

13

Jhnston Co.

51032003

- Booklet -

51-03

Non-Discharge Application Report  
Spray Irrigation Site(s)

2003

# NON-DISCHARGE APPLICATION REPORT SPRAY IRRIGATION SITE(S)

THERE ARE TWO APPLICATION FIELDS PER PAGE. USE ADDITIONAL PAGES AS NEEDED.

PERMIT NUMBER: WQ 0019631 MONTH: December YEAR: 2003

FACILITY NAME: Johnston County Reclaimed Water Utilization System COUNTY: Johnston

**Formulas:**

Daily Loading (inches) = [Volume Applied (gallons) x 0.1336 (cubic feet/gallon) x 12 (inches/foot)] / [Area Sprayed (acres) x 43,560 (square feet/acre)] OR  
= Volume Applied (gallons) / [Area Sprayed (acres) x 27,152 (gallons/acre-inch)]

Maximum Hourly Loading (inches) = Daily Loading (inches) / [Time Irrigated (minutes) / 60 (minutes/hour)] Monthly Loading (Inches) = Sum of Daily Loadings (inches)

12 Month Floating Total (inches) = Sum of this month's Monthly Loading (inches) and previous 11 month's Monthly Loadings (inches)

Average Weekly Loading (inches) = [Monthly Loading (inches/month) / Number of days in the month (days/month)] x 7 (days/week)

Did Irrigation Occur At This Facility:				Did Irrigation Occur On This Field:				Did Irrigation Occur On This Field:				
Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>				Yes: <input type="checkbox"/> No: <input type="checkbox"/>				Yes: <input type="checkbox"/> No: <input type="checkbox"/>				
				FIELD NUMBER:				FIELD NUMBER:				
				AREA SPRAYED (acres):				AREA SPRAYED (acres):				
				COVER CROP:				COVER CROP:				
				PERMITTED HOURLY RATE (Inches):				PERMITTED HOURLY RATE (Inches):				
PERMITTED YEARLY RATE (Inches):				PERMITTED YEARLY RATE (Inches):				PERMITTED YEARLY RATE (Inches):				
DATE	WEATHER CONDITIONS			Storage Lagoon Free-board feet	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches
	Weather Code*	Temperature at application (°F)	Precipitation inches									
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
<b>Total Gallons/Monthly Loading (inches)</b>				0		0.00		0		0.00		
<b>12 Month Floating Total (inches)</b>												
<b>Average Weekly Loading (inches)</b>						0				0		

\* Weather Codes: C-clear, PC-partly cloudy, CI-cloudy, R-rain, Sn-snow, SI-sleet

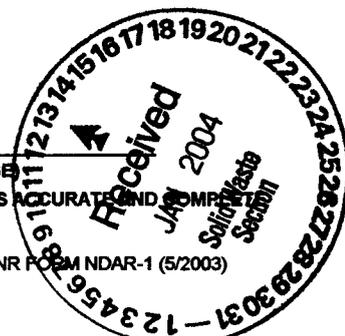
Spray Irrigation Operator in Responsible Charge (ORC): Kenneth C. York Phone: 919-631-3895

ORC Certification Number: 26366 Check Box if ORC Has Changed:

Mail ORIGINAL and TWO COPIES to:  
ATTN: Non-Discharge Compliance Unit  
DENR  
Division of Water Quality  
1617 Mall Service Center  
RALEIGH, NC 27699-1617

*Kenneth C. York*  
(SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)

BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.



NON-DISCHARGE APPLICATION REPORT  
SPRAY IRRIGATION SITE(S)

**Facility Status:**

Please indicate ( by inserting Y(es) or N(o) in the appropriate box ) whether the facility has been **compliant** with the following permit requirements: (Note: if a requirement does not apply to your facility put (NA) in the compliant box. )

- |  |  |
|--|--|
| 1. The application rate(s) did not exceed the limit(s) specified in the permit.                                    | Compliant (Y,N)<br><input type="text" value="NA"/> |
| 2. Adequate measures were taken to prevent wastewater runoff from the site(s).                                     | <input type="text" value="NA"/>                    |
| 3. A suitable vegetative cover was maintained on the site(s) in accordance with the permit.                        | <input type="text" value="NA"/>                    |
| 4. All buffer zones as specified in the permit were maintained during each application.                            | <input type="text" value="NA"/>                    |
| 5. The freeboard in the treatment and/or storage lagoon(s) was not less than the limit(s) specified in the permit. | <input type="text" value="NA"/>                    |

If the facility is **non-compliant**, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

      1-12-04  
(Signature of Permittee)\*      Date

Haywood M. Phthisic, III  
(Name of Signing Official-Please print or type)

Johnston County Department of Public Utilities  
(Permittee-Please print or type)

Director  
(Position or Title)

P.O. Box 2263

919-989-5075  
(Phone Number)

31-Mar-07  
(Permit Exp. Date)

Smithfield, NC 27577  
(Permittee Address)

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

SUBMIT FORM ON YELLOW PAPER ONLY

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL  
 Permit Name (if different): JOHNSON COUNTY RESIDUALS WASTE UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHSBORO (Town) NC 27577 County JOHNSON  
 Contact Person: KENNETH C. SHAW (Title) YORK (City) Telephone #: 919-631-3895  
 Well Location/ Site Name: BWG-MW-1 No. of Wells to be Sampled: 2 (from Permit)  
 Well Identification Number (from Permit): BWG-MW-1  
 Well Depth: 20 ft. Well Diameter: 2 in.  
 Screened Interval: 20.0 ft. to 20.0 ft.  
 Depth to Water Level: 9.68 ft. below measuring point.  
 Measuring Point (M.P.): Is: 3.38 ft. above land surface. Relative M.P. Elevation in ft.: 213.81  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 12-18-03  
 Field analysis: pH N/A, Specific Conductance N/A umhos  
 Temp. N/A °C, Odor N/A Appearance N/A

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

Mail Original  
 DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1836 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1538 Phone: (919) 733-3221

PERMIT #: WQ 0019031 EXPIRATION DATE: MAY 31, 2007  
 Non-Discharge UIC  
 NPDES  
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon Remediation: Infiltration Gallery  
 Spray Field Remediation:  
 Rotary Distributor Land Application of Sludge  
 Other:

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ and field acidified \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_)

COD \_\_\_\_\_ mg/l  
 Coliform: MF Fecal \_\_\_\_\_ /100ml  
 Coliform: MF Total \_\_\_\_\_ /100ml  
 (Note: Use MPN method for highly turbid samples)  
 Dissolved Solids: Total \_\_\_\_\_ mg/l  
 pH (when analyzed) \_\_\_\_\_ units  
 TOC \_\_\_\_\_ mg/l  
 Chloride \_\_\_\_\_ mg/l  
 Arsenic \_\_\_\_\_ mg/l  
 Grease and Oils \_\_\_\_\_ mg/l  
 Phenol \_\_\_\_\_ mg/l  
 Sulfate \_\_\_\_\_ mg/l  
 Specific Conductance \_\_\_\_\_ uMhos  
 Total Ammonia \_\_\_\_\_ mg/l  
 TKN as N \_\_\_\_\_ mg/l

Nitrite (NO<sub>2</sub>) as N \_\_\_\_\_ mg/l  
 Nitrate (NO<sub>3</sub>) as N \_\_\_\_\_ mg/l  
 Phosphorus: Total as P \_\_\_\_\_ mg/l  
 Orthophosphate \_\_\_\_\_ mg/l  
 Al - Aluminum \_\_\_\_\_ mg/l  
 Ba - Barium \_\_\_\_\_ mg/l  
 Ca - Calcium \_\_\_\_\_ mg/l  
 Cd - Cadmium \_\_\_\_\_ mg/l  
 Chromium: Total \_\_\_\_\_ mg/l  
 Cu - Copper \_\_\_\_\_ mg/l  
 Fe - Iron \_\_\_\_\_ mg/l  
 Hg - Mercury \_\_\_\_\_ mg/l  
 K - Potassium \_\_\_\_\_ mg/l  
 Mg - Magnesium \_\_\_\_\_ mg/l  
 Mn - Manganese \_\_\_\_\_ mg/l

Ni - Nickel \_\_\_\_\_ mg/l  
 Pb - Lead \_\_\_\_\_ mg/l  
 Zn - Zinc \_\_\_\_\_ mg/l  
 Ammonia Nitrogen \_\_\_\_\_ mg/l  
 Other (Specify Compounds and Concentration Units)

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWO (formerly DEW) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violators.

GW-59  
 Rev. 03/2000

Harold M. Pittsick, III  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
Signature of Permittee (or Authorized Agent)  
1-12-04

SUBMIT FORM ON YELLOW PAPER ONLY

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL

Permit Name (if different): JOHNSON COUNTY RESIDUAL WATER UTILIZATION SYSTEM

Facility Address: 680 COUNTY HOME ROAD

SMITHFIELD (City) NC (State) 27577 (Zip)

County: JOHNSON

Contact Person: KENNETH C. BERRY (Title) Telephone #: 919-651-3895

Well Location/ Site Name: 569-MW-3 No. of Wells to be Sampled: 9 (from Permit)

Well Identification Number (from Permit): 249-MW-3

Well Depth: 42 ft. Well Diameter: 2 in.

Screened Interval: 42.0 ft. to 32.0 ft.

Depth to Water Level: 44.94 ft. below measuring point.

Measuring Point (M.P.): Is: 232 ft. above land surface. Relative M.P. Elevation In ft.: 182.85

Gallons of water pumped/dialed before sampling: N/A Date sample collected: 12-8-03

Field analysis: pH N/A; Specific Conductance N/A umhos

Temp. N/A °C, Odor N/A Appearance N/A

For Groundwater Treatment Systems  
Check One:  Influent (98)  
 Effluent (99)

Mail Original to: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
WATER QUALITY DIVISION, GROUNDWATER SECTION  
1636 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1636 Phone: (919) 733-3221

PERMIT #: WQ 00190 31 EXPIRATION DATE: APRIL 31, 2007  
Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_

TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon  
 Spray Field  
 Rotary Distributor  
 Land Application of Sludge  
 Other: \_\_\_\_\_  
Remediation: Infiltration Gallery  
Remediation: \_\_\_\_\_  
Land Application of Sludge

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
Laboratory Name: \_\_\_\_\_  
Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)	YES	NO	and field acidified	YES	NO
COD _____ mg/l					
Coliform: MF Fecal _____ /100ml					
Coliform: MF Total _____ /100ml					
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total _____ mg/l					
pH (when analyzed) _____ units					
TOC _____ mg/l					
Chloride _____ mg/l					
Arsenic _____ mg/l					
Grease and Oils _____ mg/l					
Phenol _____ mg/l					
Sulfate _____ mg/l					
Specific Conductance _____ uMhos					
Total Ammonia _____ mg/l					
TKN as N _____ mg/l					
Nitrite (NO <sub>2</sub> ) as N _____ mg/l					
Nitrate (NO <sub>3</sub> ) as N _____ mg/l					
Phosphorus: Total as P _____ mg/l					
Orthophosphate _____ mg/l					
Al - Aluminum _____ mg/l					
Ba - Barium _____ mg/l					
Ca - Calcium _____ mg/l					
Cd - Cadmium _____ mg/l					
Chromium: Total _____ mg/l					
Cu - Copper _____ mg/l					
Fe - Iron _____ mg/l					
Hg - Mercury _____ mg/l					
K - Potassium _____ mg/l					
Mg - Magnesium _____ mg/l					
Mn - Manganese _____ mg/l					
Ni - Nickel _____ mg/l					
Pb - Lead _____ mg/l					
Zn - Zinc _____ mg/l					
Ammonia Nitrogen _____ mg/l					
Other (Specify Compounds and Concentration Units)					
<b>ORGANICS: (GC, GC/MS, HPLC)</b>					
(Specify test and method #. Attach lab report,)					
Report Attached? Yes _____ (1) No _____ (0)					
VOC _____					
_____	method # = _____				
_____	method # = _____				

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEN) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

GW-59  
Rev. 03/2000  
Signature of Permittee (or Authorized Agent): Anthony M. Pithers, III  
Signature of Permittee (or Authorized Agent): DIRETOR OF OPERATIONS  
Date: 1-12-04

SUBMIT FORM ON YELLOW PAPER ONLY

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL

Permit Name (if different): JOHNSON COUNTY RESIDUAL WATER UTILIZATION SYSTEM

Facility Address: 680 COUNTY HOME ROAD

SMITHFIELD (City) 27577 (Zip) County: JOHNSON

Contact Person: KENNETH C. YUAK (Title) Telephone #: 919-634-3895

Well Location/ Site Name: COLMNS-5 No. of Wells to be Sampled: 9 (from Permit)

Well Identification Number (from Permit): COLMNS-5

Well Depth: 20 ft. Well Diameter: 8 in.

Screened Interval: 20.0 ft. to 5.0 ft.

Depth to Water Level: 6.54 ft. below measuring point.

Measuring Point (M.P.): Is: 2.35 ft. above land surface. Relative M.P. Elevation in ft.: 24.28

Gallons of water pumped/bailed before sampling: N/A Date sample collected: 12-8-05

Field analysis: pH N/A; Specific Conductance N/A uMhos Appearance N/A

Temp. N/A °C, Odor N/A

## PARAMETERS (Samples for metals were collected unfiltered \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ and field acidified \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_)

COD	mg/l				
Coliform: MF Fecal	/100ml				
Coliform: MF Total	/100ml				
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total	mg/l				
pH (when analyzed)	units				
TOC	mg/l				
Chloride	mg/l				
Arsenic	mg/l				
Grease and Oils	mg/l				
Phenol	mg/l				
Sulfate	mg/l				
Specific Conductance	uMhos				
Total Ammonia	mg/l				
TKN as N	mg/l				
Nitrite (NO <sub>2</sub> ) as N	mg/l				
Nitrate (NO <sub>3</sub> ) as N	mg/l				
Phosphorus: Total as P	mg/l				
Orthophosphate	mg/l				
Al - Aluminum	mg/l				
Ba - Barium	mg/l				
Ca - Calcium	mg/l				
Cd - Cadmium	mg/l				
Chromium: Total	mg/l				
Cu - Copper	mg/l				
Fe - Iron	mg/l				
Hg - Mercury	mg/l				
K - Potassium	mg/l				
Mg - Magnesium	mg/l				
Mn - Manganese	mg/l				
Ni - Nickel	mg/l				
Pb - Lead	mg/l				
Zn - Zinc	mg/l				
Ammonia Nitrogen	mg/l				
Other (Specify Compounds and Concentration Units)					
<b>ORGANICS: (GC, GC/MS, HPLC)</b>					
(Specify test and method #. Attach lab report.)					
Report Attached? Yes	(1)	No	(0)		
VOC	method # =				
	method # =				
	method # =				

Mail Original

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
WATER QUALITY DIVISION, GROUNDWATER SECTION  
1636 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1636 Phone: (919) 733-3221

PERMIT #: WQ 0019631 EXPIRATION DATE: MAY 31, 2007

Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_

NPDES \_\_\_\_\_

TYPE OF PERMITTED OPERATION BEING MONITORED

Lagoon  Remediation: Infiltration Gallery

Spray Field  Remediation: \_\_\_\_\_

Rotary Distributor  Land Application of Sludge

Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_

Laboratory Name: \_\_\_\_\_

Certification No. \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DED) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature of Permittee (or Authorized Agent) Raymond M. Pithers, III Director of Operations  
Signature of Permittee (or Authorized Agent) W. P. Lock  
Date 1-12-06

1-12-04

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL

Permit Name (if different): JOHNSON COUNTY RESOURCES WATER UTILIZATION SYSTEM

Facility Address: 680 COUNTY HOME ROAD

SMITHFIELD (City) NC (State) 27577 County JOHNSON

Contact Person: KENNETH C. BLANKENHORN (Site) Telephone #: 919-631-3895

Well Location/ Site Name: P/E COMPLEX # 3 No. of Wells to be Sampled: 9

Well Identification Number (from Permit): DZ-3

Well Depth: 17.52 ft. Well Diameter: 2 in.

Screened Interval: N/A ft. to N/A ft.

Depth to Water Level: 2.74 ft. below measuring point.

Measuring Point (M.P.) Is: 2.26 ft. above land surface. Relative M.P. Elevation In ft.: 194.91

Gallons of water pumped/bailed before sampling: N/A Date sample collected: 12-18-03

Field analysis: pH N/A, Specific Conductance N/A umhos  
Temp. N/A °C, Odor N/A Appearance N/A

## PARAMETERS (Samples for metals were collected, unfiltered)

COD	mg/l	_____	Nitrite (NO <sub>2</sub> ) as N	mg/l	_____	YES	_____	NO	_____	and field acidified	YES	_____	NO	_____
Coliform: MF Fecal	/100ml	_____	Nitrate (NO <sub>3</sub> ) as N	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Coliform: MF Total	/100ml	_____	Phosphorus: Total as P	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
(Note: Use MPN method for highly turbid samples)														
Dissolved Solids: Total	mg/l	_____	Orthophosphate	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
pH (when analyzed)	units	_____	Al - Aluminum	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
TOC	mg/l	_____	Ba - Barium	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Chloride	mg/l	_____	Ca - Calcium	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Arsenic	mg/l	_____	Cd - Cadmium	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Grease and Oils	mg/l	_____	Chromium: Total	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Phenol	mg/l	_____	Cu - Copper	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Sulfate	mg/l	_____	Fe - Iron	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Specific Conductance	umhos	_____	Hg - Mercury	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Total Ammonia	mg/l	_____	K - Potassium	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
TKN as N	mg/l	_____	Mg - Magnesium	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
			Mn - Manganese	mg/l	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

(Mail Original) DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 TO: WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1636 Phone: (919) 733-3221

PERMIT #: WQ 0019031 EXPIRATION DATE: March 31, 2007

Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_

NPDDES \_\_\_\_\_

TYPE OF PERMITTED OPERATION BEING MONITORED

Lagoon Remediation: Infiltration Gallery

Spray Field Remediation: \_\_\_\_\_

Rotary Distributor Land Application of Sludge

Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_

Laboratory Name: \_\_\_\_\_

Certification No. \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DFD) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violators.

Raymond M. Pithers, III Director of Operations  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
 Signature of Permittee (or Authorized Agent)  
 Date: 1-12-04

1  
SUBMIT FORM ON YELLOW PAPER ONLY

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL  
Permit Name (if different): JOHNSON COUNTY RESOURCES WATER UTILIZATION SYSTEM  
Facility Address: 680 COUNTY HUNGE ROAD  
SMITHFIELD (City) NC 27577 County JOHNSON  
Contact Person: KENNETH C. YORK (Name) York (Last) Telephone #: 919-634-3895  
Well Location/ Site Name: NW-3 No. of Wells to be Sampled: 9  
Well Identification Number (from Permit): NW-3 (from Permit)  
Well Depth: 30 ft. Well Diameter: 2 in.  
Screened Interval: 30.0 ft. to 20.0 ft.  
Depth to Water Level: 20.56 ft. below measuring point.  
Measuring Point (M.P.): Is: 1.9 ft. above land surface. Relative M.P. Elevation in ft.: 235.03  
Gallons of water pumped/bailed before sampling: N/A Date sample collected: 12-16-03  
Field analysis: pH N/A, Specific Conductance N/A umhos  
Temp. N/A °C, Odor N/A Appearance N/A

## PARAMETERS (Samples for metals were collected unfiltered)

**COD**  
Coliform: MF Fecal                      mg/l  
Coliform: MF Total                      /100ml  
(Note: Use MPN method for highly turbid samples)  
Dissolved Solids: Total                      mg/l  
pH (when analyzed)                      units  
TOC                      mg/l  
Chloride                      mg/l  
Arsenic                      mg/l  
Grease and Oils                      mg/l  
Phenol                      mg/l  
Sulfate                      mg/l  
Specific Conductance                      uMhos  
Total Ammonia                      mg/l  
TKN as N                      mg/l

Nitrite (NO<sub>2</sub>) as N                      mg/l  
Nitrate (NO<sub>3</sub>) as N                      mg/l  
Phosphorus: Total as P                      mg/l  
Orthophosphate                      mg/l  
Al - Aluminum                      mg/l  
Ba - Barium                      mg/l  
Ca - Calcium                      mg/l  
Cd - Cadmium                      mg/l  
Chromium: Total                      mg/l  
Cu - Copper                      mg/l  
Fe - Iron                      mg/l  
Hg - Mercury                      mg/l  
K - Potassium                      mg/l  
Mg - Magnesium                      mg/l  
Mn - Manganese                      mg/l

Nitrile (NO<sub>2</sub>) as N                      mg/l  
and field acidified                      mg/l  
YES                      NO                       
Ni - Nickel                      mg/l  
Pb - Lead                      mg/l  
Zn - Zinc                      mg/l  
Ammonia Nitrogen                      mg/l  
Other (Specify Compounds and Concentration Units)                      mg/l

ORGANICS: (GC/GCMS/HPLC)  
(Specify test and method #. Attach lab report.)  
Report Attached? Yes                      (1) No                      (0)  
VOC  
: method # =                       
: method # =                       
: method # =                     

Mail Original to: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
WATER QUALITY DIVISION, GROUNDWATER SECTION  
1636 MAIL SERVICE CENTER  
RALEIGH, NC 27698-1636 Phone: (919) 733-2221

PERMIT #: WQ 0019631 EXPIRATION DATE: MARCH 31, 2007  
Non-Discharge                      UIC                       
NPDES                       
TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon                      Remediation: Infiltration Gallery  
 Spray Field                      Remediation:                       
 Rotary Distributor                      Land Application of Sludge  
Other:                     

NOTE: Values should reflect dissolved and colloidal concentrations.  
Date sample analyzed:                       
Laboratory Name:                       
Certification No.                     

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DETQ) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

GW-59  
Rev. 03/2000

HYUNDO M. AITHESSIC III Director of Operations  
Permittee (or Authorized Agent) Name and Title - Please print or type  
Hyundo M. AitheSSic III  
Signature of Permittee (or Authorized Agent) 1-12-04

SUBMIT FORM ON YELLOW PAPER ONLY

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL

Permit Name (if different): JOHNSON COUNTY RESIDUAL WATER UTILIZATION SYSTEM

Facility Address: 680 COUNTY HOME ROAD

SMITHFIELD (City) NC 27577 County JOHNSON

Contact Person: KENNETH C. BERRYMAN (Site) Telephone #: 919-634-3895

Well Location/ Site Name: MW-5-1 No. of Wells to be Sampled: 2

Well Identification Number (from Permit): MW-5-1 (from Permit)

Well Depth: 31.7 ft. Well Diameter: 2 in.

Screened Interval: 31.6 ft. to 16.7 ft.

Depth to Water Level: 23.4 ft. below measuring point.

Measuring Point (M.P.): Is: 212 ft. above land surface.

Gallons of water pumped/baled before sampling: N/A Date sample collected: 12-18-03

Field analysis: pH N/A, Specific Conductance N/A umhos, Temperature N/A °C, Odor N/A, Appearance N/A

## PARAMETERS (Samples for metals were collected unfiltered)

COD	mg/l	YES	NO	and field acidified	YES	NO
Coliform: MF Faecal	/100ml					
Coliform: MF Total	/100ml					
(Note: Use MPN method for highly turbid samples)						
Dissolved Solids: Total	mg/l					
pH (when analyzed)	units					
TOC	mg/l					
Chloride	mg/l					
Arsenic	mg/l					
Grease and Oils	mg/l					
Phenol	mg/l					
Sulfate	mg/l					
Specific Conductance	umhos					
Total Ammonia	mg/l					
TKN as N	mg/l					
Nitrite (NO <sub>2</sub> ) as N	mg/l					
Nitrate (NO <sub>3</sub> ) as N	mg/l					
Phosphorus: Total as P	mg/l					
Orthophosphate	mg/l					
Al - Aluminum	mg/l					
Ba - Barium	mg/l					
Ca - Calcium	mg/l					
Cd - Cadmium	mg/l					
Chromium: Total	mg/l					
Cu - Copper	mg/l					
Fe - Iron	mg/l					
Hg - Mercury	mg/l					
K - Potassium	mg/l					
Mg - Magnesium	mg/l					
Mn - Manganese	mg/l					

For Groundwater Treatment Systems  
 Influent (98)  
 Effluent (99)

Mail Original to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
WATER QUALITY DIVISION, GROUNDWATER SECTION  
1636 MAIL SERVICE CENTER  
RALEIGH, NC 27698-1636  
Phone: (919) 733-3221

PERMIT #: WQ 00196 31

Non-Discharge

NPDES

TYPE OF PERMITTED OPERATION BEING MONITORED

Lagoon

Spray Field

Rotary Distributor

Other:

Remediation: Infiltration Gallery

Land Application of Sludge

EXPIRATION DATE: MARCH 31, 2007

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_

Laboratory Name: \_\_\_\_\_

Certification No. \_\_\_\_\_

YES NO

Ni - Nickel

Pb - Lead

Zn - Zinc

Ammonia Nitrogen

Other (Specify Compounds and Concentration Units)

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWM (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines, and imprisonment for knowing violations.

Harwood M. Pithers, III  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
Director of Operations  
 Signature of Permittee (or Authorized Agent)  
1-12-04

SUBMIT FORM ON YELLOW PAPER ONLY

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL

Permit Name (if different): JOHNSON COUNTY RESOURCES WATER UTILIZATION SYSTEM

Facility Address: 680 COUNTY HOME ROAD

SMITHFIELD, NC 27577

Contact Person: KENNETH C. YUAK

Well Location/ Site Name: MW-5-2

Well Identification Number (from Permit): MW-5-2

Well Depth: 22.5 ft. Well Diameter: 2 in.

Screened Interval: 22.5 ft. to 2.5 ft.

Depth to Water Level: 5.24 ft. below measuring point.

Measuring Point (M.P.): Is: 2.26 ft. above land surface.

Gallons of water pumped/bailed before sampling: N/A

Field analysis: pH N/A, Specific Conductance N/A

Temp. N/A °C, Odor N/A Appearance N/A

No. of Wells to be Sampled: 2

County: JOHNSON

Telephone #: 919-631-3895

Relative M.P. Elevation in ft.: 206.77

Date sample collected: 12-18-03

UMhos

UMhos

Mail Original

TO:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
WATER QUALITY DIVISION, GROUNDWATER SECTION  
1836 MAIL SERVICE CENTER  
RALEIGH, NC 27698-1836

Phone: (919) 733-3221

PERMIT #: WQ 00196 31

EXPIRATION DATE: MARCH 31, 2007

Non-Discharge

UIC

NPDSES

TYPE OF PERMITTED OPERATION BEING MONITORED

Lagoon  Remediation: Infiltration Gallery

Spray Field  Remediation:

Rotary Distributor  Land Application of Sludge

Other:

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_

Laboratory Name: \_\_\_\_\_

Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)

COD \_\_\_\_\_ mg/l

Coliform: MF Fecal \_\_\_\_\_ /100ml

Coliform: MF Total \_\_\_\_\_ /100ml

(Note: Use MPN method for highly turbid samples)

Dissolved Solids: Total \_\_\_\_\_ mg/l

pH (when analyzed) \_\_\_\_\_ units

TOC \_\_\_\_\_ mg/l

Chloride \_\_\_\_\_ mg/l

Arsenic \_\_\_\_\_ mg/l

Grease and Oils \_\_\_\_\_ mg/l

Phenol \_\_\_\_\_ mg/l

Sulfate \_\_\_\_\_ mg/l

Specific Conductance \_\_\_\_\_ uMhos

Total Ammonia \_\_\_\_\_ mg/l

TKN as N \_\_\_\_\_ mg/l

Nitrite (NO<sub>2</sub>) as N \_\_\_\_\_ mg/l

Nitrate (NO<sub>3</sub>) as N \_\_\_\_\_ mg/l

Phosphorus: Total as P \_\_\_\_\_ mg/l

Orthophosphate \_\_\_\_\_ mg/l

Al - Aluminum \_\_\_\_\_ mg/l

Ba - Barium \_\_\_\_\_ mg/l

Ca - Calcium \_\_\_\_\_ mg/l

Cd - Cadmium \_\_\_\_\_ mg/l

Chromium: Total \_\_\_\_\_ mg/l

Cu - Copper \_\_\_\_\_ mg/l

Fe - Iron \_\_\_\_\_ mg/l

Hg - Mercury \_\_\_\_\_ mg/l

K - Potassium \_\_\_\_\_ mg/l

Mg - Magnesium \_\_\_\_\_ mg/l

Mn - Manganese \_\_\_\_\_ mg/l

Ni - Nickel \_\_\_\_\_ mg/l

Pb - Lead \_\_\_\_\_ mg/l

Zn - Zinc \_\_\_\_\_ mg/l

Ammonia Nitrogen \_\_\_\_\_ mg/l

Other (Specify Compounds and Concentration Units)

ORGANICS: (GC, GC/MS, HPLC)

(Specify test and method #. Attach lab report.)

Report Attached? Yes \_\_\_\_\_ (1) No \_\_\_\_\_ (0)

VOC \_\_\_\_\_

\_\_\_\_\_ method # = \_\_\_\_\_

\_\_\_\_\_ method # = \_\_\_\_\_

\_\_\_\_\_ method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Anthony M. Pithisic, III Director of Operations

Signature of Permittee (or Authorized Agent)

SUBMIT FORM ON YELLOW PAPER ONLY

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL  
 Permit Name (if different): JOHNSON COUNTY RECLAMATION WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD, NC 27577 County: JOHNSON  
 Contact Person: KENNETH C. (SUNNY) YORK Telephone #: 919-631-3895  
 Well Location/ Site Name: MW-5-10 No. of Wells to be Sampled: 9

Well Identification Number (from Permit): MW-5-10  
 Well Depth: 26.1 ft. Well Diameter: 2 in.  
 Screened Interval: 26.1 ft. to 11.1 ft.  
 Depth to Water Level: 13.12 ft. above land surface. Relative M.P. Elevation in ft.: 202.83  
 Measuring Point (M.P.): Is: 2.16 ft. above land surface. Date sample collected: 12-18-03  
 Gallons of water pumped/beiled before sampling: N/A Specific Conductance N/A umhos  
 Field analysis: pH N/A °C, Odor N/A Appearance N/A

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

Mail Original to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1636 Phone: (919) 733-3221

PERMIT #: WQ 00196 31

EXPIRATION DATE: MAR 31, 2007

Non-Discharge

UIC

NPDES

TYPE OF PERMITTED OPERATION BEING MONITORED

Lagoon Remediation: Infiltration Gallery  
 Spray Field Remediation:  
 Rotary Distributor Land Application of Sludge  
 Other:

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed:  
 Laboratory Name:  
 Certification No.:

## PARAMETERS (Samples for metals were collected unfiltered)

COD	mg/l	YES	NO	and field acidified	YES	NO
Coliform: MF Fecal	/100ml				Ni - Nickel	mg/l
Coliform: MF Total	/100ml				Pb - Lead	mg/l
(Note: Use MPN method for highly turbid samples)					Zn - Zinc	mg/l
Dissolved Solids: Total	mg/l				Ammonia Nitrogen	mg/l
pH (when analyzed)	units				Other (Specify Compounds and Concentration Units)	
TOC	mg/l					
Chloride	mg/l					
Arsenic	mg/l					
Grease and Oils	mg/l					
Phenol	mg/l					
Sulfate	mg/l					
Specific Conductance	umhos					
Total Ammonia	mg/l					
TKN as N	mg/l					

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWO (formerly DEW) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HAYLIND M. ALTHUISIC, III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
MAF LEE  
 Signature of Permittee (or Authorized Agent) 1-12-04 (Date)

# NON-DISCHARGE APPLICATION REPORT SPRAY IRRIGATION SITE(S)

THERE ARE TWO APPLICATION FIELDS PER PAGE. USE ADDITIONAL PAGES AS NEEDED.

PERMIT NUMBER: WQ 0019632 MONTH: December YEAR: 2003

FACILITY NAME: Johnston County Reclaimed Water Utilization System COUNTY: Johnston

**Formulas:**

**Daily Loading (inches)** = [Volume Applied (gallons) x 0.1336 (cubic feet/gallon) x 12 (inches/foot)] / [Area Sprayed (acres) x 43,560 (square feet/acre)] OR  
= Volume Applied (gallons) / [Area Sprayed (acres) x 27,152 (gallons/acre-inch)]

**Maximum Hourly Loading (inches)** = Daily Loading (inches) / [Time Irrigated (minutes) / 60 (minutes/hour)]      **Monthly Loading (inches)** = Sum of Daily Loadings (inches)

**12 Month Floating Total (inches)** = Sum of this month's Monthly Loading (inches) and previous 11 month's Monthly Loadings (inches)

**Average Weekly Loading (inches)** = [Monthly Loading (inches/month) / Number of days in the month (days/month)] x 7 (days/week)

Did Irrigation Occur At This Facility:				Did Irrigation Occur On This Field:				Did Irrigation Occur On This Field:				
Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>				Yes: <input type="checkbox"/> No: <input type="checkbox"/>				Yes: <input type="checkbox"/> No: <input type="checkbox"/>				
				FIELD NUMBER:				FIELD NUMBER:				
				AREA SPRAYED (acres):				AREA SPRAYED (acres):				
				COVER CROP:				COVER CROP:				
				PERMITTED HOURLY RATE (inches):				PERMITTED HOURLY RATE (inches):				
PERMITTED YEARLY RATE (Inches):				PERMITTED YEARLY RATE (Inches):				PERMITTED YEARLY RATE (Inches):				
DATE	WEATHER CONDITIONS			Storage Lagoon Free-board feet	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches
	Weather Code*	Temperature at application (°F)	Precipitation inches									
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Total Gallons/Monthly Loading (inches)				0		0.00		0		0.00		
12 Month Floating Total (inches)												
Average Weekly Loading (inches)						0				0		

\* Weather Codes: C-clear, PC-partly cloudy, CI-cloudy, R-rain, Sn-snow, SI-sleet

Spray Irrigation Operator in Responsible Charge (ORC): Kenneth Clay York Phone: 919-631-3895

ORC Certification Number: 26366 Check Box if ORC Has Changed:

Mail ORIGINAL and TWO COPIES to:  
ATTN: Non-Discharge Compliance Unit  
DENR  
Division of Water Quality  
1617 Mail Service Center  
RALEIGH, NC 27699-1617

  
(SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)

BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

**NON-DISCHARGE APPLICATION REPORT  
SPRAY IRRIGATION SITE(S)**

**Facility Status:**

Please indicate ( by inserting Y(es) or N(o) in the appropriate box ) whether the facility has been **compliant** with the following permit requirements: (Note: if a requirement does not apply to your facility put (NA) in the compliant box. )

- |  |  |
|--|--|
| 1. The application rate(s) did not exceed the limit(s) specified in the permit.                                    | Compliant (Y,N)<br><input type="text" value="NA"/> |
| 2. Adequate measures were taken to prevent wastewater runoff from the site(s).                                     | <input type="text" value="NA"/>                    |
| 3. A suitable vegetative cover was maintained on the site(s) in accordance with the permit.                        | <input type="text" value="NA"/>                    |
| 4. All buffer zones as specified in the permit were maintained during each application.                            | <input type="text" value="NA"/>                    |
| 5. The freeboard in the treatment and/or storage lagoon(s) was not less than the limit(s) specified in the permit. | <input type="text" value="NA"/>                    |

If the facility is **non-compliant**, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Haywood M. Phthisic, III      1-12-07  
 (Signature of Permittee)\*      Date

Haywood M. Phthisic, III  
 (Name of Signing Official-Please print or type)

Johnston County Department of Public Utilities  
 (Permittee-Please print or type)

Director of Operations  
 (Position or Title)

P.O. Box 2263

919-989-5075  
 (Phone Number)

31-Mar-07  
 (Permit Exp. Date)

Smithfield, NC 27577  
 (Permittee Address)

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

# NON DISCHARGE WASTEWATER MONITORING REPORT

PERMIT NUMBER: WQ0019632

MONTH: December YEAR: 2003

FACILITY NAME: Johnston Co Reclaimed Water Utilization Syst.

COUNTY: Johnston

Flow Monitoring Point: Effluent: <input checked="" type="checkbox"/> Influent: <input type="checkbox"/>														
Parameter Monitoring Point: Effluent: <input checked="" type="checkbox"/> Influent: <input type="checkbox"/> Surface Water (SW): <input type="checkbox"/> SW Code/Name:														
Was There Effluent Flow For This Month Generated At This Facility: Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>														
DATE	Operator Arrival Time 2400 Clock	Operator Time On Site HRS	ORC on Site? Y/N	50050	00400	50060	00310	00610	00530	31616				
				Daily Rate (Flow) Into Treatment System GALLONS	pH UNITS	Residual Chlorine UG/L	BOD-5 20°C MG/L	NH3-N MG/L	TSS MG/L	Fecal Coliform (Geo-metric Mean*) /100ML				
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
Average				#DIV/0!	####	####	####	####	####	####	#NUM!			
Daily Maximum				0	0	0	0	0	0	0	0			
Daily Minimum				0	0	0	0	0	0	0	0			
Monthly Limit(s)														
Composite (C) / Grab (G)														

Operator in Responsible Charge (ORC): Kenneth Clay York Grade: SI Phone: 919-631-3895  
 Check Box if ORC Has Changed:  ORC Certification Number: 26366  
 Certified Laboratories (1): Environment 1 (2): Johnston County WWTP Laboratory  
 Person(s) Collecting Samples: Jason Volker

Mail ORIGINAL and TWO COPIES to:  
 ATTN: Non-Discharge Compliance Unit  
 DENR  
 Division of Water Quality  
 1617 Mail Service Center

*Kenneth C. York*  
 (SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)  
 BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE  
 AND COMPLETE TO THE BEST OF MY KNOWLEDGE.  
 DENR FORM NDMR-1 (5/2003)

**NON DISCHARGE WASTEWATER MONITORING REPORT****Facility Status:**

Please answer the following question:

1. Does all monitoring data and sampling frequencies meet permit requirements?

Compliant (Y,N)

 Y

If the facility is **non-compliant**, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Haywood M. Phthisic, III  
 (Signature of Permittee)\*      1-12-04  
 Date

Haywood M. Phthisic, III  
 (Name of Signing Official-Please print or type)

Johnston County Department of Public Utilities  
 (Permittee-Please print or type)

Director of Operations  
 (Position or Title)

P.O. Box 2263

919-989-5075

31-Mar-07

(Phone Number)

(Permit Exp. Date)

Smithfield, NC 27577

(Permittee Address)

**Parameter Codes:**

01002 Arsenic	31504 Coliform, Total	00600 Nitrogen, Total	00929 Sodium
01022 Boron	00094 Conductivity	00630 NO2&NO3	00931 SAR
00310 BOD5	01042 Copper	00620 NO3	00745 Sulfide
01027 Cadmium	00300 Dissolved Oxygen	00556 Oil-Grease	70295 TDS
00916 Calcium	31616 Fecal Coliform	WQ09 PAN (Plant Available)	00010 Temperature
00940 Chloride	01051 Lead	00400 pH	00625 TKN
50060 Chlorine, Total Residual	00927 Magnesium	32730 Phenols	00680 TOC
	71900 Mercury	00665 Phosphorus, Total	00530 TSS/TSR
01034 Chromium	00610 NH3asN	00937 Potassium	00076 Turbidity
00340 COD	01067 Nickel	00545 Settleable Matter	01092 Zinc

Parameter Code assistance may be obtained by calling the Water Quality Compliance/Enforcement Unit at (919) 733-5083 ext. 529.

The monthly average for Fecal Coliform is to be reported as a GEOMETRIC mean. Use only the units designated in the reporting facility's permit for reporting data.

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

# NON-DISCHARGE APPLICATION REPORT SPRAY IRRIGATION SITE(S)

THERE ARE TWO APPLICATION FIELDS PER PAGE. USE ADDITIONAL PAGES AS NEEDED.

PERMIT NUMBER: WQ 0019631 MONTH: November YEAR: 2003

FACILITY NAME: Johnston County Reclaimed Water Utilization System COUNTY: Johnston

**Formulas:**

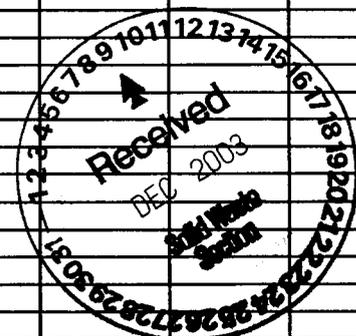
Daily Loading (inches) = [Volume Applied (gallons) x 0.1336 (cubic feet/gallon) x 12 (inches/foot)] / [Area Sprayed (acres) x 43,560 (square feet/acre)] OR  
= Volume Applied (gallons) / [Area Sprayed (acres) x 27,152 (gallons/acre-inch)]

Maximum Hourly Loading (inches) = Daily Loading (inches) / [Time Irrigated (minutes) / 60 (minutes/hour)] Monthly Loading (inches) = Sum of Daily Loadings (inches)

12 Month Floating Total (inches) = Sum of this month's Monthly Loading (inches) and previous 11 month's Monthly Loadings (inches)

Average Weekly Loading (inches) = [Monthly Loading (inches/month) / Number of days in the month (days/month)] x 7 (days/week)

Did Irrigation Occur At This Facility:				Did Irrigation Occur On This Field:				Did Irrigation Occur On This Field:				
Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>				Yes: <input type="checkbox"/> No: <input type="checkbox"/>				Yes: <input type="checkbox"/> No: <input type="checkbox"/>				
				FIELD NUMBER:				FIELD NUMBER:				
				AREA SPRAYED (acres):				AREA SPRAYED (acres):				
				COVER CROP:				COVER CROP:				
				PERMITTED HOURLY RATE (inches):				PERMITTED HOURLY RATE (inches):				
				PERMITTED YEARLY RATE (inches):				PERMITTED YEARLY RATE (inches):				
DATE	WEATHER CONDITIONS			Storage Lagoon Free-board feet	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches
	Weather Code*	Temperature at application (°F)	Precipitation inches									
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Total Gallons/Monthly Loading (inches)				0		0.00		0		0.00		
12 Month Floating Total (inches)												
Average Weekly Loading (inches)						0				0		



\* Weather Codes: C-clear, PC-partly cloudy, CI-cloudy, R-rain, Sn-snow, SI-sleet

Spray Irrigation Operator In Responsible Charge (ORC): Kenneth C. York Phone: 919-631-3895

ORC Certification Number: 26366 Check Box if ORC Has Changed:

Mail ORIGINAL and TWO COPIES to:  
ATTN: Non-Discharge Compliance Unit  
DENR  
Division of Water Quality  
1617 Mall Service Center  
RALEIGH, NC 27699-1617

*Kenneth C. York*  
\_\_\_\_\_  
(SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)  
BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.



SUBMIT FORM ON YELLOW PAPER ONLY

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL

Permit Name (if different): JOHNSON COUNTY RESIDUAL WATER UTILIZATION SYSTEM

Facility Address: 680 COUNTY HOME RD  
SMITHFIELD, NC 27577 County: JOHNSON

Contact Person: KENNETH C. BERRYMAN Telephone #: 919-634-3895

Well Location/ Site Name: MW-5-10 No. of Wells to be Sampled: 9

Well Identification Number (from Permit): MW-5-10

Well Depth: 26.1 ft. Well Diameter: 2 in.

Screened Interval: 26.1 ft. to 21.1 ft.

Depth to Water Level: 13.90 ft. below measuring point.

Measuring Point (M.P.) Is: 2.16 ft. above land surface. Relative M.P. Elevation in ft.: 248.88

Gallons of water pumped/balled before sampling: 218 Date sample collected: 11-17-03

Field analysis: pH: 7.18, Specific Conductance: 118 uMhos

Temp. 14.4 °C, Odor: N/A Appearance: Clear

PARAMETERS (Samples for metals were collected unfiltered) YES NO and field acidified YES NO

COD \_\_\_\_\_ mg/l Nitrite (NO<sub>2</sub>) as N \_\_\_\_\_ mg/l

Coliform: MF Fecal \_\_\_\_\_ /100ml Nitrate (NO<sub>3</sub>) as N \_\_\_\_\_ mg/l

Coliform: MF Total \_\_\_\_\_ /100ml Phosphorus: Total as P \_\_\_\_\_ mg/l

(Note: Use MPN method for highly turbid samples) Orthophosphate \_\_\_\_\_ mg/l

Dissolved Solids: Total \_\_\_\_\_ mg/l Al - Aluminum \_\_\_\_\_ mg/l

pH (when analyzed) \_\_\_\_\_ units Ba - Barium \_\_\_\_\_ mg/l

TOC \_\_\_\_\_ mg/l Ca - Calcium \_\_\_\_\_ mg/l

Chloride \_\_\_\_\_ mg/l Cd - Cadmium \_\_\_\_\_ mg/l

Arsenic \_\_\_\_\_ mg/l Chromium: Total \_\_\_\_\_ mg/l

Grease and Oils \_\_\_\_\_ mg/l Cu - Copper \_\_\_\_\_ mg/l

Phenol \_\_\_\_\_ mg/l Fe - Iron \_\_\_\_\_ mg/l

Sulfate \_\_\_\_\_ mg/l Hg - Mercury \_\_\_\_\_ mg/l

Specific Conductance \_\_\_\_\_ uMhos K - Potassium \_\_\_\_\_ mg/l

Total Ammonia \_\_\_\_\_ mg/l Mg - Magnesium \_\_\_\_\_ mg/l

TKN as N \_\_\_\_\_ mg/l Mn - Manganese \_\_\_\_\_ mg/l

Mail Original to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
WATER QUALITY DIVISION, GROUNDWATER SECTION  
1638 MAIL SERVICE CENTER  
RALEIGH, NC 27698-1638 Phone: (919) 733-3221

PERMIT #: WQ 0019631 EXPIRATION DATE: 11/15/07

Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_

NPDES \_\_\_\_\_

TYPE OF PERMITTED OPERATION BEING MONITORED

Lagoon  Remediation: Infiltration Gallery

Spray Field  Remediation: \_\_\_\_\_

Rotary Distributor  Land Application of Sludge

Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_

Laboratory Name: \_\_\_\_\_

Certification No. \_\_\_\_\_

Ni - Nickel \_\_\_\_\_ mg/l

Pb - Lead \_\_\_\_\_ mg/l

Zn - Zinc \_\_\_\_\_ mg/l

Ammonia Nitrogen \_\_\_\_\_ mg/l

Other (Specify Compounds and Concentration Units)

ORGANICS: (GC, GC/MS, HPLC)

(Specify test and method #. Attach lab report.)

Report Attached? Yes (1) No (0)

VOC : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEQM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violators.

HYUNG M. PHTHISIC, III DIRECTOR OF OPERATIONS

Permittee (or Authorized Agent) Name and Title - Please print or type  
Hyung M. Phtthisic, III  
Signature of Permittee (or Authorized Agent) Hyung M. Phtthisic, III 12-04-03 (Date)

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Please Print Clearly or Type

**FACILITY INFORMATION**

Facility Name: JOHNSON COUNTY LANDFILL

Permit Name (if different): JOHNSON COUNTY YELLOW WATER UTILIZATION SYSTEM

Facility Address: 680 COUNTY ROUTE 200

SMITHFIELD (Town) NC 27577 County JOHNSON

Contact Person: KENNETH C. (State) YORK (Zip) Telephone #: 919-631-3895

Well Location/ Site Name: MW-5-2 No. of Wells to be Sampled: 2

Well Identification Number (from Permit): MW-5-2

Well Depth: 22.5 ft. Well Diameter: 2 in.

Screened Interval: 22.5 ft. to 7.5 ft.

Depth to Water Level: 5.58 ft. below measuring point.

Measuring Point (M.P.): Is: 228 ft. above land surface. Relative M.P. Elevation in ft.: 206.77

Gallons of water pumped/bailed before sampling: N/A Date sample collected: 11-17-03

Field analysis: pH 7.14, Specific Conductance N/A umhos

Temp. N/A °C, Odor N/A Appearance N/A umhos

For Groundwater Treatment Systems

Check One:  Influent (98)

Effluent (99)

**Mail Original** to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
WATER QUALITY DIVISION, GROUNDWATER SECTION  
1636 MAIL SERVICE CENTER  
RALEIGH, NC 27698-1636 Phone: (919) 733-3221

PERMIT #: WQ 0019631 EXPIRATION DATE: MAR 31, 2007

Non-Discharge: \_\_\_\_\_ UIC: \_\_\_\_\_

NPDES TYPE OF PERMITTED OPERATION BEING MONITORED

Lagoon Remediation: Infiltration Gallery

Spray Field Remediation: \_\_\_\_\_

Rotary Distributor Land Application of Sludge

Other: \_\_\_\_\_

**NOTE: Values should reflect dissolved and colloidal concentrations.**

Date sample analyzed: \_\_\_\_\_

Laboratory Name: \_\_\_\_\_

Certification No.: \_\_\_\_\_

**PARAMETERS** (Samples for metals were collected unfiltered \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ and field acidified \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_)

COD \_\_\_\_\_ mg/l Nitrite (NO<sub>2</sub>) as N \_\_\_\_\_ mg/l

Coliform: MF Fecal \_\_\_\_\_ /100ml Nitrate (NO<sub>3</sub>) as N \_\_\_\_\_ mg/l

Coliform: MF Total \_\_\_\_\_ /100ml Phosphorus: Total as P \_\_\_\_\_ mg/l

(Note: Use MPN method for highly turbid samples)

Dissolved Solids: Total \_\_\_\_\_ mg/l Orthophosphate \_\_\_\_\_ mg/l

pH (when analyzed) \_\_\_\_\_ units Al - Aluminum \_\_\_\_\_ mg/l

TOC \_\_\_\_\_ mg/l Ba - Barium \_\_\_\_\_ mg/l

Chloride \_\_\_\_\_ mg/l Ca - Calcium \_\_\_\_\_ mg/l

Arsenic \_\_\_\_\_ mg/l Cd - Cadmium \_\_\_\_\_ mg/l

Grease and Oils \_\_\_\_\_ mg/l Chromium: Total \_\_\_\_\_ mg/l

Phenol \_\_\_\_\_ mg/l Cu - Copper \_\_\_\_\_ mg/l

Sulfate \_\_\_\_\_ mg/l Fe - Iron \_\_\_\_\_ mg/l

Specific Conductance \_\_\_\_\_ umhos Hg - Mercury \_\_\_\_\_ mg/l

Total Ammonia \_\_\_\_\_ mg/l K - Potassium \_\_\_\_\_ mg/l

TKN as N \_\_\_\_\_ mg/l Mg - Magnesium \_\_\_\_\_ mg/l

Mn - Manganese \_\_\_\_\_ mg/l

ORGANICS: (GC, GC/MS, HPLC)

(Specify test and method #. Attach lab report.)

Report Attached? Yes \_\_\_\_\_ (1) No \_\_\_\_\_ (0)

VOC : method # = \_\_\_\_\_

: method # = \_\_\_\_\_

: method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HYUNDO M. PHTHISIC, III DIRECTOR OF OPERATIONS

Permittee (or Authorized Agent) Name and Title - Please print or type

Hyundo M. Phtisic

Signature of Permittee (or Authorized Agent)

12.04.03 (Date)

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

*Please Print Clearly or Type*

**Mail Original**  
to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
WATER QUALITY DIVISION, GROUNDWATER SECTION  
1636 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1636

Phone: (919) 733-3221

Facility Name: TOHASTON COUNTY LANDFILL  
 Permit Name (if different): TOHASTON COUNTY RESLANDING WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HUNE ROAD  
SATHEBERG, (State) NC 27577  
 County: TOHASTON  
 Contact Person: KENNETH C. (State) YORK Telephone #: 919-634-3895  
 Well Location/ Site Name: MW-5-1 No. of Wells to be Sampled: 9 (from Permit)

Well Identification Number (from Permit): MW-5-1  
 Well Depth: 31.7 ft. Well Diameter: 2 in.  
 Screened Interval: 31.7 ft. to 16.7 ft.  
 Depth to Water Level: 23.08 ft. below measuring point.  
 Measuring Point (M.P.): is: 2.22 ft. above land surface. Relative M.P. Elevation in ft.: 232.17  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 11-17-03  
 Field analysis: pH N/A, Specific Conductance N/A umhos  
 Temp. N/A °C, Odor N/A Appearance N/A

**PARAMETERS (Samples for metals were collected unfiltered)** YES NO and field acidified YES NO

COD \_\_\_\_\_ mg/l  
 Coliform: MF Fecal \_\_\_\_\_ /100ml  
 Coliform: MF Total \_\_\_\_\_ /100ml  
 (Note: Use MPN method for highly turbid samples)  
 Dissolved Solids: Total \_\_\_\_\_ mg/l  
 pH (when analyzed) \_\_\_\_\_ units  
 TOC \_\_\_\_\_ mg/l  
 Chloride \_\_\_\_\_ mg/l  
 Arsenic \_\_\_\_\_ mg/l  
 Grease and Oils \_\_\_\_\_ mg/l  
 Phenol \_\_\_\_\_ mg/l  
 Sulfate \_\_\_\_\_ mg/l  
 Specific Conductance \_\_\_\_\_ umhos  
 Total Ammonia \_\_\_\_\_ mg/l  
 TKN as N \_\_\_\_\_ mg/l

PERMIT #: MW 0019631 EXPIRATION DATE: MAR 31, 2007  
 Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_  
 NPDES \_\_\_\_\_  
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon  
 Spray Field Remediation: Infiltration Gallery  
 Rotary Distributor Land Application of Sludge  
 Other: \_\_\_\_\_

**NOTE: Values should reflect dissolved and colloidal concentrations.**  
 Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

Nitrite (NO<sub>2</sub>) as N \_\_\_\_\_ mg/l  
 Nitrate (NO<sub>3</sub>) as N \_\_\_\_\_ mg/l  
 Phosphorus: Total as P \_\_\_\_\_ mg/l  
 Orthophosphate \_\_\_\_\_ mg/l  
 Al - Aluminum \_\_\_\_\_ mg/l  
 Ba - Barium \_\_\_\_\_ mg/l  
 Ca - Calcium \_\_\_\_\_ mg/l  
 Cd - Cadmium \_\_\_\_\_ mg/l  
 Chromium: Total \_\_\_\_\_ mg/l  
 Cu - Copper \_\_\_\_\_ mg/l  
 Fe - Iron \_\_\_\_\_ mg/l  
 Hg - Mercury \_\_\_\_\_ mg/l  
 K - Potassium \_\_\_\_\_ mg/l  
 Mg - Magnesium \_\_\_\_\_ mg/l  
 Mn - Manganese \_\_\_\_\_ mg/l

Ni - Nickel \_\_\_\_\_ mg/l  
 Pb - Lead \_\_\_\_\_ mg/l  
 Zn - Zinc \_\_\_\_\_ mg/l  
 Ammonia Nitrogen \_\_\_\_\_ mg/l  
 Other (Specify Compounds and Concentration Units) \_\_\_\_\_

**ORGANICS: (GC/GCMS,HPLC)**  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 VOC : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWO (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines, and imprisonment for knowing violations.

Permittee (or Authorized Agent) Name and Title - Please print or type  
HYGWOOD M. ATHYISIC, III Director of Operations  
 Signature of Permittee (or Authorized Agent) \_\_\_\_\_  
 (Date) 12/04/03

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

*Please Print Clearly or Type*

**FACILITY INFORMATION**

Facility Name: JOHNSON COUNTY LANDFILL

Permit Name (if different): JOHNSON COUNTY RESLAND WATER UTILIZATION SYSTEM

Facility Address: 680 COUNTY HOME ROAD  
SMTHERSD (Street) NC 27577

Contact Person: KENNETH C. (State) YORK (Zip) County: JOHNSON

Well Location/ Site Name: MW-3 Telephone #: 919-634-3895

No. of Wells to be Sampled: 9 (from Permit)

Well Identification Number (from Permit): MW-3

Well Depth: 30 ft. Well Diameter: 2 in.

Screened Interval: 30.0 ft. to 20.0 ft.

Depth to Water Level: 20.35 ft. below measuring point.

Measuring Point (M.P.): Is: 1.9 ft. above land surface. Relative M.P. Elevation in ft.: 235.03

Gallons of water pumped/bailed before sampling: N/A Date sample collected: 11-17-03

Field analysis: pH N/A, Specific Conductance N/A umhos

Temp. N/A °C, Odor N/A Appearance N/A

For Groundwater Treatment Systems

Check One:  Influent (98)

Effluent (99)

**Mail Original**

to: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
WATER QUALITY DIVISION, GROUNDWATER SECTION  
1635 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1635 Phone: (919) 733-3221

PERMIT #: WQ 00196 31 EXPIRATION DATE: MARCH 31, 2007

Non-Discharge: \_\_\_\_\_ UIC: \_\_\_\_\_

NPDES

TYPE OF PERMITTED OPERATION BEING MONITORED

Lagoon Remediation: Infiltration Gallery

Spray Field Remediation: \_\_\_\_\_

Rotary Distributor Land Application of Sludge

Other: \_\_\_\_\_

**NOTE: Values should reflect dissolved and colloidal concentrations.**

Date sample analyzed: \_\_\_\_\_

Laboratory Name: \_\_\_\_\_

Certification No. \_\_\_\_\_

**PARAMETERS (Samples for metals were collected unfiltered \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ and field acidified \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_)**

COD _____ mg/l	Nitrite (NO <sub>2</sub> ) as N _____ mg/l	Ni - Nickel _____ mg/l
Coliform: MF Fecal _____ /100ml	Nitrate (NO <sub>3</sub> ) as N _____ mg/l	Pb - Lead _____ mg/l
Coliform: MF Total _____ /100ml	Phosphorus: Total as P _____ mg/l	Zn - Zinc _____ mg/l
(Note: Use MPN method for highly turbid samples)	Orthophosphate _____ mg/l	Ammonia Nitrogen _____ mg/l
Dissolved Solids: Total _____ mg/l	Al - Aluminum _____ mg/l	Other (Specify Compounds and Concentration Units)
pH (when analyzed) _____ units	Ba - Barium _____ mg/l	
TOC _____ mg/l	Ca - Calcium _____ mg/l	
Chloride _____ mg/l	Cd - Cadmium _____ mg/l	
Arsenic _____ mg/l	Chromium: Total _____ mg/l	
Grease and Oils _____ mg/l	Cu - Copper _____ mg/l	
Phenol _____ mg/l	Fe - Iron _____ mg/l	
Sulfate _____ mg/l	Hg - Mercury _____ mg/l	
Specific Conductance _____ umhos	K - Potassium _____ mg/l	
Total Ammonia _____ mg/l	Mg - Magnesium _____ mg/l	
TKN as N _____ mg/l	Mn - Manganese _____ mg/l	

**ORGANICS: (GC, GC/MS, HPLC)**

(Specify test and method #. Attach lab report.)

Report Attached? Yes \_\_\_\_\_ (1) No \_\_\_\_\_ (0)

VOC

: method # = \_\_\_\_\_

: method # = \_\_\_\_\_

: method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HYUNDO M. AHTHISIC, III DIRECTOR OF OPERATIONS

Permittee for Authorized Agent Name and Title - Please print or type

Hyundo M. Ahthisic, III

Signature of Permittee (or Authorized Agent)

12-04-03 (Date)

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Please Print Clearly or Type

**FACILITY INFORMATION**

Facility Name: JOHNSON COUNTY LANDFILL  
 Permit Name (if different): JOHNSON COUNTY RESIDUAL WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD (Town) NC 27577 County JOHNSON  
 Contact Person: KENNETH C. BARKER (Site) Telephone #: 919-631-3895  
 Well Location/ Site Name: PIEZOMETER #3 No. of Wells to be Sampled: 9 (from Permit)  
 Well Identification Number (from Permit): PZ-3  
 Well Depth: 17.82 ft. Well Diameter: 2 in.  
 Screened Interval: N/A ft. to N/A ft.  
 Depth to Water Level: 8.70 ft. below measuring point.  
 Measuring Point (M.P.): Is: 226 ft. above land surface. Relative M.P. Elevation in ft.: 194.91  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 11-17-03  
 Field analysis: pH N/A, Specific Conductance N/A umhos  
 Temp. N/A °C, Odor N/A Appearance N/A

For Groundwater Treatment Systems  
 Check One:  Infiltrant (98)  
 Effluent (99)

Mail Original to: **DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES**  
**WATER QUALITY DIVISION, GROUNDWATER SECTION**  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1636 Phone: (919) 733-3221

PERMIT #: WQ 0019631 EXPIRATION DATE: MARCH 31, 2007  
 Non-Discharge  UIC   
 NPDES   
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon Remediation: Infiltration Gallery  
 Spray Field Remediation: \_\_\_\_\_  
 Rotary Distributor Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.  
 Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

**PARAMETERS** (Samples for metals were collected unfiltered \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ and field acidified \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_)

COD _____ mg/l	Nitrite (NO <sub>2</sub> ) as N _____ mg/l	Ni - Nickel _____ mg/l
Coliform: MF Faecal _____ /100ml	Nitrate (NO <sub>3</sub> ) as N _____ mg/l	Pb - Lead _____ mg/l
Coliform: MF Total _____ /100ml	Phosphorus: Total as P _____ mg/l	Zn - Zinc _____ mg/l
(Note: Use MPN method for highly turbid samples)	Orthophosphate _____ mg/l	Ammonia Nitrogen _____ mg/l
Dissolved Solids: Total _____ mg/l	Al - Aluminum _____ mg/l	Other (Specify Compounds and Concentration Units)
pH (when analyzed) _____ units	Ba - Barium _____ mg/l	
TOC _____ mg/l	Ca - Calcium _____ mg/l	
Chloride _____ mg/l	Cd - Cadmium _____ mg/l	
Arsenic _____ mg/l	Chromium: Total _____ mg/l	
Grease and Oils _____ mg/l	Cu - Copper _____ mg/l	
Phenol _____ mg/l	Fe - Iron _____ mg/l	
Sulfate _____ mg/l	Hg - Mercury _____ mg/l	
Specific Conductance _____ umhos	K - Potassium _____ mg/l	
Total Ammonia _____ mg/l	Mg - Magnesium _____ mg/l	
TKN as N _____ mg/l	Mn - Manganese _____ mg/l	

**ORGANICS: (GC,GC/MS,HPLC)**  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 VOC : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWO (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines, and imprisonment for knowing violations.

Permitted by HYMENO M. ATHYISIC, III Director of Operations  
 Signature of Permittee (or Authorized Agent) \_\_\_\_\_  
 Signature of Permittee (or Authorized Agent) \_\_\_\_\_  
 Date: 12-04-03



# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

**FACILITY INFORMATION**

*Please Print Clearly or Type*

Facility Name: STEWART COUNTY LANDFILL  
 Permit Name (if different): STEWART COUNTY SOLID WASTE UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME RD  
SMITHFIELD (City) NC (State) 27577 County STEWART  
 Contact Person: KENNETH C. (State) YORK (Title) Telephone #: 919-634-3895  
 Well Location/ Site Name: BW9-MU-3 No. of Wells to be Sampled: 9 (from Permit)  
 Well Identification Number (from Permit): 2W4-MU-3  
 Well Depth: 42 ft. Well Diameter: 2 in.  
 Screened Interval: 42 ft. to 32 ft.  
 Depth to Water Level: 15.14 ft. below measuring point.  
 Measuring Point (M.P.): is: 2.92 ft. above land surface. Relative M.P. Elevation in ft.: 182.85  
 Gallons of water pumped/delivered before sampling: N/A Date sample collected: 11-17-03  
 Field analysis: pH N/A, Specific Conductance N/A Appearance N/A umhos  
 Temp. N/A °C, Odor N/A

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

**Mail Original to:**

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1636 Phone: (919) 733-3221

PERMIT #: WQ 00190631 EXPIRATION DATE: MAR 31, 2007  
 Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_  
 NPDES \_\_\_\_\_  
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon Remediation: Infiltration Gallery  
 Spray Field Remediation: \_\_\_\_\_  
 Rotary Distributor Land Application of Sludge  
 Other: \_\_\_\_\_

**NOTE: Values should reflect dissolved and colloidal concentrations.**

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

<b>PARAMETERS (Samples for metals were collected unfiltered)</b>		YES	NO	and field acidified	YES	NO
COD	mg/l				Ni - Nickel	mg/l
Coliform: MF Fecal	/100ml				Pb - Lead	mg/l
Coliform: MF Total	/100ml				Zn - Zinc	mg/l
(Note: Use APHA method for highly turbid samples)					Ammonia Nitrogen	mg/l
Dissolved Solids: Total	mg/l				Other (Specify Compounds and Concentration Units)	
pH (when analyzed)	units					
TOC	mg/l					
Chloride	mg/l					
Arsenic	mg/l					
Grease and Oils	mg/l					
Phenol	mg/l					
Sulfate	mg/l					
Specific Conductance	umhos					
Total Ammonia	mg/l					
TKN as N	mg/l					

Nitrite (NO<sub>2</sub>) as N \_\_\_\_\_ mg/l  
 Nitrate (NO<sub>3</sub>) as N \_\_\_\_\_ mg/l  
 Phosphorus: Total as P \_\_\_\_\_ mg/l  
 Orthophosphate \_\_\_\_\_ mg/l  
 Al - Aluminum \_\_\_\_\_ mg/l  
 Ba - Barium \_\_\_\_\_ mg/l  
 Ca - Calcium \_\_\_\_\_ mg/l  
 Cd - Cadmium \_\_\_\_\_ mg/l  
 Chromium: Total \_\_\_\_\_ mg/l  
 Cu - Copper \_\_\_\_\_ mg/l  
 Fe - Iron \_\_\_\_\_ mg/l  
 Hg - Mercury \_\_\_\_\_ mg/l  
 K - Potassium \_\_\_\_\_ mg/l  
 Mg - Magnesium \_\_\_\_\_ mg/l  
 Mn - Manganese \_\_\_\_\_ mg/l

**ORGANICS: (GC, GC/MS, HPLC)**  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWMQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines, and imprisonment for knowing violations.

Permittee (or Authorized Agent) Name and Title - Please print or type  
RAYMOND M. RYTHISIC, III DIRECTOR OF OPERATIONS  
 Signature of Permittee (or Authorized Agent) \_\_\_\_\_  
 Date: 12-04-03

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Please Print Clearly or Type

**FACILITY INFORMATION**

Facility Name: JOHNSON COUNTY LANDFILL

Permit Name (if different): JOHNSON COUNTY RESIDUAL WATER UTILIZATION SYSTEM

Facility Address: 680 COUNTY HOME ROAD  
SALISBURY NC 27577 County: JOHNSON

Contact Person: KENNETH C. BERRY Telephone #: 919-631-3895

Well Location/ Site Name: SWA-MW-1 No. of Wells to be Sampled: 9

Well Identification Number (from Permit): SWA-MW-1

Well Depth: 20 ft. Well Diameter: 2 in.

Screened Interval: 20 ft. to 10 ft.

Depth to Water Level: 10.18 ft. below measuring point.

Measuring Point (M.P.): Is: 3.38 ft. above land surface. Relative M.P. Elevation in ft.: 213.81

Gallons of water pumped/balled before sampling: N/A Date sample collected: 11-17-03

Field analysis: pH: N/A, Specific Conductance: N/A umhos  
Temp. N/A °C, Odor: N/A Appearance: N/A

For Groundwater Treatment Systems

Check One:  Influent (98)  
 Effluent (99)

Mail Original to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
WATER QUALITY DIVISION, GROUNDWATER SECTION  
1636 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1938 Phone: (919) 733-3221

PERMIT #: WQ 0019631 EXPIRATION DATE: MARCH 31, 2007

Non-Discharge: \_\_\_\_\_ UIC: \_\_\_\_\_

NPDES

TYPE OF PERMITTED OPERATION BEING MONITORED

Lagoon Remediation: Infiltration Gallery

Spray Field Remediation: \_\_\_\_\_

Rotary Distributor Land Application of Sludge

Other: \_\_\_\_\_

**NOTE: Values should reflect dissolved and colloidal concentrations.**

Date sample analyzed: \_\_\_\_\_

Laboratory Name: \_\_\_\_\_

Certification No. \_\_\_\_\_

**PARAMETERS (Samples for metals were collected: unfiltered \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ and field acidified \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_)**

COD \_\_\_\_\_ mg/l Nitrite (NO<sub>2</sub>) as N \_\_\_\_\_ mg/l

Coliform: MF Fecal \_\_\_\_\_ /100ml Nitrate (NO<sub>3</sub>) as N \_\_\_\_\_ mg/l

Coliform: MF Total \_\_\_\_\_ /100ml Phosphorus: Total as P \_\_\_\_\_ mg/l

(Note: Use MPN method for highly turbid samples)

Dissolved Solids: Total \_\_\_\_\_ mg/l Orthophosphate \_\_\_\_\_ mg/l

pH (when analyzed) \_\_\_\_\_ units Al - Aluminum \_\_\_\_\_ mg/l

TOC \_\_\_\_\_ mg/l Ba - Barium \_\_\_\_\_ mg/l

Chloride \_\_\_\_\_ mg/l Ca - Calcium \_\_\_\_\_ mg/l

Arsenic \_\_\_\_\_ mg/l Cd - Cadmium \_\_\_\_\_ mg/l

Grease and Oils \_\_\_\_\_ mg/l Chromium: Total \_\_\_\_\_ mg/l

Phenol \_\_\_\_\_ mg/l Cu - Copper \_\_\_\_\_ mg/l

Sulfate \_\_\_\_\_ mg/l Fe - Iron \_\_\_\_\_ mg/l

Specific Conductance \_\_\_\_\_ uMhos Hg - Mercury \_\_\_\_\_ mg/l

Total Ammonia \_\_\_\_\_ mg/l K - Potassium \_\_\_\_\_ mg/l

TKN as N \_\_\_\_\_ mg/l Mg - Magnesium \_\_\_\_\_ mg/l

Mn - Manganese \_\_\_\_\_ mg/l

NI - Nickel \_\_\_\_\_ mg/l

Pb - Lead \_\_\_\_\_ mg/l

Zn - Zinc \_\_\_\_\_ mg/l

Ammonia Nitrogen \_\_\_\_\_ mg/l

Other (Specify Compounds and Concentration Units)

**ORGANICS: (GC,GC/MS,HPLC)**

(Specify test and method #. Attach lab report.)

Report Attached? Yes \_\_\_\_\_ (1) No \_\_\_\_\_ (0)

VOC : method # = \_\_\_\_\_

: method # = \_\_\_\_\_

: method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HYUNDO M. AHTHASIC, III DIRECTOR OF OPERATIONS

Permittee (or Authorized Agent) Name and Title - Please print or type

Nag Jha Patel &

Signature of Permittee (or Authorized Agent)

12-04-03  
(Date)

# NON DISCHARGE WASTEWATER MONITORING REPORT

PERMIT NUMBER: WQ0019632

MONTH: October YEAR: 2003

FACILITY NAME: Johnston Co. Reclaimed Water Utilization Syst.

COUNTY: Johnston

Flow Monitoring Point: Effluent: <input type="checkbox"/> Influent: <input type="checkbox"/>																			
Parameter Monitoring Point: Effluent: <input type="checkbox"/> Influent: <input type="checkbox"/> Surface Water (SW): <input type="checkbox"/>				SW Code/Name:															
Was There Effluent Flow For This Month Generated At This Facility: Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>																			
DATE	Operator Arrival Time 2400 Clock	Operator Time On Site	ORC on Site?	50050	00400	50060	00310	00610	00530	31616									
				Daily Rate (Flow) into Treatment System	pH	Residual Chlorine	BOD-5 20°C	NH3-N	TSS	Fecal Coliform (Geo-metric Mean*)									
				GALLONS	UNITS	UG/L	MG/L	MG/L	MG/L	/100ML									
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			
25																			
26																			
27																			
28																			
29																			
30																			
31																			
<b>Average</b>				#DIV/0!		####	####	####	####	####	#NUM!								
Daily Maximum				0	0	0	0	0	0	0	0								
Daily Minimum				0	0	0	0	0	0	0	0								
Monthly Limit(s)																			
Composite (C) / Grab (G)																			

Operator in Responsible Charge (ORC): Kenneth Clay York Grade: SI Phone: 919-631-3895

Check Box if ORC Has Changed:  ORC Certification Number: 26366

Certified Laboratories (1): Environment 1 (2): Johnston County WWTP Laboratory

Person(s) Collecting Samples: Jason Volker

Mail ORIGINAL and TWO COPIES to:  
 ATTN: Non-Discharge Compliance Unit  
 DENR  
 Division of Water Quality  
 1617 Mail Service Center

*Kenneth C. York*  
 (SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)  
 BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE  
 AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

**NON DISCHARGE WASTEWATER MONITORING REPORT****Facility Status:**

Please answer the following question:

1. Does all monitoring data and sampling frequencies meet permit requirements?

Compliant (Y,N)

 Y

If the facility is **non-compliant**, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Haywood M. Phthisic, III 11-07-03  
 (Signature of Permittee)\* Date

Haywood M. Phthisic, III  
 (Name of Signing Official-Please print or type)

Johnston County Department of Public Utilities  
 (Permittee-Please print or type)

Director of Operations  
 (Position or Title)

P.O. Box 2263

919-989-5075

31-Mar-07

(Phone Number)

(Permit Exp. Date)

Smithfield, NC 27577

(Permittee Address)

**Parameter Codes:**

01002 Arsenic	31504 Coliform, Total	00600 Nitrogen, Total	00929 Sodium
01022 Boron	00094 Conductivity	00630 NO2&NO3	00931 SAR
00310 BOD5	01042 Copper	00620 NO3	00745 Sulfide
01027 Cadmium	00300 Dissolved Oxygen	00556 Oil-Grease	70295 TDS
00916 Calcium	31616 Fecal Coliform	WQ09 PAN (Plant Available)	00010 Temperature
00940 Chloride	01051 Lead	00400 pH	00625 TKN
50060 Chlorine, Total Residual	00927 Magnesium	32730 Phenols	00680 TOC
01034 Chromium	71900 Mercury	00665 Phosphorus, Total	00530 TSS/TSR
00340 COD	00610 NH3asN	00937 Potassium	00076 Turbidity
	01067 Nickel	00545 Settleable Matter	01092 Zinc

Parameter Code assistance may be obtained by calling the Water Quality Compliance/Enforcement Unit at (919) 733-5083 ext. 529.

The monthly average for Fecal Coliform is to be reported as a GEOMETRIC mean. Use only the units designated in the reporting facility's permit for reporting data.

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

**NON-DISCHARGE APPLICATION REPORT  
SPRAY IRRIGATION SITE(S)**

THERE ARE TWO APPLICATION FIELDS PER PAGE. USE ADDITIONAL PAGES AS NEEDED.

PERMIT NUMBER: WQ 0019631

MONTH: October

YEAR: 2003

FACILITY NAME: Johnston County Reclaimed Water Utilization System

COUNTY: Johnston

**Formulas:**

**Daily Loading (inches)** = [Volume Applied (gallons) x 0.1336 (cubic feet/gallon) x 12 (inches/foot)] / [Area Sprayed (acres) x 43,560 (square feet/acre)] OR  
= Volume Applied (gallons) / [Area Sprayed (acres) x 27,152 (gallons/acre-inch)]

**Maximum Hourly Loading (inches)** = Daily Loading (inches) / [Time Irrigated (minutes) / 60 (minutes/hour)]

**Monthly Loading (inches)** = Sum of Daily Loadings (inches)

**12 Month Floating Total (inches)** = Sum of this month's Monthly Loading (inches) and previous 11 months' Monthly Loadings (inches)

**Average Weekly Loading (inches)** = [Monthly Loading (inches/month) / Number of days in the month (days/month)] x 7 (days/week)

Did Irrigation Occur At This Facility:					Did Irrigation Occur On This Field:				Did Irrigation Occur On This Field:			
Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>					Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>				Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>			
					FIELD NUMBER:		2		FIELD NUMBER:		3	
					AREA SPRAYED (acres):		54.73		AREA SPRAYED (acres):		10.44	
					COVER CROP:		Bermudagrass		COVER CROP:		Bermudagrass	
					PERMITTED HOURLY RATE (inches):		0.3		PERMITTED HOURLY RATE (inches):		0.3	
					PERMITTED YEARLY RATE (inches):		20		PERMITTED YEARLY RATE (inches):		16	
DATE	WEATHER CONDITIONS			Storage Lagoon Free-board feet	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches
	Weather Code*	Temperature at application (°F)	Precipitation inches									
1	C	72	N/A	N/A								
2	C	68	N/A	N/A	48000	83	0.03	0.02	34000	136	0.12	0.05
3	C	66	N/A	N/A	251000	434	0.17	0.02				
4	C	77	N/A	N/A								
5	PC	74	N/A	N/A								
6	PC	76	N/A	N/A	325000	540	0.22	0.02				
7	CI	77	0.03	N/A	161000	270	0.11	0.02				
8	CI	67	0.39	N/A								
9	CI	77	0.08	N/A								
10	CI	68	0.25	N/A								
11	PC	67	N/A	N/A								
12	PC	79	N/A	N/A								
13	PC	79	N/A	N/A								
14	CI	71	0.42	N/A								
15	PC	70	N/A	N/A								
16	PC	72	N/A	N/A								
17	PC	76	N/A	N/A								
18	PC	66	N/A	N/A								
19	C	73	N/A	N/A								
20	C	77	N/A	N/A	167000	270	0.11	0.02				
21	C	80	N/A	N/A								
22	C	70	N/A	N/A	140000	270	0.09	0.02				
23	PC	62	N/A	N/A	300000	540	0.20	0.02				
24	PC	62	N/A	N/A	151000	270	0.10	0.02	51000	450	0.18	0.02
25	PC	65	N/A	N/A								
26	CI	74	0.01	N/A								
27	CI	77	0.02	N/A	306000	540	0.21	0.02				
28	CI	62	1	N/A	152000	270	0.10	0.02				
29	CI	67	0.97	N/A								
30	PC	74	N/A	N/A								
31	C	78	N/A	N/A	304000	540	0.20	0.02				
<b>Total Gallons/Monthly Loading (inches)</b>					2305000		1.55		85000		0.30	
<b>12 Month Floating Total (inches)</b>							10.43				3.29	
<b>Average Weekly Loading (inches)</b>							0.350011				0.0676635	

\* Weather Codes: C-clear, PC-partly cloudy, CI-cloudy, R-rain, Sn-snow, SI-sleet

Spray Irrigation Operator in Responsible Charge (ORC): Kenneth Clay York Phone: 919-631-3895

ORC Certification Number: 26366 Check Box if ORC Has Changed:

Mail ORIGINAL and TWO COPIES to:  
ATTN: Non-Discharge Compliance Unit  
DENR  
Division of Water Quality  
1617 Mail Service Center  
RALEIGH, NC 27699-1617

*Kenneth C. York*  
(SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)  
BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

NON-DISCHARGE APPLICATION REPORT  
SPRAY IRRIGATION SITE(S)

**Facility Status:**

Please indicate ( by inserting Y(es) or N(o) in the appropriate box ) whether the facility has been compliant with the following permit requirements: (Note: if a requirement does not apply to your facility put (NA) in the compliant box. )

- |  | Compliant (Y,N)                 |
|--|---------------------------------|
| 1. The application rate(s) did not exceed the limit(s) specified in the permit.                                    | <input type="text" value="Y"/>  |
| 2. Adequate measures were taken to prevent wastewater runoff from the site(s).                                     | <input type="text" value="Y"/>  |
| 3. A suitable vegetative cover was maintained on the site(s) in accordance with the permit.                        | <input type="text" value="Y"/>  |
| 4. All buffer zones as specified in the permit were maintained during each application.                            | <input type="text" value="Y"/>  |
| 5. The freeboard in the treatment and/or storage lagoon(s) was not less than the limit(s) specified in the permit. | <input type="text" value="NA"/> |

If the facility is non-compliant, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Haywood M. Phthisic, III      11-07-03  
(Signature of Permittee)\*      Date

Haywood M. Phthisic, III  
(Name of Signing Official-Please print or type)

Johnston County Department of Public Utilities  
(Permittee-Please print or type)

Director of Operations  
(Position or Title)

P.O. Box 2263

919-989-5075  
(Phone Number)

31-Mar-07  
(Permit Exp. Date)

Smithfield, NC 27577  
(Permittee Address)

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: JOHNSTON COUNTY LANDFILL  
Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD (City) NC (State) 27577 (Zip)

Contact Person: KENNETH C. YORK (Name) 27577 (Zip) County: JOHNSTON  
Well Location/ Site Name: DW-1 Telephone #: 219-631-3895  
No. of Wells to be Sampled: 9 (from Permit)

Well Identification Number (from Permit): DW-1  
Well Depth: 20 ft. Well Diameter: 2 in.  
Screened Interval: 10 ft. to 10 ft.  
Depth to Water Level: 10 ft. below measuring point.  
Measuring Point (M.P.): Is: 3.35 ft. above land surface. Relative M.P. Elevation in ft.: 213.81  
Gallons of water pumped/balled before sampling: N/A Date sample collected: 10-10-03

Field analysis: pH: N/A, Specific Conductance: N/A uMhos  
Temp: N/A °C, Odor: N/A Appearance: N/A

## PARAMETERS (Samples for metals were collected unfiltered)

PARAMETERS	YES	NO	and field acidified	YES	NO
COD					
Coliform: MF Fecal					
Coliform: MF Total					
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total					
pH (when analyzed)					
TOC					
Chloride					
Arsenic					
Grease and Oils					
Phenol					
Sulfate					
Specific Conductance					
Total Ammonia					
TKN as N					
Nitrite (NO <sub>2</sub> ) as N					
Nitrate (NO <sub>3</sub> ) as N					
Phosphorus: Total as P					
Orthophosphate					
Al - Aluminum					
Ba - Barium					
Ca - Calcium					
Cd - Cadmium					
Chromium: Total					
Cu - Copper					
Fe - Iron					
Hg - Mercury					
K - Potassium					
Mg - Magnesium					
Mn - Manganese					
Ni - Nickel					
Pb - Lead					
Zn - Zinc					
Ammonia Nitrogen					
Other (Specify Compounds and Concentration Units)					

ORGANICS: (GC/GCMS, HPLC)  
(Specify test and method #. Attach lab report.)  
Report Attached? Yes (1) No (0)  
VOC : method # =  
: method # =  
: method # =

Mail Original to:  
DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
WATER QUALITY DIVISION, GROUNDWATER SECTION  
1836 MAIL SERVICE CENTER  
RALEIGH, NC 27899-1836  
Phone: (919) 733-3221

PERMIT #: WQ 0019631 EXPIRATION DATE: MARCH 31, 2007  
Non-Discharge        UIC         
NPDES         
TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon        Remediation: Infiltration Gallery  
 Spray Field        Remediation:         
 Rotary Distributor        Land Application of Sludge  
 Other:       

NOTE: Values should reflect dissolved and colloidal concentrations.  
Date sample analyzed:         
Laboratory Name:         
Certification No.       

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWO (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HYUNDO M. PHTHASIC, III DIRECTOR OF OPERATIONS  
Permitted (or Authorized Agent) Name and Title - Please print or type  
       Signature of Permittee (or Authorized Agent)  
GW-59  
Rev. 03/2000  
11-07-03 (Date)

SUBMIT FORM ON YELLOW PAPER ONLY

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL  
 Permit Name (if different): JOHNSON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD (City) NC (State) 27577  
 Contact Person: KENNETH C. YARR (Name) (Title)  
 Well Location/ Site Name: DWG-MW-3 No. of Wells to be Sampled: 9 (from Permit)

Well Identification Number (from Permit): DWG-MW-3  
 Well Depth: 42 ft. Well Diameter: 2 in.  
 Screened Interval: 42 ft. to 32 ft.  
 Depth to Water Level: 13.34 ft. below measuring point.  
 Measuring Point (M.P.): is: 2.92 ft. above land surface. Relative M.P. Elevation in ft.: 182.85  
 Gallons of water pumped/dialled before sampling: N/A Date sample collected: 10-20-03  
 Field analysis: pH 7.18, Specific Conductance N/A umhos  
 Temp. N/A °C, Odor N/A Appearance N/A

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

## Mail Original

TO: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1636 Phone: (919) 733-3221

PERMIT #: W9 0019631 EXPIRATION DATE: APR 31, 2007  
 Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_  
 NPDES \_\_\_\_\_  
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon Remediation: Infiltration Gallery  
 Spray Field Remediation: \_\_\_\_\_  
 Rotary Distributor Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)	YES	NO	and field acidified	YES	NO
COD	_____	_____	_____	_____	_____
Coliform: MF Fecal	_____	_____	_____	_____	_____
Coliform: MF Total	_____	_____	_____	_____	_____
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total	_____	_____	_____	_____	_____
pH (when analyzed)	_____	_____	_____	_____	_____
TOC	_____	_____	_____	_____	_____
Chloride	_____	_____	_____	_____	_____
Arsenic	_____	_____	_____	_____	_____
Grease and Oils	_____	_____	_____	_____	_____
Phenol	_____	_____	_____	_____	_____
Sulfate	_____	_____	_____	_____	_____
Specific Conductance	_____	_____	_____	_____	_____
Total Ammonia	_____	_____	_____	_____	_____
TKN as N	_____	_____	_____	_____	_____
Nitrite (NO <sub>2</sub> ) as N	_____	_____	_____	_____	_____
Nitrate (NO <sub>3</sub> ) as N	_____	_____	_____	_____	_____
Phosphorus: Total as P	_____	_____	_____	_____	_____
Orthophosphate	_____	_____	_____	_____	_____
Al - Aluminum	_____	_____	_____	_____	_____
Ba - Barium	_____	_____	_____	_____	_____
Ca - Calcium	_____	_____	_____	_____	_____
Cd - Cadmium	_____	_____	_____	_____	_____
Chromium: Total	_____	_____	_____	_____	_____
Cu - Copper	_____	_____	_____	_____	_____
Fe - Iron	_____	_____	_____	_____	_____
Hg - Mercury	_____	_____	_____	_____	_____
K - Potassium	_____	_____	_____	_____	_____
Mg - Magnesium	_____	_____	_____	_____	_____
Mn - Manganese	_____	_____	_____	_____	_____
Ni - Nickel	_____	_____	_____	_____	_____
Pb - Lead	_____	_____	_____	_____	_____
Zn - Zinc	_____	_____	_____	_____	_____
Ammonia Nitrogen	_____	_____	_____	_____	_____
Other (Specify Compounds and Concentration Units)	_____	_____	_____	_____	_____
<b>ORGANICS: (GC,GCMS,HPLC)</b>					
(Specify test and method #: Attach lab report.)					
Report Attached? Yes	_____ (1)	No	_____ (0)		
VOC	_____	method # =	_____	method # =	_____
	_____	method # =	_____	method # =	_____
	_____	method # =	_____	method # =	_____

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWC (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

GW-59  
 Rev. 03/2000

HYUNDOO N. PHTHASIC, III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
Heung J. Kim  
 Signature of Permittee (or Authorized Agent)  
 11-07-03 (Date)



# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Please Print Clearly or Type

**FACILITY INFORMATION**

Facility Name: YORKSTOWN COUNTY LANDFILL  
 Permit Name (if different): TOWSON COUNTY BELMONT WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD (Street) NC 27577 County YORKSTOWN  
 Contact Person: KENNETH C. VERRY (Name) (251) Telephone #: 919-631-3895  
 Well Location/ Site Name: PIEZOMETER # 3 No. of Wells to be Sampled: 2 (from Permit)

Well Identification Number (from Permit): PZ-3  
 Well Depth: 17.82 ft. Well Diameter: 2 in.  
 Screened Interval: N/A ft. to N/A ft.  
 Depth to Water Level: 8.80 ft. below measuring point.  
 Measuring Point (M.P.): is: 2.26 ft. above land surface. Relative M.P. Elevation in ft.: 194.91  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 10-20-03  
 Field analysis: pH 7.14, Specific Conductance N/A uMhos  
 Temp. N/A °C, Odor N/A Appearance N/A

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

**Mail Original to:** DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1636 Phone: (919) 733-3221

PERMIT #: W9 001963/ EXPIRATION DATE: APR 31, 2007  
 Non-Discharge: \_\_\_\_\_ UIC: \_\_\_\_\_  
 NPDES: \_\_\_\_\_

TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon Remediation: Infiltration Gallery  
 Spray Field Remediation: \_\_\_\_\_  
 Rotary Distributor Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

**PARAMETERS (Samples for metals were collected unfiltered \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ and field acidified \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_)**

COD _____ mg/l	Nitrite (NO <sub>2</sub> ) as N _____ mg/l	Ni - Nickel _____ mg/l
Coliform: MF Faecal _____ /100ml	Nitrate (NO <sub>3</sub> ) as N _____ mg/l	Pb - Lead _____ mg/l
Coliform: MF Total _____ /100ml	Phosphorus: Total as P _____ mg/l	Zn - Zinc _____ mg/l
(Note: Use MPN method for highly turbid samples)	Orthophosphate _____ mg/l	Ammonia Nitrogen _____ mg/l
Dissolved Solids: Total _____ mg/l	Al - Aluminum _____ mg/l	Other (Specify Compounds and Concentration Units)
pH (when analyzed) _____ units	Ba - Barium _____ mg/l	
TOC _____ mg/l	Ca - Calcium _____ mg/l	
Chloride _____ mg/l	Cd - Cadmium _____ mg/l	
Arsenic _____ mg/l	Chromium: Total _____ mg/l	
Grease and Oils _____ mg/l	Cu - Copper _____ mg/l	
Phenol _____ mg/l	Fe - Iron _____ mg/l	
Sulfate _____ mg/l	Hg - Mercury _____ mg/l	
Specific Conductance _____ uMhos	K - Potassium _____ mg/l	
Total Ammonia _____ mg/l	Mg - Magnesium _____ mg/l	
TKN as N _____ mg/l	Mn - Manganese _____ mg/l	

**ORGANICS: (GC/GCMS, HPLC)**  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes \_\_\_\_\_ (1) No \_\_\_\_\_ (0)  
 VOC \_\_\_\_\_ : method # = \_\_\_\_\_  
 \_\_\_\_\_ : method # = \_\_\_\_\_  
 \_\_\_\_\_ : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWO (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HAYWARD M. ARTHUR, III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
Hayward M. Arthur, III  
 Signature of Permittee (or Authorized Agent)  
 11-7-03 (Date)

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Please Print Clearly or Type

**FACILITY INFORMATION**

Facility Name: JOHNSTON COUNTY LANDFILL

Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM

Facility Address: 680 COUNTY HOME ROAD

SMITHFIELD (City) NC (State) 27577 (Zip) County JOHNSTON

Contact Person: KENNETH C. YORK (Name) Telephone #: 919-631-3895

Well Location/ Site Name: MW-5-10 No. of Wells to be Sampled: 9

Well Identification Number (from Permit): MW-5-10

Well Depth: 26.1 ft. Well Diameter: 2 in.

Screened Interval: 26.1 ft. to 21.1 ft.

Depth to Water Level: 14.2 ft. below measuring point.

Measuring Point (M.P.): is: 2.16 ft. above land surface. Relative M.P. Elevation in ft.: 202.85

Gallons of water pumped/bailed before sampling: N/A Date sample collected: 10-20-03

Field analysis: pH N/A, Specific Conductance N/A umhos, Temperature N/A °C, Odor N/A, Appearance N/A

For Groundwater Treatment Systems  
Check One:  Influent (98)  Effluent (99)

**PARAMETERS (Samples for metals were collected unfiltered)**

COD	mg/l	YES	NO	and field acidified	YES	NO
Coliform: MF Fecal	/100ml					
Coliform: MF Total	/100ml					
(Note: Use MPN method for highly turbid samples)						
Dissolved Solids: Total	mg/l					
pH (when analyzed)	units					
TOC	mg/l					
Chloride	mg/l					
Arsenic	mg/l					
Grease and Oils	mg/l					
Phenol	mg/l					
Sulfate	mg/l					
Specific Conductance	umhos					
Total Ammonia	mg/l					
TKN as N	mg/l					
Nitrite (NO <sub>2</sub> ) as N	mg/l					
Nitrate (NO <sub>3</sub> ) as N	mg/l					
Phosphorus: Total as P	mg/l					
Orthophosphate	mg/l					
Al - Aluminum	mg/l					
Ba - Barium	mg/l					
Ca - Calcium	mg/l					
Cd - Cadmium	mg/l					
Chromium: Total	mg/l					
Cu - Copper	mg/l					
Fe - Iron	mg/l					
Hg - Mercury	mg/l					
K - Potassium	mg/l					
Mg - Magnesium	mg/l					
Mn - Manganese	mg/l					
Ni - Nickel	mg/l					
Pb - Lead	mg/l					
Zn - Zinc	mg/l					
Ammonia Nitrogen	mg/l					
Other (Specify Compounds and Concentration Units)						

**ORGANICS: (GC, GC/MS, HPLC)**  
(Specify test and method #. Attach lab report.)  
Report Attached? Yes (1) No (0)  
VOC : method # =  
: method # =  
: method # =

**Mail Original** to: **DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES**  
**WATER QUALITY DIVISION, GROUNDWATER SECTION**  
**1836 MAIL SERVICE CENTER**  
**RALEIGH, NC 27699-1636** Phone: (919) 733-3221

PERMIT #: WQ 00196 31 EXPIRATION DATE: APR 31 2007

Non-Discharge        UIC       

**TYPE OF PERMITTED OPERATION BEING MONITORED**

Lagoon Remediation: Infiltration Gallery

Spray Field

Rotary Distributor Land Application of Sludge

Other:       

**NOTE: Values should reflect dissolved and colloidal concentrations.**

Date sample analyzed:       

Laboratory Name:       

Certification No.       

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWO (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

GW-59  
Rev. 03/2000

HAYWOOD M. PASTHISIC, III DIRECTOR OF OPERATIONS  
Permittee (or Authorized Agent) Name and Title - Please print or type  
Haywood M. Pasthisic, III  
Signature of Permittee (or Authorized Agent)  
11-09-03 (Date)



# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Please Print Clearly or Type

**Facility Name:** JOHNSTON COUNTY LANDFILL  
**Permit Name (if different):** JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
**Facility Address:** 680 COUNTY HOME ROAD  
SMITHFIELD (City) NC (State) 27577  
**Contact Person:** KENNETH C. YORK (Name) 275 (Zip) **County:** JOHNSTON  
**Well Location/ Site Name:** MLW-5-1 **Telephone #:** 919-631-3895  
**Well Identification Number (from Permit):** MLW-5-1 **No. of Wells to be Sampled:** 9  
**Well Depth:** 31.7 ft. **Well Diameter:** 2 in. **For Groundwater Treatment Systems**  
**Screened Interval:** 31.7 ft. to 16.7 ft. **Check One:**  **Influent (98)**  
 **Effluent (99)**  
**Depth to Water Level:** 28.94 ft. below measuring point. **Relative M.P. Elevation in ft.:** 232.17  
**Measuring Point (M.P.) Is:** 2.22 ft. above land surface. **Date sample collected:** 10-20-03  
**Gallons of water pumped/bailed before sampling:** N/A **Field analysis:** pH N/A, Specific Conductance N/A umhos, Appearance N/A  
**Temp.** N/A °C, Odor N/A

**PARAMETERS (Samples for metals were collected unfiltered \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ and field acidified \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_)**

<b>COD</b> _____ mg/l	<b>Nitrite (NO<sub>2</sub>) as N</b> _____ mg/l	<b>Ni - Nickel</b> _____ mg/l
<b>Coliform: MF</b> <u>Fecal</u> _____ /100ml	<b>Nitrate (NO<sub>3</sub>) as N</b> _____ mg/l	<b>Pb - Lead</b> _____ mg/l
<b>Coliform: MF</b> <u>Total</u> _____ /100ml	<b>Phosphorus: Total as P</b> _____ mg/l	<b>Zn - Zinc</b> _____ mg/l
<small>(Note: Use MPN method for highly turbid samples)</small>	<b>Orthophosphate</b> _____ mg/l	<b>Ammonia Nitrogen</b> _____ mg/l
<b>Dissolved Solids: Total</b> _____ mg/l	<b>Al - Aluminum</b> _____ mg/l	<b>Other (Specify Compounds and Concentration Units)</b> _____
<b>pH (when analyzed)</b> _____ units	<b>Ba - Barium</b> _____ mg/l	
<b>TOC</b> _____ mg/l	<b>Ca - Calcium</b> _____ mg/l	
<b>Chloride</b> _____ mg/l	<b>Cd - Cadmium</b> _____ mg/l	
<b>Arsenic</b> _____ mg/l	<b>Chromium: Total</b> _____ mg/l	
<b>Grease and Oils</b> _____ mg/l	<b>Cu - Copper</b> _____ mg/l	
<b>Phenol</b> _____ mg/l	<b>Fe - Iron</b> _____ mg/l	
<b>Sulfate</b> _____ mg/l	<b>Hg - Mercury</b> _____ mg/l	
<b>Specific Conductance</b> _____ umhos	<b>K - Potassium</b> _____ mg/l	
<b>Total Ammonia</b> _____ mg/l	<b>Mg - Magnesium</b> _____ mg/l	
<b>TKN as N</b> _____ mg/l	<b>Mn - Manganese</b> _____ mg/l	

**ORGANICS: (GC, GC/MS, HPLC)**  
 (Specify test and method #. Attach lab report.)  
**Report Attached?** Yes (1) No \_\_\_\_\_ (0)  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

**Mail Original to:** DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1636 Phone: (919) 733-3221

**PERMIT #:** WQ 00196 3/ **EXPIRATION DATE:** MAY 31, 2007  
**Non-Discharge** \_\_\_\_\_ **UIC** \_\_\_\_\_  
**NIPDES** \_\_\_\_\_  
**TYPE OF PERMITTED OPERATION BEING MONITORED**  
 **Lagoon** **Remediation:** Infiltration Gallery  
 **Spray Field** **Remediation:** \_\_\_\_\_  
 **Rotary Distributor** **Land Application of Sludge** \_\_\_\_\_  
 **Other:** \_\_\_\_\_

**NOTE: Values should reflect dissolved and colloidal concentrations.**

**Date sample analyzed:** \_\_\_\_\_  
**Laboratory Name:** \_\_\_\_\_  
**Certification No.:** \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWO (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

**Signature of Permittee (or Authorized Agent):** Harwood M. Pithers, III **DIRECTOR OF OPERATIONS**  
**Signature of Permittee (or Authorized Agent):** [Signature]  
**Date:** 11-7-03

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

*Please Print Clearly or Type*

**Mail Original**  
to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
WATER QUALITY DIVISION, GROUNDWATER SECTION  
1636 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1636 Phone: (919) 733-3221

PERMIT #: WQ 00196 3/ EXPIRATION DATE: MARCH 31, 2007

Facility Name: JOHNSTON COUNTY LANDFILL  
Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
Facility Address: 650 COUNTY HOME ROAD  
SMITHFIELD, (State) NC 27577 County JOHNSTON  
Contact Person: KENNETH C. YORK Telephone #: 219-634-3895  
Well Location/ Site Name: MW-3 No. of Wells to be Sampled: 2

Well Identification Number (from Permit): 274-3  
Well Depth: 30 ft. Well Diameter: 2 in.  
Screened Interval: 30.0 ft. to 20.0 ft.  
Depth to Water Level: 80.04 ft. below measuring point.  
Measuring Point (M.P.): is: 1.9 ft. above land surface. Relative M.P. Elevation in ft.: 235.03  
Gallons of water pumped/bailed before sampling: N/A Date sample collected: 10-20-03  
Field analysis: pH N/A, Specific Conductance N/A umhos  
Temp. N/A °C, Odor N/A Appearance N/A

For Groundwater Treatment Systems  
Check One:  Influent (98)  
 Effluent (99)

PERMIT #: WQ 00196 3/ EXPIRATION DATE: MARCH 31, 2007  
Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_  
NPDES \_\_\_\_\_  
TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon Remediation: Infiltration Gallery  
 Spray Field  
 Rotary Distributor Land Application of Sludge  
 Other \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
Laboratory Name: \_\_\_\_\_  
Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)	YES	NO	and field acidified	YES	NO
COD _____ mg/l					
Coliform: MF Fecal _____ /100ml					
Coliform: MF Total _____ /100ml					
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total _____ mg/l					
pH (when analyzed) _____ units					
TOC _____ mg/l					
Chloride _____ mg/l					
Arsenic _____ mg/l					
Grease and Oils _____ mg/l					
Phenol _____ mg/l					
Sulfate _____ mg/l					
Specific Conductance _____ uMhos					
Total Ammonia _____ mg/l					
TKN as N _____ mg/l					
Nitrite (NO <sub>2</sub> ) as N _____ mg/l					
Nitrate (NO <sub>3</sub> ) as N _____ mg/l					
Phosphorus: Total as P _____ mg/l					
Orthophosphate _____ mg/l					
Al - Aluminum _____ mg/l					
Ba - Barium _____ mg/l					
Ca - Calcium _____ mg/l					
Cd - Cadmium _____ mg/l					
Chromium: Total _____ mg/l					
Cu - Copper _____ mg/l					
Fe - Iron _____ mg/l					
Hg - Mercury _____ mg/l					
K - Potassium _____ mg/l					
Mg - Magnesium _____ mg/l					
Mn - Manganese _____ mg/l					
Ni - Nickel _____ mg/l					
Pb - Lead _____ mg/l					
Zn - Zinc _____ mg/l					
Ammonia Nitrogen _____ mg/l					
Other (Specify Compounds and Concentration Units)					
<b>ORGANICS: (GC,GCMS,HPLC)</b>					
(Specify test and method #. Attach lab report.)					
Report Attached? Yes (1) No (0)					
VOC _____					
_____					
_____					
_____					

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWMQ (formerly DEW) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

GW-59  
Rev. 03/2000

HAYWOOD M. PRITCHETT, III DIRECTOR OF OPERATIONS  
Permittee (or Authorized Agent) Name and Title - Please print or type  
Ken W. Potts  
Signature of Permittee (or Authorized Agent) 11-07-03  
(Date)

# NON-DISCHARGE APPLICATION REPORT SPRAY IRRIGATION SITE(S)

THERE ARE TWO APPLICATION FIELDS PER PAGE. USE ADDITIONAL PAGES AS NEEDED.

PERMIT NUMBER: WQ 0019632

MONTH: October

YEAR: 2003

FACILITY NAME: Johnston County Reclaimed Water Utilization System

COUNTY: Johnston

**Formulas:**

**Daily Loading (Inches)** = [Volume Applied (gallons) x 0.1336 (cubic feet/gallon) x 12 (Inches/foot)] / [Area Sprayed (acres) x 43,560 (square feet/acre)] OR  
 = Volume Applied (gallons) / [Area Sprayed (acres) x 27,152 (gallons/acre-inch)]

**Maximum Hourly Loading (Inches)** = Daily Loading (Inches) / [Time Irrigated (minutes) / 60 (minutes/hour)]

**Monthly Loading (Inches)** = Sum of Daily Loadings (Inches)

**12 Month Floating Total (Inches)** = Sum of this month's Monthly Loading (Inches) and previous 11 month's Monthly Loadings (Inches)

**Average Weekly Loading (Inches)** = [Monthly Loading (Inches/month) / Number of days in the month (days/month)] x 7 (days/week)

Did Irrigation Occur At This Facility:					Did Irrigation Occur On This Field:				Did Irrigation Occur On This Field:			
Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>					Yes: <input type="checkbox"/> No: <input type="checkbox"/>				Yes: <input type="checkbox"/> No: <input type="checkbox"/>			
					FIELD NUMBER:				FIELD NUMBER:			
					AREA SPRAYED (acres):				AREA SPRAYED (acres):			
					COVER CROP:				COVER CROP:			
					PERMITTED HOURLY RATE (Inches):				PERMITTED HOURLY RATE (Inches):			
					PERMITTED YEARLY RATE (Inches):				PERMITTED YEARLY RATE (Inches):			
DATE	WEATHER CONDITIONS				Volume Applied gallons	Time Irrigated minutes	Daily Loading Inches	Maximum Hourly Loading Inches	Volume Applied gallons	Time Irrigated minutes	Daily Loading Inches	Maximum Hourly Loading Inches
	Weather Code*	Temperature at application (*F)	Precipitation inches	Storage Lagoon Free-board feet								
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Total Gallons/Monthly Loading (Inches)					0		0.00		0		0.00	
12 Month Floating Total (Inches)												
Average Weekly Loading (Inches)							0				0	

\* Weather Codes: C-clear, PC-partly cloudy, CI-cloudy, R-rain, Sn-snow, SI-sleet

Spray Irrigation Operator in Responsible Charge (ORC): Kenneth Clay York Phone: 919-631-3895

ORC Certification Number: 26366 Check Box If ORC Has Changed:

Mail ORIGINAL and TWO COPIES to:  
 ATTN: Non-Discharge Compliance Unit  
 DENR  
 Division of Water Quality  
 1617 Mail Service Center  
 RALEIGH, NC 27699-1617

  
 (SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)  
 BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE AND COMPLETE  
 TO THE BEST OF MY KNOWLEDGE.

NON-DISCHARGE APPLICATION REPORT  
SPRAY IRRIGATION SITE(S)

**Facility Status:**

Please indicate ( by inserting Y(es) or N(o) in the appropriate box ) whether the facility has been compliant with the following permit requirements: (Note: if a requirement does not apply to your facility put ( NA) in the compliant box. )

- |  | Compliant (Y,N)                 |
|--|---------------------------------|
| 1. The application rate(s) did not exceed the limit(s) specified in the permit.                                    | <input type="text" value="NA"/> |
| 2. Adequate measures were taken to prevent wastewater runoff from the site(s).                                     | <input type="text" value="NA"/> |
| 3. A suitable vegetative cover was maintained on the site(s) in accordance with the permit.                        | <input type="text" value="NA"/> |
| 4. All buffer zones as specified in the permit were maintained during each application.                            | <input type="text" value="NA"/> |
| 5. The freeboard in the treatment and/or storage lagoon(s) was not less than the limit(s) specified in the permit. | <input type="text" value="NA"/> |

If the facility is non-compliant, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Haywood M. Phthisic, III      11-07-07  
(Signature of Permittee)\*      Date

Haywood M. Phthisic, III  
(Name of Signing Official-Please print or type)

Johnston County Department of Public Utilities  
(Permittee-Please print or type)

Director of Operations  
(Position or Title)

P.O. Box 2263

919-989-5075  
(Phone Number)

31-Mar-07  
(Permit Exp. Date)

Smithfield, NC 27577  
(Permittee Address)

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

# NON DISCHARGE WASTEWATER MONITORING REPORT

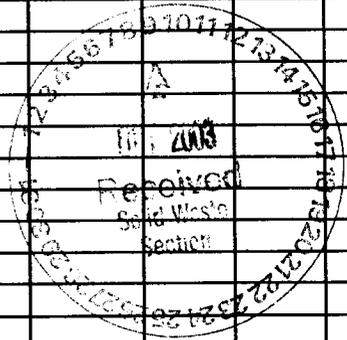
PERMIT NUMBER: WQ0019632

MONTH: September YEAR: 2003

FACILITY NAME: Johnston Co. Reclaimed Water Utilization Syst.

COUNTY: Johnston

Flow Monitoring Point: Effluent: <input type="checkbox"/> Influent: <input type="checkbox"/>												
Parameter Monitoring Point: Effluent: <input type="checkbox"/> Influent: <input type="checkbox"/> Surface Water (SW): <input type="checkbox"/>		SW Code/Name:										
Was There Effluent Flow For This Month Generated At This Facility: Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>												
DATE	Operator Arrival Time 2400 Clock	Operator Time On Site HRS	ORC on Site? Y/N	50050	00400	50060	00310	00610	00530	31616		
				Daily Rate (Flow) into Treatment System GALLONS	pH UNITS	Residual Chlorine UG/L	BOD-5 20°C MG/L	NH3-N MG/L	TSS MG/L	Fecal Coliform (Geo-metric Mean*) /100ML		
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Average				#DIV/0!	####	####	####	####	####	#NUM!		
Daily Maximum				0	0	0	0	0	0	0		
Daily Minimum				0	0	0	0	0	0	0		
Monthly Limit(s)												
Composite (C) / Grab (G)												



Operator in Responsible Charge (ORC): Kenneth Clay York Grade: SI Phone: 919-631-3895

Check Box if ORC Has Changed:  ORC Certification Number: 26366

Certified Laboratories (1): Environment 1 (2): Johnston County WWTP Laboratory

Person(s) Collecting Samples: Jason Volker

Mail ORIGINAL and TWO COPIES to:  
 ATTN: Non-Discharge Compliance Unit  
 DENR  
 Division of Water Quality  
 1617 Mail Service Center

*Kenneth C. York*  
 (SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)  
 BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE  
 AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

**NON DISCHARGE WASTEWATER MONITORING REPORT****Facility Status:**

Please answer the following question:

1. Does all monitoring data and sampling frequencies meet permit requirements?

Compliant (Y,N)

 Y

If the facility is **non-compliant**, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

*Haywood M. Phthisic, III*      10-06-03  
 (Signature of Permittee)\*      Date

Haywood M. Phthisic, III  
 (Name of Signing Official-Please print or type)

Johnston County Department of Public Utilities  
 (Permittee-Please print or type)

Director of Operations  
 (Position or Title)

P.O. Box 2263

919-631-3895

31-Mar-07

Smithfield, NC 27577  
 (Permittee Address)

(Phone Number)

(Permit Exp. Date)

**Parameter Codes:**

01002 Arsenic	31504 Coliform, Total	00600 Nitrogen, Total	00929 Sodium
01022 Boron	00094 Conductivity	00630 NO2&NO3	00931 SAR
00310 BOD5	01042 Copper	00620 NO3	00745 Sulfide
01027 Cadmium	00300 Dissolved Oxygen	00556 Oil-Grease	70295 TDS
00916 Calcium	31616 Fecal Coliform	WQ09 PAN (Plant Available)	00010 Temperature
00940 Chloride	01051 Lead	00400 pH	00625 TKN
50060 Chlorine, Total Residual	00927 Magnesium	32730 Phenols	00680 TOC
	71900 Mercury	00665 Phosphorus, Total	00530 TSS/TSR
01034 Chromium	00610 NH3asN	00937 Potassium	00076 Turbidity
00340 COD	01067 Nickel	00545 Settleable Matter	01092 Zinc

Parameter Code assistance may be obtained by calling the Water Quality Compliance/Enforcement Unit at (919) 733-5083 ext. 529.

The monthly average for Fecal Coliform is to be reported as a GEOMETRIC mean. Use only the units designated in the reporting facility's permit for reporting data.

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

# NON-DISCHARGE APPLICATION REPORT SPRAY IRRIGATION SITE(S)

THERE ARE TWO APPLICATION FIELDS PER PAGE. USE ADDITIONAL PAGES AS NEEDED.

PERMIT NUMBER: WQ 0019632 MONTH: September YEAR: 2003

FACILITY NAME: Johnston County Reclaimed Water Utilization System COUNTY: Johnston

**Formulas:**

**Daily Loading (inches)** = [Volume Applied (gallons) x 0.1336 (cubic feet/gallon) x 12 (inches/foot)] / [Area Sprayed (acres) x 43,560 (square feet/acre)] OR  
 = Volume Applied (gallons) / [Area Sprayed (acres) x 27,152 (gallons/acre-inch)]

**Maximum Hourly Loading (inches)** = Daily Loading (inches) / [Time Irrigated (minutes) / 60 (minutes/hour)]      **Monthly Loading (inches)** = Sum of Daily Loadings (inches)

**12 Month Floating Total (inches)** = Sum of this month's Monthly Loading (inches) and previous 11 month's Monthly Loadings (inches)

**Average Weekly Loading (inches)** = [Monthly Loading (inches/month) / Number of days in the month (days/month)] x 7 (days/week)

Did Irrigation Occur At This Facility:				Did Irrigation Occur On This Field:				Did Irrigation Occur On This Field:				
Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>				Yes: <input type="checkbox"/> No: <input type="checkbox"/>				Yes: <input type="checkbox"/> No: <input type="checkbox"/>				
				FIELD NUMBER:				FIELD NUMBER:				
				AREA SPRAYED (acres):				AREA SPRAYED (acres):				
				COVER CROP:				COVER CROP:				
				PERMITTED HOURLY RATE (inches):				PERMITTED HOURLY RATE (inches):				
PERMITTED YEARLY RATE (inches):				PERMITTED YEARLY RATE (inches):				PERMITTED YEARLY RATE (inches):				
DATE	WEATHER CONDITIONS			Storage Lagoon Free-board feet	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches
	Weather Code*	Temperature at application (°F)	Precipitation inches									
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
<b>Total Gallons/Monthly Loading (inches)</b>				0		0.00			0		0.00	
<b>12 Month Floating Total (inches)</b>												
<b>Average Weekly Loading (inches)</b>						0					0	

\* Weather Codes: C-clear, PC-partly cloudy, CI-cloudy, R-rain, Sn-snow, SI-sleet

Spray Irrigation Operator In Responsible Charge (ORC): Kenneth Clay York Phone: 919-631-3895

ORC Certification Number: 26366 Check Box if ORC Has Changed:

Mail ORIGINAL and TWO COPIES to:  
 ATTN: Non-Discharge Compliance Unit  
 DENR  
 Division of Water Quality  
 1617 Mall Service Center  
 RALEIGH, NC 27699-1617

  
 (SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)  
 BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

**NON-DISCHARGE APPLICATION REPORT  
SPRAY IRRIGATION SITE(S)**

**Facility Status:**

Please indicate ( by inserting Y(es) or N(o) in the appropriate box ) whether the facility has been **compliant** with the following permit requirements: (Note: if a requirement does not apply to your facility put (NA) in the compliant box. )

- |  |  |
|--|--|
| 1. The application rate(s) did not exceed the limit(s) specified in the permit.                                    | Compliant (Y,N)<br><input type="text" value="NA"/> |
| 2. Adequate measures were taken to prevent wastewater runoff from the site(s).                                     | <input type="text" value="NA"/>                    |
| 3. A suitable vegetative cover was maintained on the site(s) in accordance with the permit.                        | <input type="text" value="NA"/>                    |
| 4. All buffer zones as specified in the permit were maintained during each application.                            | <input type="text" value="NA"/>                    |
| 5. The freeboard in the treatment and/or storage lagoon(s) was not less than the limit(s) specified in the permit. | <input type="text" value="NA"/>                    |

If the facility is **non-compliant**, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Haywood M. Phthisic, III      10-06-03  
 (Signature of Permittee)\*      Date

Haywood M. Phthisic, III  
 (Name of Signing Official-Please print or type)

Johnston County Department of Public Utilities  
 (Permittee-Please print or type)

Director of Operations  
 (Position or Title)

P.O. Box 2263

919-989-5075  
 (Phone Number)

31-Mar-07  
 (Permit Exp. Date)

Smithfield, NC 27577  
 (Permittee Address)

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

**NON-DISCHARGE APPLICATION REPORT  
SPRAY IRRIGATION SITE(S)**

THERE ARE TWO APPLICATION FIELDS PER PAGE. USE ADDITIONAL PAGES AS NEEDED.

PERMIT NUMBER: WQ 0019631

MONTH: September

YEAR: 2003

FACILITY NAME: Johnston County Reclaimed Water Utilization System

COUNTY: Johnston

**Formulas:**

**Daily Loading (Inches)** = [Volume Applied (gallons) x 0.1336 (cubic feet/gallon) x 12 (inches/foot)] / [Area Sprayed (acres) x 43,560 (square feet/acre)] OR  
= Volume Applied (gallons) / [Area Sprayed (acres) x 27,152 (gallons/acre-inch)]

**Maximum Hourly Loading (Inches)** = Daily Loading (Inches) / [Time Irrigated (minutes) / 60 (minutes/hour)]

**Monthly Loading (Inches)** = Sum of Daily Loadings (Inches)

**12 Month Floating Total (Inches)** = Sum of this month's Monthly Loading (Inches) and previous 11 month's Monthly Loadings (Inches)

**Average Weekly Loading (Inches)** = [Monthly Loading (Inches/month) / Number of days in the month (days/month)] x 7 (days/week)

Did Irrigation Occur At This Facility:					Did Irrigation Occur On This Field:				Did Irrigation Occur On This Field:			
Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>					Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>				Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>			
					FIELD NUMBER: <u>2</u>				FIELD NUMBER: <u>3</u>			
					AREA SPRAYED (acres): <u>54.73</u>				AREA SPRAYED (acres): <u>10.44</u>			
					COVER CROP: <u>Bermudagrass</u>				COVER CROP: <u>Bermudagrass</u>			
					PERMITTED HOURLY RATE (Inches): <u>0.3</u>				PERMITTED HOURLY RATE (Inches): <u>0.3</u>			
					PERMITTED YEARLY RATE (Inches): <u>20</u>				PERMITTED YEARLY RATE (Inches): <u>16</u>			
DATE	WEATHER CONDITIONS				Volume Applied gallons	Time Irrigated minutes	Daily Loading Inches	Maximum Hourly Loading Inches	Volume Applied gallons	Time Irrigated minutes	Daily Loading Inches	Maximum Hourly Loading Inches
	Weather Code*	Temperature at application (°F)	Precipitation Inches	Storage Lagoon Free-board feet								
1												
2	C	89	N/A	N/A	353000	656	0.24	0.02				
3	C	87	N/A	N/A	305000	585	0.21	0.02	78000	585	0.27	0.03
4												
5												
6	CL	86	N/A	N/A	321000	555	0.22	0.02				
7												
8												
9	PC	86	N/A	N/A	146000	270	0.10	0.02				
10	C	84	N/A	N/A	263000	487	0.18	0.02	63000	505	0.22	0.03
11	C	82	N/A	N/A	303000	523	0.20	0.02	59000	480	0.21	0.03
12												
13												
14												
15	PC	86	N/A	N/A	151000	262	0.10	0.02				
16	CL	85	N/A	N/A	303000	540	0.20	0.02	57000	540	0.20	0.02
17												
18												
19												
20												
21												
22												
23	C	82	N/A	N/A	221000	375	0.15	0.02	57000	540	0.20	0.02
24	C	80	N/A	N/A	183000	325	0.12	0.02				
25												
26	PC	74	N/A	N/A	297000	515	0.20	0.02				
27	PC	72	N/A	N/A	298000	515	0.20	0.02				
28												
29	C	72	N/A	N/A	204000	353	0.14	0.02	71000	540	0.25	0.03
30	C	72	N/A	N/A	274000	474	0.18	0.02	64000	540	0.23	0.03
31												
<b>Total Gallons/Monthly Loading (Inches)</b>					<b>3622000</b>		<b>2.44</b>		<b>449000</b>		<b>1.58</b>	
<b>12 Month Floating Total (Inches)</b>							<b>8.88</b>				<b>2.99</b>	
<b>Average Weekly Loading (Inches)</b>							<b>0.5683287</b>				<b>0.3693367</b>	

\* Weather Codes: C-clear, PC-partly cloudy, CL-cloudy, R-rain, Sn-snow, SI-sleet

Spray Irrigation Operator in Responsible Charge (ORC): Kenneth Clay York Phone: 919-631-3895

ORC Certification Number: 26366 Check Box if ORC Has Changed:

Mail ORIGINAL and TWO COPIES to:  
ATTN: Non-Discharge Compliance Unit  
DENR  
Division of Water Quality  
1617 Mail Service Center  
RALEIGH, NC 27699-1617

  
(SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)

BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

**NON-DISCHARGE APPLICATION REPORT  
SPRAY IRRIGATION SITE(S)**

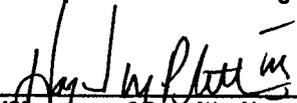
**Facility Status:**

Please indicate ( by inserting Y(es) or N(o) in the appropriate box ) whether the facility has been **compliant** with the following permit requirements: (Note: if a requirement does not apply to your facility put (NA) in the compliant box. )

- |  |   |
|--|---|
| 1. The application rate(s) did not exceed the limit(s) specified in the permit.                                    | Compliant (Y,N)<br><input type="text" value="Y"/> |
| 2. Adequate measures were taken to prevent wastewater runoff from the site(s).                                     | <input type="text" value="Y"/>                    |
| 3. A suitable vegetative cover was maintained on the site(s) in accordance with the permit.                        | <input type="text" value="Y"/>                    |
| 4. All buffer zones as specified in the permit were maintained during each application.                            | <input type="text" value="Y"/>                    |
| 5. The freeboard in the treatment and/or storage lagoon(s) was not less than the limit(s) specified in the permit. | <input type="text" value="NA"/>                   |

If the facility is **non-compliant**, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

      10-06-03  
(Signature of Permittee)\*      Date

Haywood M. Phthisic, III  
(Name of Signing Official-Please print or type)

Johnston County Department of Public Utilities  
(Permittee-Please print or type)

Director of Operations  
(Position or Title)

P.O. Box 2263

919-989-5075  
(Phone Number)

31-Mar-07  
(Permit Exp. Date)

Smithfield, NC 27577  
(Permittee Address)

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SALISBURY (City) NC (State) 27577 (Zip)  
 Contact Person: KENNETH C. (Sumner) YORK  
 Well Location/ Site Name: DWQ-MW-1 Telephone #: 919-631-3895  
 No. of Wells to be Sampled: 9 (from Permit)

Please Print Clearly or Type

Well Identification Number (from Permit): DWQ-MW-1  
 Well Depth: 20 ft. Well Diameter: 2 in.  
 Screened Interval: 20 ft. to 10 ft.  
 Depth to Water Level: 10.14 ft. below measuring point.  
 Measuring Point (M.P.) is: 3.38 ft. above land surface. Relative M.P. Elevation in ft.: 213.81  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 8-19-03  
 Field analysis: pH N/A, Specific Conductance N/A uMhos  
 Temp. N/A °C, Odor N/A Appearance N/A

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

Mail Original to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1636 Phone: (919) 733-3221

PERMIT #: WQ 0019031 EXPIRATION DATE: MAY 31, 2007  
 Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_  
 NPDES \_\_\_\_\_

TYPE OF PERMITTED OPERATION BEING MONITORED

Lagoon \_\_\_\_\_ Remediation: Infiltration Gallery  
 Spray Field \_\_\_\_\_ Remediation:  
 Rotary Distributor \_\_\_\_\_ Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

## PARAMETERS (Samples for metals were collected unfiltered)

COD _____	YES _____ NO _____	and field acidified _____	YES _____ NO _____
Coliform: MF Fecal _____ mg/l	Nitrite (NO <sub>2</sub> ) as N _____	Ni - Nickel _____ mg/l	_____ mg/l
Coliform: MF Total _____ /100ml	Nitrate (NO <sub>3</sub> ) as N _____	Pb - Lead _____ mg/l	_____ mg/l
(Note: Use MPN method for highly turbid samples)	Phosphorus: Total as P _____	Zn - Zinc _____ mg/l	_____ mg/l
Dissolved Solids: Total _____ mg/l	Orthophosphate _____	Ammonia Nitrogen _____ mg/l	_____ mg/l
pH (when analyzed) _____	Al - Aluminum _____	Other (Specify Compounds and Concentration Units) _____	_____
TOC _____ units	Ba - Barium _____		
Chloride _____ mg/l	Ca - Calcium _____		
Arsenic _____ mg/l	Cd - Cadmium _____		
Grease and Oils _____ mg/l	Chromium: Total _____		
Phenol _____ mg/l	Cu - Copper _____		
Sulfate _____ mg/l	Fe - Iron _____		
Specific Conductance _____ uMhos	Hg - Mercury _____		
Total Ammonia _____ mg/l	K - Potassium _____		
TKN as N _____ mg/l	Mg - Magnesium _____		
	Mn - Manganese _____		

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 VOC : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HAYWOOD M. PHTHISIC III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
Haywood M. Phthisic III  
 Signature of Permittee (or Authorized Agent)  
 10-06-03 (Date)

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD, NC 27577  
 County: JOHNSTON  
 Contact Person: KENNETH C. (State) YORK Telephone #: 919-631-3895  
 Well Location/ Site Name: DWQ-MW-3 No. of Wells to be Sampled: 9 (from Permit)

Well Identification Number (from Permit): DWQ-MW-3  
 Well Depth: 42 ft. Well Diameter: 2 in.  
 Screened Interval: 42 ft. to 32 ft.  
 Depth to Water Level: 10.90 ft. below measuring point.  
 Measuring Point (M.P.): 4.92 ft. above land surface. Relative M.P. Elevation in ft.: 188.85  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 9-19-03  
 Field analysis: pH N/A, Specific Conductance N/A uMhos  
 Temp. N/A °C, Odor N/A Appearance N/A

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

Mail Original to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1836 MAIL SERVICE CENTER  
 RALEIGH, NC 27698-1836 Phone: (919) 733-3221

PERMIT #: WQ 0019631 EXPIRATION DATE: APRIL 31, 2007  
 Non-Discharge: \_\_\_\_\_ UIC: \_\_\_\_\_  
 NPDES: \_\_\_\_\_

TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon \_\_\_\_\_ Remediation: Infiltration Gallery  
 Spray Field \_\_\_\_\_ Remediation:  
 Rotary Distributor \_\_\_\_\_ Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)	YES	NO	and field acidified	YES	NO
COD					
Coliform: MF Fecal	_____ mg/l				
Coliform: MF Total	_____ /100ml				
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total	_____ mg/l				
pH (when analyzed)	_____ units				
TOC	_____ mg/l				
Chloride	_____ mg/l				
Arsenic	_____ mg/l				
Grease and Oils	_____ mg/l				
Phenol	_____ mg/l				
Sulfate	_____ mg/l				
Specific Conductance	_____ uMhos				
Total Ammonia	_____ mg/l				
TKN as N	_____ mg/l				
Nitrite (NO <sub>2</sub> ) as N	_____ mg/l				
Nitrate (NO <sub>3</sub> ) as N	_____ mg/l				
Phosphorus: Total as P	_____ mg/l				
Orthophosphate	_____ mg/l				
Al - Aluminum	_____ mg/l				
Ba - Barium	_____ mg/l				
Ca - Calcium	_____ mg/l				
Cd - Cadmium	_____ mg/l				
Chromium: Total	_____ mg/l				
Cu - Copper	_____ mg/l				
Fe - Iron	_____ mg/l				
Hg - Mercury	_____ mg/l				
K - Potassium	_____ mg/l				
Mg - Magnesium	_____ mg/l				
Mn - Manganese	_____ mg/l				
Ni - Nickel	_____ mg/l				
Pb - Lead	_____ mg/l				
Zn - Zinc	_____ mg/l				
Ammonia Nitrogen	_____ mg/l				
Other (Specify Compounds and Concentration Units)	_____				

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 VOC : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWO (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HAYLENE M. PHTHISIC III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
Haylene M. Phtisic III  
 Signature of Permittee (or Authorized Agent)  
 10-06-03 (Date)

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RESLANDS WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SOUTHFIED (Street) NC (State) 27577 (Zip) County JOHNSTON  
 Contact Person: KENNETH C. STANLEY (Name) Telephone #: 919-631-3895  
 Well Location/ Site Name: COLAN-5 No. of Wells to be Sampled: 9 (from Permit)

Well Identification Number (from Permit): COLAN-5  
 Well Depth: 80 ft. Well Diameter: 2 in.  
 Screened Interval: 20 ft. to 5 ft.  
 Depth to Water Level: 6.38 ft. below measuring point.  
 Measuring Point (M.P.) is: 2.35 ft. above land surface. Relative M.P. Elevation in ft.: 214.28  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 9-19-03  
 Field analysis: pH N/A, Specific Conductance N/A uMhos Appearance N/A  
 Temp. N/A °C, Odor N/A

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27689-1836 Phone: (919) 733-3221

Mail Original to: WQ 0019031 EXPIRATION DATE: MAY 31, 2007  
 Non-Discharge UIC  
 NPDES UIC  
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon  Remediation: Infiltration Gallery  
 Spray Field  Remediation:  
 Rotary Distributor  Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)	YES	NO	and field acidified	YES	NO
COD					
Coliform: MF Fecal					
Coliform: MF Total					
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total					
pH (when analyzed)					
TOC					
Chloride					
Arsenic					
Grease and Oils					
Phenol					
Sulfate					
Specific Conductance					
Total Ammonia					
TKN as N					
Nitrite (NO <sub>2</sub> ) as N					
Nitrate (NO <sub>3</sub> ) as N					
Phosphorus: Total as P					
Orthophosphate					
Al - Aluminum					
Ba - Barium					
Ca - Calcium					
Cd - Cadmium					
Chromium: Total					
Cu - Copper					
Fe - Iron					
Hg - Mercury					
K - Potassium					
Mg - Magnesium					
Mn - Manganese					
Ni - Nickel					
Pb - Lead					
Zn - Zinc					
Ammonia Nitrogen					
Other (Specify Compounds and Concentration Units)					

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 VOC : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWO (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Harsho M. Pithisic III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
Harsho M. Pithisic III  
 Signature of Permittee (or Authorized Agent)  
 16-06-03  
 (Date)

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD (City) NC 27577 County JOHNSTON  
 Contact Person: KENNETH C. (State) YORK Telephone #: 919-631-3895  
 Well Location/ Site Name: PIEZOMETER # 3 No. of Wells to be Sampled: 9 (from Permit)

Please Print Clearly or Type

Well Identification Number (from Permit): PZ-3  
 Well Depth: 17.82 ft. Well Diameter: 2 in.  
 Screened Interval: N/A ft. to N/A ft.  
 Depth to Water Level: 8.78 ft. below measuring point.  
 Measuring Point (M.P.) is: \_\_\_\_\_ ft. above land surface. Relative M.P. Elevation in ft.: 194.87  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 9-19-03  
 Field analysis: pH N/A, Specific Conductance N/A uMhos  
 Temp. N/A °C, Odor N/A Appearance N/A

For Groundwater Treatment Systems  
 Check One:  Inflow (98)  
 Effluent (99)

Mail Original to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27689-1636 Phone: (919) 733-3221

PERMIT #: WQ 0019631 EXPIRATION DATE: MM/YY 31, 2007  
 Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_  
 NPDES \_\_\_\_\_

TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon \_\_\_\_\_ Remediation: Infiltration Gallery  
 Spray Field \_\_\_\_\_ Remediation:  
 Rotary Distributor \_\_\_\_\_ Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)	YES	NO	and field acidified	YES	NO
COD					
Coliform: MF Fecal					
Coliform: MF Total					
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total					
pH (when analyzed)					
TOC					
Chloride					
Arsenic					
Grease and Oils					
Phenol					
Sulfate					
Specific Conductance					
Total Ammonia					
TKN as N					
Nitrite (NO <sub>2</sub> ) as N					
Nitrate (NO <sub>3</sub> ) as N					
Phosphorus: Total as P					
Orthophosphate					
Al - Aluminum					
Ba - Barium					
Ca - Calcium					
Cd - Cadmium					
Chromium: Total					
Cu - Copper					
Fe - Iron					
Hg - Mercury					
K - Potassium					
Mg - Magnesium					
Mn - Manganese					
Ni - Nickel					
Pb - Lead					
Zn - Zinc					
Ammonia Nitrogen					
Other (Specify Compounds and Concentration Units)					

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 VOC : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWO (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HAROLD M. PHTHIC III SPECTRUM OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
Harold M. Phtic III  
 Signature of Permittee (or Authorized Agent)  
 \_\_\_\_\_  
 (Date) 10-06-03

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD (City) NC 27577 County: JOHNSTON  
 Contact Person: KENNETH C. YORK (State) NC Telephone #: 919-631-3895  
 Well Location/ Site Name: MW-5-1 No. of Wells to be Sampled: 9  
 Well Identification Number (from Permit): MW-5-1  
 Well Depth: 31.7 ft. Well Diameter: 2 in.  
 Screened Interval: 31.7 ft. to 16.7 ft.  
 Depth to Water Level: 22.94 ft. below measuring point.  
 Measuring Point (M.P.) is: 4.22 ft. above land surface.  
 Gallons of water pumped/bailed before sampling: N/A Relative M.P. Elevation in ft.: 232.17  
 Field analysis: pH N/A, Specific Conductance N/A uMhos Date sample collected: 9-19-03  
 Temp. N/A °C, Odor N/A Appearance N/A

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1636 Phone: (919) 733-3221

Mail Original  
 to:

PERMIT #: WQ 00196 31 UIC \_\_\_\_\_  
 Non-Discharge \_\_\_\_\_  
 NPDES \_\_\_\_\_  
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon \_\_\_\_\_ Remediation: Infiltration Gallery  
 Spray Field \_\_\_\_\_ Remediation:  
 Rotary Distributor \_\_\_\_\_ Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)	YES	NO	and field acidified	YES	NO
COD					
Coliform: MF Fecal	_____ mg/l				
Coliform: MF Total	_____ /100ml				
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total	_____ mg/l				
pH (when analyzed)	_____ units				
TOC	_____ mg/l				
Chloride	_____ mg/l				
Arsenic	_____ mg/l				
Grease and Oils	_____ mg/l				
Phenol	_____ mg/l				
Sulfate	_____ mg/l				
Specific Conductance	_____ uMhos				
Total Ammonia	_____ mg/l				
TKN as N	_____ mg/l				
Nitrite (NO <sub>2</sub> ) as N	_____ mg/l				
Nitrate (NO <sub>3</sub> ) as N	_____ mg/l				
Phosphorus: Total as P	_____ mg/l				
Orthophosphate	_____ mg/l				
Al - Aluminum	_____ mg/l				
Ba - Barium	_____ mg/l				
Ca - Calcium	_____ mg/l				
Cd - Cadmium	_____ mg/l				
Chromium: Total	_____ mg/l				
Cu - Copper	_____ mg/l				
Fe - Iron	_____ mg/l				
Hg - Mercury	_____ mg/l				
K - Potassium	_____ mg/l				
Mg - Magnesium	_____ mg/l				
Mn - Manganese	_____ mg/l				
Ni - Nickel	_____ mg/l				
Pb - Lead	_____ mg/l				
Zn - Zinc	_____ mg/l				
Ammonia Nitrogen	_____ mg/l				
Other (Specify Compounds and Concentration Units)	_____ mg/l				
ORGANICS: (GC, GC/MS, HPLC)					
(Specify test and method #. Attach lab report.)					
Report Attached? Yes <u>(1)</u> No <u>(0)</u>					
VOC	_____				
	method # = _____				
	method # = _____				
	method # = _____				

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HAYWOOD M. PHTHISIK III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
[Signature]  
 Signature of Permittee (or Authorized Agent)  
 10-06-03 (Date)

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Facility Name: JOHNSON COUNTY LANDFILL  
 Permit Name (if different): JOHNSON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SALTSFORD (City) NC 27577 (Zip) County: JOHNSON  
 Contact Person: KENNETH C. (SHAW) YORK Telephone #: 919-631-3895  
 Well Location/ Site Name: MW-3 No. of Wells to be Sampled: 9 (from Permit)

Well Identification Number (from Permit): MW-3  
 Well Depth: 30 ft. Well Diameter: 2 in.  
 Screened Interval: 30.0 ft. to 20.0 ft.  
 Depth to Water Level: 19.56 ft. below measuring point.  
 Measuring Point (M.P.) is: 1.9 ft. above land surface. Relative M.P. Elevation in ft.: 235.03  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 9-19-03  
 Field analysis: pH N/A, Specific Conductance N/A uMhos Appearance N/A  
 Temp. N/A °C, Odor N/A

## PARAMETERS (Samples for metals were collected unfiltered)

COD	YES	NO	and field acidified	YES	NO
Coliform: MF Fecal	_____	mg/l	Nitrite (NO <sub>2</sub> ) as N	_____	mg/l
Coliform: MF Total	_____	/100ml	Nitrate (NO <sub>3</sub> ) as N	_____	mg/l
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total	_____	mg/l	Phosphorus: Total as P	_____	mg/l
pH (when analyzed)	_____	units	Orthophosphate	_____	mg/l
TOC	_____	mg/l	Al - Aluminum	_____	mg/l
Chloride	_____	mg/l	Ba - Barium	_____	mg/l
Arsenic	_____	mg/l	Ca - Calcium	_____	mg/l
Grease and Oils	_____	mg/l	Cd - Cadmium	_____	mg/l
Phenol	_____	mg/l	Chromium: Total	_____	mg/l
Sulfate	_____	mg/l	Cu - Copper	_____	mg/l
Specific Conductance	_____	uMhos	Fe - Iron	_____	mg/l
Total Ammonia	_____	mg/l	Hg - Mercury	_____	mg/l
TKN as N	_____	mg/l	K - Potassium	_____	mg/l
			Mg - Magnesium	_____	mg/l
			Mn - Manganese	_____	mg/l

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 VOC : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

Mail Original to:  
 DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1636  
 Phone: (919) 733-3221

PERMIT #: WQ 0019031 EXPIRATION DATE: MAY 31, 2007  
 Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_  
 NPDES \_\_\_\_\_  
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon \_\_\_\_\_ Remediation: Infiltration Gallery  
 Spray Field \_\_\_\_\_ Remediation:  
 Rotary Distributor \_\_\_\_\_ Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Permittee (or Authorized Agent) Name and Title: RAYMOND M. PHILLIPS, W DIRECTOR OF OPERATIONS  
 Signature of Permittee (or Authorized Agent): [Signature]  
 (Date) 10-06-03

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SALTBERRY (City) NC 27577 (Zip)  
 County: JOHNSTON  
 Contact Person: KENNETH C. (State)  
 Telephone #: 919-631-3895  
 Well Location/ Site Name: MW-5-2  
 No. of Wells to be Sampled: 9 (From Permit)

Well Identification Number (from Permit): MW-5-2  
 Well Depth: 22.5 ft. Well Diameter: 2 in.  
 Screened Interval: 22.5 ft. to 7.5 ft.  
 Depth to Water Level: 5.66 ft. below measuring point.  
 Measuring Point (M.P.) is: \_\_\_\_\_ ft. above land surface. Relative M.P. Elevation in ft.: 266.77  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 9-19-03  
 Field analysis: pH N/A, Specific Conductance N/A uMhos  
 Temp. N/A °C, Odor N/A Appearance N/A

## PARAMETERS (Samples for metals were collected unfiltered)

COD	YES	NO	and field acidified	YES	NO
Coliform: MF Fecal	_____	mg/l	Nitrite (NO <sub>2</sub> ) as N	_____	mg/l
Coliform: MF Total	_____	/100ml	Nitrate (NO <sub>3</sub> ) as N	_____	mg/l
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total	_____	mg/l	Phosphorus: Total as P	_____	mg/l
pH (when analyzed)	_____	units	Orthophosphate	_____	mg/l
TOC	_____	mg/l	Al - Aluminum	_____	mg/l
Chloride	_____	mg/l	Ba - Barium	_____	mg/l
Arsenic	_____	mg/l	Ca - Calcium	_____	mg/l
Grease and Oils	_____	mg/l	Cd - Cadmium	_____	mg/l
Phenol	_____	mg/l	Chromium: Total	_____	mg/l
Sulfate	_____	mg/l	Cu - Copper	_____	mg/l
Specific Conductance	_____	uMhos	Fe - Iron	_____	mg/l
Total Ammonia	_____	mg/l	Hg - Mercury	_____	mg/l
TKN as N	_____	mg/l	K - Potassium	_____	mg/l
			Mg - Magnesium	_____	mg/l
			Mn - Manganese	_____	mg/l

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 VOC : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

GW-59  
 Rev. 03/2000

Signature of Permittee (or Authorized Agent) [Signature]  
 Permittee (or Authorized Agent) Name and Title: Director of Operations  
 Date: 10-06-03

Mail Original to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27689-1936 Phone: (919) 733-3231

PERMIT #: WQ 0019631 EXPIRATION DATE: MAY 31, 2007  
 Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_  
 NPDES \_\_\_\_\_  
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon \_\_\_\_\_ Remediation: Infiltration Gallery  
 Spray Field \_\_\_\_\_ Remediation: \_\_\_\_\_  
 Rotary Distributor \_\_\_\_\_ Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
 (City) SALISBURY (State) NC  
 Contact Person: KENNETH C. BROWN County JOHNSTON  
 Telephone #: 919-631-3895  
 Well Location/ Site Name: MW-5-10 No. of Wells to be Sampled: 9  
 (from Permit)

Well Identification Number (from Permit): MW-5-10  
 Well Depth: 26.1 ft. Well Diameter: 2 in.  
 Screened Interval: 26.1 ft. to 11.1 ft.  
 Depth to Water Level: 14.04 ft. below measuring point.  
 Measuring Point (M.P.) is: 2.16 ft. above land surface. Relative M.P. Elevation in ft.: 242.85  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 9-19-03  
 Field analysis: pH N/A, Specific Conductance N/A uMhos  
 Temp. N/A °C, Odor N/A Appearance N/A

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27698-1636 Phone: (919) 733-3221

Mail Original to: PERMIT #: WQ 0019631 EXPIRATION DATE: MARCH 31, 2007  
 Non-Discharge UIC

NPDES TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon  Remediation: Infiltration Gallery  
 Spray Field  Remediation:  
 Rotary Distributor  Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)	YES	NO	and field acidified	YES	NO
COD	_____	_____	_____	_____	_____
Coliform: MF Fecal	_____ mg/l	_____	_____	_____	_____ mg/l
Coliform: MF Total	_____ /100ml	_____	_____	_____	_____ mg/l
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total	_____ mg/l	_____	_____	_____	_____ mg/l
pH (when analyzed)	_____ units	_____	_____	_____	_____ mg/l
TOC	_____ mg/l	_____	_____	_____	_____ mg/l
Chloride	_____ mg/l	_____	_____	_____	_____ mg/l
Arsenic	_____ mg/l	_____	_____	_____	_____ mg/l
Grease and Oils	_____ mg/l	_____	_____	_____	_____ mg/l
Phenol	_____ mg/l	_____	_____	_____	_____ mg/l
Sulfate	_____ mg/l	_____	_____	_____	_____ mg/l
Specific Conductance	_____ uMhos	_____	_____	_____	_____ mg/l
Total Ammonia	_____ mg/l	_____	_____	_____	_____ mg/l
TKN as N	_____ mg/l	_____	_____	_____	_____ mg/l
Nitrite (NO <sub>2</sub> ) as N	_____ mg/l	_____	_____	_____	_____ mg/l
Nitrate (NO <sub>3</sub> ) as N	_____ mg/l	_____	_____	_____	_____ mg/l
Phosphorus: Total as P	_____ mg/l	_____	_____	_____	_____ mg/l
Orthophosphate	_____ mg/l	_____	_____	_____	_____ mg/l
Al - Aluminum	_____ mg/l	_____	_____	_____	_____ mg/l
Ba - Barium	_____ mg/l	_____	_____	_____	_____ mg/l
Ca - Calcium	_____ mg/l	_____	_____	_____	_____ mg/l
Cd - Cadmium	_____ mg/l	_____	_____	_____	_____ mg/l
Chromium: Total	_____ mg/l	_____	_____	_____	_____ mg/l
Cu - Copper	_____ mg/l	_____	_____	_____	_____ mg/l
Fe - Iron	_____ mg/l	_____	_____	_____	_____ mg/l
Hg - Mercury	_____ mg/l	_____	_____	_____	_____ mg/l
K - Potassium	_____ mg/l	_____	_____	_____	_____ mg/l
Mg - Magnesium	_____ mg/l	_____	_____	_____	_____ mg/l
Mn - Manganese	_____ mg/l	_____	_____	_____	_____ mg/l

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 VOC : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWO (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Permittee (or Authorized Agent) Name and Title: Harold M. P. Ph.D. III DIRECTOR OF OPERATIONS  
 Signature: [Signature]  
 Date: 10-06-03 (Date)

# NON-DISCHARGE APPLICATION REPORT SPRAY IRRIGATION SITE(S)

THERE ARE TWO APPLICATION FIELDS PER PAGE. USE ADDITIONAL PAGES AS NEEDED.

PERMIT NUMBER: WQ 0019631

MONTH: August

YEAR: 2003

FACILITY NAME: Johnston County Reclaimed Water Utilization System

COUNTY: Johnston

**Formulas:**

**Daily Loading (inches)** = [Volume Applied (gallons) x 0.1336 (cubic feet/gallon) x 12 (inches/foot)] / [Area Sprayed (acres) x 43,560 (square feet/acre)] OR  
= Volume Applied (gallons) / [Area Sprayed (acres) x 27,152 (gallons/acre-inch)]

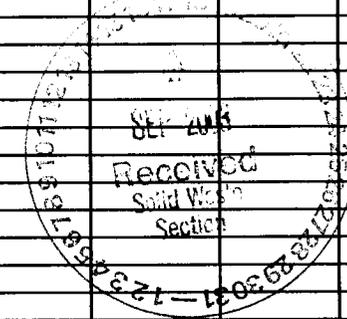
**Maximum Hourly Loading (inches)** = Daily Loading (inches) / [Time Irrigated (minutes) / 60 (minutes/hour)]

**Monthly Loading (inches)** = Sum of Daily Loadings (inches)

**12 Month Floating Total (inches)** = Sum of this month's Monthly Loading (inches) and previous 11 month's Monthly Loadings (inches)

**Average Weekly Loading (inches)** = [Monthly Loading (inches/month) / Number of days in the month (days/month)] x 7 (days/week)

Did Irrigation Occur At This Facility:					Did Irrigation Occur On This Field:				Did Irrigation Occur On This Field:			
Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>					Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>				Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>			
					FIELD NUMBER:		2		FIELD NUMBER:		3	
					AREA SPRAYED (acres):		54.73		AREA SPRAYED (acres):		10.44	
					COVER CROP:		Bermudagrass		COVER CROP:		Bermudagrass	
					PERMITTED HOURLY RATE (inches):		0.3		PERMITTED HOURLY RATE (inches):		0.3	
					PERMITTED YEARLY RATE (inches):		20		PERMITTED YEARLY RATE (inches):		16	
					DATE	WEATHER CONDITIONS			Storage Lagoon Free-board feet	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches
Weather Code*	Temperature at application (°F)	Precipitation Inches										
1	PC	90	N/A	N/A	298000	540	0.20	0.02				
2												
3												
4	CI	86	N/A	N/A	148000	270	0.10	0.02				
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28	C	92	N/A	N/A	151000	270	0.10	0.02				
29	C	92	N/A	N/A	158000	275	0.11	0.02	75000	570	0.26	0.03
30	C	89	N/A	N/A	355000	660	0.24	0.02	57000	430	0.20	0.03
31	C	89	N/A	N/A	387000	720	0.26	0.02				
Total Gallons/Monthly Loading (inches)					1497000		1.01		132000		0.47	
12 Month Floating Total (inches)							6.44				1.41	
Average Weekly Loading (inches)							0.2273173				0.1050775	



\* Weather Codes: C-clear, PC-partly cloudy, CI-cloudy, R-rain, Sn-snow, Sl-sleet

Spray Irrigation Operator in Responsible Charge (ORC): Kenneth Clay York Phone: 919-631-3895

ORC Certification Number: 26366 Check Box if ORC Has Changed:

Mail ORIGINAL and TWO COPIES to:  
ATTN: Non-Discharge Compliance Unit  
DENR  
Division of Water Quality  
1617 Mail Service Center  
RALEIGH, NC 27699-1617

*Kenneth C. York*  
\_\_\_\_\_  
(SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)

BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

NON-DISCHARGE APPLICATION REPORT  
SPRAY IRRIGATION SITE(S)

**Facility Status:**

Please indicate ( by inserting Y(es) or N(o) in the appropriate box ) whether the facility has been **compliant** with the following permit requirements: (Note: if a requirement does not apply to your facility put ( NA) in the compliant box. )

- |  | Compliant (Y,N)                 |
|--|---------------------------------|
| 1. The application rate(s) did not exceed the limit(s) specified in the permit.                                    | <input type="text" value="Y"/>  |
| 2. Adequate measures were taken to prevent wastewater runoff from the site(s).                                     | <input type="text" value="Y"/>  |
| 3. A suitable vegetative cover was maintained on the site(s) in accordance with the permit.                        | <input type="text" value="Y"/>  |
| 4. All buffer zones as specified in the permit were maintained during each application.                            | <input type="text" value="Y"/>  |
| 5. The freeboard in the treatment and/or storage lagoon(s) was not less than the limit(s) specified in the permit. | <input type="text" value="NA"/> |

If the facility is **non-compliant**, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Haywood M. Phthisic, III      9-16-03  
(Signature of Permittee)\*      Date

Haywood M. Phthisic, III  
(Name of Signing Official-Please print or type)

Johnston County Department of Public Utilities  
(Permittee-Please print or type)

Director of Operations  
(Position or Title)

P.O. Box 2263

919-989-5075  
(Phone Number)

31-Mar-07  
(Permit Exp. Date)

Smithfield, NC 27577  
(Permittee Address)

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL  
 Permit Name (if different): JOHNSON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD NC 27577  
 Contact Person: KENNETH C. YOUNG County: JOHNSON  
 Well Location/ Site Name: MW-5-1 Telephone #: 919-631-3895  
 No. of Wells to be Sampled: 9

Well Identification Number (from Permit): MW-5-1  
 Well Depth: 31.7 ft. Well Diameter: 2 in.  
 Screened Interval: 31.7 ft. to 16.7 ft.  
 Depth to Water Level: 23.22 ft. above land surface. Relative M.P. Elevation in ft.: 232.17  
 Measuring Point (M.P.) is: 2.22 ft. above land surface.  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 8-21-03  
 Field analysis: pH N/A, Specific Conductance N/A, Appearance N/A  
 Temp. N/A °C, Odor N/A

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

Mail Original to: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27698-1836 Phone: (919) 733-3221

PERMIT #: WQ 00196 31 EXPIRATION DATE: MAR 31 2007  
 Non-Discharge        UIC         
 NPDES         
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon        Remediation: Infiltration Gallery  
 Spray Field        Remediation:         
 Rotary Distributor        Land Application of Sludge  
 Other:       

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed:         
 Laboratory Name:         
 Certification No.       

PARAMETERS (Samples for metals were collected unfiltered)	YES	NO	and field acidified	YES	NO
COD					
Coliform: MF Fecal					
Coliform: MF Total					
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total					
pH (when analyzed)					
TOC					
Chloride					
Arsenic					
Grease and Oils					
Phenol					
Sulfate					
Specific Conductance					
Total Ammonia					
TKN as N					
Nitrite (NO <sub>2</sub> ) as N					
Nitrate (NO <sub>3</sub> ) as N					
Phosphorus: Total as P					
Orthophosphate					
Al - Aluminum					
Ba - Barium					
Ca - Calcium					
Cd - Cadmium					
Chromium: Total					
Cu - Copper					
Fe - Iron					
Hg - Mercury					
K - Potassium					
Mg - Magnesium					
Mn - Manganese					
Ni - Nickel					
Pb - Lead					
Zn - Zinc					
Ammonia Nitrogen					
Other (Specify Compounds and Concentration Units)					
<b>ORGANICS: (GC, GC/MS, HPLC)</b>					
(Specify test and method #. Attach lab report.)					
Report Attached? Yes	(1)	No	(0)		
VOC	method # =				
	method # =				
	method # =				

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWMQ (formerly DENM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Hayward M. Pithers, III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
Hayward M. Pithers  
 Signature of Permittee (or Authorized Agent) 9-16-03 (Date)

**GROUNDWATER QUALITY MONITORING:  
COMPLIANCE REPORT FORM**

**FACILITY INFORMATION**

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL  
 Permit Name (if different): JOHNSON COUNTY RESIDUAL WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD, NC 27577  
 County: JOHNSON  
 Contact Person: KENNETH C. SMITH Telephone #: 919-631-3895  
 Well Location/ Site Name: COLMV-5 No. of Wells to be Sampled: 9

Well Identification Number (from Permit): COLMV-5  
 Well Depth: 20 ft. Well Diameter: 2 in.  
 Screened Interval: 20.0 ft. to 5.0 ft.  
 Depth to Water Level: 5.60 ft. below measuring point.  
 Measuring Point (M.P.): Is: 2.35 ft. above land surface. Relative M.P. Elevation in ft.: 24.28  
 Gallons of water pumped/pailed before sampling: N/A Date sample collected: 8-21-03  
 Field analysis: pH 7.4, Specific Conductance N/A umhos  
 Temp. N/A °C, Odor N/A Appearance N/A umhos

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

Mail Original to: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1836 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1836 Phone: (919) 733-3221

PERMIT #: WQ 0019631 EXPIRATION DATE: MAY 31, 2007  
 Non-Discharge  UIC   
 NPDES   
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon Remediation: Infiltration Gallery  
 Spray Field Remediation: \_\_\_\_\_  
 Rotary Distributor Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)

PARAMETER	UNIT	YES	NO	and field acidified	YES	NO
COD	mg/l					
Coliform: MF Fecal	/100ml					
Coliform: MF Total	/100ml					
(Note: Use MPN method for highly turbid samples)						
Dissolved Solids: Total	mg/l					
pH (when analyzed)	units					
TOC	mg/l					
Chloride	mg/l					
Arsenic	mg/l					
Grease and Oils	mg/l					
Phenol	mg/l					
Sulfate	mg/l					
Specific Conductance	umhos					
Total Ammonia	mg/l					
TKN as N	mg/l					
Nitrite (NO <sub>2</sub> ) as N	mg/l					
Nitrate (NO <sub>3</sub> ) as N	mg/l					
Phosphorus: Total as P	mg/l					
Orthophosphate	mg/l					
Al - Aluminum	mg/l					
Ba - Barium	mg/l					
Ca - Calcium	mg/l					
Cd - Cadmium	mg/l					
Chromium: Total	mg/l					
Cu - Copper	mg/l					
Fe - Iron	mg/l					
Hg - Mercury	mg/l					
K - Potassium	mg/l					
Mg - Magnesium	mg/l					
Mn - Manganese	mg/l					
Ni - Nickel	mg/l					
Pb - Lead	mg/l					
Zn - Zinc	mg/l					
Ammonia Nitrogen	mg/l					
Other (Specify Compounds and Concentration Units)						
<b>ORGANICS: (GC, GC/MS, HPLC)</b>						
(Specify test and method #, Attach lab report.)						
Report Attached? Yes	(1)	No	(0)			
VOC	method # =					
	method # =					
	method # =					

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violators.

GW-59  
 Rev. 03/2000

Hyungho N. Park, III, DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
 Signature of Permittee (or Authorized Agent)  
 Date: 9/16-03

**GROUNDWATER QUALITY MONITORING:  
COMPLIANCE REPORT FORM**

**FACILITY INFORMATION**

Please Print Clearly or Type

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD NC 27577  
 Contact Person: KENNETH C. (State) YORK (Zip) Telephone #: 919-631-3895  
 Well Location/ Site Name: PIEZOMETER #3 No. of Wells to be Sampled: 9  
 Well Identification Number (from Permit): PZ-3  
 Well Depth: 17.82 ft. Well Diameter: 2 in.  
 Screened Interval: N/A ft. to N/A ft.  
 Depth to Water Level: 8.26 ft. below measuring point.  
 Measuring Point (M.P.): Is: 8.26 ft. above land surface. Relative M.P. Elevation in ft.: 194.91  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 8-21-03  
 Field analysis: pH N/A, Specific Conductance N/A umhos  
 Temp. N/A °C, Odor N/A Appearance N/A

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

Mail Original to: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1836 MAIL SERVICE CENTER  
 RALEIGH, NC 27689-1836 Phone: (919) 733-3221

PERMIT #: WQ 00196 31 EXPIRATION DATE: MAY 31, 2007  
 Non-Discharge: \_\_\_\_\_ UIC: \_\_\_\_\_  
 NPDES: \_\_\_\_\_  
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon \_\_\_\_\_ Remediation: Infiltration Gallery  
 Spray Field \_\_\_\_\_ Remediation: \_\_\_\_\_  
 Rotary Distributor \_\_\_\_\_ Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ and field acidified \_\_\_\_\_ YES \_\_\_\_\_ NO)

COD _____ mg/l	Nitrite (NO <sub>2</sub> ) as N _____ mg/l	Ni - Nickel _____ mg/l
Coliform: MF Fecal _____ /100ml	Nitrate (NO <sub>3</sub> ) as N _____ mg/l	Pb - Lead _____ mg/l
Coliform: MF Total _____ /100ml	Phosphorus: Total as P _____ mg/l	Zn - Zinc _____ mg/l
(Note: Use MPN method for highly turbid samples)	Orthophosphate _____ mg/l	Ammonia Nitrogen _____ mg/l
Dissolved Solids: Total _____ mg/l	Al - Aluminum _____ mg/l	Other (Specify Compounds and Concentration Units)
pH (when analyzed) _____ units	Ba - Barium _____ mg/l	
TOC _____ mg/l	Ca - Calcium _____ mg/l	
Chloride _____ mg/l	Cd - Cadmium _____ mg/l	
Arsenic _____ mg/l	Chromium: Total _____ mg/l	
Grease and Oils _____ mg/l	Cu - Copper _____ mg/l	
Phenol _____ mg/l	Fe - Iron _____ mg/l	
Sulfate _____ mg/l	Hg - Mercury _____ mg/l	
Specific Conductance _____ umhos	K - Potassium _____ mg/l	
Total Ammonia _____ mg/l	Mg - Magnesium _____ mg/l	
TKN as N _____ mg/l	Mn - Manganese _____ mg/l	

ORGANICS: (GC/GCMS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes \_\_\_\_\_ (1) No \_\_\_\_\_ (0)  
 VOC : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DENR) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violators.

Signature of Permittee (or Authorized Agent) Hayward M. Patrick Director of Operations  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
 Signature of Permittee (or Authorized Agent) Hayward M. Patrick  
 Date 9/6/03

**GROUNDWATER QUALITY MONITORING:  
COMPLIANCE REPORT FORM**

**FACILITY INFORMATION**

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL  
 Permit Name (if different): JOHNSON COUNTY RESIDUAL WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD, NC 27577  
 Contact Person: KENNETH C. YUAK County: JOHNSON  
 Well Location/ Site Name: MW-5-10 Telephone #: 919-631-3895  
 No. of Wells to be Sampled: 9

Well Identification Number (from Permit): MW-5-10  
 Well Depth: 26.1 ft. Well Diameter: 2 in.  
 Screened Interval: 26.1 ft. to 11.1 ft.  
 Depth to Water Level: 13.04 ft. below measuring point.  
 Measuring Point (M.P.): Is: 216 ft. above land surface. Relative M.P. Elevation in ft.: 802.88  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 8-21-03  
 Field analysis: pH N/A, Specific Conductance N/A, Appearance N/A  
 Temp. N/A °C, Odor N/A umhos

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

Mail Original TO: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1836 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1836 Phone: (919) 733-3221

PERMIT #: WQ 00190631 EXPIRATION DATE: MAY 31, 2007  
 Non-Discharge UIC  
 NPDES  
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon Remediation: Infiltration Gallery  
 Spray Field Remediation:  
 Rotary Distributor Land Application of Sludge  
 Other:

NOTE: Values should reflect dissolved and colloidal concentrations.  
 Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)

PARAMETER	UNIT	UNFILTERED	YES	NO	and field acidified	YES	NO
COD	mg/l						
Coliform: MF Fecal	/100ml						
Coliform: MF Total	/100ml						
(Note: Use MPN method for highly turbid samples)							
Dissolved Solids: Total	mg/l						
pH (when analyzed)	units						
TOC	mg/l						
Chloride	mg/l						
Arsenic	mg/l						
Grease and Oils	mg/l						
Phenol	mg/l						
Sulfate	mg/l						
Specific Conductance	umhos						
Total Ammonia	mg/l						
TKN as N	mg/l						
Nitrite (NO <sub>2</sub> ) as N	mg/l						
Nitrate (NO <sub>3</sub> ) as N	mg/l						
Phosphorus: Total as P	mg/l						
Orthophosphate	mg/l						
Al - Aluminum	mg/l						
Ba - Barium	mg/l						
Ca - Calcium	mg/l						
Cd - Cadmium	mg/l						
Chromium: Total	mg/l						
Cu - Copper	mg/l						
Fe - Iron	mg/l						
Hg - Mercury	mg/l						
K - Potassium	mg/l						
Mg - Magnesium	mg/l						
Mn - Manganese	mg/l						
Ni - Nickel	mg/l						
Pb - Lead	mg/l						
Zn - Zinc	mg/l						
Ammonia Nitrogen	mg/l						
Other (Specify Compounds and Concentration Units)							
<b>ORGANICS: (GC, GC/MS, HPLC)</b>							
(Specify test and method #. Attach lab report.)							
Report Attached? Yes	(1)	No	(0)				
VOC	method # =						
	method # =						
	method # =						

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature of Permittee (or Authorized Agent): Hayward N. PATHISIC, III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
 Signature of Permittee (or Authorized Agent): [Signature]  
 Date: 9/16/03

**GROUNDWATER QUALITY MONITORING:  
COMPLIANCE REPORT FORM**

**FACILITY INFORMATION**

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL  
 Permit Name (if different): JOHNSON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD, NC 27577  
 County: JOHNSON  
 Contact Person: KENNETH C. SHAW (State) YORK (Zip) Telephone #: 919-631-3895  
 Well Location/ Site Name: MW-5-2 No. of Wells to be Sampled: 9 (from Permit)

Well Identification Number (from Permit): MW-5-2  
 Well Depth: 22.5 ft. Well Diameter: 2 in.  
 Screened Interval: 22.5 ft. to 7.5 ft.  
 Depth to Water Level: 5.28 ft. above land surface. Relative M.P. Elevation in ft.: 206.77  
 Measuring Point (M.P.) is 2.28 ft. above land surface.  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 8-21-03  
 Field analysis: pH N/A, Specific Conductance N/A umhos, Appearance N/A

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

Mail Original to:  
 DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1836 MAIL SERVICE CENTER  
 RALEIGH, NC 27689-1636 Phone: (919) 733-3221

PERMIT #: WQ 0019631 EXPIRATION DATE: March 31, 2007  
 Non-Discharge  UIC   
 NPDES   
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon Remediation: Infiltration Gallery  
 Spray Field Remediation:  
 Rotary Distributor Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)	YES	NO	and field acidified	YES	NO
COD					
Coliform: MF Fecal					
Coliform: MF Total					
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total					
pH (when analyzed)					
TOC					
Chloride					
Arsenic					
Grease and Oils					
Phenol					
Sulfate					
Specific Conductance					
Total Ammonia					
TKN as N					
Nitrite (NO <sub>2</sub> ) as N					
Nitrate (NO <sub>3</sub> ) as N					
Phosphorus: Total as P					
Orthophosphate					
Al - Aluminum					
Ba - Barium					
Ca - Calcium					
Cd - Cadmium					
Chromium: Total					
Cu - Copper					
Fe - Iron					
Hg - Mercury					
K - Potassium					
Mg - Magnesium					
Mn - Manganese					
Ni - Nickel					
Pb - Lead					
Zn - Zinc					
Ammonia Nitrogen					
Other (Specify Compounds and Concentration Units)					
<b>ORGANICS: (GC, GC/MS, HPLC)</b>					
(Specify test and method #. Attach lab report.)					
Report Attached? Yes	(1)	No	(0)		
VOC	method # =				
	method # =				
	method # =				

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

GW-59  
 Rev. 03/2000  
 Signature of Permittee (or Authorized Agent): HAYWARD M. PITHISIC, III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
 Date: 9-16-03

**GROUNDWATER QUALITY MONITORING:  
COMPLIANCE REPORT FORM**

**FACILITY INFORMATION**

Please Print Clearly or Type

Facility Name: JOHNSON COUNTY LANDFILL  
 Permit Name (if different): JOHNSON COUNTY RESIDUAL WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD, NC 27577  
 County: JOHNSON  
 Contact Person: KENNETH C. SHAWYER (Site) Telephone #: 919-631-3895  
 Well Location/ Site Name: MW-3 No. of Wells to be Sampled: 9  
 Well Identification Number (from Permit): MW-3  
 Well Depth: 30 ft. Well Diameter: 2 in.  
 Screened Interval: 30.0 ft. to 20.0 ft.  
 Depth to Water Level: 19.28 ft. below measuring point.  
 Measuring Point (M.P.) is: 1.9 ft. above land surface. Relative M.P. Elevation in ft.: 335.03  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 8-21-03  
 Field analysis: pH N/A, Specific Conductance N/A umhos  
 Temp. N/A °C, Odor N/A Appearance N/A

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

Mail Original to:  
 DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1636 Phone: (919) 733-3221

PERMIT #: WQ 0019631 EXPIRATION DATE: APR 31, 2007  
 Non-Discharge  UIC   
 NPDES   
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon Remediation: Infiltration Gallery  
 Spray Field Remediation: \_\_\_\_\_  
 Rotary Distributor Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)	YES	NO	and field acidified	YES	NO
COD	mg/l				
Coliform: MF Fecal	/100ml				
Coliform: MF Total	/100ml				
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total	mg/l				
pH (when analyzed)	units				
TOC	mg/l				
Chloride	mg/l				
Arsenic	mg/l				
Grease and Oils	mg/l				
Phenol	mg/l				
Sulfate	mg/l				
Specific Conductance	umhos				
Total Ammonia	mg/l				
TKN as N	mg/l				
Nitrite (NO <sub>2</sub> ) as N	mg/l				
Nitrate (NO <sub>3</sub> ) as N	mg/l				
Phosphorus: Total as P	mg/l				
Orthophosphate	mg/l				
Al - Aluminum	mg/l				
Ba - Barium	mg/l				
Ca - Calcium	mg/l				
Cd - Cadmium	mg/l				
Chromium: Total	mg/l				
Cu - Copper	mg/l				
Fe - Iron	mg/l				
Hg - Mercury	mg/l				
K - Potassium	mg/l				
Mg - Magnesium	mg/l				
Mn - Manganese	mg/l				
Ni - Nickel	mg/l				
Pb - Lead	mg/l				
Zn - Zinc	mg/l				
Ammonia Nitrogen	mg/l				
Other (Specify Compounds and Concentration Units)					
<b>ORGANICS: (GC,GC/MS,HPLC)</b>					
(Specify test and method #. Attach lab report.)					
Report Attached? Yes	(1)	No	(0)		
VOC	method # =				
	method # =				
	method # =				

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DENM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

GW-59  
 Rev. 03/2000

William M. Patisis, III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
William M. Patisis, III  
 Signature of Permittee (or Authorized Agent)  
9-16-03  
 (Date)

**GROUNDWATER QUALITY MONITORING:  
COMPLIANCE REPORT FORM**

**FACILITY INFORMATION**

Please Print Clearly or Type

Facility Name: JOHANSTON COUNTY LANDFILL  
 Permit Name (if different): JOHANSTON COUNTY RESIDUAL WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD, NC 27577  
 County: JOHANSTON  
 Contact Person: KENNETH C. SMITH (State) YORK (Zip) Telephone #: 919-631-3895  
 Well Location/ Site Name: DWG-MW-3 No. of Wells to be Sampled: 9  
 Well Identification Number (from Permit): DWG-MW-3  
 Well Depth: 42 ft. Well Diameter: 2 in.  
 Screened Interval: 42 ft. to 32 ft.  
 Depth to Water Level: 10.00 ft. below measuring point.  
 Measuring Point (M.P.): Is: 2.32 ft. above land surface. Relative M.P. Elevation in ft.: 82.85  
 Gallons of water pumped/dialled before sampling: N/A Date sample collected: 8-21-03  
 Field analysis: pH N/A, Specific Conductance N/A umhos, Appearance N/A  
 Temp. N/A °C, Odor N/A

For Groundwater Treatment Systems  
 Check One:  Influent (98)  
 Effluent (99)

Mail Original to: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1836 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1938  
 Phone: (919) 733-3221

PERMIT #: WQ 0019631 EXPIRATION DATE: MARCH 31, 2007  
 Non-Discharge  UIC   
 NPDES   
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon Remediation: Infiltration Gallery  
 Spray Field Remediation: \_\_\_\_\_  
 Rotary Distributor Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)

PARAMETER	UNIT	YES	NO	and field acidified	YES	NO
COD	mg/l					
Coliform: MF Fecal	/100ml					
Coliform: MF Total	/100ml					
(Note: Use MPN method for highly turbid samples)						
Dissolved Solids: Total	mg/l					
pH (when analyzed)	units					
TOC	mg/l					
Chloride	mg/l					
Arsenic	mg/l					
Grease and Oils	mg/l					
Phenol	mg/l					
Sulfate	mg/l					
Specific Conductance	umhos					
Total Ammonia	mg/l					
TKN as N	mg/l					
Nitrite (NO <sub>2</sub> ) as N	mg/l					
Nitrate (NO <sub>3</sub> ) as N	mg/l					
Phosphorus: Total as P	mg/l					
Orthophosphate	mg/l					
Al - Aluminum	mg/l					
Ba - Barium	mg/l					
Ca - Calcium	mg/l					
Cd - Cadmium	mg/l					
Chromium: Total	mg/l					
Cu - Copper	mg/l					
Fe - Iron	mg/l					
Hg - Mercury	mg/l					
K - Potassium	mg/l					
Mg - Magnesium	mg/l					
Mn - Manganese	mg/l					
Ni - Nickel	mg/l					
Pb - Lead	mg/l					
Zn - Zinc	mg/l					
Ammonia Nitrogen	mg/l					
Other (Specify Compounds and Concentration Units)						

ORGANICS: (GC/GCMS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWO (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

GW-59  
 Rev. 03/2000

HARRISON M. PHTHISIC III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
W. M. Smith  
 Signature of Permittee (or Authorized Agent)  
9/16/03  
 (Date)



# NON-DISCHARGE APPLICATION REPORT SPRAY IRRIGATION SITE(S)

THERE ARE TWO APPLICATION FIELDS PER PAGE. USE ADDITIONAL PAGES AS NEEDED.

PERMIT NUMBER: WQ 0019632 MONTH: August YEAR: 2003  
 FACILITY NAME: Johnston County Reclaimed Water Utilization System COUNTY: Johnston

**Formulas:**

Daily Loading (Inches) = [Volume Applied (gallons) x 0.1336 (cubic feet/gallon) x 12 (inches/foot)] / [Area Sprayed (acres) x 43,560 (square feet/acre)] OR  
 = Volume Applied (gallons) / [Area Sprayed (acres) x 27,152 (gallons/acre-inch)]

Maximum Hourly Loading (Inches) = Daily Loading (Inches) / [Time Irrigated (minutes) / 60 (minutes/hour)] Monthly Loading (Inches) = Sum of Daily Loadings (Inches)

12 Month Floating Total (Inches) = Sum of this month's Monthly Loading (Inches) and previous 11 month's Monthly Loadings (Inches)

Average Weekly Loading (Inches) = [Monthly Loading (Inches/month) / Number of days in the month (days/month)] x 7 (days/week)

Did Irrigation Occur At This Facility:					Did Irrigation Occur On This Field:				Did Irrigation Occur On This Field:				
Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>					Yes: <input type="checkbox"/> No: <input type="checkbox"/>				Yes: <input type="checkbox"/> No: <input type="checkbox"/>				
					FIELD NUMBER:				FIELD NUMBER:				
					AREA SPRAYED (acres):				AREA SPRAYED (acres):				
					COVER CROP:				COVER CROP:				
					PERMITTED HOURLY RATE (Inches):				PERMITTED HOURLY RATE (Inches):				
					PERMITTED YEARLY RATE (Inches):				PERMITTED YEARLY RATE (Inches):				
					DATE	WEATHER CONDITIONS			Storage Lagoon Free-board feet	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches
Weather Code*	Temperature at application (°F)	Precipitation Inches											
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
Total Gallons/Monthly Loading (Inches)					0		0.00		0		0.00		
12 Month Floating Total (Inches)													
Average Weekly Loading (Inches)							0				0		

\* Weather Codes: C-clear, PC-partly cloudy, CI-cloudy, R-rain, Sn-snow, SI-sleet

Spray Irrigation Operator in Responsible Charge (ORC): Kenneth Clay York Phone: 919-631-3895

ORC Certification Number: 26366 Check Box If ORC Has Changed:

Mail ORIGINAL and TWO COPIES to:  
 ATTN: Non-Discharge Compliance Unit  
 DENR  
 Division of Water Quality  
 1617 Mail Service Center  
 RALEIGH, NC 27699-1617

*Kenneth C. York*  
 (SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)  
 BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

NON-DISCHARGE APPLICATION REPORT  
SPRAY IRRIGATION SITE(S)

**Facility Status:**

Please indicate ( by inserting Y(es) or N(o) in the appropriate box ) whether the facility has been compliant with the following permit requirements: (Note: if a requirement does not apply to your facility put (NA) in the compliant box. )

- |  | Compliant (Y,N)                 |
|--|---------------------------------|
| 1. The application rate(s) did not exceed the limit(s) specified in the permit.                                    | <input type="text" value="Y"/>  |
| 2. Adequate measures were taken to prevent wastewater runoff from the site(s).                                     | <input type="text" value="Y"/>  |
| 3. A suitable vegetative cover was maintained on the site(s) in accordance with the permit.                        | <input type="text" value="Y"/>  |
| 4. All buffer zones as specified in the permit were maintained during each application.                            | <input type="text" value="Y"/>  |
| 5. The freeboard in the treatment and/or storage lagoon(s) was not less than the limit(s) specified in the permit. | <input type="text" value="NA"/> |

If the facility is non-compliant, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Haywood M. Phthisic, III      9-16-03  
(Signature of Permittee)\*      Date

Johnston County Department of Public Utilities  
(Permittee-Please print or type)

P.O. Box 2263

Smithfield, NC 27577  
(Permittee Address)

Haywood M. Phthisic, III  
(Name of Signing Official-Please print or type)

Director of Operations  
(Position or Title)

919-989-5075  
(Phone Number)

March 31, 2007  
(Permit Exp. Date)

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

# NON DISCHARGE WASTEWATER MONITORING REPORT

PERMIT NUMBER: WQ0019632

MONTH: August YEAR: 2003

FACILITY NAME: Johnston Co. Reclaimed Water Utilization Syst.

COUNTY: Johnston

Flow Monitoring Point:		Effluent:	Influent:															
Parameter Monitoring Point:		Effluent:	Influent:	Surface Water (SW):	SW Code/Name:													
Was There Effluent Flow For This Month Generated At This Facility:				Yes:	No:													
DATE	Operator Arrival Time 2400 Clock	Operator Time On Site HRS	ORC on Site? Y/N	50050	00400	50060	00310	00610	00530	31616								
				Daily Rate (Flow) Into Treatment System GALLONS	pH UNITS	Residual Chlorine UG/L	BOD-5 20°C MG/L	NH3-N MG/L	TSS MG/L	Fecal Coliform (Geo-metric Mean*) /100ML								
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		
31																		
<b>Average</b>				#DIV/0!		####	####	####	####	####	#NUM!							
<b>Daily Maximum</b>				0	0	0	0	0	0	0	0							
<b>Daily Minimum</b>				0	0	0	0	0	0	0	0							
<b>Monthly Limit(s)</b>																		
<b>Composite (C) / Grab (G)</b>																		

Operator in Responsible Charge (ORC): Kenneth Clay York Grade: SI Phone: 919-631-3895

Check Box if ORC Has Changed:  ORC Certification Number: 26366

Certified Laboratories (1): Environment 1 (2): Johnston County WWTP Laboratory

Person(s) Collecting Samples: Jason Volker

Mail ORIGINAL and TWO COPIES to:  
 ATTN: Non-Discharge Compliance Unit  
 DENR  
 Division of Water Quality  
 1617 Mail Service Center

*Kenneth C. York*  
 (SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)  
 BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE  
 AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

**NON DISCHARGE WASTEWATER MONITORING REPORT****Facility Status:**

Please answer the following question:

1. Does all monitoring data and sampling frequencies meet permit requirements?

Compliant (Y,N)

 Y

If the facility is **non-compliant**, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Haywood M. Phthisic, III      9-16-03  
 (Signature of Permittee)\*      Date

Haywood M. Phthisic, III  
 (Name of Signing Official-Please print or type)

Johnston County Department of Public Utilities  
 (Permittee-Please print or type)

Director of Operations  
 (Position or Title)

P.O. Box 2263

919-989-5075  
 (Phone Number)

31-Mar-07  
 (Permit Exp. Date)

Smithfield, NC 27577  
 (Permittee Address)

**Parameter Codes:**

01002 Arsenic	31504 Coliform, Total	00600 Nitrogen, Total	00929 Sodium
01022 Boron	00094 Conductivity	00630 NO2&NO3	00931 SAR
00310 BOD5	01042 Copper	00620 NO3	00745 Sulfide
01027 Cadmium	00300 Dissolved Oxygen	00556 Oil-Grease	70295 TDS
00916 Calcium	31616 Fecal Coliform	WQ09 PAN (Plant Available)	00010 Temperature
00940 Chloride	01051 Lead	00400 pH	00625 TKN
50060 Chlorine, Total Residual	00927 Magnesium	32730 Phenols	00680 TOC
	71900 Mercury	00665 Phosphorus, Total	00530 TSS/TSR
01034 Chromium	00610 NH3asN	00937 Potassium	00076 Turbidity
00340 COD	01067 Nickel	00545 Settleable Matter	01092 Zinc

Parameter Code assistance may be obtained by calling the Water Quality Compliance/Enforcement Unit at (919) 733-5083 ext. 529.

The monthly average for Fecal Coliform is to be reported as a GEOMETRIC mean. Use only the units designated in the reporting facility's permit for reporting data.

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

**NON-DISCHARGE APPLICATION REPORT  
SPRAY IRRIGATION SITE(S)**

THERE ARE TWO APPLICATION FIELDS PER PAGE. USE ADDITIONAL PAGES AS NEEDED.

PERMIT NUMBER: WQ 009631

MONTH: JULY

YEAR: 2003

FACILITY NAME: JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM COUNTY: JOHNSTON

**Formulas:**

Daily Loading (inches) = [Volume Applied (gallons) x 0.1336 (cubic feet/gallon) x 12 (inches/foot)] / [Area Sprayed (acres) x 43,560 (square feet/acre)] OR  
= Volume Applied (gallons) / [Area Sprayed (acres) x 27,152 (gallons/acre-inch)]

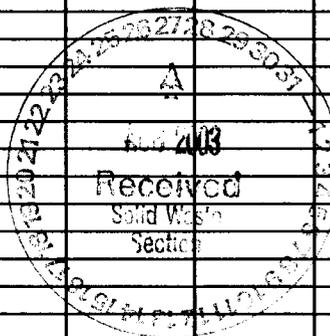
Maximum Hourly Loading (inches) = Daily Loading (inches) / [Time Irrigated (minutes) / 60 (minutes/hour)]

Monthly Loading (inches) = Sum of Daily Loadings (inches)

12 Month Floating Total (inches) = Sum of this month's Monthly Loading (inches) and previous 11 month's Monthly Loadings (inches)

Average Weekly Loading (inches) = [Monthly Loading (inches/month) / Number of days in the month (days/month)] x 7 (days/week)

Did Irrigation Occur At This Facility:					Did Irrigation Occur On This Field:				Did Irrigation Occur On This Field:			
Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>					Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>				Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>			
					FIELD NUMBER: <u>2</u>				FIELD NUMBER: <u>3</u>			
					AREA SPRAYED (acres): <u>54.73</u>				AREA SPRAYED (acres): <u>10.44</u>			
					COVER CROP: <u>BERMUDA GRASS</u>				COVER CROP: <u>BERMUDA GRASS</u>			
					PERMITTED HOURLY RATE (inches): <u>0.3</u>				PERMITTED HOURLY RATE (inches): <u>0.3</u>			
					PERMITTED YEARLY RATE (inches): <u>20</u>				PERMITTED YEARLY RATE (inches): <u>16</u>			
DATE	WEATHER CONDITIONS				Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches
	Weather Code*	Temperature at application (°F)	Precipitation (inches)	Storage Lagoon Free-board (feet)								
1	PC	90	N/A	N/A	197000	282	0.13	0.03				
2												
3												
4												
5												
6												
7	CI	85	N/A	N/A	267000	468	0.18	0.02				
8	C	90	N/A	N/A	305000	540	0.21	0.02				
9	C	95	N/A	N/A	313000	555	0.21	0.02				
10												
11												
12												
13												
14												
15												
16	PC	90	N/A	N/A	306000	540	0.21	0.02	104000	450	0.37	0.05
17												
18												
19												
20												
21	PC	88	N/A	N/A	353000	622	0.24	0.02	23000	57	0.08	0.09
22												
23												
24												
25												
26												
27												
28	C	92	N/A	N/A	225000	405	0.15	0.02	70000	510	0.25	0.03
29	PC	90	N/A	N/A	391000	690	0.26	0.02	67000	488	0.24	0.03
30												
31												
Total Gallons/Monthly Loading (inches)					<u>2357000</u>		<u>1.59</u>		<u>264000</u>		<u>0.94</u>	
12 Month Floating Total (inches)							<u>5.43</u>				<u>0.94</u>	
Average Weekly Loading (inches)							<u>0.36</u>				<u>0.21</u>	



\* Weather Codes: C-clear, PC-partly cloudy, CI-cloudy, R-rain, Sn-snow, Si-sleet

Spray Irrigation Operator in Responsible Charge (ORC): KENNETH CLAY YORK

Phone: 919-631-3895

ORC Certification Number: 26366

Check Box if ORC Has Changed:

Mail ORIGINAL and TWO COPIES to:  
ATTN: Non-Discharge Compliance Unit  
DENR  
Division of Water Quality  
1617 Mail Service Center  
RALEIGH, NC 27699-1617

Kenneth C. York  
(SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)

BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

**NON-DISCHARGE APPLICATION REPORT  
SPRAY IRRIGATION SITE(S)**

**Facility Status:**

Please indicate ( by inserting Y(es) or N(o) in the appropriate box ) whether the facility has been **compliant** with the following permit requirements: (Note: if a requirement does not apply to your facility put ( NA) in the compliant box. )

- |  | Compliant (Y,N)                     |
|--|-------------------------------------|
| 1. The application rate(s) did not exceed the limit(s) specified in the permit.                                    | <input checked="" type="checkbox"/> |
| 2. Adequate measures were taken to prevent wastewater runoff from the site(s).                                     | <input checked="" type="checkbox"/> |
| 3. A suitable vegetative cover was maintained on the site(s) in accordance with the permit.                        | <input checked="" type="checkbox"/> |
| 4. All buffer zones as specified in the permit were maintained during each application.                            | <input checked="" type="checkbox"/> |
| 5. The freeboard in the treatment and/or storage lagoon(s) was not less than the limit(s) specified in the permit. | <input type="checkbox"/> N/A        |

If the facility is **non-compliant**, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Haywood M. Pithisic, II      8-26-03  
 (Signature of Permittee)\*      Date  
JOHNSTON COUNTY  
DEPARTMENT OF PUBLIC UTILITIES  
 (Permittee-Please print or type)

HAYWOOD M. PITHISIC, II  
 (Name of Signing Official-Please print or type)  
DIRECTOR OF OPERATIONS  
 (Position or Title)

P.O. BOX 2263  
SMITHFIELD, NC 27577  
 (Permittee Address)

919-989-5075      MARCH 31, 2007  
 (Phone Number)      (Permit Exp. Date)

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

# NON-DISCHARGE APPLICATION REPORT SPRAY IRRIGATION SITE(S)

THERE ARE TWO APPLICATION FIELDS PER PAGE. USE ADDITIONAL PAGES AS NEEDED.

PERMIT NUMBER: WQ0019632

MONTH: July

YEAR: 2003

FACILITY NAME: Johnston County Reclaimed Water Utilization System

COUNTY: Johnston

**Formulas:**

Daily Loading (inches) = [Volume Applied (gallons) x 0.1338 (cubic feet/gallon) x 12 (inches/foot)] / [Area Sprayed (acres) x 43,560 (square feet/acre)] OR  
= Volume Applied (gallons) / [Area Sprayed (acres) x 27,152 (gallons/acre-inch)]

Maximum Hourly Loading (inches) = Daily Loading (inches) / [Time Irrigated (minutes) / 60 (minutes/hour)]      Monthly Loading (inches) = Sum of Daily Loadings (inches)

12 Month Floating Total (inches) = Sum of this month's Monthly Loading (inches) and previous 11 month's Monthly Loadings (inches)

Average Weekly Loading (inches) = [Monthly Loading (inches/month) / Number of days in the month (days/month)] x 7 (days/week)

Did Irrigation Occur At This Facility:				Did Irrigation Occur On This Field:				Did Irrigation Occur On This Field:				
Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>				Yes: <input type="checkbox"/> No: <input type="checkbox"/>				Yes: <input type="checkbox"/> No: <input type="checkbox"/>				
				FIELD NUMBER:				FIELD NUMBER:				
				AREA SPRAYED (acres):				AREA SPRAYED (acres):				
				COVER CROP:				COVER CROP:				
				PERMITTED HOURLY RATE (inches):				PERMITTED HOURLY RATE (inches):				
DATE	WEATHER CONDITIONS			PERMITTED YEARLY RATE (inches):				PERMITTED YEARLY RATE (inches):				
	Weather Code*	Temperature at application (°F)	Precipitation inches	Storage Lagoon Free-board feet	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches	Volume Applied gallons	Time Irrigated minutes	Daily Loading inches	Maximum Hourly Loading inches
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Total Gallons/Monthly Loading (inches)				0		0.00			0		0.00	
12 Month Floating Total (inches)												
Average Weekly Loading (inches)						#VALUE!					#VALUE!	

\* Weather Codes: C-clear, PC-partly cloudy, CI-cloudy, R-rain, Sn-snow, SI-sleet

Spray Irrigation Operator in Responsible Charge (ORC): Kenneth Clay York Phone: 919-631-3895

ORC Certification Number: 26366 Check Box if ORC Has Changed:

Mail ORIGINAL and TWO COPIES to:  
ATTN: Non-Discharge Compliance Unit  
DENR  
Division of Water Quality  
1617 Mail Service Center  
RALEIGH, NC 27699-1617

  
\_\_\_\_\_  
(SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)

BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

**NON-DISCHARGE APPLICATION REPORT  
SPRAY IRRIGATION SITE(S)**

**Facility Status:**

Please indicate ( by inserting Y(es) or N(o) in the appropriate box ) whether the facility has been compliant with the following permit requirements: (Note: if a requirement does not apply to your facility put ( NA) in the compliant box. )

- |  | Compliant (Y,N)                     |
|--|-------------------------------------|
| 1. The application rate(s) did not exceed the limit(s) specified in the permit.                                    | <input checked="" type="checkbox"/> |
| 2. Adequate measures were taken to prevent wastewater runoff from the site(s).                                     | <input checked="" type="checkbox"/> |
| 3. A suitable vegetative cover was maintained on the site(s) in accordance with the permit.                        | <input checked="" type="checkbox"/> |
| 4. All buffer zones as specified in the permit were maintained during each application.                            | <input checked="" type="checkbox"/> |
| 5. The freeboard in the treatment and/or storage lagoon(s) was not less than the limit(s) specified in the permit. | <input type="checkbox"/> N/A        |

If the facility is non-compliant, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Haywood M. Pharis III      8-26-03  
 (Signature of Permittee)\*      Date  
JOHNSTON COUNTY  
DEPARTMENT OF PUBLIC UTILITIES  
 (Permittee-Please print or type)

HAYWOOD M. PHARIS, III  
 (Name of Signing Official-Please print or type)  
DIRECTOR OF OPERATIONS  
 (Position or Title)

P.O. BOX 2263  
SMITHFIELD, NC 27577  
 (Permittee Address)

919-989-5075      MARCH 31, 2007  
 (Phone Number)      (Permit Exp. Date)

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

# NON DISCHARGE WASTEWATER MONITORING REPORT

PERMIT NUMBER: WQ0019632

MONTH: July YEAR: 2003

FACILITY NAME: Johnston Co. Reclaimed Water Utilization Syst.

COUNTY: Johnston

Flow Monitoring Point: Effluent: <input checked="" type="checkbox"/> Influent: <input type="checkbox"/>	
Parameter Monitoring Point: Effluent: <input checked="" type="checkbox"/> Influent: <input checked="" type="checkbox"/> Surface Water (SW): <input type="checkbox"/>	SW Code/Name:
Was There Effluent Flow For This Month Generated At This Facility: Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>	

DATE	Operator Arrival Time 2400 Clock	Operator Time On Site HRS	ORC on Site? Y/N	50050	00400	50060	00310	00610	00530	31616				
				Daily Rate (Flow) Into Treatment System	pH	Residual Chlorine	BOD-5 20°C	NH3-N	TSS	Fecal Coliform (Geo-metric Mean*)				
				GALLONS	UNITS	UG/L	MG/L	MG/L	MG/L	/100ML				
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
<b>Average</b>				#DIV/0!	#####	#####	#####	#####	#####	#####	#NUM!			
<b>Daily Maximum</b>				0	0	0	0	0	0	0	0			
<b>Daily Minimum</b>				0	0	0	0	0	0	0	0			
<b>Monthly Limit(s)</b>														
<b>Composite (C) / Grab (G)</b>														

Operator in Responsible Charge (ORC): Kenneth Clay York Grade: SI Phone: 919-631-3895

Check Box if ORC Has Changed:  ORC Certification Number: 26366

Certified Laboratories (1): Environment 1 (2): Johnston County WWTP Laboratory

Person(s) Collecting Samples: Jason Volker

Mail ORIGINAL and TWO COPIES to:  
 ATTN: Non-Discharge Compliance Unit  
 DENR  
 Division of Water Quality  
 1617 Mail Service Center

  
 (SIGNATURE OF OPERATOR IN RESPONSIBLE CHARGE)

BY THIS SIGNATURE, I CERTIFY THAT THIS REPORT IS ACCURATE  
 AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

**NON DISCHARGE WASTEWATER MONITORING REPORT****Facility Status:**

Please answer the following question:

1. Does all monitoring data and sampling frequencies meet permit requirements?

Compliant (Y,N)

 Y

If the facility is **non-compliant**, please explain in the space below the reason(s) the facility was not in compliance with its permit. Provide in your explanation the date(s) of the non-compliance and describe the corrective action(s) taken. Attach additional sheets if necessary.

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

*Haywood M. Phthisic, III* 8-26-03  
 (Signature of Permittee)\* Date

Haywood M. Phthisic, III  
 (Name of Signing Official-Please print or type)

Johnston County Dept. of Public Utilities  
 (Permittee-Please print or type)

Director of Operations  
 (Position or Title)

P.O. Box 2263

919-989-5075  
 (Phone Number)

31-Mar-07  
 (Permit Exp. Date)

Smithfield, NC 27577  
 (Permittee Address)

**Parameter Codes:**

01002 Arsenic	31504 Coliform, Total	00600 Nitrogen, Total	00929 Sodium
01022 Boron	00094 Conductivity	00630 NO2&NO3	00931 SAR
00310 BOD5	01042 Copper	00620 NO3	00745 Sulfide
01027 Cadmium	00300 Dissolved Oxygen	00556 Oil-Grease	70295 TDS
00916 Calcium	31616 Fecal Coliform	WQ09 PAN (Plant Available)	00010 Temperature
00940 Chloride	01051 Lead	00400 pH	00625 TKN
50060 Chlorine, Total Residual	00927 Magnesium	32730 Phenols	00680 TOC
	71900 Mercury	00665 Phosphorus, Total	00530 TSS/TSR
01034 Chromium	00610 NH3asN	00937 Potassium	00076 Turbidity
00340 COD	01067 Nickel	00545 Settleable Matter	01092 Zinc

Parameter Code assistance may be obtained by calling the Water Quality Compliance/Enforcement Unit at (919) 733-5083 ext. 529.

The monthly average for Fecal Coliform is to be reported as a GEOMETRIC mean. Use only the units designated in the reporting facility's permit for reporting data.

\* If signed by other than the permittee, delegation of signatory authority must be on file with the state per 15A NCAC 2B.0506 (b)(2)(D).

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD, NC 27577  
 Contact Person: KENNETH C. YANK (Site) County: JOHNSTON  
 Well Location/ Site Name: DWA-MW-1 Telephone #: 919-631-3895  
 No. of Wells to be Sampled: 9 (from Permit)

Well Identification Number (from Permit): DWA-MW-1  
 Well Depth: 20 ft. Well Diameter: 2 in.  
 Screened Interval: 20 ft. to 10 ft.  
 Depth to Water Level: 10.08 ft. below measuring point.  
 Measuring Point (M.P.) is: 3.38 ft. above land surface. Relative M.P. Elevation in ft.: 213.31  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 7-8-03  
 Field analysis: pH N/A, Specific Conductance N/A uMhos  
 Temp. N/A °C, Odor N/A Appearance N/A

Please Print Clearly or Type

Mail Original

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1636 Phone: (919) 733-3221

PERMIT #: W9 0019631 EXPIRATION DATE: APR 31, 2007  
 Non-Discharge UIC  
 NPDES  
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon  Remediation: Infiltration Gallery  
 Spray Field  Remediation:  
 Rotary Distributor  Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

PARAMETERS (Samples for metals were collected unfiltered)	YES	NO	and field acidified	YES	NO
COD					
Coliform: MF Fecal					
Coliform: MF Total					
(Note: Use MPN method for highly turbid samples)					
Dissolved Solids: Total					
pH (when analyzed)					
TOC					
Chloride					
Arsenic					
Grease and Oils					
Phenol					
Sulfate					
Specific Conductance					
Total Ammonia					
TKN as N					
Nitrite (NO <sub>2</sub> ) as N					
Nitrate (NO <sub>3</sub> ) as N					
Phosphorus: Total as P					
Orthophosphate					
Al - Aluminum					
Ba - Barium					
Ca - Calcium					
Cd - Cadmium					
Chromium: Total					
Cu - Copper					
Fe - Iron					
Hg - Mercury					
K - Potassium					
Mg - Magnesium					
Mn - Manganese					
Ni - Nickel					
Pb - Lead					
Zn - Zinc					
Ammonia Nitrogen					
Other (Specify Compounds and Concentration Units)					

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 VOC : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HAROLD M. PHTHISIC III DIRECTOR OF OPERATIONS  
 Permitted (or Authorized Agent) Name and Title - Please print or type  
[Signature]  
 Signature of Permittee (or Authorized Agent)  
 8-26-03 (Date)

## GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

### FACILITY INFORMATION

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SARTHERFIELD, NC 27577  
 Contact Person: KENNETH C. PARR (Zip) 27577  
 Well Location/ Site Name: DWR - MW - 3  
 Well Identification Number (from Permit): DWR-MW-3  
 Well Depth: 42 ft. Well Diameter: 2 in.  
 Screened Interval: 42 ft. to 32 ft.  
 Depth to Water Level: 146 ft. below measuring point.  
 Measuring Point (M.P.) is: 222 ft. above land surface. Relative M.P. Elevation in ft.: 182.85  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 7-18-03  
 Field analysis: pH N/A, Specific Conductance N/A uMhos  
 Temp. N/A °C, Odor N/A Appearance N/A

Please Print Clearly or Type

Mail Original to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1836 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1836 Phone: (919) 733-3221

PERMIT #: N9 0019631 EXPIRATION DATE: MARCH 31, 2007  
 Non-Discharge        UIC         
 NPDES       

TYPE OF PERMITTED OPERATION BEING MONITORED

Lagoon      Remediation: Infiltration Gallery  
 Spray Field      Remediation:  
 Rotary Distributor      Land Application of Sludge  
 Other:       

**NOTE: Values should reflect dissolved and colloidal concentrations.**

Date sample analyzed:        YES        NO         
 Laboratory Name:         
 Certification No.       

PARAMETERS (Samples for metals were collected unfiltered) YES        NO        and field acidified YES        NO       

COD        mg/l  
 Coliform: MF Fecal        /100ml  
 Coliform: MF Total        /100ml  
 (Note: Use MPN method for highly turbid samples)  
 Dissolved Solids: Total        mg/l  
 pH (when analyzed)        units  
 TOC        mg/l  
 Chloride        mg/l  
 Arsenic        mg/l  
 Grease and Oils        mg/l  
 Phenol        mg/l  
 Sulfate        mg/l  
 Specific Conductance        uMhos  
 Total Ammonia        mg/l  
 TKN as N        mg/l

Nitrite (NO<sub>2</sub>) as N        mg/l  
 Nitrate (NO<sub>3</sub>) as N        mg/l  
 Phosphorus: Total as P        mg/l  
 Orthophosphate        mg/l  
 Al - Aluminum        mg/l  
 Ba - Barium        mg/l  
 Ca - Calcium        mg/l  
 Cd - Cadmium        mg/l  
 Chromium: Total        mg/l  
 Cu - Copper        mg/l  
 Fe - Iron        mg/l  
 Hg - Mercury        mg/l  
 K - Potassium        mg/l  
 Mg - Magnesium        mg/l  
 Mn - Manganese        mg/l

Ni - Nickel        mg/l  
 Pb - Lead        mg/l  
 Zn - Zinc        mg/l  
 Ammonia Nitrogen        mg/l  
 Other (Specify Compounds and Concentration Units)       

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes        (1) No        (0)  
 VOC        : method # =         
       : method # =         
       : method # =       

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HAYWOOD M. PHTHISKE III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
 Signature of Permittee (or Authorized Agent) [Signature]  
 Date 8-26-03 (Date)

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD, NC 27577  
 Contact Person: KENNETH C. YORK (252) JOHNSTON  
 Well Location/ Site Name: MW-3 Telephone #: 919-631-3895  
 No. of Wells to be Sampled: 9 (from Permit)  
 Well Identification Number (from Permit): MW-3  
 Well Depth: 30.0 ft. Well Diameter: 3 in.  
 Screened Interval: 30.0 ft. to 20.0 ft.  
 Depth to Water Level: 20.32 ft. below measuring point.  
 Measuring Point (M.P.) is: 1.9 ft. above land surface. Relative M.P. Elevation in ft.: 235.03  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: N/A  
 Field analysis: pH N/A, Specific Conductance N/A uMhos Appearance N/A  
 Temp. N/A °C, Odor N/A

Please Print Clearly or Type

Mail Original

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27899-1838 Phone: (919) 733-3221

PERMIT #: W9 0019631 EXPIRATION DATE: APRIL 31, 2007  
 Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_  
 NPDES \_\_\_\_\_  
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoons \_\_\_\_\_ Remediation: Infiltration Gallery  
 Spray Field \_\_\_\_\_ Remediation: \_\_\_\_\_  
 Rotary Distributor \_\_\_\_\_ Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

**PARAMETERS** (Samples for metals were collected unfiltered) YES \_\_\_\_\_ NO \_\_\_\_\_ and field acidified YES \_\_\_\_\_ NO \_\_\_\_\_

COD \_\_\_\_\_ mg/l  
 Coliform: MF Fecal \_\_\_\_\_ /100ml  
 Coliform: MF Total \_\_\_\_\_ /100ml  
 (Note: Use MPN method for highly turbid samples)  
 Dissolved Solids: Total \_\_\_\_\_ mg/l  
 pH (when analyzed) \_\_\_\_\_ units  
 TOC \_\_\_\_\_ mg/l  
 Chloride \_\_\_\_\_ mg/l  
 Arsenic \_\_\_\_\_ mg/l  
 Grease and Oils \_\_\_\_\_ mg/l  
 Phenol \_\_\_\_\_ mg/l  
 Sulfate \_\_\_\_\_ mg/l  
 Specific Conductance \_\_\_\_\_ uMhos  
 Total Ammonia \_\_\_\_\_ mg/l  
 TKN as N \_\_\_\_\_ mg/l

Nitrite (NO<sub>2</sub>) as N \_\_\_\_\_ mg/l  
 Nitrate (NO<sub>3</sub>) as N \_\_\_\_\_ mg/l  
 Phosphorus: Total as P \_\_\_\_\_ mg/l  
 Orthophosphate \_\_\_\_\_ mg/l  
 Al - Aluminum \_\_\_\_\_ mg/l  
 Ba - Barium \_\_\_\_\_ mg/l  
 Ca - Calcium \_\_\_\_\_ mg/l  
 Cd - Cadmium \_\_\_\_\_ mg/l  
 Chromium: Total \_\_\_\_\_ mg/l  
 Cu - Copper \_\_\_\_\_ mg/l  
 Fe - Iron \_\_\_\_\_ mg/l  
 Hg - Mercury \_\_\_\_\_ mg/l  
 K - Potassium \_\_\_\_\_ mg/l  
 Mg - Magnesium \_\_\_\_\_ mg/l  
 Mn - Manganese \_\_\_\_\_ mg/l

Ni - Nickel \_\_\_\_\_ mg/l  
 Pb - Lead \_\_\_\_\_ mg/l  
 Zn - Zinc \_\_\_\_\_ mg/l  
 Ammonia Nitrogen \_\_\_\_\_ mg/l  
 Other (Specify Compounds and Concentration Units) \_\_\_\_\_

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 VOC \_\_\_\_\_ : method # = \_\_\_\_\_  
 \_\_\_\_\_ : method # = \_\_\_\_\_  
 \_\_\_\_\_ : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HAYWOOD A. PATHSK, III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
[Signature]  
 Signature of Permittee (or Authorized Agent)  
 8-26-03 (Date)

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SMITHFIELD, NC 27577  
 Contact Person: KENNETH C. YORK (256) \_\_\_\_\_  
 Well Location/ Site Name: PNEUMOMETER # 3  
 County: JOHNSTON  
 Telephone #: 919-631-3895  
 No. of Wells to be Sampled: 9 (from permit)  
 Well Identification Number (from Permit): AZ-3  
 Well Depth: 17.82 ft. Well Diameter: 2 in.  
 Screened Interval: N/A ft. to N/A ft. new screen  
 Depth to Water Level: 8.24 ft. below measuring point.  
 Measuring Point (M.P.) is: 2.26 ft. above land surface. Relative M.P. Elevation in ft.: 14.91  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 7-18-03  
 Field analysis: pH N/A, Specific Conductance N/A uMhos  
 Temp. N/A °C, Odor N/A Appearance N/A

Please Print Clearly or Type

Mail Original

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1836 Phone: (919) 733-3221

PERMIT #: W9 0019631 EXPIRATION DATE: MARCH 31, 2007  
 Non-Discharge \_\_\_\_\_ UIC \_\_\_\_\_  
 NPDES \_\_\_\_\_  
 TYPE OF PERMITTED OPERATION BEING MONITORED  
 \_\_\_\_\_ Lagoon \_\_\_\_\_ Remediation: Infiltration Gallery  
 Spray Field \_\_\_\_\_ Remediation:  
 Rotary Distributor \_\_\_\_\_ Land Application of Sludge  
 Other: \_\_\_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_\_\_  
 Laboratory Name: \_\_\_\_\_  
 Certification No. \_\_\_\_\_

## PARAMETERS (Samples for metals were collected unfiltered \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ and field acidified \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_)

COD \_\_\_\_\_ mg/l  
 Coliform: MF Fecal \_\_\_\_\_ /100ml  
 Coliform: MF Total \_\_\_\_\_ /100ml  
 (Note: Use MPN method for highly turbid samples)  
 Dissolved Solids: Total \_\_\_\_\_ mg/l  
 pH (when analyzed) \_\_\_\_\_ units  
 TOC \_\_\_\_\_ mg/l  
 Chloride \_\_\_\_\_ mg/l  
 Arsenic \_\_\_\_\_ mg/l  
 Grease and Oils \_\_\_\_\_ mg/l  
 Phenol \_\_\_\_\_ mg/l  
 Sulfate \_\_\_\_\_ mg/l  
 Specific Conductance \_\_\_\_\_ uMhos  
 Total Ammonia \_\_\_\_\_ mg/l  
 TKN as N \_\_\_\_\_ mg/l  
 Nitrite (NO<sub>2</sub>) as N \_\_\_\_\_ mg/l  
 Nitrate (NO<sub>3</sub>) as N \_\_\_\_\_ mg/l  
 Phosphorus: Total as P \_\_\_\_\_ mg/l  
 Orthophosphate \_\_\_\_\_ mg/l  
 Al - Aluminum \_\_\_\_\_ mg/l  
 Ba - Barium \_\_\_\_\_ mg/l  
 Ca - Calcium \_\_\_\_\_ mg/l  
 Cd - Cadmium \_\_\_\_\_ mg/l  
 Chromium: Total \_\_\_\_\_ mg/l  
 Cu - Copper \_\_\_\_\_ mg/l  
 Fe - Iron \_\_\_\_\_ mg/l  
 Hg - Mercury \_\_\_\_\_ mg/l  
 K - Potassium \_\_\_\_\_ mg/l  
 Mg - Magnesium \_\_\_\_\_ mg/l  
 Mn - Manganese \_\_\_\_\_ mg/l  
 Ni - Nickel \_\_\_\_\_ mg/l  
 Pb - Lead \_\_\_\_\_ mg/l  
 Zn - Zinc \_\_\_\_\_ mg/l  
 Ammonia Nitrogen \_\_\_\_\_ mg/l  
 Other (Specify Compounds and Concentration Units) \_\_\_\_\_  
 ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes (1) No (0)  
 VOC : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_  
 : method # = \_\_\_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

HAYWOOD M. PHTHSIC III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
Haywood M. Phtsicc III  
 Signature of Permittee (or Authorized Agent)  
 8-26-03 (Date)

# GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

## FACILITY INFORMATION

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
SATHTFIELD, NC 27577  
 Contact Person: KENNETH C. YORK (216)  
 Well Location/ Site Name: COLUMB-5  
 County: JOHNSTON  
 Telephone #: 919-631-3895  
 No. of Wells to be Sampled: 9 (from Permit)

Well Identification Number (from Permit): COLUM-5  
 Well Depth: 80 ft. Well Diameter: 2 in.  
 Screened Interval: 80.0 ft. to 5.0 ft.  
 Depth to Water Level: 6.42 ft. below measuring point.  
 Measuring Point (M.P.) is: 3.35 ft. above land surface.  
 Gallons of water pumped/bailed before sampling: N/A  
 Field analysis: pH N/A, Specific Conductance N/A uMhos  
 Temp. N/A °C, Odor N/A Appearance N/A

**PARAMETERS (Samples for metals were collected unfiltered)** YES \_\_\_ NO \_\_\_

COD \_\_\_ and field acidified \_\_\_ YES \_\_\_ NO \_\_\_

Coliform: MF Fecal \_\_\_ mg/l  
 Coliform: MF Total \_\_\_ /100ml  
 (Note: Use MPN method for highly turbid samples)

Dissolved Solids: Total \_\_\_ mg/l  
 pH (when analyzed) \_\_\_ units  
 TOC \_\_\_ mg/l  
 Chloride \_\_\_ mg/l  
 Arsenic \_\_\_ mg/l  
 Grease and Oils \_\_\_ mg/l  
 Phenol \_\_\_ mg/l  
 Sulfate \_\_\_ mg/l  
 Specific Conductance \_\_\_ uMhos  
 Total Ammonia \_\_\_ mg/l  
 TKN as N \_\_\_ mg/l

Nitrite (NO<sub>2</sub>) as N \_\_\_ mg/l  
 Nitrate (NO<sub>3</sub>) as N \_\_\_ mg/l  
 Phosphorus: Total as P \_\_\_ mg/l  
 Orthophosphate \_\_\_ mg/l  
 Al - Aluminum \_\_\_ mg/l  
 Ba - Barium \_\_\_ mg/l  
 Ca - Calcium \_\_\_ mg/l  
 Cd - Cadmium \_\_\_ mg/l  
 Chromium: Total \_\_\_ mg/l  
 Cu - Copper \_\_\_ mg/l  
 Fe - Iron \_\_\_ mg/l  
 Hg - Mercury \_\_\_ mg/l  
 K - Potassium \_\_\_ mg/l  
 Mg - Magnesium \_\_\_ mg/l  
 Mn - Manganese \_\_\_ mg/l

## Mail Original to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1638 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1638 Phone: (919) 733-3221

PERMIT #: W9 0019631 EXPIRATION DATE: APRIL 31, 2007  
 Non-Discharge \_\_\_ UIC \_\_\_  
 NPDES \_\_\_

## TYPE OF PERMITTED OPERATION BEING MONITORED

\_\_\_ Lagoon  
 \_\_\_ Remediation: Infiltration Gallery  
 \_\_\_ Remediation:  
 Spray Field  
 \_\_\_ Rotary Distributor  
 \_\_\_ Land Application of Sludge  
 \_\_\_ Other: \_\_\_

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed: \_\_\_  
 Laboratory Name: \_\_\_  
 Certification No. \_\_\_

Ni - Nickel \_\_\_ mg/l  
 Pb - Lead \_\_\_ mg/l  
 Zn - Zinc \_\_\_ mg/l  
 Ammonia Nitrogen \_\_\_ mg/l  
 Other (Specify Compounds and Concentration Units) \_\_\_

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes \_\_\_ (1) No \_\_\_ (0)  
 VOC : method # = \_\_\_  
 : method # = \_\_\_  
 : method # = \_\_\_

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

MAYNARD M. PHTHISIC, III DIRECTOR OF OPERATIONS  
 Permittee (or Authorized Agent) Name and Title - Please print or type  
[Signature]  
 Signature of Permittee (or Authorized Agent)  
 8-26-03 (Date)





## GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

### FACILITY INFORMATION

Facility Name: JOHNSTON COUNTY LANDFILL  
 Permit Name (if different): JOHNSTON COUNTY RECLAIMED WATER UTILIZATION SYSTEM  
 Facility Address: 680 COUNTY HOME ROAD  
(City) SMITHFIELD, NC (State) NC (Zip) 27577

Contact Person: KENNETH C. PARK  
 Well Location/ Site Name: MW-5-10  
 County: JOHNSTON  
 Telephone #: 919-631-3885  
 No. of Wells to be Sampled: 9 (from Permit)

Well Identification Number (from Permit): MW-5-10  
 Well Depth: 26.1 ft. Well Diameter: 2 in.  
 Screened Interval: 26.1 ft. to 16.1 ft.  
 Depth to Water Level: 13.66 ft. below measuring point.  
 Measuring Point (M.P.) is: 2.16 ft. above land surface. Relative M.P. Elevation in ft.: 202.88  
 Gallons of water pumped/bailed before sampling: N/A Date sample collected: 7-18-03  
 Field analysis: pH 7.18, Specific Conductance N/A uMhos  
 Temp. N/A °C, Odor N/A Appearance N/A

Please Print Clearly or Type

Mail Original to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 WATER QUALITY DIVISION, GROUNDWATER SECTION  
 1636 MAIL SERVICE CENTER  
 RALEIGH, NC 27699-1636 Phone: (919) 733-3221

PERMIT #: W9 0019631 EXPIRATION DATE: MARCH 31, 2007  
 Non-Discharge        UIC         
 NPDES       

TYPE OF PERMITTED OPERATION BEING MONITORED  
 Lagoon        Remediation: Infiltration Gallery  
 Spray Field        Remediation:         
 Rotary Distributor        Land Application of Sludge  
 Other:       

NOTE: Values should reflect dissolved and colloidal concentrations.

Date sample analyzed:        YES        NO         
 Laboratory Name:         
 Certification No.       

PARAMETERS (Samples for metals were collected unfiltered) YES        NO        and field acidified YES        NO       

COD        mg/l  
 Coliform: MF Fecal        /100ml  
 Coliform: MF Total        /100ml  
(Note: Use MPN method for highly turbid samples)  
 Dissolved Solids: Total        mg/l  
 pH (when analyzed)        units  
 TOC        mg/l  
 Chloride        mg/l  
 Arsenic        mg/l  
 Grease and Oils        mg/l  
 Phenol        mg/l  
 Sulfate        mg/l  
 Specific Conductance        uMhos  
 Total Ammonia        mg/l  
 TKN as N        mg/l

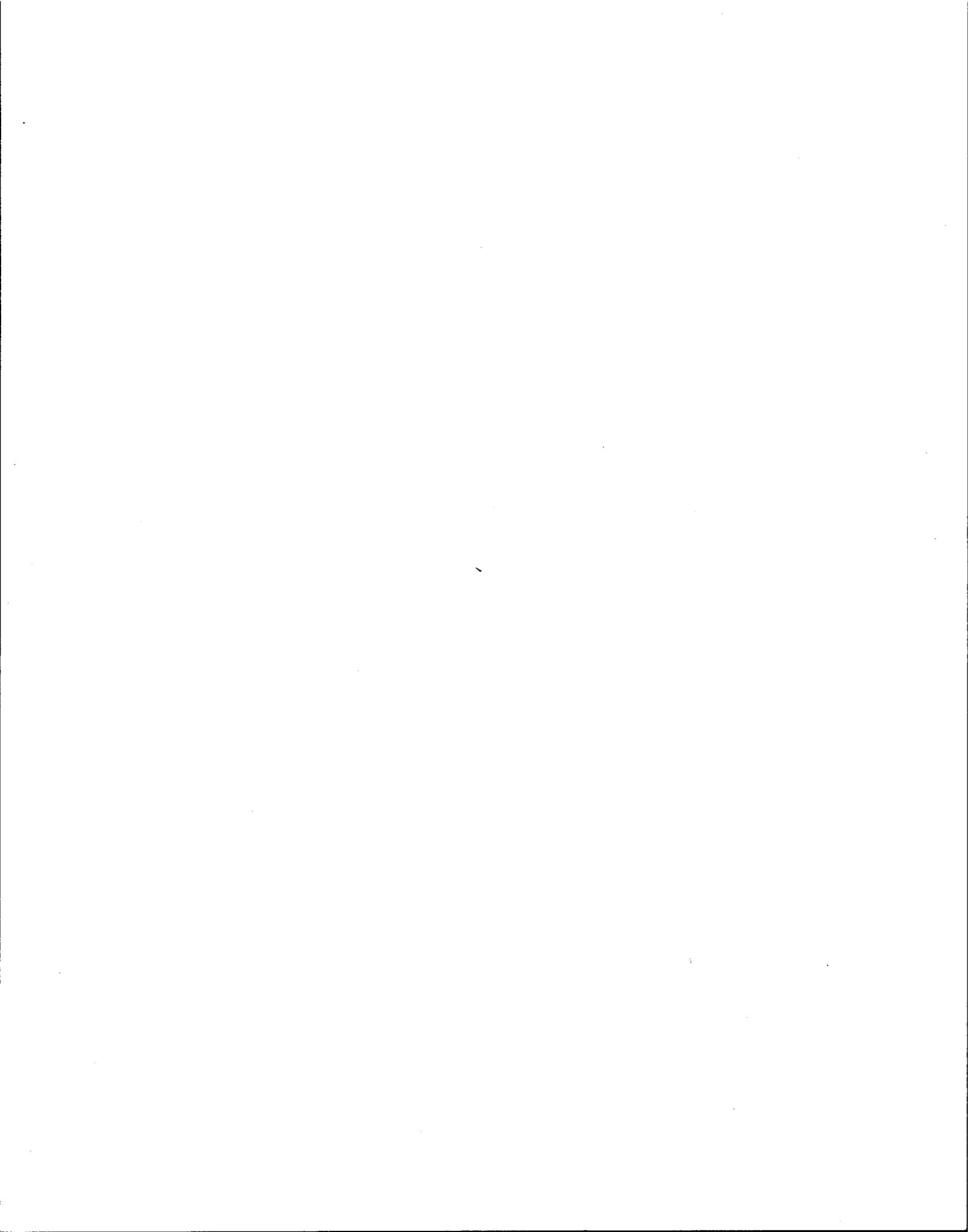
Nitrite (NO<sub>2</sub>) as N        mg/l  
 Nitrate (NO<sub>3</sub>) as N        mg/l  
 Phosphorus: Total as P        mg/l  
 Orthophosphate        mg/l  
 Al - Aluminum        mg/l  
 Ba - Barium        mg/l  
 Ca - Calcium        mg/l  
 Cd - Cadmium        mg/l  
 Chromium: Total        mg/l  
 Cu - Copper        mg/l  
 Fe - Iron        mg/l  
 Hg - Mercury        mg/l  
 K - Potassium        mg/l  
 Mg - Magnesium        mg/l  
 Mn - Manganese        mg/l

Ni - Nickel        mg/l  
 Pb - Lead        mg/l  
 Zn - Zinc        mg/l  
 Ammonia Nitrogen        mg/l  
 Other (Specify Compounds and Concentration Units)       

ORGANICS: (GC, GC/MS, HPLC)  
 (Specify test and method #. Attach lab report.)  
 Report Attached? Yes        (1) No        (0)  
 VOC        : method # =         
       : method # =         
       : method # =       

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a North Carolina DWQ (formerly DEM) certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

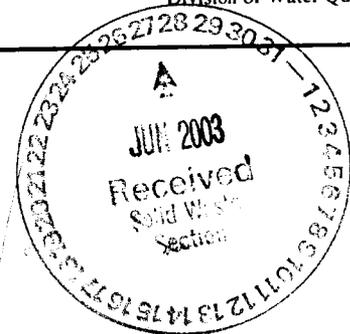
Signature of Permittee (or Authorized Agent) Harwood M. Patisis III  
 Name and Title - Please print or type DIRECTOR OF OPERATIONS  
 Date 8-26-03





Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
North Carolina Department of Environment and Natural Resources  
Alan W. Klimek, P.E., Director  
Division of Water Quality

June 13, 2003



Mr. Timothy G. Broome, P.E., Director of Infrastructure and Engineering  
Johnston County  
Department of Public Utilities  
Post Office Box 2263  
Smithfield, North Carolina 27677

Subject: Permit No. WQ0019631  
Johnston County  
Conjunctive Use at the Johnston County Landfill  
Reclaimed Water Utilization System  
Johnston County

Dear Mr. Broome:

We are forwarding herewith Permit No. WQ0019631, dated June 13, 2003, to Johnston County for the continued operation of the subject wastewater treatment reclaimed water utilization system. This permit modification is for the purpose of moving references to the reclaimed water treatment, storage, and distribution system to Permit Number WQ0019632. This permit contains approval and requirements for the irrigation of reclaimed water onto areas at the Johnston County Landfill.

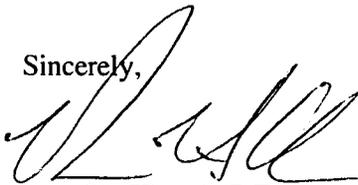
This permit shall be effective from the date of issuance until March 31, 2007, shall hereby void Permit No. WQ0019631 dated March 27, 2002, and shall be subject to the conditions and limitations as specified therein. Please pay particular attention to the monitoring requirements in this permit. Failure to establish an adequate system for collecting and maintaining the required operational information will result in future compliance problems.

The Division of Waste Management, Solid Waste Section has issued Permits 51-01 and 51-02 for the operation of the Johnston County Landfill. The Solid Waste Section has approved the modification of Permit 51-02 to allow for spray irrigation of reclaimed wastewater onto certain identified fields in the landfill (see attached letter from the Solid Waste Section dated October 30, 2001). This permit shall become void if the Solid Waste Section terminates the spray irrigation modification of Permit 51-02. This permit cannot be altered in any way (with the exception of simple permit renewal) without prior approval from the Solid Waste Section.

If any parts, requirements, or limitations contained in this permit are unacceptable, you have the right to request an adjudicatory hearing upon written request within thirty (30) days following receipt of this permit. This request must be in the form of a written petition, conforming to Chapter 150B of the North Carolina General Statutes, and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. Unless such demands are made this permit shall be final and binding.

If you need additional information concerning this matter, please contact Cecil G. Madden, Jr., P.E. at (919) 715-6203.

Sincerely,



Alan W. Klimek, P.E.

cc: Johnston County Health Department  
Raleigh Regional Office, Water Quality Section  
Raleigh Regional Office, Groundwater Section  
Groundwater Section, Central Office  
Construction Grants & Loans Section, Division of Water Quality  
**Ed Mussler, Division of Waste Management**  
Technical Assistance and Certification Unit  
Water Quality Central Files  
NDPU Files

NORTH CAROLINA  
ENVIRONMENTAL MANAGEMENT COMMISSION  
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
RALEIGH

WASTEWATER TREATMENT AND RECLAIMED WATER UTILIZATION PERMIT

---

In accordance with the provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended,  
and other applicable Laws, Rules, and Regulations

PERMISSION IS HEREBY GRANTED TO

**Johnston County**  
**Johnston County**

FOR THE

Continued operation of a 266,918 GPD (97,425,200 gallons/year) reclaimed water utilization system consisting of spray irrigation onto 15 individual spray fields/zones totaling 246.04 acres at the Johnston County Landfill, to serve Johnston County with no discharge of wastes to the surface waters, and in conformity with the project plan, specifications, and other supporting data filed and approved by the Department of Environment and Natural Resources and considered a part of this permit.

This permit shall be effective from the date of issuance until March 31, 2007, shall void Permit No. WQ0019631 issued March 27, 2002, and shall be subject to the following specified conditions and limitations:

**I. PERFORMANCE STANDARDS**

1. Upon completion of construction and prior to operation of this permitted facility, a certification must be received from a professional engineer certifying that the permitted facility has been installed in accordance with this permit, the approved plans and specifications, and other supporting materials. If this project is to be completed in phases and partially certified, you shall retain the responsibility to track further construction approved under the same permit, and shall provide a final certificate of completion once the entire project has been completed. Mail the Certification to the Non-Discharge Permitting Unit, 1617 Mail Service Center, Raleigh, NC 27699-1617.
2. The Raleigh Regional Office, telephone number (919) 571-4700, shall be notified at least forty-eight (48) hours in advance of operation of the installed facilities so that an in-place inspection can be made. Such notification to the regional supervisor shall be made during the normal office hours from 8:00 a.m. until 5:00 p.m. on Monday through Friday, excluding State Holidays.
3. The reclaimed water utilization facilities shall be effectively maintained and operated at all times so that there is no discharge to the surface waters, nor any contamination of ground waters which will render them unsatisfactory for normal use. In the event that the facilities fail to perform satisfactorily, including the creation of nuisance conditions or failure of the irrigation area to adequately assimilate the wastewater, the Permittee shall take immediate corrective actions including those actions that may be required by either the Division of Water Quality or the Division of Waste Management, Solid Waste Section, such as:

- a. the temporary or permanent termination of those spray irrigation zones not performing satisfactorily, causing nuisance conditions, or failing to assimilate the wastewater, and
  - b. the construction of additional or replacement wastewater treatment and disposal facilities.
4. The issuance of this permit shall not relieve the Permittee of the responsibility for damages to surface or groundwaters resulting from the operation of this facility.
  5. Diversion or bypassing of the untreated wastewater from the treatment facilities is prohibited.
  6. The following buffers shall be maintained:
    - a. 100 feet between wetted areas and water supply wells,
    - b. 100 feet between wetted areas and waters classified as SA,
    - c. 25 feet between wetted areas and surface waters not classified as SA,
    - d. 100 feet between wastewater treatment units and wells,
    - e. 50 feet between reclaimed water storage/irrigation ponds and property lines, and
    - f. 50 feet between wastewater treatment units and property lines.
  7. Public access to the irrigation sites shall be controlled during active site use. Such controls may include the posting of signs showing the activities being conducted at each site. A sign shall be posted in plain sight showing these activities.
  8. This permit shall become void if the Division of Waste Management, Solid Waste Section terminates the spray irrigation modification of Permit 51-02. This permit in no way alleviates the Permittee from any additional spray irrigation restrictions and/or obligations placed on them by the Solid Waste Section in the form of future permit modifications.
  9. This permit cannot be altered in any way (with the exception of simple permit renewal) without prior approvals from the Division of Water Quality and from the Division of Waste Management, Solid Waste Section.

## **II. OPERATION AND MAINTENANCE REQUIREMENTS**

1. The facilities shall be properly maintained and operated at all times.
2. Upon classification of the wastewater treatment and irrigation facilities by the Water Pollution Control System Operators Certification Commission (WPCSOCC), the Permittee shall designate and employ a certified operator to be in responsible charge (ORC) and one or more certified operator(s) to be back-up ORC(s) of the facilities in accordance with 15A NCAC 8G .0201. The ORC shall visit the facilities in accordance with 15A NCAC 8G .0204 or as specified in this permit and shall comply with all other conditions specified in these rules.
3. On any irrigation areas with established year-round vegetative cover, that vegetative cover shall be maintained. The reclaimed wastewater may also be utilized on non-vegetative areas to establish seed beds or sprig beds, to nurture vegetative growth and to expedite and enhance land restoration/reclamation/and erosion control efforts.
4. Irrigation shall not be performed during inclement weather or when the ground is in a condition that will cause runoff.
5. Adequate measures shall be taken to prevent wastewater runoff from the irrigation field.
6. The facilities shall be effectively maintained and operated as a non-discharge system to prevent the discharge of any wastewater resulting from the operation of this facility.

7. The application rate shall not exceed a cumulative loading over any twelve (12) month period as given by the following table. The instantaneous application rate shall not exceed 0.3 inches per hour.

Field #	Crop	Maximum Irrigation (inches/year)	Acres	Maximum Annual Application (gallons/year)
1	Trees	20	32.35	17,568,800
2	CB*	20	54.73	29,723,100
3	CB*	16	10.44	4,535,900
4	CB*	16	6.03	2,619,800
5	Grass	16	24.11	10,475,000
6	Grass/Trees	14	8.82	3,353,000
7	Grass/Trees	14	5.15	1,957,800
8	Grass/Trees	14	28.97	11,013,200
9	Grass/Trees	15	2.35	957,200
10	Grass/Trees	15	6.91	2,814,500
Livestock Area & Forest Service Area	Grass	15	5.90	2,403,200
Roadway Dust Control Area	Grass/Dirt Road	15	6.70	2,729,000
Closed LF Cells 1 & 2	Grass	5	15.90	2,158,800
Closed LF Cell 3	Grass	5	11.26	1,528,800
Closed LF Cell 4	Grass	5	26.42	3,587,100
		<b>Totals:</b>	<b>246.04</b>	<b>97,425,200</b>

CB\* = Coastal Bermuda hay, overseeded with annual rye as a winter cover crop

Only those spray irrigation fields (zones) specified above and delineated in the approved Plans can be irrigated with reuse quality wastewater. Spray irrigation of reuse quality wastewater onto tracks of land not specified above is not approved, and can only be approved with permit modification.

8. If a spray irrigation field has been modified such that the ground topography has been altered (from borrow operations, for example) compared to the approved Plans, then spray irrigation activities may only be reinstated at the altered field with permit modification because of the altering of the ground topography. Such a permit modification application must be accompanied by a re-evaluation of the soils and groundwater of the altered field.
10. No type of wastewater other than that from the Central Johnston County Regional wastewater treatment facility shall be irrigated onto the irrigation area.

### III. MONITORING AND REPORTING REQUIREMENTS

1. Any monitoring (including groundwater, surface water, soil or plant tissue analyses) deemed necessary by the Division to insure surface and ground water protection will be established and an acceptable sampling reporting schedule shall be followed.
2. Adequate records shall be maintained by the Permittee tracking the amount of wastewater disposed. These records shall include, but are not necessarily limited to the following information:
  - a. date and time of irrigation,
  - b. volume of wastewater irrigated,
  - c. zone irrigated,
  - d. length of time zone is irrigated,
  - e. continuous weekly, monthly, and year-to-date hydraulic (inches/acre) loadings for each zone,
  - f. weather conditions, and
  - g. maintenance of cover crops.
3. Three (3) copies of all operation and disposal records (as specified in condition III 2) on Form NDAR-1 shall be submitted monthly on or before the last day of the following month to the Division of Water Quality at the address below. One (1) copy of all operation and disposal records (as specified in condition III 2) on Form NDAR-1 shall be submitted monthly on or before the last day of the following month to the Division of Waste Management at the address below:

NC Division of Water Quality  
Water Quality Section  
Non-Discharge Compliance/Enforcement Unit  
1617 Mail Service Center  
Raleigh, North Carolina 27699-1617

Division of Waste Management  
Solid Waste Section  
Compliance Hydrogeologist  
1646 Mail Service Center  
Raleigh, North Carolina, 27699-1646

4. **Noncompliance Notification:**

The Permittee shall report by telephone to the Raleigh Regional Office, telephone number (919) 571-4700, as soon as possible, but in no case more than 24 hours or on the next working day following the occurrence or first knowledge of the occurrence of any of the following:

- a. Any occurrence at the wastewater treatment facility which results in the treatment of significant amounts of wastes which are abnormal in quantity or characteristic, such as the dumping of the contents of a sludge digester; the known passage of a slug of hazardous substance through the facility; or any other unusual circumstances.
- b. Any process unit failure, due to known or unknown reasons, that render the facility incapable of adequate wastewater treatment such as mechanical or electrical failures of pumps, aerators, compressors, etc.
- c. Any time that self-monitoring information indicates that the facility has gone out of compliance with its permit limitations.

Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at telephone number (800) 662-7956, (800) 858-0368, or (919) 733-3300. Persons reporting such occurrences by telephone shall also file a written report in letter form within five (5) days following first knowledge of the occurrence. This report must outline the actions taken or proposed to be taken to ensure that the problem does not recur.

#### IV. GROUNDWATER REQUIREMENTS

1. Prior to beginning waste disposal operations, three (3) monitor wells (named DWQ-MW-1, DWQ-MW-2, and DWQ-MW-3) shall be installed to monitor groundwater quality. The wells shall be constructed such that the water level in the well is never above or below the screened (open) portion of the well at any time during the year. The well shall be a minimum of 20 feet deep, with a 15 foot slotted screen. However, the screened portion of the well shall not extend into bedrock. There shall be a minimum of a 2-foot bentonite seal above the screened interval, and grouted to the surface, with a 2-inch minimum thick concrete pad around the well casing at ground surface extending at least 12-inches out from the well casing. The soil below the concrete pad shall be compacted prior to placement of the concrete pad. The general location and name for each well is marked on Attachment 1. Each monitoring well shall be constructed in accordance with this permit, and approved by the Raleigh Regional Office/Groundwater Section and by the Division of Waste Management, Solid Waste Section/Hydrogeologist.
2. The wells must be constructed by either a North Carolina Certified Well Contractor, the property owner, or the property lessee according to General Statutes 87-94.4(b)(2). If the construction is not performed by a certified well contractor, the property owner or lessee must physically perform the actual well construction activities, and the wells must be constructed according to the North Carolina Well Construction Standards (15A NCAC 2C .0108) and the local county rules.
3. All wells that are constructed for purposes of groundwater monitoring shall be constructed in accordance with 15A NCAC 2C .0108 (Standards of Construction for Wells Other than Water Supply) and any other state and local laws and regulations pertaining to well construction.
4. The following offices shall be notified at least forty-eight (48) hours prior to the construction of any monitoring well so that an inspection can be made of the monitoring well location. Such notification shall be made during the normal office hours from 8:00 a.m. until 5:00 p.m. on Monday through Friday, excluding state holidays.
  - a. Raleigh Regional Office/Groundwater Regional Supervisor  
Telephone number (919) 571-4700, and
  - b. Division of Waste Management  
Solid Waste Section/Hydrogeologist  
Telephone number (919) 733-0692
5. Within sixty (60) days of completion of all monitoring wells, the permittee shall submit original copies of a scaled site map (scale no greater than 1"=200'). The map(s) must include the following information:
  - a. The location and identity of each monitoring well.
  - b. The location of major components of the reclaimed wastewater distribution system.
  - c. The location of property boundaries within 500 feet of the disposal area(s).
  - d. The latitude and longitude of the established horizontal control monument.
  - e. The elevation of the top of the well casing (which shall be known as the measuring point) relative to a common datum.
  - f. The depth of water below the measuring point at the time the measuring point is established.
  - g. The location of Review and Compliance boundaries.
  - h. The date the map is prepared and/or revised.

Control monuments shall be installed in such a manner and made of such materials that the monument will not be destroyed due to activities that may take place on the property. The permittee is responsible for the geographic accuracy of any map submitted, however produced.

Two original maps and all supporting documentation shall be mailed to the Division of Water Quality (address below), and one original map and all supporting documentation shall be mailed to the Division of Waste Management (address below).

Division of Water Quality  
Groundwater Section  
Permits and Compliance Unit  
1636 Mail Service Center  
Raleigh, North Carolina 27699-1636

Division of Waste Management  
Solid Waste Section  
Compliance Hydrogeologist  
1646 Mail Service Center  
Raleigh, NC 27699-1646

6. Within thirty (30) days of completion of all well construction activities, a certification must be received from a professional engineer or a licensed geologist certifying that the monitoring wells are located and constructed in accordance with the Well Construction Standards (15A NCAC 2C) and this permit. This certification should be submitted with copies of the Well Completion Form (GW-1) for each well. Mail this certification and the associated GW-1 forms to the following addresses:

Division of Water Quality  
Groundwater Section  
Permits and Compliance Unit  
1636 Mail Service Center  
Raleigh, North Carolina 27699-1636

Division of Waste Management  
Solid Waste Section  
Compliance Hydrogeologist  
1646 Mail Service Center  
Raleigh, NC 27699-1646

7. The following monitoring wells shall be sampled every month starting initially after construction and proceeding through the start-up of waste disposal operations, and thereafter every month for the parameters listed below:

DWQ monitoring wells:

DWQ-MW-1  
DWQ-MW-2  
DWQ-MW-3

Existing landfill monitoring wells:

CDLMW-5  
MW-3  
MW-5-1  
MW-5-2  
MW-5-10  
PZ-3

Sampling Parameter List:

Water Level

The depth to water in each well shall be measured from the surveyed point on the top of the casing. The measuring points (top of well casing) of all monitoring wells shall be surveyed relative to a common datum.

All reports and documentation GW-59 shall be mailed to the following two addresses:

Division of Water Quality  
Groundwater Section  
Permits and Compliance Unit  
1636 Mail Service Center  
Raleigh, North Carolina 27699-1636

Division of Waste Management  
Solid Waste Section  
Compliance Hydrogeologist  
1646 Mail Service Center  
Raleigh, NC 27699-1646

(Note: Updated blank forms (GW-1 and GW-59) may be downloaded from the Groundwater Section's website at <http://gw.ehnr.state.nc.us/> or requested from the Groundwater Section address mentioned above.)

For the initial sampling of the wells, the permittee shall submit a copy of the GW-1 Form (Well Construction Record) with the Compliance Monitoring Form (GW-59) for each well to the addresses listed above. Initial Compliance Monitoring Forms that do not include copies of the GW-1 form may be returned to the permittee without being processed. Failure to submit these forms as required by this permit may result in the initiation of enforcement activities pursuant to NC General Statutes 143-215.6A.

The results of the sampling and analysis must be received on Form GW-59 (Groundwater Quality Monitoring: Compliance Report Form) by the Division of Water Quality, Groundwater Section and the Division of Waste Management, Solid Waste Section, on or before the last working day of the month following the sampling month. The data of all groundwater sampling analyses required by the permit conditions must be reported using the most recent GW-59 form along with attached copies of the laboratory analyses.

8. Waste application activities shall not occur when the vertical separation between ground surface and the water table is less than one (1) foot. Verification of the water table elevation can be confirmed by water level readings obtained from the monitor wells near the site or auger boring(s), which must be done within 24 hours, prior to application of wastewater. Any open borings must be properly filled with native soil, prior to application to decrease the chance of any waste contaminating the groundwater.
9. The compliance boundary and review boundary for wastewater disposal systems are specified by 15A NCAC 2L. For systems utilizing reclaimed water, 15A NCAC 2H .0219(k) specifies that both the compliance boundary and review boundary shall be established at the property line. An exceedance of groundwater quality standards at or beyond the compliance boundary is subject to immediate remediation action in addition to the penalty provisions under North Carolina General Statute  143-215.6A(a)(1).
10. Any groundwater quality monitoring, as deemed necessary by the Division of Water Quality, Groundwater Section or by the Division of Waste Management, Solid Waste Section, shall be provided.

## V. INSPECTIONS

1. Adequate inspection, maintenance, and cleaning shall be provided by the Permittee to insure proper operation of the subject facilities.
2. The Permittee or his designee shall inspect the wastewater treatment and disposal facilities to prevent malfunctions and deterioration, operator errors and discharges which may cause or lead to the release of wastes to the environment, a threat to human health, or a nuisance. The Permittee shall keep an inspection log or summary including at least the date and time of inspection, observations made, and any maintenance, repairs, or corrective actions taken by the Permittee. This log of inspections shall be maintained by the Permittee for a period of three years from the date of the inspection and shall be made available upon request to the Division or other permitting authority.
3. Any duly authorized officer, employee, or representative of the Division may, upon presentation of credentials, enter and inspect any property, premises or place on or related to the disposal site or facility at any reasonable time for the purpose of determining compliance with this permit; may inspect or copy any records that must be maintained under the terms and conditions of this permit, and may obtain samples of groundwater, surface water, or leachate.

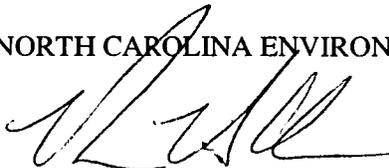
## VI. GENERAL CONDITIONS

1. This permit shall become voidable unless the facilities are constructed in accordance with the conditions of this permit, the approved plans and specifications, and other supporting data.

2. This permit is effective only with respect to the nature and volume of wastes described in the application and other supporting data.
3. This permit is not transferable. In the event there is a desire for the facilities to change ownership, or there is a name change of the Permittee, a formal permit request must be submitted to the Division accompanied by an application fee, documentation from the parties involved, and other supporting materials as may be appropriate. The approval of this request will be considered on its merits and may or may not be approved.
4. Failure to abide by the conditions and limitations contained in this permit may subject the Permittee to an enforcement action by the Division in accordance with North Carolina General Statute 143-215.6A to 143-215.6C.
5. The issuance of this permit does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances which may be imposed by other government agencies (local, state, and federal) which have jurisdiction, including but not limited to applicable river buffer rules in 15A NCAC 2B.0200, erosion and sedimentation control requirements in 15A NCAC Chapter 4 and under the Division's General Permit NCG010000, and any requirements pertaining to wetlands under 15A NCAC 2B .0200 and 2H .0500.
6. A set of approved plans and specifications for the subject project must be retained by the Permittee for the life of the project.
7. The annual administering and compliance fee must be paid by the Permittee within thirty days after being billed by the Division. Failure to pay the fee accordingly may cause the Division to initiate action to revoke this permit as specified by 15 NCAC 2H .0205 (c)(4).

Permit issued this the 13<sup>th</sup> day of June, 2003

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION



---

Alan W. Klimek, P.E., Director  
Division of Water Quality  
By Authority of the Environmental Management Commission

**Permit Number WQ0019631**



North Carolina  
Department of Environment and Natural Resources

Division of Waste Management

**Michael F. Easley, Governor**  
**William G. Ross Jr., Secretary**  
**Dexter R. Matthews, Director**



May 29, 2003

Mr. Tim Broome, P.E.  
Director of Infrastructure and Engineering  
Johnston County  
P.O. Box 2263  
Smithfield, NC 27577

Re: Land Application of Raleigh Waste Water Treatment Plant Sludge at the Johnston County  
Municipal Solid Waste Landfill, Permit 51-03

Dear Mr. Broome,

The Solid Waste Section (Section) has received the county's April 7, 2003 request to land apply Class A wastewater treatment plant sludge generated by the City of Raleigh. The request is to periodically land apply the sludge, at agronomic rates. Wastewater treatment plant sludge may also be solid waste and is frequently disposed of in permitted landfills. Johnston County does not have a service area that would allow for the disposal of the sludge. Thus only periodic agronomic applications of the sludge are appropriate.

While it is reported that this sludge is registered as a Class A fertilizer, it is important to understand that this particular designation is in reference to pathogen reduction and not an endorsement for unrestricted use. It would be advisable to check the designation of the sludge with reference to its "EQ" rating which is a measurement of the metals content and may be a more important rating. In addition the County should evaluate the use of the sludge with respect to phosphorous and phosphate loading, they may be the more controlling factors at the site than the nitrogen loading. They would also be applicable in the choice and application rate of any commercial fertilizer addition that may be necessary.

In accordance with the Solid Waste Management Rules and Condition 4, Part 1, Attachment 4, Permit to Operate Number 51-03, the Section hereby approves the use of the specific City of Raleigh wastewater treatment plant sludge at agronomic rates in the specific areas indicated in the request dated April 7, 2003. If you have any further questions, please do not hesitate to contact us (919) 733-0692.

Sincerely,

  
James C. Coffey, Chief  
Solid Waste Section

cc: Ed Mussler, DWM      Mark Fry, DWM  
Ben Barnes, DWM      Jim Barber, DWM

# Johnston County

DEPARTMENT OF PUBLIC UTILITIES

POST OFFICE BOX 2263

SMITHFIELD, N.C. 27577

(919) 989-5075



April 7, 2003

Jim Barber, Branch Head  
Division of Solid Waste Management  
401 Oberlin Road, Suite 150  
Raleigh NC 27605

Re: Application of Class A Sludge

Dear Mr. Barber:

Enclosed are three Soil Test Reports taken since April 2001, a Waste Analysis Report showing the nutrient content of Raleigh's Class A Sludge, and a separate write-up explaining what we plan to do, crops we plan to grow, and how we plan to apply the Class A Sludge.

Raleigh's Class A Sludge is a registered fertilizer with the North Carolina Department of Agriculture. As you know, a permit is not required to apply sludge that is of this high quality.

Our Irrigation Officer in Responsible Charge is Kenneth York. Kenneth is a retired District Conservationist with the USDA Natural Resources Conservation Service. He has more than 30 years experience in agronomy, soils, and erosion control problems. We will be following his recommendations in establishing vegetation and applying the sludge. He has furnished the attached explanation of what we plan to do.

If you have any questions you can call Kenneth at 919-631-3895 or you can email him at [kykitty4@earthlink.net](mailto:kykitty4@earthlink.net). I'm sure he can answer any question you may have. If you have questions about how it may affect future landfill operations you may contact Haywood Phthisic or me.

I am looking forward to hearing from you.

Sincerely

*Timothy G. Broome*

Timothy G. Broome, P.E.  
Director of Infrastructure and Engineering



## PROPOSAL FOR CLASS "A" SLUDGE APPLICATION

Our main reason for wanting to use Class A Sludge is primarily for its liming capability. It costs us \$35 per ton to have agricultural lime spread. Raleigh will deliver and spread the Class A Sludge for us at no cost. In addition, the sludge offers organic matter and beneficial bacteria that we cannot get from commercial fertilizers. This is especially helpful in establishing vegetation on our spoil areas (fields 5, 9, 10, and about a 1 acre portion of field 8). Nutrients from organic sources break down slower than nutrients from commercial fertilizer.

Raleigh's Class A Sludge is a registered fertilizer with the North Carolina Department of Agriculture. It does not require a permit to spread this type sludge. Heavy metals, pathogens, etc. must meet state requirements.

Fields 3, 4, 5, 8 and about 5 acres of field 2 lie in areas planned for solid waste (future phases 6, 7, and 8). No other county owned land has been considered for future landfill sites at this time. Fields 9 and 10 lie down slope from future landfill sites.

We only plan to apply sludge on cleared areas. Fields 2 and 3 will be established in coastal bermuda grass that will be cut for hay. We have entered into a contract with a local farmer to do this. Fields 4, 5, 9, and 10 are spoil areas. These fields will be established in either fescue and sericea lespedeza or common bermuda grass and sericea lespedeza. The soil structure in fields 4, 5, 9, and 10 has been completely destroyed since several feet of soil have been removed. Most perennial grasses obtain their nutrients in the top 12 to 24 inches of soil. Because of this, we anticipate yields to be in the one ton per acre range in these fields. This would not warrant cutting for hay.

All sludge will be applied based on its neutralizing value compared to agricultural lime. This factor is shown in the Agricultural Lime Equivalent (ALE) column of the Waste Analysis Report (see highlighted portion on right side of page on the attached report). **We will be taking soil tests on all cleared fields at least every two years.** Spoil areas will only receive minimal amounts of commercial fertilizer for maintenance as recommended by soil test. Once we get the ph up to the desired level, we do not anticipate needing to apply sludge (for additional lime) more than once every 5 to 6 years. Fields 2 and 3 will be cut for hay and they will be receiving higher nitrogen applications. This lowers ph and we expect to apply the equivalent of one ton of lime every 3 years. Regardless of the amount of time, we will only apply sludge as the need for lime is indicated on the soil tests.

The nutrient content of sludge is relatively low so we will have to supplement it with commercial fertilizer but all nutrients will be applied at agronomic rates. We will apply no more than the plant can use. Soil tests will tell us how much fertilizer will be needed.

NCDA recommends applying one ton of lime per acre per year until the ph is raised to the desired level. In some cases we may need to apply sludge two years in a row. For

example, about 25 acres of field 2 was cleared from mixed hardwoods in order to facilitate the use of a center pivot for irrigation. Newly cleared woodland will always have a low ph. Soil samples (02 and 03) show high requirements for agricultural lime. Rather than apply the full amount of sludge required to correct the ph in one application we would apply approximately half that amount in the first year, take another soil test and apply the additional amount the second year.

The sludge needed will depend on each sample's neutralizing effect. For calculation purposes, I averaged the 5 samples on this waste analysis report. These samples vary from 1.4 tons of sludge to 1.9 tons of sludge to equal one ton of agricultural lime. They average 1.68 tons to equal one ton of lime but for calculation purposes we will use 1.60. *OK*

To obtain the amount of sludge to apply simply multiply the amount of lime needed on the soil test by the Agricultural Lime Equivalent (ALE) on the waste analysis report, then multiply that figure times the acres for the field (or portion of field). We will use specific ALE's where possible.

Fields 2 and 3 have more than one soil sample due to different soil conditions and cropping history.

Field	Acres	Lime Needed	Sludge Equiv.	Total Sludge Needed	1 <sup>st</sup> Year Application	2 <sup>nd</sup> Year Application	Estimated Yrs before Next Application
2	4	0.4T	1.6T	2.56T	2.56T	-----	3
2	4	1.1T	1.6T	7T	7T	-----	3
2	12	1.9T	1.6T	36.48T	24T	12.48T	3
2	13	2.8T	1.6T	58.24T	26T	26T ***	3
2	21.73	0	---	----	-----	-----	3
3	10.44	1.1T	1.6T	18.3T	18.3T	-----	3
4	6.03	0.7T	1.6T	6.75T	6.75T	-----	5
5	24.11	1.6T	1.6T	61.72T	48.22T	13.5T	5
9	2.35	0.8T	1.6T	3T	3T	-----	5
10	6.91	1.8T	1.6T	19.9T	13.82T	6.08T	5

\*\*\*This field may require an additional application of sludge due to the large amount of lime required. Annual soil tests will be taken in these areas and sludge applied until the ph reaches the desired level.

Using the Waste Analysis Reports for the sludge and the Soil Test Reports for the field, we feel that a buildup of heavy metals will not be a problem.

North Carolina  
Department of Environment and Natural Resources

Division of Waste Management

**Michael F. Easley, Governor**  
**William G. Ross Jr., Secretary**  
**Dexter R. Matthews, Director**



January 9, 2003

Mr. Haywood Phthisic  
Director of Public Utilities  
Johnston County  
P.O. Box 2263  
Smithfield, NC 27577

RE: Permit 51-03, Johnson County Landfill- Permit to Operate, Phase 4A, Cell 1

Dear Mr. Phthisic,

Enclosed please find the facility permit, permit to operate for Phase 4A, Cell 1 of the Johnston County Landfill. Please review the permit carefully. According to 15A NCAC 13B .0203(d), by beginning construction and receiving waste in the cells, the applicant shall be considered to have accepted the conditions of the permit.

If there are any questions either about the permit or its conditions or questions which arise during operation of the facility please contact us. The Waste Management Specialist for the facility is Ben Barnes. Mr. Barnes is based at the Raleigh Regional Office and his phone number is 919.571.4700. If there are any questions concerning this approval, please contact our office. Our number is 919.733.0692.

Sincerely

Edward F. Mussler, III  
Environmental Engineer  
Solid Waste Section

cc: File  
Mark Fry DWM Ben Barnes, DWM  
Jim Barber, DWM Ed Mussler, DWM  
Pieter Scheer, GNRA

Grower: York, Kenneth  
 12 Wooddale Drive  
 Smithfield, NC 27577

Farm: H/H1

Johnston County

3/21/03 SERVING N.C. CITIZENS FOR OVER 50 YEARS C - 12. \$, 11

# Soil Test Report

Agronomist Comments:

Field Information		Applied Lime Recommendations												See Note	
Sample No.	Last Crop	Mo	Yr	T/A	Crop or Year	Lime	N	P2O5	K2O	Mg	Cu	Zn	B	Mn	
001	Critical Area				1st Crop: Berm Hay/Pas,E	.9T	60-80	140-160	110-130	\$	0	\$		\$	12
					2nd Crop: Berm Hay/Pas,M	0	180-220	140-160	210-230	\$	0	\$		\$	12

**Test Results**

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-AI (1)	Mn-AI (2)	Zn-I	Zn-AI	Cu-I	S-I	SS-I	NO3-N	NH4-N	Na
MIN	0.09	1.39	1.4	29.0	1.0	4.8	0	10	19.0	7.0	5	12	12	13	13	41	135				0.1

Field Information		Applied Lime Recommendations												See Note	
Sample No.	Last Crop	Mo	Yr	T/A	Crop or Year	Lime	N	P2O5	K2O	Mg	Cu	Zn	B	Mn	
002	Critical Area				1st Crop: Pine,E	.4T	0.0	70-90	50-70	\$	0	\$			11
					2nd Crop: Pine,M	0	100-150	70-90	50-70	\$	0	\$			11

**Test Results**

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-AI (1)	Mn-AI (2)	Zn-I	Zn-AI	Cu-I	S-I	SS-I	NO3-N	NH4-N	Na
MIN	0.04	1.43	1.2	17.0	1.0	4.7	0	7	9.0	6.0	3	12	12	12	45	144					0.1

Field Information		Applied Lime Recommendations												See Note	
Sample No.	Last Crop	Mo	Yr	T/A	Crop or Year	Lime	N	P2O5	K2O	Mg	Cu	Zn	B	Mn	
003	Small Grains				1st Crop: Berm Hay/Pas,E	0	60-80	0	90-110	0	0	0	0	pH\$	12
					2nd Crop: Berm Hay/Pas,M	0	180-220	0	180-200	0	0	0	0	pH\$	12

**Test Results**

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-AI (1)	Mn-AI (2)	Zn-I	Zn-AI	Cu-I	S-I	SS-I	NO3-N	NH4-N	Na
MIN	0.51	1.59	3.2	84.0	0.5	6.5	142	20	58.0	24.0	50	39	39	54	54	88	19				0.1

Field Information		Applied Lime Recommendations												See Note	
Sample No.	Last Crop	Mo	Yr	T/A	Crop or Year	Lime	N	P2O5	K2O	Mg	Cu	Zn	B	Mn	
004	Small Grains				1st Crop: Berm Hay/Pas,E	0	60-80	0	60-80	0	0	0	0	pH\$	12
					2nd Crop: Berm Hay/Pas,M	0	180-220	0	140-160	0	0	0	0	pH\$	12

**Test Results**

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-AI (1)	Mn-AI (2)	Zn-I	Zn-AI	Cu-I	S-I	SS-I	NO3-N	NH4-N	Na
MIN	0.56	1.57	3.1	87.0	0.4	6.6	166	36	61.0	22.0	70	50	50	77	77	103	15				0.0

Field Information		Applied Lime Recommendations												
Sample No.	Last Crop	Mo Yr	T/A	Crop or Year	Lime	N	P2O5	K2O	Mg	Cu	Zn	B	Mn	See Note
005	No Crop			1st Crop: Berm Hay/Pas,E 2nd Crop: Berm Hay/Pas,M	.8T 0	60-80 180-220	0-20 0	110-130 210-230	\$ 0 \$ 0	0 0	0 0	0 0	0 0	12 12

**Test Results**

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-AI (1)	Mn-AI (2)	Zn-I	Zn-AI	Cu-I	S-I	SS-I	NO3-N	NH4-N	Na
MIN	0.81	1.52	2.4	58.0	1.0	6.1	82	11	48.0	9.0	103	71	71	188	188	51	12				0.0

Field Information		Applied Lime Recommendations												
Sample No.	Last Crop	Mo Yr	T/A	Crop or Year	Lime	N	P2O5	K2O	Mg	Cu	Zn	B	Mn	See Note
006	Small Grains			1st Crop: Berm Hay/Pas,E 2nd Crop: Berm Hay/Pas,M	0 0	60-80 180-220	0 0	70-90 150-170	0 0	0 0	0 0	0 0	0 0	pH\$ pH\$

**Test Results**

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-AI (1)	Mn-AI (2)	Zn-I	Zn-AI	Cu-I	S-I	SS-I	NO3-N	NH4-N	Na
MIN	0.6	1.58	3.6	83.0	0.6	6.7	137	29	55.0	25.0	44	33	33	65	65	86	17				0.1

Field Information		Applied Lime Recommendations												
Sample No.	Last Crop	Mo Yr	T/A	Crop or Year	Lime	N	P2O5	K2O	Mg	Cu	Zn	B	Mn	See Note
007	No Crop			1st Crop: Berm Hay/Pas,E 2nd Crop: Berm Hay/Pas,M	1.1T 0	60-80 180-220	130-150 130-150	120-140 220-240	\$ 0 \$ 0	0 0	0 0	0 0	0 0	\$ \$

**Test Results**

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-AI (1)	Mn-AI (2)	Zn-I	Zn-AI	Cu-I	S-I	SS-I	NO3-N	NH4-N	Na
MIN	0.09	1.47	1.5	20.0	1.2	4.7	2	7	15.0	6.0	8	14	14	20	20	54	131				0.0

Field Information		Applied Lime Recommendations												
Sample No.	Last Crop	Mo Yr	T/A	Crop or Year	Lime	N	P2O5	K2O	Mg	Cu	Zn	B	Mn	See Note
008	No Crop			1st Crop: Pine,E 2nd Crop:	.4T	0.0	70-90	50-70	\$ 0	0	0	0	0	11

**Test Results**

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-AI (1)	Mn-AI (2)	Zn-I	Zn-AI	Cu-I	S-I	SS-I	NO3-N	NH4-N	Na
MIN	0.09	1.46	1.4	21.0	1.1	4.8	0	7	14.0	6.0	7	7	7	20	20	52	126				0.0

Field Information		Applied Lime Recommendations												
Sample No.	Last Crop	Mo Yr	T/A	Crop or Year	Lime	N	P2O5	K2O	Mg	Cu	Zn	B	Mn	See Note
009	Small Grains			1st Crop: Berm Hay/Pas,E 2nd Crop: Berm Hay/Pas,M	.7T 0	60-80 180-220	0-20 0	60-80 150-170	0 0	0 0	0 0	0 0	0 0	12 12

**Test Results**

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-AI (1)	Mn-AI (2)	Zn-I	Zn-AI	Cu-I	S-I	SS-I	NO3-N	NH4-N	Na
MIN	0.46	1.50	2.7	70.0	0.8	5.8	70	32	47.0	18.0	48	38	38	65	65	147	81				0.1

Field Information		Applied Lime Recommendations											See Note		
Sample No.	Last Crop	Mo	Yr	T/A	Crop or Year	Lime	N	P2O5	K2O	Mg	Cu	Zn	B	Mn	See Note
010	Berm Hay/Pas,M				1st Crop: Berm Hay/Pas,M 2nd Crop:	0	180-220	0-20	160-180	0	0	0	0	0	12

**Test Results**

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-AI (1)	Zn-I	Zn-AI	Cu-I	S-I	SS-I	NCB-N	NH-N	Na
MIN	0.51	1.43	4.7	85.0	0.7	6.5	62	26	55.0	26.0	36	31	59	59	61	25				0.0

**Field Information**

Sample No.	Last Crop	Mo	Yr	T/A	Crop or Year	Lime	N	P2O5	K2O	Mg	Cu	Zn	B	Mn	See Note
011	No Crop				1st Crop: Berm Hay/Pas,E 2nd Crop: Berm Hay/Pas,M	1.6T	60-80	110-130	80-100	0	0	0	0	0	12
	<b>FREO 5</b>					0	180-220	100-120	160-180	0	0	0	0	0	12

**Test Results**

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-AI (1)	Zn-I	Zn-AI	Cu-I	S-I	SS-I	NCB-N	NH-N	Na
MIN	0.04	1.35	2.7	37.0	1.7	4.6	13	26	19.0	15.0	50	39	36	36	103	136				0.1