

# **Sample collection in Warm Mineral Springs**

**By**

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On November 29, 2012 a group composed of members of Natural Systems and Integrated Water Resources went to Warm Mineral Springs to collect water samples for analysis of Phthalates.

The following samples were collected:

8:35 First sample was collected at a depth of 12 inches.

8:40 Second sample or mid depth was collected at a depth of 20 feet (Figure 1)

8:45 Third sample or bottom depth was collected at a depth of 45 feet.

8:45 Fourth sample was collected from the sediments surrounding the “liner”

8:45 A Fifth sample was collected by cutting a piece of the plastic liner at a depth of 45 feet.



Figure 1: Samples collected at the 20 feet mark

Field data was obtained at the “outfall” just before a rock outcropping and about 18 inches from the shoreline on the South side of the outfall, at 6 inches from the surface.

The readings were collected with a YSI 1650MDS, serial number 08G100143 which was previously calibrated according to the Department of Environmental Protection, Standard Operating Procedures for field sampling 01/001. (Attachments 1 and 2)

The water temperature was 28.46 C

Specific conductance was 29.663 (mmhos/cm)

Salinity was 18.28 (ppt) or parts per thousand

Dissolved Oxygen was 3.2% saturation or 0.23 mg/l

pH was 7.05 units.

2 divers performed the collection, one of them collected the samples while the other was photo-documenting the process.

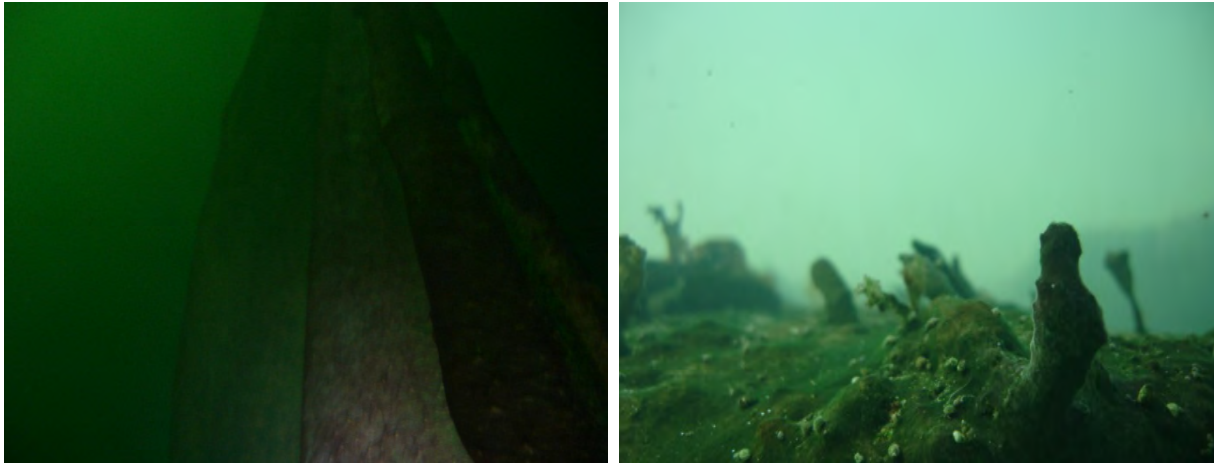
For further reference the video collected of this trip is stored on the following computer path:  
I:\EnvSBC\WaterCore\Planning & Regulatory\ENVIRONMENTAL\WATER QUALITY PLANNING\Warm Mineral & Little Salt Springs\WMS Photos\Warm Mineral Springs Dive 11.29.12\Produced Video

**Observations:**

The visibility close to the surface was fair at around 10 feet.

After the 20 foot mark, the visibility increased to 30 feet.

At the 45 foot ledge of the system the ridge was covered with a reddish pink film, biological in origin, (Fig 2 and 3) which makes it appear like the bottom is covered with a blackish tarp (Figs 4 and 5). The substrate underneath the pink film was mucky with some sand.



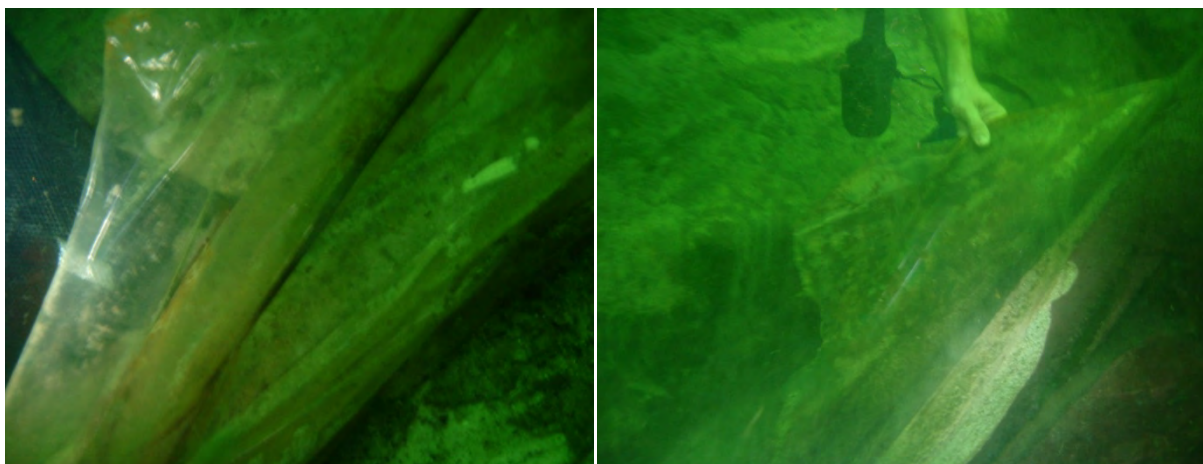
**Figures 2 & 3: Photographs showing bio-film on top of the liner and bio-film close up.**



**Figures 4 & 5: Photographs showing the “bio-film” covering all surfaces at 45 feet**

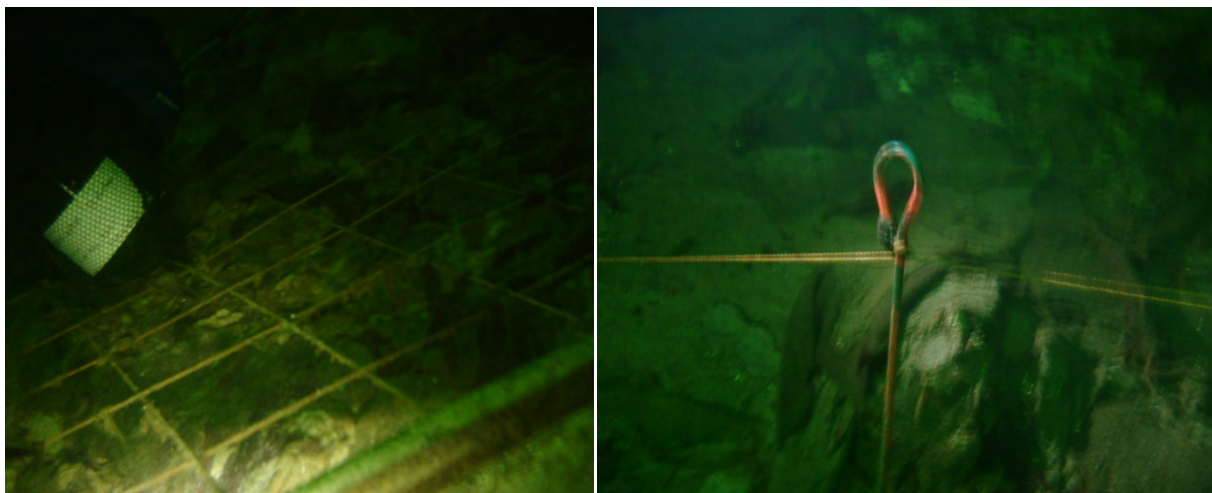
A heavy mill plastic cover is on this ledge. The area of coverage was around 5 to 10% of the whole area, this was covering the “fossil deposits”, and was surrounded by rock outcroppings that were not covered by any sheeting.

The liner was uniform in color, translucent and appeared to be in good condition, only one area close to the edge was fragmented, the depth of the liner varied from being totally exposed to buried up to a foot of sediment. One section seemed to be “bunched up and localized”; one section of the liner had a float attached (Figures 6 & 7).



Figures 6 & 7: Photographs showing the folded translucent plastic liner and where the fifth sample was collected.

Upon further reconnaissance we found surveying quadrates and archeological grid with nylon rope held down with guide spikes, (Figures 8 and 9) survey flags with numbers written on them. Diverse debris surrounding the area, such as random rebar stakes, a 55 gallon drum which had a hole in it (with no visible signs of chemical leakage) and random bits of debris associated with public use.



Figures 8 & 9: Photographs showing quadrates and guide spikes.

Out of the five samples collected, four samples were requested to be analyzed; three samples are a water matrix and one sample is a sediment matrix. The fifth sample (plastic liner) is kept for reference and possible further analysis.

All the samples will be analyzed by PACE Analytical in Ormond Beach for the following compounds using Method 8270 for semi-volatile compounds:

Butyl-benzyl-phthalate

Di-ethyl-phthalate

Di-methyl-phthalate

Di-n-butyl-phthalate

Di-n-Octyl-phthalate

Bis-(2 ethylhexyl)-phthalate

These compounds are used in the plastic industry and have possible adversary health effects.

Samples were received by PACE Analytical on 11/30/12 at 2:45 and the analysis was carried out on the same date at 13:01, with sample designated as 3575729001 through 4. The verbal results were followed by report number 3575729. (Attachment 3 in a separate document WM 11/29/12)

All Quality control data is within acceptable levels

The results are as follows:

The numbers posted on the first three columns give the maximum allowable concentrations on Drinking water, Cleanup target levels for Ground water and Freshwater.

Compound	Drinking Water Regulatory 62-550 µg/l	Ground Water Cleanup Target levels 62-777 µg/l	Freshwater Cleanup Target levels 62-777 µg/l	Water Results in µg/l at 1 ft	Water Results in µg/l at 20 ft	Water Results in µg/l at 45 ft	*Sediment Results in µg/kg At 45 ft
Butyl-benzyl-phthalate	None	140	26	0.72 U	0.73 U	0.67 U	78.7 U
Di-ethyl-phthalate	None	5600	380	0.51 U	0.51 U	0.48 U	96.5 U
Di-methyl-phthalate	None	70000	1400	0.64 U	0.64 U	0.60 U	73.8 U
Di-n-butyl-phthalate	None	700	23	0.41 U	0.41 U	0.38 U	89.4 U
Di-n-octyl-phthalate	None	140	NA	0.90 U	0.91 U	0.84 U	71.7 U
Bis-(2 ethylhexyl)-phthalate	6	NA	2.2	0.80 U	0.81 U	0.75 U	102 U

- U means undetected in sample.

For the NPDES surface water, potable water supply, and freshwater regulation the maximum allowable amount for total phthalates is less than 3 µg/l.

Attachment 1: Field data log

Warm Mineral Springs  
Field Log

Warm Mineral Springs

Date (mm/dd/yy): 11/29/2012 Time (hhmm, EST) 0835  
 Sampler Names: HBryen Agency: Sarasota County Water Resources  
 Sample ID: \_\_\_\_\_ Series No: \_\_\_\_\_  
 Waterbody: Warm Mineral Springs  
 Location: 12200 San Servando Avenue, North Port, FL 34287  
 Latitude (xx.xxxxx): \_\_\_\_\_ Longitude (xx.xxxxx): \_\_\_\_\_  
 Current Weather: in 25<sup>th</sup> Clear Partly Cloudy Mostly Cloudy Rain Fog Haze  
 % Cloud Cover: 5% Wind Speed (mph): 45 Wind Direction (Deg.): \_\_\_\_\_  
 Water Description:  
 Odor: Sulfur Clarity: Very clear Color: colorless  
 Geological Observations: \_\_\_\_\_

Other Observations: Field data obtained at outfall just before rocks about 18 inches from shore on South side of outfall

Meter: YSI650MDS Serial No: 04J15525AA 08G100143  
 Sonde: RB00XLM Serial No: 04J15429AB 04J15429AC DO Air Cal.

Meter Readings	WMS-1
Time (DST)	<u>937 DST 837 EST</u>
Water Temperature °C:	<u>28.46</u>
Specific Conductance (mmhos/cm - corrected for temp.)	<u>29.663</u>
Salinity (ppt)	<u><del>2.65</del> 18.28</u>
DO Saturation (%):	<u>3.2</u>
Dissolved Oxygen (mg/L)	<u>0.23</u>
Meter Depth (in.)	<u>0.430 ft</u>
pH	<u>7.05</u>
Secchi Depth (m.)	<u>clear to bottom</u>

Provide Temperature and Conductivity to the Laboratory

**Pace Analytical**  
 8 East Tower Circle  
 Ormond Beach, FL 32174  
 (386)672-3668 • FAX (386)671-1001

**CHAIN OF CUSTODY RECORD**

No. E

<b>FOR LAB USE ONLY</b> Condition of Contents: _____ Temp. of Contents: _____ °C (or Received in Ice, K101)      Condition of Seals: _____			<b>FOR LAB USE ONLY</b> Submission No. _____																					
						1. Client: (Company or Individual) Sarasota County Environmental Services			18. Report Type: <input checked="" type="checkbox"/> Routine <input checked="" type="checkbox"/> With QC															
2. Report for (person from report) Cesar Rodriguez			Address: _____ City _____ State _____ Zip Code _____			19. Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush: / /																		
3. Client Project Name Warm Mineral Springs			Water Sample Code(s): Code(s) for (item 16): DW = Drinking Water      V = Volatile GW = Ground Water      G = Glass SW = Surface Water      P = Plastic FW = Freshwater      M = metal bag/cup WW = Waste Water      O = other			14. 15. <table border="1"> <tr> <td>Parameter</td> <td>C</td> <td>C</td> <td>C</td> <td>C</td> <td>C</td> <td>C</td> <td>C</td> </tr> <tr> <td>16. Contaminant</td> <td>G</td> <td>G</td> <td>G</td> <td>G</td> <td>G</td> <td>G</td> <td>G</td> </tr> </table>			Parameter	C	C	C	C	C	C	C	16. Contaminant	G	G	G	G	G	G	G
Parameter	C	C	C	C	C	C	C																	
16. Contaminant	G	G	G	G	G	G	G																	
4. Client Project No. S.F.O. No. 6. Custody Seal No.: _____ 7. Sampled by: CR / RJ 8. Shipping Method: courier			9. Sample ID or No. 10. Sample Description 11. Date 12. Time 13. <table border="1"> <tr> <td>Cont.</td> <td>Partic.</td> <td>Water</td> <td>Air</td> <td>Soil</td> <td>Sludge</td> <td>Other</td> </tr> <tr> <td>X</td> <td></td> <td>SW</td> <td></td> <td></td> <td>SED</td> <td></td> </tr> </table>			Cont.	Partic.	Water	Air	Soil	Sludge	Other	X		SW			SED		17. Analytes: 8270 Phthalates 8270 Phthalates 8270 Phthalates 8270 Phthalates 8270 Phthalates 8270 Phthalates				
Cont.	Partic.	Water	Air	Soil	Sludge	Other																		
X		SW			SED																			
21. RETRIEVED BY: <i>[Signature]</i> DATE: 1/29/12      TIME: 1322			22. RECEIVED BY: <i>[Signature]</i> DATE: 1/29/12      TIME: 1322			20. REMARK 8270 Phthalates  24 hr IAT																		
23. <b>FOR LAB USE ONLY</b> Sampling Fee: _____ etc. Equipment Rental Fee: _____			Profile No.: _____      Quote No.: _____																					

**DISTRIBUTION:** Original with report; copy as needed

Attachment 2: Analysis Chain of custody.

QUALITY  
ASSURED  
JW  
12/3/12

December 03, 2012

Mr. Cesar Rodriguez  
Sarasota County  
1255 T. Mabry Carlton Parkway  
Resource Management  
Venice, FL 34293

RE: Project: Warm Mineral Springs /  
Pace Project No.: 3575729

Dear Mr. Rodriguez:

Enclosed are the analytical results for sample(s) received by the laboratory on November 30, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Joe Vondrick

joe.vondrick@pacelabs.com  
Project Manager

Enclosures

cc: Ms. Heather Bryen, Sarasota County  
Finance Dept., Sarasota County  
Mr. Cesar Rodriguez, Sarasota County



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Warm Mineral Springs  
Pace Project No.: 3575729

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### Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174  
Alabama Certification #: 41320  
Arizona Certification #: AZ0735  
Colorado Certification: FL NELAC Reciprocity  
Connecticut Certification #: PH-0216  
Florida Certification #: E83079  
Georgia Certification #: 955  
Guam Certification: FL NELAC Reciprocity  
Hawaii Certification: FL NELAC Reciprocity  
Illinois Certification #: 200068  
Indiana Certification: FL NELAC Reciprocity  
Kansas Certification #: E-10383  
Kentucky Certification #: 90050  
Louisiana Certification #: FL NELAC Reciprocity  
Louisiana Environmental Certificate #: 05007  
Maine Certification #: FL01264  
Massachusetts Certification #: M-FL1264  
Michigan Certification #: 9911  
Mississippi Certification: FL NELAC Reciprocity  
Missouri Certification #: 236

Montana Certification #: Cert 0074  
Nevada Certification: FL NELAC Reciprocity  
New Hampshire Certification #: 2958  
New Jersey Certification #: FL765  
New York Certification #: 11608  
North Carolina Environmental Certificate #: 667  
North Carolina Certification #: 12710  
Pace Analytical Services - Ormond certification number  
E83509  
Pennsylvania Certification #: 68-00547  
Puerto Rico Certification #: FL01264  
Tennessee Certification #: TN02974  
Texas Certification: FL NELAC Reciprocity  
US Virgin Islands Certification: FL NELAC Reciprocity  
Virginia Environmental Certification #: 460165  
Washington Certification #: C955  
West Virginia Certification #: 9962C  
Wisconsin Certification #: 399079670  
Wyoming (EPA Region 8): FL NELAC Reciprocity

## REPORT OF LABORATORY ANALYSIS

Page 2 of 13

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### SAMPLE SUMMARY

Project: Warm Mineral Springs  
Pace Project No.: 3575729

Lab ID	Sample ID	Matrix	Date Collected	Date Received
3575729001	1 Foot Surface	Water	11/29/12 08:35	11/30/12 02:45
3575729002	20 Feet - Mid gw	Water	11/29/12 08:40	11/30/12 02:45
3575729003	45 Feet sediment ledge gw	Water	11/29/12 08:45	11/30/12 02:45
3575729004	45 Feet sediment ledge sed	Solid	11/29/12 08:45	11/30/12 02:45

### REPORT OF LABORATORY ANALYSIS

### SAMPLE ANALYTE COUNT

Project: Warm Mineral Springs  
Pace Project No.: 3575729

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3575729001	1 Foot Surface	EPA 8270	EAO	12	PASI-O
3575729002	20 Feet - Mid gw	EPA 8270	EAO	12	PASI-O
3575729003	45 Feet sediment ledge gw	EPA 8270	EAO	12	PASI-O
3575729004	45 Feet sediment ledge sed	EPA 8270	EAO	12	PASI-O
		ASTM D2974-87	PML	1	PASI-O

### REPORT OF LABORATORY ANALYSIS

### ANALYTICAL RESULTS

Project: Warm Mineral Springs  
Pace Project No.: 3575729

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Sample: 1 Foot Surface      Lab ID: 3575729001      Collected: 11/29/12 08:35      Received: 11/30/12 02:45      Matrix: Water

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Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b>									
Analytical Method: EPA 8270    Preparation Method: EPA 3510									
Butylbenzylphthalate	0.72U	ug/L	5.0	0.72	1	11/30/12 04:00	11/30/12 12:20	85-68-7	
Diethylphthalate	0.51U	ug/L	5.0	0.51	1	11/30/12 04:00	11/30/12 12:20	84-66-2	
Dimethylphthalate	0.64U	ug/L	5.0	0.64	1	11/30/12 04:00	11/30/12 12:20	131-11-3	
Di-n-butylphthalate	0.41U	ug/L	5.0	0.41	1	11/30/12 04:00	11/30/12 12:20	84-74-2	
Di-n-octylphthalate	0.90U	ug/L	5.0	0.90	1	11/30/12 04:00	11/30/12 12:20	117-84-0	
bis(2-Ethylhexyl)phthalate	0.80U	ug/L	5.0	0.80	1	11/30/12 04:00	11/30/12 12:20	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	66 %		10-110		1	11/30/12 04:00	11/30/12 12:20	4165-60-0	
2-Fluorobiphenyl (S)	77 %		18-110		1	11/30/12 04:00	11/30/12 12:20	321-60-8	
Terphenyl-d14 (S)	65 %		10-123		1	11/30/12 04:00	11/30/12 12:20	1718-51-0	
Phenol-d6 (S)	16 %		10-110		1	11/30/12 04:00	11/30/12 12:20	13127-88-3	
2-Fluorophenol (S)	21 %		18-110		1	11/30/12 04:00	11/30/12 12:20	367-12-4	
2,4,6-Tribromophenol (S)	91 %		10-110		1	11/30/12 04:00	11/30/12 12:20	118-79-6	

### ANALYTICAL RESULTS

Project: Warm Mineral Springs  
Pace Project No.: 3575729

Sample: 20 Feet - Mid gw      Lab ID: 3575729002      Collected: 11/29/12 08:40      Received: 11/30/12 02:45      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3510							
Butylbenzylphthalate	0.73U	ug/L	5.0	0.73	1	11/30/12 04:00	11/30/12 12:41	85-68-7	
Diethylphthalate	0.51U	ug/L	5.0	0.51	1	11/30/12 04:00	11/30/12 12:41	84-66-2	
Dimethylphthalate	0.64U	ug/L	5.0	0.64	1	11/30/12 04:00	11/30/12 12:41	131-11-3	
Di-n-butylphthalate	0.41U	ug/L	5.0	0.41	1	11/30/12 04:00	11/30/12 12:41	84-74-2	
Di-n-octylphthalate	0.91U	ug/L	5.0	0.91	1	11/30/12 04:00	11/30/12 12:41	117-84-0	
bis(2-Ethylhexyl)phthalate	0.81U	ug/L	5.0	0.81	1	11/30/12 04:00	11/30/12 12:41	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	70 %		10-110		1	11/30/12 04:00	11/30/12 12:41	4165-60-0	
2-Fluorobiphenyl (S)	81 %		18-110		1	11/30/12 04:00	11/30/12 12:41	321-60-8	
Terphenyl-d14 (S)	59 %		10-123		1	11/30/12 04:00	11/30/12 12:41	1718-51-0	
Phenol-d6 (S)	18 %		10-110		1	11/30/12 04:00	11/30/12 12:41	13127-88-3	
2-Fluorophenol (S)	26 %		18-110		1	11/30/12 04:00	11/30/12 12:41	367-12-4	
2,4,6-Tribromophenol (S)	92 %		10-110		1	11/30/12 04:00	11/30/12 12:41	118-79-6	

### ANALYTICAL RESULTS

Project: Warm Mineral Springs  
Pace Project No.: 3575729

Sample: 45 Feet sediment ledge gw Lab ID: 3575729003 Collected: 11/29/12 08:45 Received: 11/30/12 02:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b>		Analytical Method: EPA 8270 Preparation Method: EPA 3510							
Butylbenzylphthalate	0.67U	ug/L ✓	4.7	0.67	1 ✓	11/30/12 04:00	11/30/12 13:01	85-68-7	
Diethylphthalate	0.48U	ug/L ✓	4.7	0.48	1	11/30/12 04:00	11/30/12 13:01	84-66-2	
Dimethylphthalate	0.60U	ug/L ✓	4.7	0.60	1	11/30/12 04:00	11/30/12 13:01	131-11-3	
Di-n-butylphthalate	0.38U	ug/L ✓	4.7	0.38	1	11/30/12 04:00	11/30/12 13:01	84-74-2	
Di-n-octylphthalate	0.84U	ug/L ✓	4.7	0.84	1	11/30/12 04:00	11/30/12 13:01	117-84-0	
bis(2-Ethylhexyl)phthalate	0.75U	ug/L ✓	4.7	0.75	1	11/30/12 04:00	11/30/12 13:01	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	68 %		10-110		1	11/30/12 04:00	11/30/12 13:01	4165-60-0	
2-Fluorobiphenyl (S)	81 %		18-110		1	11/30/12 04:00	11/30/12 13:01	321-60-8	
Terphenyl-d14 (S)	72 %		10-123		1	11/30/12 04:00	11/30/12 13:01	1718-51-0	
Phenol-d6 (S)	26 %		10-110		1	11/30/12 04:00	11/30/12 13:01	13127-88-3	
2-Fluorophenol (S)	36 %		18-110		1	11/30/12 04:00	11/30/12 13:01	367-12-4	
2,4,6-Tribromophenol (S)	95 %		10-110		1	11/30/12 04:00	11/30/12 13:01	118-79-6	

### ANALYTICAL RESULTS

Project: Warm Mineral Springs  
Pace Project No.: 3575729

Sample: 45 Feet sediment ledge      Lab ID: 3575729004      Collected: 11/29/12 08:45      Received: 11/30/12 02:45      Matrix: Solid sed

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Full List Microwave</b>		Analytical Method: EPA 8270 Preparation Method: EPA 3546							
Butylbenzylphthalate	78.7U	ug/kg	701	78.7	1	11/30/12 00:00	11/30/12 14:01	85-68-7	
Diethylphthalate	96.5U	ug/kg	701	96.5	1	11/30/12 00:00	11/30/12 14:01	84-66-2	
Dimethylphthalate	73.8U	ug/kg	701	73.8	1	11/30/12 00:00	11/30/12 14:01	131-11-3	
Di-n-butylphthalate	89.4U	ug/kg	701	89.4	1	11/30/12 00:00	11/30/12 14:01	84-74-2	
Di-n-octylphthalate	71.7U	ug/kg	701	71.7	1	11/30/12 00:00	11/30/12 14:01	117-84-0	
bis(2-Ethylhexyl)phthalate	102U	ug/kg	701	102	1	11/30/12 00:00	11/30/12 14:01	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	53 %		10-110		1	11/30/12 00:00	11/30/12 14:01	4165-60-0	
2-Fluorobiphenyl (S)	63 %		18-110		1	11/30/12 00:00	11/30/12 14:01	321-60-8	
Terphenyl-d14 (S)	70 %		10-123		1	11/30/12 00:00	11/30/12 14:01	1718-51-0	
Phenol-d6 (S)	56 %		10-110		1	11/30/12 00:00	11/30/12 14:01	13127-88-3	
2-Fluorophenol (S)	52 %		18-110		1	11/30/12 00:00	11/30/12 14:01	367-12-4	
2,4,6-Tribromophenol (S)	79 %		10-110		1	11/30/12 00:00	11/30/12 14:01	118-79-6	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	29.3 %		0.10	0.10	1		12/03/12 09:49		

### QUALITY CONTROL DATA

Project: Warm Mineral Springs  
Pace Project No.: 3575729

QC Batch: OEXT/10783      Analysis Method: EPA 8270  
QC Batch Method: EPA 3546      Analysis Description: 8270 Solid MSSV Microwave  
Associated Lab Samples: 3575729004

METHOD BLANK: 517393      Matrix: Solid  
Associated Lab Samples: 3575729004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
bis(2-Ethylhexyl)phthalate	ug/kg	24.8U	170	11/30/12 13:21	
Butylbenzylphthalate	ug/kg	19.1U	170	11/30/12 13:21	
Di-n-butylphthalate	ug/kg	21.7U	170	11/30/12 13:21	
Di-n-octylphthalate	ug/kg	17.4U	170	11/30/12 13:21	
Diethylphthalate	ug/kg	23.4U	170	11/30/12 13:21	
Dimethylphthalate	ug/kg	17.9U	170	11/30/12 13:21	
2,4,6-Tribromophenol (S)	%	81	10-110	11/30/12 13:21	
2-Fluorobiphenyl (S)	%	73	18-110	11/30/12 13:21	
2-Fluorophenol (S)	%	65	18-110	11/30/12 13:21	
Nitrobenzene-d5 (S)	%	63	10-110	11/30/12 13:21	
Phenol-d6 (S)	%	69	10-110	11/30/12 13:21	
Terphenyl-d14 (S)	%	73	10-123	11/30/12 13:21	

LABORATORY CONTROL SAMPLE: 517394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1380	83	71-110	
Butylbenzylphthalate	ug/kg	1670	1360	82	72-110	
Di-n-butylphthalate	ug/kg	1670	1370	82	67-115	
Di-n-octylphthalate	ug/kg	1670	1460	88	71-110	
Diethylphthalate	ug/kg	1670	1410	85	65-112	
Dimethylphthalate	ug/kg	1670	1400	84	63-111	
2,4,6-Tribromophenol (S)	%			88	10-110	
2-Fluorobiphenyl (S)	%			73	18-110	
2-Fluorophenol (S)	%			64	18-110	
Nitrobenzene-d5 (S)	%			64	10-110	
Phenol-d6 (S)	%			70	10-110	
Terphenyl-d14 (S)	%			71	10-123	



**QUALITY CONTROL DATA**

Project: Warm Mineral Springs  
Pace Project No.: 3575729

QC Batch: OEXT/10769 Analysis Method: EPA 8270  
QC Batch Method: EPA 3510 Analysis Description: 8270 Water MSSV  
Associated Lab Samples: 3575729001, 3575729002, 3575729003

METHOD BLANK: 516615 Matrix: Water  
Associated Lab Samples: 3575729001, 3575729002, 3575729003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
bis(2-Ethylhexyl)phthalate	ug/L	1.3 I	5.0	11/30/12 11:20	
Butylbenzylphthalate	ug/L	0.72U	5.0	11/30/12 11:20	
Di-n-butylphthalate	ug/L	0.41U	5.0	11/30/12 11:20	
Di-n-octylphthalate	ug/L	0.90U	5.0	11/30/12 11:20	
Diethylphthalate	ug/L	0.51U	5.0	11/30/12 11:20	
Dimethylphthalate	ug/L	0.64U	5.0	11/30/12 11:20	
2,4,6-Tribromophenol (S)	%	92	10-110	11/30/12 11:20	
2-Fluorobiphenyl (S)	%	80	18-110	11/30/12 11:20	
2-Fluorophenol (S)	%	20	18-110	11/30/12 11:20	
Nitrobenzene-d5 (S)	%	70	10-110	11/30/12 11:20	
Phenol-d6 (S)	%	12	10-110	11/30/12 11:20	
Terphenyl-d14 (S)	%	73	10-123	11/30/12 11:20	

LABORATORY CONTROL SAMPLE & LCSD: 516616		517098									
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers	
bis(2-Ethylhexyl)phthalate	ug/L	50	51.6	45.7	103	91	59.1-109.	12	40		
Butylbenzylphthalate	ug/L	50	45.2	44.9	90	90	54.4-107.	.7	40		
Di-n-butylphthalate	ug/L	50	45.9	46.1	92	92	66.5-108.	.5	40		
Di-n-octylphthalate	ug/L	50	48.7	48.3	97	97	48.4-114	.9	40		
Diethylphthalate	ug/L	50	46.5	46.5	93	93	64.3-105.	.06	40		
Dimethylphthalate	ug/L	50	46.3	45.6	93	91	62.5-103.	1	40		
2,4,6-Tribromophenol (S)	%				98	96	10-110				
2-Fluorobiphenyl (S)	%				80	78	18-110				
2-Fluorophenol (S)	%				24	27	18-110				
Nitrobenzene-d5 (S)	%				68	69	10-110				
Phenol-d6 (S)	%				14	15	10-110				
Terphenyl-d14 (S)	%				77	76	10-123				

**QUALITY CONTROL DATA**

Project: Warm Mineral Springs  
Pace Project No.: 3575729

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QC Batch: PMST/1483                      Analysis Method: ASTM D2974-87  
QC Batch Method: ASTM D2974-87                      Analysis Description: Dry Weight/Percent Moisture  
Associated Lab Samples: 3575729004

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SAMPLE DUPLICATE: 518330

Parameter	Units	3575729004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.3	34.4	16	10	J(D6)

SAMPLE DUPLICATE: 518331

Parameter	Units	3575888009 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	22.8	24.2	6	10	

## QUALIFIERS

Project: Warm Mineral Springs  
Pace Project No.: 3575729

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-O Pace Analytical Services - Ormond Beach

### BATCH QUALIFIERS

Batch: OEXT/10769

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J(D6) Estimated Value. The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: Warm Mineral Springs  
Pace Project No.: 3575729

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3575729004	45 Feet sediment ledge sed	EPA 3546	OEXT/10783	EPA 8270	MSSV/4064
3575729001	1 Foot Surface	EPA 3510	OEXT/10769	EPA 8270	MSSV/4062
3575729002	20 Feet - Mid gw	EPA 3510	OEXT/10769	EPA 8270	MSSV/4062
3575729003	45 Feet sediment ledge gw	EPA 3510	OEXT/10769	EPA 8270	MSSV/4062
3575729004	45 Feet sediment ledge sed	ASTM D2974-87	PMST/1483		

WO#: 3575729



IN OF CUSTODY RECORD

No. E

Page 1 of 1

ONLY *TP-14*  
*5.0* °C (or Received on Ice, ROI) Condition of Contents: \_\_\_\_\_  
 Condition of Seals: \_\_\_\_\_

FOR LAB USE ONLY  
 Submission No. \_\_\_\_\_

1. Client: (Company or Individual) <b>Sarasota County Environmental Services</b>			Address: 1255 T. Mabry Carlton Parkway City: Venice State: Florida Zip Code 34292				Phone: ( 941 ) 650-9834 Phone: ( 941 ) 650-1112		18. Report Type: <input checked="" type="checkbox"/> Routine <input checked="" type="checkbox"/> With QC		
2. Report to: (if different from above) <b>Cesar Rodriguez</b>			Address: City State Zip Code				Phone: ( ) Fax: ( )		19. Turnaround Time <input checked="" type="checkbox"/> Standard Rush: / /		
3. Client Project Name: <b>Warm Mineral Springs</b>			Water Sample Codes (for Item 13) DW = Drinking Water GW = Ground Water SW = Surface Water PW = Processed Water WW = Waste Water		Container Codes (for Item 16) V = VOA vial G = glass P = plastic M = micro bag/cup O = other		14. 15. Preservatives C C C C C C 16. Containers G G G G G G		Preservative Codes (for Item 15) C = Cool Only H = Hydrochloric Acid AA = Ascorbic Acid N = Nitric Acid OH = Sodium Hydroxide S = Sulfuric Acid T = Sodium Thiosulfate		
4. Client Project No.:			5. P.O. No.:			6. Custody Seal No.:			7. Sampled By: <b>CR / RJ</b>		
8. Shipping Method: <b>courier</b>			9. Sample ID or No.			10. Sample Description			11. Date Time		
12. Comp. Grab			13. Water (Codes) Air Soil Sludge Other			14. # of Bottles		15. Analyses		20. REMARK	
1			1 Foot-Surface			11/29/12 835		X SW		1 A 8270 Phthalates	
3			20 Feet- Mid			840		X GW		1 B	
4			45 Feet sediment ledge			845		X GW		1 C	
6			45 Feet sediment ledge			845		X		1 C SED	
7			in ziploc bag							24 hr TAT	
21. RELINQUISHED BY			DATE			TIME			22. RECEIVED BY		
1			11/29/12			1322			11/29/12 1322		
2			11/29/12			200			11/30/12 02:45		
3									FOR LAB USE ONLY		
4									Sampling Fee: _____ Hrs. Equipment Rental Fee: _____ Profile No.: _____ Quote No.: _____		

DISTRIBUTION: Original with report; copy as needed

Revised: 7/05



Document Name:  
Sample Condition Upon Receipt Form  
Document No.:  
F-FLC-007 rev. 04

Document Revised:  
September 23, 2011  
Issuing Authority:  
Pace Florida Quality Office

**Sample Condition Upon Receipt Form (SCUR)**

Table Number: \_\_\_\_\_

Client Name: SACSOT Project # 3575729

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other \_\_\_\_\_

Tracking # \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals Intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used T-113 Type of Ice:  Wet  Blue  None

Cooler Temperature °C 0.3 (Visual) 0.0 (Correction Factor) 0.3 (Actual)

(Temp should be above freezing to 6°C). If below 0°C, then was sample frozen?

Yes  No

Date and initials of person examining contents: P 11/30/12

Receipt of samples satisfactory:  Yes  No

**Rush TAT requested on COC:**

If yes, then all conditions below were met: \_\_\_\_\_ If no, then mark box & describe issue (use comments area if necessary): \_\_\_\_\_

Chain of Custody Present	<input type="checkbox"/>
Chain of Custody Filled Out	<input type="checkbox"/>
Relinquished Signature & Sampler Name COC	<input type="checkbox"/>
Samples Arrived within Hold Time	<input type="checkbox"/>
Sufficient Volume	<input type="checkbox"/>
Correct Containers Used	<input type="checkbox"/>
Containers Intact	<input type="checkbox"/>
Sample Labels match COC (sample IDs & date/time of collection)	<input type="checkbox"/>
	No Labels: <input type="checkbox"/> No Time/Date on Labels: <input type="checkbox"/>
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/>
No Headspace in VOA Vials (>6mm):	<input type="checkbox"/>

**Client Notification/ Resolution:**

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution (use back for additional comments):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project Manager Review: \_\_\_\_\_ Date: \_\_\_\_\_

Finished Product Information Only	
F.P. Sample ID: _____	<b>Size &amp; Qty of Bottles Received</b>
Production Code: _____	_____ x 5 Gal
Date/Time Opened: _____	_____ x 2.5 Gal
Number of Unopened Bottles Remaining: _____	_____ x 1 Gal
	_____ x 1 Liter
	_____ x 500 mL
	_____ x 250 mL
	_____ x Other: _____
Extra Sample in Shed: Yes No	