

**APPENDIX D**

**SOIL BORING LOGS, WELL CONSTRUCTION AND DEVELOPMENT  
LOGS, AND WELL COMPLETION REPORTS**

# BORING LOG

Boring/Well Number: <b>SB-1</b>		Permit Number: <b>13-59-14683</b>		FDEP Facility Identification Number: <b>13/8503663</b>	
Site Name: <b>Jak Service Center dba United Fuel</b>		Borehole Start Date: <b>06/05/18</b>	Borehole Start Time: <b>1025</b> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	End Date: <b>06/05/18</b>	
Environmental Contractor: <b>ATC Group Services LLC</b>		Geologist's Name: <b>Dwight W. Schwendeman</b>		Environmental Technician's Name: <b>Leif Rodney</b>	
Drilling Company: <b>JAEE Environmental Services</b>		Pavement Thickness (inches): <b>6</b>	Borehole Diameter (inches): <b>2</b>	Borehole Depth (feet): <b>6</b>	
Drilling Method(s): <b>HA/DP</b>	Apparent Borehole DTW (in feet from soil moisture content): <b>~6</b>	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): <b>MiniRae 3000</b> <input type="checkbox"/> FID <input checked="" type="checkbox"/>		
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input checked="" type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other <i>(describe if other or multiple items are checked):</i>					
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> 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)
HA		12				0.5	1	Concrete, Fill - Limestone	sw	D	Lab sample
HA		12					2	Sand, medium to fine grain, Greyish brown treading to pale brown		D	
HA		12				<0.1	3			D	
HA		12					4	Limestone, Very light grey to white		D	
DP		12				<0.1	5			M	
DP		8					6			M	
								6 Feet - End of Boring			

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

Boring/Well Number: <b>SB-2</b>		Permit Number: <b>13-59-14683</b>		FDEP Facility Identification Number: <b>13/8503663</b>	
Site Name: <b>Jak Service Center dba United Fuel</b>		Borehole Start Date: <b>06/05/18</b>	Borehole Start Time: <b>1010</b> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	End Date: <b>06/05/18</b>	
Environmental Contractor: <b>ATC Group Services LLC</b>		Geologist's Name: <b>Dwight W. Schwendeman</b>		Environmental Technician's Name: <b>Leif Rodney</b>	
Drilling Company: <b>JAEE Environmental Services</b>		Pavement Thickness (inches): <b>6</b>	Borehole Diameter (inches): <b>2</b>	Borehole Depth (feet): <b>6</b>	
Drilling Method(s): <b>HA/DP</b>	Apparent Borehole DTW (in feet from soil moisture content): <b>~6</b>	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): <b>MiniRae 3000</b> <input type="checkbox"/> FID <input checked="" type="checkbox"/>		
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other <i>(describe if other or multiple items are checked):</i>					
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> 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)
HA		12				<0.1	1	Concrete, Fill - Limestone	SW	D	Lab sample
HA		12					2	Sand, medium to fine grain, Pale brown treading to light grey		D	
HA		12				<0.1	3			D	
HA		12					4	Limestone, Very light grey to white		D	
DP		12				<0.1	5			M	
DP		8					6			M	
								6 Feet - End of Boring			

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

Boring/Well Number: <b>SB-3</b>		Permit Number: <b>13-59-14683</b>		FDEP Facility Identification Number: <b>13/8503663</b>	
Site Name: <b>Jak Service Center dba United Fuel</b>		Borehole Start Date: <b>06/05/18</b>	Borehole Start Time: <b>0925</b> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	End Date: <b>06/05/18</b>	
Environmental Contractor: <b>ATC Group Services LLC</b>		Geologist's Name: <b>Dwight W. Schwendeman</b>		Environmental Technician's Name: <b>Leif Rodney</b>	
Drilling Company: <b>JAEE Environmental Services</b>		Pavement Thickness (inches): <b>6</b>	Borehole Diameter (inches): <b>2</b>	Borehole Depth (feet): <b>6</b>	
Drilling Method(s): <b>HA/DP</b>	Apparent Borehole DTW (in feet from soil moisture content): <b>~6</b>	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): <b>MiniRae 3000</b> <input type="checkbox"/> FID <input checked="" type="checkbox"/>		
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other <i>(describe if other or multiple items are checked):</i>					
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> 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)
HA		12				0.5	1	Concrete, Fill - Limestone mix with P-rock		D	Lab sample
HA		12					2			D	
HA		12				<0.1	3	Fill - Limestone		D	
HA		12					4			D	
HA		12				<0.1	5	Sand, medium to fine grain, grey to light grey	SW	M	
DP		8					6	6 Feet - End of Boring		M	

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

Boring/Well Number: <b>SB-4</b>		Permit Number: <b>13-59-14683</b>		FDEP Facility Identification Number: <b>13/8503663</b>	
Site Name: <b>Jak Service Center dba United Fuel</b>		Borehole Start Date: <b>06/05/18</b>	Borehole Start Time: <b>0945</b> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	End Date: <b>06/05/18</b>	
Environmental Contractor: <b>ATC Group Services LLC</b>		Geologist's Name: <b>Dwight W. Schwendeman</b>		Environmental Technician's Name: <b>Leif Rodney</b>	
Drilling Company: <b>JAEE Environmental Services</b>		Pavement Thickness (inches): <b>6</b>	Borehole Diameter (inches): <b>2</b>	Borehole Depth (feet): <b>6</b>	
Drilling Method(s): <b>HA/DP</b>	Apparent Borehole DTW (in feet from soil moisture content): <b>~6</b>	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): <b>MiniRae 3000</b> <input type="checkbox"/> FID <input checked="" type="checkbox"/>		
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other <i>(describe if other or multiple items are checked):</i>					
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> 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)
HA		12				<0.1	1	Concrete, Fill - Limestone		D	
HA		12					2	Sand, medium to fine grain, pale brown	SW	D	
HA		12				<0.1	3	Sand, medium to fine grain, grey	SW	D	
HA		12					4			D	
HA		12				0.1	5	Sand, medium to fine grain, light reddish brown	SW	M	
DP		8					6	6 Feet - End of Boring		M	

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

Boring/Well Number: <b>SB-5</b>		Permit Number: <b>13-59-14683</b>		FDEP Facility Identification Number: <b>13/8503663</b>	
Site Name: <b>Jak Service Center dba United Fuel</b>		Borehole Start Date: <b>06/05/18</b>	Borehole Start Time: <b>1100</b> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	End Date: <b>06/05/18</b>	
Environmental Contractor: <b>ATC Group Services LLC</b>		Geologist's Name: <b>Dwight W. Schwendeman</b>		Environmental Technician's Name: <b>Leif Rodney</b>	
Drilling Company: <b>JAEE Environmental Services</b>		Pavement Thickness (inches): <b>2</b>	Borehole Diameter (inches): <b>2</b>	Borehole Depth (feet): <b>13</b>	
Drilling Method(s): <b>HA/DP</b>	Apparent Borehole DTW (in feet from soil moisture content): <b>~6</b>	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): <b>MiniRae 3000</b> <input type="checkbox"/> FID <input checked="" type="checkbox"/>		
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other <i>(describe if other or multiple items are checked):</i>					
Borehole Completion (check one): <input checked="" type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> 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)
HA		12				<0.1	1	Asphalt/Concrete, Fill - Limestone Sand with Limestone fragments	SW	D	
HA		12					2	Sand, medium to fine grain, brown trend to light brown		D	
HA		12				0.3	3			D	
HA		12					4	Limestone, Pale brown		D	
DP		8				<0.1	5			M	
DP		8					6			M	
								6 Feet - End of sample collection			

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: <b>MW-9</b>	Site Name: <b>Jak Service Center dba United Fuel</b>	FDEP Facility I.D. Number: <b>13/8503663</b>	Well Install Date(s): <b>06/05/2018</b>		
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input type="checkbox"/> Above Grade (AG) <input checked="" type="checkbox"/> Flush-to-Grade If AG, list feet of riser above land surface:		Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table ) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Method: <b>Direct Push</b>  Surface Casing Install Method: <b>NA</b>	
Borehole Depth (feet): <b>13</b>	Well Depth (feet): <b>13.00</b>	Borehole Diameter (inches): <b>3.25</b>	Manhole Diameter (inches): <b>8</b>	Well Pad Size: <b>2</b> feet by <b>2</b> feet	
Riser Diameter and Material: <b>1.5 - SCH 40 PVC</b>	Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-Threaded <input type="checkbox"/> Other (describe)	Riser Length: <b>3</b> feet from <b>0</b> feet to <b>3</b> feet			
Screen Diameter and Material: <b>1.5 - SCH 40 PVC</b>		Screen Slot Size: <b>0.010-inch</b>		Screen Length: <b>10</b> feet from <b>10</b> feet to <b>13</b> feet	
1 <sup>st</sup> Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 <sup>st</sup> Surface Casing I.D. (inches):		1 <sup>st</sup> Surface Casing Length: _____ feet from _____ feet to _____ feet	
2 <sup>nd</sup> Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2 <sup>nd</sup> Surface Casing I.D. (inches):		2 <sup>nd</sup> Surface Casing Length: _____ feet from _____ feet to _____ feet	
3 <sup>rd</sup> Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 <sup>rd</sup> Surface Casing I.D. (inches):		3 <sup>rd</sup> Surface Casing Length: _____ feet from _____ feet to _____ feet	
Filter Pack Material and Size: <b>20/30 silica sand</b>	Prepacked Filter Around Screen (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Filter Pack Length: <b>11</b> feet from <b>2</b> feet to <b>13</b> feet		
Filter Pack Seal Material and Size: <b>Sand 30/65</b>		Filter Pack Seal Length: <b>1</b> feet from <b>1</b> feet to <b>2</b> feet			
Surface Seal Material: <b>Portland Cement Grout</b>		Surface Seal Length: <b>5</b> feet from <b>0.5</b> feet to <b>1</b> feet			

WELL DEVELOPMENT DATA			
Well Development Date: <b>06/06/18</b>	Well Development Method (check one): <input type="checkbox"/> Surge/Pum <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)		
Development Pump Type (check): <input type="checkbox"/> Centrifugal <input checked="" type="checkbox"/> Peristaltic <input type="checkbox"/> Submersible <input type="checkbox"/> Other (describe)		Depth to Groundwater (before developing in feet): <b>6.15</b>	
Pumping Rate (gallons per minute): <b>~0.50</b>	Maximum Drawdown of Groundwater During Development (feet): <b>~0.9</b>	Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	Total Development Water Removed (gallons): <b>~14</b>	Development Duration (minutes): <b>27</b>	Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Water Appearance (color and odor) At Start of Development: <b>light brownish white - none</b>		Water Appearance (color and odor) At End of Development: <b>none - none</b>	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS



STATE OF FLORIDA WELL COMPLETION REPORT

- Southwest
Northwest
St. Johns River
South Florida
Suwannee River
DEP
Delegated Authority (If Applicable)

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(\*Denotes Required Fields Where Applicable)

Date Stamp

Official Use Only

1.\*Permit Number 13-59-14683 \*CUP/WUP Number \*DID Number 62-524 Delineation No.
2.\*Number of permitted wells constructed, repaired, or abandoned 1 \*Number of permitted wells not constructed, repaired, or abandoned 0
3.\*Owner's Name Jorges Ugan & W Julila 4.\*Completion Date 6/13/18 5. Florida Unique ID
6. 6900 SW 8 St, Miami 33144

\*Well Location - Address, Road Name or Number, City, ZIP
7.\*County Dade \*Section Land Grant \*Township \*Range
8. Latitude Longitude
9. Data Obtained From: GPS Map Survey Datum: NAD 27 NAD 83 WGS 84

10.\*Type of Work: Construction Repair Modification Abandonment
11.\*Specify Intended Use(s) of Well(s):
Domestic Landscape Irrigation Agricultural Irrigation Site Investigation
Bottled Water Supply Recreation Area Irrigation Livestock Monitoring
Public Water Supply (Limited Use/DOH) Nursery Irrigation Test
Public Water Supply (Community or Non-Community/DEP) Commercial/Industrial Earth-Coupled Geothermal
Class I Injection Golf Course Irrigation HVAC Supply
Class V Injection Recharge Commercial/Industrial Disposal Aquifer Storage and Recovery Drainage
Remediation: Recovery Air Sparge Other (Describe)
Other (Describe)

12.\*Drill Method: Auger Cable Tool Rotary Combination (Two or More Methods) Jetted Sonic
Horizontal Drilling Hydraulic Point (Direct Push) Other
13.\*Measured Static Water Level ft. Measured Pumping Water Level ft. After Hours at GPM
14.\*Measuring Point (Describe) Which is ft. Above Below Land Surface \*Flowing: Yes No
15.\*Casing Material: Black Steel Galvanized PVC Stainless Steel Not Cased Other
16.\*Total Well Depth 13 ft. Cased Depth 3 ft. \*Open Hole: From 0 To 0 ft. \*Screen: From 5 To 15 ft. Slot Size .010

17.\*Abandonment: Other (Explain)
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

18.\*Surface Casing Diameter and Depth:
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

19.\*Primary Casing Diameter and Depth:
Dia 13 in. From 0 ft. To 3 ft. No. of Bags 1 Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

20.\*Liner Casing Diameter and Depth:
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

21.\*Telescope Casing Diameter and Depth:
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other
Dia in. From ft. To ft. No. of Bags Seal Material (Check One): Neat Cement Bentonite Other

22. Pump Type (If Known): Centrifugal Jet Submersible Turbine
Horsepower Pump Capacity (GPM)
Pump Depth ft. Intake Depth ft.
23. Chemical Analysis (When Required):
Iron ppm Sulfate ppm Chloride ppm
Laboratory Test Field Test Kit

24. Water Well Contractor:
\*Contractor Name Erin Fromm \*License Number 11313 E-mail Address Jae@bellsouth.net
\*Contractor's Signature \*Driller's Name (Print or Type) w smitherman
(I certify that the information provided in this report is accurate and true.)

