

Data Acquisition Standard Operating Procedures

Apalachicola National Estuarine Research Reserve System-Wide Monitoring Program (ID# 355)

Last Updated: 2/17/2024

Program Summary

Water quality. NERRs continuous WQ protocols and metadata: <http://cdmo.baruch.sc.edu/>

URLs

- Program - <http://cdmo.baruch.sc.edu/>
- DDI - <https://data.florida-seacar.org/programs/details/355>

Contacts

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Data Tables

- Data_355A_Final
- Data_355A_Final_depths
- Data_355A_Load
- Data_355B_Final
- Data_355B_Load
- Data_355B_Load - row
- data_355b_load_heap
- Data_355C_Final - now in 355B
- Data_355C_Load - now in 355B
- Data_355D_Final
- Data_355D_Load

Data Stored Procedures

- usp_Data_355A_Load_insert
- usp_Data_355B_Load_insert
- usp_Data_355B_Load_insert -row
- usp_Data_355C_Load_insert
- usp_Data_355D_Load_insert
- usp_combined_wq_wc_nut_cont_insert_355A
- usp_combined_wq_wc_nut_insert_355B
- usp_combined_wq_wc_nut_insert_355D

Data Acquisition Standard Operating Procedures: ProgramID 355

Date Created: 12/06/2018

Created By: *Claude Kershaw*

Date Modified: 11/05/2020

Created By: *Mrudhula Murali*

Date Modified: 03/22/2020

Created By: *Girija Bandaru*

Data File Paths:

1. Data: [\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\Data\ID_0355_ANERRSWMP\DataToLoad\apanut_combined.txt](#)
2. Data: [\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\Data\ID_0355_ANERRSWMP\DataToLoad\ID355_623965combined file\](#)
3. Data: [\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\Data\ID_0355_ANERRSWMP\DataToLoad\ApalachicolaCombinedFile\Data_Combined_Apalachicola - Copy.txt](#)
4. Data: "\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\Data\ID_0355_ANERRSWMP\DataToLoad\apanut\apanut*.csv"
5. Data: "\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\Data\ID_0355_ANERRSWMP\DataToLoad\pchem*pchem*.xls/xlsx"
6. Spatial Data: [\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\Data\ID_0355_ANERRSWMP\GIS\sampling_stations.csv](#)
7. Spatial Data: [\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\Data\ID_0355_ANERRSWMP\DataToLoad\ID355_623965\sampling_stations.csv](#)
8. Data:
"U:\Misc_Projects\SEACAR_FDEP\Data\ID_0355_ANERRSWMP\DataToLoad\Apalachicola_Combined\Apalachicola_combined.txt"

DDI URL: <http://dev.seacar.waterinstitute.usf.edu/datadiscovery/programs/details/355>

Contact Information:

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Procedure Overview:

1. Combine all files for APANUT into a single file each, Data should be unpivoted into row format first.
2. Use SQL Server Import Export Wizard to load the "Data_Combined_Apalachicola_Copy.txt" into **Data_355A_Load**.
3. Use SQL Server Import Export Wizard to load the "Apalachicola_combined.txt" into **Data_355A_Load**.
4. Use SQL Server Import Export Wizard to load "apanut_combined.txt" into **Data_355B_Load**.
5. Use SQL Server Import Export Wizard to load the "apanut\apanut*.csv" into **Data_355C_Load**.
6. Use SQL Server Import Export Wizard to load the "pchem*pchem*.xls/xlsx" into **Data_355D_Load. [Convert to lat and long decimal from degree minutes]**
7. Put all of the APANUT files into the datatoLoad folder (ap*wq are for 355A continuous and ap*nut are for 355B discrete water quality)
8. Run the powershell in ETL folder to load into **Data_355A_Load**
9. Cleanup data to remove doublequotes and comma from last column
10. Use SQL Server Import Export Wizard to load "sampling_stations.csv" into **Locations_355A**.
**Note that only certain stations apply to each of the CDMO programs.
11. Execute procedure usp_Data_355*_Load_insert to load the data into table **Data_355*_Final**.
12. The Monitoring Location information can be found in the Load table **Locations_355A** and **Data_355D_Final**.
13. Add new Monitoring Locations into the **SampleLocation_Point** table.
14. Add new Monitoring Locations into the **SampleLocation** table. This will generate a LocationID for each Monitoring Location.
15. Update the **SampleLocation_Point** table with the LocationID generated in the **SampleLocation** table. Run procedure usp_SampleLocation_Point_update to do this.
16. Update the LocationID column in table **Data_355A_Final** with the LocationID in the **SampleLocation** table. Join on the [Station_Code] column in **Data_355A_Final** and the ProgramLocationID column in **SampleLocation**.
17. Update the LocationID column in table **Data_355B_Final** with the LocationID in the **SampleLocation** table. Join on the [StationCode] column in **Data_355B_Final** and the ProgramLocationID column in **SampleLocation**.
18. Update the LocationID column in table **Data_355C_Final** with the LocationID in the **SampleLocation** table. Join on the [Station Code] column in **Data_355C_Final** and the ProgramLocationID column in **SampleLocation**.
19. Update the LocationID column in table **Data_355D_Final** with the LocationID in the **SampleLocation** table. Join on the [Station Code] column in **Data_355D_Final** and the ProgramLocationID column in **SampleLocation**.
20. For combining data, use **usp_combined_wq_wc_nut_cont_insert_355A**

Data Tables

1. Data_355*_Load
2. Data_355*_Final
3. Locations_355A

Data Stored Procedures

1. usp_Data_355*_Load_insert
2. usp_SampleLocation_Point_update

GIS Procedures

1. The Monitoring Location information can be found in the table **Locations_355A**.
2. Complete steps 5 through 11 in the "Procedure Overview" section of this document.

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
```

```
CREATE PROC [Legacy].[usp_combined_wq_wc_nut_insert_355C - TBD]
```

```
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;
```

```
/*
```

```
IF NEW DATA HAS BEEN LOADED, RUN THIS TO REPLACE BLANKS WITH NULLS
```

```
SELECT 'UPDATE Data_355C_Final SET [' + name + '] = LTRIM(RTRIM([' + name + ']));' as Query
FROM syscolumns
```

```
WHERE id = object_id('Data_355C_Final')
AND isnullable = 1
```

```
UNION
SELECT 'UPDATE Data_355C_Final SET [' + name + '] = NULL WHERE [' + name + '] = '''';' as Query
FROM syscolumns
```

```
WHERE id = object_id('Data_355C_Final')
AND isnullable = 1
```

```
*/
```

```
-- Constants - PLEASE SET NOW!!
```

```
DECLARE @dataLoadCode varchar(10) = '355C';
```

```
DECLARE @combinedTable varchar(50) = 'Combined_WQ_WC_NUT';
```

```
DECLARE @ParameterID int;
```

```
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```

```
-- Setup data load
```

```
DECLARE @runBy varchar(50) = SYSTEM_USER;
```

```
DECLARE @programID int, @dataStreamID int;
```

```
SELECT @dataStreamID = DataStreamID,
```

```
@programID = ProgramID
```

```
FROM DataStreamProcedure
```

```
WHERE DataLoadCode = @dataLoadCode;
```

```
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```

```
---- Insert data
```

```
Set @ParameterID = 15-- Total Nitrogen
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
```

```
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.TN), NULL, GETDATE(),
'NERR', F_TN
```

```
FROM Data_355C_Final a
```

```
Where a.TN is not null
```

```
and ISNUMERIC(a.TN+'e0') = 1
```

```
and a.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
```

```
Set @ParameterID = 16-- Total Kjeldahl Nitrogen TKN
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
```

```
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.TKN), NULL, GETDATE(),
'NERR', F_TKN
```

```
FROM Data_355C_Final a
Wherea.TKN is not null
andISNUMERIC(a.TKN+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterId, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 17-- NO2+3 Filtered
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterId, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.NO23F), a.NO23F_C,
GETDATE(), 'NERR', F_NO23F
FROM Data_355C_Final a
Wherea.NO23F is not null
andISNUMERIC(a.NO23F+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterId, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 18-- NH4 Filtered
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterId, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.NH4F), a.NH4F_C, GETDATE(),
'NERR', F_NH4F
FROM Data_355C_Final a
Wherea.NH4F is not null
andISNUMERIC(a.NH4F+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterId, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 19-- Total Phosphorus
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterId, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.TP), NULL, GETDATE(),
'NERR', F_TP
FROM Data_355C_Final a
Wherea.TP is not null
andISNUMERIC(a.TP+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterId, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 20-- P04 Filtered
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.P04F), a.P04F_C, GETDATE()
'NERR', F_P04F
FROM Data_355C_Final a
Wherea.P04F is not null
andISNUMERIC(a.P04F+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 1-- Dissolved Oxygen
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.DO_N), a.DO_N_C, GETDATE()
'NERR', F_DO_N
FROM Data_355C_Final a
Wherea.DO_N is not null
andISNUMERIC(a.DO_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 2-- Salinity
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('ppt', 'ppt', a.SALT_N), a.SALT_N_C,
GETDATE(), 'NERR', F_SALT_N
FROM Data_355C_Final a
Wherea.SALT_N is not null
andISNUMERIC(a.SALT_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 3-- Water Temperature
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('deg c', 'deg c', a.WTEM_N), a.WTEM_N_C,
GETDATE(), 'NERR', F_WTEM_N
FROM Data_355C_Final a
Wherea.WTEM_N is not null
andISNUMERIC(a.WTEM_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 4-- pH
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units](NULL, NULL, a.PH_N), NULL, GETDATE(),
'NERR', F_PH_N
FROM Data_355C_Final a
Wherea.PH_N is not null
andISNUMERIC(a.PH_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 5-- Dissolved Oxygen Saturation
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('%', '%', a.DO_S_N), a.DO_S_N_C, GETDATE(),
'NERR', F_DO_S_N
FROM Data_355C_Final a
Wherea.DO_S_N is not null
andISNUMERIC(a.DO_S_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 7-- Turbidity
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'NTU', a.TURB_N), a.TURB_N_C,
GETDATE(), 'NERR', F_TURB_N
FROM Data_355C_Final a
Wherea.TURB_N is not null
andISNUMERIC(a.TURB_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 8-- Total Suspended Solids, TSS
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
```



```
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.TSS), NULL, GETDATE(),
'NERR', F_TSS
FROM Data_355C_Final a
Wherea.TSS is not null
andISNUMERIC(a.TSS+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 9-- Chlorophyll a uncorrected for pheophytin
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('ug/L', 'ug/L', a.UncCHLa_N), NULL,
GETDATE(), 'NERR', F_UncCHLa_N
FROM Data_355C_Final a
Wherea.UncCHLa_N is not null
andISNUMERIC(a.UncCHLa_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 10-- Chlorophyll a corrected for pheophytin
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('ug/L', 'ug/L', a.CHLa_N), a.CHLa_N_C,
GETDATE(), 'NERR', F_CHLa_N
FROM Data_355C_Final a
Wherea.CHLa_N is not null
andISNUMERIC(a.CHLa_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 11-- Secchi Depth
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('m', 'm', a.SECCHI), NULL, GETDATE(),
'NERR', F_SECCHI
FROM Data_355C_Final a
Wherea.SECCHI is not null
andISNUMERIC(a.SECCHI+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
```

```
@LastUpdateBy = @runBy
```

```
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/*  
SELECT *  
FROM Combined_WQ_WC_NUT
```

```
SELECT *  
FROM Data_355C_Final
```

```
SELECT *  
FROM Combined_Parameters a  
join Indicator b on a.IndicatorID = b.IndicatorID  
where b.Habitat = 'Water Column'  
and b.IndicatorName <> 'Nekton'
```

```
SELECT *  
FROM DataStreamProcedure  
WHERE ProgramID = 355
```

```
SELECT *  
FROM Combined_Data_tracking  
where programid = 557  
and datastreamID = 7
```

```
ÿ  
exec usp_delete_combined 1395, 'Combined_WQ_WC_NUT'  
*/
```

```
END
```

```
GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
```

```
CREATE PROC [dbo].[usp_combined_wq_wc_nut_cont_insert_355A]
```

```
AS
```

```
BEGIN
```

```
SET NOCOUNT ON;
```

```
SET XACT_ABORT ON;
```

```
-- Constants - PLEASE SET NOW!!
```

```
DECLARE @dataLoadCode varchar(10) = '355A';
```

```
DECLARE @combinedTable varchar(50) = 'Combined_WQ_WC_NUT_cont';
```

```
-- Setup data load
```

```
DECLARE @runBy varchar(50) = SYSTEM_USER;
```

```
DECLARE @programID int, @dataStreamID int;
```

```
SELECT @dataStreamID = DataStreamID,
```

```
@programID = ProgramID
```

```
FROM DataStreamProcedure
```

```
WHERE DataLoadCode = @dataLoadCode;
```

```
ÿ
```

```
-- Delete existing data
```

```
exec usp_delete_combined @dataStreamID, 'Combined_WQ_WC_NUT_cont'
```

```
-- Insert data
```

```
INSERT INTO Combined_WQ_WC_NUT_cont (ProgramID, DataStreamID, ParameterID, LocationID, ActivityID,
```

```
ActivityType, SampleDate, ActivityDepth_m, RelativeDepth, TotalDepth_m, ResultValue, MDL, PQL,
```

```
DetectionUnit, ValueQualifierID, SampleFraction, ResultComments, DateAdded, SEACAR_EventID)
```

```
SELECT @programID, @dataStreamID, b.TargetParameterID, a.LocationID, NULL, NULL,
```

```
a.DateTimeStamp, e.Depth, NULL, NULL, a.ResultValue, NULL, NULL, NULL, d.ValueQualifierID, NULL,
```

```
GETDATE(), NULL
```

```
FROM [Data_355A_Final] a
```

```
INNER JOIN Combined_Conversion_Parameters b on a.Parameter = b.OriginalParameter AND @dataStreamID =
```

```
b.DatastreamID
```

```
LEFT JOIN Combined_ValueQualifier d on a.ValueQualifier = d.ValueQualifier AND d.QualifierSource =
```

```
'SWMP'
```

```
LEFT JOIN [Data_355A_Final_depths] e on a.EventID = e.EventID
```

```
WHERE a.LocationID IS NOT NULL
```

```
AND a.Parameter NOT IN ('cDepth', 'Depth')
```

```
AND a.LocationID in (select LocationID from vw_SampleLocation WHERE programID = 355)
```

```
-- Tracking Stats
```

```
DELETE Combined_Data_Tracking
```

```
WHERE CombinedTableName = 'Combined_WQ_WC_NUT_cont'
```

```
AND DataStreamID = @dataStreamID
```

```
INSERT INTO Combined_Data_Tracking (ProgramID, IndicatorID, DataStreamID, ParameterID,
```

```
CombinedTableName, NumRowsFinal, NumRowsCombined, LastUpdateDate, LastUpdateBy)
```

```
SELECT a.ProgramID, b.IndicatorID, a.DataStreamID, a.ParameterID, 'Combined_WQ_WC_NUT_cont',
```

```
COUNT(a.ResultValue), COUNT(a.ResultValue), GETDATE(), @runBy
```

```
FROM Combined_WQ_WC_NUT_cont a
```

```
INNER JOIN Combined_Parameters b on a.ParameterID = b.ParameterID
```

```
WHERE a.DataStreamID = @dataStreamID
```

```
GROUP BY a.ProgramID, b.IndicatorID, a.DataStreamID, a.ParameterID
```

```
ÿ
```

```
--20121047
```

```
/*
```

```
SELECT *
```

```
FROM Combined_WQ_WC_NUT_cont
```

```
SELECT *
```

```
FROM Data_355A_Final
```

```
SELECT *
FROM Combined_Parameters a
join Indicator b on a.IndicatorID = b.IndicatorID
where b.Habitat = 'Water Column'
and b.IndicatorName <> 'Nekton'

SELECT *
FROM DataStreamProcedure
WHERE ProgramID = 355

SELECT *
FROM Combined_Data_tracking
where programid = 4055
ÿ
DELETE
FROM Combined_WQ_WC_NUT_cont
WHERE DataStreamID = 53

exec usp_delete_combined 53, 'Combined_WQ_WC_NUT_cont'

*/

END

GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
```

```
CREATE PROC [dbo].[usp_combined_wq_wc_nut_insert_355B]
```

```
AS
```

```
BEGIN
```

```
SET NOCOUNT ON;
```

```
SET XACT_ABORT ON;
```

```
-- Constants - PLEASE SET NOW!!
```

```
DECLARE @dataLoadCode varchar(10) = '355B';
```

```
DECLARE @combinedTable varchar(50) = 'Combined_WQ_WC_NUT';
```

```
ÿ
```

```
-- Setup data load
```

```
DECLARE @runBy varchar(50) = SYSTEM_USER;
```

```
DECLARE @programID int, @dataStreamID int;
```

```
ÿ
```

```
SELECT @dataStreamID = DataStreamID,
```

```
@programID = ProgramID
```

```
FROM DataStreamProcedure
```

```
WHERE DataLoadCode = @dataLoadCode;
```

```
-- Delete existing data
```

```
exec usp_delete_combined @dataStreamID, @combinedTable
```

```
ÿ
```

```
-- Insert data
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, ActivityID, ActivityType, SampleDate, ActivityDepth_m, RelativeDepth, TotalDepth_m, ResultValue, MDL, PQL, DetectionUnit, ValueQualifierID, SampleFraction, ResultComments, DateAdded, SEACAR_EventID)
```

```
SELECT @programID, @dataStreamID, b.TargetParameterID, a.LocationID, NULL, NULL,
```

```
a.DateTimeStamp, NULL, NULL, NULL, [dbo].[udf_convert_units]
```

```
(b.OriginalUnits, b.TargetParameterUnits, a.[Value]), NULL, NULL, NULL, d.ValueQualifierID, NULL, NULL,
```

```
GETDATE(), NULL
```

```
FROM Data_355B_Final a
```

```
INNER JOIN Combined_Conversion_Parameters b on a.Parameter = b.OriginalParameter AND @dataStreamID =
```

```
b.DatastreamID
```

```
LEFT JOIN Combined_ValueQualifier d on a.ValueQualifier = d.ValueQualifier AND d.QualifierSource =
```

```
'SWMP'
```

```
WHERE a.LocationID IS NOT NULL
```

```
ÿ
```

```
---- Tracking Stats
```

```
--DELETE Combined_Data_Tracking
```

```
--WHERE CombinedTableName = 'Combined_WQ_WC_NUT'
```

```
--AND DataStreamID = @dataStreamID
```

```
--INSERT INTO Combined_Data_Tracking (ProgramID, IndicatorID, DataStreamID, ParameterID, CombinedTableName, NumRowsFinal, NumRowsCombined, LastUpdateDate, LastUpdateBy)
```

```
--SELECT a.ProgramID, b.IndicatorID, a.DataStreamID, a.ParameterID, 'Combined_WQ_WC_NUT_cont',
```

```
COUNT(a.ResultValue), COUNT(a.ResultValue), GETDATE(), @runBy
```

```
--FROM Combined_WQ_WC_NUT_cont
```

```
--INNER JOIN Combined_Parameters b on a.ParameterID = b.ParameterID
```

```
--WHERE a.DataStreamID = @dataStreamID
```

```
--GROUP BY a.ProgramID, b.IndicatorID, a.DataStreamID, a.ParameterID
```

```
/*
```

```
SELECT *
```

```
FROM Combined_WQ_WC_NUT_cont
```

```
SELECT top 100 *
```

```
FROM Data_355B_Final
```

```
SELECT *
```

```
FROM Combined_Parameters a
```

```
join Indicator b on a.IndicatorID = b.IndicatorID
```

```
where b.Habitat = 'Water Column'  
and b.IndicatorName <> 'Nekton'
```

```
SELECT *  
FROM DataStreamProcedure  
WHERE ProgramID = 354
```

```
SELECT *  
FROM Combined_Data_tracking  
where programid = 4055
```

```
exec usp_delete_combined 48, 'Combined_WQ_WC_NUT_cont'
```

```
*/
```

```
END
```

```
GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
```

```
CREATE PROC [dbo].[usp_combined_wq_wc_nut_insert_355C - TBD]
```

```
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;
```

```
/*
```

```
IF NEW DATA HAS BEEN LOADED, RUN THIS TO REPLACE BLANKS WITH NULLS
```

```
SELECT 'UPDATE Data_355C_Final SET [' + name + '] = LTRIM(RTRIM([' + name + ']));' as Query
FROM syscolumns
```

```
WHERE id = object_id('Data_355C_Final')
AND isnullable = 1
```

```
UNION
```

```
SELECT 'UPDATE Data_355C_Final SET [' + name + '] = NULL WHERE [' + name + '] = '''';' as Query
FROM syscolumns
```

```
WHERE id = object_id('Data_355C_Final')
AND isnullable = 1
```

```
*/
```

```
-- Constants - PLEASE SET NOW!!
```

```
DECLARE @dataLoadCode varchar(10) = '355C';
```

```
DECLARE @combinedTable varchar(50) = 'Combined_WQ_WC_NUT';
```

```
DECLARE @ParameterID int;
```

```
ÿ
```

```
-- Setup data load
```

```
DECLARE @runBy varchar(50) = SYSTEM_USER;
```

```
DECLARE @programID int, @dataStreamID int;
```

```
SELECT @dataStreamID = DataStreamID,
```

```
@programID = ProgramID
```

```
FROM DataStreamProcedure
```

```
WHERE DataLoadCode = @dataLoadCode;
```

```
ÿ
```

```
---- Insert data
```

```
Set @ParameterID = 15-- Total Nitrogen
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
```

```
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.TN), NULL, GETDATE(),
'NERR', F_TN
```

```
FROM Data_355C_Final a
```

```
Where a.TN is not null
```

```
and ISNUMERIC(a.TN+'e0') = 1
```

```
and a.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
```

```
Set @ParameterID = 16-- Total Kjeldahl Nitrogen TKN
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
```

```
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.TKN), NULL, GETDATE(),
'NERR', F_TKN
```

```
FROM Data_355C_Final a
Wherea.TKN is not null
andISNUMERIC(a.TKN+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterId, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 17-- NO2+3 Filtered
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterId, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.NO23F), a.NO23F_C,
GETDATE(), 'NERR', F_NO23F
FROM Data_355C_Final a
Wherea.NO23F is not null
andISNUMERIC(a.NO23F+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterId, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 18-- NH4 Filtered
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterId, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.NH4F), a.NH4F_C, GETDATE(),
'NERR', F_NH4F
FROM Data_355C_Final a
Wherea.NH4F is not null
andISNUMERIC(a.NH4F+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterId, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 19-- Total Phosphorus
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterId, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.TP), NULL, GETDATE(),
'NERR', F_TP
FROM Data_355C_Final a
Wherea.TP is not null
andISNUMERIC(a.TP+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterId, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 20-- P04 Filtered
```



```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.P04F), a.P04F_C, GETDATE()
'NERR', F_P04F
FROM Data_355C_Final a
Wherea.P04F is not null
andISNUMERIC(a.P04F+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 1-- Dissolved Oxygen
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.DO_N), a.DO_N_C, GETDATE()
'NERR', F_DO_N
FROM Data_355C_Final a
Wherea.DO_N is not null
andISNUMERIC(a.DO_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 2-- Salinity
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('ppt', 'ppt', a.SALT_N), a.SALT_N_C,
GETDATE(), 'NERR', F_SALT_N
FROM Data_355C_Final a
Wherea.SALT_N is not null
andISNUMERIC(a.SALT_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 3-- Water Temperature
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('deg c', 'deg c', a.WTEM_N), a.WTEM_N_C,
GETDATE(), 'NERR', F_WTEM_N
FROM Data_355C_Final a
Wherea.WTEM_N is not null
andISNUMERIC(a.WTEM_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 4-- pH
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units](NULL, NULL, a.PH_N), NULL, GETDATE(),
'NERR', F_PH_N
FROM Data_355C_Final a
Wherea.PH_N is not null
andISNUMERIC(a.PH_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 5-- Dissolved Oxygen Saturation
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('%', '%', a.DO_S_N), a.DO_S_N_C, GETDATE(),
'NERR', F_DO_S_N
FROM Data_355C_Final a
Wherea.DO_S_N is not null
andISNUMERIC(a.DO_S_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 7-- Turbidity
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'NTU', a.TURB_N), a.TURB_N_C,
GETDATE(), 'NERR', F_TURB_N
FROM Data_355C_Final a
Wherea.TURB_N is not null
andISNUMERIC(a.TURB_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 8-- Total Suspended Solids, TSS
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
```

```
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.TSS), NULL, GETDATE(),
'NERR', F_TSS
FROM Data_355C_Final a
Wherea.TSS is not null
andISNUMERIC(a.TSS+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 9-- Chlorophyll a uncorrected for pheophytin
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('ug/L', 'ug/L', a.UncCHLa_N), NULL,
GETDATE(), 'NERR', F_UncCHLa_N
FROM Data_355C_Final a
Wherea.UncCHLa_N is not null
andISNUMERIC(a.UncCHLa_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 10-- Chlorophyll a corrected for pheophytin
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('ug/L', 'ug/L', a.CHLa_N), a.CHLa_N_C,
GETDATE(), 'NERR', F_CHLa_N
FROM Data_355C_Final a
Wherea.CHLa_N is not null
andISNUMERIC(a.CHLa_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 11-- Secchi Depth
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('m', 'm', a.SECCHI), NULL, GETDATE(),
'NERR', F_SECCHI
FROM Data_355C_Final a
Wherea.SECCHI is not null
andISNUMERIC(a.SECCHI+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
```

```
@LastUpdateBy = @runBy
```

```
ÿ  
/*  
SELECT *  
FROM Combined_WQ_WC_NUT
```

```
SELECT *  
FROM Data_355C_Final
```

```
SELECT *  
FROM Combined_Parameters a  
join Indicator b on a.IndicatorID = b.IndicatorID  
where b.Habitat = 'Water Column'  
and b.IndicatorName <> 'Nekton'
```

```
SELECT *  
FROM DataStreamProcedure  
WHERE ProgramID = 355
```

```
SELECT *  
FROM Combined_Data_tracking  
where programid = 557  
and datastreamID = 7
```

```
ÿ  
exec usp_delete_combined 1395, 'Combined_WQ_WC_NUT'  
*/
```

```
END
```

```
GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
```

```
CREATE PROC [dbo].[usp_combined_wq_wc_nut_insert_355C]
```

```
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;
```

```
/*
```

```
IF NEW DATA HAS BEEN LOADED, RUN THIS TO REPLACE BLANKS WITH NULLS
```

```
SELECT 'UPDATE Data_355C_Final SET [' + name + '] = LTRIM(RTRIM([' + name + ']));' as Query
FROM syscolumns
```

```
WHERE id = object_id('Data_355C_Final')
AND isnullable = 1
```

```
UNION
SELECT 'UPDATE Data_355C_Final SET [' + name + '] = NULL WHERE [' + name + '] = '''';' as Query
FROM syscolumns
```

```
WHERE id = object_id('Data_355C_Final')
AND isnullable = 1
```

```
*/
```

```
-- Constants - PLEASE SET NOW!!
```

```
DECLARE @dataLoadCode varchar(10) = '355C';
DECLARE @combinedTable varchar(50) = 'Combined_WQ_WC_NUT';
DECLARE @ParameterID int;
```

```
ÿ
```

```
-- Setup data load
```

```
DECLARE @runBy varchar(50) = SYSTEM_USER;
DECLARE @programID int, @dataStreamID int;
```

```
SELECT @dataStreamID = DataStreamID,
@programID = ProgramID
FROM DataStreamProcedure
WHERE DataLoadCode = @dataLoadCode;
```

```
ÿ
```

```
---- Insert data
```

```
Set @ParameterID = 15-- Total Nitrogen
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
```

```
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.TN), NULL, GETDATE(),
'NERR', F_TN
```

```
FROM Data_355C_Final a
Where a.TN is not null
and ISNUMERIC(a.TN+'e0') = 1
and a.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
```

```
Set @ParameterID = 16-- Total Kjeldahl Nitrogen TKN
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
```

```
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.TKN), NULL, GETDATE(),
'NERR', F_TKN
```

```
FROM Data_355C_Final a
Wherea.TKN is not null
andISNUMERIC(a.TKN+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterId, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 17-- NO2+3 Filtered
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterId, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.NO23F), a.NO23F_C,
GETDATE(), 'NERR', F_NO23F
FROM Data_355C_Final a
Wherea.NO23F is not null
andISNUMERIC(a.NO23F+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterId, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 18-- NH4 Filtered
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterId, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.NH4F), a.NH4F_C, GETDATE(),
'NERR', F_NH4F
FROM Data_355C_Final a
Wherea.NH4F is not null
andISNUMERIC(a.NH4F+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterId, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 19-- Total Phosphorus
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterId, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.TP), NULL, GETDATE(),
'NERR', F_TP
FROM Data_355C_Final a
Wherea.TP is not null
andISNUMERIC(a.TP+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterId, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 20-- P04 Filtered
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.P04F), a.P04F_C, GETDATE()
'NERR', F_P04F
FROM Data_355C_Final a
Wherea.P04F is not null
andISNUMERIC(a.P04F+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 1-- Dissolved Oxygen
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.DO_N), a.DO_N_C, GETDATE()
'NERR', F_DO_N
FROM Data_355C_Final a
Wherea.DO_N is not null
andISNUMERIC(a.DO_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 2-- Salinity
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('ppt', 'ppt', a.SALT_N), a.SALT_N_C,
GETDATE(), 'NERR', F_SALT_N
FROM Data_355C_Final a
Wherea.SALT_N is not null
andISNUMERIC(a.SALT_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 3-- Water Temperature
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('deg c', 'deg c', a.WTEM_N), a.WTEM_N_C,
GETDATE(), 'NERR', F_WTEM_N
FROM Data_355C_Final a
Wherea.WTEM_N is not null
andISNUMERIC(a.WTEM_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 4-- pH
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units](NULL, NULL, a.PH_N), NULL, GETDATE(),
'NERR', F_PH_N
FROM Data_355C_Final a
Wherea.PH_N is not null
andISNUMERIC(a.PH_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 5-- Dissolved Oxygen Saturation
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('%', '%', a.DO_S_N), a.DO_S_N_C, GETDATE(),
'NERR', F_DO_S_N
FROM Data_355C_Final a
Wherea.DO_S_N is not null
andISNUMERIC(a.DO_S_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 7-- Turbidity
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'NTU', a.TURB_N), a.TURB_N_C,
GETDATE(), 'NERR', F_TURB_N
FROM Data_355C_Final a
Wherea.TURB_N is not null
andISNUMERIC(a.TURB_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

```
Set @ParameterID = 8-- Total Suspended Solids, TSS
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
```



```
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.TSS), NULL, GETDATE(),
'NERR', F_TSS
FROM Data_355C_Final a
Wherea.TSS is not null
andISNUMERIC(a.TSS+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 9-- Chlorophyll a uncorrected for pheophytin
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('ug/L', 'ug/L', a.UncCHLa_N), NULL,
GETDATE(), 'NERR', F_UncCHLa_N
FROM Data_355C_Final a
Wherea.UncCHLa_N is not null
andISNUMERIC(a.UncCHLa_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 10-- Chlorophyll a corrected for pheophytin
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('ug/L', 'ug/L', a.CHLa_N), a.CHLa_N_C,
GETDATE(), 'NERR', F_CHLa_N
FROM Data_355C_Final a
Wherea.CHLa_N is not null
andISNUMERIC(a.CHLa_N+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 11-- Secchi Depth
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.DateTimeStamp as
datetime), NULL, NULL, 'Surface', dbo.[udf_convert_units]('m', 'm', a.SECCHI), NULL, GETDATE(),
'NERR', F_SECCHI
FROM Data_355C_Final a
Wherea.SECCHI is not null
andISNUMERIC(a.SECCHI+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
```

```
@LastUpdateBy = @runBy
```

```
ÿ  
/*  
SELECT *  
FROM Combined_WQ_WC_NUT
```

```
SELECT *  
FROM Data_355C_Final
```

```
SELECT *  
FROM Combined_Parameters a  
join Indicator b on a.IndicatorID = b.IndicatorID  
where b.Habitat = 'Water Column'  
and b.IndicatorName <> 'Nekton'
```

```
SELECT *  
FROM DataStreamProcedure  
WHERE ProgramID = 355
```

```
SELECT *  
FROM Combined_Data_tracking  
where programid = 557  
and datastreamID = 7
```

```
ÿ  
exec usp_delete_combined 1395, 'Combined_WQ_WC_NUT'  
*/
```

```
END
```

```
GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
```

```
CREATE PROC [dbo].[usp_combined_wq_wc_nut_insert_355D]
```

```
AS
```

```
BEGIN
```

```
SET NOCOUNT ON;
```

```
SET XACT_ABORT ON;
```

```
/*
```

```
IF NEW DATA HAS BEEN LOADED, RUN THIS TO REPLACE BLANKS WITH NULLS
```

```
SELECT 'UPDATE Data_355D_Final SET [' + name + '] = LTRIM(RTRIM([' + name + ']));' as Query
FROM syscolumns
```

```
WHERE id = object_id('Data_355D_Final')
```

```
AND isnullable = 1
```

```
UNION
```

```
SELECT 'UPDATE Data_355D_Final SET [' + name + '] = NULL WHERE [' + name + '] = '''';' as Query
FROM syscolumns
```

```
WHERE id = object_id('Data_355D_Final')
```

```
AND isnullable = 1
```

```
*/
```

```
-- Constants - PLEASE SET NOW!!
```

```
DECLARE @dataLoadCode varchar(10) = '355D';
```

```
DECLARE @combinedTable varchar(50) = 'Combined_WQ_WC_NUT';
```

```
DECLARE @ParameterID int;
```

```
ÿ
```

```
-- Setup data load
```

```
DECLARE @runBy varchar(50) = SYSTEM_USER;
```

```
DECLARE @programID int, @dataStreamID int;
```

```
SELECT @dataStreamID = DataStreamID,
```

```
@programID = ProgramID
```

```
FROM DataStreamProcedure
```

```
WHERE DataLoadCode = @dataLoadCode;
```

```
ÿ
```

```
ÿ
```

```
---- Insert data
```

```
Set @ParameterID = 1-- Dissolved Oxygen
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
```

```
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'mg/L', a.[DO mg l_S]), NULL, GETDATE(), 'NERR', NULL
FROM Data_355D_Final a
```

```
Where a.[DO mg l_S] is not null
```

```
and ISNUMERIC(a.[DO mg l_S]+'e0') = 1
```

```
and a.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
```

```
Set @ParameterID = 2-- Salinity
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
```

```
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Surface', dbo.[udf_convert_units]('ppt', 'ppt', a.[Sal ppt_S]), NULL, GETDATE(), 'NERR', NULL
```

```
FROM Data_355D_Final a
Wherea. [Sal ppt_S] is not null
andISNUMERIC(a. [Sal ppt_S]+'e0') = 1
anda. LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 3-- Water Temperature
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Surface', dbo. [udf_convert_units]('deg c', 'deg c', a. [Temp_S ]), NULL, GETDATE(), 'NERR', NULL
FROM Data_355D_Final a
Wherea. [Temp_S ] is not null
andISNUMERIC(a. [Temp_S ]+'e0') = 1
anda. LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 4-- pH
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Surface', dbo. [udf_convert_units](NULL, NULL, a. pH_S), NULL, GETDATE(), 'NERR', NULL
FROM Data_355D_Final a
Wherea. pH_S is not null
andISNUMERIC(a. pH_S+'e0') = 1
anda. LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 5-- Dissolved Oxygen Saturation
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Surface', dbo. [udf_convert_units]('%', '%', a. [DO %_S]), NULL, GETDATE(), 'NERR', NULL
FROM Data_355D_Final a
Wherea. [DO %_S] is not null
andISNUMERIC(a. [DO %_S]+'e0') = 1
anda. LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 6-- Specific Conductivity
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Surface', dbo.[udf_convert_units]('uS/cm', 'mS/cm', a.[SPC us cm_S]), NULL, GETDATE(), 'NERR', NULL
FROM Data_355D_Final a
Wherea.[SPC us cm_S] is not null
andISNUMERIC(a.[SPC us cm_S]+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
---- Insert data
Set @ParameterID = 7-- Turbidity
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Surface', dbo.[udf_convert_units]('mg/L', 'NTU', a.Turb_S), NULL, GETDATE(), 'NERR', NULL
FROM Data_355D_Final a
Wherea.Turb_S is not null
andISNUMERIC(a.Turb_S+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
ÿ
---- Insert data
Set @ParameterID = 11-- Secchi Depth
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Surface', dbo.[udf_convert_units]('m', 'm', a.SECCHI), NULL, GETDATE(), 'NERR', NULL
FROM Data_355D_Final a
Wherea.SECCHI is not null
andISNUMERIC(a.SECCHI+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

```
ÿ
---- Insert data
Set @ParameterID = 1-- Dissolved Oxygen
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Bottom', dbo.[udf_convert_units]('mg/L', 'mg/L', a.[DO mg l_B]), NULL, GETDATE(), 'NERR', NULL
FROM Data_355D_Final a
Wherea.[DO mg l_B] is not null
andISNUMERIC(a.[DO mg l_B]+'e0') = 1
```

anda.LocationID is not null

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

Set @ParameterID = 2-- Salinity

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Bottom', dbo.[udf_convert_units]('ppt', 'ppt', a.[Sal ppt_B]), NULL, GETDATE(), 'NERR', NULL
FROM Data_355D_Final a
Wherea.[Sal ppt_B] is not null
andISNUMERIC(a.[Sal ppt_B]+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

Set @ParameterID = 3-- Water Temperature

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Bottom', dbo.[udf_convert_units]('deg c', 'deg c', a.[Temp_B ]), NULL, GETDATE(), 'NERR', NULL
FROM Data_355D_Final a
Wherea.[Temp_B ] is not null
andISNUMERIC(a.[Temp_B ]+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

Set @ParameterID = 4-- pH

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Bottom', dbo.[udf_convert_units](NULL, NULL, a.pH_B), NULL, GETDATE(), 'NERR', NULL
FROM Data_355D_Final a
Wherea.pH_B is not null
andISNUMERIC(a.pH_B+'e0') = 1
anda.LocationID is not null
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
```

---- Insert data

Set @ParameterID = 5-- Dissolved Oxygen Saturation

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
```

```

Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Bottom', dbo.[udf_convert_units]('%', '%', a.[DO %_B]), NULL, GETDATE(), 'NERR', NULL
FROM Data_355D_Final a
Wherea.[DO %_B] is not null
andISNUMERIC(a.[DO %_B]+'e0') = 1
anda.LocationID is not null

exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy

---- Insert data
Set @ParameterID = 6-- Specific Conductivity

INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Bottom', dbo.[udf_convert_units]('uS/cm', 'mS/cm', a.[SPC us cm_B]), NULL, GETDATE(), 'NERR',
NULL
FROM Data_355D_Final a
Wherea.[SPC us cm_B] is not null
andISNUMERIC(a.[SPC us cm_B]+'e0') = 1
anda.LocationID is not null

exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy

---- Insert data
Set @ParameterID = 7-- Turbidity

INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
Activity_Start_Date_Time, ACTIVITY_DEPTH, Activity_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
VALUE_QUALIFIER, DateAdded, QualifierSource, QAQCFlag)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), NULL,
NULL, 'Bottom', dbo.[udf_convert_units]('mg/L', 'NTU', a.Turb_B), NULL, GETDATE(), 'NERR', NULL
FROM Data_355D_Final a
Wherea.Turb_B is not null
andISNUMERIC(a.Turb_B+'e0') = 1
anda.LocationID is not null

exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy

/*
SELECT *
FROM Combined_WQ_WC_NUT

SELECT *
FROM Data_355D_Final

SELECT *
FROM Combined_Parameters a
join Indicator b on a.IndicatorID = b.IndicatorID
where b.Habitat = 'Water Column'
and b.IndicatorName <> 'Nekton'

SELECT *
FROM DataStreamProcedure

```

```
WHERE ProgramID = 355
```

```
SELECT *  
FROM Combined_Data_tracking  
where programid = 557  
and datastreamID = 7  
ÿ  
exec usp_delete_combined 1396, 'Combined_WO_WC_NUT'  
*/
```

```
END
```

```
GO
```



```

SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_Data_355A_Load_insert]
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON

ÿ
INSERT INTO [Data_355A_Final] (StationCode, isSWMP, DateTimeStamp, Historical, ProvisionalPlus, F_
Parameter, Result_Value, Value_Qualifier)
SELECT      StationCode, isSWMP, DateTimeStamp, Historical, ProvisionalPlus, F_Record, Parameter,
Result, Value_Qualifier
FROM (
SELECT StationCode, isSWMP, DateTimeStamp, Historical, ProvisionalPlus, F_Record, Parameter, CASE
Result LIKE '%E-%' THEN convert(numeric(25, 8), convert(real, Result)) ELSE Result END AS Result,
NULLIF(dbo.udf_stripAlphaChar(Value_Qualifier), '') as Value_Qualifier
FROM (
SELECT StationCode, isSWMP, DateTimeStamp, Historical, ProvisionalPlus, F_Record,
Temp, F_Temp, SpCond, F_SpCond, Sal, F_Sal, DO_Pct, F_DO_Pct, DO_mgl, F_DO_mgl, Depth, F_Depth,
cDepth, F_cDepth, [Level], F_Level, cLevel, F_cLevel, pH, F_pH, Turb, F_Turb, ChlFluor,
F_ChlFluor
FROM Data_355A_Load a
) a
UNPIVOT
(
Result FOR [Parameter] IN (Temp, SpCond, Sal, DO_Pct, DO_mgl, Depth, cDepth, [Level], cLevel, pH,
ChlFluor)
) b
UNPIVOT
(
Value_Qualifier FOR [VC] IN (F_Temp, F_SpCond, F_Sal, F_DO_Pct, F_DO_mgl, F_Depth, F_cDepth, F_Level,
F_cLevel, F_pH, F_Turb, F_ChFluor)
) c
WHERE [Parameter] = RIGHT([VC], LEN([VC]) - 2)
)xx
WHERE NOT EXISTS (SELECT *
FROM [Data_355A_Final] b
WHERE CAST(xx.DateTimeStamp as datetime) = b.DateTimeStamp
AND xx.StationCode = b.StationCode
)

-- SET EventID on [Data_355A_Final]
SELECT StationCode, DateTimeStamp
INTO #activities
FROM Data_355A_Final
GROUP BY StationCode, DateTimeStamp

ALTER TABLE #activities ADD EventID uniqueidentifier

UPDATE #activities SET EventID = NEWID()

UPDATE cd
SET cd.EventID = a.EventID
FROM Data_355A_Final cd
INNER JOIN #activities a ON cd.StationCode = a.StationCode
AND cd.DateTimeStamp = a.DateTimeStamp

-- INSERT into Data_355A_Final_depths
TRUNCATE TABLE [Data_355A_Final_depths]

-- This is ONLY Activity Depth
INSERT INTO [Data_355A_Final_depths] (EventID, Depth)
SELECT DISTINCT a.EventID, a.Result_Value
FROM Data_355A_Final a

```

```
WHERE a.Parameter IN ('Depth')
```

```
END
```

```
GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
```

```
CREATE PROC [dbo].[usp_Data_355B_Load_insert -row]
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON
```

```
INSERT INTO Data_355B_Final (StationCode, DateTimeStamp, MonitoringProgram, Rep, Parameter, Value)
SELECT StationCode, DateTimeStamp, MonitoringProgram, Rep, Parameter, Value
FROM Data_355B_Load
END
GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
```

```
CREATE PROC [dbo].[usp_Data_355B_Load_insert]
```

```
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON
```

```
/* The B table is for nutrient data (discrete - apa*nut), the A table is for water quality data
(continuous - apa*wq)*/
```

```
--clean up the quotations
```

```
UPDATE Data_355B_Load SET [StationCode] = Replace([StationCode], ''', '')
UPDATE Data_355B_Load SET [isSWMP] = Replace([isSWMP], ''', '')
UPDATE Data_355B_Load SET [DateTimeStamp] = Replace([DateTimeStamp], ''', '')
UPDATE Data_355B_Load SET [Historical] = Replace([Historical], ''', '')
UPDATE Data_355B_Load SET [ProvisionalPlus] = Replace([ProvisionalPlus], ''', '')
UPDATE Data_355B_Load SET [ColIMethd] = Replace([ColIMethd], ''', '')
UPDATE Data_355B_Load SET [REP] = Replace([REP], ''', '')
UPDATE Data_355B_Load SET [F_Record] = Replace([F_Record], ''', '')
UPDATE Data_355B_Load SET [P04F] = Replace([P04F], ''', '')
UPDATE Data_355B_Load SET [F_P04F] = Replace([F_P04F], ''', '')
UPDATE Data_355B_Load SET [NH4F] = Replace([NH4F], ''', '')
UPDATE Data_355B_Load SET [F_NH4F] = Replace([F_NH4F], ''', '')
UPDATE Data_355B_Load SET [NO2F] = Replace([NO2F], ''', '')
UPDATE Data_355B_Load SET [F_NO2F] = Replace([F_NO2F], ''', '')
UPDATE Data_355B_Load SET [NO3F] = Replace([NO3F], ''', '')
UPDATE Data_355B_Load SET [F_NO3F] = Replace([F_NO3F], ''', '')
UPDATE Data_355B_Load SET [NO23F] = Replace([NO23F], ''', '')
UPDATE Data_355B_Load SET [F_NO23F] = Replace([F_NO23F], ''', '')
UPDATE Data_355B_Load SET [CHLA_N] = Replace([CHLA_N], ''', '')
UPDATE Data_355B_Load SET [F_CHLA_N] = Replace([F_CHLA_N], ''', '')
```

```
--remove the commas
```

```
UPDATE Data_355B_Load SET [F_CHLA_N] = Replace([F_CHLA_N], ',', '')
UPDATE Data_355B_Load SET [StationCode] = NULL WHERE [StationCode] = '';
UPDATE Data_355B_Load SET [isSWMP] = NULL WHERE [isSWMP] = '';
UPDATE Data_355B_Load SET [DateTimeStamp] = NULL WHERE [DateTimeStamp] = '';
UPDATE Data_355B_Load SET [Historical] = NULL WHERE [Historical] = '';
UPDATE Data_355B_Load SET [ProvisionalPlus] = NULL WHERE [ProvisionalPlus] = '';
UPDATE Data_355B_Load SET [ColIMethd] = NULL WHERE [ColIMethd] = '';
UPDATE Data_355B_Load SET [REP] = NULL WHERE [REP] = '';
UPDATE Data_355B_Load SET [F_Record] = NULL WHERE [F_Record] = '';
UPDATE Data_355B_Load SET [P04F] = NULL WHERE [P04F] = '';
UPDATE Data_355B_Load SET [F_P04F] = NULL WHERE [F_P04F] = '';
UPDATE Data_355B_Load SET [NH4F] = NULL WHERE [NH4F] = '';
UPDATE Data_355B_Load SET [F_NH4F] = NULL WHERE [F_NH4F] = '';
UPDATE Data_355B_Load SET [NO2F] = NULL WHERE [NO2F] = '';
UPDATE Data_355B_Load SET [F_NO2F] = NULL WHERE [F_NO2F] = '';
UPDATE Data_355B_Load SET [NO3F] = NULL WHERE [NO3F] = '';
UPDATE Data_355B_Load SET [F_NO3F] = NULL WHERE [F_NO3F] = '';
UPDATE Data_355B_Load SET [NO23F] = NULL WHERE [NO23F] = '';
UPDATE Data_355B_Load SET [F_NO23F] = NULL WHERE [F_NO23F] = '';
UPDATE Data_355B_Load SET [CHLA_N] = NULL WHERE [CHLA_N] = '';
UPDATE Data_355B_Load SET [F_CHLA_N] = NULL WHERE [F_CHLA_N] = '';
```

```
INSERT INTO [Data_355B_Final] (StationCode, DateTimeStamp, REP, Parameter, [Value],
Value_Qualifier)
```

```
SELECT StationCode, DateTimeStamp, REP, Parameter, Result, Value_Qualifier
```

```
FROM (
```

```
SELECT StationCode, isSWMP, DateTimeStamp, Historical, ProvisionalPlus, ColIMethd, REP, F_Record,
```

```
Parameter, CASE WHEN Result LIKE '%E-%' THEN convert(numeric(25, 8), convert(real, Result)) ELSE Result
```

```
END AS Result, NULLIF(dbo.udf_stripAlphaChar(Value_Qualifier), '') as Value_Qualifier
```

```
FROM (
```

```
SELECT StationCode, isSWMP, DateTimeStamp, Historical, ProvisionalPlus, ColIMethd, REP,
```

```
F_Record,
```

```
P04F, F_P04F, NH4F, F_NH4F, N02F, F_N02F, N03F, F_N03F, N023F, F_N023F, CHLA_N, F_CHLA_N
FROMData_355B_Load a
) a
UNPIVOT
(
Result FOR [Parameter] IN (P04F, NH4F, N02F, N03F, N023F, CHLA_N)
) b
UNPIVOT
(
Value_Qualifier FOR [VC] IN (F_P04F, F_NH4F, F_N02F, F_N03F, F_N023F, F_CHLA_N)
) c
WHERE [Parameter] = RIGHT([VC], LEN([VC]) - 2)
AND nullif(Result,'') is not null
AND isnumeric(result)=1
and IDate(datetimestamp) =1
)xx
WHERE NOT EXISTS (SELECT *
FROM [Data_355B_Final] b
WHERE CAST(xx.DateTimeStamp as datetime) = cast(b.DateTimeStamp as datetime)
AND xx.StationCode = b.StationCode
and xx.rep = b.rep
and xx.Parameter = b.Parameter
)
--Order by cast(DateTimeStamp as datetime)
```

END

GO

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC usp_Data_355C_Load_insert
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON
```

```
INSERT INTO Data_355C_Final ([Station Code], DateTimeStamp, [Monitoring Program], REP, F_Record,
P04F, F_P04F, TP, F_TP, NH4F, F_NH4F, NO23F, F_NO23F, TKN, F_TKN, DIN, F_DIN, TN, F_TN, CHLA_N,
F_CHLA_N, UncCHLa_N, F_UncCHLa_N, PHEA, F_PHEA, TSS, F_TSS, WTEM_N, F_WTEM_N, SALT_N, F_SALT_N,
DO_N, F_DO_N, DO_S_N, F_DO_S_N, TURB_N, F_TURB_N, SECCHI, F_SECCHI, PH_N, F_PH_N, CHLA_N_C, DIN_C,
F_NO2F, F_NO3F, NH4F_C, NO23F_C, NO2F, NO2F_C, NO3F, NO3F_C, P04F_C, DO_N_C, DO_S_N_C, SALT_N_C,
WTEM_N_C, TURB_N_C, PHEA_C, F_TDN, F_TDP, TDN, TDP, Color, F_Color)
SELECT[Station Code], DateTimeStamp, [Monitoring Program], REP, F_Record, P04F, F_P04F, TP,
F_TP, NH4F, F_NH4F, NO23F, F_NO23F, TKN, F_TKN, DIN, F_DIN, TN, F_TN, CHLA_N, F_CHLA_N, UncCHLa_N,
F_UncCHLa_N, PHEA, F_PHEA, TSS, F_TSS, WTEM_N, F_WTEM_N, SALT_N, F_SALT_N, DO_N, F_DO_N, DO_S_N,
F_DO_S_N, TURB_N, F_TURB_N, SECCHI, F_SECCHI, PH_N, F_PH_N, CHLA_N_C, DIN_C, F_NO2F, F_NO3F,
NH4F_C, NO23F_C, NO2F, NO2F_C, NO3F, NO3F_C, P04F_C, DO_N_C, DO_S_N_C, SALT_N_C, WTEM_N_C,
TURB_N_C, PHEA_C, F_TDN, F_TDP, TDN, TDP, Color, F_Color
FROMData_355C_Loada
END
GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC usp_Data_355D_Load_insert
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON

INSERT INTO Data_355D_Final ([Station No ], [Station Name], [Station Code], Date, Time, [Lat deg],
[Lat min], [Lon deg], [Lon min], Secchi, [Depth m], [Temp_S ], [Temp_B ], [Sal ppt_S], [Sal ppt_B],
[DO mg l_S], [DO mg l_B], [DO %_S], [DO %_B], pH_S, pH_B, Turb_S, Turb_B, [SPC us cm_S], [SPC us
cm_B], [TDS g L_S], [TDS g L_B], NTU_S, NTU_B, CLOUD, PRECIP, TIDE, WAVHGT, WINDIR, WINSPD, Notes,
[Wildco sample depth], [Sample depth m])
SELECT[Station No ], [Station Name], [Station Code], Date, Time, [Lat deg], [Lat min], [Lon
deg], [Lon min], Secchi, [Depth m], [Temp_S ], [Temp_B ], [Sal ppt_S], [Sal ppt_B], [DO mg l_S],
[DO mg l_B], [DO %_S], [DO %_B], pH_S, pH_B, Turb_S, Turb_B, [SPC us cm_S], [SPC us cm_B], [TDS g
L_S], [TDS g L_B], NTU_S, NTU_B, CLOUD, PRECIP, TIDE, WAVHGT, WINDIR, WINSPD, Notes, [Wildco samp
le depth], [Sample depth m]
FROMData_355D_Loada
END
GO
```