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Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: MANATEE PROJECT TURBIDITY MONITORING										
DO										
Sp. Cond						10 mS/cm				
						50 mS/cm				
pH						7.00 SU				
						4.01 SU				
						10.0 SU				
ORP						231 mV				
Turbidity	7-28-11	12:42pm	EAI LAB	Cont		0.0 ntu DI H2O	1.5ntu	PASS	Calibrated to 0.0	J.S.
	7-28-11	12:39pm	EAI LAB	Cont	10/20/2011	400 ntu	405ntu	PASS	Calibrated to 400ntu	J.S.
Temp										

* Took longer than normal to settle to 0.0 to #15 w/ H_2O

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST. LUCIE UPRATE 1 & 2										
DO	↑	↑	↑	↑		8.418	9.63	FAIL	ADJ TO 8.41	CAG
Sp. Cond	8/17/11	1530	EAI LAB	INI	9/2011	10 mS/cm	10.63	FAIL	ADJ TO 10.0	CAG
					4/2012	50 mS/cm	49.6	PASS	ADJ TO 50.0	CAG
pH					10/2012	7.00 SU	5.95	FAIL	ADJ TO 7.00	CAG
					9/2011	4.01 SU	3.29	FAIL	ADJ TO 4.01	CAG
					10/2012	10.0 SU	9.94	PASS	ADJ TO 10.0	CAG
ORP					—	231 mV	—	—	—	—
Turbidity					—	0.0 ntu DI H2O	—	—	—	—
					—	400 ntu	—	—	—	—
Temp	↓	↓	↓	↓		24.0	—	—	—	—

2ND CHECK 4.01

* REPLACED DO MEMBRANE, BEFORE READING 15.12 (SHOULD HAVE BEEN 8.418)

2ND DO | 8.418 | 8.43 | PASS | N/A | CAG

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie Uprate 1+2 TRAWLING										
DO	08/22/2011	08:15	EAI LABORATORY	Cont.	22.93°C	8.578	8.60	PASS		J.S.
Sp. Cond	08/22/2011	18:17	EAI LAB	Cont	09/2011	10 mS/cm	10.08	PASS	ADJ. TO 10.00	J.S.
	08/22/2011	18:20	EAI LAB	Cont	04/2012	50 mS/cm	49.7	PASS	ADJ. TO 50.0	J.S.
pH	08/22/2011	18:23	EAI LAB	Cont	10/2012	7.00 SU	6.74	FAIL	ADJ TO 7.0	J.S. PASSED @ 7.0 2ND time
	08/22/2011	18:26	EAI LAB	Cont	09/2011	4.01 SU	3.94	PASS	ADJ. TO 4.01	J.S.
	08/22/2011	18:28	EAI LAB	Cont	10/2012	10.0 SU	9.94	PASS	ADJ. TO 10.0	J.S.
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp										

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie Uprate 1+2 Trawling										
DO	8/23/11	18:14	EAI LAB	CONT	26.47	8.113	7.68	PASS	ADJ To 8.11	SD pass @ 2nd calibration
Sp. Cond	8/23/2011	18:10	EAI LAB	CONT	9/2011	10 mS/cm	10.08	PASS	ADJ to 10.0	SD
	8/23/2011	18:11	EAI LAB	CONT	04/2012	50 mS/cm	49.4	PASS	ADJ to 50.0	SD
pH	8/23/2011	1758	EAI LAB	CONT	10/2012	7.00 SU	7.10	Pass	ADJ to 7.0	SD
	8/23/2011	1804	EAI LAB	CONT	09/2011	4.01 SU	3.98	Pass	ADJ to 4.01	SD
	8/23/2011	18:07	EAI LAB	CONT	10/2012	10.0 SU	9.89	Pass	ADJ to 10.0	SD
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp										

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie 1+2 Uprate										
DO										
Sp. Cond						10 mS/cm				
						50 mS/cm				
pH						7.00 SU				
						4.01 SU				
						10.0 SU				
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp										

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT:										
DO	10/12/11		EAI LAB	INI		21°C/8.91	21.46°/8.88	Pass		J.S.
Sp. Cond	10/12/11	12:12	EAI LAB	INI	04/2012	10 mS/cm	10.17	Pass	Calibrated to 10.00	J.S.
	10/12/11	12:15	EAI LAB	INI	08/2012	50 mS/cm	49.4	Pass	Calibrated to 50.00	J.S.
pH	10/12/11	12:17	EAI LAB	INI	02/2013	7.00 SU	7.43	Fail	Calibrated to 7.00	J.S.
	10/12/11	12:19	EAI LAB	INI	04/2012	4.01 SU	3.95	Pass	Calibrated to 4.01	J.S.
	10/12/11	12:20	EAI LAB	INI	02/2013	10.0 SU	9.95	Pass	Calibrated to 10.00	J.S.
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	10/12/11	11:30	EAI LAB	INI		34.6°C	29.48°C	FAIL	Need to send out	J.S.

Brooklyn Thermometer

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach A

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: Manatee Pocket Dredge										
DO										
Sp. Cond						10 mS/cm				
						50 mS/cm				
pH						7.00 SU				
						4.01 SU				
						10.0 SU				
ORP						231 mV				
Turbidity	10/2/11	17:14	EAI Lab	Cont.	—	0.0 ntu DI H2O	0.0	Pass	None	ED
	10/2/11	17:	EAI Lab	Cont.	10/20/11	400 ntu	401	Pass	Adj. to 400	ED
Temp										
PROJECT: St. Lucie 1+2 uprate										
DO	10/12/11	11:40 Am	EAI LAB	INI		27.0°/7.97	27.3°/7.89	PASS	—	J.S.
Sp. Cond	10/12/11		EAI LAB	INI	04/2012	10 mS/cm	10.09	PASS	Calibrate to 10.00	J.S.
	10/12/11		EAI LAB	INI	08/2012	50 mS/cm	49.7	PASS	Calibrated to 50.00	J.S.
pH	10/12/11	11:54	EAI LAB	INI	02/2013	7.00 SU	7.07	PASS	Calibrated to 7.00	J.S.
	10/12/11	11:57	EAI LAB	INI	04/2012	4.01 SU	3.92	PASS	Calibrated to 4.01	J.S.
	10/12/11		EAI LAB	INI	02/2013	10.0 SU	9.89	PASS	Calibrated to 10.00	J.S.
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	10/12/11		EAI LAB	INI		34.6°C	34.44°C	PASS	—	J.S.

Brooklyn Thermometer

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach A

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE 1 & 2 UPRATE										
DO	10/19/11	07:17	EAI LAB	C	8.263@25°C	←	8.30	P	ADJ TO 8.26	MM
Sp. Cond	↓	09:24			4/12	10 mS/cm	10.1	P	ADJ TO 10.0	MM
		09:25			4/12	50 mS/cm	49.9	P	ADJ TO 50.0	MM
pH		07:19			2/13	7.00 SU	7.12	P	ADJ TO 7.00	MM
		07:21			4/12	4.01 SU	4.01	P	—	MM
	↓	07:22			3/12	10.0 SU	9.98	P	ADJ TO 10.0	MM
ORP					—	231 mV				
Turbidity					—	0.0 ntu DI H2O				
					—	400 ntu				
Temp										

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie 1+2 uprate										
DO	10-27-11	18:26	EAI LAB	Cont		25°C/8.263	24.92/8.20	P	—	J.S.
Sp. Cond	10-27-11	18:28	EAI LAB	Cont	04/2012	10 mS/cm	10.10	P	Calib. to 10.00	J.S.
	10-27-11		EAI LAB	Cont	04/2012	50 mS/cm	49.5	P	Calib. to 50.00	J.S.
pH	10-27-11	18:31	EAI LAB	Cont	02/2013	7.00 SU	6.82	P	Calib. to 7.00	J.S.
	10-27-11	18:33	EAI LAB	Cont	04/2012	4.01 SU	3.95	P	Calib. to 4.01	J.S.
	10-27-11	18:36	EAI LAB	Cont	02/2013	10.0 SU	9.90	P	Calib. to 10.00	J.S.
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp										

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach A

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE UPRATE 1+2						BATTERY VOLTS = 4.0 - 3.9				
DO	11/3/11	1045	EAI LAB	CONT	24.72=25°	8.263	8.14	PASS	ADJ TO 8.26	CAG
Sp. Cond					4/2012	10 mS/cm	10.10	PASS	ADJ TO 10.0	CAG
					8/2012	50 mS/cm	49.6	PASS	ADJ TO 50.0	CAG
pH					2/2013	7.00 SU	6.96	PASS	ADJ TO 7.00	CAG
					4/2012	4.01 SU	3.93	PASS	ADJ TO 4.01	CAG
					2/2013	10.0 SU	9.93	PASS	ADJ TO 10.0	CAG
ORP					—	231 mV	—	—	—	—
Turbidity					—	0.0 ntu DI H2O	—	—	—	—
					—	400 ntu	—	—	—	—
Temp	11/3/11	1045	EAI LAB	CONT	BROOKLYN	24.4	24.33	PASS	NONE	CAG

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie 1+2 uprate										
DO	1-6-12		EAI LAB	INI						
Sp. Cond	1-6-12				04/2012	10 mS/cm	10.25	PASS	ADJ. TO 10.00	J.S.
	1-6-12				08/2012	50 mS/cm	49.8	PASS	ADJ. TO 50.00	J.S.
pH		18:18			03/2013	7.00 SU	7.50	PASS	ADJ. TO 7.00	J.S.
					04/2012	4.01 SU	3.90	PASS	ADJ. TO 4.01	J.S.
		18:21			03/2013	10.0 SU	9.92	PASS	ADJ. TO 10.00	J.S.
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	1-6-12	17:30	EAI LAB	INI		20.95	20.81	PASS	—	J.S.

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach A

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST. LUCIE UPRATE 1+2										
DO	1/11/12	0856	EAI LAB	FIN	22.36°C	8.61	8.49	P	ADJ TO 8.61	CAG
Sp. Cond					4/2012	10 mS/cm	9.97	P	ADJ TO 10.0	
					4/2012	50 mS/cm	49.7	P	ADJ TO 50.0	
pH					2/2013	7.00 SU	6.80	P	ADJ TO 7.00	
					4/2012	4.01 SU	3.97	P	ADJ TO 4.01	
					3/2013	10.0 SU	10.03	P	ADJ TO 10.00	
ORP					—	231 mV	—	—	—	—
Turbidity					—	0.0 ntu DI H2O	—	—	—	—
					—	400 ntu	—	—	—	—
Temp						21.5	21.46	P	N/A	CAG

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST. LUCIE 1+2 UPRATE					2nd ATTEMPT DO	8.915	8.84	P	N/A	CG/MN
DO	2/14/12	1332	EAI LAB	INI	21.14°C	8.915	8.65	F	ADJ TO 8.91	CG/MN
Sp. Cond					4/2012	10 mS/cm	10.13	P	ADJ 10.00	
					8/2012	50 mS/cm	49.8	P	ADJ TO 50.0	
pH					3/2013	7.00 SU	7.16	P	ADJ TO 7.00	
					4/2012	4.01 SU	4.04	P	ADJ TO 4.01	
					3/2013	10.0 SU	10.01	P	ADJ TO 10.00	
ORP	—	—	—	—	—	231 mV	—	—	—	—
Turbidity	—	—	—	—	—	0.0 ntu DI H2O	—	—	—	—
	—	—	—	—		400 ntu	—	—	—	—
Temp						21.1	20.97	P	N/A	

Ecological Associates, Inc
Field Instrument Calibration Records
Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: MANATEE POCKET										
DO	—	—	—	—		—	—	—	—	—
Sp. Cond	—	—	—	—	—	10 mS/cm	—	—	—	—
	—	—	—	—	—	50 mS/cm	—	—	—	—
pH	—	—	—	—	—	7.00 SU	—	—	—	—
	—	—	—	—	—	4.01 SU	—	—	—	—
	—	—	—	—	—	10.0 SU	—	—	—	—
ORP						231 mV				
Turbidity	11/21/11	1515	EAI LAB	INI	—	0.0 ntu DI H2O	0.0	PASS	N/A	CAG
	↓	↓	↓	↓	12/9/11	400 ntu	370	FAIL	ADJ TO 400	CAG
Temp	↓	↓	↓	↓	BROOKLYN	25.4	25.54	PASS	NONE	CAG
2ND TURB.	↓	↓	↓	↓	12/9/11	400 NTU	394	PASS	ADJ TO 400	CAG
PROJECT: St. Lucie 1+2 uprate										
DO	1-6-12	17:38	EAI LAB	INI	19.6°C	8.9-9.3	9.23	P	—	J.S.
Sp. Cond	1-6-12	17:42			04/2012	10 mS/cm	10.09	P	Calib to 10.00	J.S.
		17:45			08/2012	50 mS/cm	49.6	P	Calib. to 50.00	J.S.
pH					03/2013	7.00 SU	5.89	FAIL	Calibrated to 7.00	J.S.
						4.01 SU				
						10.0 SU				
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
	↓		↓	↓		400 ntu				
Temp	1-6-12	17:30	EAI LAB	INI		20.95	20.92	PASS	—	J.S.

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Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE 1+2 UPRATE					* CHANGED PH TEFLON/ELECTROLYTE + 2 PELLETS					
DO	1/8/2012	1547	EAI LAB	INI	@21.0°C	8.915	8.85	P	ADJ TO 8.91	CAG
Sp. Cond				INI	4/2012	10 mS/cm	10.05	P	ADJ TO 10.00	
					8/2012	50 mS/cm	49.6	P	ADJ TO 50.0	
pH					3/2013	7.00 SU	6.21	F	WILL NOT ADJUST	
						4.01 SU				
					DO NOT	10.0 SU	USE	FOR	PH!	
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						21.0	21.08	P	N/A	

use only as Back-up

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE 1+2 UPRATE										
DO	2/14/12	1402	EAI LAB	INI		8.743	8.76	P	NONE	CG
Sp. Cond					4/2012	10 mS/cm	10.07	P	ADJ to 10.00	
					8/2012	50 mS/cm	49.5	P	ADJ TO 50.0	
pH					3/2013	7.00 SU	7.08	P	ADJ TO 7.00	
					4/2012	4.01 SU	3.98	P	ADJ TO 4.01	
					3/2013	10.0 SU	9.96	P	ADJ TO 10.00	
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						21.3	21.32	P	N/A	

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach A

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie 1+2 uprate										
DO	2-22-12	16:33	EAI LAB	Cont.		24.0°C/8.2-8.6	24.13°C/8.21	PASS	—	QS.
Sp. Cond	2-22-12	16:36			04/2012	10 mS/cm	9.97	P	ADJ. TO 10.00	QS.
		16:38			08/2012	50 mS/cm	49.3	P	ADJ. TO 50.00	QS.
pH					03/2013	7.00 SU	6.99	P	ADJ. TO 7.00	QS.
					04/2012	4.01 SU	4.05	P	ADJ. TO 4.01	QS.
	↓	16:45	↓	↓	05/2013	10.0 SU	9.95	P	ADJ. TO 10.00	QS.
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	2-22-12	17:28	EAI LAB	Cont		24.45	24.31	P		QS.

PARAMETER	DATE	TIME	LOCATION	TYPE	STANDARD EXPIRATION DATE	STANDARD VALUE	INSTRUMENT RESPONSE	PASS or FAIL	CORRECTIVE ACTIONS	INITIALS
PROJECT: MANATEE POCKET										
DO	3-20-12	15:31	EAI LAB	INI	25.18	8.263	8.24	P	N/A	CAG
Sp. Cond					9/2012	10 mS/cm	16.13	P	ADJ TO 10.00	
					8/2012	50 mS/cm	50.1	P	ADJ TO 50.0	
pH					3/2013	7.00 SU	6.82	P	ADJ TO 7.00	
					4/2012	4.01 SU	4.13	P	ADJ TO 4.01	
					3/2013	10.0 SU	16.05	P	ADJ TO 10.00	
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	↓	↓	↓	↓		25.4	24.52	P	N/A	↓

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St Lucie										
DO	2-22-12	16:50	EAI LAB	Cont		24.0°c/8.2 8.6	24.4°c/8.42	PASS		[illegible]
Sp. Cond		16:52			04/2012	10 mS/cm	10.01	PASS		[illegible]
		16:54			09/2012	50 mS/cm	49.4	PASS	ADJ. TO 50.0	[illegible]
pH		16:56			03/2013	7.00 SU	7.28	FAIL	ADJ. TO 7.00	[illegible]
		16:59			04/2012	4.01 SU	3.54	FAIL	ADJ. TO 4.01	[illegible]
		17:01			03/2013	10.0 SU	9.11	FAIL	ADJ. TO 10.00	[illegible]
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	2-22-12	17:28	EAI LAB	Cont		24.45	24.43	P		[illegible]

pH 2ND TRY

6.91 → 7.00

3.42 → 4.01

9.73 → 10.0

3RD TRY

ALL PASSED

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE										
DO	2/25/12	0905	EAI LAB	FINAL		8.578 @ 23°C	8.57 @ 26.4°	PASS	—	MM
Sp. Cond		0908			4/2012	10 mS/cm	10.10	PASS	ADJ TO 10.00	MM
		0910			9/2012	50 mS/cm	49.5	PASS	ADJ TO 50.00	MM
pH		0912			3/2012	7.00 SU	6.92	PASS	ADJ TO 7.00	MM
		0914			4/2012	4.01 SU	3.84	PASS	ADJ TO 4.00	MM
		0916			3/2012	10.0 SU	10.15	PASS	ADJ TO 10.00	MM
ORP	—	—	—	—	—	231 mV	—	—	—	—
Turbidity	—	—	—	—	—	0.0 ntu DI H2O	—	—	—	—
	—	—	—	—	—	400 ntu	—	—	—	—
Temp	2/25/12	09:00	EAI LAB			23.9	23.9	P	—	MM

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Field Instrument Calibration Records

Meter: Hach A

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE 1 + 2 UPRATE										
DO	4/9/12	1445	EAI LAB	INI	25.24	8.22	9.27	F	ADJ TO 8.22	CAG
Sp. Cond					9/2012	10 mS/cm	10.05	P	ADJ TO 10.00	CAG
					9/2012	50 mS/cm	49.3	P	ADJ TO 50.0	CAG
pH					3/2013	7.00 SU	7.67	F	ADJ TO 7.00	CAG
					4/2012	4.01 SU	3.98	P	ADJ TO 4.01	CAG
	↓	↓	↓	↓	3/2013	10.0 SU	9.97	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	↓	↓	↓	↓		24.4	24.39	P	NONE	CAG
PROJECT: MANATEE POCKET WATER QUALITY										
DO	4/24/12	0745	EAI LAB	INI	23.32°C @	8.41	8.37	P	ADJ TO 8.41	CAG
Sp. Cond					9/2012	10 mS/cm	10.13	P	ADJ TO 10.00	CAG
					9/2012	50 mS/cm	49.5	P	ADJ TO 50.0	CAG
pH					3/2013	7.00 SU	7.30	F	ADJ TO 7.00	CAG
					9/2012	4.01 SU	3.93	P	ADJ TO 4.01	CAG
	↓	↓	↓	↓	3/2013	10.0 SU	9.95	P	ADJ TO 10.00	
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp										

* DID NOT HAVE THERMOM (IT IS IN TR

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach B

PROJECT: FPL Canaveral Benthic Sampling

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	3/30/12	12:00	EAI LAB	Final		25.0°/8.26	26.23°C/8.34	P		JS
Sp. Cond					09/2012	10 mS/cm	10.18	P	Calibrated to 10.00	JS
					09/2012	50 mS/cm	49.2	P	Calibrated to 50.00	JS
pH					03/2013	7.00 SU	7.00	P		JS
		12:21			04/2012	4.01 SU	3.93	P	Calibrated to 4.01	JS
		12:26			03/2013	10.0 SU	9.93	P	Calibrated to 10.00	JS
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						25.00	24.98	P		JS

PROJECT: ST LUCIE 1+2 UPRATE

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	4/9/12	1409	EAI LAB	INI.		24. 8.30	24.57/8.47	P		JS/CAG.
Sp. Cond					09/2012	10 mS/cm	10.16	P	Calib. to 10.00	JS.
					9/2012	50 mS/cm	49.2	P	CALIB. TO 50.0	CAG
pH					3/2013	7.00 SU	7.09	P	CALIB. TO 7.00	CAG
					4/2012	4.01 SU	3.95	P	CALIB. TO 4.01	CAG
					3/2013	10.0 SU	9.46	P	CALIB TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						24.8	24.77	P		JS/CAG.

use tap → H_2O @ Room temp from cabinet.

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Field Instrument Calibration Records

Meter: Hach A

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: MP WQ MONITORING EVENT 3						BATTERY VOLTS 4.2				
DO	5/21/12	1126	EAI LAB	INI	24.90°C	8.24	7.69	F	ADJ TO 8.24	CAG
Sp. Cond					9/2012	10 mS/cm	10.15	P	ADJ TO 10.00	CAG
					9/2012	50 mS/cm	49.2	P	ADJ TO 50.0	CAG
pH					3/2013	7.00 SU	7.09	P	ADJ TO 7.00	CAG
					9/2012	4.01 SU	3.93	P	ADJ TO 4.01	CAG
	↓	↓	↓	↓	9/2013	10.0 SU	9.89	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	↓	↓	↓	↓		25.0	24.99	P	NONE	CAG
2ND DO	5/21/12	1138	↓	↓	25.44°C	8.19	7.97	P	ADJ TO 8.19	CAG
PROJECT: St. Lucie uprate							battery 4.#volts			
DO	06/12/12	3:30pm	EAI Lab	INI	26.05C	8.07	8.67	F	ADJ to 8.07	KG
Sp. Cond					9/2012	10 mS/cm	10.00	P		KG
					9/2012	50 mS/cm	50.0	P		KG
pH					3/2013	7.00 SU	7.00	P		KG
	↓	↓	↓	↓	9/2012	4.01 SU	3.95	P	ADJ to 4.00	KG
					9/2013	10.0 SU	10.00	P		KG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						26.0	25.916	P		KG

↳ Cable malfunctioning

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Field Instrument Calibration Records

Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie uprate					battery = 4.7 volts					
DO	06/12/12	2:30pm	EAI Lab	Initial	26.25°C	8.05	7.97	P	ADJ TO 8.05	KG/CAC x Set to 631 BP, changed BP to 76
Sp. Cond					9/2012	10 mS/cm	10.00	P		KG
					9/2012	50 mS/cm	50.0	P		KG
pH					3/2013	7.00 SU	7.00	P		KG
					9/2012	4.01 SU	4.00	P		KG
					9/2013	10.0 SU	10.00	P		KG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						26.2	26.14	P		KG

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. LUCIE UPRATE					BATTERY 4.0 V	@27°C				
DO	6/15/12	1635	EAI LAB	FIN		7.968	7.97	P	NONE	MM
Sp. Cond		1638			9/2012	10 mS/cm	10.09	P	ADJ TO 10.00	MM
		1640			9/2012	50 mS/cm	49.4	P	ADJ TO 50.00	MM
pH		1643			3/2013	7.00 SU	7.03	P	ADJ TO 7.00	MM
		1645			9/2012	4.01 SU	4.02	P	ADJ TO 4.01	MM
		1646			9/2013	10.0 SU	9.92	P	ADJ TO 10.00	MM
ORP	NA					~~231 mV~~				
Turbidity	NA					~~0.0 ntu DI H2O~~				
	NA					~~400 ntu~~				
Temp	6/15/12	1648	EAI LAB	~~EAN~~ FIN		26.6	26.58	P	—	MM

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Field Instrument Calibration Records

Meter: Hach A

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: FPL Canaveral Benthic Sampling INI							Too High			
DO	7/2/12	10:45	EAI LAB	INI		26.0°C/8.1	26.0°C/8.72	F	Calibrated to 8.09	JS.
Sp. Cond		10:56			9/20/12	10 mS/cm	10.14	P	Calibrated to 10.00	JS.
		11:00			09/2012	50 mS/cm	49.4	P	Calibrated to 50.00	JS.
pH					09/2013	7.00 SU	7.31	F	Calibrated to 7.00	JS.
						4.01 SU				
						10.0 SU				
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	7/2/12	10:39	EAI LAB	INI		27.0°C	26.95°C	P		JS.

CABLE STARTED TO Act up B/t Calibrations — Being sent off.

Not NEEDED

unable to Calibrate (NEED Salt) Installed New Tephlon jun + SALTS

BATTERIES: 4.1 volts

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie trawling/gill netting							battery = 4.0 volts			
DO	8/6/12	1020	EAI Lab	INI	25.26°C	8.20	8.36	P	ADJ to 8.20	KRG
Sp. Cond					9/2012	10 mS/cm	10.01	P	ADJ to 10.00	
					9/2012	50 mS/cm	49.2	P	ADJ to 50.00	
pH					9/2013	7.00 SU	7.01	P	ADJ to 7.00	
					9/2012	4.01 SU	9.89	P	ADJ to 10.0	
					9/2013	10.0 SU	4.00	P	ADJ to 4.01	
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp					~~25~~	25.0°C	24.84	P	N/A	KRG

ADJ to 760 ATM Hgm

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Field Instrument Calibration Records

Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: MANATEE POCKET										
DO	7/19/12	1422	EAI LAB	INI	26.02°C	8.10	7.97	P	ADJ TO 8.10	CAG
Sp. Cond	↓	↓	↓	↓	9/2012	10 mS/cm	10.17	P	ADJ TO 10.00	↓
	↓	↓	↓	↓	9/2012	50 mS/cm	49.1	P	ADJ TO 50.0	↓
pH	↓	↓	↓	↓	9/2013	7.00 SU	7.04	P	ADJ TO 7.00	↓
	↓	↓	↓	↓	9/2012	4.01 SU	3.88	P	ADJ TO 4.01	↓
	↓	↓	↓	↓	9/2013	10.0 SU	9.86	P	ADJ TO 10.00	↓
ORP	—	—	—	—	—	231 mV	—	—	—	—
Turbidity	—	—	—	—	—	0.0 ntu DI H2O	—	—	—	—
	—	—	—	—	—	400 ntu	—	—	—	—
Temp	7/19/12	1423	EAI LAB	INI		26.1	26.12	P	N/A	CAG
PROJECT: St. Lucie trawling / gill netting						battery = 4.2 volts				
DO	8/6/12	0930	EAI Lab	INI	25.48°C	8.22	7.78	F	ADJ to 8.22	KRG
Sp. Cond	↓	↓	↓	↓	9/2012	10 mS/cm	10.19	P	ADJ to 10.00	↓
	↓	↓	↓	↓	9/2012	50 mS/cm	49.1	P	ADJ to 50.00	↓
pH	↓	↓	↓	↓	9/2013	7.00 SU	7.07	P	ADJ to 7.00	↓
	↓	↓	↓	↓	9/2012	4.01 SU	10.02	P	ADJ to 10.00	↓
	↓	↓	↓	↓	9/2013	10.0 SU	3.92	P	ADJ to 4.01	↓
ORP	—	—	—	—	—	231 mV	—	—	—	—
Turbidity	—	—	—	—	—	0.0 ntu DI H2O	—	—	—	—
	—	—	—	—	—	400 ntu	—	—	—	—
Temp					~~[illegible]~~ 25.4°C	25.43	25.42	P	N/A	KRG

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Field Instrument Calibration Records

Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie Gillnetting / Trawling									battery = 3.8 volts	
DO	8/10/12	14.30	EAI Lab	FIN		8.30	8.43	P	ADJ to 8.30	KG
Sp. Cond				FIN	9/2012	10 mS/cm	10.12	P	ADJ to 10.00	
					9/2012	50 mS/cm	49.3	P	ADJ to 50.0	
pH					9/2013	7.00 SU	7.06	P	ADJ to 7.00	
					9/2012	4.01 SU	3.97	P	ADJ to 4.01	
					9/2013	10.0 SU	9.90	P	ADJ to 10.00	
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						25.5°C	25.40	P	—	

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: MANATEE POCKET MONITORING						*CHANGED BATTERIES				
DO	8/20/12	0722	EAI LAB	INI	25.41°C	8.18	8.18	P	NONE	CAG
Sp. Cond					9/2012	10 mS/cm	10.17	P	ADJ TO 10.0	
					9/2012	50 mS/cm	49.2	P	ADJ TO 50.0	
pH					9/2013	7.00 SU	7.11	P	ADJ TO 7.00	
					9/2012	4.01 SU	3.97	P	ADJ TO 4.01	
					9/2013	10.0 SU	9.87	P	ADJ TO 10.00	
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						28.4	28.44	P	NONE	

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Field Instrument Calibration Records

Meter: Hach A

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE UPRATE 1+2									BATTERY 4.4 VOLTS	
DO	10/31/12	0718	EAI LAB	INI	21.87°C	8.76	9.03	F	ADJ TO 8.76	CAG
Sp. Cond					7/2013	10 mS/cm	10.07	P	ADJ TO 10.00	CAG
					7/2013	50 mS/cm	50.1	P	ADJ TO 50.0	CAG
pH					9/2013	7.00 SU	7.10	P	ADJ TO 7.00	CAG
					7/2013	4.01 SU	3.97	P	ADJ TO 4.01	CAG
					9/2013	10.0 SU	9.91	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						21.5°C	21.46	P	NONE	CAG

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT:									Battery 4.3 volts	
DO	12/5/12	17:23	EAI LAB	INI		24.5°C/8.34	24.68°C/8.60	F	Calibrated to 8.29	[illegible]
Sp. Cond		17:26			07/2013	10 mS/cm	9.93	P	Calibrated to 10.00	[illegible]
		17:29			07/2013	50 mS/cm	50.2	P	Calibrated to 50.00	[illegible]
pH		17:32			09/2013	7.00 SU	7.20	P	Calibrated to 7.00	[illegible]
		17:35			07/2013	4.01 SU	~~4.09~~ 3.82	P	Calibrated to 4.01	[illegible]
		17:37			09/2013	10.0 SU	9.85	P	Calibrated to 10.00	[illegible]
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp		16:55				24.9°C	24.68 P	~~24.68~~	NONE	[illegible]

JJ 12/5/12

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Field Instrument Calibration Records

Meter: Hach B

PROJECT: ST LUCIE UPRATE 1+2 — BATTERY 4.0

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	10/31/12	0750	EAI LAB	INI						
Sp. Cond						10 mS/cm				
						50 mS/cm				
pH	TRANSMITTER					7.00 SU				
	*~~CABLE~~ CAG	NOT	WORKING	PROPERLY!		4.01 SU	DO NOT USE.			
						10.0 SU				
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						*CHANGED BATTERIES.	SEEMS TO BE WORKING PROPERLY NOW.			

PROJECT: ST LUCIE UPRATE 1+2 — BATTERY 4.6 VOLTS

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	10/31/12	0807	EAI LAB	INI	21.91°C	8.73	8.70	P	ADJ TO 8.73	CAG
Sp. Cond					7/2013	10 mS/cm	10.13	P	ADJ TO 10.00	CAG
					7/2013	50 mS/cm	50.1	P	ADJ TO 50.0	CAG
pH					9/2013	7.00 SU	7.13	P	ADJ TO 7.00	CAG
					7/2013	4.01 SU	3.85	P	ADJ TO 4.01	CAG
					9/2013	10.0 SU	9.89	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						22.0	22.08	P	NONE	CAG

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Field Instrument Calibration Records

Meter: Hach B

New Batteries

PARAMETER	DATE (mm/dd/yy)	TIME (hr:mln)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: Final Calibration for St. Lucia 1+2 uprate										
DO	11/6/12	13:05	EAI LAB	FIN		24.0°C/8.418	24.20°C/8.54	P	Calibrated to 8.45	
Sp. Cond		13:10			07/2013	10 mS/cm	9.95	P	Calibrated to 10.00	
		13:13			07/2013	50 mS/cm	50.2	P	Calibrated to 50.00	
pH		13:15			09/2013	7.00 SU	7.10	P	Calibrated to 7.00	
		13:18			07/2013	4.01 SU	3.91	P	Calibrated to 4.01	
					09/2013	10.0 SU	9.90	P	Calibrated to 10.00	
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp		12:45				23.98	23.96	P		

PARAMETER	DATE (mm/dd/yy)	TIME (hr:mln)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
[redacted]on for Canaveral Benthic Sampling										
DO	12/5/12	17:06	EAI LAB	INI		25.0°C/8.26	24.8/7.50	F	Calibrated to 8.31	
Sp. Cond		17:09			07/2013	10 mS/cm	9.93	P	Calibrated to 10.00	
		17:12			07/2013	50 mS/cm	50.3	P	Calibrated to 50.00	
pH					09/2013	7.00 SU	7.14	P	Calibrated to 7.00	
					07/2013	4.01 SU	3.93	P	Calibrated to 4.01	
		17:18			09/2013	10.0 SU	9.88	P	Calibrated to 10.00	
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp		16:50				24.9°C	24.83°C	P	NONE	

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Field Instrument Calibration Records

Meter: Hach A

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: Canaveral Benthic Monitoring - Final									24.67°C	
DO	12/7/12	16:40	EAI LAB	Final		24.5°C/8.34	24.58°C/8.36	P	Calibrated to 8.22	
Sp. Cond					07/2013	10 mS/cm	9.96	P	Calibrated to 10.00	
					07/2013	50 mS/cm	50.3	P	Calibrated to 50.00	
pH					09/2013	7.00 SU	7.06	P	Calibrated to 7.00	
					07/2013	4.01 SU	3.88	P	Calibrated to 4.01	
					01/2014	10.0 SU	9.92	P	Calibrated to 10.00	
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						24.5	24.45	P		

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie 1+2 Uprate										
DO	1-23-13		EAI LAB	INI		24°C/8.42	23.97°C/8.50	P	ADJ to 23.99°C/8.40	
Sp. Cond					07/2013	10 mS/cm	9.98	P	ADJ to 10.00	
					07/2013	50 mS/cm	50.2	P	ADJ TO 50.00	
pH					09/2013	7.00 SU	7.25	F	ADJ TO 7.00	
					07/2013	4.01 SU	3.89	P	ADJ. to 4.01	
					01/2014	10.0 SU	9.85	P	ADJ TO 10.00	
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp		17:00				23.7°C	23.61°C	P		

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie 1+2 uprate										
DO	01/23/13		EAI LAB	INI						[illegible]
Sp. Cond					07/2013	10 mS/cm				[illegible]
					07/2013	50 mS/cm				[illegible]
pH						7.00 SU				[illegible]
						4.01 SU				[illegible]
						10.0 SU				[illegible]
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp		17:00				23.7°C	23.7°C	P		[illegible]

D.O. way off using Hach Ca... Back-up meter + Changing D.O. memb... Monday (

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: CALIBRATING DO AFTER MEMBRANE CHANGE ON 2/12/13										
DO	2/13/13	0640	EAI LAB	INI	@24.54	8.27	10.26	F	ADJ TO 8.27	CAG
Sp. Cond						10 mS/cm				
						50 mS/cm				
pH						7.00 SU				
						4.01 SU				
						10.0 SU				
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp										

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach C

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT:										
DO	1-14-13	0740	EAI LAB	Ini	~24.5	8.34	10.66	F	ADJ TO 8.32	CG
Sp. Cond	↓	↓	↓	↓	7-13	10 mS/cm	10.15	P	ADJ TO 10.00	DU
					7-13	50 mS/cm	49.8	P	ADJ TO 50.00	DU
pH					9-13	7.00 SU	7.12	P	ADJ TO 7.00	DU
					7-13	4.01 SU	3.89	P	ADJ TO 4.01	DU
					1-14	10.0 SU	9.89	P	ADJ TO 10.00	DU
ORP						~~231 mV~~				
Turbidity						~~0.0 ntu DI H2O~~				
						~~400 ntu~~				
Temp						~20.45	20.45	P	none	DU

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie 1+2 Uprate										
DO	1-23-13	17:25	EAI LAB	INI		24.0°C/8.45	24.2°C/8.45	P	ADJ to 24.2°C/8.35	JF
Sp. Cond	↓	17:36	↓	↓	07/2013	10 mS/cm	10.13	P	ADJ TO 10.00	JF
					07/2013	50 mS/cm	49.8	P	ADJ TO 50.00	JF
pH					09/2013	7.00 SU	7.10	P	ADJ TO 7.00	JF
					07/2013	4.01 SU	3.89	P	ADJ. TO 4.01	JF
	↓	17:48	↓	↓	01/2014	10.0 SU	9.86	P	ADJ. TO 10.00	JF
ORP						~~231 mV~~				
Turbidity						~~0.0 ntu DI H2O~~				
						~~400 ntu~~				
Temp	↓		↓	↓		26.5°C	26.53°C	P		JF

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Field Instrument Calibration Records

Meter: Hach C

PROJECT: St. Lucie 1+2 uprate

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	01/25/2013	8:40 AM	EAI LAB	Final		22.5°C/8.6	22.3°C/8.38	F	ADJ. TO 8.69	JS.
Sp. Cond					07/2013	10 mS/cm	10.08	P	ADJ TO 10.00	JS.
					07/2013	50 mS/cm	50.0	P		JS
pH					09/2013	7.00 SU	7.06	P	ADJ TO 7.00	JS
					07/2013	4.01 SU	3.88	P	ADJ TO 4.01	JS
		9:00am			01/2014	10.0 SU	9.87	P	ADJ TO 10.00	JS
ORP						~~231 mV~~				
Turbidity						~~0.0 ntu DI H2O~~				
						400 ntu				
Temp	1-25-13	8:43am	EAI LAB	Final		22.45°C	22.42°C	P		JS.

Battery@ 4.4

PROJECT: St. Lucie 1+2 uprate

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	2/1/13	17:25	EAI LAB	INI		23.0°C/8.578	22.9/8.55	P	ADJ. TO 22.95/8.59	JS.
Sp. Cond		17:36			07/2013	10 mS/cm	10.04	P	ADJ. TO 10.00	JS.
		17:39			07/2013	50 mS/cm	49.9	P	ADJ TO 50.00	JS.
pH					09/2013	7.00 SU	6.99	P	ADJ TO 7.00	JS.
					07/2013	4.01 SU	3.88	P	ADJ. TO 4.01	JS.
		17:46			01/2014	10.0 SU	9.83	P	ADJ TO 10.00	
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						~~400 ntu~~				
Temp	2/1/3	17:25	EAI LAB	INI		22.7	22.69	P		JS.

Battery= 4.4

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Field Instrument Calibration Records

Meter: Hach A

PROJECT: St Lucie 1+2 uprate

Battery: 4.1

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	2/1/13	17:30	EAI LAB	INI		23.0/8.578	2285/8.52	P	ADJ. TO 8.59	JS
Sp. Cond		17:56			07/2013	10 mS/cm	10.01	P	ADJ TO 10.00	JS
					07/2013	50 mS/cm	50.00	P		JS
pH					09/2013	7.00 SU	7.03	P	ADJ TO 7.00	JS
		18:02			07/2013	4.01 SU	3.90	P	ADJ TO 4.01	JS
		18:05			01/2014	10.0 SU	9.91	P	ADJ TO 10.00	JS
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	2/1/13	17:25	EAI LAB	INI		22.7	22.48	~~P~~ P JS 2-1-13		JS

PROJECT: ST LUCIE 1+2 UPRATE

BATTERY = 4.2 VOLTS

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	2/13/13	1511	EAI LAB	INI	@24.73	8.28	8.84	F	ADJ TO 8.28	CAG
Sp. Cond					7/2013	10 mS/cm	11.12	F	ADJ TO 10.00	CAG
					7/2013	50 mS/cm	50.1	P	ADJ TO 50.0	CAG
pH					3/2014	7.00 SU	7.91	F	ADJ TO 7.00	CAG
					7/2013	4.01 SU	4.11	P	ADJ TO 4.11	CAG
					3/2014	10.0 SU	9.94	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						24.9	24.94	P	NONE	CAG
2ND DO AFTER CALIBRATION					@25.03	8.25	8.08	P	ADJ 8.25	CAG

(TRIED 2x BEFORE CALIBRATI NO CHANGE

-(TRIED 2x) NO CHANGE

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Field Instrument Calibration Records

Meter: Hach C

PROJECT: MANATEE POCKET WATER QUALITY BATTERY = 4.4 VOLTS

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	2/12/13	1015	EAI LAB	INI	@24.13	8.38	8.36	P	ADJ TO 8.38	CAG
Sp. Cond					7/2013	10 mS/cm	10.00	P	NONE	CAG
					7/2013	50 mS/cm	49.8	P	ADJ TO 50.0	CAG
pH					3/2014	7.00 SU	7.04	P	ADJ TO 7.00	CAG
					7/2013	4.01 SU	3.87	P	ADJ TO 4.01	CAG
					1/2014	10.0 SU	9.89	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						24.0	23.99	P	NONE	CAG

PROJECT: ST LUCIE UPRATE 1+2 BATTERY = 4.2 VOLTS

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	2/13/13	1602	EAI LAB	INI	@25.5	8.18	8.08	P	ADJ TO 8.18	CAG
Sp. Cond					7/2013	10 mS/cm	10.02	P	ADJ TO 10.00	CAG
					7/2013	50 mS/cm	50.0	P	NONE	CAG
pH					3/2014	7.00 SU	7.08	P	ADJ TO 7.00	CAG
					7/2013	4.01 SU	3.93	P	ADJ TO 4.01	CAG
					3/2014	10.0 SU	9.97	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						25.6	25.64	P	NONE	CAG

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Field Instrument Calibration Records

Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE UPRATE 1+2							BATTERY = 4.3 VOLTS			
DO	2/13/13	1450	EAI LAB	INI	@24.78	8.28	8.08	P	ADJ TO 8.28	CAG
Sp. Cond					7/2013	10 mS/cm	9.96	P	ADJ TO 10.0	CAG
					7/2013	50 mS/cm	50.0	P	NONE	CAG
pH					3/2014	7.00 SU	7.48	F	ADJ TO 7.00	CAG
					7/2013	4.01 SU	3.90	P	ADJ TO 4.01	CAG
					1/2014	10.0 SU	9.88	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						25.2	25.22	P	NONE	CAG

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie 1+2 uprate Final										
DO	2/15/13	10:45	EAI LAB	FIN		23.0°C/8.578	23.13°C/8.34	P	ADJ. TO 8.55	JS.
Sp. Cond		11:00			07/2013	10 mS/cm	9.99	P	ADJ. TO 10.00	JS.
					07/2013	50 mS/cm	50.2	P	ADJ TO 50.00	JS.
pH		11:12			03/2014	7.00 SU	6.95	P	ADJ TO 7.00	JS.
					07/2013	4.01 SU	3.90	P	ADJ TO 4.01	JS.
		11:16			03/2014	10.0 SU	9.97	P	ADJ TO 10.00	
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						23.2	23.20°C	P		JS.

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Field Instrument Calibration Records

Meter: Hach C

PROJECT: St Lucie 1 & 2 uprate

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	2-19-13	0658	EAI LAB	INI	20.3 ~~@22.0~~	9.039 ~~8.744~~	9.17	P	ADJ to 9.039	DL
Sp. Cond					7/13	10 mS/cm	9.62	P	ADJ to 10.00	DL
					7/13	50 mS/cm	51.9	P	ADJ to 50.00	DL
pH					~~[illegible]~~ 3/14	7.00 SU	6.94	P	ADJ to 7.00	DL
					9/13	4.01 SU	3.99	P	ADJ to 4.01	DL
					3/14	10.0 SU	9.99	P	ADJ to 10.00	DL
ORP						231 mV				—
Turbidity						0.0 ntu DI H2O				—
						400 ntu				—
Temp						20.3	20.31	P	none	DL

PROJECT: MPocket Post Construction Monitoring.

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	3-12-13	14:50	EAI LAB	INI	23.5°C	8.498	23.7°C/8.56	P	ADJ. to 8.45	JS.
Sp. Cond		14:56			07/2013	10 mS/cm	9.97	P	ADJ TO 10.00	JS
					07/2013	50 mS/cm	49.8	P	ADJ TO 50.00	JS.
pH		15:01			03/2014	7.00 SU	7.03	P	ADJ TO 7.00	JS.
		15:05			09/2013	4.01 SU	3.94	P	ADJ to 4.01	JS.
		15:08			03/2014	10.0 SU	9.90	P	ADJ TO 10.00	JS.
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						23.8°C	23.76°C	P		JS.

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE UPRATE 1+2										
DO	2-19-13	0932	EAI LAB	INI	20.3	9.039	9.02	P	ADJ TO 9.04	DW
Sp. Cond	↓	↓	↓	↓	7/13	10 mS/cm	10.10	P	ADJ TO 10.00	DW
	↓	↓	↓	↓	7/13	50 mS/cm	50.00	P	none	DW
pH	↓	↓	↓	↓	3/14	7.00 SU	7.00	P	none	DW
	↓	↓	↓	↓	9/13	4.01 SU	3.93	P	ADJ TO 4.01	DW
	↓	↓	↓	↓	3/14	10.0 SU	9.90	P	ADJ TO 10.00	DW
ORP	—	—	—	—	—	231 mV	—	—	—	—
Turbidity	—	—	—	—	—	0.0 ntu DI H2O	—	—	—	—
	—	—	—	—	—	400 ntu	—	—	—	—
Temp	↓	↓	↓	↓		20.3	20.30	P	None	DW

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE UPRATE 1+2									BATTERY = 3.8 VOLTS	
DO	2-21-13	0801	EAI LAB	FIN	@22.85	8.60	8.43	P	ADJ TO 8.60	CAG
Sp. Cond	↓	↓	↓	↓	7/2013	10 mS/cm	9.99	P	ADJ TO 10.00	CAG
	↓	↓	↓	↓	7/2013	50 mS/cm	50.2	P	ADJ TO 50.0	CAG
pH	↓	↓	↓	↓	3/2014	7.00 SU	7.10	P	ADJ TO 7.00	CAG
	↓	↓	↓	↓	9/2013	4.01 SU	4.02	P	ADJ TO 4.01	CAG
	↓	↓	↓	↓	3/2014	10.0 SU	9.97	P	ADJ TO 10.00	CAG
ORP	—	—	—	—	—	231 mV	—	—	—	—
Turbidity	—	—	—	—	—	0.0 ntu DI H2O	—	—	—	—
	—	—	—	—	—	400 ntu	—	—	—	—
Temp	↓	↓	↓	↓		22.3	22.30	P	NONE	CAG

* BATTERIES CHANGED AFTER CALIBRATION - CAG

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach C

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST. LUCIE 1+2 UPRATE							VOLTS = 4.8 (CHANGED PRIOR TO CALIBRATION)			
DO	4/1/13	1457	EAI LAB	INI	@24.06	8.40	8.22	P	ADJ TO 8.40	CAG
Sp. Cond					7/2013	10 mS/cm	9.97	P	ADJ TO 10.00	CAG
					7/2013	50 mS/cm	49.8	P	ADJ TO 50.0	CAG
pH					3/2014	7.00 SU	6.87	P	ADJ TO 7.00	CAG
					9/2013	4.01 SU	3.94	P	ADJ TO 4.01	CAG
					3/2014	10.0 SU	9.92	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						24.4	24.43	P	NONE	CAG

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST. Lucie 1+2 uprate										
DO	4/4/13	06:25	EAI LAB	Final		24.0°C/8.418	23.8°C/8.21	P	Calibrated to 8.42	[illegible]
Sp. Cond		06:33			07/2013	10 mS/cm	9.89	P	Calibrated to 10.00	[illegible]
		06:36			07/2013	50 mS/cm	50.5	P	Calibrated to 50.00	[illegible]
pH					03/2014	7.00 SU	7.11	P	Calibrated to 7.00	[illegible]
		06:40			09/2013	4.01 SU	3.97	P	Calibrated to 4.01	[illegible]
		06:43			03/2014	10.0 SU	9.97	P	Calibrated to 10.00	[illegible]
ORP						231 mV				[illegible]
Turbidity						0.0 ntu DI H2O				[illegible]
						400 ntu				
Temp						24.8	24.90	P	NONE	[illegible]

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Field Instrument Calibration Records

Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: CANAVERAL BENTHIC MONITORING									VOLTS = 4.5	
DO	3/27/13	1304	EAI LAB	INI						
Sp. Cond						10 mS/cm				
						50 mS/cm				
pH	* PROPELLER/CIRCULATOR NOT SPINNING!					7.00 SU				
						4.01 SU				
						10.0 SU				
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp										

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE UPRATE 1+2						*CHANGED BATTERIES PRIOR TO CAL. VOLTS = 4.5				
DO	6/3/13	1216	EAI LAB	INI	@25.46	8.17	7.85	F	ADJ TO 8.17	CAG
Sp. Cond	↓	↓	↓	↓	4/2014	10 mS/cm	10.10	P	ADJ TO 10.00	CAG
	↓	↓	↓	↓	4/2014	50 mS/cm	50.0	P	NONE	CAG
pH	↓	↓	↓	↓	9/2013	7.00 SU	7.00	P	NONE	CAG
	↓	↓	↓	↓	7/2013	4.01 SU	3.89	P	ADJ TO 4.01	CAG
	↓	↓	↓	↓	10/2014	10.0 SU	9.90	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	↓	↓	↓	↓		26.2	26.25	P	NONE	CAG

*DO CHECK AFTER FEW DAYS, ON 6/5 0940 @25.73 8.13 8.08 P ADJ TO 8.13 CAG *

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Field Instrument Calibration Records

Meter: Hach C

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: TESTING DO/PH AFTER CHANGING MEMBRANE/ELECTROLYTE									BATTERY 4.4	
DO	5/22/13	1345	EAI LAB	—	@25.20	8.22	9.36	F	ADJ TO 8.22	CAG
Sp. Cond						10 mS/cm				
						50 mS/cm				
pH				—	10/2014	7.00 SU	6.33	F	ADJ TO 7.00	CAG
				—	9/2013	4.01 SU	3.86	P	ADJ TO 4.01	CAG
				—	10/2014	10.0 SU	9.88	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp										

DO 2ND ATTEMPT = @ 25.26
IN. RESPONSE = 8.0
STANDARD = 8.22
ADJ TO 8.22

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST. LUCIE UPRATE 1+2									BATTERY 4.4 VOLTS	
DO	6/3/13	1135	EAI LAB	INI	@25.63	8.15	8.11	P	ADJ TO 8.15	CAG
Sp. Cond					7/2013	10 mS/cm	10.05	P	ADJ TO 10.00	CAG
					4/2014	50 mS/cm	49.8	P	ADJ TO 50.0	CAG
pH					9/2013	7.00 SU	7.19	P	ADJ TO 7.00	CAG
					7/2013	4.01 SU	3.91	P	ADJ TO 4.01	CAG
					10/2014	10.0 SU	9.89	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						27.5	27.53	P	NONE	CAG

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach C

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE UPRATE 1+2									BATTERY VOLTS = 4.1	
DO	6/5/13	1003	EAI LAB	FIN	@25.79	8.13	7.96	P	ADJ TO 8.13	CAG
Sp. Cond					4/2014	10 mS/cm	10.09	P	ADJ TO 10.00	CAG
					4/2014	50 mS/cm	49.8	P	ADJ TO 50.0	CAG
pH					9/2013	7.00 SU	7.06	P	ADJ TO 7.00	CAG
					7/2013	4.01 SU	3.90	P	ADJ TO 4.01	CAG
	↓	↓	↓	↓	10/2014	10.0 SU	9.89	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	↓	↓	↓	↓		26.2	26.24	P	NONE	CAG

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: MANATEE POCKET WQ AND BENTHIC SAMPLING									CAG	VOLTS = 4.4
DO	6/10/13	0703	EAI LAB	INI	@25.44	8.18	8.30	P	ADJ TO 8.18	CAG
Sp. Cond					4/2014	10 mS/cm	10.20	P	ADJ TO 10.00	CAG
					9/2013	50 mS/cm	51.1	P	ADJ TO 50.0	CAG
pH					3/2014	7.00 SU	6.97	P	ADJ TO 7.00	CAG
					9/2013	4.01 SU	3.92	P	ADJ TO 4.01	CAG
	↓	↓	↓	↓	3/2014	10.0 SU	9.94	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	↓	↓	↓	↓		25.8	25.77	P	NONE	CAG

Ecological Associates, Inc
Field Instrument Calibration Records
Meter: Hach A

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: CANAVERAL BENTHIC MONITORING									BATTERY = 4.3 VOLTS	
DO	6/18/13	1601	EAI LAB	INI	@ 26.20	8.06	8.32	P*	ADJ TO 8.06	CAG
Sp. Cond					4/2014	10 mS/cm	9.51	P	ADJ TO 10.00	CAG
					9/2013	50 mS/cm	50.7	P	ADJ TO 50.0	CAG
pH					3/2014	7.00 SU	6.96	P	ADJ TO 7.00	CAG
					9/2013	4.01 SU	4.05	P	ADJ TO 4.01	CAG
					3/2014	10.0 SU	9.93	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						27.8	27.78	P	NONE	CAG
PROJECT: ST LUCIE UPRATE 1+2									BATTERY VOLTS = 4.2 VOLTS	
DO	6/25/13	1319	EAI LAB	INI	@ 26.17	8.07	8.23	P	ADJ TO 8.07	CAG
Sp. Cond					4/2014	10 mS/cm	10.03	P	ADJ TO 10.00	CAG
					9/2013	50 mS/cm	50.0	P	NONE	CAG
pH					3/2014	7.00 SU	7.11	P	ADJ TO 7.00	CAG
					4/2014	4.01 SU	3.90	P	ADJ TO 4.01	CAG
					10/2014	10.0 SU	9.93	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						28.0	27.94	P	NONE	CAG

*HAD TO ADJ BP FRO 637 TO 76

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Field Instrument Calibration Records

Meter: Hach C

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE UPRATE 1+2									BATTERY VOLTS = 4.3	
DO	6/25/13	1335	EAI LAB	INI	@26.11	8.07	8.05	P	ADJ TO 8.07	CAG
Sp. Cond					4/2014	10 mS/cm	9.80	P	ADJ TO 10.00	CAG
					9/2013	50 mS/cm	50.4 CAG	P	ADJ TO 50.0	CAG
pH					10/2014	7.00 SU	7.04	P	ADJ TO 7.00	CAG
					4/2014	4.01 SU	3.96	P	ADJ TO 4.01	CAG
					10/2014	10.0 SU	9.92	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						27.0	26.99	P	NONE	CAG

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie 1+2 uprate										
DO	6/27/13	18:15	EAI LAB	Final	@26.00°C	8.113	26.6°C/8.26	P	ADJ TO 8.09	[illegible]
Sp. Cond					04/2014	10 mS/cm	9.82	P	ADJ TO 10.00	[illegible]
					09/2013	50 mS/cm	48.4	P	ADJ TO 50.00	[illegible]
pH					10/2014	7.00 SU	7.13	P	ADJ TO 7.00	[illegible]
					04/2014	4.01 SU	3.92	P	ADJ TO 4.01	[illegible]
					10/2014	10.0 SU	9.91	P	ADJ TO 10.00	[illegible]
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp		18:30			Brooklyn	25.6	25.60	P		[illegible]

Battery check was 4.2

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach A

PROJECT: ST. LUCIE UPRATE 1+2 BATTERY = 4.3

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	7/24/13	1213	EAI LAB	INI	@25.84	8.12	8.05	P	ADJ TO 8.12	CAG
Sp. Cond					4/2014	10 mS/cm	10.14	P	ADJ TO 10.00	CAG
					9/2013	50 mS/cm	50.1	P	ADJ TO 50.0	CAG
pH					10/2014	7.00 SU	7.36	F	ADJ TO 7.00	CAG
					4/2014	4.01 SU	3.90	P	ADJ TO 4.01	CAG
					10/2014	10.0 SU	9.87	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp						26.9	26.85	P	NONE	CAG

PROJECT: St. Lucie 1+2 uprate

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	7/27/13	15:15	EAI LAB	Final	@24.58	8.34	8.34	P		JL
Sp. Cond					04/2014	10 mS/cm	10.00	P		JL
					04/2014	50 mS/cm	49.5	P	ADJ TO 50.00	JL
pH					10/2014	7.00 SU	7.03	P	ADJ TO 7.00	JL
					04/2014	4.01 SU	3.90	P	ADJ TO 4.01	JL
					10/2014	10.0 SU	9.87	P	ADJ TO 10.00	JL
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp					Brooklyn	25.6°C	25.5°C	P		JL

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Field Instrument Calibration Records

Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE UPRATE 1+2									BATTERY: 4.5	
DO	7/24/13	1234	EAI LAB	INI	@25.82	8.12	7.89	F	ADJ TO 8.12	CAG
Sp. Cond	↓	↓	↓	↓	4/2014	10 mS/cm	10.04	P	ADJ TO 10.00	CAG
					4/2014	50 mS/cm	49.8	P	ADJ TO 50.00	CAG
pH					10/2014	7.00 SU	7.38	F	ADJ TO 7.00	CAG
					4/2014	4.01 SU	3.89	P	ADJ TO 4.01	CAG
	↓	↓	↓	↓	10/2014	10.0 SU	9.85	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	↓	↓	↓	↓		26.6	26.58	P	NONE	CAG

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST Lucie 1+2 Uprate Gillnetting										
DO	8-12-13	16:20	EAI LAB	INI	@26.04°C	8.114	7.66	F	ADJ to 8.01	JS
Sp. Cond	↓	16:31	↓	↓	04/2014	10 mS/cm	10.01	P	ADJ TO 10.00	JS
					04/2014	50 mS/cm	49.6	P	ADJ TO 50.00	JS
pH		↓			10/2014	7.00 SU	7.17	P	ADJ TO 7.00	JS
		↓			04/2014	4.01 SU	3.87	P	ADJ to 4.01	JS
		↓			10/2014	10.0 SU	9.82	P	ADJ to 10.00	JS
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	↓	16:47	↓	↓	Brooklyn	26.0°C	25.94			JS

Rechecking D.O. 8-20-13 Battery 4.4 Battery @4.5 :) STANDARD 26.5°C/8.040 Failed - High Meter 26.35°C/8.44 F ADJ TO 26.34°C/8.06 JS.
10:05 Am EAI LAB

~~Changing D.O. Membrane~~ 8-20-13
Sending off for Service

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach A

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie 1+2 uprate Gill Netting									Battery 4.2	
DO	8/12-13	16:50	EAI LAB	INI	@ 26.14°C	8.114	8.01	P	ADJ TO 8.08	JJ
Sp. Cond	8-12-13				04/2014	10 mS/cm	10.14	P	ADJ TO 10.00	JJ
					04/2014	50 mS/cm	49.6	P	ADJ TO 50.00	JJ
pH					10/2014	7.00 SU	7.20	P	ADJ TO 7.00	JJ
					04/2014	4.01 SU	3.86.	P	ADJ TO 4.01	JJ
					10/2014	10.0 SU	9.82	P	ADJ TO 4.01	JJ
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp					Brooklyn	25.70°C	25.65	P		JJ.

Battery change by MM. on Parker between Calibratio

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/ Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: St. Lucie 1+2 uprate Gill Netting						High end of passing.			Battery 4.2	
DO	8-20-13	09:40	EAI LAB	Final		26.5°C/8.04	26.40°C/8.27	P	ADJ TO 26.38/8.04	JJ
Sp. Cond					04/2014	10 mS/cm	10.18	P	ADJ TO 10.00	JJ
					04/2014	50 mS/cm	49.5	P	ADJ TO 50.00	JJ
pH					10/2014	7.00 SU	7.00	P		JJ
					04/2014	4.01 SU	3.86	P	ADJ TO 4.01	JJ
					10/2014	10.0 SU	9.87	P	ADJ TO 10.00	JJ
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp					Brooklyn	26.3°C	26.29°C	P		JJ

Ecological Associates, Inc

Field Instrument Calibration Records

Meter: Hach A

PROJECT: ST LUCIE UPRATE 1+2 — VOLTS=3.9 * CHANGED BATTERIES PRIOR TO CALIBRATION. VOLTS=4.5

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
DO	10/6/13	1208	EAI LAB	INI	@25.65	8.15	8.16	P	ADJ TO 8.15	CAG
Sp. Cond	↓	↓	↓	↓	8/2014	10 mS/cm	10.06	P	ADJ TO 10.00	CAG
					4/2014	50 mS/cm	49.8	P	ADJ TO 50.0	CAG
pH					2/2015	7.00 SU	7.24	F	ADJ TO 7.00	CAG
					4/2014	4.01 SU	3.92	P	ADJ TO 4.01	CAG
					2/2015	10.0 SU	9.83	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	↓	↓	↓	↓		27.6	27.61	P	NONE	CAG

PROJECT: ST LUCIE UPRATE 1+2 — VOLTS=3.9

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
* DO	↑	↑	↑	↑	@24.55	8.32	8.31	P	ADJ TO 8.32	CAG
Sp. Cond	10/9/13	0744	EAI LAB	FIN	8/2014	10 mS/cm	10.00	P	NONE	CAG
	↓	↓	↓	↓	4/2014	50 mS/cm	49.9	P	ADJ TO 50.0	CAG
pH					2/2015	7.00 SU	7.61	P	ADJ TO 7.00	CAG
					4/2014	4.01 SU	3.86	P	ADJ TO 4.01	CAG
					2/2015	10.0 SU	9.90	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	↓	↓	↓	↓		25.8	25.72	P	NONE	CAG

* O-RING CAME OFF IN FIELD/REPLACED IN FIELD, MEMBRANE REMAINED INTACT. DID NOT USE IN FIELD AFTER THIS HAPPENED. DID NOT REPLACE MEMBRANE SINCE CALIBRATED ALMOST PERFECTLY.

Ecological Associates, Inc
Field Instrument Calibration Records
Meter: Hach B

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE UPRATE 1+2					VOLTS= 3.9 CHANGED PRIOR TO CALIBRATION. VOLTS = 4.5					
DO	10/6/13	1242	EAI LAB	INI	@26.35	8.06	7.63	F	ADJ TO 8.06	CAG
Sp. Cond					4/2014	10 mS/cm	10.00	P	NONE	CAG
					4/2014	50 mS/cm	49.8	P	ADJ TO 50.0	CAG
pH					2/2015	7.00 SU	7.16	P	ADJ TO 7.00	CAG
					4/2014	4.01 SU	3.96	P	ADJ TO 4.01	CAG
	↓	↓	↓	↓	2/2015	10.0 SU	9.89	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	↓	↓	↓	↓		26.8	26.79	P	NONE	CAG

PARAMETER	DATE (mm/dd/yy)	TIME (hr:min)	LOCATION	TYPE (Ini/Cont/Fin)	STANDARD EXPIRATION DATE	STANDARD VALUE (expected reading)	INSTRUMENT RESPONSE (actual reading)	PASS or FAIL acceptance criteria?	CORRECTIVE ACTIONS for failed check	INITIALS person calibrating
PROJECT: ST LUCIE UPRATE 1+2									VOLTS= 4.2	
DO	10/9/13	0724	EAI LAB	FIN	@24.42	8.33	8.79	F	ADJ TO 8.33	CAG
Sp. Cond					4/2014	10 mS/cm	10.05	P	ADJ TO 10.00	CAG
					4/2014	50 mS/cm	49.8	P	ADJ TO 50.0	CAG
pH					2/2015	7.00 SU	7.15	P	ADJ TO 7.00	CAG
					4/2014	4.01 SU	3.91	P	ADJ TO 4.01	CAG
	↓	↓	↓	↓	2/2015	10.0 SU	9.92	P	ADJ TO 10.00	CAG
ORP						231 mV				
Turbidity						0.0 ntu DI H2O				
						400 ntu				
Temp	↓	↓	↓	↓		26.4	26.31	P	NONE	CAG

Ecological Associates, Inc.

Field Instrument Calibration Records for: Hach B Quanta Water Quality Meter

Project: ST LUCIE UPRATE 1+2 **Location:** EAI LAB **Date:** 4/23/14 **Time Start:** 1148

Calibrated By: C. GOETHEL **Calibration Type:** INITIAL **Battery Volts:** 4.1 **Time End:** 1217

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						26.2	± 0.2°C	26.17	P	NONE	25.4	25.37	P
	BROOKLYN						25.4	± 0.2°C	25.40	P	NONE			
DO						24.25	8.36	± 0.3 mg/L	8.46	P	ADJ TO 8.36	8.35	8.34	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol	—	—	—	—	—	10 mS/cm	9.5 - 10.5	—	—	—	70.0	70.0	P
		—	—	—	—	—	20 mS/cm	19.0 - 21.0	—	—	—			
		130563B	5/7/13	5/13/13	5/2014	23.90	50 mS/cm	47.5 - 52.5	50.0	P	NONE			
		140410	4/15/14	4/23/13	4/2015	23.88	70 mS/cm	66.5 - 73.5	70.6	P	ADJ TO 70.0			
pH	Exaxol	130627A	7/8/13	9/9/13	1/2015	23.82	7.00 SU	6.80 - 7.20	6.92	P	ADJ TO 7.00	4.01	3.92	P
		130821B	8/23/13	9/9/13	2/2015	23.79	10.00 SU	9.80 - 10.20	10.15	P	ADJ TO 10.00			
		130821C	8/23/13	9/9/13	8/2014	23.78	4.01 SU	3.81 - 4.21	—		LINEARITY CHECK			
Turbidity	—	—	—	—	—		0.0 NTU	0.0 - 0.1	—	—	—	—	—	—
	—	—	—	—	—		37.4 NTU	34.41 - 40.39	—	—	—			
ORP	—	—	—	—	—	—	—	± 10 mV	—	—	—	—	—	—
Notes:														

Project: ST LUCIE UPRATE 1+2 **Location:** EAI LAB **Date:** 4/25/14 **Time Start:** 1350

Calibrated By: C. Goethel **Calibration Type:** FINAL **Battery Volts:** 3.9 **Time End:** ??

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						27.8	± 0.2°C	27.79	P	NONE	26.5	26.47	P
							26.5	± 0.2°C	26.46	P	NONE			
DO						24.79	8.27	± 0.3 mg/L	8.57	P	ADJ TO 8.27	8.25	8.25	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol	—	—	—	—	—	10 mS/cm	9.5 - 10.5	—	—	—	70.0	70.0	P
		—	—	—	—	—	20 mS/cm	19.0 - 21.0	—	—	—			
		130821E	8/23/13	9/9/13	8/2014	24.10	50 mS/cm	47.5 - 52.5	49.7	P	ADJ TO 50.0			
		140410	4/15/14	4/23/14	4/2015	24.04	70 mS/cm	66.5 - 73.5	70.8	P	ADJ TO 70.0			
pH	Exaxol	130821A	8/23/13	12/2/13	2/2015	24.05	7.00 SU	6.80 - 7.20	7.04	P	ADJ TO 7.00	4.01	3.91	P
		130821B	8/23/13	9/9/13	2/2015	24.01	10.00 SU	9.80 - 10.20	9.90	P	ADJ TO 10.00			
		130821C	8/23/13	9/9/13	8/2014	24.00	4.01 SU	3.81 - 4.21	—		LINEARITY CHECK			
Turbidity	—	—	—	—	—		0.0 NTU	0.0 - 0.1	—	—	—	—	—	—
	—	—	—	—	—		37.4 NTU	34.41 - 40.39	—	—	—			
ORP	—	—	—	—	—	—	—	± 10 mV	—	—	—	—	—	—
Notes:														

Field Instrument Calibration Records for: Hach B Quanta Water Quality Meter

Project: ST. LUCIE UPDATE 1+2 **Location:** EAI FIELD LAB **Date:** 6/22/14 **Time Start:** ~~0754~~ 1954 CAG
Calibrated By: CAG **Calibration Type:** INITIAL **Battery Volts:** 4.5 **Time End:** 2021

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						27.8	± 0.2°C	27.84	P	NONE	27.0	27.0	P
	BROOKLYN						27.0	± 0.2°C	27.04	P	NONE			
DO						24.84	8.25	± 0.3 mg/L	8.18	P	ADJ TO 8.25	8.23	8.23	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol	—	—	—	—	—	10 mS/cm	9.5 - 10.5	—		—	70.0	70.0	P
		—	—	—	—	—	20 mS/cm	19.0 - 21.0	—		—			
		130821E	8/23/13	9/9/13	8/2014	24.50	50 mS/cm	47.5 - 52.5	50.5	P	ADJ TO 50.0			
		140410	4/15/14	4/23/14	4/2015	24.79	70 mS/cm	66.5 - 73.5	70.6	P	ADJ TO 70.0			
pH	Exaxol	130821A	8/23/13	12/2/13	2/2015	24.56	7.00 SU	6.80 - 7.20	7.07	P	ADJ TO 7.00	4.01	3.87	P
		130821B	8/23/13	9/9/13	2/2015	24.72	10.00 SU	9.80 - 10.20	10.02	P	ADJ TO 10.00			
		130821C	8/23/13	9/9/13	8/2014	24.47	4.01 SU	3.81 - 4.21	—	—	LINEARITY CHECK			
Turbidity	—				—		0.0 NTU	0.0 - 0.1	—		—	—	—	—
	—				—		37.4 NTU	34.41 - 40.39	—		—			
ORP	—						—	± 10 mV	—		—	—	—	—
Notes:														

Project: 477 JEA **Location:** EAI Field LAB **Date:** 7-9-14 **Time Start:** 11:45
Calibrated By: J. SANDERS **Calibration Type:** Initial **Battery Volts:** 4.4 volts **Time End:** 12:15

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	Brooklyn						24.8	± 0.2°C	24.77	P	—			
	Brooklyn	Hot TAP					42.0	± 0.2°C	42.9	P	—			
DO						26.22	8.07	± 0.3 mg/L	8.11	P	ADJ TO 8.07	8.07	8.07	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol	130821D	8-23-13	9-9-13	08/2014	24.52	10 mS/cm	9.5 - 10.5	10.00	P	—	50.00	49.99	P
		—					~~20 mS/cm~~	~~19.0 - 21.0~~			—			
		130821E	8-23-13	9-9-13	08/2014	24.34	50 mS/cm	47.5 - 52.5	49.9	P	ADJ TO 50.00			
		—					~~70 mS/cm~~	~~66.5 - 73.5~~			—			
pH	Exaxol	130821A	8-23-13	12-2-13	02/2015	24.36	7.00 SU	6.80 - 7.20	6.98	P	ADJ TO 7.00	4.01	3.88	P
		130821B	8-23-13	9-9-13	02/2015	24.28	10.00 SU	9.80 - 10.20	9.84	P	ADJ TO 10.00			
		130821C	8-23-13	9-9-13	08/2014	24.09	4.01 SU	3.81 - 4.21	3.88	P	Linearity Check			
Turbidity	—						0.0 NTU	0.0 - 0.1	—		—	—	—	—
	—					—	37.4 NTU	34.41 - 40.39	—		—	—	—	—
ORP	—						—	~~± 10 mV~~	—		—	—	—	—
Notes:														

Ecological Associates, Inc.

Field Instrument Calibration Records for: Hach C Quanta Water Quality Meter

Project:	ST. LUCIE UPRATE 1+2	**Location:**	EAI LAB	**Date:**	4/23/14	**Time Start:**	1221
Calibrated By:	C. Goethel	**Calibration Type:**	INITIAL	**Battery Volts:**	4.3	**Time End:**	1247

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						25.1	± 0.2°C	25.16	P	NONE	24.6	24.63	P
	BROOKLYN						24.6	± 0.2°C	24.63	P	NONE			
DO						23.93	8.41	± 0.3 mg/L	8.70	P	ADJ TO 8.41	8.41	8.40	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5				70.0	70.0	P
							20 mS/cm	19.0 - 21.0						
		130503B	5/7/13	5/13/13	5/2014	23.93	50 mS/cm	47.5 - 52.5	50.0	P	NONE			
		140410	4/15/14	4/23/14	4/2015	23.93	70 mS/cm	66.5 - 73.5	71.2	P	ADJ TO 70.0			
pH	Exaxol	130627A	7/8/13	9/9/13	1/2015	23.91	7.00 SU	6.80 - 7.20	6.95	P	ADJ TO 7.00	4.01	3.98	P
		130821B	8/23/13	9/9/13	2/2015	23.92	10.00 SU	9.80 - 10.20	10.01	P	ADJ TO 10.00			
		130821C	8/23/13	9/9/13	8/2014	23.88	4.01 SU	3.81 - 4.21			LINEARITY CHECK			
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:														

Hach C LAB LOG

Project:	ST LUCIE UPRATE 1+2	**Location:**	EAI FIELD LAB	**Date:**	6/22/14	**Time Start:**	2025
Calibrated By:	C. GOETHEL	**Calibration Type:**	INITIAL	**Battery Volts:**	4.1	**Time End:**	2049

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						26.9	± 0.2°C	26.88	P	NONE	26.1	26.1	P
	BROOKLYN						26.1	± 0.2°C	26.11	P	NONE			
DO						24.90	8.26	± 0.3 mg/L	8.15	P	ADJ TO 8.26	8.26	8.26	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5				70.0	70.0	P
							20 mS/cm	19.0 - 21.0						
		130821E	8/23/13	9/9/13	8/2014	24.63	50 mS/cm	47.5 - 52.5	50.6	P	ADJ TO 50.0			
		140410	4/15/14	4/23/14	4/2015	25.03	70 mS/cm	66.5 - 73.5	71.0	P	ADJ TO 70.0			
pH	Exaxol	130821A	8/23/13	12/2/13	2/2015	24.65	7.00 SU	6.80 - 7.20	6.90	P	ADJ TO 7.00	4.01	3.97	P
		130821B	8/23/13	9/9/13	2/2015	24.83	10.00 SU	9.80 - 10.20	10.01	P	ADJ TO 10.00			
		130821C	8/23/13	9/9/13	8/2014	24.72	4.01 SU	3.81 - 4.21			LINEARITY CHECK			
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:	ADDED SILICONE GREASE TO O-RING													

Ecological Associates, Inc.

Field Instrument Calibration Records for: Hach C Quanta Water Quality Meter

Project: St. Lucie 1+2 uprate	**Location:** EAI LAB	**Date:** 6-26-14	**Time Start:** 04:40
Calibrated By: J. Sanders	**Calibration Type:** Final	**Battery Volts:** 3.8 Volts	**Time End:** 05:15

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	Brooklyn						25.6	± 0.2°C	25.5	P				
		HOT TAP					42.2	± 0.2°C	42.25	P				
DO						24.63	8.263	± 0.3 mg/L	8.12	P	Calibrated to 8.32	8.32	8.33	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5				70.0	70.0	P
							20 mS/cm	19.0 - 21.0						
		130821E	8/23/13	9-9-13	08/2014	24.79	50 mS/cm	47.5 - 52.5	48.3	P	ADJ TO 50.00			
		140410	4/15/14	4-23-14	04/2015	24.38	70 mS/cm	66.5 - 73.5	70.6	P	ADJ to 70.00			
pH	Exaxol	130821A	8/23/13	12-2-13	02/2015	25.58	7.00 SU	6.80 - 7.20	7.15	P	ADJ TO 7.00	4.01	3.99	P
		130821B	8/23/13	9-9-13	02/2015	24.48	10.00 SU	9.80 - 10.20	10.02	P	ADJ TO 10.00			
		130821C	8/23/13	9-9-13	08/2014	24.41	4.01 SU	3.81 - 4.21	3.99	P	Linearity Check			
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:														

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Project: 477 JEA	**Location:** EAI LAB	**Date:** 7-9-14	**Time Start:** 11:15
Calibrated By: J. SANDERS	**Calibration Type:** INITIAL	**Battery Volts:** 4.5	**Time End:** 11:45

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	Brooklyn						24.0	± 0.2°C	24.02	P				
		HOT TAP					43.2	± 0.2°C	43.19	P				
DO						24.30	8.37	± 0.3 mg/L	8.49	P	ADJ TO 8.37	8.37	8.37	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						~~10 mS/cm~~	~~9.5 - 10.5~~				50.0	49.9	P
		130821D	8-23-13	9-9-13	08/2014	24.30	10 ~~20~~ mS/cm	9.5 - 10.5	10.10	P	ADJ TO 10.00			
		130821E	8-23-13	9-9-13	08/2014	24.29	50 mS/cm	47.5 - 52.5	49.8	P	ADJ TO 50.00			
							~~70 mS/cm~~	~~66.5 - 73.5~~						
pH	Exaxol	130821A	8-23-13	12-2-13	02/2015	24.25	7.00 SU	6.80 - 7.20	6.94	P	ADJ TO 7.00	4.01	3.89	P
		130821B	8-23-13	9-9-13	02/2015	24.24	10.00 SU	9.80 - 10.20	9.94	P	ADJ TO 10.00			
		130821C	8-23-13	9-9-13	08/2014	24.23	4.01 SU	3.81 - 4.21	3.90	P	Linearity check			
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:														

Ecological Associates, Inc.

Field Instrument Calibration Records for: Hach B Quanta Water Quality Meter

Project: EAI St. Lucie #2 uprate	**Location:** EAI LAB	**Date:** 8-11-14	**Time Start:** 12:25
Calibrated By: J. SANDERS	**Calibration Type:** INITIAL	**Battery Volts:** 4.5	**Time End:** 12:50

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	Brooklyn						24.5	± 0.2°C	24.58	P				
	Brooklyn	Hot TAP H_2O					42.5	± 0.2°C	42.55	P				
DO						24.83	8.27	± 0.3 mg/L	8.19	P	Cal to 8.27	8.27	8.27	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						~~10 mS/cm~~	9.5 - 10.5				50.00	50.00	P
							~~20 mS/cm~~	19.0 - 21.0						
		130821E	8/23/13	9-9-13	08/2014	24.78	50 mS/cm	47.5 - 52.5	50.1	P	ADJ TO 50.00			
		140410	4-15-14	4-23-14	04/2015	24.92	70 mS/cm	66.5 - 73.5	70.7	P	ADJ TO 70.00			
pH	Exaxol	130821A	8-23-13	12-2-13	02/2015	24.89	7.00 SU	6.80 - 7.20	7.16	P	ADJ TO 7.00			
		130821B	8-23-13	9-9-13	02/2015	24.85	10.00 SU	9.80 - 10.20	10.02	P	ADJ TO 10.00.			
		130821C	8-23-13	5-6-14	08/2014	24.87	4.01 SU	3.81 - 4.21			Linearity Check	4.01	3.84	P
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:														

Project:	**Location:**	**Date:**	**Time Start:**
Calibrated By:	**Calibration Type:**	**Battery Volts:**	**Time End:**

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature		Hot					41.2	± 0.2°C	41.12	P				
								± 0.2°C						
DO								± 0.3 mg/L						
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5						
							20 mS/cm	19.0 - 21.0						
							50 mS/cm	47.5 - 52.5						
							70 mS/cm	66.5 - 73.5						
pH	Exaxol						7.00 SU	6.80 - 7.20						
							10.00 SU	9.80 - 10.20						
							4.01 SU	3.81 - 4.21						
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:														

Ecological Associates, Inc.

Field Instrument Calibration Records for: Hach C Quanta Water Quality Meter

Project: JEA BPOS				**Location:** EAI LAB					**Date:** 7/10/14				**Time Start:** 1444	
Calibrated By: CAG				**Calibration Type:** FIN					**Battery Volts:** 4.4				**Time End:** 1504	
Parameter	**Standard Chemical Information**							**Instrument Response**				**Initial Calibration Verification**		
	Manufacturer	**Lot #**	**Date Received**	**Date Opened**	**Expiration Date**	**Current Temp.**	**Standard Value**	**Acceptance Range**	**Actual Value**	**Pass or Fail**	**Corrective Actions**	**Standard Value**	**Actual Value**	**Pass or Fail**
Temperature	BROOKLYN						27.7	± 0.2°C	27.71	P	NONE	27.7	27.69	P
							27.7	± 0.2°C	27.68	P	NONE			
DO						24.25	8.35	± 0.3 mg/L	8.53	P	ADJ TO 8.35	8.35	8.35	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol	130821D	8/23/13	9/9/13	8/2014	23.86	10 mS/cm	9.5 - 10.5	10.10	P	ADJ TO 10.00	50.0	50.0	P
		—				—	20 mS/cm	19.0 - 21.0	—		—			
		130821E	8/23/13	9/9/13	8/2014	23.95	50 mS/cm	47.5 - 52.5	49.7	P	ADJ TO 50.0			
		—				—	70 mS/cm	66.5 - 73.5	—	—	—			
pH	Exaxol	130821A	8/23/13	12/2/13	2/2015	23.71	7.00 SU	6.80 - 7.20	7.02	P	ADJ TO 7.00	4.01	3.94	P
		130821B	8/23/13	9/9/13	2/2015	23.73	10.00 SU	9.80 - 10.20	10.02	P	ADJ TO 10.00			
		130821C	8/23/13	5/6/14	8/2014	23.69	4.01 SU	3.81 - 4.21	3 —		—			
Turbidity	—	—			—		0.0 NTU	0.0 - 0.1	—		—	—		
	—				—		37.4 NTU	34.41 - 40.39	—		—			
ORP	—	—	—		—	—		± 10 mV						
Notes:														

Project: FPL : St. Lucie 1+2 uprate				**Location:** EAI LAB					**Date:** 8-11-14				**Time Start:** 12:45	
Calibrated By: J. SANDERS				**Calibration Type:** INITIAL					**Battery Volts:** 4.4				**Time End:** 13:15	
Parameter	**Standard Chemical Information**							**Instrument Response**				**Initial Calibration Verification**		
	Manufacturer	**Lot #**	**Date Received**	**Date Opened**	**Expiration Date**	**Current Temp.**	**Standard Value**	**Acceptance Range**	**Actual Value**	**Pass or Fail**	**Corrective Actions**	**Standard Value**	**Actual Value**	**Pass or Fail**
Temperature	Brooklyn						24.5	± 0.2°C	24.54	P	—			
							41.2	± 0.2°C	41.12	P	—			
DO						28.95	7.67	± 0.3 mg/L	7.57	P	ADJ TO 7.67	7.67	7.66	P
Specific Conductivity (Use 2 standards to bracket expected field value)		—	—	—	—	—	10 mS/cm	9.5 - 10.5	—	—		50.00	50.00	P
		—	—	—	—	—	20 mS/cm	19.0 - 21.0	—					
	Exaxol JDS-8-11-14	130821E	8-23-13	9-9-13	8/2014	25.45	50 mS/cm	47.5 - 52.5	50.00	P	—			
	140410 →	~~[illegible]~~	~~[illegible]~~	~~4-23-14~~	04/2015	~~44.90~~ 25.5 JDS 8-11-14	70 mS/cm	66.5 - 73.5	71.1	P	ADJ TO 70.00	70.00	70.00	P
pH	Exaxol	130821A	8-23-13	12-2-13	02/2015	~~44.90~~ 25.24 JDS 8-11-14	7.00 SU	6.80 - 7.20	6.99	P	ADJ TO 7.00	4.01	3.93	P
		130821B	8-23-13	9-9-13	02/2015	24.83	10.00 SU	9.80 - 10.20	9.97	P	ADJ TO 10.00			
		130821C	8-23-13	5-6-14	08/2014	24.88	4.01 SU	3.81 - 4.21	—	—	Linearity Check			
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:														

Ecological Associates, Inc.

Field Instrument Calibration Records for: Hach C Quanta Water Quality Meter

Project: FPL: St. Lucie 1+2uprate	**Location:** EAI LAB	**Date:** 8-15-14	**Time Start:** 12:45
Calibrated By: J. SANDERS	**Calibration Type:** Final	**Battery Volts:** 3.9 volts	**Time End:** 13:30

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	Brooklyn						24.2	± 0.2°C	24.22	P		24.2	24.23	P
		STANDARD=43.6 for Hot TAP H_2O					43.6	± 0.2°C	43.62	P				
DO						25.23	8.19	± 0.3 mg/L	8.52	F	ADJ TO 8.19	8.19	8.18	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5				50.00	50.00	P
							20 mS/cm	19.0 - 21.0						
		130821E	8-23-13	9-9-13	08/2014	24.57	50 mS/cm	47.5 - 52.5	48.8	P	ADJ TO 50.00			
		140410	4-15-14	4-23-14	04/2015	24.43	70 mS/cm	66.5 - 73.5	70.3	P	ADJ TO 70.00			
pH	Exaxol	130821A	8-23-13	12-2-13	02/2015	24.34	7.00 SU	6.80 - 7.20	7.10	P	ADJ TO 7.00	4.01	3.92	P
		130821B	8-23-13	9-9-13	02/2015	24.31	10.00 SU	9.80 - 10.20	10.00	P				
		130821C	8-23-13	~~08/2014~~ TDS 8-15-14	08/2014	24.38	4.01 SU	3.81 - 4.21	3.92	P	Linearity check only			
Turbidity				5-6-14			0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:	Cleaned out Bin + informed Perrie of Standards Needing ordered													

new batteries

Project: Estero Bay 389	**Location:** EAI LAB	**Date:** 9-15-14	**Time Start:** 17:30pm
Calibrated By: J. SANDERS	**Calibration Type:** INI	**Battery Volts:** 4.6	**Time End:** 08:15

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	Brooklyn						23.6	± 0.2°C	23.64	P		23.6	23.69	P
		Hot TAP H_2O					44.0	± 0.2°C	43.95	P				
DO						24.19	8.46	± 0.3 mg/L	7.22	F	ADJ TO 8.46	8.46	8.48	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5				20.00	20.00	P
		140826A	8-28-14	9-15-14	09/2015	24.33	20 mS/cm	19.0 - 21.0	20.2	P	ADJ TO 20.00			
		140826B	8-28-14	9-15-14	09/2015	24.43	50 mS/cm	47.5 - 52.5	50.9	P	ADJ TO 50.00			
							70 mS/cm	66.5 - 73.5						
pH	Exaxol	130821A	8-23-13	12-2-13	02/2015	24.38	7.00 SU	6.80 - 7.20	7.04	P	ADJ TO 7.00	4.01	3.91	P
		130627B	7-8-13	5-6-14	01/2015	24.39	10.00 SU	9.80 - 10.20	10.01	P	ADJ TO 10.00			
		140826C	8-28-14	9-15-14	09/2015	24.31	4.01 SU	3.81 - 4.21			Linearity check only			
Turbidity							0.0 NTU	0.0 - 0.1	0.0	P		37.4	37.4	P
	Amco Clear	C365456	4-5-14	5-6-14	02/2015		37.4 NTU	34.41 - 40.39	38.9	P	ADJ TO 37.4 NTU			
ORP								~~± 10 mV~~						
Notes:														

Ecological Associates, Inc.

Field Instrument Calibration Records for: Hach B Quanta Water Quality Meter

Project: JEA BENTHIC **Location:** EAI LAB **Date:** 10/13/14 **Time Start:** 1030

Calibrated By: CAG **Calibration Type:** INI **Battery Volts:** 4.3 **Time End:** 1052

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						26.5	± 0.2°C	26.46	P	NONE	26.0	26.03	P
	" "						26.5	± 0.2°C	26.45	P	NONE			
DO						27.81	7.89	± 0.3 mg/L	7.34	F	ADJ TO 7.89	8.17	8.45	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol	OR 140826A	8/28/14	9/15/14	9/2015	—	10 mS/cm	9.5 - 10.5				50.0	50.0	P
		↓	↓	↓	↓	24.82	20 mS/cm	19.0 - 21.0	19.8	P	ADJ TO 20.0			
		140826B	8/28/14	9/15/14	9/2015	24.74	50 mS/cm	47.5 - 52.5	51.0	P	ADJ TO 50.0			
							70 mS/cm	66.5 - 73.5						
pH	Exaxol	140429	5/1/14	5/6/14	11/2015	24.56	7.00 SU	6.80 - 7.20	7.10	P	ADJ TO 7.00	4.01	3.81	P
		130627B	7/8/13	5/6/14	1/2015	24.63	10.00 SU	9.80 - 10.20	9.91	P	ADJ TO 10.00			
		140826C	8/28/14	9/15/14	9/2015	24.66	4.01 SU	3.81 - 4.21	LINEARITY CHECK					
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:														

Project: ST. LUCIE UPRATE 1+2 **Location:** EAI LAB **Date:** 10/20/14 **Time Start:** 1240

Calibrated By: CAG **Calibration Type:** INI **Battery Volts:** 4.2 **Time End:** 1310

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						28.4	± 0.2°C	28.44	P	NONE	27.2	27.2	P
	" "						28.4	± 0.2°C	28.39	P				
DO						27.34	7.91	± 0.3 mg/L	7.72	P	ADJ TO 7.91	7.95	7.96	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5				70.0	70.0	P
							20 mS/cm	19.0 - 21.0						
		140826B	8/28/14	9/15/14	9/2015	24.67	50 mS/cm	47.5 - 52.5	50.1	P	ADJ TO 50.0			
		140410	4/15/14	4/23/14	4/2015	24.45	70 mS/cm	66.5 - 73.5	69.8	P	ADJ TO 70.0			
pH	Exaxol	140429	5/1/14	5/6/14	11/2015	24.39	7.00 SU	6.80 - 7.20	7.01	P	ADJ TO 7.00	4.01	3.80	P
		130627B	7/8/13	5/6/14	1/2015	24.32	10.00 SU	9.80 - 10.20	9.97	P	ADJ TO 10.00			
		140826C	8/28/14	9/15/14	9/2015	24.33	4.01 SU	3.81 - 4.21	—	—	LINEARITY CHECK			
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:														

Ecological Associates, Inc.

Field Instrument Calibration Records for: Hach B Quanta Water Quality Meter

Project: ST. LUCIE UPRATE 1+2 **Location:** EAI LAB **Date:** 10/23/14 **Time Start:** 0750

Calibrated By: CAG **Calibration Type:** FIN **Battery Volts:** 4.6 **Time End:** 0824

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						25.20	± 0.2°C	25.20	P	NONE	24.7	24.68	P
	" "						25.2	± 0.2°C	25.17	P	NONE			
DO						23.86	8.42	± 0.3 mg/L	8.64	P	ADJ TO 8.42	8.42	8.42	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol	—	—	—	—	—	10 mS/cm	9.5 - 10.5	—	—	—	70.0	70.0	P
		—	—	—	—	—	20 mS/cm	19.0 - 21.0	—	—	—			
		140826B	8/28/14	9/15/14	9/2015	24.01	50 mS/cm	47.5 - 52.5	50.3	P	ADJ TO 50.0			
		140410	4/15/14	4/23/14	4/2015	24.04	70 mS/cm	66.5 - 73.5	69.8	P	ADJ TO 70.0			
pH	Exaxol	140429	5/1/14	5/6/14	11/2015	24.12	7.00 SU	6.80 - 7.20	7.00	P	NONE	4.01	3.87	P
		130627B	7/8/13	5/6/14	1/2015	24.09	10.00 SU	9.80 - 10.20	10.05	P	ADJ TO 10.00			
		140826C	8/28/14	9/15/14	9/2015	24.09	4.01 SU	3.81 - 4.21	LINEARITY		CHECK			
Turbidity	—	—	—	—	—		0.0 NTU	0.0 - 0.1	—	—	—			
	—	—	—	—	—		37.4 NTU	34.41 - 40.39	—	—	—			
ORP	—	—	—	—	—	—	—	± 10 mV	—	—	—			
Notes:														

Project: ST. LUCIE UPRATE 1+2 **Location:** EAI LAB **Date:** 10/28/14 **Time Start:** 1245

Calibrated By: CAG **Calibration Type:** INI **Battery Volts:** 4.0 **Time End:** 1315

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						25.6	± 0.2°C	25.54	P	NONE	25.9	25.91	P
	" "						26.0	± 0.2°C	25.93	P	NONE			
DO						23.86	8.43	± 0.3 mg/L	8.11	F	ADJ TO 8.43	8.45	8.45	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol	—	—	—	—	—	10 mS/cm	9.5 - 10.5	—	—	—	70.0	70.0	P
		—	—	—	—	—	20 mS/cm	19.0 - 21.0	—	—	—			
		140826B	8/28/14	9/15/14	9/2015	24.27	50 mS/cm	47.5 - 52.5	50.2	P	ADJ TO 50.0			
		140410	4/15/14	5/6/14	4/2015	24.28	70 mS/cm	66.5 - 73.5	69.6	P	ADJ TO 70.0			
pH	Exaxol	140429	5/1/14	5/6/14	11/2015	24.26	7.00 SU	6.80 - 7.20	7.02	P	ADJ TO 7.00	4.01	3.83	P
		130627B	7/8/13	5/6/14	1/2015	24.21	10.00 SU	9.80 - 10.20	9.97	P	ADJ TO 10.00			
		140826C	8/27/14	9/15/14	9/2015	24.19	4.01 SU	3.81 - 4.21	—	—	LINEARITY CHECK			
Turbidity	—	—	—	—	—		0.0 NTU	0.0 - 0.1	—	—	—	—	—	—
	—	—	—	—	—		37.4 NTU	34.41 - 40.39	—	—	—			
ORP	—	—	—	—	—	—	—	± 10 mV	—	—	—	—	—	—
Notes:														

Field Instrument Calibration Records for: Hach C Quanta Water Quality Meter

Project: ST. LUCIE UPRATE 1+2 **Location:** EAI LAB **Date:** 10/20/14 **Time Start:** 1232
Calibrated By: CAG **Calibration Type:** INI **Battery Volts:** 4.3 **Time End:** 1245

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						29.5	± 0.2°C	29.47	P	NONE	26.5	26.52	P
							29.4	± 0.2°C	29.37	P	NONE			
DO						26.80	8.01	± 0.3 mg/L	7.43	F	ADJ TO 8.01	8.11	8.48	F
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5						
							20 mS/cm	19.0 - 21.0						
							50 mS/cm	47.5 - 52.5						
							70 mS/cm	66.5 - 73.5						
pH	Exaxol						7.00 SU	6.80 - 7.20						
							10.00 SU	9.80 - 10.20						
							4.01 SU	3.81 - 4.21						
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						

Notes: * STOPPED CALIBRATION DUE TO DO FAILURE DO CHECK 10/22 AT 0732 = 9.50 @ 24.03 ADJ TO 8.39.
DO CHECK 10/24 AT 1424 = 8.12 @ 25.51 ADJ TO 8.16

Project: ST. LUCIE UPRATE 1+2 **Location:** EAI LAB **Date:** 10/28/14 **Time Start:** 1130
Calibrated By: CAG **Calibration Type:** INI **Battery Volts:** 4.3 **Time End:** 1200

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						29.2	± 0.2°C	29.12	P	NONE	27.5	27.48	P
							29.1	± 0.2°C	29.03	P	NONE			
DO						24.75	8.28	± 0.3 mg/L	8.26	P	ADJ TO 8.28	8.28	8.28	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5				70.0	69.9	P
							20 mS/cm	19.0 - 21.0						
		140826B	8/28/14	9/15/14	7/2015	24.39	50 mS/cm	47.5 - 52.5	49.9	P	ADJ TO 50.0			
		140410	4/15/14	5/6/14	4/2015	24.33	70 mS/cm	66.5 - 73.5	69.4	P	ADJ TO 70.0			
pH	Exaxol	140429	5/1/14	5/6/14	11/2015	24.32	7.00 SU	6.80 - 7.20	7.05	P	ADJ TO 7.00	4.01	~~3.85~~ 3.80 CAG	P
		130627B	7/8/13	5/6/14	1/2015	24.28	10.00 SU	9.80 - 10.20	10.00	P	NONE			
		140826C	8/28/14	9/15/14	9/2015	24.27	4.01 SU	3.81 - 4.21			LINEARITY CHECK			
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						

Notes:

Field Instrument Calibration Records for: Hach A Quanta Water Quality Meter

Project: St. Lucie Uprate 1+2 **Location:** EAI LAB **Date:** 10/20/14 **Time Start:** 1330

Calibrated By: CAG **Calibration Type:** INI **Battery Volts:** 4.3 **Time End:** 1406

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						28.2	± 0.2°C	28.18	P	NONE	28.0 ~~27.46~~ (CAL)	27.96	P
							28.1	± 0.2°C	28.09	P	NONE			
DO						25.24	8.21	± 0.3 mg/L	8.18	P	ADJ TO 8.21	8.17	8.16	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol	14					10 mS/cm	9.5 - 10.5				70.0	70.0	P
							20 mS/cm	19.0 - 21.0						
		14082613	8/28/14	9/15/14	9/2015	24.39	50 mS/cm	47.5 - 52.5	51.2	P	ADJ TO 50.0			
		140410	4/15/14	4/23/14	4/2015	24.31	70 mS/cm	66.5 - 73.5	69.5	P	ADJ TO 70.0			
pH	Exaxol	140429	5/1/14	5/6/14	11/2015	24.15	7.00 SU	6.80 - 7.20	6.81	P	ADJ TO 7.00	4.01	3.72	F
		130627B	7/8/13	5/6/14	1/2015	24.16	10.00 SU	9.80 - 10.20	9.95	P	ADJ TO 10.00			
		140826C	8/28/14	9/15/14	9/2015	24.20	4.01 SU	3.81 - 4.21			LINEARITY CHECK			
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						

Notes: *HAD TO CHANGE pH ELECTROLYTE PRIOR TO CALIBRATION DUE TO IT HAVING 5 PELLETS! READING HIGH.

Project: St. Lucie 1+2 uprate **Location:** EAI LAB **Date:** 12-16-14 **Time Start:** 16:59

Calibrated By: J. SANDERS **Calibration Type:** Initial **Battery Volts:** 4.3 **Time End:** 17:22

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature							26.2	± 0.2°C	26.17	P		26.2	26.17	P
		Hot TAP					41.6	± 0.2°C	41.64	P				
DO						23.32	8.57	± 0.3 mg/L	7.83	F	ADJ TO 8.57	8.63	8.63	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5						
							20 mS/cm	19.0 - 21.0						
		140826B	8-28-14	9-15-14	09/2015	22.35	50 mS/cm	47.5 - 52.5	50.6	P	ADJ TO 50.00	50.00	50.0	P
		140410	4-15-14	5-6-14	04/2015	22.23	70 mS/cm	66.5 - 73.5	69.5	P	ADJ TO 70.00	70.0	70.0	P
pH	Exaxol	140429	5-1-14	5-6-14	11/2015	22.17	7.00 SU	6.80 - 7.20	7.32	F	ADJ TO 7.00	4.01	3.79	P
		130627B	7-8-13	5-6-14	01/2015	22.19	10.00 SU	9.80 - 10.20	10.00	P				
		140826C	8-28-14	9-15-14	09/2015	21.97	4.01 SU	3.81 - 4.21			Linearity Check			
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						

Notes:

Ecological Associates, Inc.

Field Instrument Calibration Records for: Hach C Quanta Water Quality Meter

Project: St. Lucie Uprate 1+2		**Location:** EAI LAB		**Date:** 10/30/14		**Time Start:** 1419	
Calibrated By: CAG		**Calibration Type:** FIN		**Battery Volts:** 4.0		**Time End:** 1449	

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						27.2	± 0.2°C	27.22	P	NONE	24.1	24.11	P
							27.0	± 0.2°C	27.06	P	NONE			
DO						24.11	8.41	± 0.3 mg/L	8.44	P	ADJ TO 8.41	8.41	8.41	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5				70.0	70.0	P
							20 mS/cm	19.0 - 21.0						
		140826B	8/28/14	9/15/14	9/2015	26.14	50 mS/cm	47.5 - 52.5	50.0	P	NONE			
		140410	4/15/14	4/23/14	4/2015	26.31	70 mS/cm	66.5 - 73.5	69.1	P	ADJ TO 70.0			
pH	Exaxol	140429	5/1/14	5/6/14	11/2015	25.98	7.00 SU	6.80 - 7.20	7.05	P	ADJ TO 7.00	4.01	3.82	P
		130627B	7/8/13	5/6/14	1/2015	26.18	10.00 SU	9.80 - 10.20	9.98	P	ADJ TO 10.00			
		140826C	8/28/14	9/15/14	9/2015	24.59	4.01 SU	3.81 - 4.21			LINEARITY CHECK			
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:														

Project: St. Lucie 1+2 uprate		**Location:** EAI LAB		**Date:** 12-16-14		**Time Start:** 16:23	
Calibrated By: J. SANDERS		**Calibration Type:** INitial		**Battery Volts:** 4.1		**Time End:** 16:55	

St. Lucie 1+2 up

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	Brooklyn						26.8	± 0.2°C	26.73	P		26.5	26.55	P
		Hot TAP					44.2	± 0.2°C	44.12	P				
DO						25.30	8.22	± 0.3 mg/L	6.96	F	ADJ TO 8.22	8.22	8.22	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5				50.00	50.00	P
							20 mS/cm	19.0 - 21.0						
		140826B	8-26-14	9-15-14	09/2015	22.36	50 mS/cm	47.5 - 52.5	49.7	P	ADJ TO 50.00			
		140410	4-15-14	5-6-14	04/2015	22.27	70 mS/cm	66.5 - 73.5	69.3	P	ADJ TO 70.00			
pH	Exaxol	140429	5-1-14	5-6-14	11/2015	22.20	7.00 SU	6.80 - 7.20	7.21	F	ADJ TO 7.01	7.00	7.00	P
		130627B	7-8-13	5-6-14	01/2015	22.29	10.00 SU	9.80 - 10.20	10.00	P				
		140826C	8-28-14	9-15-14	09/2015	22.09	4.01 SU	3.81 - 4.21			Linearity Check	4.01	3.81	P
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:														

Ecological Associates, Inc.

Field Instrument Calibration Records for: Hach C Quanta Water Quality Meter

Project: ST. LUCIE UPRATE 1+2 **Location:** EAI LAB **Date:** 12/19/14 **Time Start:** 0738

Calibrated By: CAG **Calibration Type:** FIN **Battery Volts:** 3.8 **Time End:** 0809

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						19.3	± 0.2°C	19.29	P	NONE	19.9	19.91	P
							19.5	± 0.2°C	19.47	P	NONE			
DO						22.69	8.65	± 0.3 mg/L	9.45	F	ADJ TO 8.65	8.67	8.67	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5				70.0	70.0	P
							20 mS/cm	19.0 - 21.0						
		140826B	8/28/14	9/15/14	9/2015	23.01	50 mS/cm	47.5 - 52.5	51.9	P	ADJ TO 50.0			
		140410	4/15/14	5/6/14	4/2015	23.06	70 mS/cm	66.5 - 73.5	69.4	P	ADJ TO 70.0			
pH	Exaxol	140429	5/1/14	5/6/14	11/2015	22.86	7.00 SU	6.80 - 7.20	7.04	P	ADJ TO 7.00	4.01	3.83	P
		130627B	7/8/13	5/6/14	1/2015	22.85	10.00 SU	9.80 - 10.20	9.99	P	ADJ TO 10.00			
		140826C	8/28/14	9/15/14	9/2015	22.92	4.01 SU	3.81 - 4.21						
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:	*CHECKED DO TWICE BEFORE CALIBRATING. EACH TIME READ 9.4.													

Project: ST. LUCIE FPL WATER TESTING **Location:** EAI LAB **Date:** 1/5/2015 **Time Start:** 1125

Calibrated By: C. GOETHEL **Calibration Type:** INITIAL **Battery Volts:** 3.9 **Time End:** 1146

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						29.9	± 0.2°C	29.92	P	NONE			
							25.0	± 0.2°C	24.98	P	NONE			
DO						24.16	8.39	± 0.3 mg/L	7.41	F	ADJ. TO 8.39	8.39	8.58	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5						
							20 mS/cm	19.0 - 21.0						
							50 mS/cm	47.5 - 52.5						
							70 mS/cm	66.5 - 73.5						
pH	Exaxol						7.00 SU	6.80 - 7.20						
							10.00 SU	9.80 - 10.20						
							4.01 SU	3.81 - 4.21						
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:	REPLACED BATTERIES AFTER CALIBRATION DUE TO ICV FOR DO.													

Ecological Associates, Inc.

Field Instrument Calibration Records for: Hach C Quanta Water Quality Meter

Project: St Lucie Uprate 1+2 **Location:** EAI LAB **Date:** 1/20/15 **Time Start:** 1007

Calibrated By: C Goetzel **Calibration Type:** INITIAL **Battery Volts:** 4.2 **Time End:** 1037

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	Brooklyn						21.1	± 0.2°C	21.06	P	NONE	24.5	24.46	P
							21.2	± 0.2°C	21.21	P	NONE			
DO						21.27	8.86	± 0.3 mg/L	8.77	P	ADJ TO 8.86	8.84	8.82	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol	—	—	—	—	—	10 mS/cm	9.5 - 10.5	—		—	70.0	70.0	P
		—					20 mS/cm	19.0 - 21.0	—		—			
		150113B	1/15/15	1/20/15	1/2016	22.21	50 mS/cm	47.5 - 52.5	47.8	P	ADJ TO 50.0			
		140410	4/15/14	4/23/14	4/2015	22.11	70 mS/cm	66.5 - 73.5	70.4	P	ADJ TO 70.0			
pH	Exaxol	141028C	10/30/14	1/13/15	5/2016	22.23	7.00 SU	6.80 - 7.20	6.98	P	ADJ TO 7.00	4.01	3.86	P
		141028B	10/30/14	1/13/15	5/2016	22.18	10.00 SU	9.80 - 10.20	9.92	P	ADJ TO 10.00			
		140826C	8/28/14	9/15/14	9/2015	22.10	4.01 SU	3.81 - 4.21	—		LINEARITY CHECK			
Turbidity	—	—	—	—	—		0.0 NTU	0.0 - 0.1	—		—			
	—	—	—	—	—		37.4 NTU	34.41 - 40.39	—		—	—	—	—
ORP	—	—	—	—	—	—	—	± 10 mV	—	—	—	—	—	—
Notes:														

attery change

Project: Calibration Check **Location:** EAI LAB **Date:** 4-2-15 **Time Start:** 11:25

Calibrated By: J. SANDERS **Calibration Type:** **Battery Volts:** 4.7 **Time End:** 11:50

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	Brooklyn						23.4	± 0.2°C	23.41	P	—	23.4	23.41	P
		—						± 0.2°C	—		—			
DO						23.67	8.49	± 0.3 mg/L	7.98	F	Calibrated to 8.49	8.49	8.50	P
Specific Conductivity (Use 2 standards to bracket expected field value)	TDS 4-245	~~150113B~~	1-15-15	1-20-15	01/2016	~~23.83~~	10 mS/cm	9.5 - 10.5	—		—			
	Exaxol	—				—	20 mS/cm	19.0 - 21.0	—		—			
		150113B	1-15-15	1-20-15	01/2016	23.84	50 mS/cm	47.5 - 52.5	50.3	P	Calibrated to 50.00	50.00	50.00	P
		140410	4-15-14	5-6-14	04/2015	23.72	70 mS/cm	66.5 - 73.5	69.0	P	Calibrated to 70.00	70.00	70.0	P
pH	Exaxol	141028C	10-30-14	1-13-15	05/2016	23.78	7.00 SU	6.80 - 7.20	7.30	F	Calibrated to 7.00	7.00	7.00	P
		141028B	10-30-14	1-13-15	05/2016	23.73	10.00 SU	9.80 - 10.20	10.02	P	Calibrated to 10.00	10.00	10.00	P
		141028A	10-30-14	4-2-15	11/2015	23.72	4.01 SU	3.81 - 4.21	—		Linearity Check	4.01	3.89	P
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								~~± 10 mV~~						
Notes:														

Ecological Associates, Inc.

*New Batteries

Field Instrument Calibration Records for: Hach B Quanta Water Quality Meter

Project: ST LUCIE UPRATE 1+2 **Location:** EAI LAB **Date:** 1/20/15 **Time Start:** 0933

Calibrated By: C. Goethel **Calibration Type:** INITIAL **Battery Volts:** 4.5 **Time End:** 1005

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						21.0	± 0.2°C	20.96	P	NONE	22.7	22.69	P
	BROOKLYN						23.4	± 0.2°C	23.42	P	NONE			
DO						21.98	8.74	± 0.3 mg/L	8.71	P	ADJ TO 8.74	8.71	8.73	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5				70.0	70.0	P
							20 mS/cm	19.0 - 21.0						
		140826B	8-28-14	9-15-14	9/2015	22.21	50 mS/cm	47.5 - 52.5	50.5	P	ADJ TO 50.0			
		140410	4/15/14	5-6-14	4/2015	22.16	70 mS/cm	66.5 - 73.5	69.2	P	ADJ TO 70.0			
pH	Exaxol	141028C	10/30/14	1/13/15	5/2016	22.19	7.00 SU	6.80 - 7.20	7.20	P	ADJ TO 7.00	4.01	3.91	P
		141028B	10/30/14	1/13/15	5/2016	22.13	10.00 SU	9.80 - 10.20	10.05	P	ADJ TO 10.00			
		140826C	8/28/14	9/15/14	9/2015	22.03	4.01 SU	3.81 - 4.21			LINEARITY CHECK			
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:														

Project: ST LUCIE UPRATE 1+2 **Location:** EAI LAB **Date:** 1/22/15 **Time Start:** 1210

Calibrated By: C. Goethel **Calibration Type:** FINAL **Battery Volts:** 4.1 **Time End:** 1241

Parameter	Standard Chemical Information							Instrument Response				Initial Calibration Verification		
	Manufacturer	Lot #	Date Received	Date Opened	Expiration Date	Current Temp.	Standard Value	Acceptance Range	Actual Value	Pass or Fail	Corrective Actions	Standard Value	Actual Value	Pass or Fail
Temperature	BROOKLYN						26.1	± 0.2°C	26.06	P	NONE	23.4	23.37	P
	BROOKLYN						25.9	± 0.2°C	25.93	P	NONE			
DO						25.39	8.19	± 0.3 mg/L	8.26	P	ADJ TO 8.19	8.15	8.12	P
Specific Conductivity (Use 2 standards to bracket expected field value)	Exaxol						10 mS/cm	9.5 - 10.5				70.0	70.0	P
							20 mS/cm	19.0 - 21.0						
		150113B	1/15/15	1/20/15	01/2016	22.91	50 mS/cm	47.5 - 52.5	50.6	P	ADJ TO 50.0			
		140410	4/15/14	5/6/14	04/2015	22.75	70 mS/cm	66.5 - 73.5	69.1	P	ADJ TO 70.0			
pH	Exaxol	141028C	10/30/14	1/13/15	5/2016	22.81	7.00 SU	6.80 - 7.20	7.07	P	ADJ TO 7.00	4.01	3.95	P
		141028B	10/30/14	1/13/15	5/2016	22.77	10.00 SU	9.80 - 10.20	10.03	P	ADJ TO 10.00			
		140826C	8/28/14	9/15/14	9/2015	23.17	4.01 SU	3.81 - 4.21			LINEARITY CHECK			
Turbidity							0.0 NTU	0.0 - 0.1						
							37.4 NTU	34.41 - 40.39						
ORP								± 10 mV						
Notes:														