

# Data Acquisition Standard Operating Procedures

## Pensacola Bay Water Quality Monitoring Program (ID# 505)

Last Updated: 5/6/2023

### Program Summary

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Water quality

### URLs

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- Program - <http://www.epa.gov/ged/atwork.html>
- DDI - <https://data.florida-seacar.org/programs/details/505>

### Contacts

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Contact Name	Organization	Email	Phone
Jim Hagy		hagy.jim@epa.gov	

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### Data Tables

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- Data\_505A\_Final
- Data\_505A\_Final\_depths
- Data\_505A\_Load
- Data\_505B\_Final
- Data\_505B\_Final\_depths
- Data\_505B\_Load
- Data\_505C\_Final
- Data\_505C\_Load

### Data Stored Procedures

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- usp\_Data\_505A\_Load\_insert
- usp\_Data\_505B\_Load\_insert
- usp\_Data\_505C\_Load\_insert
- usp\_combined\_wq\_wc\_nut\_cont\_insert\_505A
- usp\_combined\_wq\_wc\_nut\_cont\_insert\_505B
- usp\_combined\_wq\_wc\_nut\_insert\_505C

# Data Acquisition Standard Operating Procedures: ProgramID 505

Date Created: 06/05/2020

Created By: Mrudhula Murali

## Data File Paths:

1. Data: "\\forest.usf.edu\data\PDive\CAS-WI\Misc Projects\SEACAR\_FDEP\Data\ID\_505 Pensacola Bay WQ\ ctd.csv
2. Spatial Data: [\\forest.usf.edu\data\PDive\CAS-WI\Misc Projects\SEACAR\\_FDEP\Data\ID\\_505 Pensacola Bay WQ\ Stations.xlsx](#)
3. Data: "\\forest.usf.edu\data\PDive\CAS-WI\Misc Projects\SEACAR\_FDEP\Data\ID\_505 Pensacola Bay WQ\ events.csv
4. Data: "\\forest.usf.edu\data\PDive\CAS-WI\Misc Projects\SEACAR\_FDEP\Data\ID\_505 Pensacola Bay WQ\ wq.csv

DDI URL: <http://dev.seacar.waterinstitute.usf.edu/datadiscovery/programs/details/102>

## Contact Information:

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## Procedure Overview:

1. Use SQL Server Import Export Wizard to load the spatial data "Stations.xlsx" into **Locations\_505A**.
2. Use SQL Server Import Export Wizard to load the data "ctd.csv" into **Data\_505A\_Load**.
3. Use SQL Server Import Export Wizard to load the data "events.csv" into **Data\_505B\_Load**.
4. Use SQL Server Import Export Wizard to load the data "wq.csv" into **Data\_505C\_Load**
5. Execute procedures `usp_Data_505*_Load_insert` to load the data into tables **Data\_505\*\_Final**.
6. Add new Monitoring Locations into the **SampleLocation\_Point** table from **Locations\_505A** with [a.stn] as Monitoring Location.
7. Add new Monitoring Locations into the **SampleLocation** table. This will generate a LocationID for each Monitoring Location.
8. Update the **SampleLocation\_Point** table with the LocationID generated in the **SampleLocation** table. Run procedure `usp_SampleLocation_Point_update` to do this.
9. Update the LocationID column in table **Data\_505A\_Final**, **Data\_505B\_Final** and **Data\_505C\_Final** with the LocationID in the **SampleLocation** table. Join on the [a.stn] column in **Data\_965A\_Final** and **Data\_965B\_Final** **Data\_505A\_Final**, **Data\_505B\_Final** and **Data\_505C\_Final** and the ProgramLocationID column in **SampleLocation**.

## Data Tables

1. Data\_505\*\_Load
2. Data\_505\*\_Final
3. Locations\_505A

## Data Stored Procedures

1. usp\_Data\_505\*\_Load\_insert
2. usp\_SampleLocation\_Point\_update

## GIS Procedures

1. The Monitoring Location information can be found in **Locations\_505A**. table.
2. Complete steps 4 through 9 in the "Procedure Overview" section of this document.

```

SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_combined_wq_wc_nut_cont_insert_505A]
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;

-- Constants - PLEASE SET NOW!!
DECLARE @dataLoadCode varchar(10) = '505A';
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, NULL, NULL, GETDATE(),
NULL
FROM Data_505A_Final a
INNER JOIN Combined_Conversion_Parameters b on a.Parameter = b.OriginalParameter AND @dataStreamID =
b.DatastreamID
LEFT JOIN [Data_505A_Final_depths] e on a.EventID = e.EventID
WHERE a.LocationID IS NOT NULL
AND a.Parameter NOT IN ('depth')
AND a.ResultValue IS NOT NULL

-- 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

--exec usp_combined_data_tracking_insert @parameterID = 2, @ProgramID = @programID, @dataStreamID =
@dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT, @LastUpdateBy = @runBy

/*
SELECT *
FROM Combined_WQ_WC_NUT_cont

SELECT *
FROM Data_505A_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 = 505
```

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

```
DELETE  
FROM Combined_WQ_WC_NUT_cont  
WHERE DataStreamID = 1340  
*/
```

```
END
```

```
GO
```

```

SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_combined_wq_wc_nut_cont_insert_505B]
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;

-- Constants - PLEASE SET NOW!!
DECLARE @dataLoadCode varchar(10) = '505B';
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, NULL, NULL, e.Depth, a.Result_Value, NULL, NULL, NULL, NULL, NULL, NULL, GETDATE(),
NULL
FROM Data_505B_Final a
INNER JOIN Combined_Conversion_Parameters b on a.Parameter = b.OriginalParameter AND @dataStreamID =
b.DatastreamID
LEFT JOIN [Data_505B_Final_depths] e on a.EventID = e.EventID
WHERE a.LocationID IS NOT NULL
AND a.Parameter NOT IN ('tdepth')
AND a.Result_Value IS NOT NULL

-- 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

--exec usp_combined_data_tracking_insert @parameterID = 2, @ProgramID = @programID, @dataStreamID =
@dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT, @LastUpdateBy = @runBy

/*
SELECT *
FROM Combined_WQ_WC_NUT_cont

SELECT *
FROM Data_505B_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 = 505
```

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

```
DELETE  
FROM Combined_WQ_WC_NUT_cont  
WHERE DataStreamID = 1340  
*/
```

```
END
```

```
GO
```

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

```
CREATE PROC [dbo].[usp_combined_wq_wc_nut_insert_505C]
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;
```

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

```
DECLARE @dataLoadCode varchar(10) = '505C';
DECLARE @combinedTable varchar(50) = 'Combined_WQ_WC_NUT';
DECLARE @ParameterID int;
DECLARE @TotalRows 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
```

```
-- Delete Existing records
```

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

```
-- Insert data
```

```
SET @TotalRows = 0
```

```
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)
```

```
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime),
a.DEPTH, 'm', NULL, dbo.udf_convert_units('ug/L', 'ug/L', a.chla), NULL, GETDATE()
```

```
FROM Data_505C_Final a
```

```
Where a.chla is not null
```

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

```
SET @TotalRows = @TotalRows + @@ROWCOUNT
```

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

```
-- Insert data
```

```
SET @TotalRows = 0
```

```
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)
```

```
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime),
a.DEPTH, 'm', NULL, dbo.udf_convert_units('mg/L', 'mg/L', a.tss), NULL, GETDATE()
```

```
FROM Data_505C_Final a
```

```
Where a.tss is not null
```

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

```
SET @TotalRows = @TotalRows + @@ROWCOUNT
```

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



```
@LastUpdateBy = @runBy
```

```
-- Insert data
```

```
SET @TotalRows = 0
```

```
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)
```

```
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime),
a.DEPTH, 'm', NULL, dbo.udf_convert_units('ug/L', 'mg/L', a.tn), NULL, GETDATE()
```

```
FROM Data_505C_Final a
```

```
Wherea.tn is not null
```

```
anda.LocationID is not null
```

```
SET @TotalRows = @TotalRows + @@ROWCOUNT
```

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

```
-- Insert data
```

```
SET @TotalRows = 0
```

```
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)
```

```
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime),
a.DEPTH, 'm', NULL, dbo.udf_convert_units('ug/L', 'mg/L', a.tp), NULL, GETDATE()
```

```
FROM Data_505C_Final a
```

```
Wherea.tp is not null
```

```
anda.LocationID is not null
```

```
SET @TotalRows = @TotalRows + @@ROWCOUNT
```

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

```
-- Insert data
```

```
SET @TotalRows = 0
```

```
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)
```

```
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime),
a.DEPTH, 'm', NULL, dbo.udf_convert_units('ug/L', 'mg/L', a.nox), NULL, GETDATE()
```

```
FROM Data_505C_Final a
```

```
Wherea.nox is not null
```

```
anda.LocationID is not null
```

```
SET @TotalRows = @TotalRows + @@ROWCOUNT
```

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

```
-- Insert data
```

```
SET @TotalRows = 0
```

```
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)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime),
a.DEPTH, 'm', NULL, dbo.udf_convert_units('ug/L', 'mg/L', a.nh4), NULL, GETDATE()
FROM Data_505C_Final a
Wherea.nh4 is not null
anda.LocationID is not null

```

```

SET @Total Rows = @Total Rows + @@ROWCOUNT

```

```

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

```

```

-- Insert data
SET @Total Rows = 0
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)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime),
a.DEPTH, 'm', NULL, dbo.udf_convert_units('ug/L', 'mg/L', a.po4), NULL, GETDATE()
FROM Data_505C_Final a
Wherea.po4 is not null
anda.LocationID is not null

```

```

SET @Total Rows = @Total Rows + @@ROWCOUNT

```

```

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

```

```

-- Insert data
SET @Total Rows = 0
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)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime),
a.DEPTH, 'm', NULL, dbo.udf_convert_units('deg C', 'deg C', a.temp), NULL, GETDATE()
FROM Data_505C_Final a
Wherea.temp is not null
anda.LocationID is not null

```

```

SET @Total Rows = @Total Rows + @@ROWCOUNT

```

```

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

```

```

-- Insert data
SET @Total Rows = 0
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)

```

```
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime),
a.DEPTH, 'm', NULL, dbo.udf_convert_units('deg C', 'deg C', a.sal), NULL, GETDATE()
FROM Data_505C_Final a
Wherea.sal is not null
anda.LocationID is not null
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

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

```
-- Insert data
```

```
SET @Total Rows = 0
```

```
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)
```

```
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime),
a.DEPTH, 'm', NULL, dbo.udf_convert_units('mg/L', 'mg/L', a.do), NULL, GETDATE()
```

```
FROM Data_505C_Final a
```

```
Wherea.do is not null
```

```
anda.LocationID is not null
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

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

```
-- Insert data
```

```
SET @Total Rows = 0
```

```
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)
```

```
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime),
a.DEPTH, 'm', NULL, dbo.udf_convert_units('%', '%', a.dosat), NULL, GETDATE()
```

```
FROM Data_505C_Final a
```

```
Wherea.dosat is not null
```

```
anda.LocationID is not null
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

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

```
-- Insert data
```

```
SET @Total Rows = 0
```

```
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)
```

```
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime),
a.DEPTH, 'm', NULL, dbo.udf_convert_units('NTU', 'NTU', a.turb), NULL, GETDATE()
```

```
FROM Data_505C_Final a
```

```
WhereNULLIF(a.turb,'NA') is not null
```

```
anda.LocationID is not null
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

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

```
/*
```

```
SELECT *  
FROM Combined_WQ_WC_NUT
```

```
SELECT *  
FROM Data_505C_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 = 505
```

```
SELECT *  
FROM Combined_Data_tracking  
where programid = 505
```

```
ÿ  
exec usp_delete_combined 1342, 'Combined_WQ_WC_NUT'  
*/
```

```
END
```

```
GO
```

```

SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_Data_505A_Load_insert]
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON

INSERT INTO [Data_505A_Final] (Id, era, stn, date, time, layer, Parameter, Result_Value)
SELECT Id, era, stn, CAST([date] as date), CASE WHEN [Time] = 'NA' THEN '00:00:00.0000000' ELSE
CAST([time] as time) END, layer, Parameter, CASE WHEN Result = 'NA' THEN NULL WHEN Result LIKE '%
convert(numeric(25, 8),convert(real, Result)) ELSE Result END
FROM (
SELECT Id, era, stn, date, time, layer, Parameter, Result
FROM (
SELECT Id, era, stn, date, time, layer, depth, temp, sal, sigt, do, dosat, fchl, atten, par, par_pi,
turb, fdom, ph
FROM Data_505A_Load a
) a
UNPIVOT
(
Result FOR [Parameter] IN (depth, temp, sal, sigt, do, dosat, fchl, atten, par, par_pi, turb, fdom)
) b
)xx

UPDATE [Data_505A_Final]
SET datetimestamp = cast(date as datetime) + cast(time as datetime)

-- SET EventID on [Data_505A_Final]
SELECT stn, datetimestamp, Id
INTO #activities
FROM [Data_505A_Final]
GROUP BY stn, datetimestamp, Id

ALTER TABLE #activities ADD EventID uniqueidentifier

UPDATE #activities SET EventID = NEWID()

UPDATE cd
SET cd.EventID = a.EventID
FROM [Data_505A_Final] cd
INNER JOIN #activities a ON cd.stn = a.stn
AND cd.datetimestamp = a.DateTimeStamp
AND cd.Id = a.Id

-- INSERT into Data_505A_Final_depths
TRUNCATE TABLE [Data_505A_Final_depths]

-- This is ONLY Activity Depth
INSERT INTO [Data_505A_Final_depths] (EventID, Depth)
SELECT DISTINCT a.EventID, a.Result_Value
FROM [Data_505A_Final] a
WHERE a.Parameter = 'depth'

END

GO

```

```

SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_Data_505B_Load_insert]
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON

INSERT INTO Data_505B_Final (Id, era, stn, date, time, lat, long, Parameter, Result_Value)
SELECT Id, era, stn, CAST([date] as date), CASE WHEN [Time] = 'NA' THEN '00:00:00.0000000' ELSE
CAST([time] as time) END, lat, long, Parameter, CASE WHEN Result = 'NA' THEN NULL WHEN Result LIKE
THEN convert(numeric(25, 8),convert(real, Result)) ELSE Result END
FROM (
SELECT Id, era, survey, stn, date, time, lat, long, Parameter, Result
FROM (
SELECT Id, era, survey, stn, date, time, lat, long, tdepth, secchi, kd, kds
FROM Data_505B_Load a
) a
UNPIVOT
(
Result FOR [Parameter] IN (tdepth, secchi, kd, kds)
) b
)xx

UPDATE Data_505B_Final
SET DateTimeStamp = cast(date as datetime) + cast(time as datetime)
ÿ
-- SET EventID on [Data_505A_Final]
SELECT stn, DateTimeStamp, Id
INTO #activities
FROM Data_505B_Final
GROUP BY stn, datetimestamp, Id

ALTER TABLE #activities ADD EventID uniqueidentifier

UPDATE #activities SET EventID = NEWID()

UPDATE cd
SET cd.EventID = a.EventID
FROM Data_505B_Final cd
INNER JOIN #activities a ON cd.stn = a.stn
AND cd.DateTimeStamp = a.DateTimeStamp
AND cd.Id = a.Id

-- INSERT into Data_505A_Final_depths
TRUNCATE TABLE [Data_505B_Final_depths]

-- This is ONLY Activity Depth
INSERT INTO [Data_505B_Final_depths] (EventID, Depth)
SELECT DISTINCT a.EventID, a.Result_Value
FROM Data_505B_Final a
WHERE a.Parameter = 'tdepth'

END

GO

```

```

SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC usp_Data_505C_Load_insert
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON

INSERT INTO [dbo].[Data_505C_Final]
    ([Id], [era], [stn], [date], [time], [layer], [chl a], [chl a5], [chl a20], [pc], [pn], [tss], [vss], [tdn]
    , [tdp], [tn], [tp], [nox], [no2], [nh4], [po4], [si], [doc_mgl], [depth], [temp], [sal], [sigt], [do]
    , [dosat], [fchl], [atten], [par], [par_pi], [doc_µm], [tdn_µm], [turb], [fdom], [pc_mgl], [pn_mgl], [ph])
SELECT
    [Id], [era], [stn], [date], [time], [layer], [chl a], [chl a5], [chl a20], [pc], [pn], [tss], [vss], [tdn], [tdp]
    , [tn], [tp], [nox], [no2], [nh4], [po4], [si], [doc_mgl], [depth], [temp], [sal], [sigt], [do], [dosat], [fchl]
    , [atten], [par], [par_pi], [doc_µm], [tdn_µm], [turb], [fdom], [pc_mgl], [pn_mgl], [ph]
FROM [dbo].[Data_505C_Load]

END
GO

```