Export Comparison QAQC Report

(SIDBGD) SEACAR Internal Divison for the Betterment and Goodification of Data

2024-07-10

This document is intended to provide an overview of newly-exported Combined Tables.

Discrete WQ

Overview

Table 1: Comparison of New vs. Old data exports - (Discrete WQ)

parameter	oldFile	newFile	nDataOld	nDataNew	$\it difference$
Ammonia, Un-ionized (NH3)	2024-Jun-06	2024-Jul-02	523	523	0
Chlorophyll a, Corrected for Pheophytin	2024-Jun-06	2024-Jul- 02	46846	49897	3051
Chlorophyll a, Uncorrected for Pheophytin	2024-Jun-06	2024-Jul- 02	84085	84323	238
Colored Dissolved Organic Matter	2024-Jun-06	2024-Jul- 02	22595	22944	349
Dissolved Oxygen	2024-Jun-06	2024-Jul- 02	830652	838603	7951
Dissolved Oxygen Saturation	2024-Jun-06	2024-Jul- 02	147277	147622	345
Light Extinction Coefficient	2024-Jun-06	2024-Jul- 02	15550	15550	0
Ammonium, Filtered (NH4)	2024-Jun-06	2024-Jul- 02	125542	125471	-71
Nitrate (NO3)	2024-Jun-06	2024-Jul- 02	19780	19780	0
Nitrite (NO2)	2024-Jun-06	2024-Jul- 02	32521	32521	0
Nitrogen, organic	2024-Jun-06	2024-Jul- 02	7524	7524	0
NO2+3, Filtered	2024-Jun-06	2024-Jul- 02	142550	143033	483
pН	2024-Jun-06	2024-Jul- 02	663475	671400	7925
Phosphate, Filtered (PO4)	2024-Jun-06	2024-Jul- 02	63087	65350	2263
Salinity	2024-Jun-06	2024-Jul- 02	828088	835944	7856
Secchi Depth	2024-Jun-06	2024-Jul- 02	339674	341377	1703
Specific Conductivity	2024-Jun-06	2024-Jul- 02	452753	460744	7991
Total Kjeldahl Nitrogen	2024-Jun-06	2024-Jul- 02	100183	103314	3131
Total Nitrogen	2024-Jun-06	2024-Jul- 02	133952	135933	1981
Total Phosphorus	2024-Jun-06	2024-Jul- 02	144617	147078	2461
Total Suspended Solids	2024-Jun-06	2024-Jul- 02	73539	76598	3059
Turbidity	2024-Jun-06	2024-Jul- 02	297237	301230	3993
Water Temperature	2024-Jun-06	2024-Jul-02	880134	888207	8073

Program Differences

Red ProgramIDs are Programs in the Old Exports but not in the New Exports Green ProgramIDs are Programs in the New Exports but not in the Old Exports

There is a difference in Programs between exports for the following parameters:

Chlorophyll a, Uncorrected for Pheophytin

Programs in old export: (n=25)

 $3,\ 60,\ 95,\ 103,\ 115,\ 118,\ 297,\ 354,\ 355,\ 470,\ 476,\ 477,\ 479,\ 509,\ 514,\ 537,\ 540,\ 4054,\ 5002,\ 5008,\ 5014,\ 5026,$

5028, 5058, 10000

Programs in new export: (n=26)

3, 60, 95, 103, 115, 118, 297, 354, 355, 470, 476, 477, 479, 509, 513, 514, 537, 540, 4054, 5002, 5008, 5014,

 $5026,\,5028,\,5058,\,10000$

Total Nitrogen

Programs in old export: (n=27)

103, 115, 118, 297, 303, 354, 355, 470, 476, 477, 479, 505, 509, 513, 514, 537, 540, 4054, 4058, 4063, 5002,

5008, 5014, 5026, 5028, 5058, 10000 Programs in new export: (n=26)

103, 115, 118, 297, 303, 354, 355, 470, 476, 479, 505, 509, 513, 514, 537, 540, 4054, 4058, 4063, 5002, 5008,

5014, 5026, 5028, 5058, 10000

Differences in Program data between exports

Ammonia, Un-ionized (NH3)

Table 2: Number of data entries by program - Ammonia, Un-ionized (NH3)

ProgramID	nOld	nNew	difference
5028	523	523	0

Chlorophyll a, Corrected for Pheophytin

Table 3: Number of data entries by program - Chlorophyll a, Corrected for Pheophytin

Program ID	nOld	nNew	$\it difference$
103	1362	1362	0
303	731	731	0
355	5366	5366	0
470	686	709	23
476	2927	2881	-46
477	135	116	-19
479	291	284	-7
505	168	168	0
513	921	3932	3011
514	1181	1181	0
537	35	35	0
540	468	465	-3
4054	5848	5825	-23
4063	65	63	-2
5002	20019	19811	-208
5008	737	737	0
5014	619	619	0
5026	287	287	0
5028	713	712	-1
5033	1200	1200	0
10000	2256	2256	0

Chlorophyll a, Uncorrected for Pheophytin

Table 4: Number of data entries by program - Chlorophyll a, Uncorrected for Pheophytin

Program ID	nOld	nNew	$\it difference$
3	4139	4139	0
60	366	366	0
95	1888	1888	0
103	4829	4829	0
115	69	69	0
118	109	109	0
297	15657	15657	0

354	4122	4122	0
355	1737	1737	0
470	544	762	218
476	2933	2918	-15
477	137	128	-9
479	1839	1839	0
509	6172	6172	0
514	9818	9818	0
537	44	44	0
540	458	453	-5
4054	4433	4423	-10
5002	18584	18514	-70
5008	747	747	0
5014	677	677	0
5026	410	410	0
5028	282	282	0
5058	268	268	0
10000	2860	2860	0

Colored Dissolved Organic Matter

Table 5: Number of data entries by program - Colored Dissolved Organic Matter

ProgramID	nOld	nNew	difference
3	467	467	0
103	1294	1294	0
476	1140	1134	-6
477	174	174	0
479	3269	3269	0
513	624	973	349
514	3657	3657	0
537	17	17	0
540	374	370	-4
4054	1328	1328	0
4063	64	64	0
5002	7307	7292	-15
5008	2269	2269	0
5014	7	7	0
10000	525	525	0

Dissolved Oxygen

Table 6: Number of data entries by program - Dissolved Oxygen

Program ID	nOld	nNew	$\it difference$
60	1657	1657	0
62	1182	1182	0
69	276902	276902	0
95	15152	15145	-7
102	46	46	0

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103	24048	24048	0
115	355	355	0
118	549	549	0
119	14	14	0
129	3941	3941	0
297	31754	31753	-1
303	68	68	0
354	1225	1225	0
355	2464	2455	-9
469	1167	1167	0
470	242	776	534
476	4358	4359	1
477	167	167	0
479	19880	19880	0
505	184	184	0
509	12158	12159	1
513	442	7872	7430
537	290	290	0
540	393	393	0
557	1129	1129	0
560	2104	2104	0
572	27	27	0
899	93	93	0
3000	386	386	0
3001	12749	12749	0
3013	2283	2283	0
4042	62	62	0
4043	2977	2972	-5
4044	290	290	0
4049	1152	1152	0
4054	2792	2792	0
4057	225	225	0
4058	2254	2254	0
4064	619	619	0
4065	314	314	0
4067	17562	17562	0
5002	370822	370657	-165
5008	2278	2278	0
5014	275	275	0
5026	1135	1135	0
5028	150	150	0
5058	266	266	0
5071	4	4	0
10000	6160	6160	0

Dissolved Oxygen Saturation

Table 7: Number of data entries by program - Dissolved Oxygen Saturation $\,$

ProgramID	nOld	nNew	$\it difference$
60	1273	1273	0
62	960	960	0

95	1498	1498	0
102	333	333	0
129	3933	3933	0
297	25419	25419	0
303	594	594	0
354	1118	1118	0
355	2464	2464	0
470	2	347	345
476	801	801	0
477	167	167	0
505	175	175	0
513	412	412	0
537	288	288	0
540	3	3	0
558	37	37	0
572	27	27	0
3001	12665	12665	0
3013	1160	1160	0
4042	53	53	0
4044	290	290	0
4054	4	4	0
4064	619	619	0
4067	17104	17104	0
5002	65500	65498	-2
5008	2278	2278	0
5014	254	254	0
5026	426	426	0
5028	164	164	0
10000	5850	5850	0

Light Extinction Coefficient

Table 8: Number of data entries by program - Light Extinction Coefficient

ProgramID	nOld	nNew	difference
3	323	323	0
297	10403	10403	0
479	1252	1252	0
509	491	491	0
4064	619	619	0
5002	2328	2328	0
5058	133	133	0

Ammonium, Filtered (NH4)

Table 9: Number of data entries by program - Ammonium, Filtered $(\mathrm{NH4})$

ProgramID	nOld	nNew	$\it difference$
3	3128	3128	0

103	71	71	0
115	64	64	0
297	25297	25057	-240
303	466	466	0
354	3811	3811	0
355	5174	5174	0
470	171	90	-81
476	10	10	0
477	175	174	-1
479	3152	3144	-8
505	119	119	0
509	6193	6193	0
513	752	751	-1
4054	5739	5731	-8
4063	66	64	-2
5002	58304	57730	-574
5014	592	592	0
5026	744	744	0
5028	199	190	-9
5033	8370	8222	-148
5058	268	268	0
10000	483	483	0

Nitrate (NO3)

Table 10: Number of data entries by program - Nitrate (NO3) $\,$

ProgramID	nOld	nNew	difference
303	8	8	0
354	1976	1976	0
513	25	25	0
4063	2	2	0
5002	9266	9219	-47
5033	8367	7995	-372

Nitrite (NO2)

Table 11: Number of data entries by program - Nitrite (NO2)

ProgramID	nOld	nNew	$\it difference$
297	5081	4942	-139
303	7	7	0
354	2180	2180	0
479	308	307	-1
513	564	564	0
4054	1656	1590	-66
4063	67	65	-2
5002	11847	11797	-50
5033	8373	8197	-176
10000	17	17	0

Nitrogen, organic

Table 12: Number of data entries by program - Nitrogen, organic

ProgramID	nOld	nNew	difference
5002	7121	7121	0

NO2+3, Filtered

Table 13: Number of data entries by program - NO2+3, Filtered

ProgramID	nOld	nNew	difference
3	2869	2869	0
115	61	61	0
297	19920	19595	-325
303	493	493	0
354	3081	3081	0
355	4713	4714	1
470	460	381	-79
476	4876	4777	-99
477	175	174	-1
479	3078	3075	-3
505	102	102	0
509	6215	6215	0
513	1949	2509	560
540	464	460	-4
4054	5433	5423	-10
4058	2227	2227	0
4063	62	58	-4
5002	68447	67825	-622
5014	560	560	0
5026	1108	1108	0
5028	768	757	-11
5033	8371	8171	-200
5058	268	268	0
10000	3220	3220	0

 \mathbf{pH}

Table 14: Number of data entries by program - pH

ProgramID	nOld	nNew	$\it difference$
3	21	21	0
69	275616	275616	0
95	12891	12884	-7
103	13822	13822	0
115	352	352	0
118	340	340	0
129	2248	2248	0
297	114	114	0
303	533	533	0

354	885	885	0
355	1284	1284	0
469	1168	1168	0
470	244	800	556
476	4761	4761	0
477	171	171	0
479	17487	17487	0
509	3472	3472	0
513	442	7823	7381
537	290	290	0
540	345	345	0
557	948	948	0
558	218	218	0
560	1841	1841	0
899	88	88	0
3000	331	331	0
3001	12159	12159	0
3013	2271	2271	0
4042	56	56	0
4044	290	290	0
4049	1265	1265	0
4054	2775	2775	0
4057	228	228	0
4058	2308	2308	0
4065	314	314	0
4067	13727	13727	0
5002	274319	274271	-48
5008	2271	2271	0
5014	283	283	0
5026	1151	1151	0
5028	211	211	0
10000	5914	5914	0

Phosphate, Filtered (PO4)

Table 15: Number of data entries by program - Phosphate, Filtered (PO4) $\,$

ProgramID	nOld	nNew	difference
3	4354	4354	0
103	75	75	0
115	63	63	0
354	4108	4108	0
355	3176	3176	0
479	2075	2075	0
505	102	102	0
513	1624	3883	2259
3000	381	381	0
4054	4171	4171	0
5002	37734	37586	-148
10000	1962	1962	0

Salinity

Table 16: Number of data entries by program - Salinity

Progr	ramID	nOld	nNew	$\it difference$
	3	4636	4636	0
	60	1589	1589	0
	62	1142	1142	0
	69	278912	278912	0
	95	26609	26608	-1
	102	383	383	0
	103	207	207	0
	115	360	360	0
	118	535	535	0
	119	14	14	0
	129	3968	3968	0
	297	31427	31410	-17
	303	620	620	0
	354	1283	1283	0
	355	2501	2501	0
	456	134	134	0
	469	1169	1169	0
	470	2	436	434
	476	4999	4999	0
	477	135	135	0
	479	19920	19920	0
	505	188	188	0
	509	12034	12051	17
	513	306	7729	7423
	537	288	288	0
	540	424	424	0
	557	1113	1113	0
	558	390	390	0
	560	2129	2129	0
	572	31	31	0
	899	82	82	0
	965	4157	4157	0
	3000	388	388	0
	3001	12721	12721	0
	3013	2346	2346	0
	3016	81	81	0
	4042	62	62	0
	4043	3042	3044	2
	4044	290	290	0
	4049	1354	1354	0
	4054	3307	3307	0
	4057	230	230	0
	4058	2308	2308	0
	4064	619	619	0
	4065	314	314	0
	4067	12597	12597	0
	5002	378473	378472	-1
	5014	283	283	0

5026	435	435	0	
5028	211	211	0	
5058	266	266	0	
5071	4	4	0	
10000	5617	5617	0	

Secchi Depth

Table 17: Number of data entries by program - Secchi Depth

ProgramID	nOld	nNew	$\it difference$
60	42	42	0
69	267668	267668	0
103	3121	3121	0
115	88	88	0
118	70	70	0
129	1966	1966	0
303	4	4	0
355	952	952	0
469	610	610	0
470	298	356	58
476	3769	3769	0
477	171	171	0
479	8549	8549	0
513	159	1804	1645
514	9317	9317	0
537	220	220	0
557	658	658	0
558	519	519	0
560	333	333	0
572	9	9	0
3000	143	143	0
3001	8683	8683	0
3013	1989	1989	0
3016	50	50	0
4049	317	317	0
4054	936	936	0
4065	318	318	0
5002	17921	17912	-9
5008	1742	1742	0
5014	240	240	0
5026	425	425	0
5028	90	90	0
5033	4797	4797	0
10000	2890	2890	0

Specific Conductivity

Table 18: Number of data entries by program - Specific Conductivity

69	248260	248260	0
95	2834	2834	0
102	297	297	0
103	10667	10667	0
115	65	65	0
119	14	14	0
354	425	425	0
355	628	628	0
470	242	798	556
476	5	5	0
477	334	334	0
479	15148	15148	0
513	442	7883	7441
514	2602	2602	0
537	243	243	0
540	5	5	0
558	391	391	0
572	27	27	0
3000	2	2	0
3013	2290	2290	0
4042	53	53	0
4044	288	288	0
4054	967	967	0
4058	2301	2301	0
4067	13474	13474	0
5002	110341	110282	-59
5008	2277	2277	0
5014	283	283	0
5026	709	709	0
5028	5	5	0
10000	6180	6180	0

Total Kjeldahl Nitrogen

Table 19: Number of data entries by program - Total Kjeldahl Nitrogen $\,$

ProgramID	nOld	nNew	$\it difference$
103	221	221	0
303	504	504	0
354	170	170	0
355	766	766	0
470	487	528	41
476	4706	4651	-55
477	175	174	-1
479	2822	2822	0
513	1103	4154	3051
540	469	465	-4
4054	2334	2315	-19
4058	2183	2183	0
4063	65	65	0
5002	67561	67103	-458
5014	1234	1232	-2

5026	1117	1114	-3
5028	753	752	-1
5033	8364	7691	-673
10000	2570	2570	0

Total Nitrogen

Table 20: Number of data entries by program - Total Nitrogen

ProgramID	nOld	nNew	difference
103	560	560	0
115	64	64	0
118	43	43	0
297	25903	25081	-822
303	506	506	0
354	631	631	0
355	584	584	0
470	436	378	-58
476	4514	4467	-47
479	8202	8202	0
505	42	42	0
509	6212	6212	0
513	755	3285	2530
514	10437	10433	-4
537	234	234	0
540	468	465	-3
4054	2840	2834	-6
4058	2125	2125	0
4063	62	58	-4
5002	62384	61951	-433
5008	758	758	0
5014	551	551	0
5026	1077	1076	-1
5028	752	751	-1
5058	268	268	0
10000	2079	2079	0

Total Phosphorus

Table 21: Number of data entries by program - Total Phosphorus

ProgramID	nOld	nNew	$\it difference$
103	5682	5682	0
115	64	64	0
118	15	15	0
297	25667	25628	-39
303	490	490	0
354	796	796	0
355	771	771	0
470	447	500	53
476	4798	4767	-31

477	175	174	-1
479	8190	8190	0
505	39	39	0
509	6187	6187	0
513	1124	3522	2398
514	10460	10415	-45
537	226	225	-1
540	460	459	-1
4054	4246	4246	0
4058	2196	2196	0
4063	65	65	0
5002	55611	55219	-392
5008	758	758	0
5014	620	620	0
5026	1110	1109	-1
5028	759	755	-4
5033	8365	7463	-902
5058	268	268	0
10000	3224	3224	0

Total Suspended Solids

Table 22: Number of data entries by program - Total Suspended Solids $\,$

ProgramID	nOld	nNew	difference
3	578	578	0
103	3614	3614	0
354	18	18	0
355	753	753	0
470	230	321	91
476	10	10	0
477	26	26	0
479	3374	3366	-8
505	78	78	0
513	1078	4037	2959
4054	3562	3546	-16
4063	66	65	-1
5002	45224	45103	-121
5014	139	139	0
5026	1517	1516	-1
5033	8993	8896	-97
10000	3081	3081	0

Turbidity

Table 23: Number of data entries by program - Turbidity

ProgramID	nOld	nNew	$\it difference$
95	398	398	0
103	19595	19595	0

129	2253	2253	0
297	26377	26377	0
303	604	604	0
354	734	734	0
355	1831	1831	0
469	481	481	0
470	171	659	488
476	4988	4959	-29
477	340	340	0
479	4894	4894	0
505	74	74	0
509	6178	6178	0
513	715	4219	3504
537	282	282	0
540	99	98	-1
557	369	369	0
572	4	4	0
965	2076	2076	0
3000	379	379	0
3013	1699	1699	0
4042	61	61	0
4044	114	114	0
4054	2586	2585	-1
4058	2316	2316	0
4063	56	55	-1
5002	204547	204469	-78
5014	139	139	0
5026	410	410	0
5033	8370	8366	-4
5058	264	264	0
10000	3254	3254	0

Water Temperature

Table 24: Number of data entries by program - Water Temperature $\,$

ProgramID	nOld	nNew	$\it difference$
3	655	655	0
60	1643	1643	0
62	1182	1182	0
69	279298	279298	0
95	25830	25823	-7
102	366	366	0
103	25337	25337	0
115	358	358	0
118	377	377	0
119	13	13	0
129	3959	3959	0
297	31387	31374	-13
303	605	605	0
354	1281	1281	0
355	2484	2484	0
456	133	133	0

469	1170	1170	0
470	245	828	583
476	5044	5044	0
477	172	172	0
479	18404	18404	0
505	188	188	0
509	12044	12057	13
513	442	7941	7499
537	290	290	0
540	434	434	0
557	1118	1118	0
558	416	416	0
560	2129	2129	0
572	30	30	0
899	85	85	0
965	4157	4157	0
982	1129	1129	0
3000	379	379	0
3001	12780	12780	0
3013	2336	2336	0
3016	49	49	0
4042	62	62	0
4043	3039	3037	-2
4044	282	282	0
4049	1354	1354	0
4054	2889	2878	-11
4057	227	227	0
4058	2298	2298	0
4064	619	619	0
4065	314	314	0
4067	16167	16167	0
5002	403374	403373	-1
5008	2278	2278	0
5014	283	283	0
5026	1152	1152	0
5028	197	197	0
5058	264	264	0
5071	4	4	0
10000	4010	4010	0

Continuous WQ

Overview

Table 25: Comparison of New vs. Old data exports - (Continuous $\mathrm{WQ})$

parameter	region	oldFile	newFile	nDataOld	nDataNew	difference	pctChange
Dissolved Oxygen	NW	2024-Jun-06	2024-Jul-02	4351408	4351408	0	0.00
Dissolved Oxygen	NE	2024-Jun-06	2024-Jul- 02	3096851	3096851	0	0.00
Dissolved Oxygen	SW	2024-Jun-06	2024-Jul- 02	5177830	5656245	478415	9.24
Dissolved Oxygen	SE	2024-Jun-06	2024-Jul- 02	664324	664324	0	0.00
Dissolved Oxygen Saturation	NW	2024-Jun-06	2024-Jul- 02	4376995	4376995	0	0.00
Dissolved Oxygen Saturation	NE	2024-Jun-06	2024-Jul- 02	3122810	3122810	0	0.00
Dissolved Oxygen Saturation	SW	2024-Jun-06	2024-Jul- 02	5212293	5692526	480233	9.21
Dissolved Oxygen Saturation	SE	2024-Jun-06	2024-Jul- 02	668946	668946	0	0.00
pH	NW	2024-Jun-06	2024-Jul- 02	4586234	4586234	0	0.00
pH	NE	2024-Jun-06	2024-Jul- 02	3042599	3042599	0	0.00
pH	SW	2024-Jun-06	2024-Jul- 02	5506772	6068960	562188	10.21
pH	SE	2024-Jun-06	2024-Jul- 02	665964	665964	0	0.00
Salinity	NW	2024-Jun-06	2024-Jul- 02	4936599	4936599	0	0.00
Salinity	NE	2024-Jun-06	2024-Jul- 02	3143712	3143712	0	0.00
Salinity	SW	2024-Jun-06	2024-Jul- 02	5823257	6390420	567163	9.74
Salinity	SE	2024-Jun-06	2024-Jul- 02	745516	745516	0	0.00
Turbidity	NW	2024-Jun-06	2024-Jul- 02	4386808	4386808	0	0.00
Turbidity	NE	2024-Jun-06	2024-Jul- 02	3002932	3002932	0	0.00
Turbidity	SW	2024-Jun-06	2024-Jul- 02	5138133	5649098	510965	9.94
Turbidity	SE	2024-Jun-06	2024-Jul- 02	670267	670267	0	0.00
Water Temperature	NW	2024-Jun-06	2024-Jul- 02	6429155	6429155	0	0.00
Water Temperature	NE	2024-Jun-06	2024-Jul- 02	3284253	3284253	0	0.00
Water Temperature	SW	2024-Jun-06	2024-Jul- 02	7419432	8037068	617636	8.32
Water Temperature	SE	2024-Jun-06	2024-Jul-02	19583717	19583717	0	0.00

Differences in Program data between exports Dissolved Oxygen

Table 26: Number of data entries by program - Dissolved Oxygen

ProgramID	nOld	nNew	difference
7	9132	9132	0
7	689	689	0
7	1302	1302	0
354	2605529	2605529	0
355	3096192	3096192	0
467	223874	223874	0
468	207810	207810	0
471	810606	810606	0
473	8153	8153	0
474	967358	1445773	478415
505	3794	3794	0
512	1595488	1595488	0
4054	2569101	2569101	0
5005	39746	39746	0
5006	281047	281047	0
5061	165776	165776	0
5077	664324	664324	0
10003	40492	40492	0

Dissolved Oxygen Saturation

Table 27: Number of data entries by program - Dissolved Oxygen Saturation $\,$

ProgramID	nOld	nNew	difference
354	2630307	2630307	0
355	3101551	3101551	0
467	230142	230142	0
468	223905	223905	0
471	817649	817649	0
473	8153	8153	0
474	979385	1459618	480233
505	3748	3748	0
512	1594448	1594448	0
4054	2588423	2588423	0
5005	39746	39746	0
5006	281080	281080	0
5061	173069	173069	0
5077	668946	668946	0
10003	40492	40492	0

pH

Table 28: Number of data entries by program - pH

ProgramID	nOld	nNew	$\it difference$
7	8809	8809	0
7	1164	1164	0
354	2860264	2860264	0
355	3135442	3135442	0
467	238872	238872	0
468	231686	231686	0
471	970285	970285	0
473	8306	8306	0
474	1135495	1697683	562188
505	1140	1140	0
512	1501543	1501543	0
4054	2517269	2517269	0
5005	38184	38184	0
5006	281886	281886	0
5061	163886	163886	0
5077	665964	665964	0
10003	41374	41374	0

Salinity

Table 29: Number of data entries by program - Salinity

ProgramID	nOld	nNew	difference
2	86204	86204	0
7	634	634	0
7	17692	17692	0
7	33978	33978	0
7	1510	1510	0
354	2966513	2966513	0
355	3247498	3247498	0
467	240526	240526	0
468	221287	221287	0
471	1222785	1222785	0
473	8304	8304	0
474	1159380	1726543	567163
505	3869	3869	0
512	1655082	1655082	0
4054	2552698	2552698	0
5005	43791	43791	0
5006	292902	292902	0
5061	160337	160337	0
5062	34918	34918	0
5077	657802	657802	0
10003	41374	41374	0

Turbidity

Table 30: Number of data entries by program - Turbidity

Program ID	nOld	nNew	$\it difference$
7	1174	1174	0
354	2800135	2800135	0
355	3029152	3029152	0
467	252626	252626	0
468	193869	193869	0
471	908819	908819	0
473	8263	8263	0
474	935185	1446150	510965
505	2342	2342	0
512	1393376	1393376	0
4054	2492832	2492832	0
5005	39124	39124	0
5006	284397	284397	0
5061	145410	145410	0
5077	670267	670267	0
10003	41169	41169	0

Water Temperature

Table 31: Number of data entries by program - Water Temperature

ProgramID	nOld	nNew	difference
2	86204	86204	0
5	1281063	1281063	0
5	1360068	1360068	0
5	3373557	3373557	0
7	25090	25090	0
7	21256	21256	0
7	38796	38796	0
7	1644	1644	0
296	3987025	3987025	0
354	3050975	3050975	0
355	3339416	3339416	0
467	265295	265295	0
468	259581	259581	0
471	1254840	1254840	0
473	8305	8305	0
474	1250045	1867681	617636
505	3870	3870	0
512	1711243	1711243	0
899	922737	922737	0
986	8692018	8692018	0
989	1824357	1824357	0
4054	2682810	2682810	0
5005	43791	43791	0
5006	293314	293314	0
5061	166235	166235	0
5062	35473	35473	0
5077	696175	696175	0

10003 41374 41374 0

Species

Overview

Table 32: Comparison of New vs. Old data exports - (Species)

habitat	oldFile	newFile	nDataOld	nDataNew	difference
Coral	2024-Jun-06	2024-Jul-02	6932158	6932158	0
CW	2024-Jun-06	2024-Jul- 02	25460	25409	-51
Nekton	2024-Jun-06	2024-Jul- 02	3108669	3108669	0
Oyster	2024-Jun-11	2024-Jul- 02	576022	576022	0
SAV	2024-Jun-06	2024-Jul-02	4387954	4387954	0

Differences in Program data between exports Coral

Table 33: Number of data entries by program - Colony Height

ProgramID	Parameter Name	nOld	nNew	difference	$QuadSize \ m2$
136	Colony Height	11782	11782	0	NA
169	Colony Height	35634	35634	0	NA
981	Colony Height	125938	125938	0	NA
3022	Colony Height	30544	30544	0	NA
4019	Colony Height	2588	2588	0	NA
5040	Colony Height	618	618	0	NA

Table 34: Number of data entries by program - Colony Length

Progr	ramID	Parameter Name	nOld	nNew	$\it difference$	$QuadSize \ m2$
	136	Colony Length	13348	13348	0	NA
	5040	Colony Length	679	679	0	NA

Table 35: Number of data entries by program - Colony Width

Program ID	Parameter Name	nOld	nNew	${\it difference}$	$QuadSize\ m2$
136	Colony Width	12556	12556	0	NA
981	Colony Width	148555	148555	0	NA
3022	Colony Width	30871	30871	0	NA
4019	Colony Width	3087	3087	0	NA
5040	Colony Width	713	713	0	NA

Table 36: Number of data entries by program - Count

ProgramID	Parameter Name	nOld	nNew	difference	QuadSize m2
136	Count	11897	11897	0	NA
3021	Count	384	384	0	NA
3022	Count	1861	1861	0	NA
3024	Count	83670	83670	0	NA

Table 37: Number of data entries by program - Percent Live Tissue

Program ID	Parameter Name	nOld	nNew	difference	$QuadSize \ m2$
136	Percent Live Tissue	8504	8504	0	NA
5040	Percent Live Tissue	500	500	0	NA

Table 38: Number of data entries by program - Presence/Absence

Program ID	Parameter Name	nOld	nNew	$\it difference$	$QuadSize\ m2$
136	Presence/Absence	8090	8090	0	NA
295	Presence/Absence	1877	1877	0	NA
379	Presence/Absence	4602	4602	0	NA
915	Presence/Absence	5567058	5567058	0	NA
965	Presence/Absence	159973	159973	0	NA
981	Presence/Absence	38063	38063	0	NA
3021	Presence/Absence	384	384	0	NA
3024	Presence/Absence	52744	52744	0	NA
4018	Presence/Absence	18413	18413	0	NA
4019	Presence/Absence	552	552	0	NA
5027	Presence/Absence	8942	8942	0	NA
5042	Presence/Absence	2453	2453	0	NA

Table 39: Number of data entries by program - Colony Density

Program ID	Parameter Name	nOld	nNew	$\it difference$	$QuadSize\ m2$
169	Colony Density	39444	39444	0	NA
4019	Colony Density	568	568	0	NA
5042	Colony Density	2458	2458	0	NA

Table 40: Number of data entries by program - Colony Diameter

Program ID	Parameter Name	nOld	nNew	$\it difference$	$QuadSize\ m2$
169	Colony Diameter	45926	45926	0	NA
3022	Colony Diameter	36312	36312	0	NA

Table 41: Number of data entries by program - Percent Cover

ProgramID	Parameter Name	nOld	nNew	$\it difference$	$QuadSize\ m2$
169	Percent Cover	163350	163350	0	NA
295	Percent Cover	211705	211705	0	NA
899	Percent Cover	1816	1816	0	NA
3022	Percent Cover	23288	23288	0	NA
3024	Percent Cover	1323	1323	0	NA
4018	Percent Cover	1578	1578	0	NA
5027	Percent Cover	13847	13847	0	NA

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Table 42: Number of data entries by program - Percent Cover

Program ID	Parameter Name	nOld	nNew	difference	QuadSize m2
620	Percent Cover	32	32	0	NA
651	Percent Cover	2567	2567	0	NA
906	Percent Cover	810	810	0	NA
3029	Percent Cover	67	67	0	NA

4017	Percent Cover	15012	15012	0	NA
5009	Percent Cover	3021	3021	0	NA
5015	Percent Cover	70	78	8	NA

Table 43: Number of data entries by program - Stem Density

Program ID	Parameter Name	nOld	nNew	$\it difference$	$QuadSize\ m2$
651	Stem Density	19	19	0	NA
906	Stem Density	71	71	0	NA
3029	Stem Density	151	151	0	NA
4017	Stem Density	2075	2075	0	NA
5009	Stem Density	1201	1201	0	NA
5015	Stem Density	214	155	-59	NA

Table 44: Number of data entries by program - Total/Canopy Percent Cover

ProgramID	Parameter Name	nOld	nNew	difference	QuadSize m2
3029	Total/Canopy Percent Cover	150	150	0	NA

Nekton

Table 45: Number of data entries by program - Count

ProgramID	Parameter Name	nOld	nNew	difference	QuadSize m2
69	Count	91411	91411	0	NA
129	Count	82812	82812	0	NA
4043	Count	297244	297244	0	NA

Table 46: Number of data entries by program - Presence/Absence

ProgramID	Parameter Name	nOld	nNew	difference	QuadSize m2
69	Presence/Absence	91411	91411	0	NA
129	Presence/Absence	82659	82659	0	NA
4043	Presence/Absence	296481	296481	0	NA

Table 47: Number of data entries by program - Standard Length

Program ID	Parameter Name	nOld	nNew	$\it difference$	$QuadSize\ m2$
69	Standard Length	2166650	2166650	0	NA

Oyster

Table 48: Number of data entries by program - Shell Height

ProgramID	Parameter Name	nOld	nNew	difference	QuadSize m2
4000	Shell Height	60458	60458	0	0.06
4012	Shell Height	3811	3811	0	0.06
4012	Shell Height	1608	1608	0	0.25
4012	Shell Height	45	45	0	1.00
4014	Shell Height	6813	6813	0	0.25
4016	Shell Height	2790	2790	0	0.06
4020	Shell Height	2500	2500	0	0.06
4042	Shell Height	5480	5480	0	0.06
4042	Shell Height	592	592	0	0.33
4042	Shell Height	171	171	0	1.00
4044	Shell Height	21724	21724	0	0.25
5007	Shell Height	56840	56840	0	0.25
5017	Shell Height	10276	10276	0	0.06
5035	Shell Height	28895	28895	0	0.06
5063	Shell Height	1060	1060	0	0.10
5070	Shell Height	3527	3527	0	0.25
5071	Shell Height	102	102	0	0.25
5072	Shell Height	1673	1673	0	NA
5073	Shell Height	595	595	0	1.00
5074	Shell Height	150	150	0	0.25
5075	Shell Height	403	403	0	0.06
10002	Shell Height	335854	335854	0	0.25

Table 49: Number of data entries by program - Density

ProgramID	Parameter Name	nOld	nNew	difference	QuadSize m2
972	Density	426	426	0	0.06
4000	Density	776	776	0	0.06
4012	Density	199	199	0	1.00
4014	Density	161	161	0	0.25
4016	Density	105	105	0	0.06
4020	Density	40	40	0	0.06
4042	Density	68	68	0	0.06
4042	Density	10	10	0	0.33
4042	Density	3	3	0	1.00
4044	Density	2175	2175	0	0.25
5007	Density	1170	1170	0	0.25
5017	Density	272	272	0	0.06
5063	Density	161	161	0	0.10
5073	Density	27	27	0	0.25
5073	Density	176	176	0	1.00
5074	Density	6	6	0	0.25
5075	Density	12	12	0	0.06

Table 50: Number of data entries by program - Number of Oysters Counted - Total

Program ID	Parameter Name	nOld	nNew	difference	$QuadSize\ m2$
972	Number of Oysters Counted - Total	426	426	0	0.25
4000	Number of Oysters Counted - Total	776	776	0	0.06
4012	Number of Oysters Counted - Total	91	91	0	0.06
4012	Number of Oysters Counted - Total	20	20	0	0.25
4012	Number of Oysters Counted - Total	5	5	0	1.00
4012	Number of Oysters Counted - Total	10	10	0	NA
4014	Number of Oysters Counted - Total	13	13	0	0.25
4016	Number of Oysters Counted - Total	593	593	0	0.06
4042	Number of Oysters Counted - Total	257	257	0	0.06
4044	Number of Oysters Counted - Total	2175	2175	0	0.25
5007	Number of Oysters Counted - Total	1170	1170	0	0.25
5063	Number of Oysters Counted - Total	161	161	0	0.10
5073	Number of Oysters Counted - Total	11	11	0	0.25
5073	Number of Oysters Counted - Total	74	74	0	1.00
5074	Number of Oysters Counted - Total	12	12	0	0.25
5075	Number of Oysters Counted - Total	12	12	0	0.06

Table 51: Number of data entries by program - Percent Live

ProgramID	Parameter Name	nOld	nNew	difference	QuadSize m2
972	Percent Live	417	417	0	0.25
4000	Percent Live	1582	1582	0	1.00
4012	Percent Live	87	87	0	0.06
4012	Percent Live	11	11	0	0.25
4014	Percent Live	174	174	0	0.25
4016	Percent Live	593	593	0	1.00
4020	Percent Live	40	40	0	1.00
4042	Percent Live	65	65	0	1.00
4044	Percent Live	1367	1367	0	0.25
5007	Percent Live	1066	1066	0	0.25
5010	Percent Live	282	282	0	1.00
5017	Percent Live	273	273	0	1.00
5035	Percent Live	8	8	0	0.06
5074	Percent Live	11	11	0	0.25
5075	Percent Live	12	12	0	1.00

Table 52: Number of data entries by program - Reef Height

ProgramID	Parameter Name	nOld	nNew	difference	QuadSize m2
4000	Reef Height	1254	1254	0	NA
4012	Reef Height	185	185	0	NA
4016	Reef Height	121	121	0	NA
4020	Reef Height	60	60	0	NA
4042	Reef Height	66	66	0	NA
5010	Reef Height	65	65	0	NA
5017	Reef Height	307	307	0	NA
5035	Reef Height	8	8	0	NA
5075	Reef Height	16	16	0	NA

Table 53: Number of data entries by program - Number of Oysters Counted - Dead

ProgramID	Parameter Name	nOld	nNew	difference	QuadSize m2
972	Number of Oysters Counted - Dead	426	426	0	0.25
4012	Number of Oysters Counted - Dead	91	91	0	0.06
4012	Number of Oysters Counted - Dead	20	20	0	0.25
4012	Number of Oysters Counted - Dead	5	5	0	1.00
4012	Number of Oysters Counted - Dead	10	10	0	NA
4014	Number of Oysters Counted - Dead	13	13	0	0.25
4016	Number of Oysters Counted - Dead	593	593	0	0.06
4042	Number of Oysters Counted - Dead	257	257	0	0.06
4044	Number of Oysters Counted - Dead	2175	2175	0	0.25
5007	Number of Oysters Counted - Dead	1170	1170	0	0.25
5063	Number of Oysters Counted - Dead	161	161	0	0.10
5073	Number of Oysters Counted - Dead	25	25	0	0.25
5073	Number of Oysters Counted - Dead	148	148	0	1.00
5074	Number of Oysters Counted - Dead	6	6	0	0.25
5075	Number of Oysters Counted - Dead	12	12	0	0.06

Table 54: Number of data entries by program - Number of Oysters Counted - Live

Program ID	Parameter Name	nOld	nNew	difference	QuadSize m2
972	Number of Oysters Counted - Live	426	426	0	0.25
4012	Number of Oysters Counted - Live	522	522	0	0.06
4012	Number of Oysters Counted - Live	30	30	0	0.25
4012	Number of Oysters Counted - Live	25	25	0	1.00
4012	Number of Oysters Counted - Live	10	10	0	NA
4014	Number of Oysters Counted - Live	14	14	0	0.25
4016	Number of Oysters Counted - Live	593	593	0	0.06
4042	Number of Oysters Counted - Live	257	257	0	0.06
4044	Number of Oysters Counted - Live	2175	2175	0	0.25
5007	Number of Oysters Counted - Live	1170	1170	0	0.25
5017	Number of Oysters Counted - Live	272	272	0	0.06
5063	Number of Oysters Counted - Live	161	161	0	0.10
5073	Number of Oysters Counted - Live	27	27	0	0.25
5073	Number of Oysters Counted - Live	176	176	0	1.00
5074	Number of Oysters Counted - Live	6	6	0	0.25
5075	Number of Oysters Counted - Live	12	12	0	0.06

SAV

Table 55: Number of data entries by program - Percent Occurrence

ProgramID	Parameter Name	nOld	nNew	difference	QuadSize m2
3013	Percent Occurrence	542419	542419	0	NA
3015	Percent Occurrence	3724	3724	0	NA
3017	Percent Occurrence	77463	77463	0	NA
10001	Percent Occurrence	9672	9672	0	NA

Table 56: Number of data entries by program - Presence/Absence

ProgramID	Parameter Name	nOld	nNew	difference	QuadSize m2
296	Presence/Absence	10964	10964	0	NA
556	Presence/Absence	1652	1652	0	NA
557	Presence/Absence	3168	3168	0	NA
558	Presence/Absence	4485	4485	0	NA
559	Presence/Absence	668	668	0	NA
560	Presence/Absence	33140	33140	0	NA
564	Presence/Absence	10056	10056	0	NA
565	Presence/Absence	28310	28310	0	NA
568	Presence/Absence	1768	1768	0	NA
570	Presence/Absence	20295	20295	0	NA
571	Presence/Absence	4745	4745	0	NA
572	Presence/Absence	1442	1442	0	NA
965	Presence/Absence	747950	747950	0	NA
978	Presence/Absence	60	60	0	NA
997	Presence/Absence	514	514	0	NA
3013	Presence/Absence	602335	602335	0	NA
3015	Presence/Absence	3724	3724	0	NA
3016	Presence/Absence	574	574	0	NA
3017	Presence/Absence	77460	77460	0	NA
4018	Presence/Absence	54651	54651	0	NA
4049	Presence/Absence	301972	301972	0	NA
4065	Presence/Absence	4923	4923	0	NA
5027	Presence/Absence	37434	37434	0	NA
10001	Presence/Absence	9672	9672	0	NA

Table 57: Number of data entries by program - Braun Blanquet Score $\,$

ProgramID	Parameter Name	nOld	nNew	difference	QuadSize m2
296	Braun Blanquet Score	10972	10972	0	NA
557	Braun Blanquet Score	3183	3183	0	NA
565	Braun Blanquet Score	28335	28335	0	NA
570	Braun Blanquet Score	20300	20300	0	NA
571	Braun Blanquet Score	4745	4745	0	NA
965	Braun Blanquet Score	756816	756816	0	NA
997	Braun Blanquet Score	496	496	0	NA
3016	Braun Blanquet Score	574	574	0	NA
4018	Braun Blanquet Score	47012	47012	0	NA
4049	Braun Blanquet Score	302823	302823	0	NA
4065	Braun Blanquet Score	5139	5139	0	NA
5027	Braun Blanquet Score	37707	37707	0	NA

Table 58: Number of data entries by program - Percent Cover

Program ID	Parameter Name	nOld	nNew	$\it difference$	$QuadSize\ m2$
556	Percent Cover	1652	1652	0	NA
558	Percent Cover	4485	4485	0	NA

560	Percent Cover	9750	9750	0	NA
564	Percent Cover	10118	10118	0	NA
568	Percent Cover	1768	1768	0	NA
572	Percent Cover	1442	1442	0	NA
997	Percent Cover	516	516	0	NA
3013	Percent Cover	463145	463145	0	NA
4018	Percent Cover	1477	1477	0	NA
5027	Percent Cover	35275	35275	0	NA

Table 59: Number of data entries by program - Modified Braun Blanquet Score

ProgramID	Parameter Name	nOld	nNew	$\it difference$	$QuadSize\ m2$
559	Modified Braun Blanquet Score	668	668	0	NA
560	Modified Braun Blanquet Score	44201	44201	0	NA
978	Modified Braun Blanquet Score	115	115	0	NA

QAQC Flag Check

- n_high is the amount of data above the quantile value.
- n_high_flagged is the amount of data above the quantile value AND containing proper SEACAR-QAQCFlag of 17Q (ResultValue above quantile value).
- n_low is the amount of data below the quantile value.
- n_low_flagged is the amount of data below the quantile value AND containing proper SEACAR-QAQCFlag of 16Q (ResultValue below quantile value).
- If everything is in order, these values should be the same. Any discrepancies therein should be fastidiously noted.
- Flag codes for **Threshold** checks: 2Q & 4Q

 $\begin{array}{c} \textbf{Discrete WQ} \\ \textbf{Quantile Check} \end{array}$

ParameterName	n high	n high flagged	n low	n low flagged
Dissolved Oxygen	676	676	803	803
Dissolved Oxygen Saturation	129	129	131	131
Light Extinction Coefficient	16	16	13	13
Nitrogen, organic	7	7	6	6
рН	575	575	0	0
Salinity	725	725	0	0
Secchi Depth	271	271	0	0
Specific Conductivity	378	378	0	0
Total Nitrogen	128	128	16	16
Total Phosphorus	148	148	101	101
Turbidity	292	292	69	69
Water Temperature	896	896	0	0

Threshold Check

ParameterName	n high	n high flagged	n low	n low flagged	n included
Dissolved Oxygen	207	207	8	8	0
Dissolved Oxygen Saturation	11	11	7	7	0
рН	73	73	2200	2200	0
Salinity	60	60	2	2	0
Secchi Depth	7	7	584	584	0
Specific Conductivity	25	25	29961	29961	0
Water Temperature	9	9	2968	2968	0

Continuous WQ

Quantile Check

ParameterName	n high	n high flagged	n low	n low flagged
Dissolved Oxygen	455	455	1003	1003
Dissolved Oxygen Saturation	4638	4638	1430	1430
Turbidity	5	5	0	0
Water Temperature	0	0	212	212

Threshold Check

No threshold values detected

 $\label{eq:Species} \mbox{Quantile Check}$

ParameterName	habitat	n high	n high flagged	n low	n low flagged
Percent Cover	Coral	10074	10074	0	0
Colony Height	Coral	377	377	0	0
Colony Diameter	Coral	135	135	0	0
Count	Coral	8	0	0	0
Colony Density	Coral	38	38	0	0
Colony Length	Coral	17	17	0	0
Colony Width	Coral	264	264	133	133
Stem Density	CW	9	9	0	0
Standard Length	Nekton	2145	2145	1495	1495
Count	Nekton	704	704	0	0
Reef Height	Oyster	3	3	0	0
Shell Height	Oyster	575	575	332	332
Number of Oysters Counted - Total	Oyster	7	7	0	0
Number of Oysters Counted - Dead	Oyster	6	6	0	0
Density	Oyster	6	6	0	0
Number of Oysters Counted - Live	Oyster	5	5	0	0
Percent Cover	SAV	44	44	0	0
Braun Blanquet Score	SAV	0	0	1	1
Modified Braun Blanquet Score	SAV	1	1	5178	5178
Percent Occurrence	SAV	2	2	0	0

 $Entries\ where\ Result Value\ is\ above\ or\ below\ quantile,\ but\ expected\ SEACAR_QAQCF lag Code\ is\ not\ being\ applied$

Table 60: SEACAR QAQC Flag Code discrepancies

RowID	ProgramID	Parameter Name	Result Value	$SEACAR\ QAQCFlagCode$	$q\ subset$
6874093	3021	Count	201	6Q	high
6874353	3021	Count	145	6Q	high
6909658	3021	Count	205	6Q	high
6938205	3021	Count	118	6Q	high
6967472	3021	Count	252	6Q	high
6967474	3021	Count	226	6Q	high
6973918	3021	Count	166	6Q	high
6973929	3021	Count	132	6Q	high

Threshold Check

ParameterName	habitat	n high	n high flagged	n low	n low flagged
Colony Height	Coral	0	0	3344	3344
Colony Diameter	Coral	0	0	318	318
Percent Live Tissue	Coral	0	0	1	1
Standard Length	Nekton	0	0	1	1
Reef Height	Oyster	0	0	4	4

Expected Values Check (15Q)

Submerged Aquatic Vegetation

Table 61: Overview of 15Q - Expected Values Check

Parameter Name	Program ID	N Data Flagged	N Unexpected Values	Expected Values
Braun Blanquet Score	296	6221	6221	0,0.1,0.5,1,2,3,4,5
Braun Blanquet Score	965	2081	2081	0, 0.1, 0.5, 1, 2, 3, 4, 5
Braun Blanquet Score	4018	743	743	0, 0.1, 0.5, 1, 2, 3, 4, 5
Braun Blanquet Score	5027	4	4	0, 0.1, 0.5, 1, 2, 3, 4, 5
Modified Braun Blanquet Score	559	347	347	0, 0.1, 0.5, 1, 2, 3, 4, 5

Secchi Depth Visible on Bottom

N Secchi VOB is the count of data where TotalDepth_m == ResultValue. (No rounding)

N Flagged 8Q is the count of data where SEACAR_QAQCFlagCode contains 8Q designation: Original value = 'ON BOTTOM'

 $N\ Flagged\ 1Q$ is the count of data where SEACAR_QAQCFlagCode contains 1Q designation: Calculated by SEACAR

Table 62: Overview of 8Q - Secchi Depth: Visible on Bottom

ProgramID	N Secchi VOB	N Flagged 8Q	N Flagged 1Q
60	14	14	14
129	129	418	418
469	4	6	6
470	243	243	243
476	1009	1028	1028
477	72	72	72
479	283	283	283
513	96	128	128
514	1	1053	1053
557	642	642	642
558	103	107	107
3001	1330	1376	1376
3013	1343	1378	1378
4049	20	31	31
4065	318	318	318
5002	5944	6125	6125
5008	663	1530	1530
5014	18	18	18
5028	58	59	59
5033	2178	2178	2178
10000	131	131	131