

G.N. RICHARDSON & ASSOCIATES
Engineering and Geological Services

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November 15, 2006

Ms. Toni Wyche
NCDENR – DWM Solid Waste Section
1646 Mail Service Center
Raleigh, North Carolina 27699-1646



RE: Well Abandonment and Installation
Johnston County C&D Landfill
Smithfield, North Carolina

Dear Ms. Wyche:

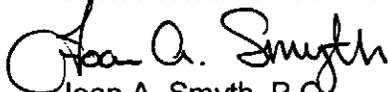
As you are aware, Johnston County has received a Permit to Construct for the C&D landfill located to the east of the existing Phase 3 MSW landfill. This letter is sent to certify that piezometers located in and near the proposed footprint were properly abandoned in accordance with 2C regulations from August 21st through the 29th, 2006 and that the proposed monitoring wells were installed at this time.

Each of the piezometers constructed above the bedrock were over-reamed to their completed depth, and each borehole was then backfilled by tremie pipe with grout. Piezometers that were constructed in the bedrock were filled with grout via tremie-pipe to the surface. **Figure 1** shows the well locations. **Table 1** includes a list of the piezometers abandoned and their original construction details. **Attachment 1** contains the well abandonment records.

It should be noted that one monitoring well, MW-5, was installed as one of the original monitoring wells at the site. This well went dry several years ago and was replaced with MW-5a which is still in service. The original MW-5 was abandoned during this event as this well has not be used for many years. This well was located outside the landfill footprint and was therefore grouted from bottom to top using a tremie pipe.

Additionally, six (6) proposed ground water monitoring wells for the C&D landfill were installed during this drilling event. Well installation records are included in **Attachment 2** for your review. If you have any questions, or require further information, please contact me at your earliest convenience.

Sincerely,
G. N. Richardson and Associates, Inc.


Joan A. Smyth, P.G.
Senior Hydrogeologist



Cc: Tim Broome – Johnston County
Attachments

Table 1
Abandoned Monitoring Well / Piezometer Construction
August 21 through 29, 2006
Johnston County C&D Landfill

Well Number	Total Depth (ft.)	TOC Elevation	Ground Elevation	Top of Screen (ft)	Bottom of Screen (ft)	Bedrock Depth (ft)
PZ-1	15	178.87	176.7	5	15	N/A
PZ-1A	21	178.93	176.4	5	20	N/A
PZ-2	20	175.27	172.9	3	18	N/A
PZ-3A	16	171.04	168	5	15	N/A
PZ-4	20	158.29	155.4	5	20	N/A
PZ-5	18	155.82	154.2	3	18	N/A
PZ-6	23	161.22	159.1	8	23	N/A
PZ-7	20	168.82	166.6	5	20	N/A
PZ-8	18.5	168.01	166.4	3.5	18.5	N/A
MW-5	15	N/A	N/A	N/A	N/A	N/A
MW-13	20	179.57	174	9	19	NA
MW-13d	53	172.7	171.82	48	53	38
PW-2	31.5	159.62	156.6	21.5	31.5	18.5
PW-3	45	165.4	162.5	35	45	25
PW-4	32	159.71	156.9	22	32	16.5

N/A = Not available. For Bedrock Depth, this indicates bedrock was not encountered.
 MW-5 is the original monitoring well MW-5 for the Phase 1 - 4 landfills. No information is available for this well. This well has been dry for several years and was replaced with MW-5a which is still utilized for ground water monitoring at the site.

Attachment 1
Abandonment Records



REC'D OCT 04 2006

WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.

Winston-Salem NC 27107
City or Town State Zip Code

(316) - 724-6594
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) MW-5

STATE WELL PERMIT # (if applicable) n/a

COUNTY WELL PERMIT # (if applicable) n/a

DWQ or OTHER PERMIT # (if applicable) n/a

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Johnston QUADRANGLE NAME _____

NEAREST TOWN: Smith Field

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE _____

LONGITUDE _____

May be in degrees, minutes, seconds, or in a decimal format

Latitude/longitude source: GPS Topographic map

(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY. The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) _____

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.

Smith Field NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.

Smith Field NC 27577
City or Town State Zip Code

919 - 938-4700
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 15' ft. Diameter: 2 in.

b. Water Level (Below Measuring Point): Dry ft.
Measuring point is _____ ft. above land surface.

6. CASING: Length Diameter

a. Casing Depth (if known): 0 ft. 2 in.

b. Casing Removed: 0 ft. 2 in.

7. DISINFECTION: n/a

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement

Sand Cement

Cement 94 lb.
Water 7 gal.

Cement _____ lb.
Water _____ gal.

Bentonite

Bentonite 5 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other

Type material _____

Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Tremie grouted Well from Bottom to Top.

10. WELL DIAGRAM: Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 8-23-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron 9-1-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.

Winston-Salem NC 27107
City or Town State Zip Code

(336) 724-6594
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) PW-4

STATE WELL PERMIT # (if applicable) N/A

COUNTY WELL PERMIT # (if applicable) N/A

DWQ or OTHER PERMIT # (if applicable) N/A

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Johnston QUADRANGLE NAME _____

NEAREST TOWN: Smithfield

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 57713

LONGITUDE 78 421877

May be in degrees, minutes, seconds, or in a decimal format

Latitude/longitude source: GPS Topographic map

(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY- The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) N/A

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

919 938-4700
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 32 ft. Diameter: 2 in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

a. Casing Depth (if known): 16.5 ft. 4 in.
b. Casing Removed: 0 ft. 4 in.

7. DISINFECTION: N/A

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement Sand Cement
Cement 188 lb. Cement _____ lb.
Water 14 gal. Water _____ gal.

Bentonite
Bentonite 8 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other
Type material _____
Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Removed protective casing.
Proceeded to remove gravel from
bottom to ground surface

10. WELL DIAGRAM: Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 8-23-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron 8-1-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.
Winston-Salem NC 27107
City or Town State Zip Code

(336) - 724-6594
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) PW-3

STATE WELL PERMIT # (if applicable) n/a

COUNTY WELL PERMIT # (if applicable) n/a

DWQ or OTHER PERMIT # (if applicable) n/a

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Johnston QUADRANGLE NAME _____

NEAREST TOWN: Smith Field

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:
Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 517667

LONGITUDE 78 422295

May be in degrees, minutes, seconds, or in a decimal format

Latitude/longitude source: GPS Topographic map
(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY:

The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) n/a

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.
Smith Field NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.

Smith Field NC 27577
City or Town State Zip Code

919 - 938-4750
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 45' ft. Diameter: 2" in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

a. Casing Depth (if known): 25' ft. 6" in.

b. Casing Removed: 0 ft. 6" in.

7. DISINFECTION: n/a

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement Sand Cement
Cement 188 lb. Cement _____ lb.
Water 14 gal. Water _____ gal.

Bentonite
Bentonite 8 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other
Type material _____
Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Removed Protective Casing.
Proceeded to trim spout from
Bottom to Ground Surface.

10. WELL DIAGRAM:

11. DATE WELL ABANDONED 8-23-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron For Eng. 9-1-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources - Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vantage St.

Winston-Salem NC 27107
City or Town State Zip Code

(316) - 724-6994
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) MW-13D

STATE WELL PERMIT # (if applicable) N/A

COUNTY WELL PERMIT # (if applicable) N/A

DWQ or OTHER PERMIT # (if applicable) N/A

WELL USE (Circle applicable use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Johnston QUADRANGLE NAME _____

NEAREST TOWN: Smithfield

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 51843

LONGITUDE 78 423853

May be in degrees, minutes, seconds, or in a decimal format

Latitude/longitude source: GPS Topographic map

(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY:

The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) _____

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

919 - 938-4750
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 53' ft. Diameter: 2" in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

a. Casing Depth (if known): 38 ft. 4 in.

b. Casing Removed: 0 ft. 0 in.

7. DISINFECTION:

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement

Cement 188 lb.
Water 19 gal.

Sand Cement

Cement _____ lb.
Water _____ gal.

Bentonite

Bentonite 8 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other

Type material _____

Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Removed protective casing & proceeded to remove grout from bottom to ground surface

10. WELL DIAGRAM:

Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 8-23-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron For Ety: 8-1-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.

Winston-Salem NC 27107
City or Town State Zip Code

(336) 724-6894
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) PVV-2

STATE WELL PERMIT # (if applicable) n/a

COUNTY WELL PERMIT # (if applicable) n/a

DWQ or OTHER PERMIT # (if applicable) n/a

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Jackson QUADRANGLE NAME _____

NEAREST TOWN: Smithfield

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 517981

LONGITUDE 78 421793

May be in degrees, minutes, seconds, or in a decimal format

Latitude/longitude source: GPS Topographic map

(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY:

The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) _____

NAME OF FACILITY Jackson Co. Landfill

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

919 938-4700
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 316" ft. Diameter: 2" in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

a. Casing Depth (if known): 186" ft. 4 in.
b. Casing Removed: 0 ft. 4 in.

7. DISINFECTION: n/a

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement Sand Cement
Cement 188 lb. Cement _____ lb.
Water 14 gal. Water _____ gal.

Bentonite
Bentonite 8 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other
Type material _____
Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Removed Protective Casing.
Proceeded to remove grout from
bottom to ground surface

10. WELL DIAGRAM:

Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED: 8-23-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron 8-1-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C.0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vantage St.

Winston-Salem NC 27107
City or Town State Zip Code

(336) - 724-6594
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) MW-13

STATE WELL PERMIT # (if applicable) N/A

COUNTY WELL PERMIT # (if applicable) N/A

DWQ or OTHER PERMIT # (if applicable) N/A

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Johnston QUADRANGLE NAME _____

NEAREST TOWN: Smithfield

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 518443 May be in degrees, minutes, seconds, or in a decimal format

LONGITUDE 78 423942

Latitude/longitude source: GPS Topographic map
(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY:

The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) N/A

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.
Smithfield NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

919 - 938-4750
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 20 ft. Diameter: 2" in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

a. Casing Depth (if known): 20 ft. 2" in.

b. Casing Removed: 20 ft. 2" in.

7. DISINFECTION:

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement Sand Cement
Cement 376 lb. Cement _____ lb.
Water 28 gal. Water _____ gal.

Bentonite
Bentonite 18 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other
Type material _____
Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Over drilled well to remove all well materials and tremie grout from bottom to top

10. WELL DIAGRAM:

Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 8-23-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron For Eng.
SIGNATURE OF CERTIFIED WELL CONTRACTOR 8-1-06 DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources - Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.
Winston-Salem NC 27107
City or Town State Zip Code

(336) - 724-6894
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) PZ-1

STATE WELL PERMIT # (if applicable) N/A

COUNTY WELL PERMIT # (if applicable) N/A

DWQ or OTHER PERMIT # (if applicable) N/A

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Winston QUADRANGLE NAME _____

NEAREST TOWN: Smithfield

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 516757

LONGITUDE 78 424002

Latitude/longitude source: GPS Topographic map
(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

May be in degrees, minutes, seconds, or in a decimal format

4a. FACILITY:

The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) _____

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

919 - 938-4750
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 15 ft. Diameter: 2 in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

a. Casing Depth (if known): 15 ft. 2 in.

b. Casing Removed: 15 ft. 2 in.

7. DISINFECTION: N/A

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement

Cement 376 lb.
Water 28 gal.

Sand Cement

Cement _____ lb.
Water _____ gal.

Bentonite

Bentonite 18 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other

Type material _____

Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Over drilled well to remove all well materials and tremie grout from bottom to top.

10. WELL DIAGRAM:

Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 8-23-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron For. Eng. 8-1-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.

Winston-Salem NC 27107
City or Town State Zip Code

(336) - 724-6894
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) PZ-1A

STATE WELL PERMIT # (if applicable) n/a

COUNTY WELL PERMIT # (if applicable) n/a

DWQ or OTHER PERMIT # (if applicable) n/a

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Johnston QUADRANGLE NAME _____

NEAREST TOWN: Smithfield

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:
Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 516757

LONGITUDE 78 42439

May be in degrees, minutes, seconds, or in a decimal format

Latitude/longitude source: GPS Topographic map
(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY- The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) _____

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

919 - 938-4750
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 21 ft. Diameter: 2 in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

a. Casing Depth (if known): 21 ft. 2 in.

b. Casing Removed: 21 ft. 2 in.

7. DISINFECTION: n/a

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement Sand Cement
Cement 376 lb. Cement _____ lb.
Water 28 gal. Water _____ gal.

Bentonite
Bentonite 18 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other
Type material _____
Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Over drilled well to remove all well materials and Tremie grout from bottom to top

10. WELL DIAGRAM: Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 8-23-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron For Eng. 9-1-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C.0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.

Winston-Salem NC 27107
City or Town State Zip Code

(336) - 724-6594
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) PZ-2

STATE WELL PERMIT # (if applicable) N/A

COUNTY WELL PERMIT # (if applicable) N/A

DWQ or OTHER PERMIT # (if applicable) N/A

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Schenck QUADRANGLE NAME _____

NEAREST TOWN: Smithfield

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 516388

LONGITUDE 78 423638

May be in degrees, minutes, seconds, or in a decimal format

Latitude/longitude source: GPS Topographic map

(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY- The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) _____

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

919 - 938-4700
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 20' ft. Diameter: 2" in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

a. Casing Depth (if known): 20' ft. 2" in.
b. Casing Removed: 20' ft. 2" in.

7. DISINFECTION: N/A

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement Sand Cement
Cement 376 lb. Cement _____ lb.
Water 28 gal. Water _____ gal.

Bentonite
Bentonite 18 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other
Type material _____
Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Over drilled well to remove all well materials and remove grout from bottom to top.

10. WELL DIAGRAM: Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 8-23-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron For Eng. Tectonics 8-1-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.
Winston-Salem NC 27107
City or Town State Zip Code

(336) - 724-6594
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) P24

STATE WELL PERMIT # (if applicable) N/A

COUNTY WELL PERMIT # (if applicable) N/A

DWQ or OTHER PERMIT # (if applicable) N/A

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Chatham QUADRANGLE NAME _____

NEAREST TOWN: Smithfield

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 518051

LONGITUDE 78 423284

May be in degrees, minutes, seconds, or in a decimal format

Latitude/longitude source: GPS Topographic map

(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY- The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) _____

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.
Smithfield NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.
Smithfield NC 27577
City or Town State Zip Code

919 - 938-4700
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 20.0 ft. Diameter: 2" in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

	Length	Diameter
a. Casing Depth (if known):	<u>20'</u> ft.	<u>2"</u> in.
b. Casing Removed:	<u>20'</u> ft.	<u>2"</u> in.

7. DISINFECTION: None

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

<u>Neat Cement</u>	<u>Sand Cement</u>
Cement <u>376</u> lb.	Cement _____ lb.
Water <u>28</u> gal.	Water _____ gal.

Bentonite

Bentonite 18 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other

Type material _____

Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Over drill well to remove all well materials and Tremie grout from bottom to top

10. WELL DIAGRAM: Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 8-23-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron For Eng. Tectonics
SIGNATURE OF CERTIFIED WELL CONTRACTOR 9-1-06 DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE (The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.
Winston-Salem NC 27107
City or Town State Zip Code

(336) - 724-6594
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) PZ-5

STATE WELL PERMIT # (if applicable) N/A

COUNTY WELL PERMIT # (if applicable) N/A

DWQ or OTHER PERMIT # (if applicable) N/A

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Sheridan QUADRANGLE NAME _____

NEAREST TOWN: Smithfield

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 51902

LONGITUDE 78 422376

May be in degrees, minutes, seconds, or in a decimal format

Latitude/longitude source: GPS Topographic map

(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY:

The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) _____

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

919 - 938-4700
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 18.0 ft. Diameter: 2" in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

a. Casing Depth (if known): 18.0' ft. 2" in.
b. Casing Removed: 18.0' ft. 2" in.

7. DISINFECTION: None

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement Sand Cement
Cement 376 lb. Cement _____ lb.
Water 28 gal. Water _____ gal.

Bentonite
Bentonite 18 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other
Type material _____
Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Over drill well to remove all well materials and tremie grout from bottom to top

10. WELL DIAGRAM:

Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 8-23-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C. WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron For Eng. Tectonics
SIGNATURE OF CERTIFIED WELL CONTRACTOR 8-1-06 DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.

Winston-Salem NC 27107
City or Town State Zip Code

(336) - 724-6894
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) PZ-8

STATE WELL PERMIT # (if applicable) N/A

COUNTY WELL PERMIT # (if applicable) N/A

DWQ or OTHER PERMIT # (if applicable) N/A

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Johnston QUADRANGLE NAME _____

NEAREST TOWN: Smith Field

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 57107 May be in degrees, minutes, seconds, or in a decimal format

LONGITUDE 78 423202

Latitude/longitude source: GPS Topographic map
(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY:

The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) _____

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.

Smith Field NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.

Smith Field NC 27577
City or Town State Zip Code

919 - 938-4700
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 18.5 ft. Diameter: 2" in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

a. Casing Depth (if known): 18.5 ft. 2" in.

b. Casing Removed: 18.5 ft. 2" in.

7. DISINFECTION: None

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

<u>Neat Cement</u>	<u>Sand Cement</u>
Cement <u>376</u> lb.	Cement _____ lb.
Water <u>28</u> gal.	Water _____ gal.

Bentonite

Bentonite 18 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other

Type material _____
Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Over drill well to remove all well materials and Tremie grout from bottom to top

10. WELL DIAGRAM:

Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 8-22-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron For ENJ. 9-1-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.
Winston-Salem NC 27107
City or Town State Zip Code

(336) - 724-6994
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) P27

STATE WELL PERMIT # (if applicable) n/a

COUNTY WELL PERMIT # (if applicable) n/a

DWQ or OTHER PERMIT # (if applicable) n/a

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Johnston QUADRANGLE NAME _____

NEAREST TOWN: Smithfield

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 517219

LONGITUDE 78 422683

May be in degrees, minutes, seconds, or in a decimal format

Latitude/longitude source: GPS Topographic map
(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY - The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) _____

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.

Smithfield NC 27577
City or Town State Zip Code

919 - 938-4750
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 20.0' ft. Diameter: 2" in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

Length Diameter

a. Casing Depth (if known): 20' ft. 2" in.

b. Casing Removed: 20' ft. 2" in.

7. DISINFECTION: NONE

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement

Cement 376 lb.
Water 28 gal.

Sand Cement

Cement _____ lb.
Water _____ gal.

Bentonite

Bentonite 18 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other

Type material _____

Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Over drill well to Remove all well materials and Tremie grout from Bottom to Top

10. WELL DIAGRAM: Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 8-22-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C. WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron 8-1-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.

Winston-Salem NC 27107
City or Town State Zip Code

(336) - 724-6894
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) PZ6

STATE WELL PERMIT # (if applicable) N/A

COUNTY WELL PERMIT # (if applicable) N/A

DWQ or OTHER PERMIT # (if applicable) N/A

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Jonathan QUADRANGLE NAME _____

NEAREST TOWN: Smithfield

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:
Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 577717 May be in degrees, minutes, seconds, or in a decimal format

LONGITUDE 78 42289

Latitude/longitude source: GPS Topographic map
(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY- The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) _____

NAME OF FACILITY Jonathan Co. Landfill

STREET ADDRESS 680 Country Home Rd.
Smithfield NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.
Smithfield NC 27577
City or Town State Zip Code

919 - 938-4750
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 23.0' ft. Diameter: 2" in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

a. Casing Depth (if known): 23.0' ft. 2" in.

b. Casing Removed: 23.0' ft. 2" in.

7. DISINFECTION: None

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement Sand Cement
Cement 400 lb. Cement _____ lb.
Water 32 gal. Water _____ gal.

Bentonite
Bentonite 20 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other
Type material _____
Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Over drill well to remove all well materials and Tremie grout from bottom to top

10. WELL DIAGRAM: Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED: 8-22-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C. WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron 8-1-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113.)

Ronald F. Barron
PRINTED NAME OF PERSON ABANDONING THE WELL



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barton
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.
Winston-Salem NC 27107
City or Town State Zip Code

(336) - 724-6894
Area code - Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) PZ 3A

STATE WELL PERMIT # (if applicable) n/a

COUNTY WELL PERMIT # (if applicable) n/a

DWQ or OTHER PERMIT # (if applicable) n/a

WELL USE (Circle applicable use): Monitoring Residential
Municipal/Public Industrial/Commercial Agricultural
Recovery Injection Irrigation
Other (list use) _____

3. WELL LOCATION:

COUNTY Johnston QUADRANGLE NAME _____

NEAREST TOWN: Smithfield

680 Country Home Rd. 27577
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(Circle appropriate setting)

LATITUDE 35 517264

LONGITUDE 78 42364

May be in degrees, minutes, seconds, or in a decimal format

Latitude/longitude source: GPS Topographic map

(Location of well must be shown on a USGS topo map and attached to this form if not using GPS.)

4a. FACILITY. The name of the business where the well is located. Complete 4a and 4b. (If a residential well, skip 4a; complete 4b, well owner information only.)

FACILITY ID # (if applicable) _____

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.
Smithfield NC 27577
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME Rick Proctor

STREET ADDRESS 680 Country Home Rd.
Smithfield NC 27577
City or Town State Zip Code

919 - 938-4750
Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 16.0 ft. Diameter: 2 in.

b. Water Level (Below Measuring Point): _____ ft.
Measuring point is _____ ft. above land surface.

6. CASING:

Length Diameter

a. Casing Depth (if known): 16.0 ft. 2 in.

b. Casing Removed: 16.0 ft. 2 in.

7. DISINFECTION: n/a

(Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement Sand Cement

Cement 376 lb. Cement _____ lb.
Water 28 gal. Water _____ gal.

Bentonite

Bentonite 1.8 lb.
Type: Slurry _____ Pellets _____
Water _____ gal.

Other

Type material _____
Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Over drill well to remove all well materials and trench grout from bottom to top.

10. WELL DIAGRAM: Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 8-23-06

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barton 8-1-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C.0113.)

Ronald F. Barton
PRINTED NAME OF PERSON ABANDONING THE WELL

Attachment 2
Well Installation Records



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 VARGRAVE ST.
Winston-Salem NC 27107
City or Town State Zip Code

(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) CDMW-4

STATE WELL PERMIT #(if applicable) N/A

DWQ or OTHER PERMIT #(if applicable) N/A

WELL USE (Check Applicable Box) Monitoring Municipal/Public

Industrial/Commercial Agricultural Recovery Injection

Irrigation Other (list use) _____

DATE DRILLED 8-24/8-28

TIME COMPLETED 5:15 AM PM

3. WELL LOCATION:

CITY: Smithfield COUNTY Johnston

680 Country Home Rd 27577
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(check appropriate box)

LATITUDE 3 _____

LONGITUDE _____

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: GPS Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable) N/A

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.
Smithfield NC 27577
City or Town State Zip Code

CONTACT PERSON Rick Proctor

MAILING ADDRESS 680 Country Home Rd.
Smithfield NC 27577
City or Town State Zip Code

(919) 938-4750
Area code - Phone number

5. WELL DETAILS:

a. TOTAL DEPTH: 45'

b. DOES WELL REPLACE EXISTING WELL? YES NO

c. WATER LEVEL Below Top of Casing: _____ FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS +3 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):
From 396' To 40 From _____ To _____
From _____ To _____ From _____ To _____
From _____ To _____ From _____ To _____

6. CASING:

Depth	Diameter	Thickness/Weight	Material
From <u>0</u> To <u>25'</u> Ft.	<u>4"</u>	<u>Sch 40</u>	<u>PVC</u>
From <u>+3</u> To <u>35'</u> Ft.	<u>2"</u>	<u>Sch 40</u>	<u>PVC</u>
From _____ To _____ Ft.	_____	_____	_____

7. GROUT:

Depth	Material	Method
From <u>0</u> To <u>30</u> Ft.	<u>Portland</u>	<u>Tremie</u>
From _____ To _____ Ft.	_____	_____
From _____ To _____ Ft.	_____	_____

8. SCREEN:

Depth	Diameter	Slot Size	Material
From <u>35'</u> To <u>45'</u> Ft.	<u>2 in.</u>	<u>1010 in.</u>	<u>PVC</u>
From _____ To _____ Ft.	_____ in.	_____ in.	_____
From _____ To _____ Ft.	_____ in.	_____ in.	_____

9. SAND/GRAVEL PACK:

Depth	Size	Material
From <u>33</u> To <u>45</u> Ft.	<u>#3</u>	<u>SAND</u>
From <u>30'</u> To <u>33'</u> Ft.	<u>3/8</u>	<u>Benmonte Chypis</u>
From _____ To _____ Ft.	_____	_____

10. DRILLING LOG

From _____ To _____ Formation Description

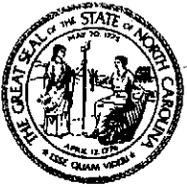
11. REMARKS:

Well set w/ 4" Above Ground Protective CASING

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C. WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron SIGNATURE OF CERTIFIED WELL CONTRACTOR 9-1-06 DATE

Ronald F. Barron PRINTED NAME OF PERSON CONSTRUCTING THE WELL



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2091

1. WELL CONTRACTOR:

Ronald F. Barron
Well Contractor (Individual) Name

Engineering Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 VARGRAVE ST.
Winston-Salem NC 27107
City or Town State Zip Code

(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) CDMW-55

STATE WELL PERMIT #(if applicable) N/A

DWQ or OTHER PERMIT #(if applicable) N/A

WELL USE (Check Applicable Box) Monitoring Municipal/Public

Industrial/Commercial Agricultural Recovery Injection

Irrigation Other (list use) _____

DATE DRILLED 8-29

TIME COMPLETED 10:45 AM PM

3. WELL LOCATION:

CITY: Smithfield COUNTY Johnston

680 Country Home Rd 27577
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

Slope Valley Flat Ridge Other _____
(check appropriate box)

LATITUDE 3 _____

LONGITUDE _____

May be in degrees,
minutes, seconds or
in a decimal format

Latitude/longitude source: GPS Topographic map
(location of well must be shown on a USGS topo map and
attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable) N/A

NAME OF FACILITY Johnston Co. Landfill

STREET ADDRESS 680 Country Home Rd.
Smithfield NC 27577
City or Town State Zip Code

CONTACT PERSON Rick Proctor

MAILING ADDRESS 680 Country Home Rd.
Smithfield NC 27577
City or Town State Zip Code

(919) 938-4750
Area code - Phone number

5. WELL DETAILS:

a. TOTAL DEPTH: 34'

b. DOES WELL REPLACE EXISTING WELL? YES NO

c. WATER LEVEL Below Top of Casing: _____ FT.
(Use "*" if Above Top of Casing)

d. TOP OF CASING IS +3 FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require
a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth): unconfined
From _____ To _____ From _____ To _____
From _____ To _____ From _____ To _____
From _____ To _____ From _____ To _____

6. CASING:

From	To	Depth	Diameter	Thickness/ Weight	Material
From <u>+3</u>	To <u>19</u>	Ft. <u>2</u>	<u>2</u>	<u>2.40</u>	<u>PVC</u>
From _____	To _____	Ft. _____	_____	_____	_____
From _____	To _____	Ft. _____	_____	_____	_____

7. GROUT:

From	To	Depth	Material	Method
From <u>0</u>	To <u>15</u>	Ft. <u>Portland</u>	<u>Fein</u>	<u>Fein</u>
From _____	To _____	Ft. _____	_____	_____
From _____	To _____	Ft. _____	_____	_____

8. SCREEN:

From	To	Depth	Diameter	Slot Size	Material
From <u>19</u>	To <u>34</u>	Ft. <u>2</u>	<u>in.</u>	<u>1010</u>	<u>PVC</u>
From _____	To _____	Ft. _____	_____	_____	_____
From _____	To _____	Ft. _____	_____	_____	_____

9. SAND/GRAVEL PACK:

From	To	Depth	Size	Material
From <u>17</u>	To <u>34</u>	Ft. <u>43</u>	<u>Sand</u>	<u>Sand</u>
From <u>15</u>	To <u>17</u>	Ft. <u>3/0</u>	<u>Bent. Chips</u>	<u>Bent. Chips</u>
From _____	To _____	Ft. _____	_____	_____

10. DRILLING LOG

From _____ To _____ Formation Description

11. REMARKS:

Well set 1/4" Above Ground
Protective Casing

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH
15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS
RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ronald F. Barron Engineering Tectonics 9-1-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Ronald F. Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

