



Board of County Commissioners

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September 19, 2023

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County Manager

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County Attorney

Donna Marie Collins
County Hearing
Examiner

Nate Senn
Division of Water Resource Management
Siting Coordination Office
2600 Blair Stone Road, MS 3500
Tallahassee, FL 32399-2400

**Re: Lee County Resource Recovery Facility, PA90-30H
RAI Response- Amendment Request (AM23-288)
WACS Facility ID: 93715**

Dear Mr. Senn:

This letter is in response to the Request for Additional Information, for the above referenced project.

Additional information is as follows:

1. *Please provide the full groundwater monitoring plan and show the location of all existing and proposed wells. Please include the designations of the wells in the plan (e.g., MW-2D: Piezometer). [Rule 62-520.600(6), F.A.C.]*

Response:

Please find attached Groundwater monitoring plan (GWMP) dated May 2023. This revised GWMP was submitted to Siting 5/24/23, with no comment.

In addition, a new graphic is provided showing all existing wells and coordinates with proposed new well cluster location.

2. *Please provide the monitoring well design. [Rule 62-520.600(6), F.A.C.]*

Response:

The new wells will be constructed in a similar manner to the existing monitoring wells.

Specifically:

Both monitoring wells will have geological oversight provided in the field during installation to determine appropriate well depth/construction in relation to the geological strata encountered.

Existing monitoring wells at the facility monitor the shallow surficial aquifer and a deeper zone referred to as the sandstone aquifer. The two zones are separated by a confining layer.

Existing wells in the shallow surficial aquifer have 5-foot screened intervals; the new well will be similarly constructed. Depth below land-surface is estimated to be approximately 13 feet.

Existing wells in the deeper sandstone aquifer have 10-foot screened intervals; the new well will be similarly constructed. Depth below land-surface is estimated to be approximately 92 feet. The deeper well will be double-cased into the confining layer so that the upper and lower zones are isolated.

The wells will be constructed using 2" PVC casing and slotted-screen and a "stick-up" style surface protective casing. The wells will use 0.010-inch slot size for the screened interval, a 20/30 silica-sand pack, a bentonite or 30/65 silica fine-sand seal, and cement grout to surface. The deeper well will be double-cased into the confining layer between the two zones.

A soil boring prior to well installation will not be completed as we have past well completion reports for reference. The well completion reports from MW3SR and MW3DR are attached as an example.

Depth of the well determination will be made at the time of well installation. We will use standard well-construction practices of the wells already present at the facility.

The wells will be properly developed before sampling, most likely using a submersible pump system.

3. *Please provide any piezometric data used to determine the proposed background location is unaffected by the facility's discharge or stormwater retention area. [Rule62-520.600(6), F.A.C.]*

Response:

The proposed wells will be upgradient of the CDDRF facility. The proposed location is outside of the stormwater retention area and in an easily accessible area.

Please find attached contour maps from 2023 that indicate the proposed location is suitable for detection/background. In addition, the proposed location of the new wells is northeast of the bermed stormwater containment area, to avoid impacts from stormwater retention and runoff.

Sincerely,

Angelina DuBois

Angie DuBois, Project Manager
Lee County Solid Waste Department

Attachments:

May 2023 GWMP

Aerial drawing of all wells

Well Completion Report for MW3SR and MW3DR

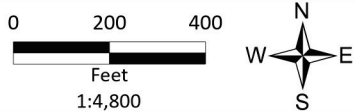
Shallow Well Contour Map

Deep Well Contour Map

cc: R. Kwiat, R. Rodriguez, T. Lamontagne

Groundwater Monitor Wells

Lee County Resource Recovery Facility

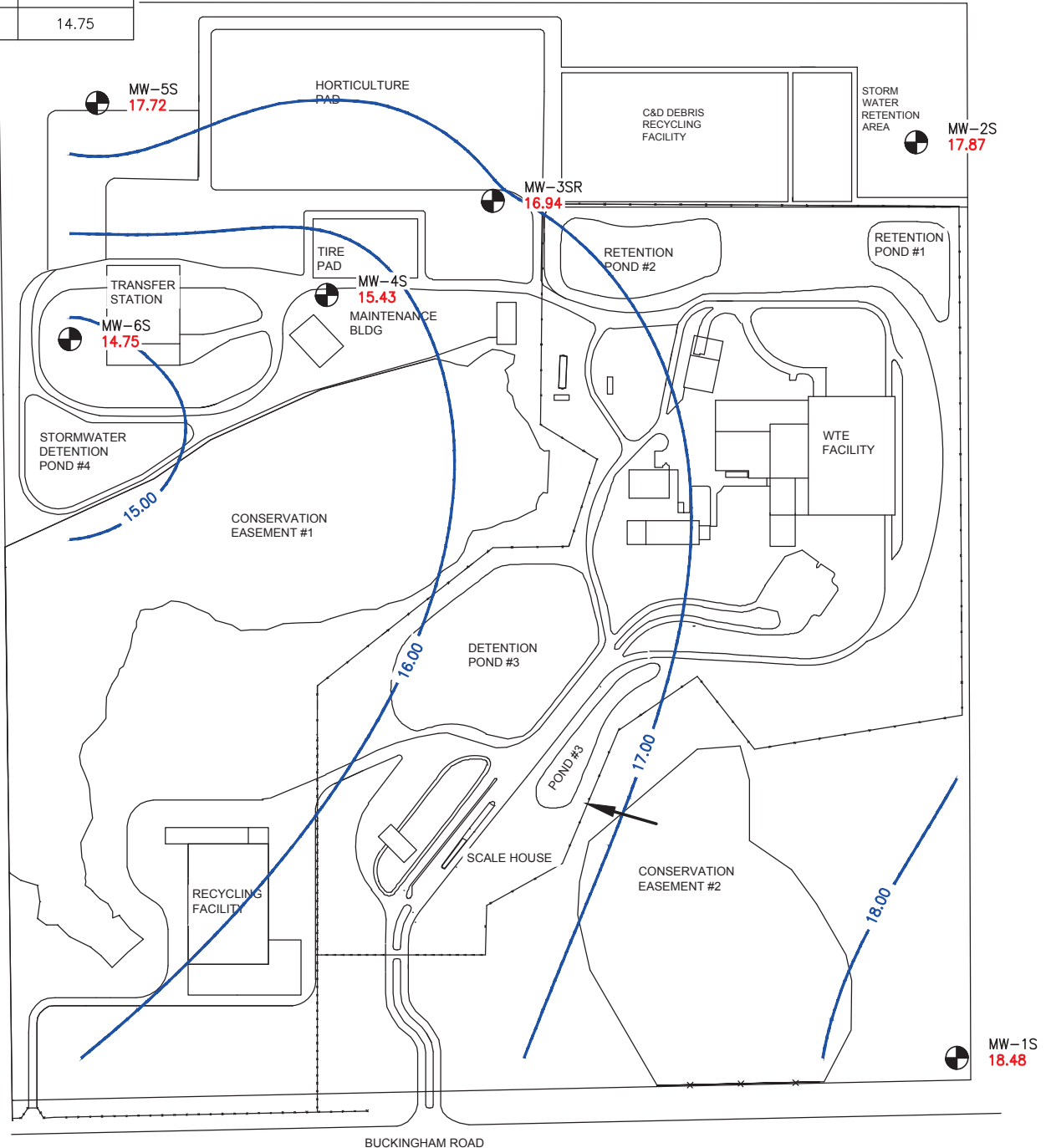
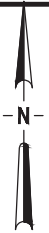
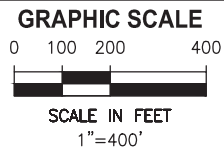


JonesEdmunds

PLOTTED: 9/13/2023 04:26 PM RASAHN MARTIN

Y:\GWA\JONES EDMUNDS\LEE COUNTY\WTE PLANT\GWM 2023\23S1\LEE WTE_23S1_SHALLOW.DWG

WELL	GW ELEVATION
MW-1S	18.48
MW-2S	17.87
MW-3SR	16.94
MW-4S	15.43
MW-5S	17.72
MW-6S	14.75



LEE COUNTY WTE LANDFILL
GROUNDWATER CONTOUR MAP
OF THE SHALLOW SURFICIAL ZONE
FEBRUARY 6, 2023

- LEGEND**
- MW-1S 18.48 GROUNDWATER MONITORING WELL
 - 17.00 GROUNDWATER CONTOUR AT 1.00 FOOT INTERVALS
 - GROUNDWATER FLOW DIRECTION

**Lee County
Solid Waste Division**

**Lee County Solid Waste Energy Recovery Facility
Water Quality Monitoring Plan**

Revised – May 2023

Prepared by

Jones Edmunds & Associates, Inc.
730 NE Waldo Road
Gainesville, Florida 32641

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TABLES

Table 1-1	Groundwater Monitoring Network
Table 1-2	Initial (Background) Groundwater Sampling Parameters
Table 1-3	Routine Semiannual Monitoring Parameter List

ATTACHMENTS

Attachment 1	– Monitoring Well Network Site Map
Attachment 2	– FDEP Form 62-701.900(30) – Monitoring Well Completion Report
Attachment 3	– FDEP Form 62-701.900(31) – Water Quality Monitoring Certification

Section 1.0 GROUNDWATER MONITORING

1.1 SITE HYDROGEOLOGICAL SETTING

The geology of the Lee County Solid Waste Energy Recovery Facility (SWERF) is described in the November 2002 Supplemental Application for Power Plant Site Certification PA-90-30C (Malcolm Pirnie, 2002) and in the August 1992 Power Plant Siting Act Permit Application PA-90-30 (Malcolm Pirnie, 1992). Based on these site hydrogeological studies, there are three significant hydrologic strata beneath the facility including the shallow/water table surficial aquifer, the Hawthorn confining unit, and the sandstone aquifer. The shallow surficial aquifer is separated from the deeper sandstone aquifer by the upper Hawthorn confining unit which minimizes flow between the two aquifers.

1.2 GROUNDWATER FLOW DIRECTION

As established by previously submitted semiannual groundwater contour maps, the surficial/shallow aquifer at the facility generally shows a generally westerly flow while the sandstone/deep aquifer shows a southerly flow.

1.3 GROUNDWATER MONITORING NETWORK

The surficial/shallow aquifer at the SWERF is monitored by wells MW-1S, MW-2S, MW-3SR (previously WTE-3SR), MW-4S, MW-5S, and MW-6S. Monitoring wells MW-1S and MW-2S serve as upgradient wells and are located on the southeast and northeast corners of the SWERF, respectively. Monitoring wells MW-5S and MW-6S are on the west side of the property. MW-4S and MW-3SR are located approximately in the center of the property.

Although not currently monitored for water quality under the SWERF's GWMP, six deep wells (MW-1D, MW-2D, MW-3DR, MW-4D, MW-5D, and MW-6D) were previously installed to monitor the sandstone aquifer at the SWERF. In accordance with the Department's approval of the SWERF's previous GWMP (October 2010), the sandstone aquifer monitoring wells are inspected and maintained and monitored for groundwater elevations on the same schedule as the shallow aquifer monitoring wells.

The CDDRF's groundwater monitoring network shares three wells from the SWERF's groundwater monitoring network. MW-2S is designated as the background well for the CDDRF while MW-3SR and MW-4S are the CDDRF's designated detection wells.

In the event that the GWMN is modified (wells added or abandoned), the requirements of this GWMP will be applicable to the new GWMN without further revision of this document. Any required modifications of the groundwater monitoring system or program shall be modified in accordance with the provisions of Section A, Condition XXI of the SWERF's Conditions of Certification.

Table 1-1 Groundwater Monitoring Network

Testsite Name*	Testsite WACS ID	Designation	Aquifer	Facility
MW-1S	23402	Background	Surficial	SWERF
MW-2S	23404	Detection/Background	Surficial	SWERF / CDDRF
MW-3SR	27415	Detection	Surficial	SWERF / CDDRF
MW-4S	23409	Detection	Surficial	SWERF / CDDRF
MW-5S	23411	Detection	Surficial	SWERF
MW-6S	23413	Detection	Surficial	SWERF
MW-1D	23403	Piezometer	Sandstone	SWERF
MW-2D	23405	Piezometer	Sandstone	SWERF
MW-3DR	27416	Piezometer	Sandstone	SWERF
MW-4D	23410	Piezometer	Sandstone	SWERF
MW-5D	23412	Piezometer	Sandstone	SWERF
MW-6D	23414	Piezometer	Sandstone	SWERF

A site map indicating the locations of the monitoring network wells and piezometers is included as Attachment 1.

1.4 MONITORING WELL SAMPLING AND ANALYSIS

Initial sampling of any approved and newly installed wells shall be conducted within 30 days of final well development. Samples will be collected to determine background groundwater quality as described in Chapter 62-701.730(8)(d), FAC for the parameters listed in Table 1-2.

Table 1-2 Initial (Background) Groundwater Sampling Parameters

Field Parameters	Laboratory Parameters
Static Water Level	Total Ammonia-N
Specific Conductivity	Chlorides
pH	Iron
Dissolved Oxygen	Nitrate-N
Turbidity	Sodium
Temperature	Total Dissolved Solids (TDS)
Colors and Sheens (by observation)	Sulfate
	Aluminum
	40 CFR 258, Appendix II

Note: 40 CFR 258 – Chapter 40 Code of Federal Regulations Part 258.

Routine semiannual groundwater samples shall be collected from monitoring wells MW-1S, MW-2S, MW-3SR, MW-4S, MW-5S, and MW-6S (and any subsequently approved monitoring wells) during February and August each year. Samples will be analyzed for the parameters listed in Rule 62-701.730(8)(c), FAC (see Table 1-3).

Table 1-3 Routine Semiannual Monitoring Parameter List

Field Parameters	Laboratory Parameters
pH	Aluminum
Turbidity	Chloride
Temperature	Nitrate-N
Specific conductivity	Sulfate
Dissolved oxygen	Total Dissolved Solids (TDS)
Water elevations before purging	Iron
Colors and sheens	Sodium
	Arsenic
	Cadmium
	Chromium
	Lead
	Mercury
	Total Ammonia-N
	Xylenes
	Those parameters listed in EPA Methods 601 and 602

In addition to collecting water elevations before purging in the sampled wells, a “continuous round” of water levels will be collected within a 24-hour period from all monitoring wells and piezometers to a precision of 0.01 foot to be used in preparing groundwater contour maps for each sampling event. The groundwater contour maps will be submitted to FDEP in conjunction with the routine semiannual groundwater monitoring results.

All sampling and analyses will be conducted in accordance with Chapter 62-160, FAC; Chapter 62-701.510(2)(b), FAC; FDEP *Standard Operating Procedures for Field Activities* (DEP-SOP-001/01); and FDEP *Standard Operating Procedures for Laboratory Activities* (DEP-SOP-002/01). All analyses will be performed by a laboratory certified by the Florida Department of Health under the National Environmental Laboratory Accreditation Program.

Section 2.0 SURFACE WATER MONITORING

Section B, Specific Condition II.C.3.c of the SWERF’s Conditions of Certification requires a surface water quality monitoring program which monitors all discharges from the surface water management system into the Buckingham Road drainage system. Surface water monitoring at the SWERF is conducted in accordance with FDEP NPDES Stormwater Program Permit FLR05B588.

No additional surface water sampling at the SWERF, beyond that already regulated under Permit FLR05B588-005, should be necessary.

Section 3.0 WATER-QUALITY REPORTING

3.1 WATER-QUALITY MONITORING REPORTS

Results of all sampling events shall be submitted to FDEP within 60 days from completion of laboratory analyses in accordance with the GWMP and Chapter 62-701.510(8)(a), FAC unless an extension of the reporting deadline is requested from and approved by FDEP.

Water-quality data shall be provided to FDEP in an electronic format consistent with the requirements for importing into FDEP databases. FDEP Form 62-701.900(31) (Attachment 3), *Water Quality Monitoring Certification*, shall be used to certify that the laboratory results have been reviewed and approved by the permittee (Lee County or their authorized representative). At a minimum, the report shall include the following:

1. The facility name and identification number, sample collection dates, and analysis dates.
2. All analytical results.
3. Identification number and designation of all groundwater monitoring points.
4. Applicable water-quality standards.
5. Quality assurance and quality control notations.
6. Method detection limits.
7. STORET code numbers for all parameters.
8. Water levels recorded before purging the groundwater monitoring wells for sample collection.
9. An updated groundwater table contour map signed and sealed by a Professional Geologist (PG) or Professional Engineer (PE).
10. A summary of any water-quality standards or criteria that are exceeded.

3.2 WATER-QUALITY MONITORING TECHNICAL REPORT

A Water-Quality Monitoring Technical Report is not required for the SWERF under FDEP Conditions of Certification document PA90-30H.

In addition, Chapter 62-701.710(1)(d), FAC for Waste Processing Facilities notes the following:

2. Waste processing facilities that accept only construction and demolition debris are exempt from the requirement to provide a leachate control system set forth in paragraph (3)(b) of this rule, provided that all areas where waste is stored or processed are covered by a ground water monitoring system which meets the requirements of subsection 62-701.730(8), F.A.C., except the technical report of paragraph 62-701.510(8)(b), F.A.C., is not required.

The CDDRF is a waste processing facility that falls under the above rule section. As such, a Water-Quality Monitoring Technical Report is not required for the CDDRF under the current Chapter 62-701.710 FAC rule.

Attachment 1
Monitoring Well Network Site Map

PLOTTED: 5/17/2023 01:44 PM JOSHUA HALFORD, EI

SAVED: 4/24/2020 11:01 AM SURFER12 Y:\GWM\JONES EDMUNDS\LEE COUNTY\WTE PLANT\FIGURE 1 SITE MAP.DWG

SHALLOW (WATER TABLE) WELLS			
WELL	TOC ELEVATION	LATITUDE	LONGITUDE
MW-1S	21.91 FT	26° 37' 41"	81° 45' 36"
MW-2S	24.18 FT	26° 38' 03"	81° 45' 37"
MW-3SR	23.98 FT	26° 38' 1.62"	81° 45' 46.08"
MW-4S	22.48 FT	26° 37' 58"	81° 45' 51"
MW-5S	23.81 FT	26° 38' 03"	81° 45' 59"
MW-6S	23.66 FT	26° 37' 57"	81° 45' 59"

SANDSTONE AQUIFER WELLS			
WELL	TOC ELEVATION	LATITUDE	LONGITUDE
MW-1D	22.96 FT	26° 37' 41"	81° 45' 36"
MW-2D	23.52 FT	26° 38' 03"	81° 45' 37"
MW-3DR	23.91 FT	26° 38' 1.62"	81° 45' 46.14"
MW-4D	23.81 FT	26° 37' 58"	81° 45' 51"
MW-5D	24.50 FT	26° 38' 03"	81° 45' 59"
MW-6D	22.91 FT	26° 37' 57"	81° 45' 59"

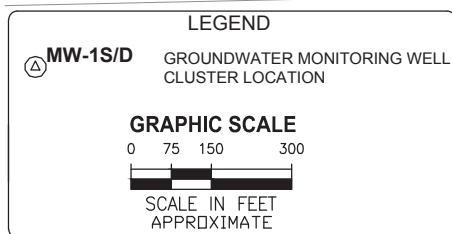
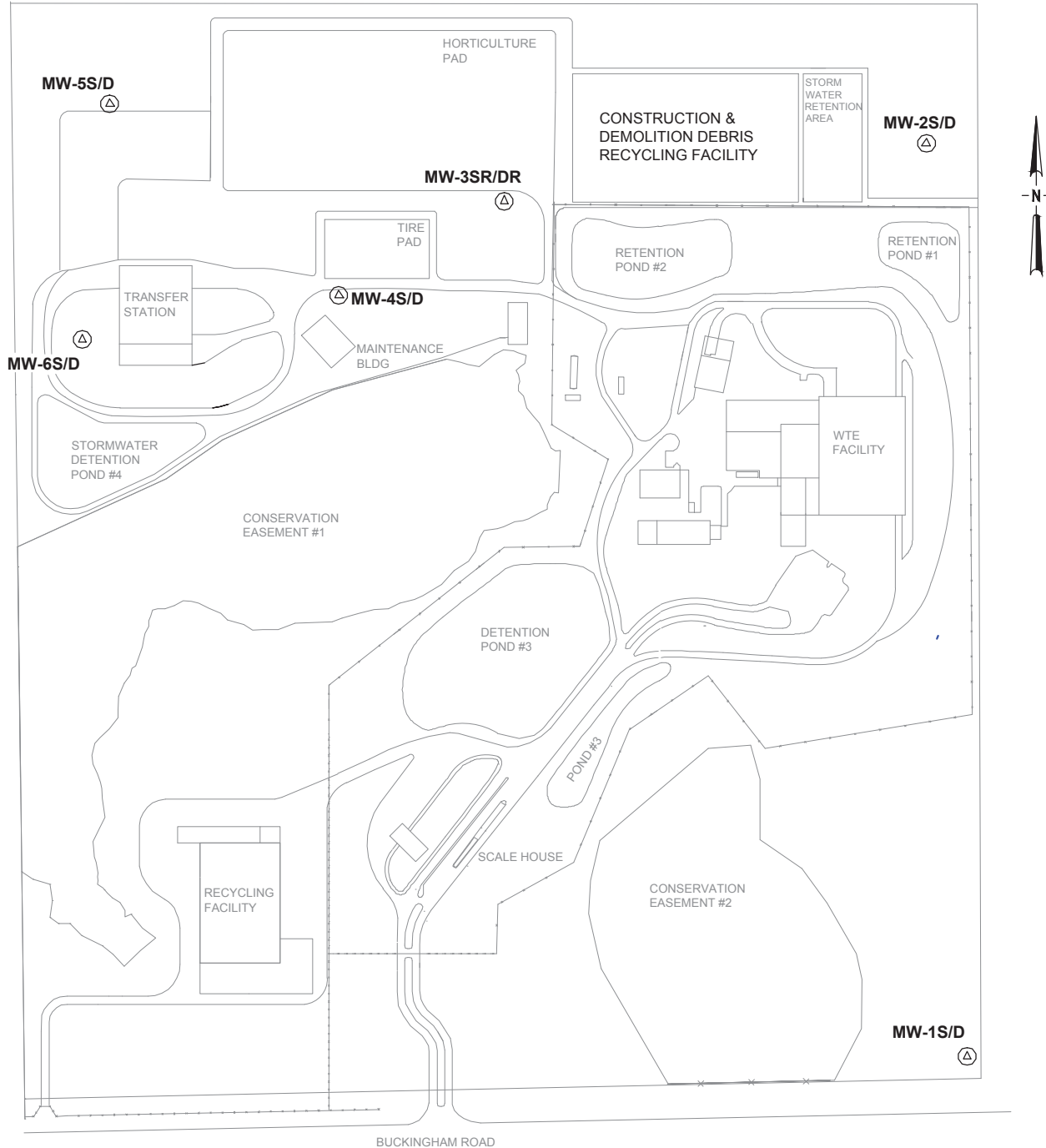


FIGURE 1: SITE MAP
 SOLID WASTE ENERGY RECOVERY FACILITY
 LEE COUNTY SOLID WASTE DIVISION

Attachment 2

**FDEP Form 62-701.900(30) –
Monitoring Well Completion Report**



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

DEP Form # 62-701.900(30)

Form Title: Monitoring Well Completion Report

Effective Date: January 6, 2010

Incorporated in Rule 62-701.510(3), F.A.C.

MONITORING WELL COMPLETION REPORT

DATE: _____

FACILITY NAME: _____

DEP PERMIT NO.: _____ WACS FACILITY ID NO.: _____

WACS MONITORING SITE NUM.: _____ WACS WELL NO.: _____

WELL TYPE: BACKGROUND ☐ DETECTION ☐ COMPLIANCE ☐

LATITUDE: _____ ° _____ ' _____ " LONGITUDE: _____ ° _____ ' _____ "

(see back for LAT / LONG requirements):

Coordinate Accuracy _____ Datum _____ Elevation Datum _____

Collection Method _____ Collection Date _____

Collector Name _____ Collector Affiliation _____

AQUIFER MONITORED: _____

DRILLING METHOD: _____ DATE INSTALLED: _____

INSTALLED BY: _____

BORE HOLE DIAMETER: _____ TOTAL DEPTH: _____ (BLS)

CASING TYPE: _____ CASING DIAMETER: _____ CASING LENGTH: _____

SCREEN TYPE: _____ SCREEN SLOT SIZE: _____ SCREEN LENGTH: _____

SCREEN DIAMETER: _____ SCREEN INTERVAL: _____ TO _____ (BLS)

FILTER PACK TYPE: _____ FILTER PACK GRAIN SIZE: _____

INTERVAL COVERED: _____ TO _____ (BLS)

SEALANT TYPE: _____ SEALANT INTERVAL: _____ TO _____ (BLS)

GROUT TYPE: _____ GROUT INTERVAL: _____ TO _____ (BLS)

TOP OF CASING ELEVATION (NGVD): _____ GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: _____

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: _____

(Name, Organization, Phone No., E-mail)

Northwest District
160 Government Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way Ste 200B
Jacksonville, FL 32256-7590
904-807-3300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
13051 N. Telecom Pky.
Temple Terrace, FL
813-632-7600

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
239-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600

Attachment 3

**FDEP Form 62-701.900(31) –
Water Quality Monitoring Certification**



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

DEP Form #: 62-701.900(31), F.A.C

Form Title: Water Quality Monitoring Certification

Effective Date: January 6, 2010

Incorporated in Rule 62-701.510(9), F.A.C.

WATER QUALITY MONITORING CERTIFICATION

PART I GENERAL INFORMATION

- (1) Facility Name Lee County Resource Recovery Facility And Construction & Demolition Debris Recycling Facility
Address 10500 Buckingham Road
City Fort Myers, Florida Zip 33905 County Lee
Telephone Number (239) 533-8000
- (2) WACS Facility ID 93715
- (3) DEP Permit Number PA90-30H Groundwater Monitoring Plan
- (4) Authorized Representative's Name _____ Title _____
Address _____
City _____ Zip _____ County _____
Telephone Number (_____) _____
Email address (if available) _____

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submission of false information including the possibility of fine and imprisonment.

(Date)

(Owner or Authorized Representative's Signature)

PART II QUALITY ASSURANCE REQUIREMENTS

- Sampling Organization _____
- Analytical Lab NELAC / HRS Certification # _____
- Lab Name _____
- Address _____
- Phone Number (_____) _____
- Email address (if available) _____

Northwest District
160 Government Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. 200 B
Jacksonville, FL 32256-7590
904-807-3300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
13051 N. Telecom Pky.
Tempe Terrace, FL
813-632-7600

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33902-2549
239-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600



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NOV 08 2010

D.E.P. South District

BOARD OF COUNTY COMMISSIONERS

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District One November 4, 2010

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District Three

Tammy Hall
District Four

Frank Mann
District Five

Karen B. Hawes
County Manager

David M. Owen
County Attorney

Diana M. Parker
County Hearing
Examiner

Mr. Charles Emery III, Solid Waste Administrator
Florida Department of Environmental Protection, South District
2295 Victoria Ave.
Ft. Myers, FL 33901

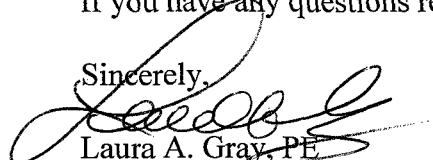
Re: Lee County Solid Waste Energy Recovery Facility, WACS ID No. 93715
Conditions of Certification, PA90-30H
Well Construction and Development Logs, Boring Logs and
Well Completion Report for Wells WTE-3SR and WTE-3DR and
Abandonment Reports for Wells WTE-3S and WTE-3D

Dear Mr. Emery:

In accordance with the Department approved Ground Water Monitoring Plan for the Lee County Solid Waste Energy Recovery Facility (SWERF), enclosed please find the referenced reports and logs for new ground water monitoring wells WTE-3SR and WTE-3DR and the abandonment reports for wells WTE-3S and WTE-3D. The new wells are replacement wells for WTE-3S and WTE-3D which were abandoned due their location within the footprint of the C&D Debris Recycling Facility to be constructed at the SWERF.

If you have any questions regarding the enclosed, please call me at 239.533.8930.

Sincerely,



Laura A. Gray, PE
Engineering Manager
Solid Waste Division

Attachments

Cc:

James Standiford, DEP
Lindsey J. Sampson, SWD
Keith Howard, SWD
George Ball-Llovera, Covanta
Kristen Chardo, Covanta
File II E107



Entered into
OCULUS
South District



**Allied Engineering
& Testing, Inc.**

Providing Geotechnical Engineering,
Materials Testing, Construction, Inspections
and Environmental Services

October 14, 2010

Mr. Mike Avoglia
Lee County Solid Waste Division
10500 Buckingham Road
Fort Myers, FL 33905
(239) 533-8000 (main)
(239) 461-5871 (fax)

RE: Lee County Incinerator, Monitor Well Replacement
Allied Project No.: 40-6881

Dear Mr. Avoglia;

As requested, Allied Engineering & Testing, Inc. (Allied) has completed the abandonment of two existing monitor wells and the installation of two replacement monitor wells. The well construction logs, permits and completion reports are attached.

In addition, the elevation and GPS coordinates for each well are listed below. These coordinates were determined with a Garmin, hand held GPS unit. The elevation was surveyed using the elevation of the top of pipe (t.o.p.) of the existing 2-inch well as labeled in the well cap (25.75'). Elevations shown below are t.o.p. of the new well.

MW 3SR N 26° 38.027'
 W 081° 45.768'
 elevation 23.98'

MW 3DR N 26° 38.027'
 W 081° 45.769'
 elevation 23.91'

Existing ground elevation between the new well pads – 21.81'

We appreciate the opportunity to be of service to you on this project. If you have any questions, please contact the undersigned at (239) 334-6833.

Sincerely,
Allied Engineering & Testing, Inc.



Jeff D'huyvetter
Vice President

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: WTE-3SR		Site Name: SOLEO WASTE ENERGY RECOVERY		FDEP Facility I.D. Number:	
Well Install Date(s): 9-15-10					
Well Location and Type (check appropriate boxes): ☒ On-Site ☐ Right-of-Way ☐ Off-Site Private Property ☒ Above Grade (AG) ☐ Flush-to-Grade		Well Purpose: ☐ Perched Monitoring ☒ Shallow (Water-Table) Monitoring ☐ Intermediate or Deep Monitoring ☐ Remediation or Other (describe)		Well Install Method: AUGER	
If AG, list feet of riser above land surface:		Surface Casing Install Method:			
Borehole Depth (feet): 14'	Well Depth (feet): 14'	Borehole Diameter (inches): 8"	Manhole Diameter (inches):	Well Pad Size: 3 feet by 3 feet	
Riser Diameter and Material: 2" - PVC		Riser/Screen Connections: ☒ Flush-Threaded ☐ Other (describe)		Riser Length: 9 feet from 0 feet to 9 feet	
Screen Diameter and Material: 2" PVC		Screen Slot Size: .010		Screen Length: 5 feet from 9 feet to 14 feet	
1 st Surface Casing Material: also check: ☐ Permanent ☐ Temporary		1 st Surface Casing I.D. (inches):		1 st Surface Casing Length: _____ feet from 0 feet to _____ feet	
2 nd Surface Casing Material: also check: ☐ Permanent ☐ Temporary		2 nd Surface Casing I.D. (inches):		2 nd Surface Casing Length: _____ feet from 0 feet to _____ feet	
3 rd Surface Casing Material: also check: ☐ Permanent ☐ Temporary		3 rd Surface Casing I.D. (inches):		3 rd Surface Casing Length: _____ feet from 0 feet to _____ feet	
Filter Pack Material and Size: SELECA 20-30		Prepacked Filter Around Screen (check one): ☐ Yes ☒ No		Filter Pack Length: 7 feet from 7 feet to 14 feet	
Filter Pack Seal Material and Size: 1/2" BENTONITE BEEPS				Filter Pack Seal Length: 3 feet from 4 feet to 7 feet	
Surface Seal Material: PORTLAND				Surface Seal Length: 4 feet from 0 feet to 4 feet	

WELL DEVELOPMENT DATA			
Well Development Date: 9-15-10		Well Development Method (check one): ☐ Surge/Pump ☒ Pump ☐ Compressed Air ☐ Other (describe)	
Development Pump Type (check): ☒ Centrifugal ☐ Peristaltic ☐ Submersible ☐ Other (describe)		Depth to Groundwater (before developing in feet):	
Pumping Rate (gallons per minute):		Maximum Drawdown of Groundwater During Development (feet):	
Well Purged Dry (check one): ☐ Yes ☒ No			
Pumping Condition (check one): ☐ Continuous ☒ Intermittent		Development Duration (minutes): 2 hr	
Total Development Water Removed (gallons):		Development Water Drummed (check one): ☐ Yes ☒ No	
Water Appearance (color and odor) At Start of Development: MILKY		Water Appearance (color and odor) At End of Development: CLEAR	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

BORING LOG

Page 1 of 2

Boring/Well Number: WTE - 3SR		Permit Number: WEL 2010 - 00825		FDEP Facility Identification Number:	
Site Name: SOLEID WASTE ENERGY RECOVERY		Borehole Start Date: 9-15-10		Borehole Start Time: ☒ AM ☐ PM	
		End Date: 9-15-10		End Time: ☒ AM ☐ PM	
Environmental Contractor:		Geologist's Name:		Environmental Technician's Name:	
Drilling Company: ALLIED ENG.		Pavement Thickness (inches):		Borehole Diameter (inches): 8"	
				Borehole Depth (feet): 14'	
Drilling Method: AUGER		Apparent Borehole DTW (in feet from soil moisture content):		Measured Well DTW (in feet after water recharges in well):	
				OVA (list model and check type): ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☒ Spread ☐ Backfill ☐ Stockpile ☐ Other					
(describe if other or multiple items are checked):					
Borehole Completion (check one): ☒ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
	0'						1	BASE ROCK			
	3'						2				
							3				
							4	BROWN FINE SAND			
							5				
							6				
	7'						7	LENESTON & CLAY			
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Page 2 of 2

Boring/Well Number: WTE-35A		FDEP Facility Identification Number:		Site Name:		Borehole Start Date: 9-15-10		End Date: 9-15-10			
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
	14'						13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	loam sand & clay			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: WTE-30A		Site Name: SOLID WASTE ENERGY RECOVERY		FDEP Facility I.D. Number:	
Well Install Date(s): 10-01-10					
Well Location and Type (check appropriate boxes): ☒ On-Site ☐ Right-of-Way ☐ Off-Site Private Property ☒ Above Grade (AG) ☐ Flush-to-Grade		Well Purpose: ☐ Perched Monitoring ☐ Shallow (Water-Table) Monitoring ☒ Intermediate or Deep Monitoring ☐ Remediation or Other (describe):		Well Install Method: MUD MUD	
If AG, list feet of riser above land surface:		Surface Casing Install Method: MUD MUD			
Borehole Depth (feet): 85'	Well Depth (feet): 82'	Borehole Diameter (inches): 8"	Manhole Diameter (inches):	Well Pad Size: 3' feet by 3' feet	
Riser Diameter and Material: 4" PVC		Riser/Screen Connections: ☒ Flush-Threaded ☐ Other (describe):		Riser Length: 72' feet from 0 feet to 72' feet	
Screen Diameter and Material: 4" PVC		Screen Slot Size: 1010		Screen Length: 10 feet from 72' feet to 82' feet	
1 st Surface Casing Material: also check: ☒ Permanent ☐ Temporary		1 st Surface Casing I.D. (inches): 17.25"		1 st Surface Casing Length: 60 feet from 0 feet to 58 feet	
2 nd Surface Casing Material: also check: ☐ Permanent ☐ Temporary		2 nd Surface Casing I.D. (inches):		2 nd Surface Casing Length: _____ feet from 0 feet to _____ feet	
3 rd Surface Casing Material: also check: ☐ Permanent ☐ Temporary		3 rd Surface Casing I.D. (inches):		3 rd Surface Casing Length: _____ feet from 0 feet to _____ feet	
Filter Pack Material and Size: SILICA 20-30		Prepacked Filter Around Screen (check one): ☐ Yes ☒ No		Filter Pack Length: 12 feet from 70 feet to 82 feet	
Filter Pack Seal Material and Size: 1/2" BENTONITE CHIPS				Filter Pack Seal Length: 3' feet from 68 feet to 70 feet	
Surface Seal Material: PORTLAND				Surface Seal Length: 68 feet from 0 feet to 68 feet	

WELL DEVELOPMENT DATA			
Well Development Date: 10-01-10		Well Development Method (check one): ☐ Surge/Pump ☐ Pump ☒ Compressed Air ☐ Other (describe):	
Development Pump Type (check): ☐ Centrifugal ☐ Peristaltic ☐ Submersible ☐ Other (describe):		Depth to Groundwater (before developing in feet):	
Pumping Rate (gallons per minute):		Maximum Drawdown of Groundwater During Development (feet):	
Well Purged Dry (check one): ☐ Yes ☒ No			
Pumping Condition (check one): ☐ Continuous ☒ Intermittent		Total Development Water Removed (gallons):	
Development Duration (minutes): 2 HR		Development Water Drummed (check one): ☐ Yes ☒ No	
Water Appearance (color and odor) At Start of Development: MILKY		Water Appearance (color and odor) At End of Development: CLEAR	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

BORING LOG

Page 1 of 3

Boring/Well Number: WTE-302		Permit Number: WEL 2010-00870		FDEP Facility Identification Number:	
Site Name: SOLID WASTE ENERGY RECOVERY		Borehole Start Date: 10-01-10	Borehole Start Time: ☒ AM ☐ PM		
Environmental Contractor:		End Date: 10-01-10		End Time: ☒ AM ☐ PM	
Geologist's Name:		Environmental Technician's Name:			
Drilling Company: ALLIRO ENG.		Pavement Thickness (inches):	Borehole Diameter (inches): 8"		Borehole Depth (feet): 82
Drilling Method: MUD ROTARY	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):		OVA (list model and check type): ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☒ Spread ☐ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☒ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
	0'						1	BASE ROCK			
							2				
	3'						3				
							4				
							5	BROWN SAND			
							6				
	6'						7				
							8				
							9	GRAY CLAY & LIMSTONE			
							10				
							11				
							12				

Sample Type Codes: PH - Post Hole; HA - Hand Auger; SS - Split Spoon; ST - Shelby Tube; DP - Direct Push; SC - Sonic Core; DC - Drill Cuttings
 Moisture Content Codes: D - Dry; M - Moist; W - Wet; S - Saturated

BORING LOG

Page 3 of 3

Boring/Well Number:		FDEP Facility Identification Number:		Site Name:		Borehole Start Date:		End Date:			
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
	55'						55'	green clay			
	60'						60'				
	85'						85'				
								SAND STONE.			

Sample Type Codes: PH = Post Hole, HA = Hand Auger, SS = Split Spoon, ST = Shelby Tube, DP = Direct Push, SC = Sonic Core, DC = Drill Cuttings
 Moisture Content Codes: D = Dry, M = Moist, W = Wet, S = Saturated



Monitor Well

PERMIT

PERMIT NUMBER: WEL2010-00823**ISSUED:** 09/14/10**Owner Name:** LEE COUNTY**EXPIRES:** 03/14/11**Contractor:** GARY GRIFFEY / BY ALLIED**Description:** 1 - 4" MONITOR WELL ABANDONMENT OF MW#1**Job Address:** 10500- 550 BUCKINGHAM RD**Date of Construction:****Well Use:** MWP**Gallons/Minute:****Total Well Depth:****Casing Depth:****Sacks of Cement:****INSPECTION REQUEST LINE: (239) 533-8997******Notation- All Permits are CALLED IN and/or CANCELED by PERMIT (#) only********ATTENTION - Prior to 6:30a.m. the morning of commencement of drilling the Contractor must call in Permit # to schedule inspection on Inspection Line.****SPECIAL CONDITIONS REQUIRED (as summarized):**

1. NO well construction performed after hours and/or weekends, except for emergency well. (Ref) Well Code, 06-09, Appendix A, Section II - Well Construction. Drilling after regular work hours: An after-hour inspection fee (\$65.00 per hr) may be assessed for inspections performed outside normal working hours (7:00a.m. to 4:00p.m.) of county well inspectors.

O.K.**WELL CONSTRUCTION****Approved By****Lee County
Natural
Resources Mgmt.****APPROVAL****63955****NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM OTHER GOVERNMENTAL ENTITIES.****NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM OTHER GOVERNMENTAL ENTITIES.****THIS PERMIT IS VOID IF THE FIRST INSPECTION IS NOT MADE WITHIN ONE (1) YEAR FROM THE DATE ISSUED.****THIS CARD MUST BE PLACED ON A BOARD AT EYE LEVEL SO IT CAN BE READ FROM STREET AND BE PROTECTED FROM THE WEATHER.**



CONSTRUCTION PERMIT # WEL20 10 - 00823

LEE COUNTY	10500 BUCKINGHAM RD					Fort Myers	FLA.
Owner		Site Address	1001	Completion Date	9-15-10	City	State
Contractor's Signature		Lee County License #	1001	State License #	2914	Casing Depth	93'
Well Driller's Name	GARY CASPERLEY	Lee County License #	1001	State License #	2914	Total Depth	WTE - 500
Strap #	24 - 44 - 25 - 00 - 0000	Lee County License #	1001	State License #	2914	Well #	

LOCATION: (Subdivision/Area) _____

TYPE OF WORK: Construct ☐ Repair ☐ Abandon ☒

WELL USE: Private Well ☐ Public ☐ Monitor ☒ Test ☐
 Irrigation ☐ Fire Well ☐ Other ☐ _____

METHOD: Rotary with MUD ☐ or Air ☐ Cable Tool ☐
 Jet ☐ Casing Driven ☐ Other ☐ _____

STATIC WATER LEVEL 20 Ft. below top of casing

PUMPING WATER LEVEL Ft, after _____ Hrs at _____ GPM

PUMP SIZE _____ H.P. CAPACITY _____ GPM

PUMP TYPE _____ IN TAKE DEPTH _____

CASING: Black Steel ☐ Galv. ☐ PVC ☒ Fiberglass ☐

GROUT TYPE: Portland ☒ 47# ☐ 94# ☒ % Additives _____

Crumbles ☐ EZ Seal ☐ Other ☐ _____

SCREEN: Type _____ Slot Size _____

WATER: Clear ☐ Cloudy ☐ Iron ☐ Tannin ☐ Sulfur ☐ Sandy ☐ Other: _____

CONDUCTIVITY _____ CHLORIDES _____ mg/L



Monitor Well

PERMIT

PERMIT NUMBER: WEL2010-00824**ISSUED:** 09/14/10**Owner Name:** LEE COUNTY**EXPIRES:** 03/14/11**Contractor:** GARY GRIFFEY / BY ALLIED**Description:** 1 - 2" MONITOR WELL ABANDONMENT OF MW #2**Job Address:** 10500- 550 BUCKINGHAM RD**Date of Construction:****Well Use:** MWP**Gallons/Minute:****Total Well Depth:****Casing Depth:****Sacks of Cement:****INSPECTION REQUEST LINE: (239) 533-8997******Notation- All Permits are CALLED IN and/or CANCELED by PERMIT (#) only********ATTENTION - Prior to 6:30a.m. the morning of commencement of drilling the Contractor must call in Permit # to schedule inspection on Inspection Line.****SPECIAL CONDITIONS REQUIRED (as summarized):**

1. NO well construction performed after hours and/or weekends, except for emergency well. (Ref) Well Code, 06-09, Appendix A, Section II - Well Construction. Drilling after regular work hours: An after-hour inspection fee (\$65.00 per hr) may be assessed for inspections performed outside normal working hours (7:00a.m. to 4:00p.m.) of county well inspectors.

O.K.**WELL CONSTRUCTION****Approved By****Lee County****Natural****Resources Mgmt.****APPROVAL****63956**

NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT THERE
PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COL
FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEME

...S AGENCIES, OR FEDERAL AGENCIES.

THIS PERMIT IS VOID IF THE FIRST INSPECTION IS NOT MADE WITHIN ONE (1) YEAR FROM THE DATE ISSUED.

THIS CARD MUST BE PLACED ON A BOARD AT EYE LEVEL SO IT CAN BE READ FROM
STREET AND BE PROTECTED FROM THE WEATHER.



CONSTRUCTION PERMIT # WEL20 i0 - 00834

WATER: Clear ☐ Cloudy ☐ Iron ☐ Tannin ☐ Sulfur ☐ Sandy ☐ Other: _____

CONDUCTIVITY _____ CHLORIDES _____ mg/L

<u>Grout</u> Thickness & Depth	<u>Casing & Screen</u> Diameter & Depth	<u>Depth</u> From-To	<u>DRILL CUTTINGS LOG</u> Examine cuttings every 20 ft or at formation changes. Give color and type of material. Note cavities and depth to producing zone.
to	to		
to	to		1) 2" x 14' WELL ABANDONMENT
to	to		
to	to		
to	to		
to	to		
to	to		
to	to		
to	to		
to	to		
to	to		

of Bags Used _____

Additional Notes: _____

1



Monitor Well

PERMIT

PERMIT NUMBER: WEL2010-00825**ISSUED:** 09/14/10**Owner Name:** LEE COUNTY**EXPIRES:** 03/14/11**Contractor:** GARY GRIFFEY / BY ALLIED**Description:** 1 - 2" MONITOR WELL TO 5' / MONITOR WELL #1**Job Address:** 10500- 550 BUCKINGHAM RD**Date of Construction:****Well Use:** MONIT**Gallons/Minute:****Total Well Depth:****Casing Depth:****Sacks of Cement:****INSPECTION REQUEST LINE: (239) 533-8997******Notation- All Permits are CALLED IN and/or CANCELED by PERMIT (#) only********ATTENTION - Prior to 6:30a.m. the morning of commencement of drilling the Contractor must call in Permit # to schedule inspection on Inspection Line.****SPECIAL CONDITIONS REQUIRED (as summarized):**

1. NO well construction performed after hours and/or weekends, except for emergency well. (Ref) Well Code, 06-09, Appendix A, Section II - Well Construction. Drilling after regular work hours: An after-hour inspection fee (\$65.00 per hr) may be assessed for inspections performed outside normal working hours (7:00a.m. to 4:00p.m.) of county well inspectors.

O.K.**WELL CONSTRUCTION****Approved By****Lee County
Natural
Resources Mgmt.****APPROVAL****63957****NOTICE: IN ADDITION TO THE REQUIREMENTS OF
PROPERTY THAT MAY BE FOUND IN THE PUBLIC
FROM OTHER GOVERNMENTAL ENTITIES SUCH AS****THIS
HIRED
CIES.****THIS PERMIT IS VOID IF THE FIRST INSPECTION IS NOT MADE WITHIN ONE (1) YEAR.****THIS CARD MUST BE PLACED ON A BOARD AT EYE LEVEL SO IT CAN BE READ FROM
STREET AND BE PROTECTED FROM THE WEATHER.**



Lee County Well Completion Report

CONSTRUCTION PERMIT # WEL2010-00825

Owner LEE COUNTY 10500 BUCKINGHAM RD Fort Myers FLA
Site Address City State Zip
Contractor's Signature [Signature] Lee County License # 1001 Completion Date 9-15-10 Casing Depth 9' Total Depth 14' Well # WTE-3SR

Well Driller's Name GARY GOSPIEY State License # 2914
Strap # 24-44-25-00-0001-0000

LOCATION: (Subdivision/Area) _____
TYPE OF WORK: Construct ☒ Repair ☐ Abandon ☐
WELL USE: Private Well ☐ Public ☐ Monitor ☒ Test ☐
Irrigation ☐ Fire Well ☐ Other ☐
METHOD: Rotary with MUD ☐ or Air ☐ Cable Tool ☐
Jet ☐ Casing Driven ☐ Other ☒ AUGER

STATIC WATER LEVEL 3 Ft. below top of casing
PUMPING WATER LEVEL Ft. after _____ Hrs at _____ GPM
PUMP SIZE _____ H.P. CAPACITY _____ GPM
PUMP TYPE _____ IN TAKE DEPTH _____
CASING: Black Steel ☐ Galv. ☐ PVC ☒ Fiberglass ☐
GROUT TYPE: Portland ☒ 47# ☐ 94# ☒ % Additives _____

Crumbles ☐ EZ Seal ☐ Other ☐

SCREEN: Type PVC Slot Size 210

Screened from 9 (ft) to 14 (ft)

WATER: Clear ☒ Cloudy ☐ Iron ☐ Tannin ☐ Sulfur ☐ Sandy ☐ Other: _____ CONDUCTIVITY _____ CHLORIDES _____ mg/L

Grout Thickness & Depth	Casing & Screen Diameter & Depth	Depth From-To	DRILL CUTTINGS LOG
2" to 0	2" to 0	0-3	Examine cuttings every 20 ft or at formation changes. Give color and type of material. Note cavities and depth to producing zone.
to 4'	to 1	3-7	BROWN SAND
to	to 14	7-14	LENSHANE CLAY
to	to		
to	to		
to	to		
to	to		
to	to		
to	to		
to	to		
to	to		
# of Bags Used			Additional Notes: _____
1			

Monitor Well

PERMIT

PERMIT NUMBER: WEL2010-00870 **ISSUED:** 09/27/10
Owner Name: LEE COUNTY **EXPIRES:** 03/27/11
Contractor: L.W. HOWARD
Description: 4" COMMERCIAL MONITOR WELL REPLACEMENT *** (ANOTHER COMPANY
TO DO THE PLUGGING OF OLD MONITOR WELL)
HAS PLUGGED THE OLD
Job Address: 10500 BUCKINGHAM RD
Date of Construction: **Well Use:** MWP **Gallons/Minute:**
Total Well Depth: **Casing Depth:** **Sacks of Cement:**

INSPECTION REQUEST LINE: (239) 533-8997

****Notation- All Permits are CALLED IN and/or CANCELED by PERMIT (#) only****

****ATTENTION - Prior to 6:30a.m. the morning of commencement of drilling the Contractor must call in Permit # to schedule inspection on Inspection Line.**

SPECIAL CONDITIONS REQUIRED (as summarized):

1. OLD WELL MUST BE PLUGGED WITHIN 2 WEEKS OF DRILLING NEW WELL. *RE-INSPECTION FEES WILL BE ASSESSED IF WELL PLUGGING 30 DAYS.

Instruction performed after hours and/or weekends, except for well. (Ref) Well Code, 06-09, Appendix A, Section II - Well
1. Drilling after regular work hours: An after-hour inspection fee (hr) may be assessed for inspections performed outside normal hours (7:00a.m. to 4:00p.m.) of county well inspectors.

O.K.

WELL CONSTRUCTION

Approved By

Lee County
Natural
Resources Mgmt.

APPROVAL

64027

THE REQUIREMENTS OF THIS PERMIT THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PERMIT FOUND IN THE PUBLIC RECORDS OF THIS COUNTY, AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM LOCAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES, OR FEDERAL AGENCIES.

VOID IF THE FIRST INSPECTION IS NOT MADE WITHIN ONE (1) YEAR FROM THE DATE ISSUED.

BE PLACED ON A BOARD AT EYE LEVEL SO IT CAN BE READ FROM STREET AND BE PROTECTED FROM THE WEATHER.

DEP Form # 62-520.9003
Form Title MONITORING WELL COMPLETION REPORT
Effective Date <u>July 12, 2009</u>
DEP Application No. _____ (Filled in by DEP)

Florida Department of Environmental Protection

Bob Martinez Center, 2600 Blair Stone Road Tallahassee, Florida 32399-2400

MONITORING WELL COMPLETION REPORT

PART I: GENERAL INFORMATION

Well ID: WTE-3SR	Site Name: Lee County Solid Waste to Energy Recovery		Well Install Date Sept. 15, 2010
Facility ID	Alternate ID	FLUWID #	WMD Permit #
Well Purpose ☐ Background ☐ Intermediate ☒ Compliance ☐ Other (explain)			
Latitude (to nearest 0.1 seconds) N 26° 38.027'		Longitude (to nearest 0.1 seconds) W 081° 45.768'	
Latitude and Longitude collection method: ☐ DGPS ☐ AGPS ☐ MAP ☐ ZIPCODE ☐ DPHO ☐ UNKNOWN ☒ OTHER Garmin, Hand Held GPS			

PART II: WELL CONSTRUCTION DETAILS

Contractor Name Gary Griffey				Contractor License # ST 2914	
Company Name Allied Engineering & Testing, Inc.					
Construction Method: ☐ Hollow Stem Auger ☒ Solid Stem Auger ☐ Water/Mud Rotary ☐ Air Rotary ☐ Cable Tool ☐ Direct Push ☐ Sonic ☐ Other (describe)				Aquifer Monitored Shallow Water Table	
Top of Casing Elevation (NVGD or NAVD) 23.98			Ground Surface Elevation (NVGD or NAVD) 21.81		
Material	Inside Diameter	Outside Diameter	Depth (ft.)		
			From	To	
PVC	2"		0	9	
Material	Inside Diameter	Outside Diameter	Depth (ft.)		Slot Size
			From	To	
PVC	2"		9	14	0.010
Material including additives for sealant	Size of Material	Amount (# of bags)	Depth (ft.)		Installation Method
			From	To	
Portland Cement		1.5	0	4	Bucket from surface
Bentonite Chips	0.5"	1	4	7	Bucket from surface
Silica Sand	20-30	5	7	14	Tremmie

DEP Form # 62-520.800(3)
Form Title <u>MONITORING WELL COMPLETION REPORT</u>
Effective Date <u>July 12, 2009</u>
DEP Application No. _____ (Filled in by DEP)

Florida Department of Environmental Protection

Bob Martinez Center, 2600 Blair Stone Road Tallahassee, Florida 32399-2400

MONITORING WELL COMPLETION REPORT

PART I: GENERAL INFORMATION

Well ID: WTE-3DR	Site Name: Lee County Solid Waste to Energy Recovery		Well Install Date Oct. 1, 2010
Facility ID	Alternate ID	FLUWID #	WMD Permit #
Well Purpose ☐ Background ☐ Intermediate ☒ Compliance ☐ Other (explain)			
Latitude (to nearest 0.1 seconds) N 26° 38.027'		Longitude (to nearest 0.1 seconds) W 081° 45.769'	
Latitude and Longitude collection method: ☐ DGPS ☐ AGPS ☐ MAP ☐ ZIPCODE ☐ DPHO ☐ UNKNOWN ☒ OTHER Garmin, Hand Held GPS			

PART II: WELL CONSTRUCTION DETAILS

Contractor Name Gary Griffey			Contractor License # ST 2914		
Company Name Allied Engineering & Testing, Inc.					
Construction Method: ☐ Hollow Stem Auger ☒ Solid Stem Auger ☐ Water/Mud Rotary ☐ Air Rotary ☐ Cable Tool ☐ Direct Push ☐ Sonic ☐ Other (describe)			Aquifer Monitored Shallow Water Table		
Top of Casing Elevation (NVGD or NAVD) 23.91			Ground Surface Elevation (NVGD or NAVD) 21.81		
Material	Inside Diameter	Outside Diameter	Depth (ft.)		
			From	To	
PVC	4"		0	72	
Material	Inside Diameter	Outside Diameter	Depth (ft.)		Slot Size
			From	To	
PVC	2"		72	82	0.010
Material including additives for sealant	Size of Material	Amount (# of bags)	Depth (ft.)		Installation Method
			From	To	
Portland Cement		10	0	68	Tremmie
Bentonite Chips	0.5"	1	68	70	Tremmie
Silica Sand	20-30	12	70	82	Tremmie

Well Development Date October 1, 2010	Well Development Method: ☒ Surge/Pump ☐ Pump ☐ Compressed Air ☐ Other (explain)		
Development Duration	2 hours		
Pumping Rate 35 gpm	Maximum Drawdown	Well Purged Dry ☐ yes ☒ no	Pumping Condition ☐ continuous ☒ intermittent
Turbidity (if Measured):		Stabilized Water Level (BLS)	
Start:	End:	3'	
Water appearance (color and odor) at start of development:			
milky			
Water appearance (color and odor) at end of development:			
clear			

Report Prepared By:	Date
Gary Griffey	Oct. 14, 2010
Title/Company	License #
Drilling Manager, Allied Engineering & Testing, Inc.	ST 2914

[illegible]