

Subject: Re: Coble's Sandrock - Well/Piezometer Abandonment
From: Brian Wootton <brian.wootton@ncmail.net>
Date: Tue, 08 Apr 2008 08:00:15 -0400
To: Van Burbach <vburbach@joyceengineering.com>
CC: ming.chao@ncmail.net

Van,

The wells / piezometers can be abandoned now.

Brian

Van Burbach wrote:

Thanks, Brian.

My main question is, can we go ahead and abandon the wells/piezometers now, or do we need to wait until the permit to construct is approved?

- Van

Van Burbach, Ph.D., P.G.
Technical Consultant
Joyce Engineering, Inc.
2211 W. Meadowview Rd., Ste. 101
Greensboro, NC 27407
(336) 323-0092

From: Brian Wootton [<mailto:brian.wootton@ncmail.net>]
Sent: Wednesday, April 02, 2008 8:31 AM
To: Van Burbach
Cc: ming.chao@ncmail.net
Subject: Re: Coble's Sandrock - Well/Piezometer Abandonment

Van,

In response to your e-mail, listed below are guidelines / requirements for abandonment of piezometers / wells located within the footprint to be constructed (Phase 3A). This piezometer / well abandonment language is often included in the Permit to Construct..

Prior to construction activities commencing, the Solid Waste Section requests the following information is addressed from the permittee.

Prior to construction of cell(s), all piezometers, ground-water monitoring wells, and borings, located in the proposed cell, shall be properly abandoned by overdrilling first (exception of non-cased borings) and sealed with grout in accordance with 15A NCAC 2C.0113(b)(1), titled "Abandonment of Wells".

- a. In areas where soil is to be undercut, wells should not be grouted to pre-grade land surface, but to the proposed base grade surface to prevent having to cut excess grout and possibly damaging the wells.

- b. Well abandonment records for each piezometer, ground-water monitoring well and boring shall be certified by the permit holder's geologist and submitted to the Solid Waste Section in accordance with 15A NCAC 02C.0114(b).

Please contact me with any questions or comments.

Brian

--

Brian Wootton, Hydrogeologist
Solid Waste Section
Division of Waste Management
1646 Mail Service Center
Raleigh, NC 27699-1646
401 Oberlin Road, Suite 150, 27605
tel: 919-508-8524, fax: 919-733-4810
Brian.Wootton@ncmail.net
<http://wastenotnc.org/swhome/>

Van Burbach wrote:

Brain -

As you know, we are in the process of permitting an expansion of the Coble's Sandrock C&D Landfill (permit # 01-05). The site suitability was approved in August 2007, and the Design Hydrogeology Report and Construction Plan Application have been through the review process and all we are waiting for is final approval of the permit. Our Client would like to be moving forward with any work that can be done prior to the final approval of the permit; therefore, I would like to ask if it would be acceptable for us to abandon the wells and piezometers that are located within the construction area of Phase 3A of the landfill. This includes monitoring wells MW-1, MW-3, and MW-9, and piezometers P-26, P-31, P-32, and P-33. Thank you.

- Van

Van Burbach, Ph.D., P.G.
Technical Consultant
Joyce Engineering, Inc.
2211 W. Meadowview Rd., Ste. 101
Greensboro, NC 27407
(336) 323-0092



Waste Industry Experts
Joyce Engineering, Inc.
2211 W. Meadowview Road
Suite 101
Greensboro, NC 27407

November 3, 2008

tel: 336/323-0092
fax: 336/323-0093
www.JoyceEngineering.com

Mr. Ming Chao, PE
NCDENR/Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

RE: Report of Well and Piezometer Abandonments
Coble's Sandrock Construction & Demolition Debris Landfill
Permit No. 01-05
Alamance County, North Carolina
JEL Project No. 419.00, Task 33



Dear Mr. Chao:

On behalf of Coble's Sandrock, Joyce Engineering, Inc. is submitting the attached *Well Abandonment Records* for wells and piezometers recently abandoned at the Coble's Sandrock C&D Landfill. On September 29-30, 2008, the following monitoring wells and piezometers were abandoned by Geologic Exploration, Inc., of Statesville, North Carolina: MW-1, MW-3, MW-9, P-26, P-31, P-32, P-33, P-37, and P2-11. All of the wells/piezometers with the exception of MW-9 and P2-11 were abandoned by over-drilling to remove all well materials, and then filling the boring with a Portland cement/bentonite slurry in accordance with NCAC Title 15A 2C Section .0113. Placement of the slurry was performed using a tremie pipe to fill the well from the bottom upward. MW-9 and P2-11 were not over-drilled because they were outside of the proposed waste footprint, instead they were cut off below grade and filled with the cement-bentonite slurry so as to overflow the casing and completely cover the boring.

The well abandonment records, completed and signed by the certified well contractor, are attached, along with a site map showing the locations of the abandoned wells and piezometers. If you have any questions, please call me or Michelle Brown at (336) 323-0092.

Sincerely,
JOYCE ENGINEERING, INC.


Van Burdack, Ph.D., P.G.
Technical Consultant

Attachments

C: Kent Coble - Coble's Sandrock
JEL File



WELL ABANDONMENT RECORD
 North Carolina Department of Environment and Natural Resources - Division of Water Quality
WELL CONTRACTOR CERTIFICATION # 2580

1. WELL CONTRACTOR:
 JASON MANTAK
 Well Contractor (Individual) Name
 GEOLOGIC EXPLORATION, INC.
 Well Contractor Company Name
 STREET ADDRESS 176 COMMERCE BLVD.
 STATESVILLE NC 28625
 City or Town State Zip Code
 (704) 872-7686
 Area Code - Phone number

2. WELL INFORMATION:
 STATE WELL PERMIT # (if applicable) MW-1
 COUNTY WELL PERMIT # (if applicable)
 BWQ or OTHER PERMIT # (if applicable)
 WELL USE (Check applicable use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use)

3. WELL LOCATION:
 COUNTY ALABAMA QUADRANGLE NAME
 NEAREST TOWN KIMESVILLE
 5833 FOSTER STORE ROAD 27298
 (Street/Road Name, Number, Community, Subdivision, Lot No., Precd, Zip Code)
 TOPOGRAPHIC / LAND SETTING:
 Slope Valley Ridge Other
 (Check appropriate setting)

LATITUDE _____
 LONGITUDE _____
 Latitude/longitude source: GPS Topographic map
 (Location of well must be shown on a USGS top 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 as much of a residential well, 25% 4a, complete 4b, well owner information only.
 NAME OF FACILITY COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE ROAD
 KIMESVILLE NC 27298
 City or Town State Zip Code
4b. CONTACT PERSON/ WELL OWNER:
 NAME COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE RD KIMESVILLE NC 27298

5. WELL DETAILS:
 a. Total Depth: 35.0 ft. Diameter: 6.0 in.
 b. Water Level (Below Measuring Point): _____ ft.
 Measuring point is _____ ft. above land surface.

6. CASING:
 a. Casing Depth (if known): N/A ft. in.
 b. Casing Removed: N/A ft. in.

7. DISINFECTANT: N/A
 (Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:
 Seal Cement Sand Cement
 Cement _____ lb. Cement _____ lb.
 Water _____ gal. Water _____ gal.
 Bentonite _____ lb.
 Type: Slurry Pellets
 Water _____ gal.
 Other _____
 Type material PORTLAND BENTONITE SLURRY
 Amount 56.0 GALLONS

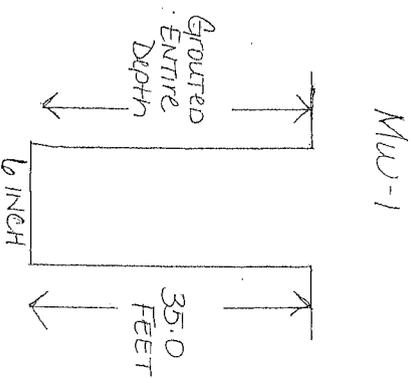
**9. EXPLAIN METHOD OF REPLACEMENT OF MATERIAL:
 VIA PORT AND BENTONITE SLURRY - WELL
 OVERRILLED**

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 9/30/08

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.

SIGNATURE OF CERTIFIED WELL CONTRACTOR _____ DATE 10/09/08
 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.)
 JASON MANTAK
 PRINTED NAME OF PERSON ABANDONING THE WELL



Submit a copy to the owner and the original to the Division of Water Quality within 30 days.
 Form GW-30
 From: Information Management, 1617 Mail Service Center - Raleigh, NC 27699-1617, Phone No. (919) 733-7015 ext 568.
 Rev. 5/06



WELL ABANDONMENT RECORD
 North Carolina Department of Environment and Natural Resources - Division of Water Quality
WELL CONTRACTOR CERTIFICATION # 2580

1. WELL CONTRACTOR:
 JASON MANTAK
 Well Contractor (Individual) Name
 GEOLOGIC EXPLORATION, INC.
 Well Contractor Company Name
 STREET ADDRESS 176 COMMERCE BLVD.
 STATESVILLE NC 28625
 City or Town State Zip Code
 (704) - 872-7686
 Area code - Phone number

2. WELL INFORMATION:
 STATE WELL PERMIT # (if applicable) _____
 COUNTY WELL PERMIT # (if applicable) _____
 DWQ or OTHER PERMIT # (if applicable) _____
 WELL USE (Check applicable use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use) _____

3. WELL LOCATION:
 COUNTY ALAMANCE QUADRANGLE NAME _____
 NEAREST TOWN: KIMESVILLE
 5833 FOSTER STORE ROAD 27298
 (Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)
 TOPOGRAPHIC / LAND SETTING:
 Slope Valley Flat Ridge Other _____
 (Check appropriate setting)
 LATTITUDE _____
 LONGITUDE _____
 Landfile/digital 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 to multi- (if residential well, only 4a complete - see well owner information only.)
 NAME OF FACILITY COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE ROAD
 STATESVILLE NC 27298
 City or Town State Zip Code
 4b. CONTRACT PERSONNEL OWNER:
 NAME COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE RD KIMESVILLE NC 27298

5. WELL DETAILS:
 a. Total Depth: 45.0 ft. Diameter: 6.0 in.
 b. Water Level (Below Measuring Point): _____ ft.
 Measuring point is _____ ft. above land surface.

6. CASING:
 Length Diameter
 a. Casing Depth (if known): N/A ft. _____ in.
 b. Casing Removed: N/A ft. _____ in.

7. DISINFECTON: N/A
 (Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:
 Seal Cement Sand Cement
 Cement _____ lb. Cement _____ lb.
 Water _____ gal. Water _____ gal.
 Bentonite _____ lb.
 Type: Slurry Pellets
 Water _____ gal.
 Other _____
 Type material PORTLAND BENTONITE SLURRY
 Amount 125.0 GALLONS

**9. EXPLAIN METHOD OF REPLACEMENT OF MATERIAL:
 VIA PORTLAND BENTONITE SLURRY - WELL
 OVERRILLED**

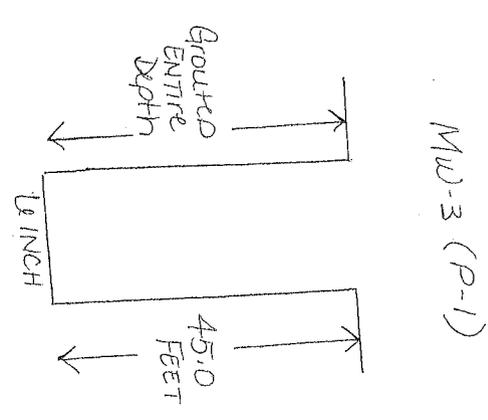
10. WELL DIAGRAM: Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 9/29/08
 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.

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
 JASON MANTAK 10/09/08
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
 _____ DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
 JASON MANTAK
 PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner and the original to the Division of Water Quality within 30 days.
 Form DW-30
 After: Information Management, 1017 Mail Service Center - Raleigh, NC 27699-5017, Phone No. (919) 733-7015 ext 508. Rev. 5/06





WELL ABANDONMENT RECORD
 North Carolina Department of Environment and Natural Resources - Division of Water Quality
WELL CONTRACTOR CERTIFICATION # 2590

1. WELL CONTRACTOR:
 JASON MANTAK
 Well Contractor (Individual) Name
 GEOLOGIC EXPLORATION, INC.
 Well Contractor Company Name
 STREET ADDRESS 176 COMMERCE BLVD.
 STATESVILLE NC 28625
 City or Town State Zip Code
 (704) - 872-7688
 Area code - Phone number

2. WELL INFORMATION:
 STATE WELL PERMIT # (if applicable) MW-9
 COUNTY WELL PERMIT # (if applicable)
 DWQ or OTHER PERMIT # (if applicable)
 WELL USE (Check applicable use): Monitoring Residential
 Municipal/Utility Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use)

3. WELL LOCATION:
 COUNTY ALAMANCE QUADRANGLE NAME
 NEAREST TOWN KIMESVILLE
 5833 FOSTER STORE ROAD 27298
 (Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)
 TOPOGRAPHIC / LAND SETTING:
 Slope Valley Flat Ridge Other
 (Check appropriate setting)

LATITUDE _____
 LONGITUDE _____
 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 as applicable (if a residential well, skip 4a, complete 4b, well owner information only).
 FACILITY ID # (if applicable) _____
 NAME OF FACILITY COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE ROAD
 KIMESVILLE NC 27298
 City or Town State Zip Code
 4b. CONTACT PERSON/ WELL OWNER:
 NAME COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE RD KIMESVILLE, NC 27298

5. WELL DETAILS:
 a. Total Depth: 37.5 ft. Diameter: 2.0 in.
 b. Water Level (Below Measuring Point): _____ ft.
 Measuring point is _____ ft. above land surface.

6. CASING: Length Diameter
 a. Casing Depth (if known): N/A ft. in.
 b. Casing Removed: N/A ft. in.

7. DISINFECTANT: N/A
 (Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:
 Seal Cement Sand Cement
 Cement: _____ lb. Cement: _____ lb.
 Water: _____ gal. Water: _____ gal.
 Bentonite
 Bentonite _____ lb.
 Type: Slurry Pellets
 Water: _____ gal.
 Other _____
 Type material PORTLAND BENTONITE SLURRY
 Amount 8.0 GALLONS

**9. EXPLAIN METHOD OF REPLACEMENT OF MATERIAL:
 VIA PORTLAND BENTONITE SLURRY**

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.

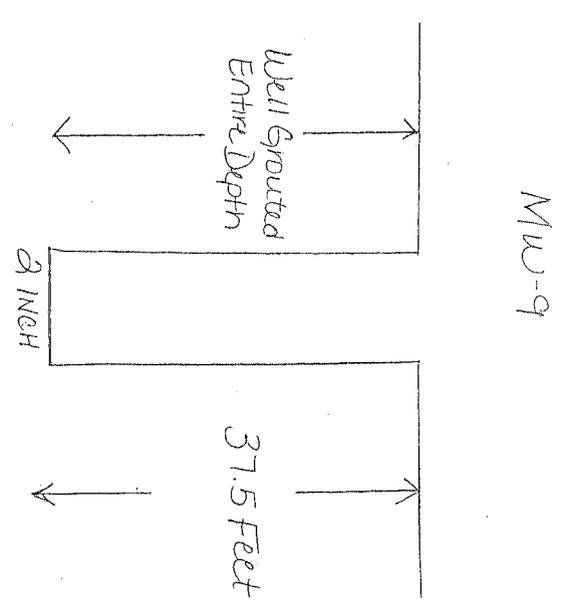
11. DATE WELL ABANDONED 9/30/08

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

SIGNATURE OF CERTIFIED WELL CONTRACTOR _____ DATE 10/09/08
 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.)
 JASON MANTAK
 PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner and the original to the Division of Water Quality within 30 days.
 Attn: Information Management, 1617 Mail Service Center - Raleigh, NC 27699-1617, Phone No. (919) 733-7015 ext 568.

Form GW-50
 Rev. 5/06





WELL ABANDONMENT RECORD
 North Carolina Department of Environment and Natural Resources - Division of Water Quality
WELL CONTRACTOR CERTIFICATION # 2580

1. WELL CONTRACTOR:
 JASON MANTAK
 Well Contractor (Individual) Name
 GEOLOGIC EXPLORATION, INC.
 Well Contractor Company Name
 STREET ADDRESS 176 COMMERCE BLVD.
 STATESVILLE NC 28625
 City or Town State Zip Code
 (704) 872-7686
 Area code - Phone number

2. WELL INFORMATION:
 STATE WELL PERMIT # (if applicable) P-26
 SITE WELL ID # (if applicable) _____
 COUNTY WELL PERMIT # (if applicable) _____
 COUNTY WELL PERMIT # (if applicable) _____
 DWQ or OTHER PERMIT # (if applicable) _____
 WELL USE (Check applicable use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use) _____

3. WELL LOCATION:
 COUNTY ALAMANCE QUADRANGLE NAME _____
 NEAREST TOWN KIMESVILLE
 5833 FOSTER STORE ROAD 27298
 (Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)
 TOPOGRAPHIC / LAND SETTINGS:
 Slope Valley Flat Ridge Other _____
 (Check appropriate setting)
 LATITUDE _____ Here be it known, that I, the undersigned, certify that the above information is true and correct to the best of my knowledge and belief.
 LONGITUDE _____ Here be it known, that I, the undersigned, certify that the above information is true and correct to the best of my knowledge and belief.

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 to include (if residential well, add the complete 4a, well owner information only)
 FACILITY ID # (if applicable) _____
 NAME OF FACILITY COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE ROAD
 KIMESVILLE NC 27298
 City or Town State Zip Code

4b. CONTRACT PERSONNEL OWNER:
 NAME COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE RD KIMESVILLE, NC 27298

5. WELL DETAILS:
 a. Total Depth: 52.0 ft. Diameter: 10.0/6.0 in.
 b. Water Level (Below Measuring Point): _____ ft.
 Measuring point is _____ ft. above land surface.

6. CASING: Length Diameter
 a. Casing Depth (if known) N/A ft. _____ in.
 b. Casing Removal: N/A ft. _____ in.

7. DISINFECTION: N/A
 (Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:
 Seal Cement Sand Cement
 Cement _____ lb. Cement _____ lb.
 Water _____ gal. Water _____ gal.
 Bentonite
 Bentonite _____ lb.
 Type Slurry Pellets
 Water _____ gal.
 Other _____
 Type material PORTLAND BENTONITE SLURRY
 Amount 170.0 GALLONS

**9. EXPLAIN METHOD OF REPLACEMENT OF MATERIAL:
 VIA PORTLAND BENTONITE SLURRY - WELL
 OVERFILLED**

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.

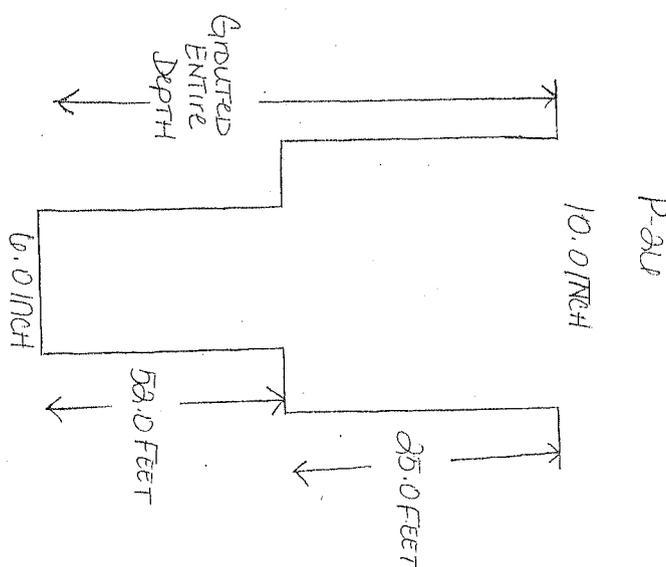
11. DATE WELL ABANDONED 9/30/08

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH THE NC WELL ABANDONMENT ACT AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR _____ DATE 10/09/08
 JASON MANTAK

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)
 JASON MANTAK
 PRINTED NAME OF PERSON ABANDONING THE WELL _____

Submit a copy to the owner and the original to the Division of Water Quality within 30 days.
 Form GW-30
 Ann: Information Management, 1617 Main Service Center - Raleigh, NC 27699-1617, Phone No. (919) 733-7015 ext 568, Rev. 5/05





WELL ABANDONMENT RECORD
 North Carolina Department of Environment and Natural Resources - Division of Water Quality
WELL CONTRACTOR CERTIFICATION # 2580

1. WELL CONTRACTOR:
 JASON MANTAK
 Well Contractor (Individual) Name
 GEOLOGIC EXPLORATION, INC.
 Well Contractor Company Name
 STREET ADDRESS 176 COMMERCE BLVD.
 STATESVILLE NC 28625
 City or Town State Zip Code
 (704) 872-7686
 Area Code - Phone number

2. WELL INFORMATION:
 STATE WELL PERMIT # (if applicable) P-31
 COUNTY WELL PERMIT # (if applicable)
 DIV. or OTHER PERMIT # (if applicable)
 WELL USE (Check applicable use): Monitoring Residential
 Municipal/Utility Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use)

3. WELL LOCATION:
 COUNTY ALAMANCE QUADRANGLE NAME
 NEAREST TOWN: KIMESVILLE
 5833 FOSTER STORE ROAD 27298
 (Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)
 TOPOGRAPHIC / LAND SETTING:
 Slope Valley Flat Ridge Other
 (Check appropriate setting)
 LATITUDE _____
 LONGITUDE _____
 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 to include (if residential well, skip this complete to well owner information only)
 FACILITY ID # (if applicable)
 NAME OF FACILITY COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE ROAD
 KIMESVILLE NC 27298
 City or Town State Zip Code

4b. CONTACT PERSON/ WELL OWNER:
 NAME COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE RD KIMESVILLE, NC 27298

5. WELL DETAILS:
 a. Total Depth: 44.0 ft. Diameter: 10.0 in.
 b. Water Level (Below Measuring Point): _____ ft.
 Measuring point is _____ ft. above land surface.

6. CASING:
 a. Casing Depth (if known) N/A ft. _____ in.
 b. Casing Removed: N/A ft. _____ in.

7. DISINFECTANT: N/A
 (Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:
 Well Cement Sand Cement
 Cement _____ lb. Water _____ gal.
 Water _____ gal. Water _____ gal.
 Bentonite _____ lb.
 Type: Slurry Pellets
 Water _____ gal.
 Other _____
 Type material: PORTLAND BENTONITE SLURRY
 Amount: 176.0 GALLONS

**9. EXPLAIN METHOD OF REPLACEMENT OF MATERIAL:
 VIA PORTLAND BENTONITE SLURRY - WELL
 OVERDRILLED**

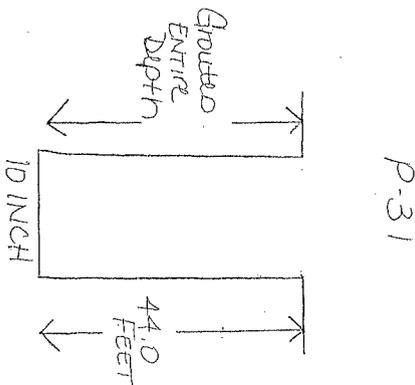
10. WELL DIAGRAM: Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) containing in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 9/29/08

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 IS BEING FILED WITH THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR _____ DATE 10/09/08
 JASON MANTAK

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE _____
 (The private well owner must be an individual who personally abandons higher residential well in accordance with 15A NCAC 2C 0113)
 JASON MANTAK
 PRINTED NAME OF PERSON ABANDONING THE WELL



Submit a copy to the owner and the original to the Division of Water Quality within 30 days.
 Attr: Information Management, 1617 Mail Service Center - Raleigh, NC 27699-1617, Phone No. (919) 733-7015 ext 365.

Form GW-30
 Rev. 5/06



WELL ABANDONMENT RECORD
 North Carolina Department of Environment and Natural Resources - Division of Water Quality
WELL CONTRACTOR CERTIFICATION # 2680

1. WELL CONTRACTOR:
 JASON MANTAK
 Well Contractor (Individual) Name
 GEOLOGIC EXPLORATION, INC.
 Well Contractor Company Name
 STREET ADDRESS 176 COMMERCE BLVD.
 STATESVILLE NC 28625
 City or Town State Zip Code
 (704) 872-7689
 Area code - Phone number

2. WELL INFORMATION:
 STATE WELL PERMIT # (if applicable) P-32
 COUNTY WELL PERMIT # (if applicable)
 DWQ or OTHER PERMIT # (if applicable)
 WELL USE (Check applicable use): Monitoring Residential
 Municipal/Utility Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use)

3. WELL LOCATION:
 COUNTY ALAMANCE QUADRANGLE NAME
 NEAREST TOWN KIMESVILLE
 5833 FOSTER STORE ROAD 27298
 (Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)
 TOPOGRAPHIC / LAND SETTING:
 Slope Valley Flat Ridge Other
 (Check appropriate setting)

4. FACILITY: The name of the business where the well is located. Complete to include facility ID # (if applicable).
 NAME OF FACILITY COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE ROAD
 STATESVILLE NC 27298
 City or Town State Zip Code
4b. CONTACT PERSON/ WELL OWNER:
 NAME COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE RD KIMESVILLE NC 27298

5. WELL DETAILS:
 a. Total Depth: 30.0 ft. Diameter: 6.0 in.
 b. Water Level (Below Measuring Point): _____ ft.
 Measuring point is _____ ft. above land surface.

6. CASING: Length Diameter
 a. Casing Depth (ft below): N/A ft. in.
 b. Casing Removal: N/A ft. in.

7. DISINFECTION: N/A
 (Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:
 Near Cement Sand Cement
 Cement _____ lb. Cement _____ lb.
 Water _____ gal. Water _____ gal.
 Bentonite
 Type: Slurry Pellets
 Water _____ gal.
 Other
 Type material: PORTLAND BENTONITE SLURRY
 Amount: 80.0 GALLONS

**9. EXPLAIN METHOD OF REPLACEMENT OF MATERIAL:
 VIA PORTLAND BENTONITE SLURRY - WELL
 OVERDRILLED**

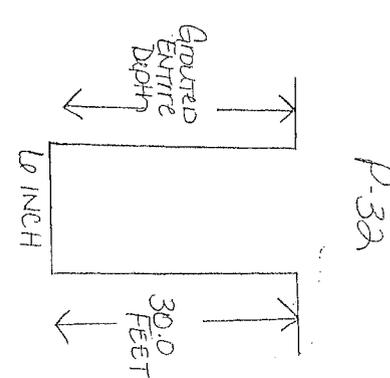
10. WELL DIAGRAM: Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of sections (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 9/29/08

I DO HEREBY CERTIFY THAT THE 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.

SIGNATURE OF CERTIFIED WELL CONTRACTOR _____ DATE 10/09/08

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE _____
 (The private well owner must be an individual who possesses, owns, or has a legal interest in the well.)
 JASON MANTAK
 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 # 2580

1. WELL CONTRACTOR:
 JASON MANTAK
 Well Contractor (Individual) Name
 GEOLOGIC EXPLORATION, INC.
 Well Contractor Company Name
 STREET ADDRESS 176 COMMERCE BLVD.
 STATESVILLE NC 28625
 City or Town State Zip Code
 (704) - 872-7586
 Area code - Phone number

2. WELL INFORMATION:
 STATE WELL PERMIT # (if applicable) P-33
 COUNTY WELL PERMIT # (if applicable)
 DWQ or OTHER PERMIT # (if applicable)
 WELL USE (Check applicable use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use)

3. WELL LOCATION:
 COUNTY ALAMANCE QUADRANGLE'S NAME
 NEAREST TOWN: KIMESVILLE
 5833 FOSTER STORE ROAD 27298
 (Street/road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)
 TOPOGRAPHIC / LAND SETTING:
 Slope Valley Flat Ridge Other
 (Check appropriate setting)

LATITUDE _____
 LONGITUDE _____
 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 to include facility ID # if applicable.
 NAME OF FACILITY COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE ROAD
 KIMESVILLE NC 27298
 City or Town State Zip Code

4b. CONTACT PERSON/ WELL OWNER:
 NAME COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE RD KIMESVILLE, NC 27298

5. WELL DETAILS:
 a. Total Depth: 30.0 ft. Diameter: 5.0 in.
 b. Water Level (Below Measuring Point): _____ ft.
 Measuring point is _____ ft. above land surface.

6. CASING: Length Diameter
 a. Casing Depth (if known): N/A ft. _____ in.
 b. Casing Removed: N/A ft. _____ in.

7. DISINFECTANT: N/A
 (Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement	Sand Cement
Cement: _____ lb.	Cement: _____ lb.
Water: _____ gal.	Water: _____ gal.
Bentonite	Bentonite
Type: <input checked="" type="checkbox"/> Slurry <input type="checkbox"/> Pellets	
Water: _____ gal.	
Other	

 Type material PORTLAND BENTONITE SLURRY
 Amount 82.0 GALLONS

**9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:
 VIA PORTLAND BENTONITE SLURRY - WELL
 OVERDRILLED**

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 9/29/08

12. I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH THE NC WELL ABANDONMENT REGULATIONS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

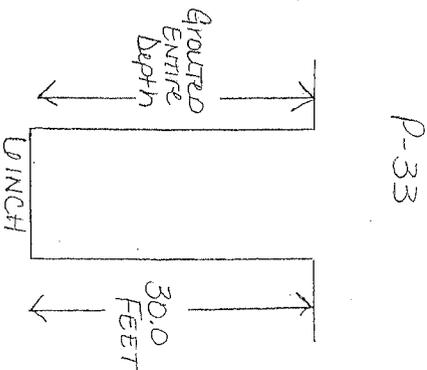
SIGNATURE OF CERTIFIED WELL CONTRACTOR
 DATE 10/09/08

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
 (The private well owner must be an individual who is a legal resident of North Carolina)
 JASON MANTAK

PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner and the original to the Division of Water Quality within 30 days.
 Address: Information Management, 1017 Mail Service Center - Raleigh, NC 27699-1017, Phone No. (919) 733-7015 ext 568.

Form GW-30
 Rev. 5/06





WELL ABANDONMENT RECORD
 North Carolina Department of Environment and Natural Resources - Division of Water Quality
WELL CONTRACTOR CERTIFICATION # 2580

1. WELL CONTRACTOR:
 JASON MANTAK
 Well Contractor (Individual) Name
 GEOLOGIC EXPLORATION, INC.
 Well Contractor Company Name
 STREET ADDRESS 176 COMMERCE BLVD.
 STATESVILLE NC 28625
 City or Town State Zip Code
 (704) - 872-7686
 Area Code - Phone number

2. WELL INFORMATION:
 STATE WELL PERMIT # (if applicable) P-35
 SITE WELL ID # (if applicable) _____
 COUNTY WELL PERMIT # (if applicable) _____
 COUNTY WELL PERMIT # (if applicable) _____
 DWQ or OTHER PERMIT # (if applicable) _____
 WELL USE (Check applicable use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use) _____

3. WELL LOCATION:
 COUNTY ALAMANCE QUADRANGLE NAME _____
 NEAREST TOWN: KIMESVILLE
 5833 FOSTER STORE ROAD 27298
 (Street/Road Name, Number, County, State, Zip Code)
 TOPOGRAPHIC/LAND SETTING:
 Slope Valley Flat Ridge Other _____
 (Check appropriate setting)
 LATITUDE _____
 LONGITUDE _____
 Land use/land cover source: GIS Topographic map
 (Location of well must be shown on a USGS topo map and attached to this form if not using GIS)
 4a. FACILITY: The name of the business where the well is located. Complete to suite. (If a residential well, add the complete 4b well owner information only.)
 FACILITY ID # (if applicable) _____
 NAME OF FACILITY COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE ROAD
 KIMESVILLE NC 27298
 City or Town State Zip Code
 4b. CONTACT PERSON/ WELL OWNER:
 NAME COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE RD KIMESVILLE, NC 27298

5. WELL DETAILS:
 a. Total Depth: 30.0 ft. Diameter: 10.0/6.0 in.
 b. Water Level (Below Measuring Point): _____ ft.
 Measuring point is _____ ft. above land surface.

6. CASING:
 Length Diameter
 a. Casing Depth (if known) N/A ft. _____ in.
 b. Casing Removal: N/A ft. _____ in.

7. DISINFECTION: N/A
 (Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:
 Seal Cement Sand Cement
 Cement _____ lb. Cement _____ lb.
 Water _____ gal. Water _____ gal.
 Bentonite
 Type: Slurry Pellets
 Water _____ gal.
 Other _____
 Type material PORTLAND BENTONITE SLURRY
 Amount 101.0 GALLONS

**9. EXPLAIN METHOD OF REPLACEMENT OF MATERIAL:
 VIA PORTLAND BENTONITE SLURRY - WELL
 OVERDRILLED**

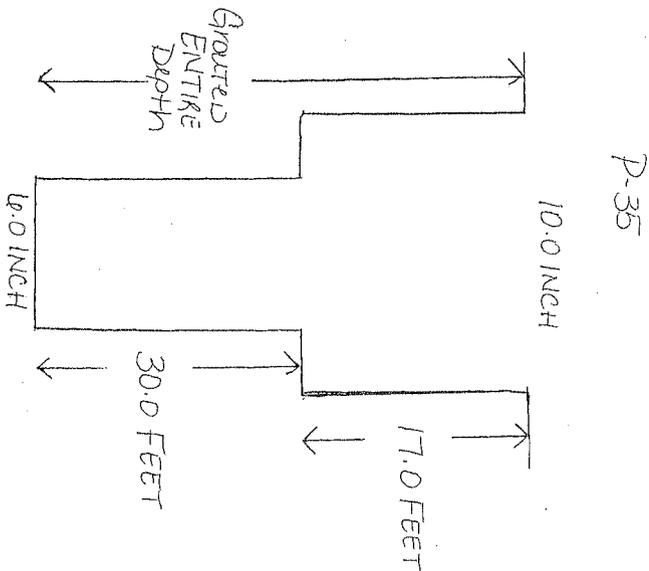
10. WELL DIAGRAM: Draw a detailed sketch of the well on the back of this form showing total depth, depth and diameter of screens (if any) remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

11. DATE WELL ABANDONED 9/30/08
 I DO HEREBY CERTIFY THAT THESE WELLS WERE ABANDONED IN ACCORDANCE WITH 15A NCAC 2C WELL ABANDONMENT STANDARDS AND THAT A COPY OF THIS RECORD WAS SENT TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR _____ DATE 10/09/08
 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)
 JASON MANTAK
 PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner and the original to the Division of Water Quality within 30 days.
 Attn: Abandonment Management, 1017 Mail Service Center - Raleigh, NC 27695-1617, Phone No. (919) 733-7015 ext 508.

Form GW-30
 Rev. 3/05





WELL ABANDONMENT RECORD
 North Carolina Department of Environment and Natural Resources- Division of Water Quality
WELL CONTRACTOR CERTIFICATION # 2580

1. WELL CONTRACTOR:
 JASON MANTAK
 Well Contractor (Individual) Name
 GEOLOGIC EXPLORATION, INC.
 Well Contractor Company Name
 STREET ADDRESS 176 COMMERCE BLVD.
 STATESVILLE NC 28625
 City or Town State Zip Code
 (704) 872-7886
 Area code - Phone number

2. WELL INFORMATION:
 STATE WELL PERMIT # (if applicable) P-37
 SITE WELL ID # (if applicable)

3. WELL LOCATION:
 COUNTY ALAMANCE QUADRANGLE NAME
 NEAREST TOWN: KIMESVILLE
 5833 FOSTER STORE ROAD 27298
 (Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)
 TOPOGRAPHIC/LAND SETTING:
 Slope Valley Flat Ridge Other _____
 (Check appropriate setting)
 LATTITUDE _____
 LONGITUDE _____
 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.)
 FACILITY: The name of the business where the well is located. Complete 4b and 4c if residential well; skip or complete 4b, well owner information only.)
 NAME OF FACILITY COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE ROAD
 KIMESVILLE NC 27298
 City or Town State Zip Code
 CONTACT PERSON/ WELL OWNER:
 NAME COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE RD KIMESVILLE, NC 27298

5. WELL DETAILS:
 a. Total Depth: 35.0 ft. Diameter: 10.0/6.0 in.
 b. Water Level (Below Measuring Point): _____ ft.
 Measuring point is _____ ft. above land surface.

4. CASING: Length Diameter
 a. Casing Depth (if known): N/A ft. _____ in.
 b. Casing Removed: N/A ft. _____ in.

7. DISINFECTION: N/A
 (Amount of 65%-75% calcium hypochlorite used)

8. SEALING MATERIAL:
 Seal Cement Sand Cement
 Cement _____ lb. Cement _____ lb.
 Water _____ gal. Water _____ gal.
 Bentonite _____ lb.
 Type: Slurry Pellets
 Water _____ gal.
 Other _____
 Type material: PORTLAND BENTONITE SLURRY
 Amount: 115.0 GALLONS

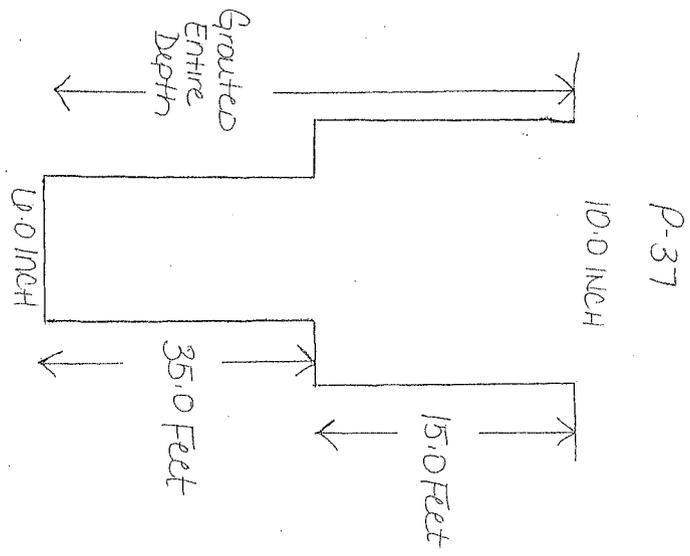
**9. EXPLAIN METHOD OF REPLACEMENT OF MATERIAL:
 VIA PORTLAND BENTONITE SLURRY - WELL
 OVERDRILLED**

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 9/30/08

10. 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.
 SIGNATURE OF CERTIFIED WELL CONTRACTOR _____ DATE 10/09/08
 SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL _____ DATE _____
 (The private well owner must be an individual who legally abandons his/her residential well in accordance with 15A NCAC 2C 0113.)
 JASON MANTAK
 PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner and the original to the Division of Water Quality within 30 days.
 Form GW-30
 Attn: Information Management, 1617 Mail Service Center - Raleigh, NC 27699-1617, Phone No. (919) 733-7015 ext 568. Rev. 5/06





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

WELL CONTRACTOR CERTIFICATION # 2580

1. WELL CONTRACTOR:
 JASON MANTAK
 Well Contractor (Individual) Name
 GEOLOGIC EXPLORATION, INC.
 Well Contractor Company Name
 STREET ADDRESS 176 COMMERCE BLVD.
 STATESVILLE NC 28625
 City or Town State Zip Code
 (704) 872-7686
 Area code - Phone number

2. WELL INFORMATION:
 STATE WELL PERMIT # (if applicable) P2-11
 COUNTY WELL PERMIT # (if applicable)
 DWQ or OTHER PERMIT # (if applicable)
 WELL USE (Check applicable use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use)

3. WELL LOCATION:
 COUNTY ALAMANCE QUADRANGLE NAME
 NEAREST TOWN: KIMESVILLE
 5833 FOSTER STORE ROAD 27298
 (Standard Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)
 TOPOGRAPHIC / LAND SETTING:
 Slope Valley Flat Ridge Other
 (Check appropriate setting)
 LATITUDE _____
 LONGITUDE _____
 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 as much of the residential well, skip the complete 4b, well owner, induction only.)
 FACILITY ID # (if applicable)
 NAME OF FACILITY COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE ROAD
 KIMESVILLE NC 27298
 City or Town State Zip Code
 4b. CONTACT PERSON/WELL OWNER:
 NAME COBLES SANDROCK C&D LANDFILL
 STREET ADDRESS 5833 FOSTER STORE ROAD KIMESVILLE NC 27298

5. WELL DETAILS:
 a. Total Depth: 11.0 ft. Diameter: 2.0 in.
 b. Water Level (Below Measuring Point): _____ ft.
 Measuring point is _____ ft. above land surface.
 6. CASING: Length Diameter
 a. Casing Depth (if known): N/A ft. _____ in.
 b. Casing Removal: N/A ft. _____ in.
 7. DISINFECTION: N/A
 (Amount of 65% 75% sodium hypochlorite used)
 8. SEALING MATERIAL:
 Mortar Cement Sand Cement
 Cement _____ lb. Cement _____ lb.
 Water _____ gal. Water _____ gal.
 Bentonite
 Bentonite _____ lb.
 Type: Slurry Pellets
 Water _____ gal.
 Other _____
 Type material PORTLAND BENTONITE SLURRY
 Amount 2.25 GALLONS

**9. EXPLAIN METHOD OF REPLACEMENT OF MATERIAL:
 VIA PORTLAND BENTONITE SLURRY**

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.

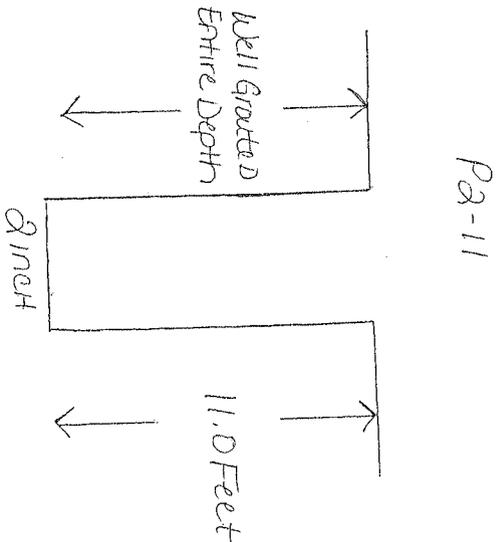
11. DATE WELL ABANDONED 9/30/08

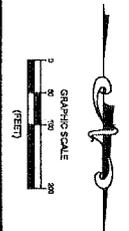
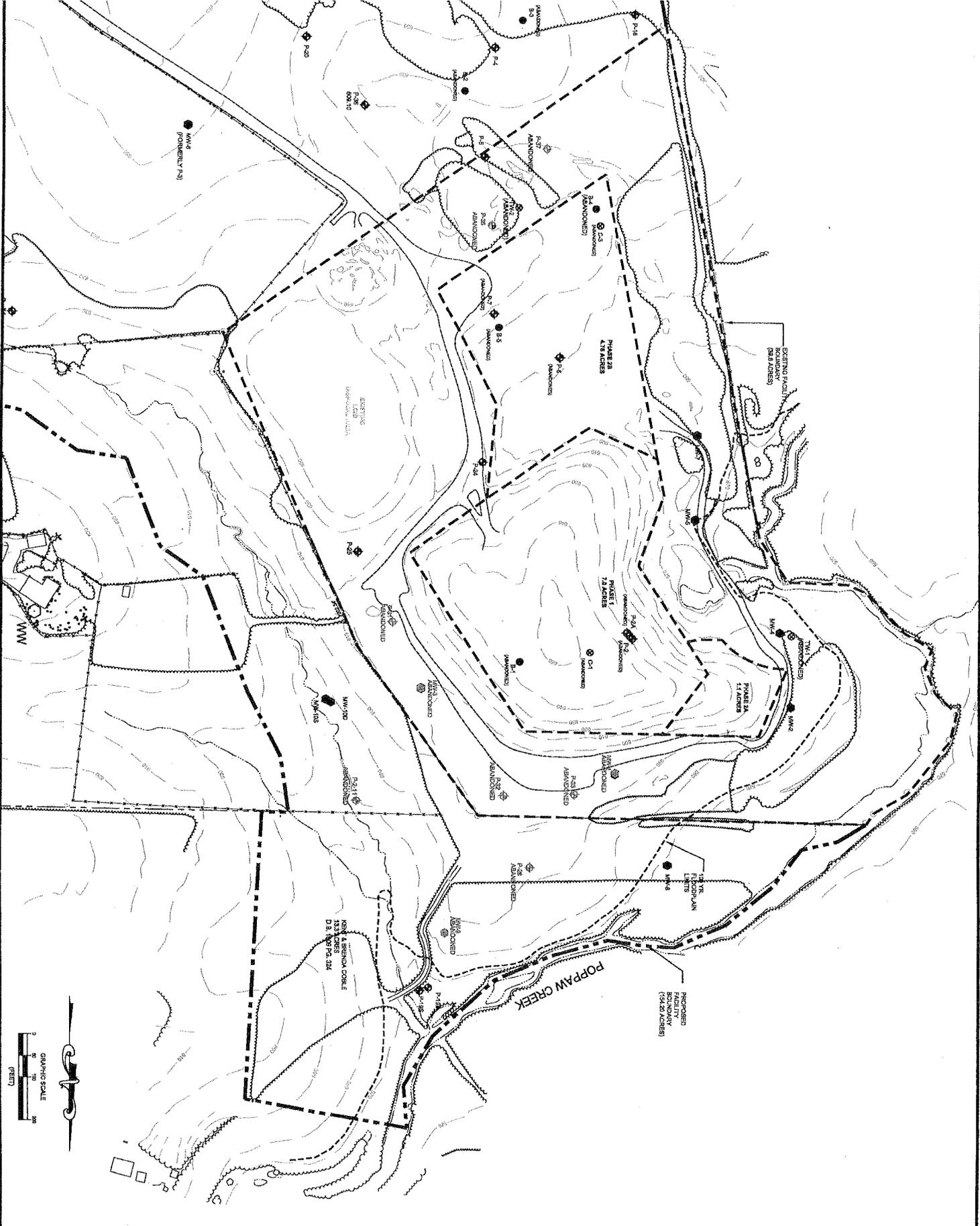
I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE WITH 15A NCAC 2C. WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE 10/09/08
 JASON MANTAK
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
 PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner and the original to the Division of Water Quality within 30 days.
 Attn: Interim/Well Management, 1077 Mail Service Center - Raleigh, NC 27699-1077, Phone No. (919) 733-7015 ext 508.

Form GW-30
 Rev. 5/06





PROJECT NO. 419.00.12	COBLES SANDROCK INC. KIMESVILLE, NORTH CAROLINA			DESIGNED GADD	NO BY CK APH
	SCALE AS NOTED	ABANDONED WELLS		CHECKED APPROVED DATE	
DRAWING NO. 1			2211 W. MEADOWVIEW ROAD GREENSBORO, NC 27437 PHONE: (336) 362-0062	© 2008 Joyce Engineering, Inc. All rights reserved.	DATE