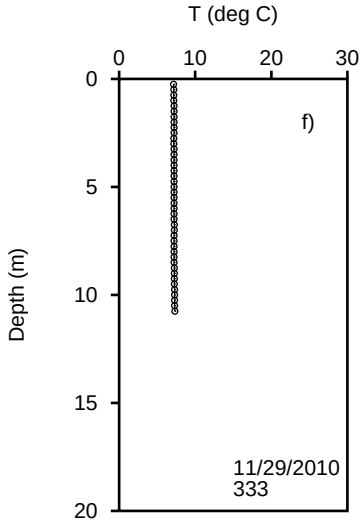
2010 Temperature Profiles for Onondaga Lake ISUS-27



Wed Oct 12 08:35:33 2011

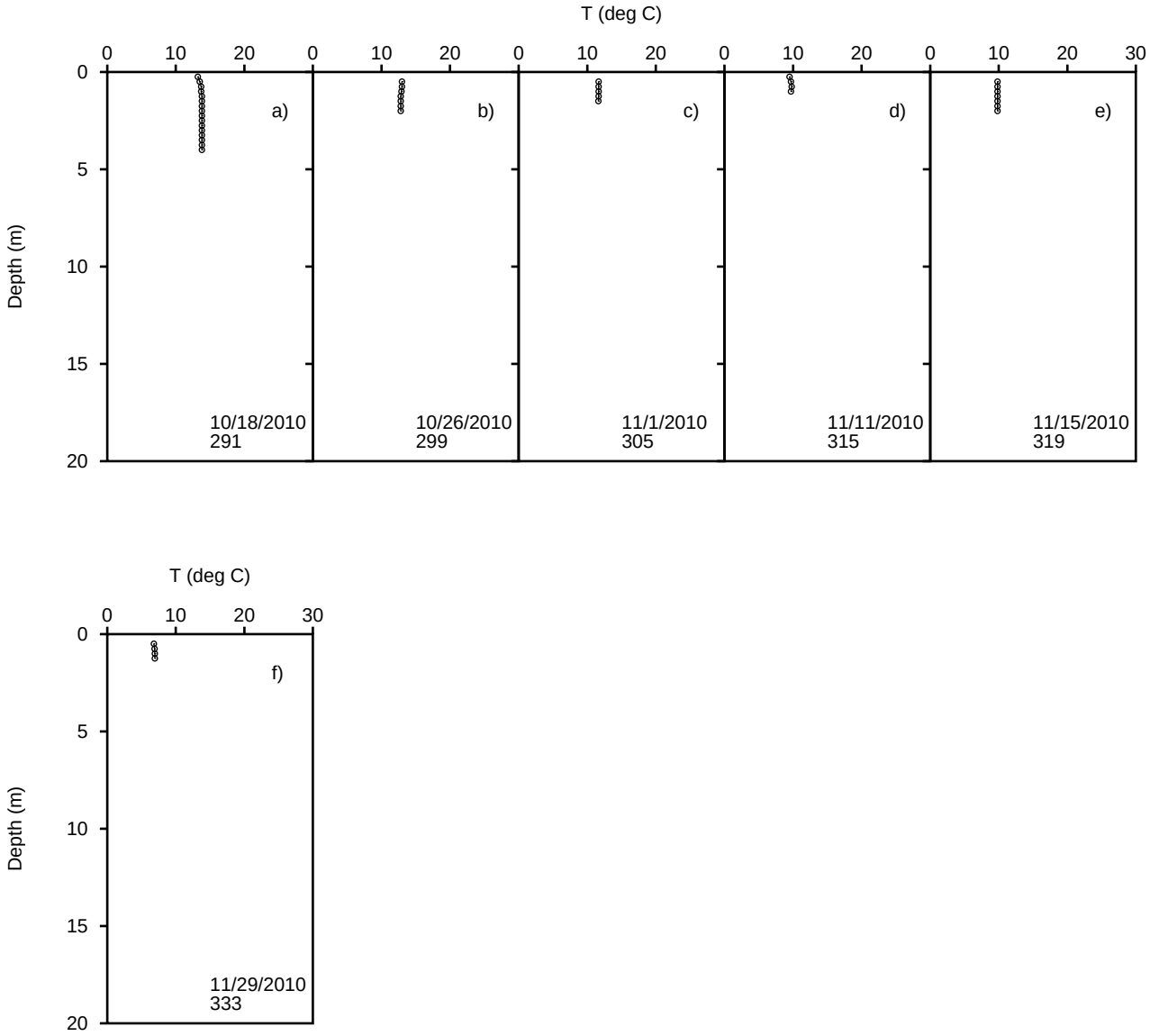
2010 Temperature Profiles for Onondaga Lake ISUS-34





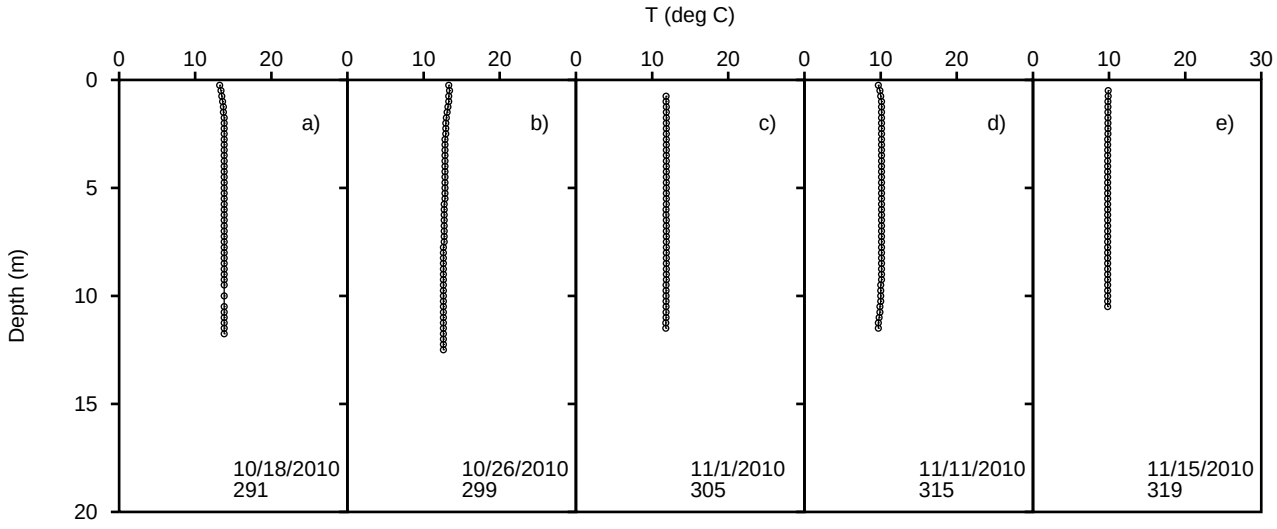
Wed Oct 12 08:36:07 2011

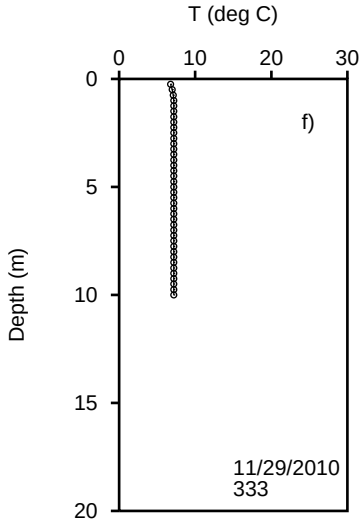
2010 Temperature Profiles for Onondaga Lake ISUS-37



Tue Oct 11 15:57:38 2011

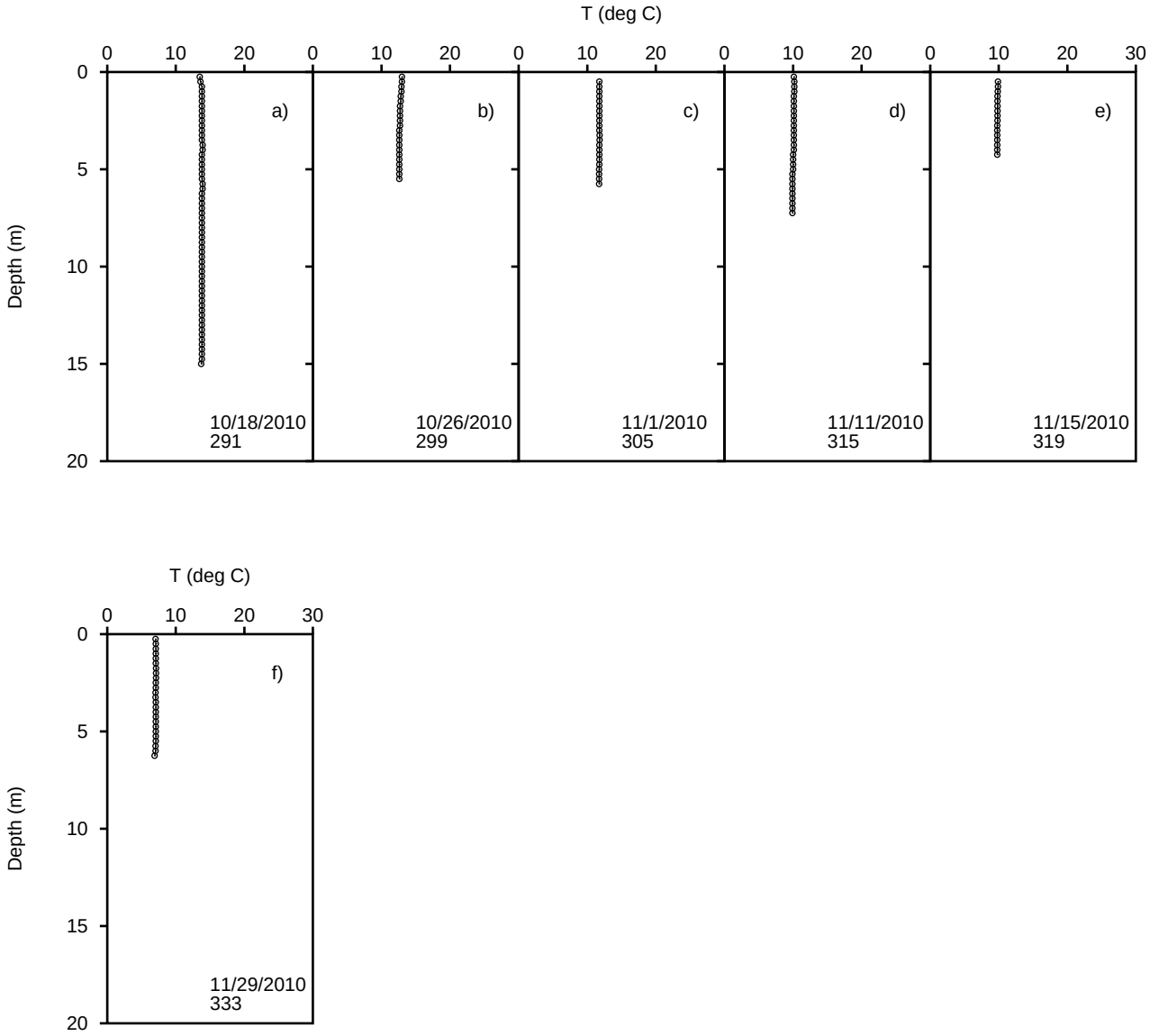
2010 Temperature Profiles for Onondaga Lake ISUS-38





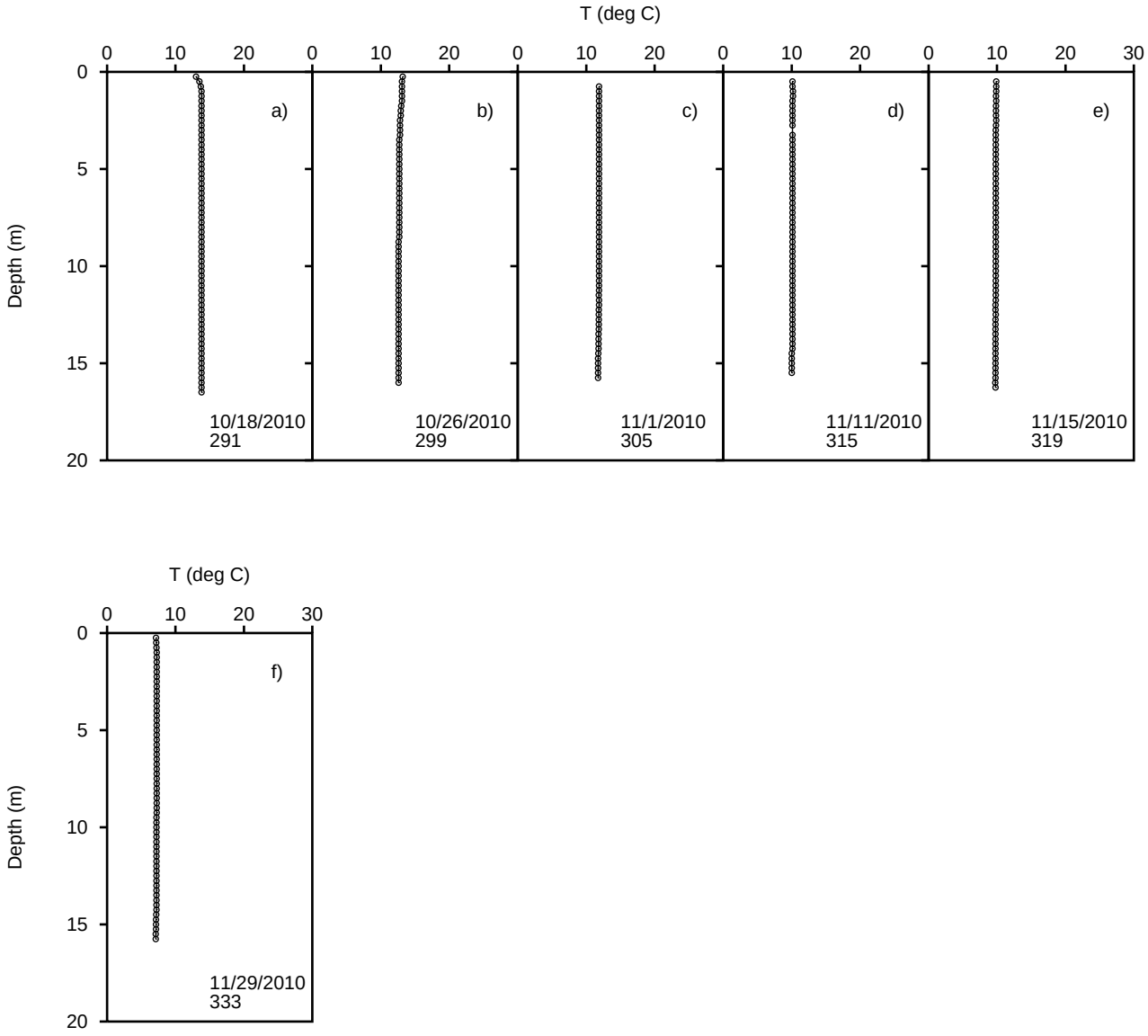
Tue Oct 11 15:58:59 2011

2010 Temperature Profiles for Onondaga Lake ISUS-39



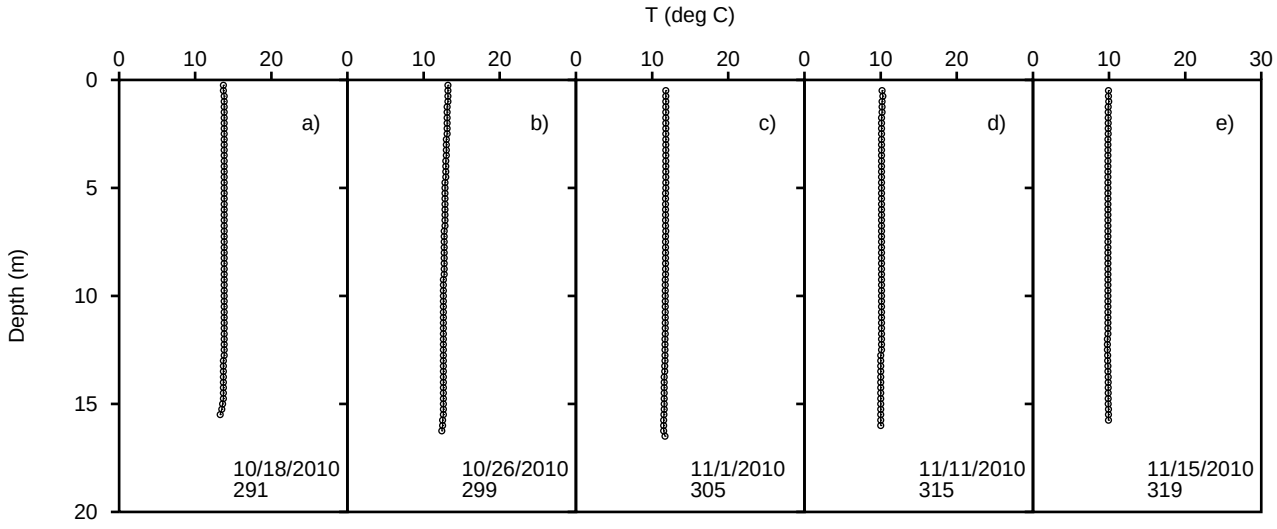
Tue Oct 11 16:00:30 2011

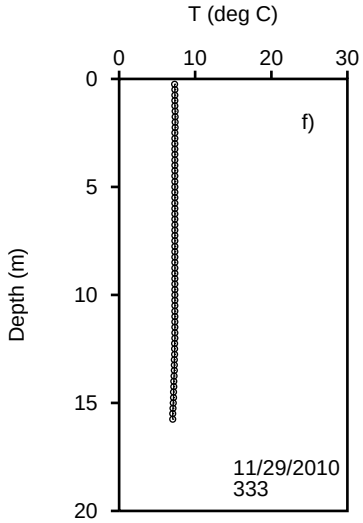
2010 Temperature Profiles for Onondaga Lake ISUS-40



Tue Oct 11 16:01:26 2011

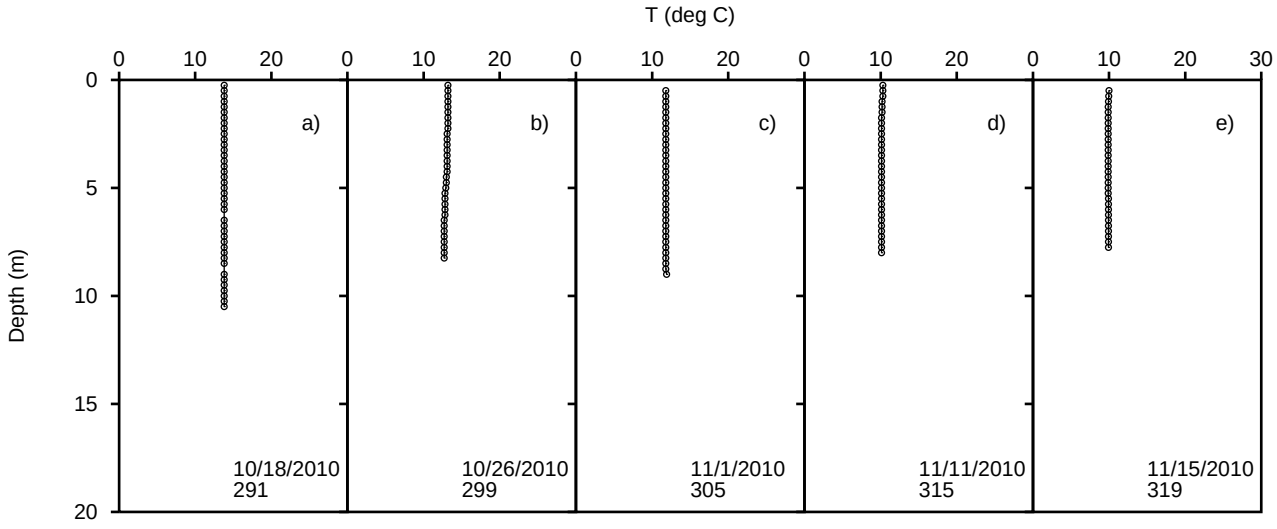
2010 Temperature Profiles for Onondaga Lake ISUS-41

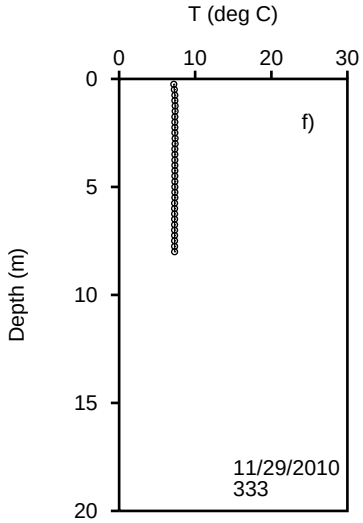




Tue Oct 11 16:02:20 2011

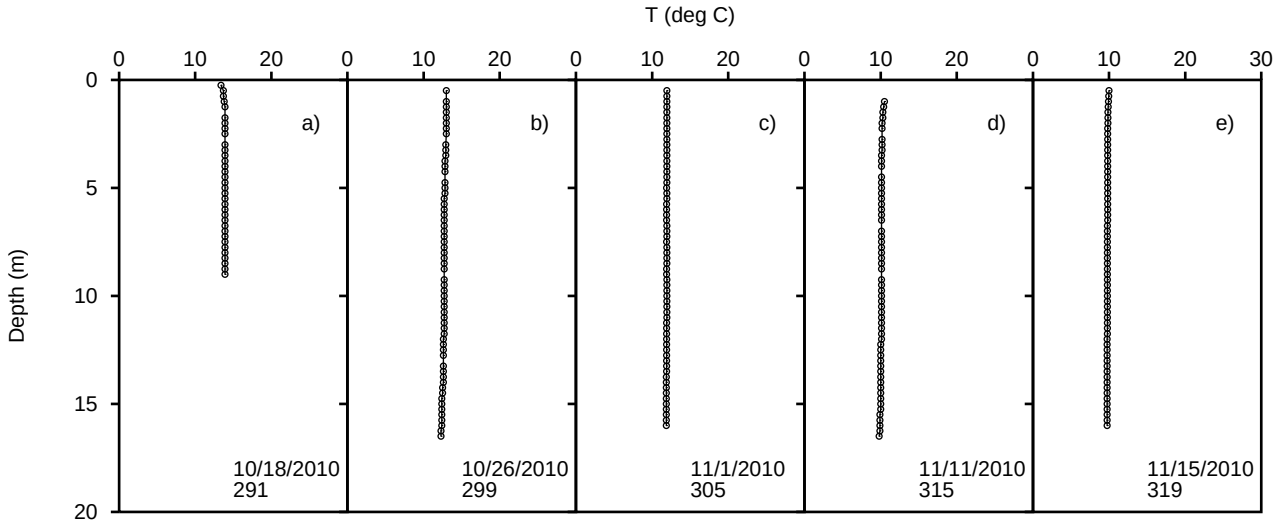
2010 Temperature Profiles for Onondaga Lake ISUS-42

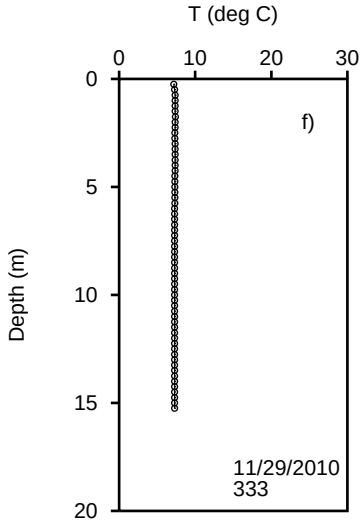




Wed Oct 12 07:58:09 2011

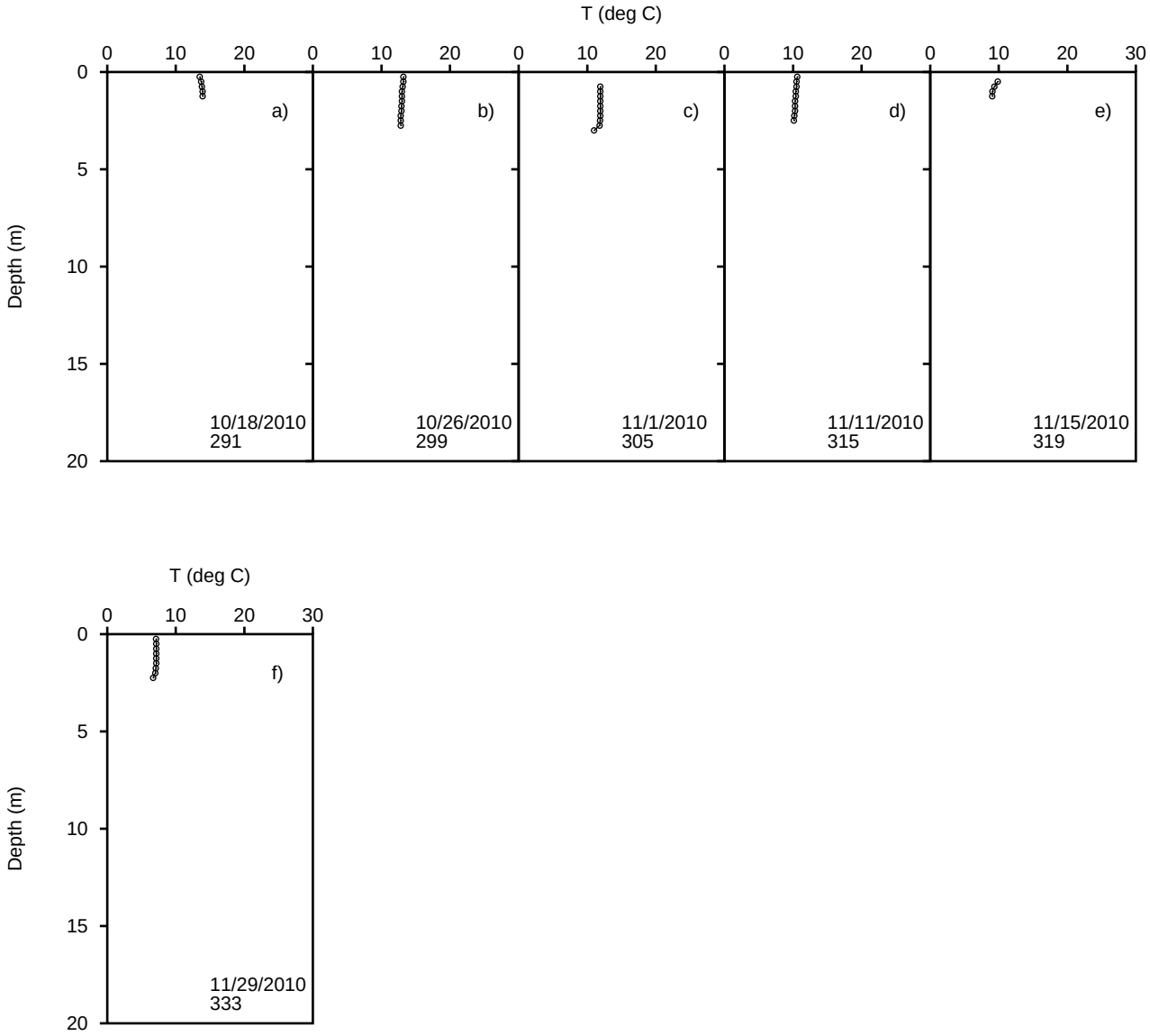
2010 Temperature Profiles for Onondaga Lake ISUS-43





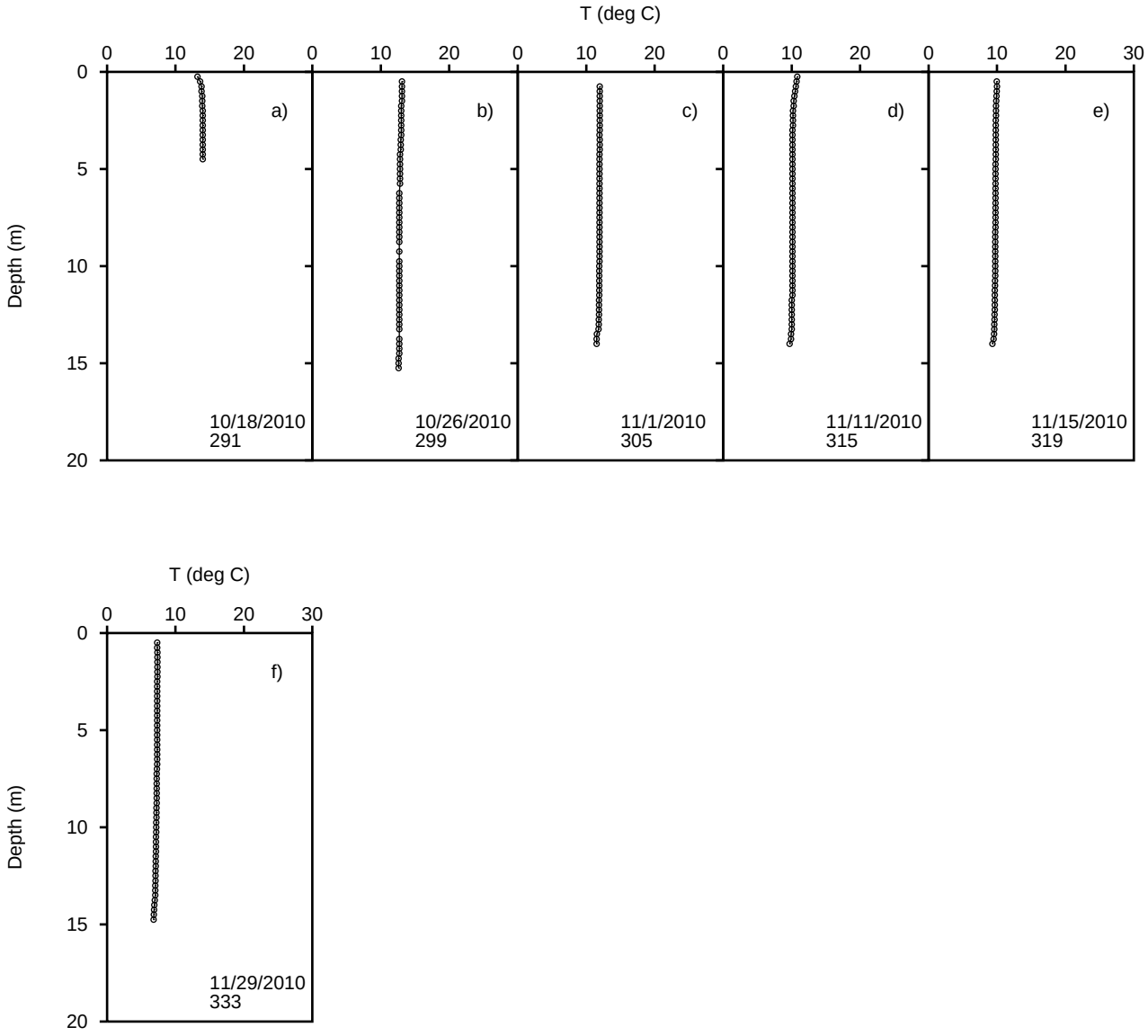
Wed Oct 12 07:59:48 2011

2010 Temperature Profiles for Onondaga Lake ISUS-44



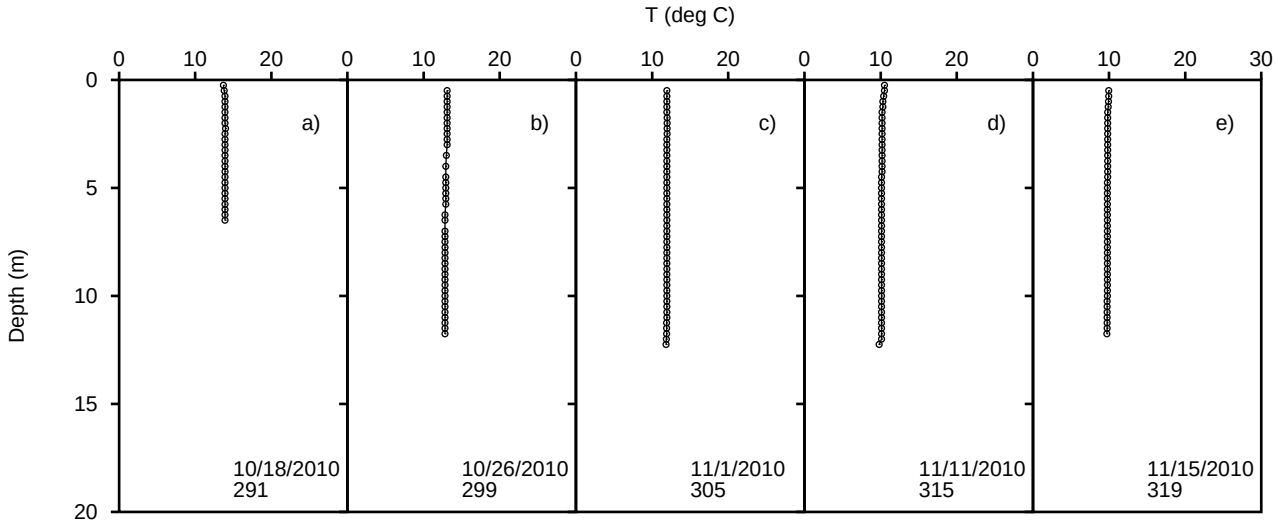
Wed Oct 12 08:01:36 2011

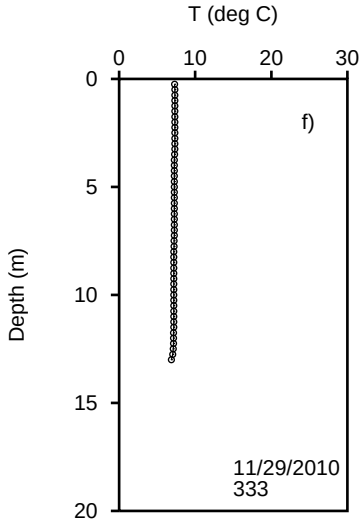
2010 Temperature Profiles for Onondaga Lake ISUS-45



Wed Oct 12 08:02:19 2011

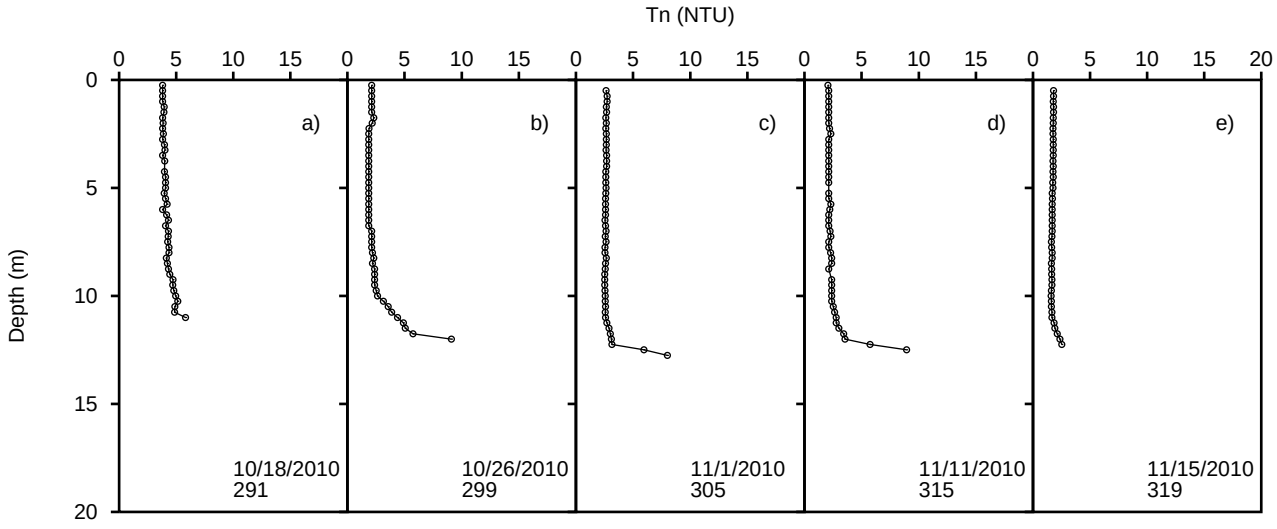
2010 Temperature Profiles for Onondaga Lake ISUS-46

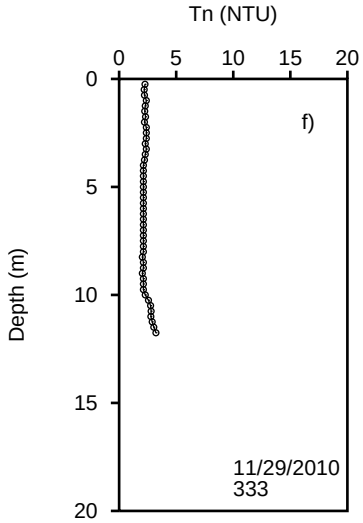




Wed Oct 12 08:04:24 2011

2010 Lab Corrected Turbidity Profiles for Onondaga Lake ISUS-5





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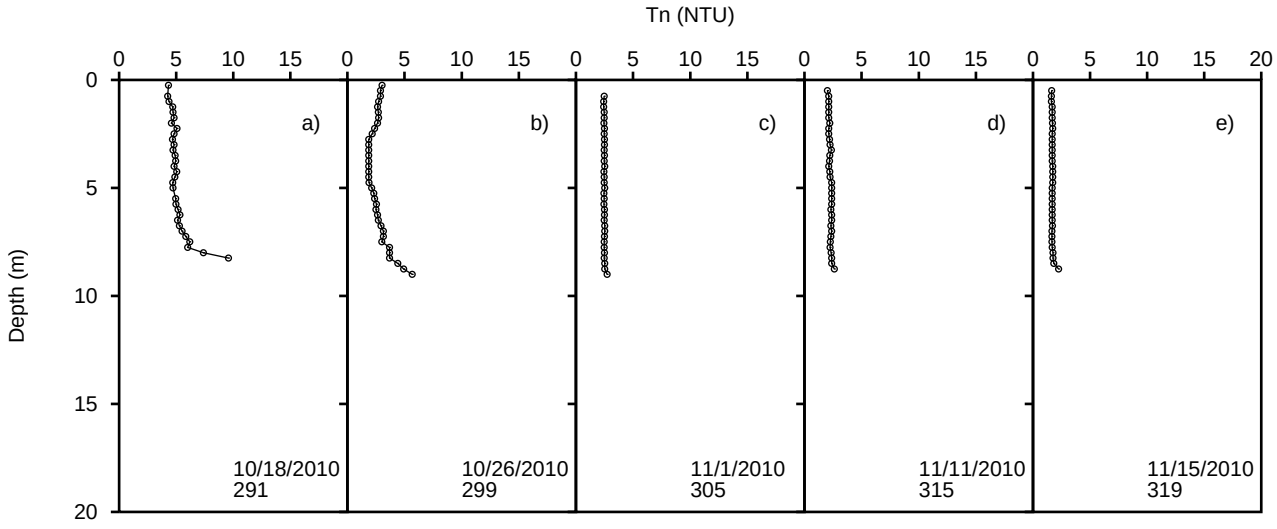

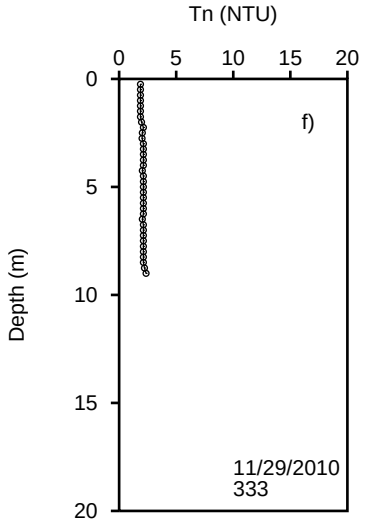

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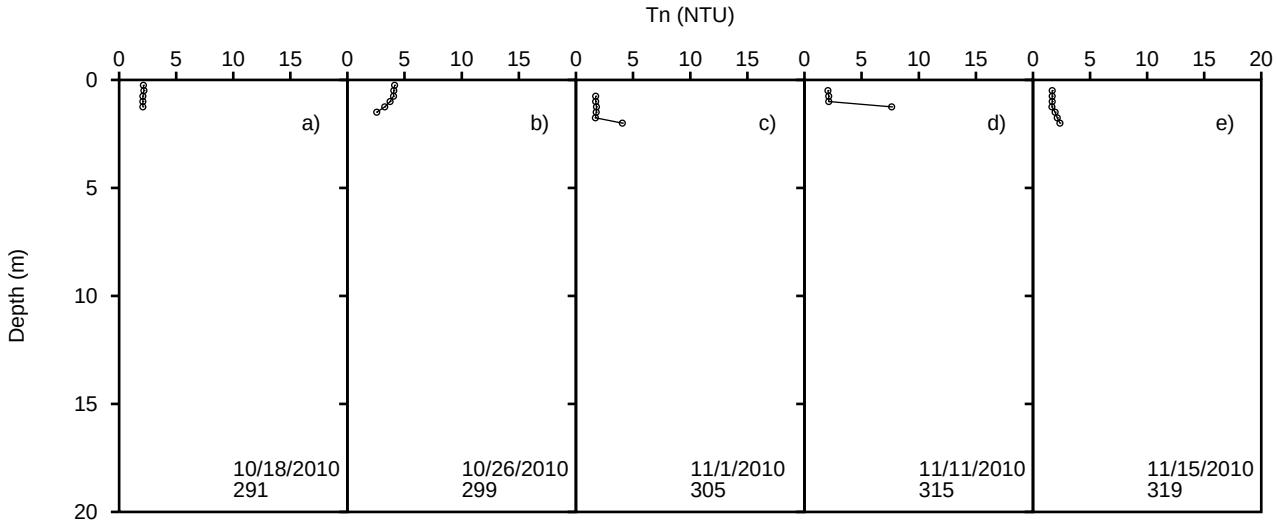

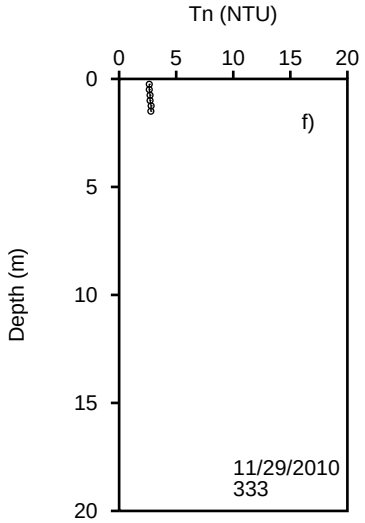

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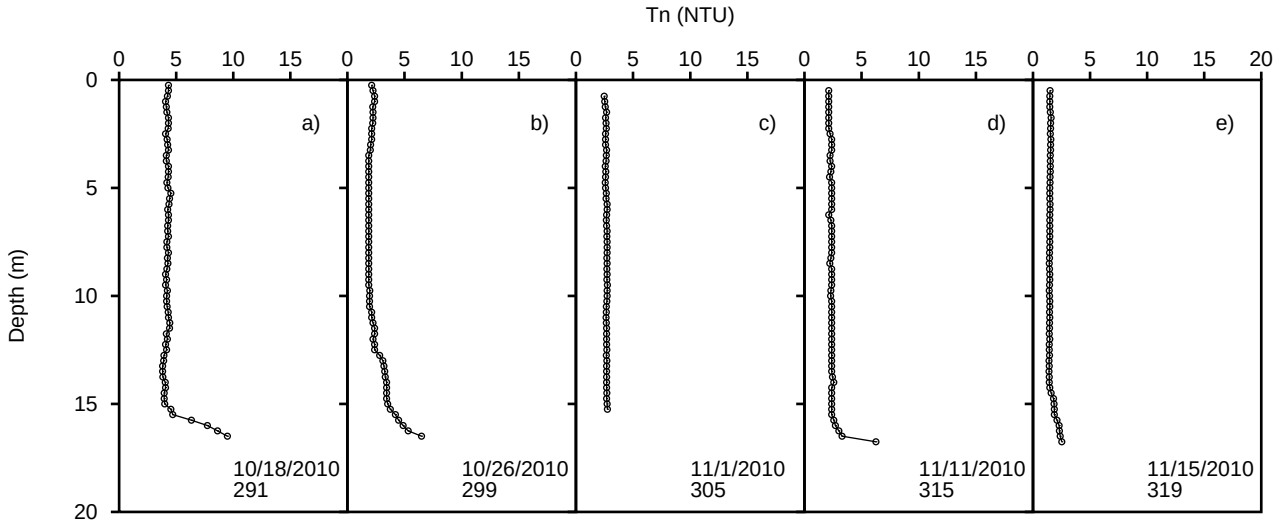

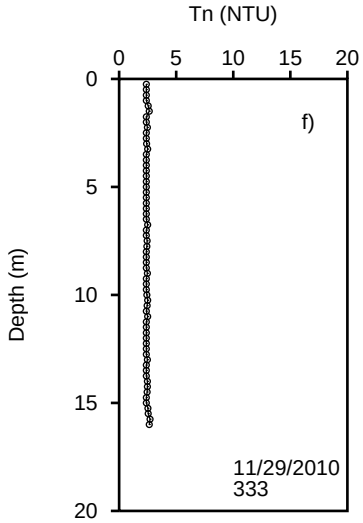

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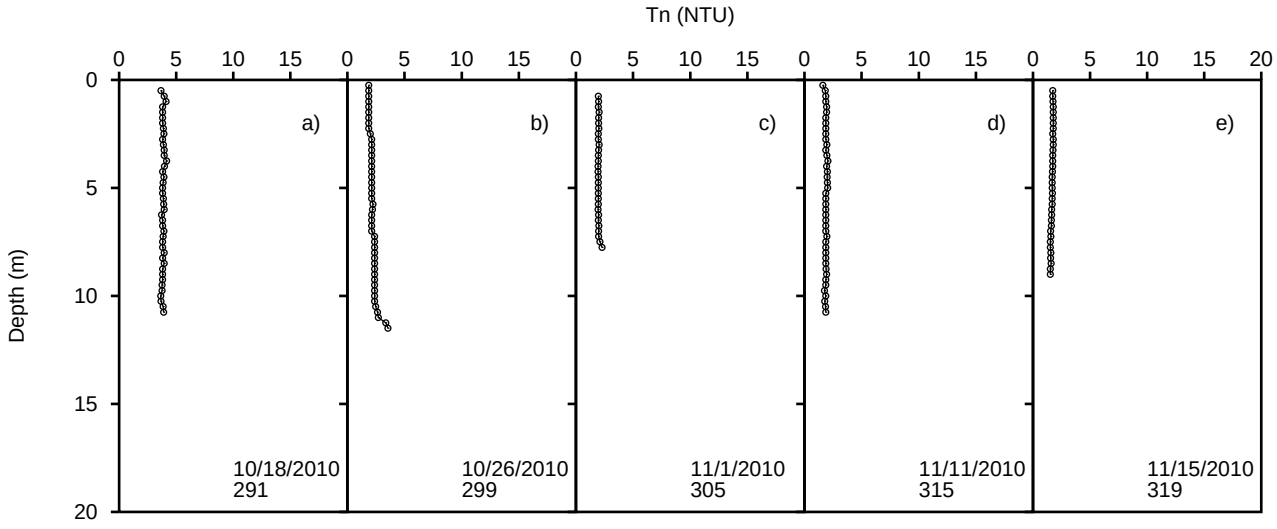

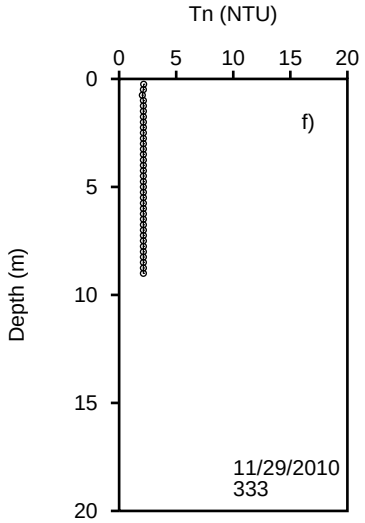

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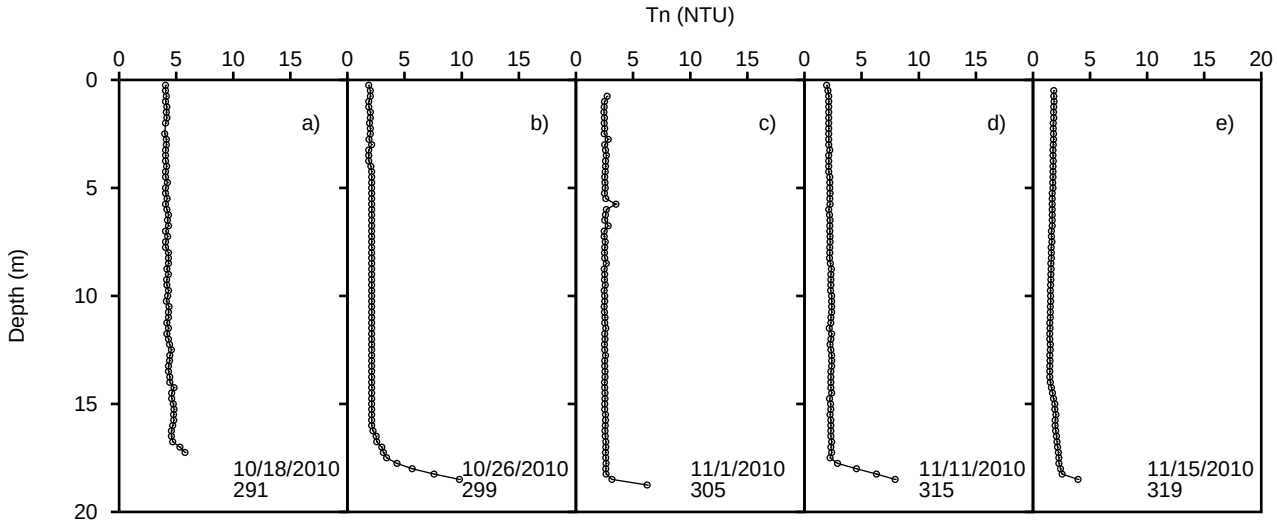

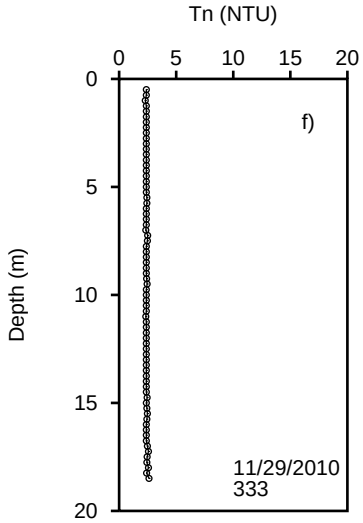

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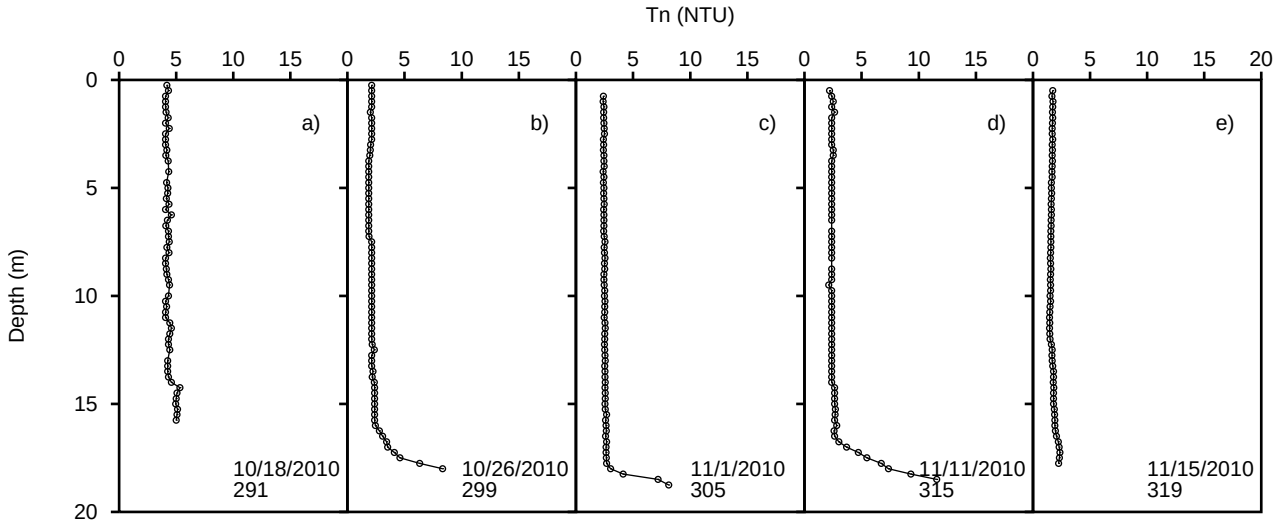

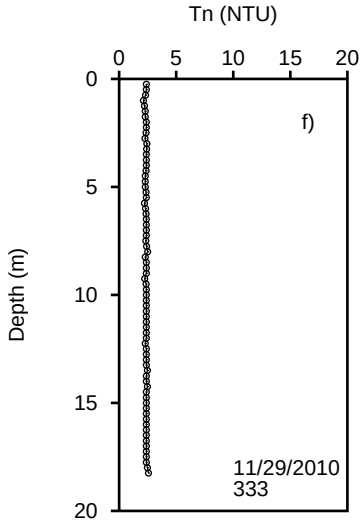

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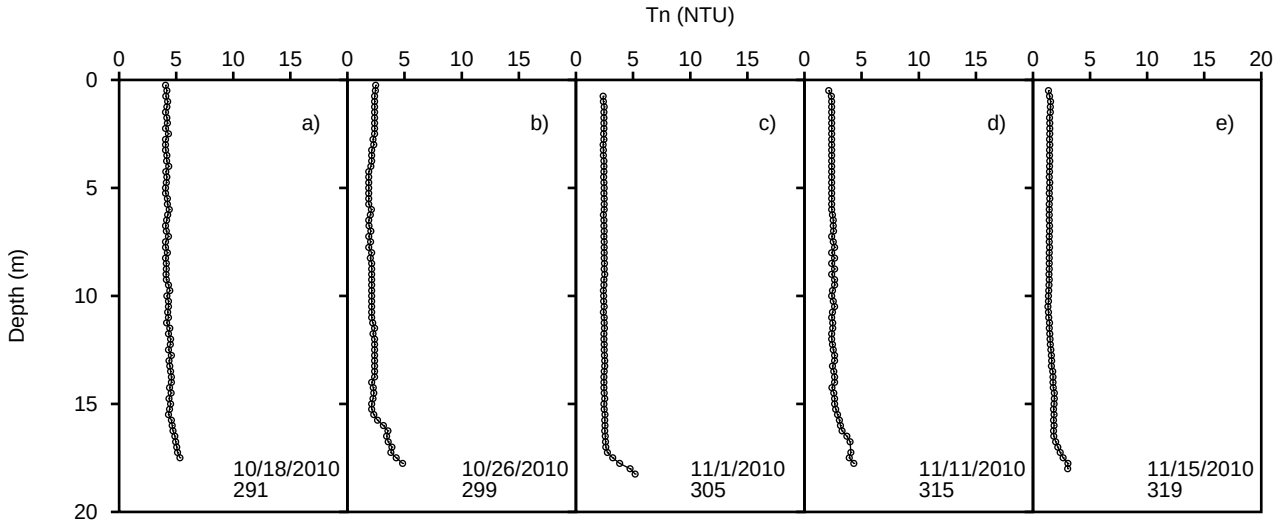

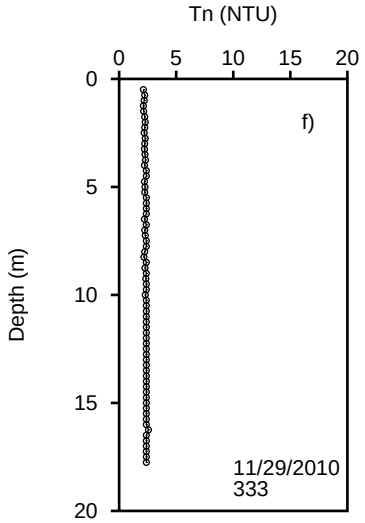

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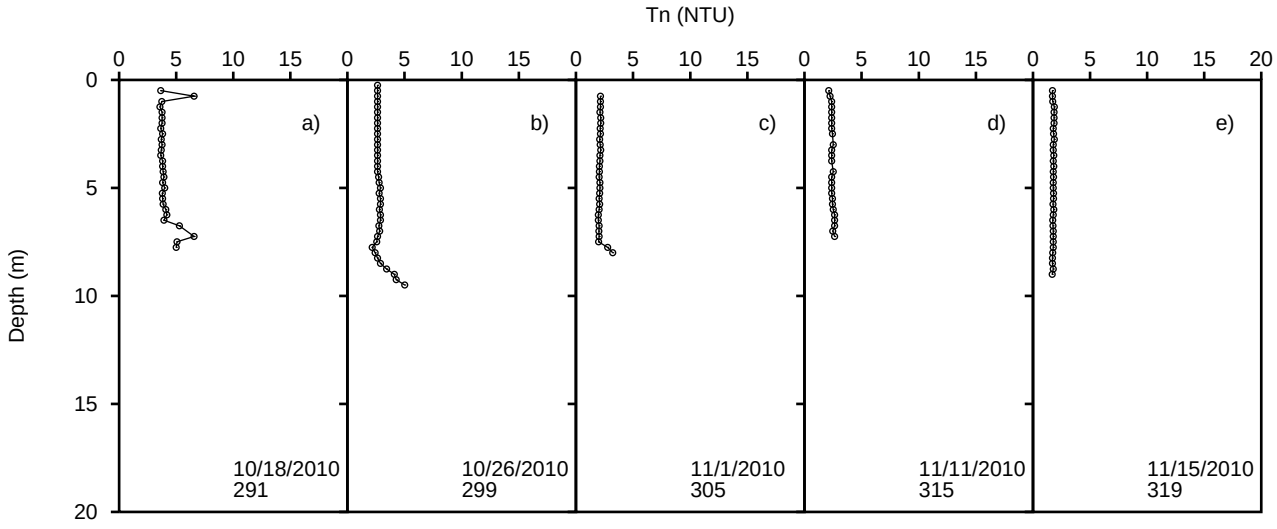

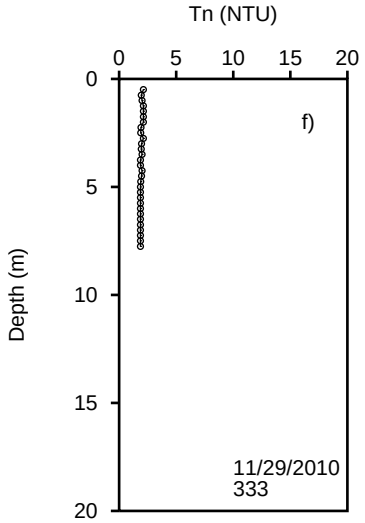

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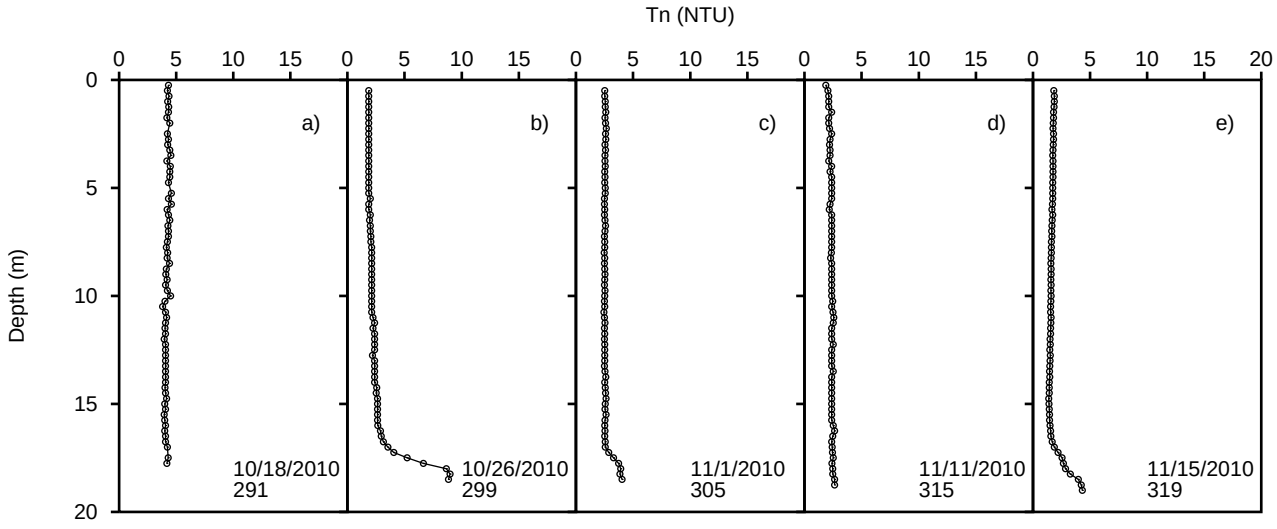

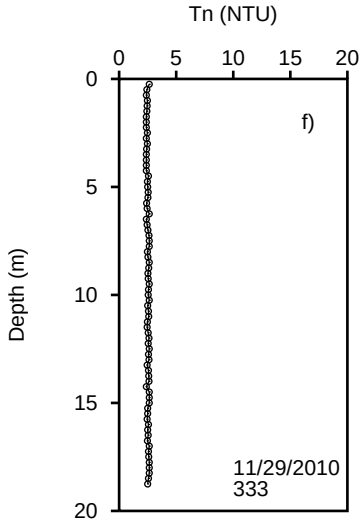

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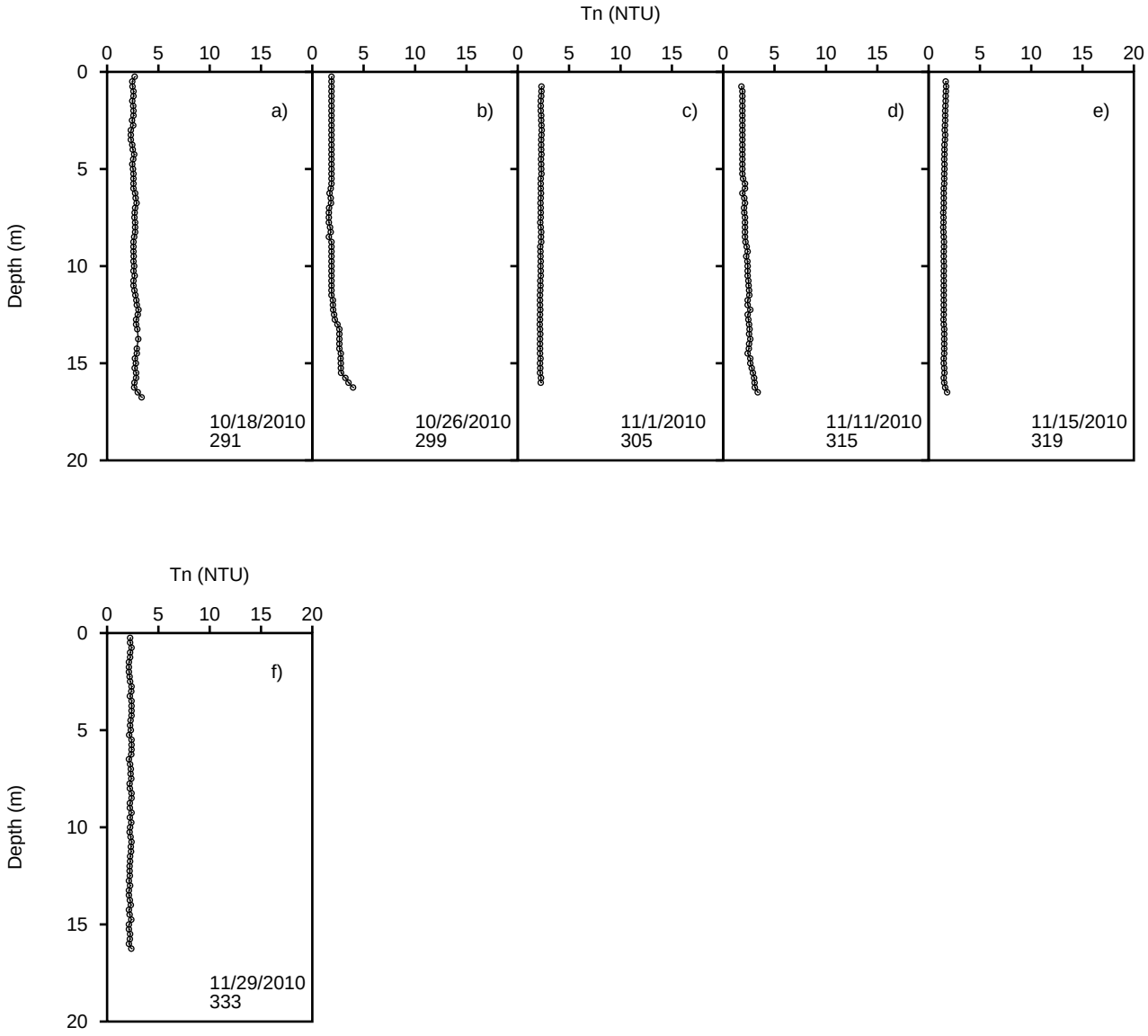

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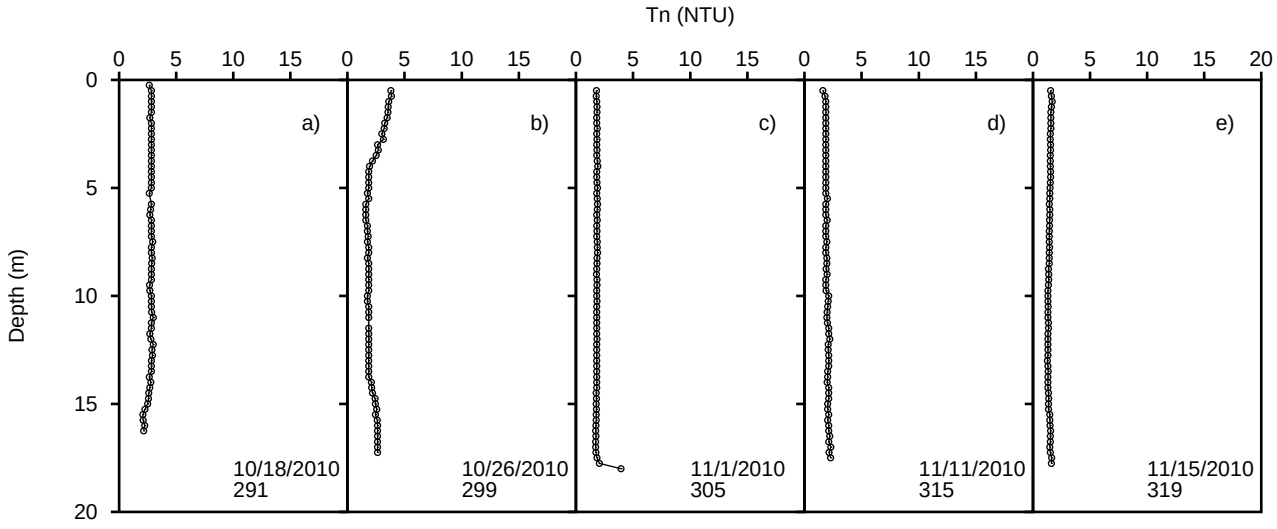

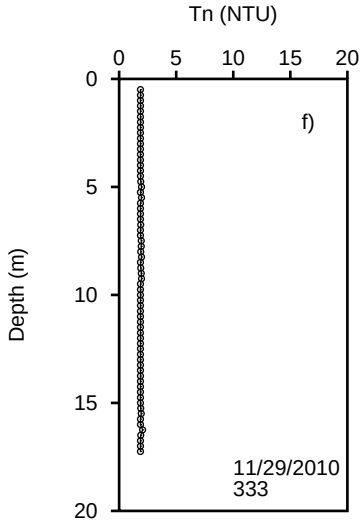

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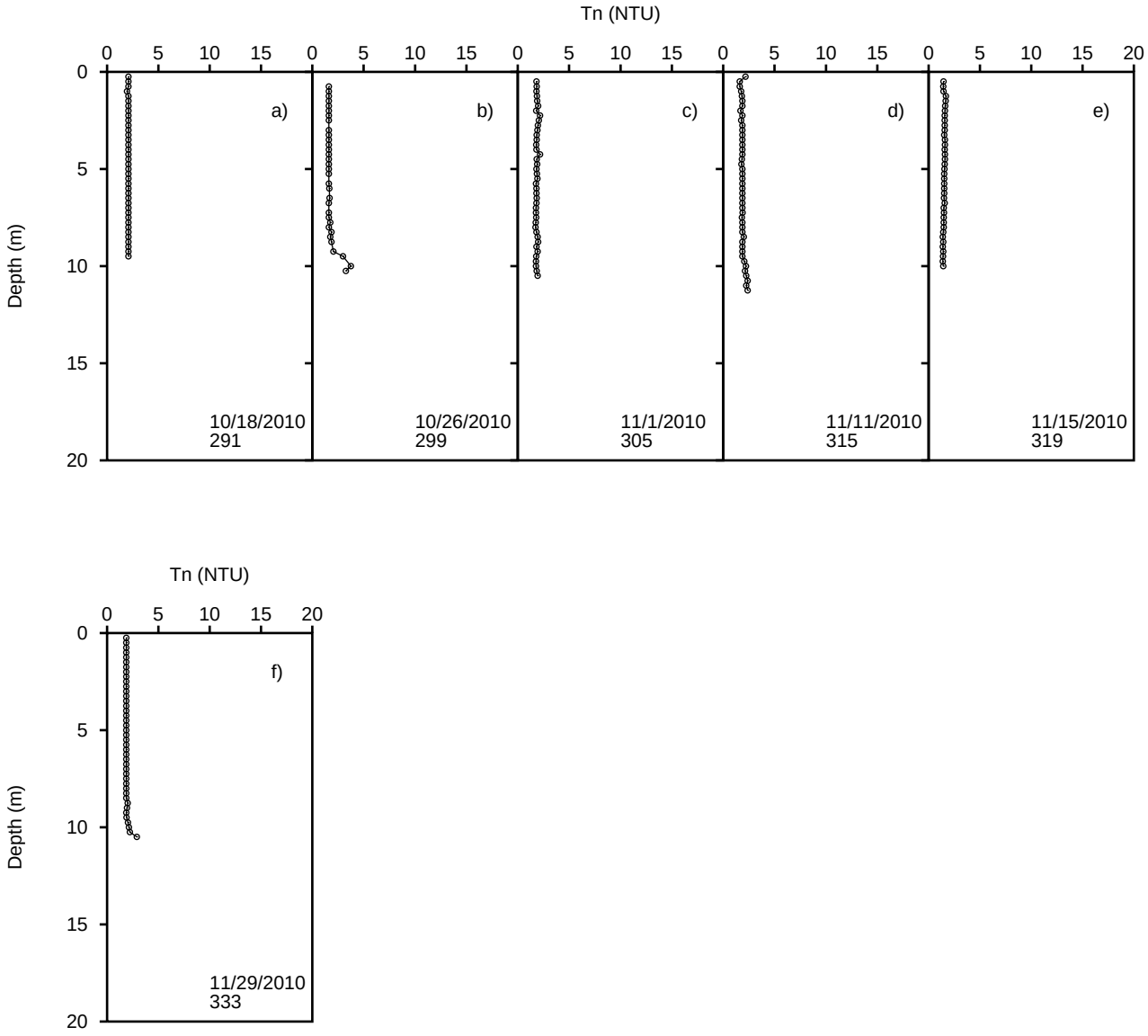

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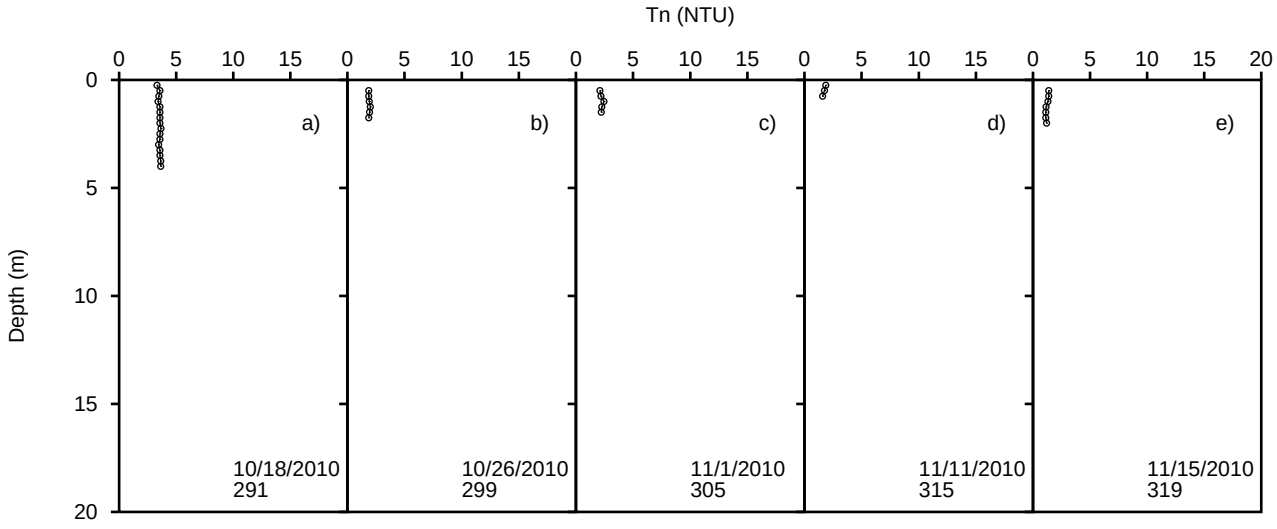

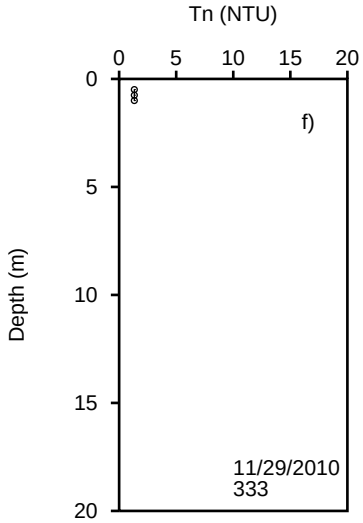

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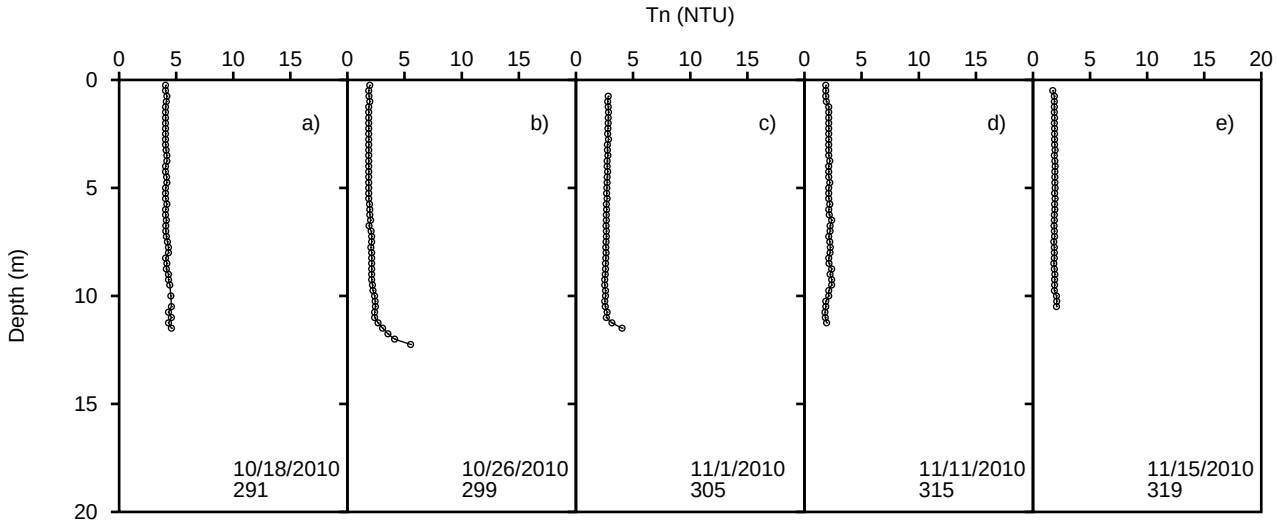

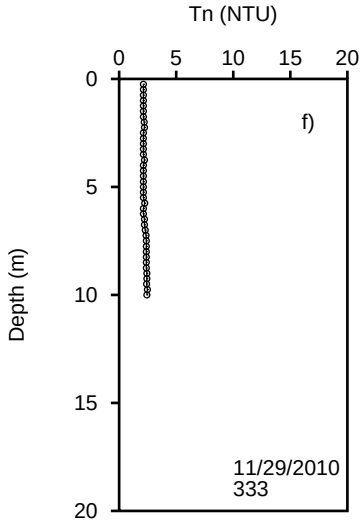

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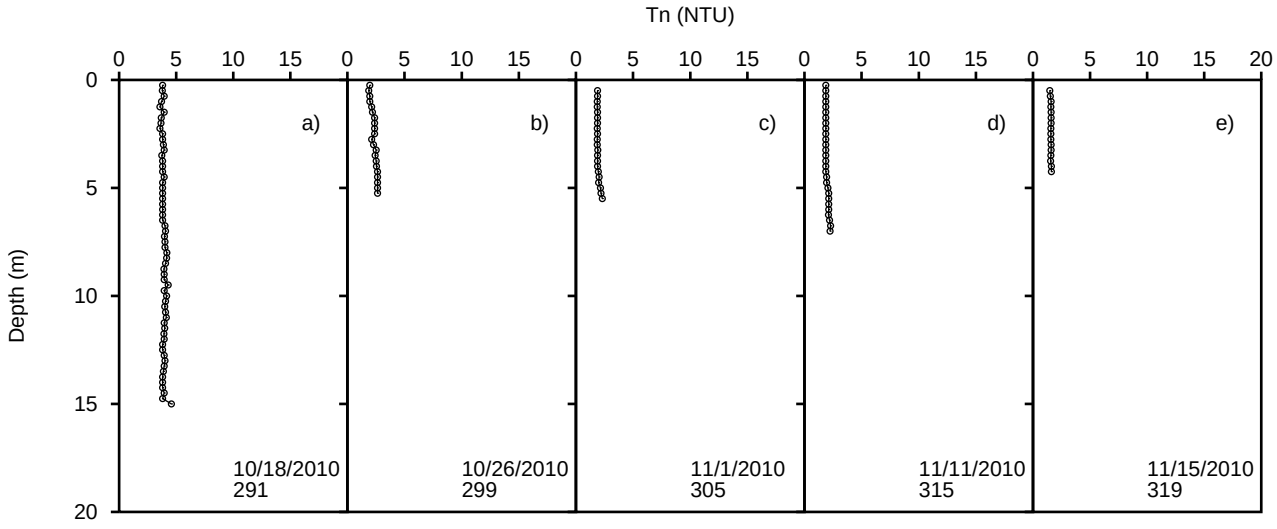

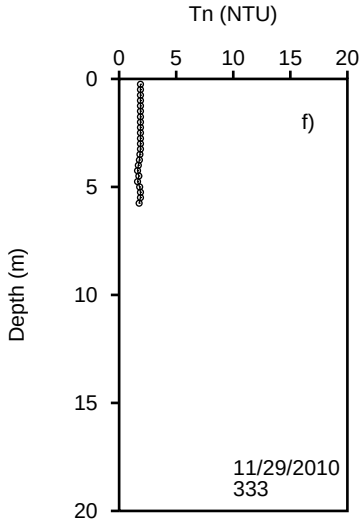

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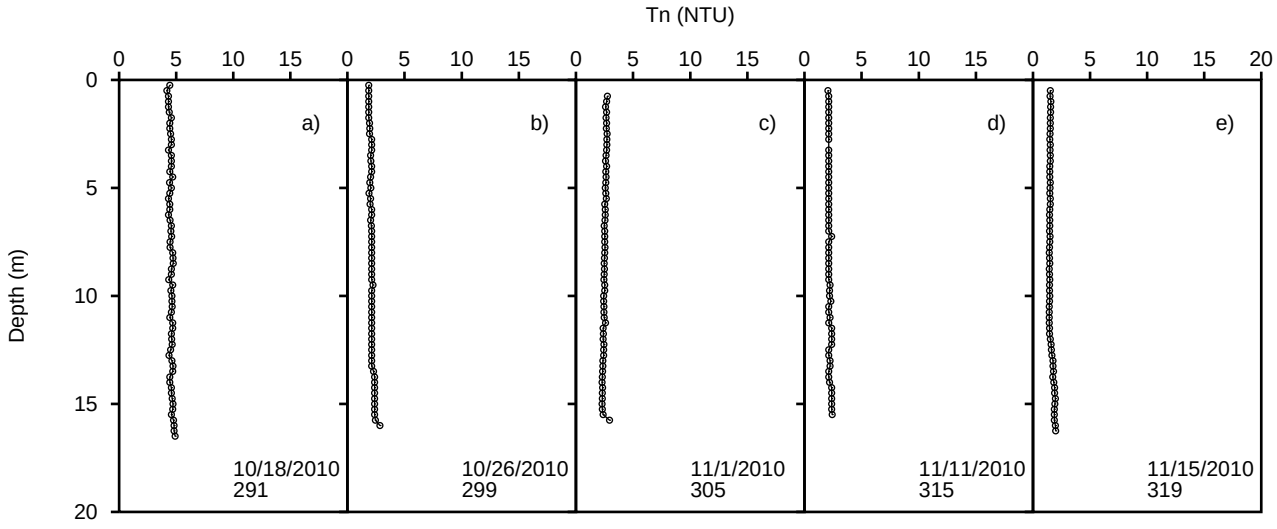

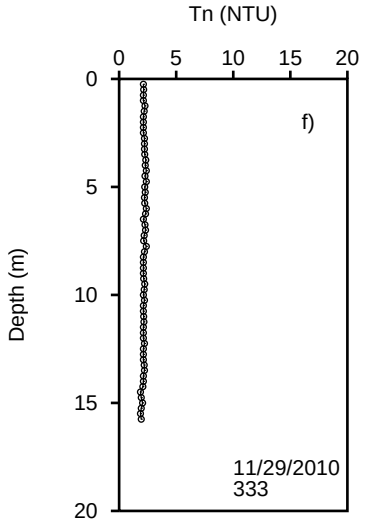

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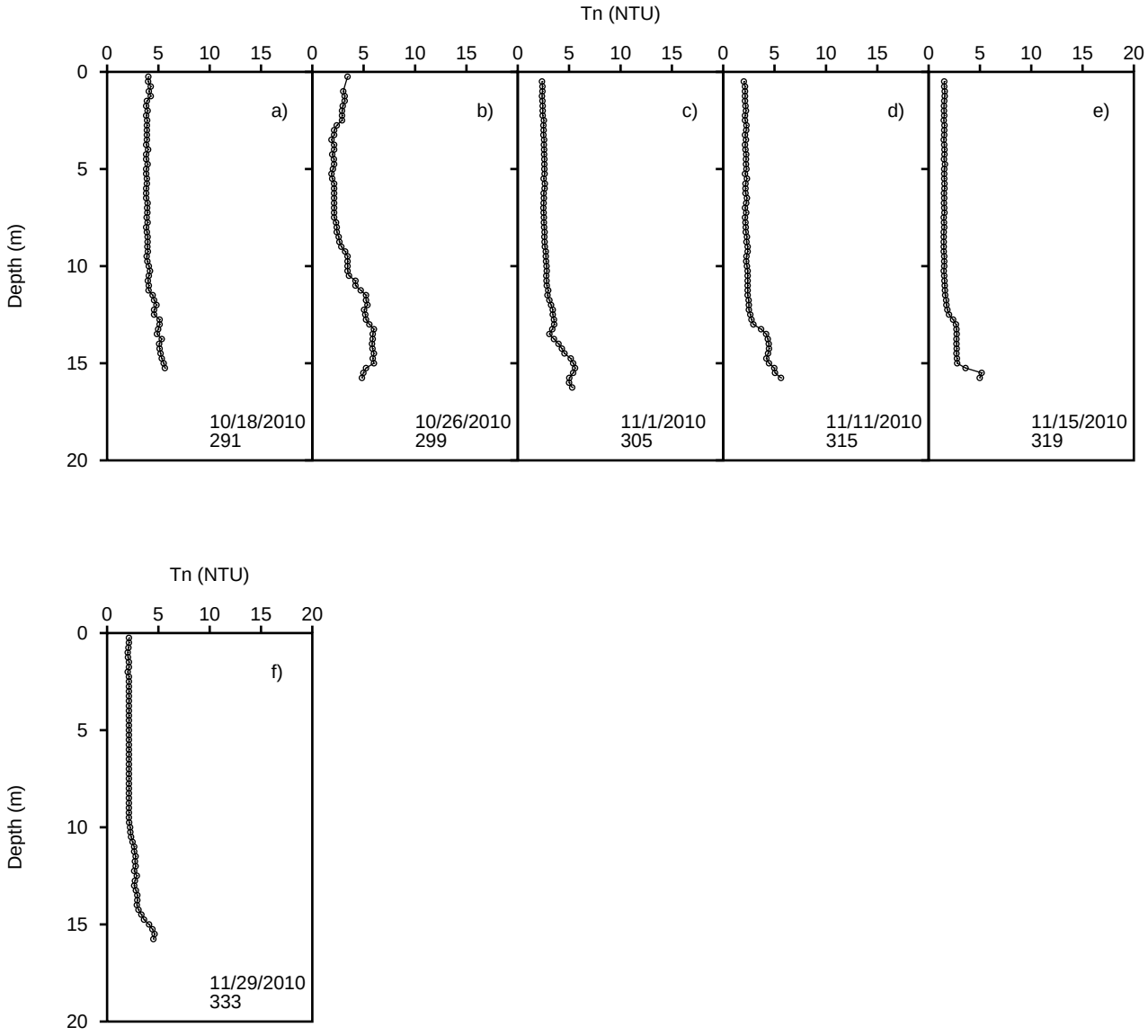

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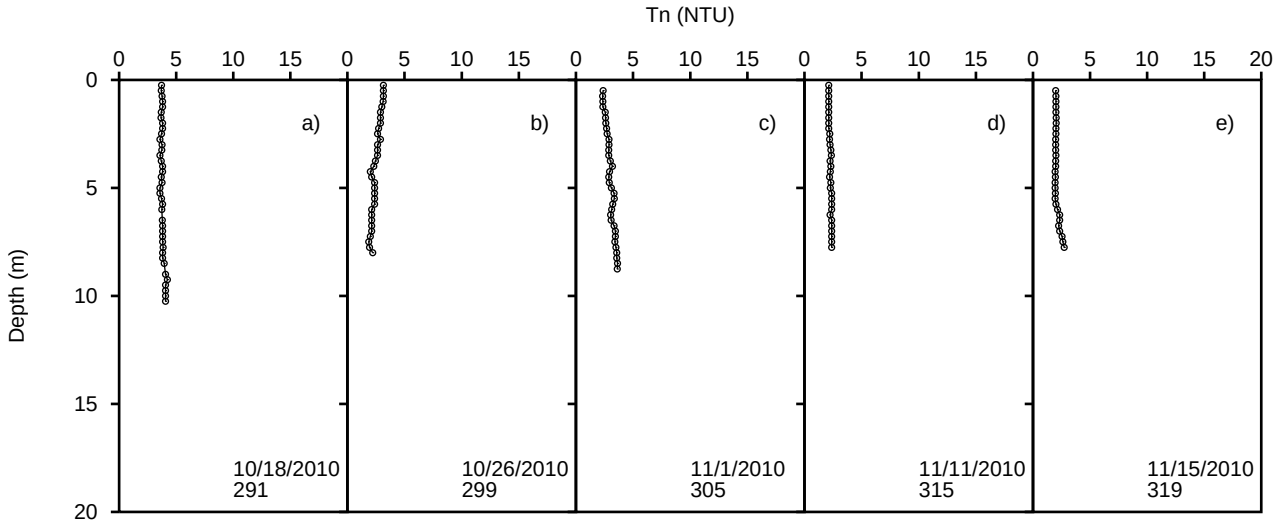

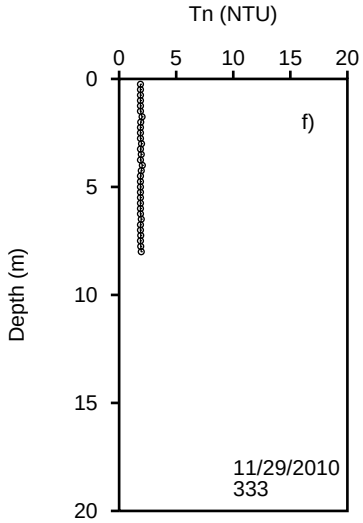

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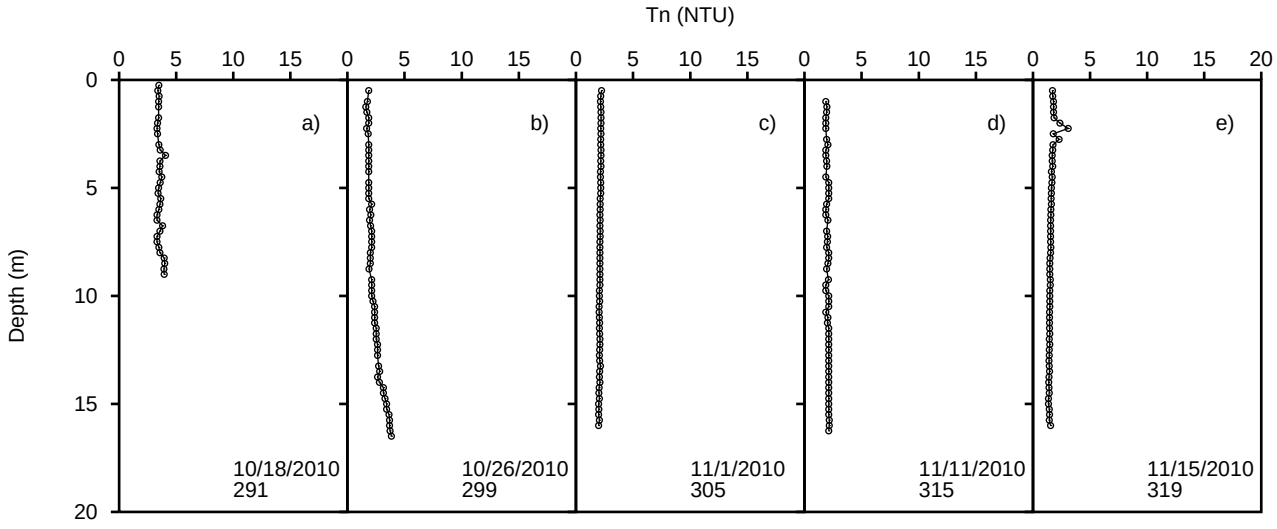

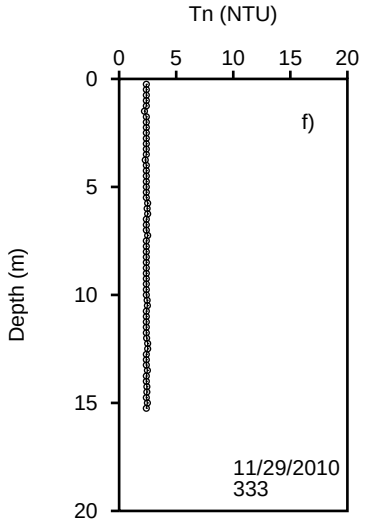

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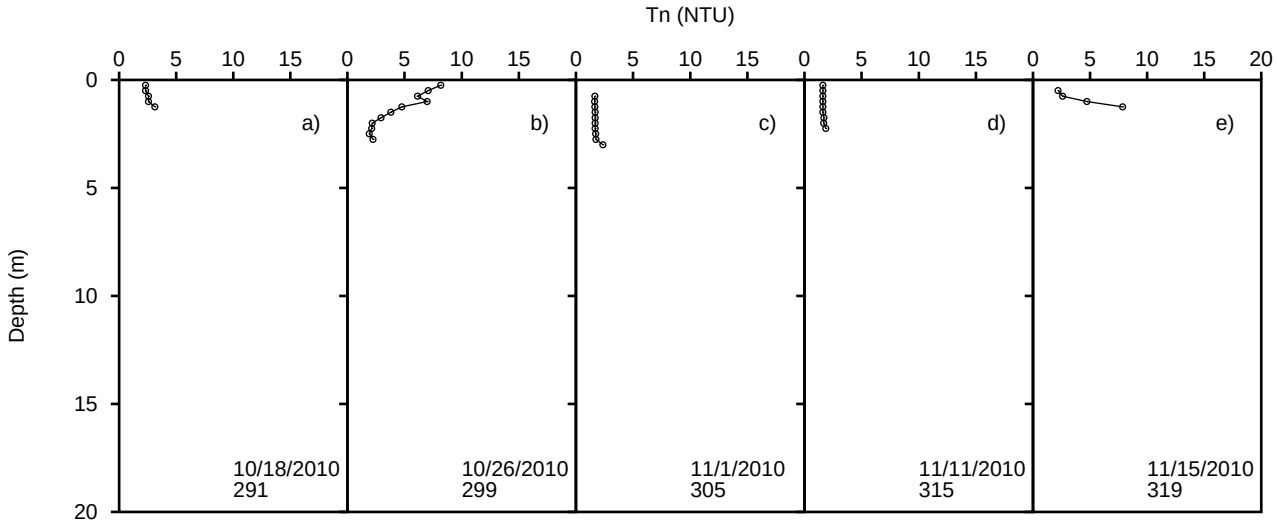

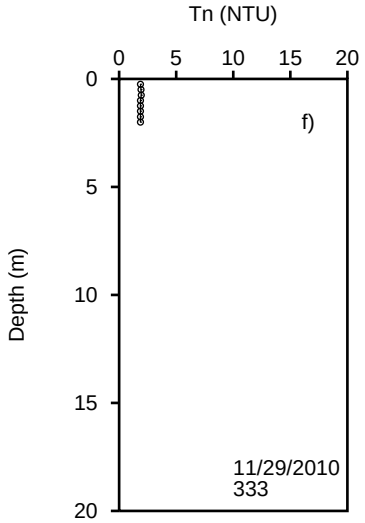

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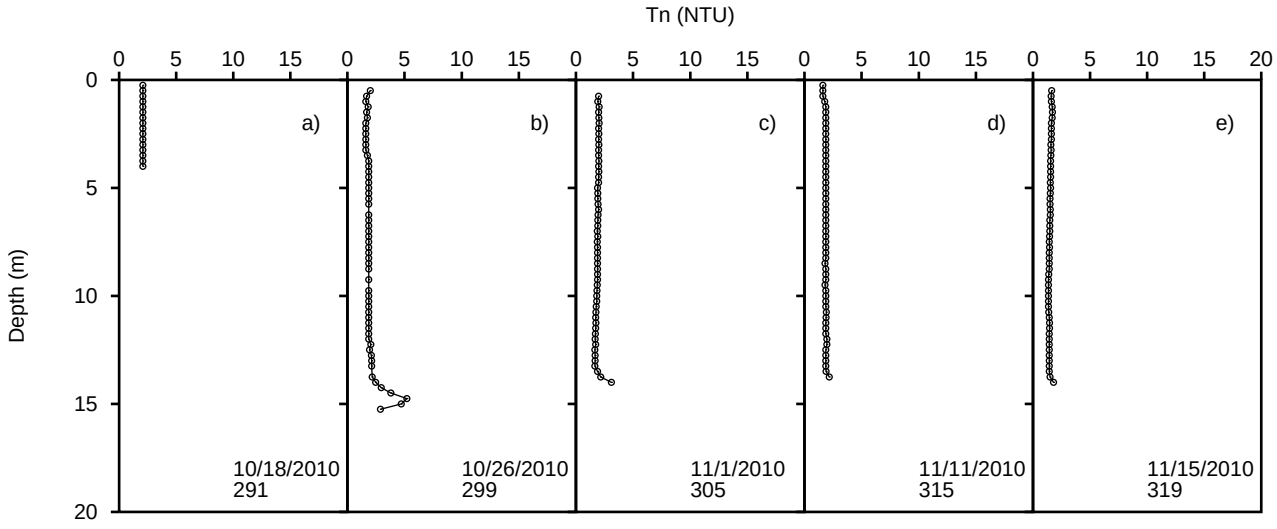

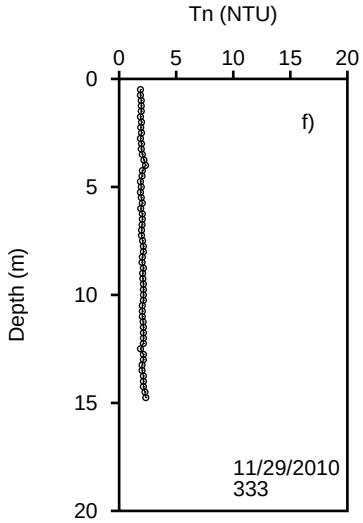

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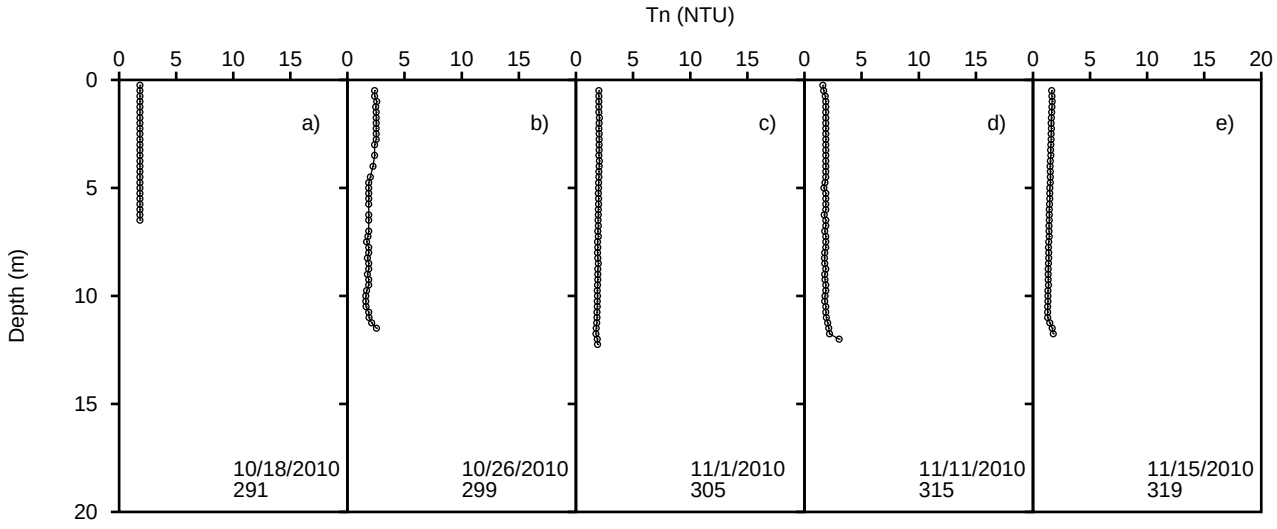

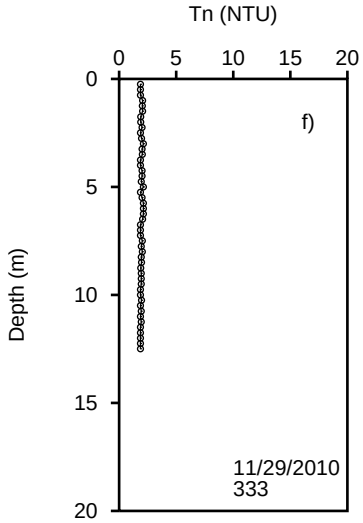

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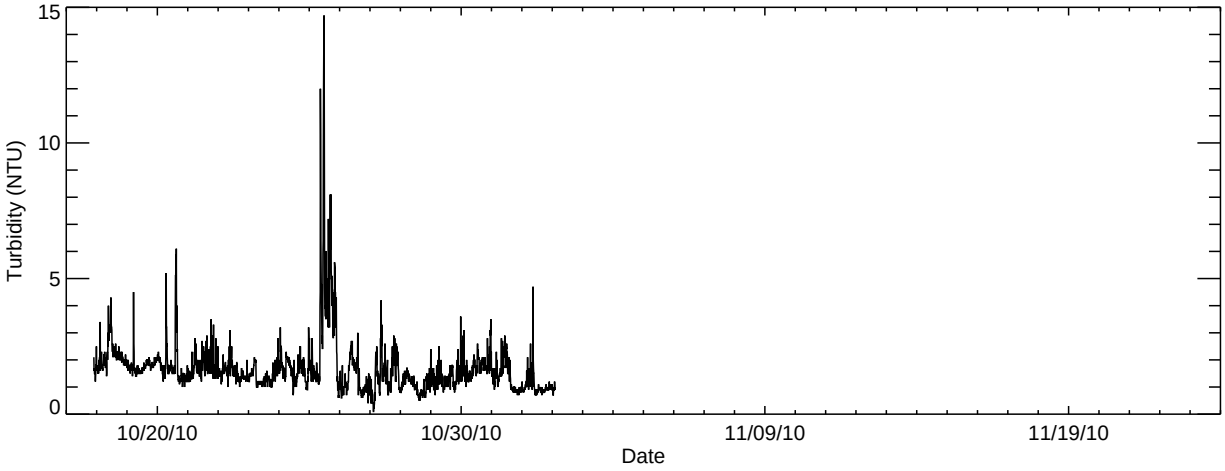
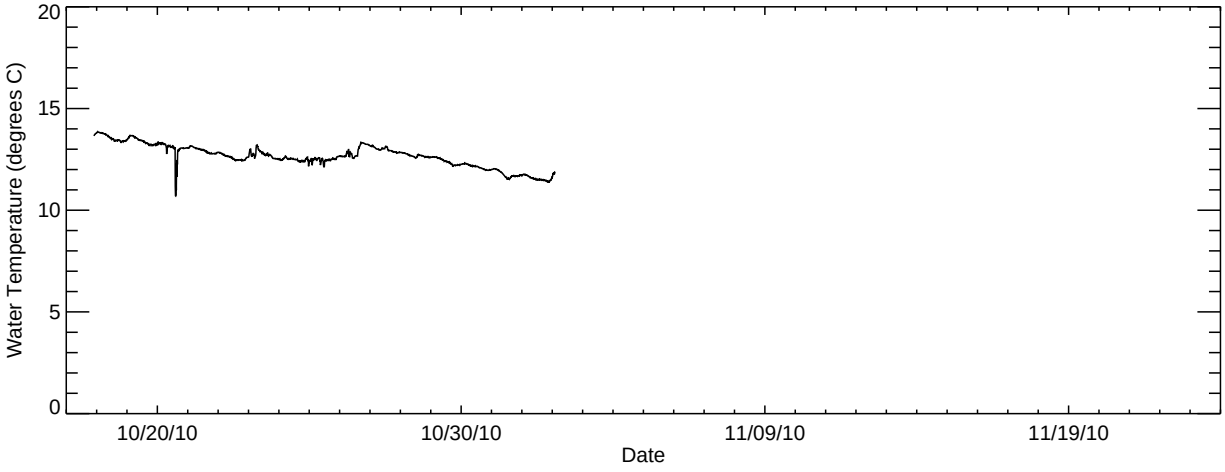
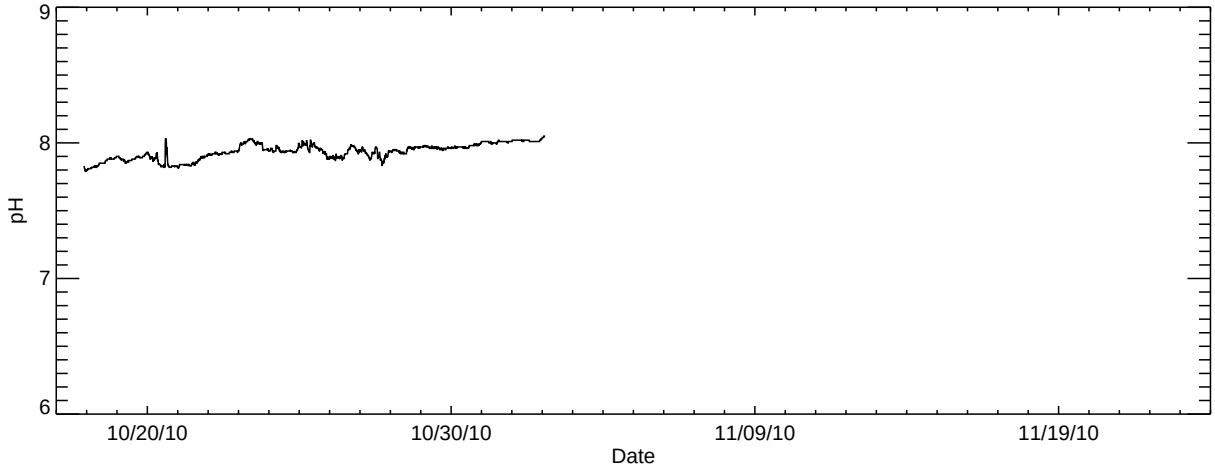
APPENDIX E

CONTINUOUS TURBIDITY MONITORING PLOTS



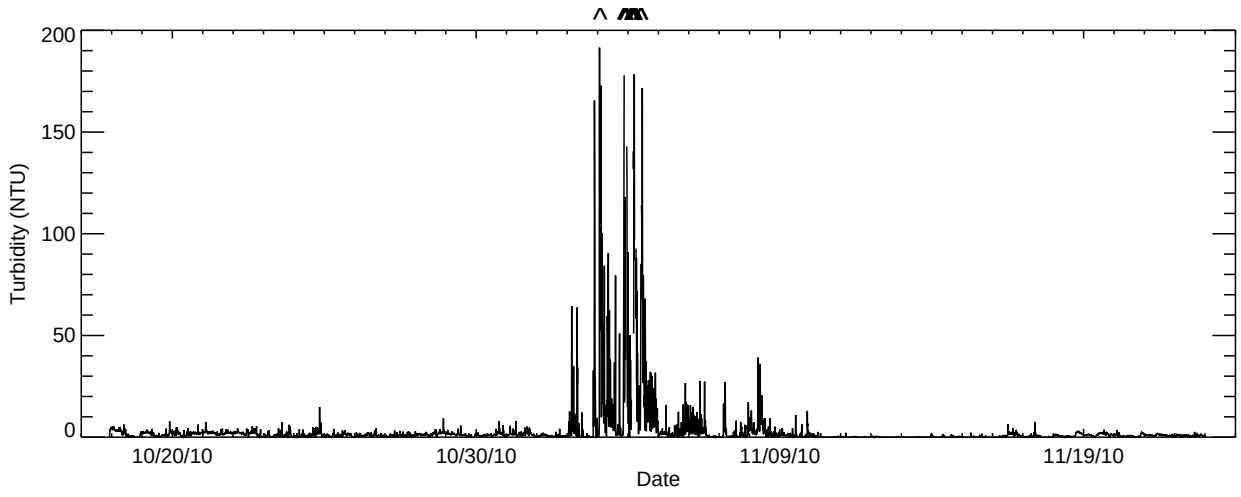


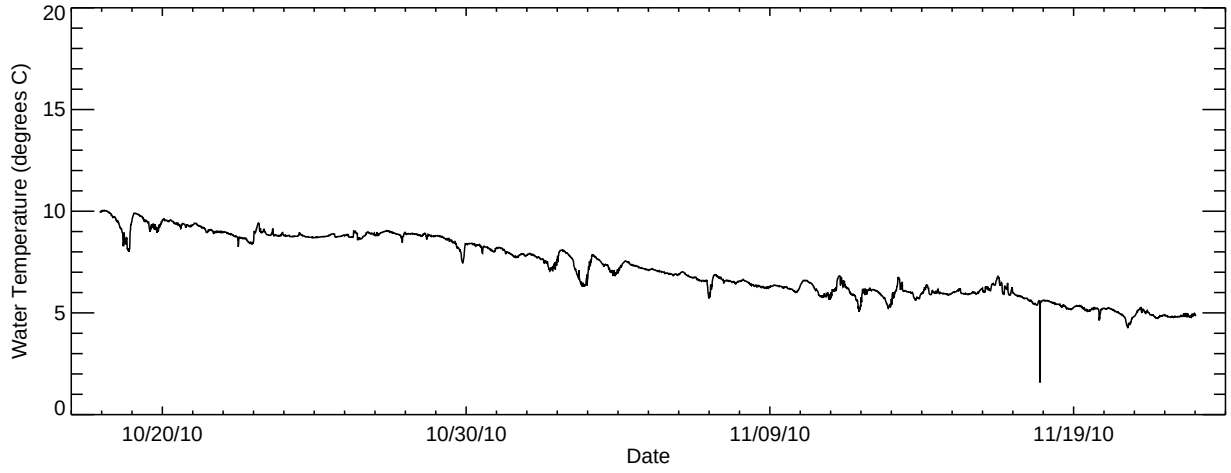


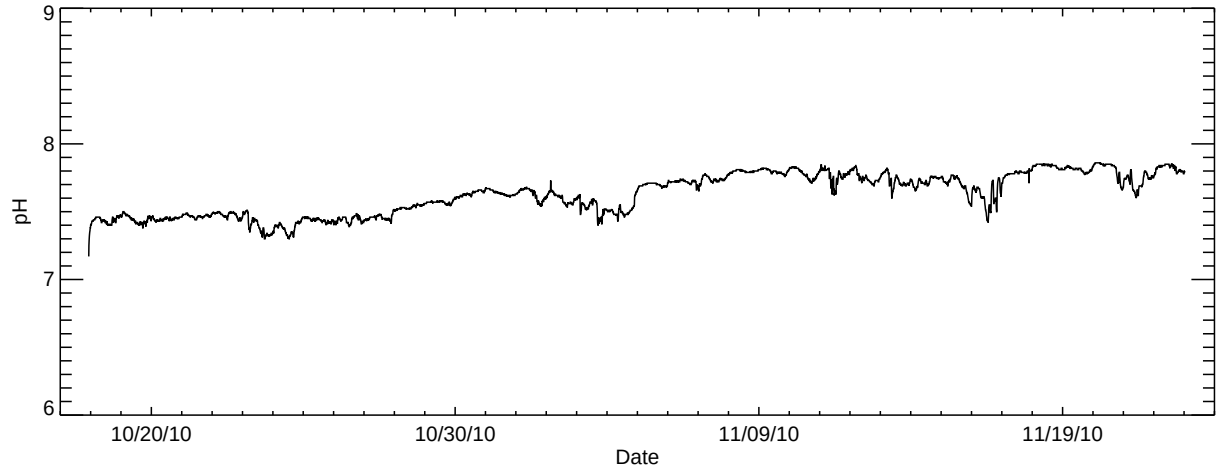
ANCHOR QEA

Onondaga Lake Construction Water Quality Monitoring

Data from location T1 (OL-SW-40313)
Turbidity monitoring equipment was lost after November 2, 2010







Onondaga Lake Construction Water Quality Monitoring

Data from location T2 (OL-SW-10194)

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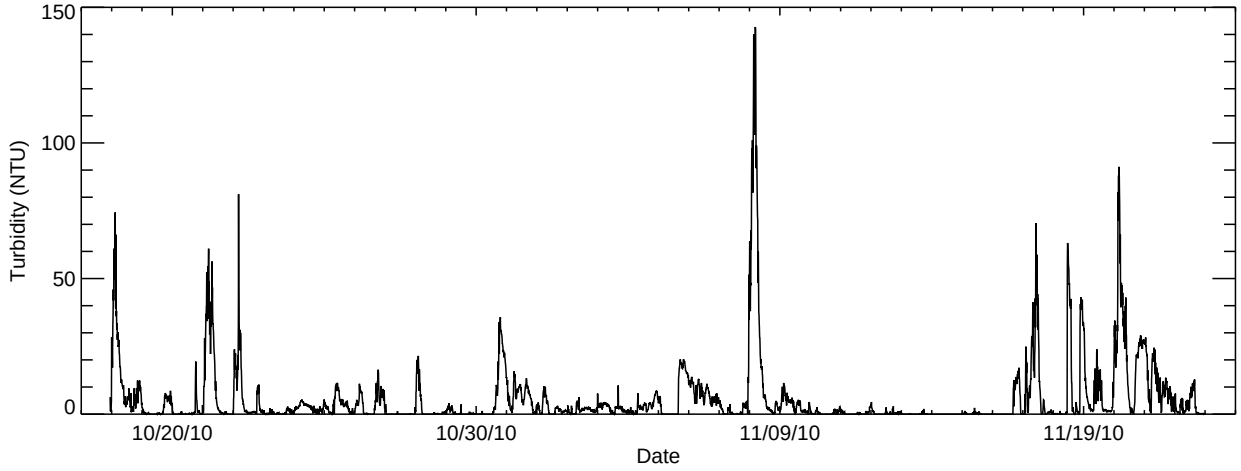
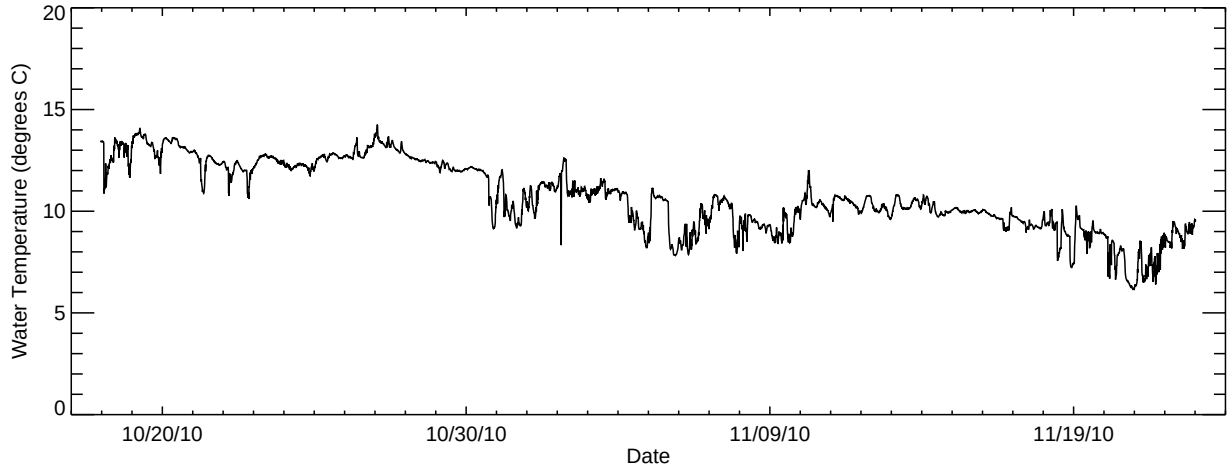
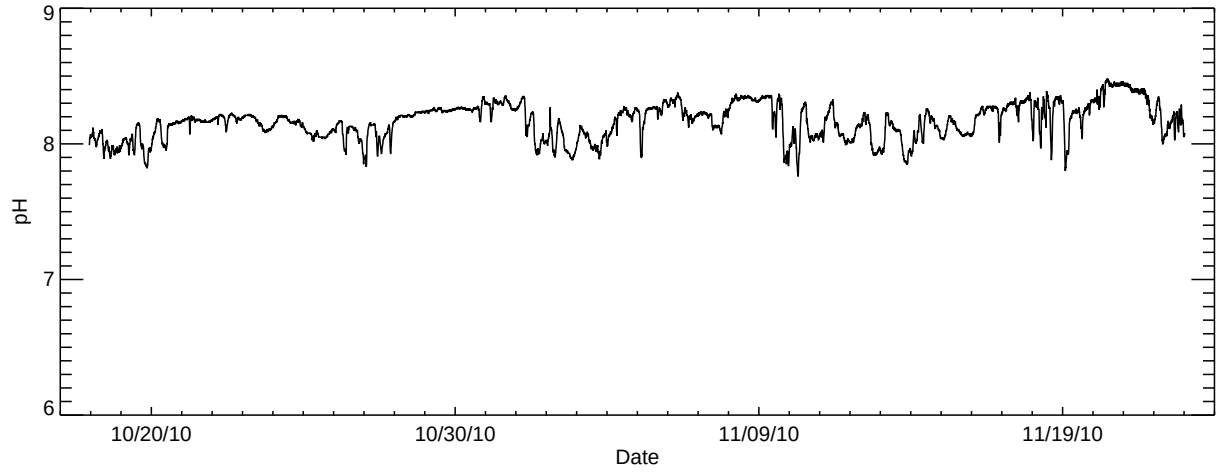


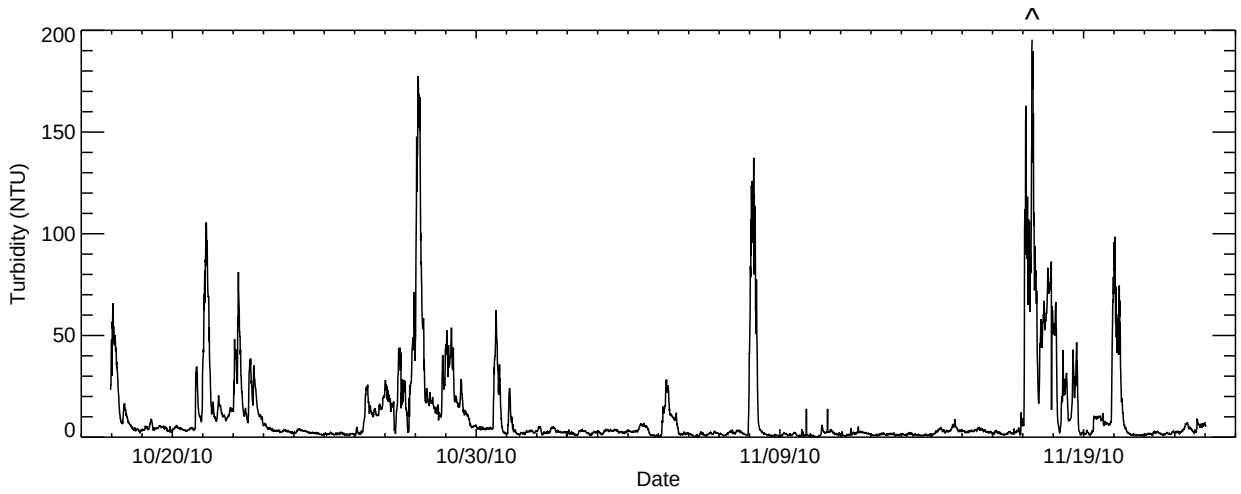


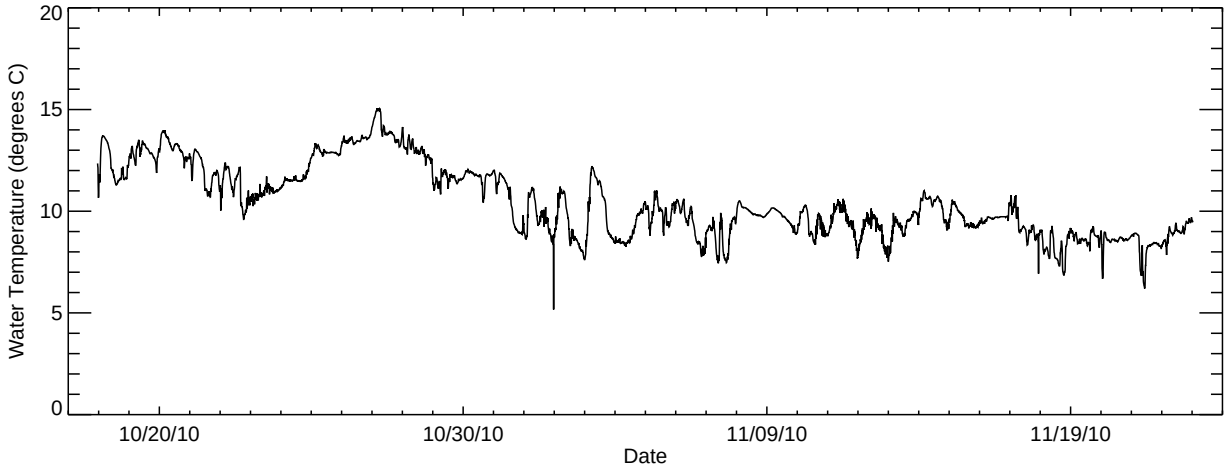


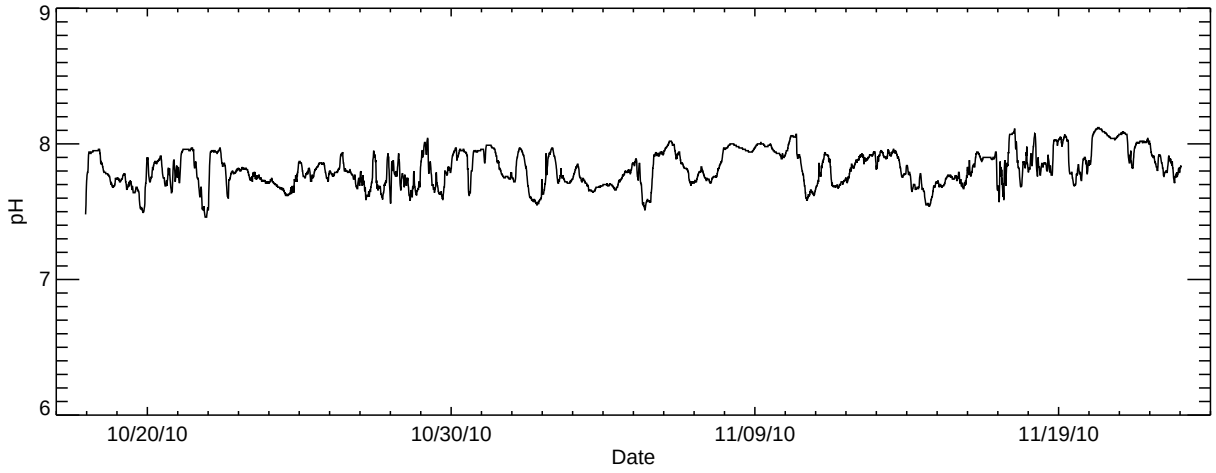
Onondaga Lake Construction Water Quality Monitoring

Data from location T3 (OL-SW-60328)

ANCHOR QEA







Onondaga Lake Construction Water Quality Monitoring

Data from location T4 (OL-SW-60329)

ANCHOR QEA

APPENDIX F

DATA USABILITY SUMMARY REPORT

APPENDIX F
DATA USABILITY SUMMARY REPORT

ONONDAGA LAKE PRE-DESIGN INVESTIGATION

PHASE VI – ADDENDUM 3
2010 BASELINE WATER QUALITY MONITORING FOR CONSTRUCTION

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October 2011

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LIST OF ATTACHMENTS

SECTION F1

DATA USABILITY SUMMARY

Water column samples were collected from the Onondaga Lake Pre-Design Investigation (PDI) – Addendum 3 site in Solvay, New York from October 25, 2010 through November 18, 2010. Analytical results from these samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Onondaga Lake PDI Phase VI – Addendum 3 Work Plan
- July 2005 NYSDEC Analytical Services Protocol (ASP)
- USEPA Region II Standard Operating Procedures (SOPs) for organic and inorganic data review

The analytical laboratories for this project were Test America Laboratories – Pittsburgh and North Canton (TA), Brooks Rand Laboratory (BRL), and Upstate Freshwater Institute (UFI). These laboratories are certified to conduct project analyses through the New York State Department of Health (NYSDOH) and the National Environmental Laboratory Accreditation Program (NELAP).

F1.1 LABORATORY DATA PACKAGES

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 36-56 days for the project samples.

The laboratory data packages received from the laboratories were paginated, complete, and overall were of good quality. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report which is summarized in Section A2.

F1.2 SAMPLING AND CHAIN-OF-CUSTODY

The samples were collected, properly preserved, shipped under a COC record, and received at the laboratories within one day of sampling. All samples were received intact and in good condition at the laboratories.

F1.3 LABORATORY ANALYTICAL METHODS

The water column samples were collected from the site and analyzed for the chemical parameter of interest (CPOI) volatile organic compounds (VOCs); the CPOI semivolatile organic compounds (SVOCs) of polynuclear aromatic hydrocarbons (PAHs) and phenol; polychlorinated biphenyls (PCBs); total and dissolved mercury; methylmercury; total suspended solids (TSS);

ammonia; chlorophyll; nitrite; nitrate-nitrite; total and dissolved phosphorus; reactive phosphate; turbidity; and beam attenuation coefficient. Summaries of issues concerning these laboratory analyses are presented in Subsections A1.3.1 through A1.3.5. The data qualifications resulting from the data validation review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, and comparability (PARCC) are discussed for each analytical method in Section A2. The laboratory data were reviewed and may be qualified with the following validation flags:

"U" - not detected at the value given,

"UJ" - estimated and not detected at the value given,

"J" - estimated at the value given,

"N" - presumptive evidence at the value given, and

"R" - unusable value.

The validated laboratory data were tabulated and are presented in Attachment A.

F1.3.1 Volatile Organic Analysis

Water column samples collected from the site were analyzed for the CPOI VOCs using the USEPA SW-846 8260B analytical method. Certain reported results for the VOC samples were qualified as estimated based upon sample instrument calibrations. The reported VOC analytical results were 100 percent complete (i.e., usable) for the data presented by TA. PARCC requirements were met.

F1.3.2 Semivolatile Organic Analysis

Water column samples collected from the site were analyzed for the CPOI SVOCs of PAHs and phenol using the USEPA SW-846 8270C analytical method. Certain reported results for these samples were qualified as estimated based upon field duplicate precision. The reported SVOC analytical results were 100 percent complete (i.e., usable) for the data presented by TA. PARCC requirements were met.

F1.3.3 PCB Organic Analysis

Water column samples collected from the site were analyzed for PCBs using the USEPA SW-846 8082 analytical method. The reported results for the PCB samples did not require qualification resulting from data validation. The reported PCB analytical results were considered 100 percent complete (i.e., usable) for the data presented by TA. PARCC requirements were met.

A1.3.4 Mercury and Methylmercury Analysis

Water column samples collected from the site were analyzed for total and dissolved mercury using the USEPA 1631E analytical method and methylmercury using the USEPA 1630 analytical method. Certain reported results for these samples were qualified as estimated based

upon matrix spike/matrix spike duplicate (MS/MSD) recoveries and laboratory control sample recoveries. The reported mercury and methylmercury data were considered 100 percent complete (i.e., usable) for the data presented by TA and BRL. PARCC requirements were met.

F1.3.5 Wet Chemistry Analysis

Water column samples collected from the site were analyzed for TSS using the SM20 2540D analytical method and ammonia, chlorophyll, nitrite, nitrate-nitrite, total and dissolved phosphorus, reactive phosphate, turbidity, and beam attenuation coefficient using UFI analytical SOPs. Certain reported results for these samples were qualified as estimated based upon laboratory duplicate precision and instrument calibrations. The reported wet chemistry analytical results for these samples were 100 percent complete (i.e., usable) for the data presented by TA and UFI. PARCC requirements were met.

SECTION F2

DATA VALIDATION REPORT

F2.1 WATER COLUMN SAMPLES

Data review has been completed for data packages generated by TA, BRL, and UFI containing water column samples collected from the site. These samples were contained within sample delivery groups (SDGs) C0J260540, C0J260541, C0J270568, C0J270570, C0K100473, C0K110569, C0K110574, C0K170498, C0K170502, C0K200411, 1044038, 1044039, 1044040, 1044041, 1046015, 1046024, 1046025, 1047013, 1047014, 1047037, CHM 2010-045, CHM 2010-050, and CHM 2010-051. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratories. The validated laboratory data were tabulated and are presented in Attachment A.

Data validation was performed for all samples in accordance with the project work plan, QAPP, NYSDEC ASP, and the USEPA Region II SOPs for organic and inorganic data review. This Data Validation and Usability Report (DUSR) is presented by analysis type.

F2.1.1 CPOI Volatiles

The following items were reviewed for compliancy in the volatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank and field equipment blank contamination
- GC/MS instrument performance
- Sample result verification and identification
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of blank contamination and continuing calibrations as discussed below.

Blank Contamination

The field equipment blank OL-1360-07 associated with samples OL-1360-01 through -06 contained benzene and toluene at concentrations of 0.14 and 0.83 µg/L, respectively; and the field equipment blank OL-1380-05 associated with samples collected on 11/18/10 contained benzene and toluene at concentrations of 0.16 and 0.88 µg/L, respectively. Therefore, results for these compounds less than validation action concentrations were considered not detected and qualified "U" for the affected samples.

Continuing Calibrations

All continuing calibration compounds were complaint with a minimum relative response factor (RRF) of 0.05 and a maximum percent difference (%D) within ± 20% with the exception of 1,2,4-trichlorobenzene (23.83%D) and 1,2,3-trichlorobenzene (21.51%D) associated with samples in SDG C0K110574. Therefore, the sample results for these compounds were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the affected samples.

Usability

All volatile results for the water column samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The volatile data presented by TA were 100 percent complete (i.e., usable). The validated volatile laboratory data are tabulated and presented in Attachment A.

F2.1.2 CPOI Semivolatiles (Phenol and PAHs)

The following items were reviewed for compliancy in the semivolatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- MS/MSD precision and accuracy
- LCS recoveries

- Laboratory method blank and field equipment blank contamination
- GC/MS instrument performance
- Sample result verification and identification
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of blank contamination and field duplicate precision as discussed below.

Blank Contamination

The field equipment blank OL-1380-05 associated with samples collected on 11/18/10 contained benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene at concentrations of 0.062, 0.13, 0.2, 0.3, 0.051, 0.11, 0.37, and 0.25 µg/L, respectively. Since concentrations in this blank exceeded associated sample concentrations (i.e., sampling carry over is not suspected), results from this blank were not used during data validation and data qualification of the associated samples was not required.

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the results for benzo(a)anthracene, benzo(b)fluoranthene, chrysene, fluoranthene, and pyrene for the field duplicate pair OL-1379-04/-05. These results were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the samples.

Usability

All semivolatile results for the water column samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The semivolatile data presented by TA were 100 percent complete (i.e., usable). The validated semivolatile laboratory data are tabulated and presented in Attachment A.

F2.1.3 PCBs

The following items were reviewed for compliancy in the PCB analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- MS/MSD precision and accuracy
- LCS recoveries
- Laboratory method blank and field equipment blank contamination
- Initial calibrations
- Verification calibrations
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of surrogate recoveries as discussed below.

Surrogate Recoveries

All sample surrogate recoveries were considered acceptable and within QC limits with the exception of the low decachlorobiphenyl recovery (QC limit 50-140%R) in samples OL-1358-02 (47%R), -04 (35%R), and OL-1359-01 (37%R). Validation qualification was not required for these samples since only one sample surrogate fell below the QC limits.

Usability

All PCB results for the water column samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The PCB data presented by TA were 100 percent complete with all data considered usable and valid. The validated data are tabulated and presented in Attachment A.

F2.1.4 Mercury (Total and Dissolved) and Methylmercury

The following items were reviewed for compliancy in the mercury and methylmercury analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration blanks, laboratory preparation blank, and field equipment blank contamination
- MS/MSD recoveries
- Laboratory duplicate precision
- LCS recoveries
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of blank contamination, MS/MSD recoveries, and LCS recoveries as discussed below.

Blank Contamination

The field equipment blank OL-1360-07 associated with samples OL-1360-01 through -06 contained total and dissolved mercury at concentrations of 11.8 and 1.2 ng/L, respectively; and the field equipment blank OL-1380-05 associated with samples collected on 11/18/10 contained total and dissolved mercury at 0.35 and 0.16 ng/L, respectively. Since concentrations in the field equipment blank OL-1360-07 exceeded associated sample concentrations (i.e., sampling carry over is not suspected), results from this blank were not used during data validation and data qualification of the associated samples was not required. Validation qualification of the samples associated with the field equipment blank OL-1380-05 was not required since the concentrations detected in this blank did not affect associated sample concentrations.

MS/MSD Recoveries

All matrix spike recoveries were considered acceptable and within QC limits with the exception of the low MS/MSD recoveries for total mercury (63%R, 60%R; QC limit 71-125%R) associated with samples in SDGs C0K100473 and C0K110569; and low MS/MSD recoveries for dissolved mercury (67%R, 69%R; QC limit 71-125%R) associated with samples in SDGs

C0K110569 and C0K110574. Therefore, the total and dissolved mercury results were considered estimated, possibly biased low, with positive results qualified "J" and nondetected results qualified "UJ" for the affected samples.

LCS Recoveries

All LCS recoveries were considered acceptable and within QC limits with the exception of the LCS recovery for methylmercury (QC limit 67-133%R) associated with samples in SDGs 1044038 and 1044039. Therefore, the methylmercury results were considered estimated, possibly biased low, with positive results qualified "J" and nondetected results qualified "UJ" for the affected samples.

Usability

All mercury and methylmercury results for the water column samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The mercury and methylmercury data for the samples presented by TA and BRL were 100 percent complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

F2.1.5 Wet Chemistry

All custody documentation, holding times, laboratory blanks, matrix spikes, duplicates, calibrations, quantitation limits, control samples, and instrumentation were reviewed for compliance. The reported results for these samples did not require qualification resulting from data validation with the exception of the following:

- The chlorophyll results for samples OL-1359-01 through -04, OL-1360-01, -02, -03, -05, and -06 were considered estimated and qualified "J" based upon laboratory duplicate precision (42%RPD; QC limit 0-15%RPD)

- The nitrate-nitrite results for the samples OL-1358-02 and -04 were considered estimated and qualified "J" based upon instrument calibration range exceedances

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The water column data for these analyses presented by TA and UFI were 100 percent complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

ATTACHMENT A

VALIDATED LABORATORY DATA

Validated Laboratory Data
Onondaga Lake Phase VI – Addendum 3
2010 Baseline Water Quality Monitoring For Construction

			Location	DEEP_N		DEEP_N		DEEP_N		DEEP_S		DEEP_S		DEEP_S		FIELD QC		FIELD QC		FIELD QC		OL-SW-10194		OL-SW-10194		OL-SW-10194		OL-SW-10194	
			Sample Depth	31-31 FT		31-31 FT		32-32 FT		33-33 FT		33.5-33.5 FT		33.5-33.5 FT								5-5 FT		4.4-4.4 FT		4.4-4.4 Ft		4.4-4.4 Ft	
			Field Sample ID	OL-1353-01		OL-1358-03		OL-1378-01		OL-1354-03		OL-1358-05		OL-1379-01		OL-1356-05		OL-1360-07		OL-1380-05		OL-1355-03		OL-1360-01		OL-1360-01A		OL-1360-01B	
			Sample Date	10/25/2010		11/9/2010		11/16/2010		10/25/2010		11/9/2010		11/16/2010		10/26/2010		11/10/2010		11/18/2010		10/26/2010		11/10/2010		11/10/2010		11/10/2010	
			SDG	1044039|C0J260540|UFICHM2010-045		UFICHM2010-050|C0K100473|1046015		1047013|UFICHM2010-051|C0K170502		C0J260541|UFICHM2010-045|1044038		UFICHM2010-050|C0K100473|1046015		1047014|UFICHM2010-051|C0K170498		1044041|C0J270570		C0K110569|1046024		1047037|C0K200411		1044040|UFICHM2010-045|C0J270568		C0K110569|1046024		UFICHM2010-050		UFICHM2010-050	
			Matrix	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
			Sample Purpose	Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		EB		EB		EB		Regular sample		Regular sample		Regular sample		Regular sample	
			Sample Type	Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Blank water (field)		Blank water (field)		Blank water (field)		Surface water		Surface water		Surface water		Surface water	
Method	Parameter Name	Units	Filtered																										
E1630	METHYL MERCURY	ug/L	N	8.40E-05	J	1.22E-04		6.70E-05		6.40E-05	J	1.21E-04		6.20E-05		2.00E-05	U	2.00E-05	U	2.00E-05	U	1.02E-04		1.07E-04					
E1631	MERCURY	ug/L	N	0.00061		0.0012	J	0.00088		0.00091		0.0046	J	0.0014		0.00012	U	0.0118	J	0.00035	J	0.0015		0.0014	J				
E1631	MERCURY	ug/L	Y	0.00013	J	0.00028	J	0.00027	J	0.00012	U	0.00028	J	0.00042	J	0.00012	U	0.0012	J	0.00016	J	0.00012	U	0.00022	J				
SM2540D	Total Suspended Solids	mg/L	N	2.8	J	2	J	2	J	2.8	J	2.4	J	2.4	J	4	U	4	U	4	U	4	U	2	J				
SW8082	AROCLOR-1016	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1221	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1232	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1242	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1248	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1254	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0055	J				
SW8082	AROCLOR-1260	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1262	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	AROCLOR-1268	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0096	U				
SW8082	PCBS, N.O.S.	ug/L	N	0.01	U	0.0095	U	0.0099	U	0.01	U	0.0094	U	0.0096	U	0.01	U	0.0095	U	0.0095	U	0.01	U	0.0055	J				
SW8260	1,2,3-TRICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	1,2,4-TRICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	1,2-DICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	1,3,5-TRICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	1,3-DICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	1,4-DICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	BENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	0.14	J	0.16	J	1	U	1	U				
SW8260	CHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	ETHYLBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	O-XYLENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U				
SW8260	TOLUENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	0.83	J	0.88	J	1	U	1	U				
SW8260	XYLENES, M & P	ug/L	N	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U				
SW8260	XYLENES, TOTAL	ug/L	N	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U				
SW8270	ACENAPHTHENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.035	J	0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	ACENAPHTHYLENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.047	J	0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	ANTHRACENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.13	J	0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	BENZO(A)ANTHRACENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	1.4		0.26	U	0.19	U	0.062	J	0.21	U	0.19	U				
SW8270	BENZO(A)PYRENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	1.1		0.067	J	0.19	U	0.051	J	0.21	U	0.19	U				
SW8270	BENZO(B)FLUORANTHENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	1.6		0.079	J	0.19	U	0.13	J	0.21	U	0.19	U				
SW8270	BENZO(G,H,I)PERYLENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.78		0.25	J	0.19	U	0.3		0.21	U	0.19	U				
SW8270	BENZO(K)FLUORANTHENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.75		0.12	J	0.19	U	0.2		0.21	U	0.19	U				
SW8270	CHRYSENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	1.3		0.26	U	0.19	U	0.11	J	0.21	U	0.19	U				
SW8270	DIBENZO(A,H)ANTHRACENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.81		0.46		0.19	U	0.37		0.21	U	0.19	U				
SW8270	FLUORANTHENE	ug/L	N	0.033	J	0.19	U	0.38		0.032	J	0.19	U	1.7		0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	FLUORENE	ug/L	N	0.032	J	0.19	U	0.2	U	0.062	J	0.19	U	0.54		0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	INDENO(1,2,3-CD)PYRENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.97		0.23	J	0.19	U	0.25		0.21	U	0.19	U				
SW8270	NAPHTHALENE	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.19	U	0.13	J	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	PHENANTHRENE	ug/L	N	0.17	J	0.19	U	0.27		0.35		0.19	U	0.32		0.2	J	0.19	U	0.19	U	0.12	J	0.19	U				
SW8270	PHENOL	ug/L	N	0.22	U	0.19	U	0.2	U	0.21	U	0.19	U	0.19	U	0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
SW8270	PYRENE	ug/L	N	0.03	J	0.19	U	0.15	J	0.02	J	0.19	U	1.5		0.26	U	0.19	U	0.19	U	0.21	U	0.19	U				
UFI SOP	AMMONIA	mg/L	N	0.322		0.245		0.193		0.298		0.245		0.214								0.328				0.232		0.242	
UFI SOP	Beam Attenuation Coefficient	1/m	N	1.89		2.46		2.04		2.44		3.73		2.08								2.14				2.49		2.1	
UFI SOP	CHLOROPHYLL-A	ug/L	N	2.4		3.4		5.4		2.9		4.2		5.6								1.2				4.6	J	4.7	J
UFI SOP	NITRITE	mg/l	N	0.049		0.073		0.097		0.049		0.072		0.094								0.049				0.072		0.072	
UFI SOP	NITROGEN, NITRATE-NITRITE	mg/L	N	1.832		1.709		1.875		1.999		2.03		1.999								1.886				1.797		1.766	
UFI SOP	PHOSPHORUS, DISSOLVED (AS P)	ug/l	Y	27.9		25.1		19.1		24.6		22.1		19.5								24.6				24.5		24.5	
UFI SOP	PHOSPHORUS, TOTAL (AS P)	mg/L	N	0.0414		0.0359		0.0301		0.0381		0.0393		0.0328								0.0371				0.0376		0.0352	
UFI SOP	REACTIVE PHOSPHATE	mg/L	N	0.0213		0.0177		0.0144		0.0178		0.0149		0.0129								0.0188				0.0167		0.0165	
UFI SOP	TURBIDITY	NTU	N	1.9		1.9		1.2		2.5		2.8		1.3								1.7				1.8		2	

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			Location	OL-SW-10194	OL-SW-10194	OL-SW-40313	OL-SW-40313	OL-SW-40313	OL-SW-60328	OL-SW-60328	OL-SW-60328	OL-SW-60328	OL-SW-60328	OL-SW-60328	OL-SW-60328	OL-SW-60328
			Sample Depth	4.4-4.4 Ft	5-5 FT	5-5 FT	3.95-4 FT	5-5 FT	4-4 FT	4-4 FT	3.8-3.8 FT	3.8-3.8 FT	4-4 FT	4-4 Ft	4-4 Ft	4-4 Ft
			Field Sample ID	OL-1360-01C	OL-1380-02	OL-1353-04	OL-1359-02	OL-1380-01	OL-1356-01	OL-1356-02	OL-1360-03	OL-1360-04	OL-1380-03	OL-1380-03A	OL-1380-03B	OL-1380-03C
			Sample Date	11/10/2010	11/18/2010	10/25/2010	11/10/2010	11/18/2010	10/26/2010	10/26/2010	11/10/2010	11/10/2010	11/18/2010	11/18/2010	11/18/2010	11/18/2010
			SDG	UFICHM2010-050	UFICHM2010-051|1047037|C0K200411	1044039|C0J260540|UFICHM2010-045	UFICHM2010-050|1046025|C0K110574	UFICHM2010-051|1047037|C0K200411	1044041|C0J270570|UFICHM2010-045	1044041|C0J270570	UFICHM2010-050|C0K110569|1046024	C0K110569|1046024	1047037|C0K200411	UFICHM2010-051	UFICHM2010-051	UFICHM2010-051
			Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Field duplicate	Regular sample	Field duplicate	Regular sample	Regular sample	Regular sample	Regular sample
			Sample Type	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water	Surface water
Method	Parameter Name	Units	Filtered													
E1630	METHYL MERCURY	ug/L	N		5.10E-05	9.80E-05 J	7.40E-05	5.60E-05	8.60E-05	1.00E-04	1.26E-04	1.08E-04	1.00E-04			
E1631	MERCURY	ug/L	N		0.0021	0.00091	0.00083	0.0017	0.00071	0.00071	0.003 J	0.0035 J	0.0132			
E1631	MERCURY	ug/L	Y		0.00026 J	0.00012 U	0.00015 J	0.00029 J	0.00012 U	0.00012 U	0.00035 J	0.00034 J	0.00036 J			
SM2540D	Total Suspended Solids	mg/L	N		4 U	2 J	4 U	4 U	5.2	4	2.4 J	2.8 J	3.2 J			
SW8082	AROCLOR-1016	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1221	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1232	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1242	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1248	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1254	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0095 J	0.0089 J	0.0095 U			
SW8082	AROCLOR-1260	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1262	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	AROCLOR-1268	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0096 U	0.0096 U	0.0095 U			
SW8082	PCBS, N.O.S.	ug/L	N		0.0099 U	0.01 U	0.0098 U	0.01 U	0.01 U	0.01 U	0.0095 J	0.0089 J	0.0095 U			
SW8260	1,2,3-TRICHLOROBENZENE	ug/L	N		1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	1,2,4-TRICHLOROBENZENE	ug/L	N		1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	1,2-DICHLOROBENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	1,3,5-TRICHLOROBENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	1,3-DICHLOROBENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	1,4-DICHLOROBENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	BENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	CHLOROBENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	ETHYLBENZENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	O-XYLENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	TOLUENE	ug/L	N		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			
SW8260	XYLENES, M & P	ug/L	N		2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U			
SW8260	XYLENES, TOTAL	ug/L	N		3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U			
SW8270	ACENAPHTHENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	ACENAPHTHYLENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	ANTHRACENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	BENZO(A)ANTHRACENE	ug/L	N		0.19 U	0.077 J	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	BENZO(A)PYRENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	BENZO(B)FLUORANTHENE	ug/L	N		0.19 U	0.041 J	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	BENZO(G,H,I)PERYLENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	BENZO(K)FLUORANTHENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	CHRYSENE	ug/L	N		0.19 U	0.063 J	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	DIBENZO(A,H)ANTHRACENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	FLUORANTHENE	ug/L	N		0.19 U	0.048 J	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.016 J	0.031 J			
SW8270	FLUORENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.029 J	0.2 U	0.2 U	0.19 U			
SW8270	INDENO(1,2,3-CD)PYRENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	NAPHTHALENE	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	PHENANTHRENE	ug/L	N		0.19 U	0.091 J	0.2 U	0.2 U	0.12 J	0.19 J	0.2 U	0.2 U	0.058 J			
SW8270	PHENOL	ug/L	N		0.19 U	0.23 U	0.2 U	0.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.19 U			
SW8270	PYRENE	ug/L	N		0.016 J	0.06 J	0.2 U	0.2 U	0.022 J	0.034 J	0.2 U	0.2 U	0.026 J			
UFI SOP	AMMONIA	mg/L	N	0.241	0.219	0.309	0.233	0.21	0.295		0.251			0.212	0.21	0.205
UFI SOP	Beam Attenuation Coefficient	1/m	N	2.36	1.66	2.27	2.19	2.63	5.41		2.88			4.6	4.43	4.43
UFI SOP	CHLOROPHYLL-A	ug/L	N	5.5 J	2.1	3.3	5.4 J	2.8	1.3		4.3 J			4.5	4.6	3.6
UFI SOP	NITRITE	mg/l	N	0.071	0.091	0.049	0.074	0.089	0.04		0.062			0.092	0.091	0.09
UFI SOP	NITROGEN, NITRATE-NITRITE	mg/L	N	1.774	2.099	1.917	1.645	1.983	1.869		3.023			2.262	2.415	2.146
UFI SOP	PHOSPHORUS, DISSOLVED (AS P)	ug/l	Y	26.5	20.1	26.6	24.5	20.4	21		22.8			18.8	19.1	19.7
UFI SOP	PHOSPHORUS, TOTAL (AS P)	mg/L	N	0.0373	0.0276	0.0407	0.0366	0.0309	0.0411		0.039			0.0348	0.0365	0.0347
UFI SOP	REACTIVE PHOSPHATE	mg/L	N	0.0167	0.0137	0.0192	0.0176	0.0144	0.0154		0.0135			0.0129	0.0128	0.0128
UFI SOP	TURBIDITY	NTU	N	1.8	1.4	2.1	1.6	2.4	5.8		2.5			3.9	4.1	3.9

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			Location	OL-SW-60329		OL-SW-60329		OL-SW-60329		OL-SW-80224		OL-SW-80224		OL-SW-80224		OL-SW-80225		OL-SW-80225		OL-SW-80225		OL-SW-80226		OL-SW-80226		OL-SW-80226		OL-SW-80227	
			Sample Depth	3-3 FT		3.6-3.6 FT		3.5-3.5 FT		22.5-22.5 FT		22-22 FT		22-22 FT		25-25 FT		24.5-24.5 FT		25-25 FT		29-29 FT		29-29 FT		30-30 FT		25.5-25.5 FT	
			Field Sample ID	OL-1356-03		OL-1360-05		OL-1380-04		OL-1353-02		OL-1359-01		OL-1378-02		OL-1353-03		OL-1358-02		OL-1378-03		OL-1354-01		OL-1359-03		OL-1378-04		OL-1354-02	
			Sample Date	10/26/2010		11/10/2010		11/18/2010		10/25/2010		11/10/2010		11/16/2010		10/25/2010		11/9/2010		11/16/2010		10/25/2010		11/10/2010		11/16/2010		10/25/2010	
			SDG	1044041|C0J270570|UFICHM2010-045		UFICHM2010-050|C0K110569|1046024		UFICHM2010-051|1047037|C0K200411		1044039|C0J260540|UFICHM2010-045		UFICHM2010-050|1046025|C0K110574		1047013|UFICHM2010-051|C0K170502		1044039|C0J260540|UFICHM2010-045		UFICHM2010-050|C0K100473|1046015		1047013|UFICHM2010-051|C0K170502		C0J260541|UFICHM2010-045|1044038		UFICHM2010-050|1046025|C0K110574		1047013|UFICHM2010-051|C0K170502		C0J260541|UFICHM2010-045|1044038	
			Matrix	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
			Sample Purpose	Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample	
			Sample Type	Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Surface water	
Method	Parameter Name	Units	Filtered																										
E1630	METHYL MERCURY	ug/L	N	8.80E-05		7.20E-05		1.00E-04		9.00E-05	J	7.80E-05		5.80E-05		6.20E-05	J	1.53E-04		6.40E-05		6.70E-05	J	7.90E-05		5.80E-05		7.80E-05	J
E1631	MERCURY	ug/L	N	0.00081		0.00071	J	0.0199		0.00079		0.00099		0.00093		0.00068		0.0012	J	0.0011		0.00095		0.0012		0.0012		0.0011	
E1631	MERCURY	ug/L	Y	0.00012	U	0.00024	J	0.00041	J	0.00012	U	0.00026	J	0.00028	J	0.00012	U	0.00023	J	0.00025	J	0.00012	U	0.00014	J	0.00021	J	0.00012	U
SM2540D	Total Suspended Solids	mg/L	N	4.4		2	J	37.2		2.4	J	4	U	4	U	2	J	4	U	2	J	3.6	J	2	J	4	U	3.2	J
SW8082	AROCLOR-1016	ug/L	N	0.01	U	0.0096	U	0.0095	U	0.01	U	0.0095	U	0.0098	U	0.01	U	0.0097	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U
SW8082	AROCLOR-1221	ug/L	N	0.01	U	0.0096	U	0.0095	U	0.01	U	0.0095	U	0.0098	U	0.01	U	0.0097	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U
SW8082	AROCLOR-1232	ug/L	N	0.01	U	0.0096	U	0.0095	U	0.01	U	0.0095	U	0.0098	U	0.01	U	0.0097	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U
SW8082	AROCLOR-1242	ug/L	N	0.01	U	0.0096	U	0.0095	U	0.01	U	0.0095	U	0.0098	U	0.01	U	0.0097	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U
SW8082	AROCLOR-1248	ug/L	N	0.01	U	0.0096	U	0.0095	U	0.01	U	0.0095	U	0.0098	U	0.01	U	0.0097	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U
SW8082	AROCLOR-1254	ug/L	N	0.01	U	0.0096	U	0.0095	U	0.01	U	0.0095	U	0.0098	U	0.01	U	0.0097	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U
SW8082	AROCLOR-1260	ug/L	N	0.01	U	0.0096	U	0.0095	U	0.01	U	0.0095	U	0.0098	U	0.01	U	0.0097	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U
SW8082	AROCLOR-1262	ug/L	N	0.01	U	0.0096	U	0.0095	U	0.01	U	0.0095	U	0.0098	U	0.01	U	0.0097	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U
SW8082	AROCLOR-1268	ug/L	N	0.01	U	0.0096	U	0.0095	U	0.01	U	0.0095	U	0.0098	U	0.01	U	0.0097	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U
SW8082	PCBS, N.O.S.	ug/L	N	0.01	U	0.0096	U	0.0095	U	0.01	U	0.0095	U	0.0098	U	0.01	U	0.0097	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U
SW8260	1,2,3-TRICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	UJ	1	U	1	U
SW8260	1,2,4-TRICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	UJ	1	U	1	U
SW8260	1,2-DICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	1,3,5-TRICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	1,3-DICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	1,4-DICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	BENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	CHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	ETHYLBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	O-XYLENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	TOLUENE	ug/L	N	1	U	1	U	1	U	1	U	0.16	J	1	U	1	U	0.24	J	1	U	1	U	1	U	1	U	1	U
SW8260	XYLENES, M & P	ug/L	N	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
SW8260	XYLENES, TOTAL	ug/L	N	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U
SW8270	ACENAPHTHENE	ug/L	N	0.21	U	0.2	U	0.19	U	0.23	U	0.2	U	0.2	U	0.23	U	0.19	U	0.2	U	0.26	U	0.19	U	0.19	U	0.21	U
SW8270	ACENAPHTHYLENE	ug/L	N	0.21	U	0.2	U	0.19	U	0.23	U	0.2	U	0.2	U	0.23	U	0.19	U	0.2	U	0.26	U	0.19	U	0.19	U	0.21	U
SW8270	ANTHRACENE	ug/L	N	0.21	U	0.2	U	0.19	U	0.23	U	0.2	U	0.2	U	0.022	J	0.19	U	0.094	J	0.26	U	0.19	U	1.3		0.21	U
SW8270	BENZO(A)ANTHRACENE	ug/L	N	0.21	U	0.2	U	0.19	U	0.23	U	0.2	U	0.2	U	0.23	U	0.19	U	1		0.26	U	0.19	U	11		0.21	U
SW8270	BENZO(A)PYRENE	ug/L	N	0.21	U	0.2	U	0.19	U	0.23	U	0.2	U	0.2	U	0.23	U	0.19	U	0.47		0.26	U	0.19	U	8.9		0.21	U
SW8270	BENZO(B)FLUORANTHENE	ug/L	N	0.21	U	0.2	U	0.19	U	0.23	U	0.2	U	0.2	U	0.23	U	0.19	U	1		0.26	U	0.19	U	12		0.21	U
SW8270	BENZO(G,H,I)PERYLENE	ug/L	N	0.21	U	0.2	U	0.19	U	0.23	U	0.2	U	0.2	U	0.23	U	0.19	U	0.17	J	0.26	U	0.19	U	12		0.21	U
SW8270	BENZO(K)FLUORANTHENE	ug/L	N	0.21	U	0.2	U	0.19	U	0.23	U	0.2	U	0.2	U	0.23	U	0.19	U	0.2	U	0.26	U	0.19	U	10		0.21	U
SW8270	CHRYSENE	ug/L	N	0.21	U	0.2	U	0.19	U	0.23	U	0.2	U	0.2	U	0.23	U	0.19	U	0.88		0.26	U	0.19	U	11		0.21	U
SW8270	DIBENZO(A,H)ANTHRACENE	ug/L	N	0.21	U	0.2	U	0.19	U	0.23	U	0.2	U	0.2	U	0.23	U	0.19	U	0.2	U	0.26	U	0.19	U	11		0.21	U
SW8270	FLUORANTHENE	ug/L	N	0.026	J	0.2	U	0.061	J	0.02	J	0.2	U	0.2	U	0.067	J	0.19	U	2		0.26	U	0.19	U	4.9		0.019	J
SW8270	FLUORENE	ug/L	N	0.21	U	0.2	U	0.19	U	0.23	U	0.2	U	0.2	U	0.061	J	0.19	U	0.2	U	0.26	U	0.19	U	0.57		0.21	U
SW8270	INDENO(1,2,3-CD)PYRENE	ug/L	N	0.21	U	0.2	U	0.19	U	0.23	U	0.2	U	0.2	U	0.23	U	0.19	U	0.47		0.26	U	0.19	U	11		0.21	U
SW8270	NAPHTHALENE	ug/L	N	0.21	U	0.2	U	0.069	J	0.23	U	0.2	U	0.2	U	0.23	U	0.19	U	0.2	U	0.26	U	0.19	U	0.19	U	0.21	U
SW8270	PHENANTHRENE	ug/L	N	0.1	J	0.2	U	0.043	J	0.22	J	0.2	U	0.052	J	0.51		0.19	U	0.3		0.22	J	0.19	U	0.5		0.14	J
SW8270	PHENOL	ug/L	N	0.21	U	0.2	U	0.19	U	0.23	U	0.2	U	0.2	U	0.23	U	0.19	U	0.2	U	0.26	U	0.19	U	0.19	U	0.21	U
SW8270	PYRENE	ug/L	N	0.03	J	0.2	U	0.049	J	0.23	U	0.2	U	0.2	U	0.026	J	0.19	U	1.6		0.025	J	0.19	U	5.4		0.21	U
UFI SOP	AMMONIA	mg/L	N	0.288		0.221		0.13		0.323		0.24		0.199		0.319		0.258		0.196		0.298		0.238		0.209		0.308	
UFI SOP	Beam Attenuation Coefficient	1/m	N	5.21		1.4		54.45		2.36		2.06		1.87		2.19		2.68		1.83		2.19		2.4		1.74		2.14	
UFI SOP	CHLOROPHYLL-A	ug/L	N	0.2	J	1.3	J	2.3		2.7		3.3	J	4.9		0.3	J	3.4		4.5		1.2		4.2	J	3.4		1.6	
UFI SOP	NITRITE	mg/l	N	0.039		0.064		0.024		0.05		0.075		0.097		0.051		0.074		0.099		0.049		0.075		0.093		0.05	
UFI SOP	NITROGEN, NITRATE-NITRITE	mg/L	N	2.111		1.767		2.249		1.847		1.716		1.972		1.908		2.013	J	1.862		2.195		1.693		1.939		2.01	
UFI SOP	PHOSPHORUS, DISSOLVED (AS P)	ug/l	Y	20.4		24.1		12.1		29.6		25.1		20.7		28.6		24.8		21.1		24.3		24.1		20.4		25.6	
UFI SOP	PHOSPHORUS, TOTAL (AS P)	mg/L	N	0.0421		0.0302		0.0606		0.0424		0.0366		0.0312		0.0388		0.0349		0.0318		0.0348		0.0363		0.0309		0.0381	
UFI SOP	REACTIVE PHOSPHATE	mg/L	N	0.0138		0.0161		0.0064		0.0218		0.0181		0.0152		0.0213		0.0175		0.0152		0.0175		0.0172		0.0146		0.0185	
UFI SOP	TURBIDITY	NTU	N	5.9		1.1		62.8		1.8		1.7		1.3		2.2		2.1		1.2		2.2		1.8		1.2		3.1	

Validated Laboratory Data
Onondaga Lake Phase VI – Addendum 3
2010 Baseline Water Quality Monitoring For Construction

			Location	OL-SW-80227		OL-SW-80227		OL-SW-80228		OL-SW-80228		OL-SW-80228		OL-SW-80229		OL-SW-80229		OL-SW-80229		OL-SW-80230		OL-SW-80230		OL-SW-80230		OL-SW-80230	
			Sample Depth	25-25 FT		25.5-25.5 FT		29-29 FT		28.2-28.2 FT		28.5-28.5 FT		21-21 FT		20.9-20.9 FT		21-21 FT		22-22 FT		21-21 FT		21-21 FT		21-21 FT	
			Field Sample ID	OL-1358-04		OL-1378-05		OL-1355-01		OL-1359-04		OL-1379-02		OL-1355-02		OL-1360-02		OL-1379-03		OL-1356-04		OL-1360-06		OL-1379-04		OL-1379-05	
			Sample Date	11/9/2010		11/16/2010		10/26/2010		11/10/2010		11/16/2010		10/26/2010		11/10/2010		11/16/2010		10/26/2010		11/10/2010		11/16/2010		11/16/2010	
			SDG	UFICHM2010-050|C0K100473|1046015		1047013|UFICHM2010-051|C0K170502		1044040|UFICHM2010-045|C0J270568		UFICHM2010-050|1046025|C0K110574		1047014|UFICHM2010-051|C0K170498		1044040|UFICHM2010-045|C0J270568		UFICHM2010-050|C0K110569|1046024		1047014|UFICHM2010-051|C0K170498		1044041|C0J270570|UFICHM2010-045		UFICHM2010-050|C0K110569|1046024		1047014|UFICHM2010-051|C0K170498		1047014|C0K170498	
			Matrix	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
			Sample Purpose	Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Regular sample		Field duplicate	
			Sample Type	Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Surface water		Surface water	
Method	Parameter Name	Units	Filtered																								
E1630	METHYL MERCURY	ug/L	N	1.09E-04		5.80E-05		9.00E-05		8.90E-05		5.50E-05		8.20E-05		1.07E-04		6.00E-05		1.02E-04		7.00E-05		5.50E-05		6.20E-05	
E1631	MERCURY	ug/L	N	0.00071	J	0.0013		0.0009		0.0019		0.003		0.00093		0.0033	J	0.0014		0.0006		0.0023	J	0.002		0.0014	
E1631	MERCURY	ug/L	Y	0.00034	J	0.00032	J	0.00028	J	0.00021	J	0.00032	J	0.00012	U	0.00027	J	0.00035	J	0.00012	U	0.00016	J	0.00034	J	0.00036	J
SM2540D	Total Suspended Solids	mg/L	N	2	J	4	U	4	U	4	U	2.4	J	2	J	2.4	J	2.4	J	4	U	2.4	J	2.4	J	2.4	J
SW8082	AROCLOR-1016	ug/L	N	0.0094	U	0.0096	U	0.01	U	0.0096	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U	0.0097	U	0.0095	U	0.0095	U
SW8082	AROCLOR-1221	ug/L	N	0.0094	U	0.0096	U	0.01	U	0.0096	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U	0.0097	U	0.0095	U	0.0095	U
SW8082	AROCLOR-1232	ug/L	N	0.0094	U	0.0096	U	0.01	U	0.0096	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U	0.0097	U	0.0095	U	0.0095	U
SW8082	AROCLOR-1242	ug/L	N	0.0094	U	0.0096	U	0.01	U	0.0096	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U	0.0097	U	0.0095	U	0.0095	U
SW8082	AROCLOR-1248	ug/L	N	0.0094	U	0.0096	U	0.01	U	0.0096	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U	0.0097	U	0.0095	U	0.0095	U
SW8082	AROCLOR-1254	ug/L	N	0.0094	U	0.0096	U	0.01	U	0.0096	U	0.0096	U	0.01	U	0.0065	J	0.0096	U	0.01	U	0.0028	J	0.0095	U	0.0095	U
SW8082	AROCLOR-1260	ug/L	N	0.0094	U	0.0096	U	0.01	U	0.0096	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U	0.0097	U	0.0095	U	0.0095	U
SW8082	AROCLOR-1262	ug/L	N	0.0094	U	0.0096	U	0.01	U	0.0096	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U	0.0097	U	0.0095	U	0.0095	U
SW8082	AROCLOR-1268	ug/L	N	0.0094	U	0.0096	U	0.01	U	0.0096	U	0.0096	U	0.01	U	0.0098	U	0.0096	U	0.01	U	0.0097	U	0.0095	U	0.0095	U
SW8082	PCBS, N.O.S.	ug/L	N	0.0094	U	0.0096	U	0.01	U	0.0096	U	0.0096	U	0.01	U	0.0065	J	0.0096	U	0.01	U	0.0028	J	0.0095	U	0.0095	U
SW8260	1,2,3-TRICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	1,2,4-TRICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	1,2-DICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	1,3,5-TRICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	1,3-DICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	1,4-DICHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	BENZENE	ug/L	N	1	U	0.12	J	1	U	1	U	0.14	J	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	CHLOROBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	ETHYLBENZENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	O-XYLENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	TOLUENE	ug/L	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260	XYLENES, M & P	ug/L	N	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
SW8260	XYLENES, TOTAL	ug/L	N	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U
SW8270	ACENAPHTHENE	ug/L	N	0.19	U	0.2	U	0.21	U	0.2	U	0.19	U	0.21	U	0.19	U	0.2	U	0.21	U	0.19	U	0.19	U	0.19	U
SW8270	ACENAPHTHYLENE	ug/L	N	0.19	U	0.2	U	0.21	U	0.2	U	0.19	U	0.21	U	0.19	U	0.2	U	0.21	U	0.19	U	0.19	U	0.19	U
SW8270	ANTHRACENE	ug/L	N	0.19	U	0.027	J	0.21	U	0.2	U	0.018	J	0.21	U	0.19	U	0.2	U	0.21	U	0.19	U	0.033	J	0.19	U
SW8270	BENZO(A)ANTHRACENE	ug/L	N	0.19	U	0.59		0.21	U	0.2	U	0.19	U	0.21	U	0.19	U	0.2	U	0.21	U	0.19	U	0.28	J	0.19	UJ
SW8270	BENZO(A)PYRENE	ug/L	N	0.19	U	0.35		0.21	U	0.2	U	0.19	U	0.21	U	0.19	U	0.2	U	0.21	U	0.19	U	0.11	J	0.19	U
SW8270	BENZO(B)FLUORANTHENE	ug/L	N	0.19	U	0.37		0.21	U	0.2	U	0.19	U	0.21	U	0.19	U	0.2	U	0.21	U	0.19	U	0.24	J	0.19	UJ
SW8270	BENZO(G,H,I)PERYLENE	ug/L	N	0.19	U	0.14	J	0.21	U	0.2	U	0.19	U	0.21	U	0.19	U	0.2	U	0.21	U	0.19	U	0.19	U	0.19	U
SW8270	BENZO(K)FLUORANTHENE	ug/L	N	0.19	U	0.23		0.21	U	0.2	U	0.19	U	0.21	U	0.19	U	0.2	U	0.21	U	0.19	U	0.19	U	0.19	U
SW8270	CHRYSENE	ug/L	N	0.19	U	0.44		0.21	U	0.2	U	0.19	U	0.21	U	0.19	U	0.2	U	0.21	U	0.19	U	0.24	J	0.19	UJ
SW8270	DIBENZO(A,H)ANTHRACENE	ug/L	N	0.19	U	0.2	U	0.21	U	0.2	U	0.19	U	0.21	U	0.19	U	0.2	U	0.21	U	0.19	U	0.19	U	0.19	U
SW8270	FLUORANTHENE	ug/L	N	0.19	U	0.72		0.21	U	0.2	U	0.045	J	0.21	U	0.19	U	0.034	J	0.21	U	0.19	U	0.8	J	0.2	J
SW8270	FLUORENE	ug/L	N	0.19	U	0.2	U	0.21	U	0.2	U	0.19	U	0.21	U	0.19	U	0.2	U	0.21	U	0.19	U	0.19	U	0.19	U
SW8270	INDENO(1,2,3-CD)PYRENE	ug/L	N	0.19	U	0.43		0.21	U	0.2	U	0.19	U	0.21	U	0.19	U	0.2	U	0.21	U	0.19	U	0.19	U	0.19	U
SW8270	NAPHTHALENE	ug/L	N	0.19	U	0.2	U	0.21	U	0.2	U	0.19	U	0.21	U	0.19	U	0.032	J	0.21	U	0.19	U	0.19	U	0.12	J
SW8270	PHENANTHRENE	ug/L	N	0.19	U	0.066	J	0.079	J	0.2	U	0.081	J	0.088	J	0.19	U	0.12	J	0.085	J	0.19	U	0.29		0.45	
SW8270	PHENOL	ug/L	N	0.19	U	0.2	U	0.21	U	0.2	U	0.19	U	0.21	U	0.19	U	0.2	U	0.21	U	0.19	U	0.19	U	0.19	U
SW8270	PYRENE	ug/L	N	0.19	U	0.64		0.21	U	0.2	U	0.039	J	0.21	U	0.19	U	0.034	J	0.21	U	0.19	U	0.64	J	0.05	J
UFI SOP	AMMONIA	mg/L	N	0.245		0.213		0.332		0.24		0.22		0.329		0.248		0.21		0.324		0.232		0.204			
UFI SOP	Beam Attenuation Coefficient	1/m	N	2.77		1.87		2.31		2.62		1.74		2.05		2.98		1.91		2.31		3.14		1.87			
UFI SOP	CHLOROPHYLL-A	ug/L	N	4.2		2.6		1.7		4.7	J	1.4		0.6		5.3	J	3.4		2.5		5.9	J	2.7			
UFI SOP	NITRITE	mg/l	N	0.074		0.093		0.047		0.074		0.091		0.048		0.073		0.096		0.046		0.072		0.093			
UFI SOP	NITROGEN, NITRATE-NITRITE	mg/L	N	1.998	J	1.995		1.798		1.809		2.154		1.767		1.796		2.139		1.933		1.849		2.036			
UFI SOP	PHOSPHORUS, DISSOLVED (AS P)	ug/l	Y	24.1		20.1		24.3		24.5		20.7		25		23.8		19.1		25.3		22.4		18.5			
UFI SOP	PHOSPHORUS, TOTAL (AS P)	mg/L	N	0.0373		0.0305		0.0375		0.0366		0.0305		0.0365		0.0386		0.0305		0.0355		0.0386		0.0295			
UFI SOP	REACTIVE PHOSPHATE	mg/L	N	0.0172		0.0142		0.0184		0.0164		0.0149		0.0187		0.0156		0.013		0.0195		0.0154		0.0125			
UFI SOP	TURBIDITY	NTU	N	2.2		1.4		2.1		2.1		1.6		2.2		2.4		1.4		1.8		2.2		1.3			