



**REPORT OF ANALYSIS**

Printed 02/09/2017

Hydrogeologist  
Palm Beach Solid Waste Authority  
7501 N. Jog Rd.  
West Palm Beach, FL 33412

Pace Project Number: 35290518  
Report Period: 2017/Q1

Client Project ID: Central Transfer Station Surfa

RECEIVED

JUL 11 2017

**Lab Sample ID**

**Client Sample ID**

35290518001  
35290518002  
35290518003

CTSESE BLANK 012417  
CTSW-1  
METALS TRIP BLANK 012417

Sincerely,

A handwritten signature in cursive script that reads "Martha Montero".

Martha Montero

**Florida Certifications:**

E83079 - Ormond Beach  
E86240 - South Florida  
E87627 - Charlotte



## CASE NARRATIVE SUMMARY

**Client Name:**Palm Beach Solid Waste Authority  
**Project Name:**Central Transfer Station Surfa

Pace Project Number:35290518

Date Received:01/24/2017

Report Date:02/09/2017

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J(M1):Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

**Pace Analytical Services, Inc.**

Project Name : Central Transfer Station Surfa  
 Diameter (in) :  
 Depth to Water (ft) :  
 Total Depth (ft) :  
 Top of Casing (ft) :

Order # : 35290518001  
 Sheen : No sheen  
 Color : Clear  
 Odor : No odor  
 Matrix : DI Water

**PARAMETER MONITORING REPORT**

Part III Analytical Results

Facility WACS ID : PBCC01  
 Test Site ID # : NA  
 Well Name : CTSESE BLANK 012417  
 Classification of Ground Water : Equipment Blank  
 Groundwater Elevation (NGVD) : \_\_\_\_\_

Sampling Date/Time : 01/24/2017 12:12  
 Report Period : 2017/Q1  
 Well Purge (Y/N) : NA  
 Well Type : ( ) Background ( ) Compliance  
 ( ) Intermediat ( X ) Other

Storet Code	Parameter Monitored	Sampling Method	Field Filter	Analysis Method	Analysis Date/Time	Analysis Results/Units	Detection Limits/Units		Dilution Factor
							MDL	PQL	

**FIELD PARAMETERS**

000537	Field Specific Conductance	Grab	N		01/24/2017 12:12	5.1 umhos/cm			umhos/cm	1
000010	Field Temperature	Grab	N		01/24/2017 12:12	21.5 deg C			deg C	1
000664	Field pH	Grab	N		01/24/2017 12:12	6.67 Std. Units			Std. Units	1
082078	Turbidity	Grab	N		01/24/2017 12:12	0.42 NTU			NTU	1

**OTHER**

000593	Chloride	Grab	N	EPA 300.0	01/26/2017 04:08	<2.5 mg/L	2.5	5.0	mg/L	1
000945	Sulfate	Grab	N	EPA 300.0	01/26/2017 04:08	<2.5 mg/L	2.5	5.0	mg/L	1
000599	Nitrogen, Ammonia	Grab	N	EPA 350.1	01/27/2017 16:05	<0.020 mg/L	0.020	0.050	mg/L	1
000601	Nitrogen, Kjeldahl, Total	Grab	N	EPA 351.2	01/27/2017 15:50	<0.086 mg/L	0.086	0.50	mg/L	1
000620	Nitrogen, Nitrate	Grab	N	EPA 353.2	01/25/2017 09:28	<0.020 mg/L	0.020	0.040	mg/L	1
000340	Chemical Oxygen Demand	Grab	N	EPA 410.4	02/03/2017 17:14	<12.5 mg/L	12.5	20.0	mg/L	1
000410	Alkalinity, Total as CaCO3	Grab	N	SM 2320B	01/30/2017 22:15	<5.0 mg/L	5.0	5.0	mg/L	1
000515	Total Dissolved Solids	Grab	N	SM 2540C	01/27/2017 17:42	<5.0 mg/L	5.0	5.0	mg/L	1
038260	MBAS, Calculated as LAS	Grab	N	SM 5540C	01/26/2017 10:27	<0.099 mg/L	0.099	0.20	mg/L	1

**INORGANICS**

001002	Arsenic	Grab	N	EPA 6010	02/01/2017 06:07	<5.0 ug/L	5.0	10.0	ug/L	1
001007	Barium	Grab	N	EPA 6010	02/01/2017 06:07	<5.0 ug/L	5.0	10.0	ug/L	1
001034	Chromium	Grab	N	EPA 6010	02/01/2017 06:07	<2.5 ug/L	2.5	5.0	ug/L	1
001045	Iron	Grab	N	EPA 6010	02/01/2017 06:07	<20.0 ug/L	20.0	40.0	ug/L	1
000929	Sodium	Grab	N	EPA 6010	02/01/2017 06:07	<0.50 mg/L	0.50	1.0	mg/L	1
001027	Cadmium	Grab	N	EPA 6020	02/01/2017 12:17	<0.050 ug/L	0.050	0.10	ug/L	1
001042	Copper	Grab	N	EPA 6020	02/01/2017 12:17	<0.93 ug/L	0.93	1.0	ug/L	1
000572	Lead	Grab	N	EPA 6020	02/01/2017 12:17	<0.50 ug/L	0.50	1.0	ug/L	1
001147	Selenium	Grab	N	EPA 6020	02/01/2017 12:17	<0.50 ug/L	0.50	1.0	ug/L	1
000576	Mercury	Grab	N	EPA 7470	02/01/2017 09:43	<0.10 ug/L	0.10	0.20	ug/L	1

**ORGANICS**

	Oil and Grease	Grab	N	EPA 1664B	01/31/2017 07:13	<1.1 mg/L	1.1	5.0	mg/L	1
	Petroleum Range Organics	Grab	N	FL-PRO	01/26/2017 16:26	<0.060 mg/L	0.060	0.10	mg/L	1

**Pace Analytical Services, Inc.**

Project Name : Central Transfer Station Surfa  
 Diameter (in) :  
 Depth to Water (ft) :  
 Total Depth (ft) :  
 Top of Casing (ft) :

Order # : 35290518002  
 Sheen : No sheen  
 Color : Very light yellow  
 Odor : No Odor  
 Matrix : Surface Water

**PARAMETER MONITORING REPORT**

**Part III Analytical Results**

Facility WACS ID : PBCC01  
 Test Site ID # : PBCC09  
 Well Name : CTSW-1  
 Classification of Ground Water : SW-III F  
 Groundwater Elevation (NGVD) : \_\_\_\_\_

Sampling Date/Time : 01/24/2017 12:30  
 Report Period : 2017/Q1  
 Well Purge (Y/N) : N  
 Well Type : ( ) Background ( ) Compliance  
 ( ) Intermediat ( X ) Other

Storet Code	Parameter Monitored	Sampling Method	Field Filter	Analysis Method	Analysis Date/Time	Analysis Results/Units	Detection Limits/Units		Dilution Factor
							MDL	PQL	

**FIELD PARAMETERS**

000537	Field Specific Conductance	Grab	N		01/24/2017 12:30	291 umhos/cm			umhos/cm	1
000010	Field Temperature	Grab	N		01/24/2017 12:30	23.8 deg C			deg C	1
000664	Field pH	Grab	N		01/24/2017 12:30	7.07 Std. Units			Std. Units	1
082078	Turbidity	Grab	N		01/24/2017 12:30	1.02 NTU			NTU	1

**OTHER**

000593	Chloride	Grab	N	EPA 300.0	01/26/2017 05:15	24.3 mg/L	2.5	5.0	mg/L	1
000945	Sulfate	Grab	N	EPA 300.0	01/26/2017 05:15	19.5 mg/L	2.5	5.0	mg/L	1
000599	Nitrogen, Ammonia	Grab	N	EPA 350.1	01/27/2017 16:07	<0.020 mg/L	0.020	0.050	mg/L	1
000601	Nitrogen, Kjeldahl, Total	Grab	N	EPA 351.2	01/27/2017 15:52	0.52 mg/L	0.086	0.50	mg/L	1
000620	Nitrogen, Nitrate	Grab	N	EPA 353.2	01/25/2017 09:29	<0.020 mg/L	0.020	0.040	mg/L	1
000340	Chemical Oxygen Demand	Grab	N	EPA 410.4	02/03/2017 17:14	28.2 mg/L	12.5	20.0	mg/L	1
000410	Alkalinity, Total as CaCO3	Grab	N	SM 2320B	01/30/2017 22:20	90.4 mg/L	5.0	5.0	mg/L	1
000515	Total Dissolved Solids	Grab	N	SM 2540C	01/27/2017 17:42	188 mg/L	5.0	5.0	mg/L	1
038260	MBAS, Calculated as LAS	Grab	N	SM 5540C	01/26/2017 10:27	<0.099 mg/L	0.099	0.20	mg/L	1

**INORGANICS**

001002	Arsenic	Grab	N	EPA 6010	02/01/2017 06:26	<5.0 ug/L	5.0	10.0	ug/L	1
001007	Barium	Grab	N	EPA 6010	02/01/2017 06:26	6.0 ug/L	5.0	10.0	ug/L	1
001034	Chromium	Grab	N	EPA 6010	02/01/2017 06:26	<2.5 ug/L	2.5	5.0	ug/L	1
001045	Iron	Grab	N	EPA 6010	02/01/2017 06:26	<20.0 ug/L	20.0	40.0	ug/L	1
000929	Sodium	Grab	N	EPA 6010	02/01/2017 06:26	19.6 mg/L	0.50	1.0	mg/L	1
001027	Cadmium	Grab	N	EPA 6020	02/01/2017 12:20	<0.050J(M1) ug/L	0.050	0.10	ug/L	1
001042	Copper	Grab	N	EPA 6020	02/01/2017 12:20	<0.93J(M1) ug/L	0.93	1.0	ug/L	1
000572	Lead	Grab	N	EPA 6020	02/01/2017 12:20	<0.50J(M1) ug/L	0.50	1.0	ug/L	1
001147	Selenium	Grab	N	EPA 6020	02/01/2017 12:20	<0.50J(M1) ug/L	0.50	1.0	ug/L	1
000576	Mercury	Grab	N	EPA 7470	02/01/2017 07:35	<0.10 ug/L	0.10	0.20	ug/L	1

**ORGANICS**

	Oil and Grease	Grab	N	EPA 1664B	01/31/2017 07:13	<1.1 mg/L	1.1	5.0	mg/L	1
	Petroleum Range Organics	Grab	N	FL-PRO	01/26/2017 16:57	<0.060 mg/L	0.060	0.10	mg/L	1

**Pace Analytical Services, Inc.**

Project Name : Central Transfer Station Surfa  
 Diameter (in) :  
 Depth to Water (ft) :  
 Total Depth (ft) :  
 Top of Casing (ft) :

Order # : 35290518003  
 Sheen : No Sheen  
 Color : Clear  
 Odor : No Odor  
 Matrix : DI Water

**PARAMETER MONITORING REPORT**

Part III Analytical Results

Facility WACS ID : PBCC01  
 Test Site ID # : CTSSEB-  
 Well Name : METALS TRIP BLANK 012417  
 Classification of Ground Water : Equipment Blank  
 Groundwater Elevation (NGVD) : \_\_\_\_\_

Sampling Date/Time : 01/24/2017 00:00  
 Report Period : 2017/Q1  
 Well Purge (Y/N) : N  
 Well Type : ( ) Background ( ) Compliance  
 ( ) Intermediat ( X ) Other

Storet Code	Parameter Monitored	Sampling Method	Field Filter	Analysis Method	Analysis Date/Time	Analysis Results/Units	Detection Limits/Units		Dilution Factor
							MDL	PQL	

**INORGANICS**

001002	Arsenic	Grab	N	EPA 6010	02/01/2017 06:39	<5.0 ug/L	5.0	10.0	ug/L	1
001007	Barium	Grab	N	EPA 6010	02/01/2017 06:39	<5.0 ug/L	5.0	10.0	ug/L	1
001034	Chromium	Grab	N	EPA 6010	02/01/2017 06:39	<2.5 ug/L	2.5	5.0	ug/L	1
001045	Iron	Grab	N	EPA 6010	02/01/2017 06:39	<20.0 ug/L	20.0	40.0	ug/L	1
000929	Sodium	Grab	N	EPA 6010	02/01/2017 06:39	<0.50 mg/L	0.50	1.0	mg/L	1
001027	Cadmium	Grab	N	EPA 6020	02/01/2017 12:34	<0.050 ug/L	0.050	0.10	ug/L	1
001042	Copper	Grab	N	EPA 6020	02/01/2017 12:34	<0.93 ug/L	0.93	1.0	ug/L	1
000572	Lead	Grab	N	EPA 6020	02/01/2017 12:34	<0.50 ug/L	0.50	1.0	ug/L	1
001147	Selenium	Grab	N	EPA 6020	02/01/2017 12:34	<0.50 ug/L	0.50	1.0	ug/L	1
000576	Mercury	Grab	N	EPA 7470	02/01/2017 07:46	<0.10 ug/L	0.10	0.20	ug/L	1

CUSTODY RECORD

**SEARCHED** \_\_\_\_\_ **SERIALIZED** \_\_\_\_\_ **INDEXED** \_\_\_\_\_ **FILED** \_\_\_\_\_  
**LABORATORY** \_\_\_\_\_ **DATE** \_\_\_\_\_

**ITEM NO.** \_\_\_\_\_ **DESCRIPTION** \_\_\_\_\_ **DATE** \_\_\_\_\_ **TIME** \_\_\_\_\_

**SEARCHED** \_\_\_\_\_ **SERIALIZED** \_\_\_\_\_ **INDEXED** \_\_\_\_\_ **FILED** \_\_\_\_\_

**LABORATORY** \_\_\_\_\_ **DATE** \_\_\_\_\_

**SEARCHED** \_\_\_\_\_ **SERIALIZED** \_\_\_\_\_ **INDEXED** \_\_\_\_\_ **FILED** \_\_\_\_\_

**LABORATORY** \_\_\_\_\_ **DATE** \_\_\_\_\_

**SEARCHED** \_\_\_\_\_ **SERIALIZED** \_\_\_\_\_ **INDEXED** \_\_\_\_\_ **FILED** \_\_\_\_\_

**LABORATORY** \_\_\_\_\_ **DATE** \_\_\_\_\_

**SEARCHED** \_\_\_\_\_ **SERIALIZED** \_\_\_\_\_ **INDEXED** \_\_\_\_\_ **FILED** \_\_\_\_\_

**LABORATORY** \_\_\_\_\_ **DATE** \_\_\_\_\_

FBI - MEMPHIS  
 300 NORTH MAIN STREET  
 MEMPHIS, TN 38102  
 TEL: 901-527-2200  
 FAX: 901-527-3200  
 INTERNET: WWW.FBI-MEMPHIS.GOV

LABORATORY  
 500 TAYLOR STREET  
 MEMPHIS, TN 38103  
 TEL: 901-527-2200  
 FAX: 901-527-3200

LABORATORY  
 500 TAYLOR STREET  
 MEMPHIS, TN 38103  
 TEL: 901-527-2200  
 FAX: 901-527-3200

LABORATORY  
 500 TAYLOR STREET  
 MEMPHIS, TN 38103  
 TEL: 901-527-2200  
 FAX: 901-527-3200

FBI - MEMPHIS  
 300 NORTH MAIN STREET  
 MEMPHIS, TN 38102  
 TEL: 901-527-2200  
 FAX: 901-527-3200  
 INTERNET: WWW.FBI-MEMPHIS.GOV

FBI - MEMPHIS  
 300 NORTH MAIN STREET  
 MEMPHIS, TN 38102  
 TEL: 901-527-2200  
 FAX: 901-527-3200  
 INTERNET: WWW.FBI-MEMPHIS.GOV

FBI - MEMPHIS  
 300 NORTH MAIN STREET  
 MEMPHIS, TN 38102  
 TEL: 901-527-2200  
 FAX: 901-527-3200  
 INTERNET: WWW.FBI-MEMPHIS.GOV

**SOLID WASTE AUTHORITY  
DIVISION OF ENVIRONMENTAL PROGRAMS  
EQUIPMENT BLANK DATA SHEET**

Facility/Identification: Central County Transfer Station Facility GMS#

Sample Type: Grab

Sample Name: CTSSEBLANK Date: 1-24-17  
012417 Time: 12:12

Equipment blanks are collected before sampling.  
DI water supplied  
by the Laboratory is poured into the pre-cleaned equipment  
and then poured into the sample bottles.  
This process is repeated until all sampling bottles are filled.

Notes and Comments:

Weather: Sunny  
windy cool  
Conductivity on scale X-5  
PH 8.2 in preserved

Field Parameters	Units	Standard Appearance
Temperature:	<u>21.5</u> °C	Color: <u>clear</u>
Specific Cond:	<u>5.1</u> uMhos/cm	odor: <u>NO odor</u>
Redox Potential		<u>NO odor</u>
PH:	<u>6.67</u> Std. Units	<u>NO odor</u>
Turb:	<u>0.42</u> NTU	
D.O.:	Mg/L	

Place DI water  
Lot # 011017  
4/21  
Buckoff AF  
Baskoff AF M

Quantity: 1 Size: 200ml Type: Plastic Sample Container Inventory: 1000 Preservation: None Analyte: None

Sampled By: Brenda Jany  
Mansel

Method of Sampling: Grab

**SOLID WASTE AUTHORITY  
DIVISION OF ENVIRONMENTAL PROGRAMS  
SURFACE SITE DATA SHEET**

Facility Identification: Central County Transfer Station

Sample Type: Grab

Sample Name: **OTSW-1** Date: **1-24-17**  
 WACS Facility ID: PBCC01 Time: **12:30**  
 WACS Test Site ID: PBCG09

Depth of Sample: **4-6"** Notes and Comments  
 Description: **Adjacent to storm water structure in pond** Weather: **Sunny**  
**Sta #1 Gauge N = out at water (6.10)** **Windy**  
**Staff gauge S = 6.56** **Good**  
**meter 126097** Conductivity on scale X US  
 PH: **8.2** Inpreservative

Field Parameters	Units	Standard Appearance
Temperature	<b>28.8</b> °C	Color: <b>very light</b>
Specific Cond.	µMHO/cm	<b>yellow</b>
Specific Cond./ATC	µMHO/cm	Odor: <b>NO odor</b>
PH	Std. Units	<b>No smell</b>
Turb.	NTU	Bucket# <b>5</b>
D.O.	Mg/L	Beaker# <b>M</b>

Sample Container Inventory  
 Quantity Size Type Preservation Analysis

Sampled By: **Brenda Davary**  
**Alcar** Method of Shipment: **Parcel**



**Project Manager**  
 **Client**

Thermocouple Used: 7-2  
 Sample shorts to 150 Ohm:  No  Yes  
 Checked Date: 01/17/02 Time: 10:00  
 Corrosion Factor: 1.0 (Actual)  (Nominal)  
 Corrosion Factor: 1.0 (Actual)  (Nominal)  
 Corrosion Factor: 1.0 (Actual)  (Nominal)  
 Corrosion Factor: 1.0 (Actual)  (Nominal)  
 Corrosion Factor: 1.0 (Actual)  (Nominal)

Category of use on Corrosion Product:  Yes  No  
 Reason for use:  Substrate  None  Other

Criteria	Yes	No	ENVA
Order of Corrosion Product	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chain of Corrosion Product	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Redundant Signature & Sample No.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample Affected Within Hold Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample TAT Documented on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample Used	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control Corrosion Used	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control Corrosion Used	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample Label match COC Sample No. & Corrosion Product	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All operators receiving work are properly trained	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All operators receiving work are properly trained	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All operators receiving work are properly trained	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Head of QA Unit (ENVA)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAT Label Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Submit Request for Resolution  
 Person Contacted: \_\_\_\_\_ Date/TIME: \_\_\_\_\_  
 Comment Resolution (use back for additional comments): \_\_\_\_\_  
 Project Manager Review \_\_\_\_\_ Date: \_\_\_\_\_