# Export Comparison QAQC Report

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

2024-09-10

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)

Ammonia, Un-ionized (NH3)  Chlorophyll a, Corrected for Pheophytin  Chlorophyll a, Uncorrected for Pheophytin  2024-Jul-11  2024-Jul-11  2024-Jul-11	2024-Sep-04	F00		difference
	-	523	523	0
Thlorophydl a Ungarracted for Dhambytin 2024 Jul 11	2024-Sep- $04$	49897	68684	18787
Information at the contracted for Fliedphytin 2024-Jul-11	2024-Sep- $04$	84323	93301	8978
Colored Dissolved Organic Matter 2024-Jul-11	2024-Sep- $04$	22944	26435	3491
Dissolved Oxygen 2024-Jul-11	2024 -Sep-04	838603	857762	19159
Dissolved Oxygen Saturation 2024-Jul-11	2024-Sep- $04$	147622	156207	8585
Light Extinction Coefficient 2024-Jul-11	2024-Sep- $04$	15550	15550	0
Ammonium, Filtered (NH4) 2024-Jul-11	2024-Sep- $04$	125471	145122	19651
Nitrate (NO3) 2024-Jul-11	2024-Sep- $04$	19780	11409	-8371
Nitrite (NO2) 2024-Jul-11	2024-Sep- $04$	32521	43516	10995
Nitrogen, organic 2024-Jul-11	2024-Sep- $04$	7524	7524	0
NO2+3, Filtered 2024-Jul-11	2024-Sep- $04$	143033	163966	20933
oH 2024-Jul-11	2024-Sep- $04$	671400	690546	19146
Phosphate, Filtered (PO4) 2024-Jul-11	2024-Sep- $04$	65350	65350	0
Salinity 2024-Jul-11	2024 -Sep-04	835944	857141	21197
Secchi Depth 2024-Jul-11	2024-Sep- $04$	341377	350430	9053
Specific Conductivity 2024-Jul-11	2024-Sep- $04$	460744	478322	17578
Total Kjeldahl Nitrogen 2024-Jul-11	2024 -Sep-04	103314	120705	17391
Total Nitrogen 2024-Jul-11	2024 -Sep-04	135933	146630	10697
Total Phosphorus 2024-Jul-11	2024-Sep- $04$	147078	166456	19378
Total Suspended Solids 2024-Jul-11	2024-Sep- $04$	76598	91184	14586
Turbidity 2024-Jul-11	2024-Sep- $04$	301230	315479	14249
Water Temperature 2024-Jul-11	$2024\text{-}\mathrm{Sep}\text{-}04$	888207	907371	19164

#### **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, Corrected for Pheophytin

Programs in old export: (n=21)

 $103,\ 303,\ 355,\ 470,\ 476,\ 477,\ 479,\ 505,\ 513,\ 514,\ 537,\ 540,\ 4054,\ 4063,\ 5002,\ 5008,\ 5014,\ 5026,\ 5028,\ 5033,\ 10000$ 

Programs in new export: (n=23)

 $103,\ 303,\ 354,\ 355,\ 470,\ 476,\ 477,\ 479,\ 505,\ 513,\ 514,\ 537,\ 540,\ 4054,\ 4063,\ 5002,\ 5008,\ 5014,\ 5016,\ 5026,\ 5028,\ 5033,\ 10000$ 

#### Chlorophyll a, Uncorrected for Pheophytin

Programs in old export: (n=26)

 $3,\ 60,\ 95,\ 103,\ 115,\ 118,\ 297,\ 354,\ 355,\ 470,\ 476,\ 477,\ 479,\ 509,\ 513,\ 514,\ 537,\ 540,\ 4054,\ 5002,\ 5008,\ 5014,\ 5026,\ 5028,\ 5058,\ 10000$ 

Programs in new export: (n=27)

3, 60, 95, 103, 115, 118, 297, 354, 355, 470, 476, 477, 479, 509, 513, 514, 537, 540, 4054, 5002, 5008, 5014, 5016, 5026, 5028, 5058, 10000

#### Dissolved Oxygen

Programs in old export: (n=49)

 $60,\ 62,\ 69,\ 95,\ 102,\ 103,\ 115,\ 118,\ 119,\ 129,\ 297,\ 303,\ 354,\ 355,\ 469,\ 470,\ 476,\ 477,\ 479,\ 505,\ 509,\ 513,\ 537,\ 540,\ 557,\ 560,\ 572,\ 899,\ 3000,\ 3001,\ 3013,\ 4042,\ 4043,\ 4044,\ 4049,\ 4054,\ 4057,\ 4058,\ 4064,\ 4065,\ 4067,\ 5002,\ 5008,\ 5014,\ 5026,\ 5028,\ 5058,\ 5071,\ 10000$ 

Programs in new export: (n=50)

60, 62, 69, 95, 102, 103, 115, 118, 119, 129, 297, 303, 354, 355, 469, 470, 476, 477, 479, 505, 509, 513, 537, 540, 557, 560, 572, 899, 3000, 3001, 3013, 4042, 4043, 4044, 4049, 4054, 4057, 4058, 4064, 4065, 4067, 5002, 5008, 5014, 5016, 5026, 5028, 5058, 5071, 10000

#### Nitrate (NO3)

Programs in old export: (n=6) 303, 354, 513, 4063, 5002, 5033 Programs in new export: (n=5) 303, 354, 513, 4063, 5002

#### NO2+3, Filtered

Programs in old export: (n=24)

3, 115, 297, 303, 354, 355, 470, 476, 477, 479, 505, 509, 513, 540, 4054, 4058, 4063, 5002, 5014, 5026, 5028, 5033, 5058, 10000

Programs in new export: (n=25)

3, 115, 297, 303, 354, 355, 470, 476, 477, 479, 505, 509, 513, 540, 4054, 4058, 4063, 5002, 5014, 5016, 5026, 5028, 5033, 5058, 10000

#### pH

Programs in old export: (n=41)

3, 69, 95, 103, 115, 118, 129, 297, 303, 354, 355, 469, 470, 476, 477, 479, 509, 513, 537, 540, 557, 558, 560, 899, 3000, 3001, 3013, 4042, 4044, 4049, 4054, 4057, 4058, 4065, 4067, 5002, 5008, 5014, 5026, 5028, 10000

Programs in new export: (n=42)

3, 69, 95, 103, 115, 118, 129, 297, 303, 354, 355, 469, 470, 476, 477, 479, 509, 513, 537, 540, 557, 558, 560, 899, 3000, 3001, 3013, 4042, 4044, 4049, 4054, 4057, 4058, 4065, 4067, 5002, 5008, 5014, 5016, 5026, 5028, 10000

#### Salinity

Programs in old export: (n=53)

3, 60, 62, 69, 95, 102, 103, 115, 118, 119, 129, 297, 303, 354, 355, 456, 469, 470, 476, 477, 479, 505, 509, 513, 537, 540, 557, 558, 560, 572, 899, 965, 3000, 3001, 3013, 3016, 4042, 4043, 4044, 4049, 4054, 4057, 4058, 4064, 4065, 4067, 5002, 5014, 5026, 5028, 5058, 5071, 10000

Programs in new export: (n=55)

3, 60, 62, 69, 95, 102, 103, 115, 118, 119, 129, 297, 303, 354, 355, 456, 469, 470, 476, 477, 479, 505, 509, 513, 537, 540, 557, 558, 560, 572, 899, 965, 3000, 3001, 3013, 3016, 4042, 4043, 4044, 4049, 4054, 4057, 4058, 4064, 4065, 4067, 5002, 5008, 5014, 5016, 5026, 5028, 5058, 5071, 10000

#### Specific Conductivity

Programs in old export: (n=31)

69, 95, 102, 103, 115, 119, 354, 355, 470, 476, 477, 479, 513, 514, 537, 540, 558, 572, 3000, 3013, 4042, 4044, 4054, 4058, 4067, 5002, 5008, 5014, 5026, 5028, 10000

Programs in new export: (n=32)

69, 95, 102, 103, 115, 119, 354, 355, 470, 476, 477, 479, 513, 514, 537, 540, 558, 572, 3000, 3013, 4042, 4044, 4054, 4058, 4067, 5002, 5008, 5014, 5016, 5026, 5028, 10000

#### Total Kjeldahl Nitrogen

Programs in old export: (n=19)

103, 303, 354, 355, 470, 476, 477, 479, 513, 540, 4054, 4058, 4063, 5002, 5014, 5026, 5028, 5033, 10000

Programs in new export: (n=20)

 $103,\ 303,\ 354,\ 355,\ 470,\ 476,\ 477,\ 479,\ 513,\ 540,\ 4054,\ 4058,\ 4063,\ 5002,\ 5014,\ 5016,\ 5026,\ 5028,\ 5033,\ 10000$ 

#### Total Nitrogen

Programs in old 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

Programs in new export: (n=28)

 $103,\ 115,\ 118,\ 297,\ 303,\ 354,\ 355,\ 470,\ 476,\ 477,\ 479,\ 505,\ 509,\ 513,\ 514,\ 537,\ 540,\ 4054,\ 4058,\ 4063,\ 5002,\ 5008,\ 5014,\ 5016,\ 5026,\ 5028,\ 5058,\ 10000$ 

#### **Total Phosphorus**

Programs in old export: (n=28)

 $103,\ 115,\ 118,\ 297,\ 303,\ 354,\ 355,\ 470,\ 476,\ 477,\ 479,\ 505,\ 509,\ 513,\ 514,\ 537,\ 540,\ 4054,\ 4058,\ 4063,\ 5002,\ 5008,\ 5014,\ 5026,\ 5028,\ 5033,\ 5058,\ 10000$ 

Programs in new export: (n=29)

103, 115, 118, 297, 303, 354, 355, 470, 476, 477, 479, 505, 509, 513, 514, 537, 540, 4054, 4058, 4063, 5002, 5008, 5014, 5016, 5026, 5028, 5033, 5058, 10000

#### Turbidity

Programs in old export: (n=33)

95, 103, 129, 297, 303, 354, 355, 469, 470, 476, 477, 479, 505, 509, 513, 537, 540, 557, 572, 965, 3000, 3013, 4042, 4044, 4054, 4058, 4063, 5002, 5014, 5026, 5033, 5058, 10000

Programs in new export: (n=34)

 $95,\ 103,\ 129,\ 297,\ 303,\ 354,\ 355,\ 469,\ 470,\ 476,\ 477,\ 479,\ 505,\ 509,\ 513,\ 537,\ 540,\ 557,\ 572,\ 965,\ 3000,\ 3013,\ 4042,\ 4044,\ 4054,\ 4058,\ 4063,\ 5002,\ 5014,\ 5016,\ 5026,\ 5033,\ 5058,\ 10000$ 

#### Water Temperature

Programs in old export: (n=55)

3, 60, 62, 69, 95, 102, 103, 115, 118, 119, 129, 297, 303, 354, 355, 456, 469, 470, 476, 477, 479, 505, 509, 513, 537, 540, 557, 558, 560, 572, 899, 965, 982, 3000, 3001, 3013, 3016, 4042, 4043, 4044, 4049, 4054, 4057, 4058, 4064, 4065, 4067, 5002, 5008, 5014, 5026, 5028, 5058, 5071, 10000

Programs in new export: (n=56)

3, 60, 62, 69, 95, 102, 103, 115, 118, 119, 129, 297, 303, 354, 355, 456, 469, 470, 476, 477, 479, 505, 509, 513, 537, 540, 557, 558, 560, 572, 899, 965, 982, 3000, 3001, 3013, 3016, 4042, 4043, 4044, 4049, 4054, 4057, 4058, 4064, 4065, 4067, 5002, 5008, 5014, 5016, 5026, 5028, 5058, 5071, 10000

# Differences in Program data between exports

#### Ammonia, Un-ionized (NH3)

Table 2: Number of data entries by program - Ammonia, Un-ionized  $(\mathrm{NH}3)$ 

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	1903	1172
355	5366	7881	2515
470	709	856	147
476	2881	2927	46
477	116	230	114
479	284	1237	953
505	168	168	0
513	3932	4125	193
514	1181	1279	98
537	35	35	0
540	465	465	0
4054	5825	6648	823
4063	63	67	4
5002	19811	21525	1714
5008	737	1082	345
5014	619	663	44
5026	287	287	0
5028	712	725	13
5033	1200	8478	7278
10000	2256	2737	481

#### Chlorophyll a, Uncorrected for Pheophytin

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

ProgramID	nOld	nNew	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	16104	447

354	4122	6708	2586
355	1737	4253	2516
470	762	909	147
476	2918	2964	46
477	128	251	123
479	1839	1754	-85
509	6172	6172	0
513	16	16	0
514	9818	9410	-408
537	44	227	183
540	453	453	0
4054	4423	5240	817
5002	18514	20053	1539
5008	747	1092	345
5014	677	721	44
5026	410	410	0
5028	282	295	13
5058	268	268	0
10000	2860	3341	481

#### 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	1134	1180	46
477	174	317	143
479	3269	4263	994
513	973	1127	154
514	3657	3948	291
537	17	18	1
540	370	370	0
4054	1328	1652	324
4063	64	68	4
5002	7292	8023	731
5008	2269	2584	315
5014	7	7	0
10000	525	957	432

# 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	276893	-9
95	15145	15145	0

102       46       46       0         103       24048       24048       0         115       355       355       0         118       549       546       -3         119       14       14       0         129       3941       3941       0         297       31753       32169       416         303       68       1415       1347         354       1225       1225       0         355       2455       2466       11         469       1167       1167       0         470       776       921       145         476       4359       4394       35         477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560				
115       355       355       0         118       549       546       -3         119       14       14       0         129       3941       3941       0         297       31753       32169       416         303       68       1415       1347         354       1225       1225       0         355       2455       2466       11         469       1167       1167       0         470       776       921       145         476       4359       4394       35         477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93	102	46	46	0
118       549       546       -3         119       14       14       0         129       3941       3941       0         297       31753       32169       416         303       68       1415       1347         354       1225       1225       0         355       2455       2466       11         469       1167       1167       0         470       776       921       145         476       4359       4394       35         477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3001       127	103	24048	24048	0
119       14       14       0         129       3941       3941       0         297       31753       32169       416         303       68       1415       1347         354       1225       1225       0         355       2455       2466       11         469       1167       1167       0         470       776       921       145         476       4359       4394       35         477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3013       22	115	355	355	0
129       3941       3941       0         297       31753       32169       416         303       68       1415       1347         354       1225       1225       0         355       2455       2466       11         469       1167       1167       0         470       776       921       145         476       4359       4394       35         477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3013       2283       2283       0         4042       <	118	549	546	-3
297       31753       32169       416         303       68       1415       1347         354       1225       1225       0         355       2455       2466       11         469       1167       1167       0         470       776       921       145         476       4359       4394       35         477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3013       2283       2283       0         4042       62       62       0         4043	119	14	14	0
303       68       1415       1347         354       1225       1225       0         355       2455       2466       11         469       1167       1167       0         470       776       921       145         476       4359       4394       35         477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290	129	3941	3941	0
303       68       1415       1347         354       1225       1225       0         355       2455       2466       11         469       1167       1167       0         470       776       921       145         476       4359       4394       35         477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290	297	31753	32169	416
354       1225       1225       0         355       2455       2466       11         469       1167       1167       0         470       776       921       145         476       4359       4394       35         477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3001       12749       12742       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044				
355       2455       2466       11         469       1167       1167       0         470       776       921       145         476       4359       4394       35         477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3001       12749       12742       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290       290       0         4054       2				
469       1167       1167       0         470       776       921       145         476       4359       4394       35         477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3001       12749       12742       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290       290       0         4054       2792       3287       495         4057 <td< td=""><td></td><td></td><td></td><td></td></td<>				
470       776       921       145         476       4359       4394       35         477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3001       12749       12742       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290       290       0         4044       290       290       0         4054       2792       3287       495         405       2				
476       4359       4394       35         477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3011       12749       12742       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290       290       0         4044       290       290       0         4054       2792       3287       495         4057       225       225       0         4064       6				
477       167       314       147         479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3001       12749       12742       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290       290       0         4044       290       290       0         4054       2792       3287       495         4057       225       225       0         4064       619       619       0         4065       314				
479       19880       19968       88         505       184       184       0         509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3001       12749       12742       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290       290       0         4049       1152       1152       0         4054       2792       3287       495         4057       225       225       0         4064       619       619       0         4065       314       314       0         4067       17				
505         184         184         0           509         12159         12158         -1           513         7872         8259         387           537         290         370         80           540         393         396         3           557         1129         1129         0           560         2104         2104         0           572         27         27         0           899         93         93         0           3000         386         379         -7           3001         12749         12742         -7           3013         2283         2283         0           4042         62         62         0           4043         2972         2973         1           4044         290         290         0           4044         290         290         0           4054         2792         3287         495           4057         225         225         0           4058         2254         2254         0           4065         314         314         0				
509       12159       12158       -1         513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3001       12749       12742       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290       290       0         4049       1152       1152       0         4054       2792       3287       495         4057       225       225       0         4058       2254       2254       0         4065       314       314       0         4067       17562       17562       0         5002       370657       383433       12776         5008				
513       7872       8259       387         537       290       370       80         540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290       290       0         4049       1152       1152       0         4054       2792       3287       495         4057       225       225       0         4058       2254       2254       0         4064       619       619       0         4065       314       314       0         4067       17562       17562       0         5002       370657       383433       12776         5008       2278       2613       335         5014				
537         290         370         80           540         393         396         3           557         1129         1129         0           560         2104         2104         0           572         27         27         0           899         93         93         0           3000         386         379         -7           3011         12749         12742         -7           3013         2283         2283         0           4042         62         62         0           4043         2972         2973         1           4044         290         290         0           4049         1152         1152         0           4054         2792         3287         495           4057         225         225         0           4058         2254         2254         0           4064         619         619         0           4065         314         314         0           4067         17562         17562         0           5002         370657         383433				
540       393       396       3         557       1129       1129       0         560       2104       2104       0         572       27       27       0         899       93       93       0         3000       386       379       -7         3001       12749       12742       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290       290       0         4049       1152       1152       0         4054       2792       3287       495         4057       225       225       0         4058       2254       2254       0         4064       619       619       0         4065       314       314       0         4067       17562       17562       0         5002       370657       383433       12776         5008       2278       2613       335         5014       275       259       -16         5026				
557         1129         1129         0           560         2104         2104         0           572         27         27         0           899         93         93         0           3000         386         379         -7           3001         12749         12742         -7           3013         2283         2283         0           4042         62         62         0           4043         2972         2973         1           4044         290         290         0           4049         1152         1152         0           4054         2792         3287         495           4057         225         225         0           4058         2254         2254         0           4064         619         619         0           4065         314         314         0           4067         17562         17562         0           5002         370657         383433         12776           5008         2278         2613         335           5014         275         259				
560         2104         2104         0           572         27         27         0           899         93         93         0           3000         386         379         -7           3001         12749         12742         -7           3013         2283         2283         0           4042         62         62         0           4043         2972         2973         1           4044         290         290         0           4049         1152         1152         0           4054         2792         3287         495           4057         225         225         0           4058         2254         2254         0           4064         619         619         0           4065         314         314         0           4067         17562         17562         0           5002         370657         383433         12776           5008         2278         2613         335           5014         275         259         -16           5026         1135         1442				
572       27       27       0         899       93       93       0         3000       386       379       -7         3001       12749       12742       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290       290       0         4049       1152       1152       0         4054       2792       3287       495         4057       225       225       0         4058       2254       2254       0         4064       619       619       0         4065       314       314       0         4067       17562       17562       0         5002       370657       383433       12776         5008       2278       2613       335         5014       275       259       -16         5026       1135       1442       307         5028       150       160       10         5058       266       264       -2         5071<				
899       93       93       0         3000       386       379       -7         3001       12749       12742       -7         3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290       290       0         4049       1152       1152       0         4054       2792       3287       495         4057       225       225       0         4058       2254       2254       0         4064       619       619       0         4065       314       314       0         4067       17562       17562       0         5002       370657       383433       12776         5008       2278       2613       335         5014       275       259       -16         5026       1135       1442       307         5028       150       160       10         5058       266       264       -2         5071       4       4       0				
3000     386     379     -7       3001     12749     12742     -7       3013     2283     2283     0       4042     62     62     0       4043     2972     2973     1       4044     290     290     0       4049     1152     1152     0       4054     2792     3287     495       4057     225     225     0       4058     2254     2254     0       4064     619     619     0       4065     314     314     0       4067     17562     17562     0       5002     370657     383433     12776       5008     2278     2613     335       5014     275     259     -16       5026     1135     1442     307       5028     150     160     10       5058     266     264     -2       5071     4     4     0				
3001     12749     12742     -7       3013     2283     2283     0       4042     62     62     0       4043     2972     2973     1       4044     290     290     0       4049     1152     1152     0       4054     2792     3287     495       4057     225     225     0       4058     2254     2254     0       4064     619     619     0       4065     314     314     0       4067     17562     17562     0       5002     370657     383433     12776       5008     2278     2613     335       5014     275     259     -16       5026     1135     1442     307       5028     150     160     10       5058     266     264     -2       5071     4     4     0				
3013       2283       2283       0         4042       62       62       0         4043       2972       2973       1         4044       290       290       0         4049       1152       1152       0         4054       2792       3287       495         4057       225       225       0         4058       2254       2254       0         4064       619       619       0         4065       314       314       0         4067       17562       17562       0         5002       370657       383433       12776         5008       2278       2613       335         5014       275       259       -16         5026       1135       1442       307         5028       150       160       10         5058       266       264       -2         5071       4       4       0	3000	386	379	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3001	12749	12742	-7
4043       2972       2973       1         4044       290       290       0         4049       1152       1152       0         4054       2792       3287       495         4057       225       225       0         4058       2254       2254       0         4064       619       619       0         4065       314       314       0         4067       17562       17562       0         5002       370657       383433       12776         5008       2278       2613       335         5014       275       259       -16         5026       1135       1442       307         5028       150       160       10         5058       266       264       -2         5071       4       4       0	3013	2283	2283	0
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4042	62	62	0
4049       1152       1152       0         4054       2792       3287       495         4057       225       225       0         4058       2254       2254       0         4064       619       619       0         4065       314       314       0         4067       17562       17562       0         5002       370657       383433       12776         5008       2278       2613       335         5014       275       259       -16         5026       1135       1442       307         5028       150       160       10         5058       266       264       -2         5071       4       4       0	4043	2972	2973	1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4044	290	290	0
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4049	1152	1152	0
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4054	2792	3287	495
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4057	225	225	0
4065     314     314     0       4067     17562     17562     0       5002     370657     383433     12776       5008     2278     2613     335       5014     275     259     -16       5026     1135     1442     307       5028     150     160     10       5058     266     264     -2       5071     4     4     0	4058	2254	2254	0
4065     314     314     0       4067     17562     17562     0       5002     370657     383433     12776       5008     2278     2613     335       5014     275     259     -16       5026     1135     1442     307       5028     150     160     10       5058     266     264     -2       5071     4     4     0	4064	619	619	0
4067     17562     17562     0       5002     370657     383433     12776       5008     2278     2613     335       5014     275     259     -16       5026     1135     1442     307       5028     150     160     10       5058     266     264     -2       5071     4     4     0				
5002     370657     383433     12776       5008     2278     2613     335       5014     275     259     -16       5026     1135     1442     307       5028     150     160     10       5058     266     264     -2       5071     4     4     0			17562	
5008       2278       2613       335         5014       275       259       -16         5026       1135       1442       307         5028       150       160       10         5058       266       264       -2         5071       4       4       0				
5014     275     259     -16       5026     1135     1442     307       5028     150     160     10       5058     266     264     -2       5071     4     4     0				
5026     1135     1442     307       5028     150     160     10       5058     266     264     -2       5071     4     4     0				
5028     150     160     10       5058     266     264     -2       5071     4     4     0				
5058 266 264 -2 5071 4 4 0				
5071   4   4   0				
10000 0100 0010 110				
	10000	0100	0010	110

# Dissolved Oxygen Saturation

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

ProgramID	nOld	nNew	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	1682	1088
354	1118	1118	0
355	2464	2464	0
470	347	345	-2
476	801	835	34
477	167	314	147
505	175	175	0
513	412	783	371
537	288	366	78
558	37	37	0
572	27	27	0
3001	12665	12654	-11
3013	1160	1160	0
4042	53	53	0
4044	290	290	0
4054	4	44	40
4064	619	619	0
4067	17104	17104	0
5002	65498	70692	5194
5008	2278	2613	335
5014	254	238	-16
5026	426	491	65
5028	164	174	10
10000	5850	6575	725

#### Light Extinction Coefficient

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

ProgramID	nOld	nNew	$\it difference$
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	25057	25709	652
303	466	1187	721
354	3811	6445	2634
355	5174	7715	2541
470	90	90	0
476	10	10	0
477	174	318	144
479	3144	3818	674
505	119	119	0
509	6193	6193	0
513	751	962	211
4054	5731	6556	825
4063	64	68	4
5002	57730	61937	4207
5014	592	636	44
5026	744	1135	391
5028	190	203	13
5033	8222	14219	5997
5058	268	268	0
10000	483	850	367

# 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	9219	9219	0

# Nitrite (NO2)

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

ProgramID	nOld	nNew	difference
297	4942	5636	694
303	7	7	0
354	2180	4812	2632
479	307	1291	984
513	564	606	42
4054	1590	1760	170
4063	65	69	4
5002	11797	12130	333
5033	8197	14201	6004
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

Program ID	nOld	nNew	$\it difference$
3	2869	2869	0
115	61	61	0
297	19595	20288	693
303	493	1104	611
354	3081	5721	2640
355	4713	8467	3754
470	381	530	149
476	4777	4807	30
477	174	318	144
479	3075	3750	675
505	102	102	0
509	6215	6215	0
513	2509	2551	42
540	460	460	0
4054	5423	6249	826
4058	2227	2227	0
4063	58	62	4
5002	67825	72048	4223
5014	560	547	-13
5026	1108	1503	395
5028	757	770	13
5033	8171	14178	6007
5058	268	268	0
10000	3220	3666	446

 $\mathbf{pH}$ 

Table 14: Number of data entries by program - pH

ProgramID	nOld	nNew	difference
3	21	21	0
69	275616	275616	0
95	12884	12884	0
103	13822	13822	0
115	352	352	0
118	340	340	0
129	2248	2248	0
297	114	114	0
303	533	1882	1349
354	885	885	0
355	1284	1295	11

469	1168	1168	0
470	800	946	146
476	4761	4806	45
477	171	318	147
479	17487	17571	84
509	3472	3472	0
513	7823	8203	380
537	290	370	80
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	3375	600
4057	228	228	0
4058	2308	2308	0
4065	314	314	0
4067	13727	13727	0
5002	274271	287340	13069
5008	2271	2606	335
5014	283	267	-16
5026	1151	1528	377
5028	211	223	12
10000	5914	6634	720

# Phosphate, Filtered (PO4)

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

Program ID	nOld	nNew	$\it difference$
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	3883	3883	0
3000	381	381	0
4054	4171	4171	0
5002	37586	37586	0
10000	1962	1962	0

# Salinity

Table 16: Number of data entries by program - Salinity

Program ID	nOld	nNew	$\it difference$
3	4636	4636	0
60	1589	1589	0
62	1142	1142	0
69	278912	278912	0
95	26608	26608	0
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	31389	31841	452
303	620	2084	1464
354	1283	1283	0
355	2501	2512	11
456	134	134	0
469	1169	1169	0
470	436	437	1
476	4999	5044	45
477	135	268	133
479	19920	19941	21
505	188	188	0
509	12072	12034	-38
513	7729	8069	340
537	288	366	78
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	3044	3048	4
4044	290	290	0
4049	1354	1354	0
4054	3307	3786	479
4057	230	230	0
4058	2308	2308	0
4064	619	619	0
4065	314	314	0
4067	12597	12597	0
5002	378472	391087	12615
5014	283	267	-16
5026	435	436	1
5028	211	223	12

5058	266	266	0
5071	4	4	0
10000	5617	6357	740

# Secchi Depth

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

ProgramID	nOld	nNew	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	190	186
355	952	952	0
469	610	610	0
470	356	356	0
476	3769	3814	45
477	171	316	145
479	8549	8954	405
513	1804	1974	170
514	9317	9150	-167
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	17912	22902	4990
5008	1742	2087	345
5014	240	228	-12
5026	425	425	0
5028	90	100	10
5033	4797	7329	2532
10000	2890	3283	393

# Specific Conductivity

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

Program ID	nOld	nNew	difference
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	639	11
470	798	943	145
476	5	5	0
477	334	612	278
479	15148	15175	27
513	7883	8271	388
514	2602	2885	283
537	243	324	81
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	1430	463
4058	2301	2301	0
4067	13474	13474	0
5002	110282	123298	13016
5008	2277	2612	335
5014	283	266	-17
5026	709	1091	382
5028	5	1	-4
10000	6180	6765	585

# Total Kjeldahl Nitrogen

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

Program ID	nOld	nNew	$\it difference$
103	221	221	0
303	504	1228	724
354	170	1460	1290
355	766	3292	2526
470	528	675	147
476	4651	4697	46
477	174	318	144
479	2822	2519	-303
513	4154	4361	207
540	465	465	0
4054	2315	3496	1181
4058	2183	2183	0
4063	65	69	4
5002	67103	71322	4219
5014	1232	1319	87
5026	1114	1505	391
5028	752	765	13

5033	7691	13663	5972
10000	2570	3020	450

# Total Nitrogen

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

			4 . 00
ProgramID	nOld	nNew	difference
103	560	560	0
115	64	64	0
118	43	43	0
297	25081	25707	626
303	506	1234	728
354	631	1024	393
355	584	3069	2485
470	378	525	147
476	4467	4497	30
479	8202	8830	628
505	42	42	0
509	6212	6212	0
513	3285	3326	41
514	10433	10489	56
537	234	237	3
540	465	465	0
4054	2834	3217	383
4058	2125	2125	0
4063	58	62	4
5002	61951	66016	4065
5008	758	1103	345
5014	551	538	-13
5026	1076	1467	391
5028	751	764	13
5058	268	268	0
10000	2079	2079	0

## **Total Phosphorus**

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

Program ID	nOld	nNew	$\it difference$
103	5682	5682	0
115	64	64	0
118	15	15	0
297	25628	26329	701
303	490	1098	608
354	796	2085	1289
355	771	3304	2533
470	500	648	148
476	4767	4813	46
477	174	318	144
479	8190	8869	679

505	39	39	0
509	6187	6187	0
513	3522	3736	214
514	10415	10332	-83
537	225	228	3
540	459	459	0
4054	4246	5327	1081
4058	2196	2196	0
4063	65	69	4
5002	55219	59610	4391
5008	758	1103	345
5014	620	664	44
5026	1109	1501	392
5028	755	768	13
5033	7463	13401	5938
5058	268	268	0
10000	3224	3676	452

# **Total Suspended Solids**

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

Program ID	nOld	nNew	$\it difference$
3	578	578	0
103	3614	3614	0
354	18	939	921
355	753	3304	2551
470	321	321	0
476	10	10	0
477	26	28	2
479	3366	4019	653
505	78	78	0
513	4037	4259	222
4054	3546	4364	818
4063	65	69	4
5002	45103	48665	3562
5014	139	126	-13
5026	1516	1909	393
5033	8896	13801	4905
10000	3081	3518	437

## Turbidity

Table 23: Number of data entries by program - Turbidity

ProgramID	nOld	nNew	difference
95	398	398	0
103	19595	19595	0
129	2253	2253	0
297	26377	26741	364

303	604	1899	1295
354	734	734	0
355	1831	1832	1
469	481	481	0
470	659	802	143
476	4959	5005	46
477	340	540	200
479	4894	5573	679
505	74	74	0
509	6178	6178	0
513	4219	4399	180
537	282	359	77
540	98	98	0
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	2585	2675	90
4058	2316	2316	0
4063	55	59	4
5002	204469	209038	4569
5014	139	126	-13
5026	410	410	0
5033	8366	14355	5989
5058	264	264	0
10000	3254	3708	454

# Water Temperature

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

ProgramID	nOld	nNew	difference
3	655	655	0
60	1643	1643	0
62	1182	1182	0
69	279298	279298	0
95	25823	25823	0
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	31377	31803	426
303	605	1977	1372
354	1281	1281	0
355	2484	2495	11
456	133	133	0
469	1170	1170	0
470	828	974	146

170	FO44	F000	4.4
$476 \\ 477$	$5044 \\ 172$	$5088 \\ 319$	$44 \\ 147$
479	18404	18434	30
505	188	188	0
509	12054	12044	-10
513	7941	8329	388
$515 \\ 537$	290	370	300 80
540	$\frac{290}{434}$	435	1
$540 \\ 557$	1118	1118	0
558	416	416	0
560	2129	2129	0
572	$\frac{2129}{30}$	30	0
899	30 85	30 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	3037	3042	5
4044	282	282	0
4049	1354	1354	0
4054	2878	3520	642
4057	227	227	0
4058	2298	2298	0
4064	619	619	0
4065	314	314	0
4067	16167	16167	0
5002	403373	416267	12894
5008	2278	2613	335
5014	283	267	-16
5026	1152	1535	383
5028	197	207	10
5058	264	264	0
5071	4	4	0
10000	4010	4509	499

# 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-Jul-02	2024-Sep-04	4351408	4465012	113604	2.61
Dissolved Oxygen	NE	2024-Jul- $02$	2024-Sep- $04$	3096851	3204282	107431	3.47
Dissolved Oxygen	SW	2024-Jul- $02$	2024-Sep- $04$	5656245	5783344	127099	2.25
Dissolved Oxygen	SE	2024-Jul- $02$	2024-Sep- $04$	664324	724461	60137	9.05
Dissolved Oxygen Saturation	NW	2024-Jul- $02$	2024 -Sep-04	4376995	4490705	113710	2.60
Dissolved Oxygen Saturation	NE	2024-Jul- $02$	2024 -Sep-04	3122810	3239347	116537	3.73
Dissolved Oxygen Saturation	SW	2024-Jul- $02$	2024 -Sep-04	5692526	5819687	127161	2.23
Dissolved Oxygen Saturation	SE	2024-Jul- $02$	2024 -Sep-04	668946	729084	60138	8.99
pН	NW	2024-Jul- $02$	2024-Sep- $04$	4586234	4699656	113422	2.47
pН	NE	2024-Jul- $02$	2024-Sep- $04$	3042599	3155651	113052	3.72
pН	SW	2024-Jul- $02$	2024-Sep- $04$	6068960	6200510	131550	2.17
pН	SE	2024-Jul- $02$	2024-Sep- $04$	665964	724723	58759	8.82
Salinity	NW	2024-Jul-02	2024 -Sep-04	4936599	5062550	125951	2.55
Salinity	NE	2024-Jul- $02$	2024-Sep- $04$	3143712	3258907	115195	3.66
Salinity	SW	2024-Jul- $02$	2024-Sep- $04$	6390420	6520614	130194	2.04
Salinity	SE	2024-Jul- $02$	2024-Sep- $04$	745516	804270	58754	7.88
Turbidity	NW	2024-Jul-02	2024 -Sep-04	4386808	4496065	109257	2.49
Turbidity	NE	2024-Jul- $02$	2024-Sep- $04$	3002932	3114983	112051	3.73
Turbidity	SW	2024-Jul- $02$	2024-Sep- $04$	5649098	5770940	121842	2.16
Turbidity	SE	2024-Jul- $02$	2024-Sep- $04$	670267	730230	59963	8.95
Water Temperature	NW	2024-Jul- $02$	2024-Sep- $04$	6429155	6574062	144907	2.25
Water Temperature	NE	2024-Jul- $02$	2024-Sep- $04$	3284253	3405577	121324	3.69
Water Temperature	SW	2024-Jul- $02$	2024-Sep- $04$	8037068	8188622	151554	1.89
Water Temperature	SE	2024-Jul-02	2024-Sep- $04$	19583717	19672709	88992	0.45

#### 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:

#### Dissolved Oxygen

```
Programs in old export: (n=1) 5077
Programs in new export: (n=2) 5077, 10004
```

#### Dissolved Oxygen Saturation

```
Programs in old export: (n=1) 5077
Programs in new export: (n=2) 5077, 10004
```

#### pH

```
Programs in old export: (n=1) 5077
Programs in new export: (n=2) 5077, 10004
```

#### Salinity

```
Programs in old export: (n=3) 2, 7, 5077
Programs in new export: (n=4) 2, 7, 5077, 10004
```

#### Turbidity

```
Programs in old export: (n=1) 5077
Programs in new export: (n=2) 5077, 10004
```

#### Water Temperature

```
Programs in old export: (n=8)
2, 5, 7, 296, 899, 986, 989, 5077
Programs in new export: (n=9)
2, 5, 7, 296, 899, 986, 989, 5077, 10004
```

# Differences in Program data between exports Dissolved Oxygen

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

ProgramID	nOld	nNew	difference
7	9132	9701	569
7	689	689	0
7	1302	1302	0
354	2605529	2665127	59598
355	3096192	3176157	79965
467	223874	232610	8736
468	207810	214674	6864
471	810606	828076	17470
473	8153	8153	0
474	1445773	1476139	30366
505	3794	3794	0
512	1595488	1632623	37135
4054	2569101	2654737	85636
5005	39746	39746	0
5006	281047	299984	18937
5061	165776	168634	2858
5077	664324	711227	46903
10003	40492	40492	0

# Dissolved Oxygen Saturation

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

ProgramID	nOld	nNew	difference
354	2630307	2689966	59659
355	3101551	3182191	80640
467	230142	238878	8736
468	223905	230769	6864
471	817649	835119	17470
473	8153	8153	0
474	1459618	1489985	30367
505	3748	3748	0
512	1594448	1631583	37135
4054	2588423	2679645	91222
5005	39746	39746	0
5006	281080	300017	18937
5061	173069	179447	6378
5077	668946	715849	46903
10003	40492	40492	0

pH

Table 28: Number of data entries by program - pH

ProgramID	nOld	nNew	$\it difference$
7	8809	9345	536
7	1164	1164	0
354	2860264	2919903	59639
355	3135442	3216948	81506
467	238872	247608	8736
468	231686	238550	6864
471	970285	986065	15780
473	8306	8306	0
474	1697683	1729873	32190
505	1140	1140	0
512	1501543	1541264	39721
4054	2517269	2606872	89603
5005	38184	38184	0
5006	281886	300826	18940
5061	163886	168395	4509
5077	665964	711488	45524
10003	41374	41374	0

# Salinity

Table 29: Number of data entries by program - Salinity

ProgramID	nOld	nNew	difference
2	86204	86204	0
7	634	11583	10949
7	17692	24892	7200
7	33978	32687	-1291
7	1510	1510	0
354	2966513	3026092	59579
355	3247498	3329431	81933
467	240526	249262	8736
468	221287	228151	6864
471	1222785	1240254	17469
473	8304	8304	0
474	1726543	1758731	32188
505	3869	3869	0
512	1655082	1694800	39718
4054	2552698	2638901	86203
5005	43791	43791	0
5006	292902	311839	18937
5061	160337	163192	2855
5062	34918	34918	0
5077	657802	703326	45524
10003	41374	41374	0

# Turbidity

Table 30: Number of data entries by program - Turbidity

Program ID	nOld	nNew	difference
7	1174	1174	0
354	2800135	2858398	58263
355	3029152	3109737	80585
467	252626	261360	8734
468	193869	200732	6863
471	908819	921894	13075
473	8263	8263	0
474	1446150	1478226	32076
505	2342	2342	0
512	1393376	1424879	31503
4054	2492832	2583699	90867
5005	39124	39124	0
5006	284397	303336	18939
5061	145410	147655	2245
5077	670267	717001	46734
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	1302826	21763
5	1360068	1381814	21746
5	3373557	3402411	28854
7	25090	30969	5879
7	21256	29002	7746
7	38796	37071	-1725
7	1644	1644	0
296	3987025	3987025	0
354	3050975	3110599	59624
355	3339416	3423611	84195
467	265295	274031	8736
468	259581	266445	6864
471	1254840	1272310	17470
473	8305	8305	0
474	1867681	1899869	32188
505	3870	3870	0
512	1711243	1750964	39721
899	922737	922737	0
986	8692018	8692018	0
989	1824357	1824357	0
4054	2682810	2774590	91780
5005	43791	43791	0
5006	293314	312254	18940
5061	166235	169093	2858
5062	35473	35473	0
5077	696175	743078	46903

10003 41374 41374 0

# Species

# Overview

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

habitat	oldFile	newFile	nDataOld	nDataNew	difference
Coral	2024-Jul-02	2024-Sep-04	6932158	6932158	0
CW	2024-Jul- $02$	2024-Sep- $04$	25409	25409	0
Nekton	2024-Jul- $02$	2024 -Sep-04	3108669	3108669	0
OYSTER	2024-Jul- $26$	2024 -Sep-04	586948	586948	0
SAV	2024-Jul-02	$2024\text{-}\mathrm{Sep}\text{-}04$	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
136	Colony Height	11782	11782	0
169	Colony Height	35634	35634	0
981	Colony Height	125938	125938	0
3022	Colony Height	30544	30544	0
4019	Colony Height	2588	2588	0
5040	Colony Height	618	618	0

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

Program ID	Parameter Name	nOld	nNew	$\it difference$
136	Colony Length	13348	13348	0
5040	Colony Length	679	679	0

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

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

Table 36: Number of data entries by program - Count

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

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

ProgramID	Parameter Name	nOld	nNew	difference
	Percent Live Tissue Percent Live Tissue	8504 500	8504 500	0 0

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

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

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

Program ID	Parameter Name	nOld	nNew	difference
169	Colony Density	39444	39444	0
4019	Colony Density	568	568	0
5042	Colony Density	2458	2458	0

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

Program ID	Parameter Name	nOld	nNew	difference
	Colony Diameter Colony Diameter			

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

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

 $\mathbf{C}\mathbf{W}$ 

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

ProgramID	Parameter Name	nOld	nNew	difference
620	Percent Cover	32	32	0
651	Percent Cover	2567	2567	0
906	Percent Cover	810	810	0
3029	Percent Cover	67	67	0

4017	Percent Cover	15012	15012	0
5009	Percent Cover	3021	3021	0
5015	Percent Cover	78	78	0

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

ProgramID	Parameter Name	nOld	nNew	difference
651	Stem Density	19	19	0
906	Stem Density	71	71	0
3029	Stem Density	151	151	0
4017	Stem Density	2075	2075	0
5009	Stem Density	1201	1201	0
5015	Stem Density	155	155	0

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

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

#### Nekton

Table 45: Number of data entries by program - Count

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

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

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

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

Program ID	Parameter Name	nOld	nNew	difference
69	Standard Length	2166650	2166650	0

#### OYSTER

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

ProgramID	Parameter Name	nOld	nNew	difference
4000	Shell Height	71691	71691	0
4012	Shell Height	5464	5464	0
4014	Shell Height	6813	6813	0
4016	Shell Height	3606	3606	0
4020	Shell Height	2500	2500	0
4042	Shell Height	6243	6243	0
4044	Shell Height	21724	21724	0
5007	Shell Height	56840	56840	0
5017	Shell Height	10276	10276	0
5035	Shell Height	28895	28895	0
5063	Shell Height	1060	1060	0
5070	Shell Height	3527	3527	0
5071	Shell Height	102	102	0
5072	Shell Height	1673	1673	0
5073	Shell Height	595	595	0
5074	Shell Height	150	150	0
5075	Shell Height	403	403	0
10002	Shell Height	335854	335854	0

Table 49: Number of data entries by program - Density

Program ID	Parameter Name	nOld	nNew	difference
972	Density	426	426	0
4000	Density	1148	1148	0
4012	Density	199	199	0
4014	Density	161	161	0
4016	Density	105	105	0
4020	Density	40	40	0
4042	Density	81	81	0
4044	Density	2175	2175	0
5007	Density	1170	1170	0
5017	Density	272	272	0
5063	Density	161	161	0
5073	Density	203	203	0
5074	Density	6	6	0
5075	Density	12	12	0

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

ProgramIL	ParameterName	nOld	nNew	$\it difference$
972	Number of Oysters Counted - Total	426	426	0
4000	Number of Oysters Counted - Total	1148	1148	0
4012	Number of Oysters Counted - Total	126	126	0
4014	Number of Oysters Counted - Total	13	13	0
4016	Number of Oysters Counted - Total	105	105	0
4042	Number of Oysters Counted - Total	257	257	0

4044	Number of Oysters Counted - Total	2175	2175	0	
5007	Number of Oysters Counted - Total	1170	1170	0	
5063	Number of Oysters Counted - Total	161	161	0	
5073	Number of Oysters Counted - Total	85	85	0	
5074	Number of Oysters Counted - Total	12	12	0	
5075	Number of Oysters Counted - Total	12	12	0	

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

ProgramID	Parameter Name	nOld	nNew	$\it difference$
972	Percent Live	417	417	0
4000	Percent Live	1954	1954	0
4012	Percent Live	98	98	0
4014	Percent Live	174	174	0
4016	Percent Live	593	593	0
4020	Percent Live	40	40	0
4042	Percent Live	257	257	0
4044	Percent Live	1367	1367	0
5007	Percent Live	1066	1066	0
5010	Percent Live	282	282	0
5017	Percent Live	273	273	0
5035	Percent Live	8	8	0
5074	Percent Live	11	11	0
5075	Percent Live	12	12	0

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

ProgramID	Parameter Name	nOld	nNew	difference
4000	Reef Height	276	276	0
4012	Reef Height	185	185	0
4016	Reef Height	136	136	0
4020	Reef Height	60	60	0
4042	Reef Height	66	66	0
5010	Reef Height	65	65	0
5017	Reef Height	307	307	0
5035	Reef Height	2	2	0
5075	Reef Height	18	18	0

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

ProgramID	Parameter Name	nOld	nNew	difference
972	Number of Oysters Counted - Dead	426	426	0
4012	Number of Oysters Counted - Dead	126	126	0
4014	Number of Oysters Counted - Dead	13	13	0
4016	Number of Oysters Counted - Dead	105	105	0
4042	Number of Oysters Counted - Dead	257	257	0
4044	Number of Oysters Counted - Dead	2175	2175	0
5007	Number of Oysters Counted - Dead	1170	1170	0

5063	Number of Oysters Counted - Dead	161	161	0	
5073	Number of Oysters Counted - Dead	173	173	0	
5074	Number of Oysters Counted - Dead	6	6	0	
5075	Number of Oysters Counted - Dead	12	12	0	

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

ProgramID	Parameter Name	nOld	nNew	difference
972	Number of Oysters Counted - Live	426	426	0
4012	Number of Oysters Counted - Live	587	587	0
4014	Number of Oysters Counted - Live	14	14	0
4016	Number of Oysters Counted - Live	105	105	0
4042	Number of Oysters Counted - Live	257	257	0
4044	Number of Oysters Counted - Live	2175	2175	0
5007	Number of Oysters Counted - Live	1170	1170	0
5017	Number of Oysters Counted - Live	272	272	0
5063	Number of Oysters Counted - Live	161	161	0
5073	Number of Oysters Counted - Live	203	203	0
5074	Number of Oysters Counted - Live	6	6	0
5075	Number of Oysters Counted - Live	12	12	0

#### $\mathbf{SAV}$

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

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

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

Program ID	Parameter Name	nOld	nNew	difference
296	Presence/Absence	10964	10964	0
556	Presence/Absence	1652	1652	0
557	Presence/Absence	3168	3168	0
558	Presence/Absence	4485	4485	0
559	Presence/Absence	668	668	0
560	Presence/Absence	33140	33140	0
564	Presence/Absence	10056	10056	0
565	Presence/Absence	28310	28310	0
568	Presence/Absence	1768	1768	0
570	Presence/Absence	20295	20295	0
571	Presence/Absence	4745	4745	0
572	Presence/Absence	1442	1442	0
965	Presence/Absence	747950	747950	0
978	Presence/Absence	60	60	0
	,			

997	Presence/Absence	514	514	0
3013	Presence/Absence	602335	602335	0
3015	Presence/Absence	3724	3724	0
3016	Presence/Absence	574	574	0
3017	Presence/Absence	77460	77460	0
4018	Presence/Absence	54651	54651	0
4049	Presence/Absence	301972	301972	0
4065	Presence/Absence	4923	4923	0
5027	Presence/Absence	37434	37434	0
10001	Presence/Absence	9672	9672	0

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

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

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

ProgramID	Parameter Name	nOld	nNew	difference
556	Percent Cover	1652	1652	0
558	Percent Cover	4485	4485	0
560	Percent Cover	9750	9750	0
564	Percent Cover	10118	10118	0
568	Percent Cover	1768	1768	0
572	Percent Cover	1442	1442	0
997	Percent Cover	516	516	0
3013	Percent Cover	463145	463145	0
4018	Percent Cover	1477	1477	0
5027	Percent Cover	35275	35275	0

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

Program ID	Parameter Name	nOld	nNew	difference
559	Modified Braun Blanquet Score	668	668	0
560	Modified Braun Blanquet Score	44201	44201	0

# **QAQC** Flag Check

- $\bullet\,$  n\_high is the amount of data above the quantile value.
- n\_high\_flagged is the amount of data containing SEACARQAQCFlag 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 containing proper SEACARQAQCFlag of 16Q (ResultValue below quantile value).
- If everything is in order, these values should be the same. Any discrepancies therein should be fastidiously noted.
- Flagcodes for **Threshold** checks: 2Q & 4Q

# Discrete WQ Quantile Check

ParameterName	n high	n high flagged	n low	n low flagged
Ammonia, Un-ionized (NH3)	1	1	1	1
Chlorophyll a, Corrected for Pheophytin	48	48	4	4
Chlorophyll a, Uncorrected for Pheophytin	89	89	26	26
Colored Dissolved Organic Matter	24	24	0	0
Dissolved Oxygen	824	824	744	744
Dissolved Oxygen Saturation	151	151	111	111
Light Extinction Coefficient	16	16	13	13
Ammonium, Filtered (NH4)	123	123	123	123
Nitrate (NO3)	20	20	0	0
Nitrite (NO2)	113	113	0	0
Nitrogen, organic	7	7	6	6
NO2+3, Filtered	139	139	134	134
pH	595	595	642	642
Phosphate, Filtered (PO4)	62	62	51	51
Salinity	869	869	0	0
Secchi Depth	749	749	42	42
Specific Conductivity	502	502	398	398
Total Kjeldahl Nitrogen	100	100	22	22
Total Nitrogen	683	610	66	66
Total Phosphorus	143	143	84	84
Total Suspended Solids	77	77	18	18
Turbidity	320	320	29	29
Water Temperature	838	838	882	882

# Threshold Check

ParameterName	n high	n high flagged	n low	n low flagged	n included
Dissolved Oxygen	207	207	74	74	0
Dissolved Oxygen Saturation	11	11	43	43	0
pН	71	71	2199	2199	0
Salinity	60	60	2	2	0
Secchi Depth	7	7	584	584	0
Specific Conductivity	25	25	29959	29959	0
Water Temperature	9	9	2965	2965	0

# Continuous WQ

# Quantile Check

ParameterName	n high	n high flagged	n low	n low flagged
Dissolved Oxygen	1074	1074	1003	1003
Dissolved Oxygen Saturation	4504	4504	1250	1250
pН	138	138	0	0
Salinity	95	95	0	0
Turbidity	6	6	0	0
Water Temperature	4547	4547	925	925

#### Threshold Check

No threshold values detected

Species Quantile Check

ParameterName	habitat	n high	n high flagged	n low	n low flagged
Colony Height	Coral	193	193	190	190
Colony Diameter	Coral	76	76	0	0
Percent Cover	Coral	7649	7649	0	0
Colony Density	Coral	43	43	0	0
Colony Length	Coral	15	15	0	0
Colony Width	Coral	177	177	133	133
Stem Density	CW	8	8	0	0
Standard Length	Nekton	5783	5783	1495	1495
Count	Nekton	656	656	0	0
Percent Cover	SAV	44	44	0	0
Percent Occurrence	SAV	2	2	0	0

# 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

# Expected Values Check (15Q)

# Submerged Aquatic Vegetation

Table 60: 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 61: 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	1038	1057	545
477	121	121	121
479	835	837	837
513	206	252	252
514	7	715	715
557	642	642	2
558	103	107	5
3001	1330	1376	1376
3013	1343	1378	68
4049	20	31	31
4065	318	318	0
5002	7363	7536	6067
5008	980	1847	1847
5014	20	20	20
5028	67	68	68
5033	2620	2629	2629
10000	131	131	131