Duke Energy
McGuire Nuclear Station
12700 Hagers Ferry Road
Huntersville, NC 28078

September 08, 2015

Ms. Elizabeth Werner
North Carolina Department of
Environment and Natural Resources
Division of Waste Management
Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

Subject: Semi-annual Groundwater Monitoring Report – June 2015
Duke Energy Carolinas, LLC
McGuire Nuclear Station
Landfill #2 (Synthetically Lined), Permit #60-04

Dear Ms. Werner:

Duke Energy is providing the results of semi-annual groundwater monitoring for the Synthetically Lined McGuire Nuclear Station Landfill #2, located in Huntersville, North Carolina.

On June 9, 2015, groundwater and surface water samples were collected in accordance with the McGuire Landfill SAP (Sampling and Analysis Plan). A summary of the field data is presented in Table 3. The groundwater sampling field and analytical results are summarized in Table 4. The analysis results for the constituents are compared to the groundwater standards found in Title 15A NCAC 02L .0202 (g) (2L Standards). Concentrations with values that attain or exceed the 2L Standards are noted on Table 4 by bold font. A summary of the analytical results that attain or exceed the 2L Standards and a preliminary analysis of the cause and significance of the exceedances are presented in Table 5.

Duke Energy personnel sample designated groundwater and surface water locations at McGuire Nuclear Station's Landfill #2 (Synthetically Lined) semi-annually during December and June. The next landfill monitoring event is planned for December 2015 with a report of monitoring results to follow.

If you have any questions or concerns about this report, please contact Sean DeNeale by phone at 704-382-4761 or by email at Sean.DeNeale@duke-energy.com

Sincerely,

Charles J. Morris III
Duke Energy
McGuire Nuclear Station
Plant Manager

Electronic cc: Mr. Ed Sullivan – Duke Energy Corporation
Mr. Tim Hunsucker – Duke Energy Corporation
Mr. Bill Miller – HDR Engineering, Inc.
Mr. Scott Spinner – HDR Engineering, Inc.
Mr. Sean DeNeale - Engineer I Duke Energy Environmental Services
Mr. John Williamson – McGuire Nuclear Station

DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

HDR Engineering, Inc. of the Carolinas (Consultant)

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Ian W. Holdeman Phone: (704) 338-6839

E-mail: ian.holdeman@hdrinc.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Duke Energy Carolinas, LLC McGuire Nuclear Station Landfill #2 (Synthetically Lined)	12700 Hagers Ferry Road Huntersville, NC 28078	6004	.0500	June 9, 2015

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☒ Leachate monitoring data
☒ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify) _____
☐ Other(specify) _____

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

William M. Miller	Senior Engineer	(828) 891-6296
Facility Representative Name (Print)	Title	(Area Code) Telephone Number

William M. Miller 9/5/2015
Signature Date

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA PROFESSIONAL SEAL 17661 ENGINEER WILLIAM M. MILLER

William M. Miller 9/5/15

440 S. Church Street Suite 1000, Charlotte, NC 28202
Facility Representative Address

F-0116
NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009

McGuire Nuclear Station - Landfill #2 (Synthetically Lined) Permit No. 6004

Semiannual Groundwater Monitoring Report

June 2015 Sampling Event

September 5, 2015

Report Verification

PROJECT: **SEMIANNUAL GROUNDWATER MONITORING REPORT**
MCGUIRE NUCLEAR STATION
LANDFILL #2 (SYNTHETICALLY LINED)
PERMIT NO. 6004

TITLE: **JUNE 2015 SAMPLING EVENT**

This document has been reviewed for accuracy and quality commensurate with the intended application.

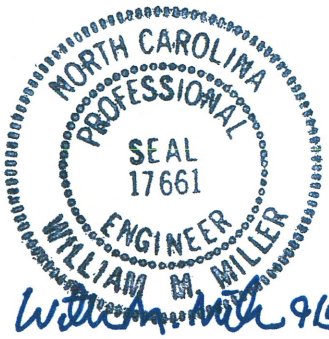
Prepared by: _____ Date: 9/5/2015

Checked by: _____ Date: 9/5/2015

Approved by: _____ Date: 9/5/2015

Project Manager: Brooke Ahrens, PE

Professional Engineer Seal:



9/5/15

HDR Engineering, Inc. of the Carolinas
440 South Church St., Suite 1000
Charlotte, NC 28202
North Carolina Engineering Firm Number F-0116

Contents

APPENDICES

Section 1 - Background

The McGuire Nuclear Station Landfill #2 (Synthetically Lined)[1] is located at the Duke Energy Carolinas, LLC (Duke Energy) McGuire Nuclear Station in Mecklenburg County, North Carolina. The landfill is permitted to accept waste specified by the Permit to Operate. The landfill was constructed with a high-density polyethylene (HDPE) synthetic liner and leachate collection and removal system. Leachate and contact stormwater are collected in a lined leachate collection basin and pumped to the McGuire Nuclear Station wastewater treatment system. The landfill is permitted under the North Carolina Department of Environment and Natural Resources (NCDENR) Solid Waste Permit No. 6004.

The landfill and nearby area are depicted on Figures 1 and 2. The landfill is located south of North Carolina Highway 73, north of Cashion Road, and to the west of Linderman Road. Cashion Road runs along a surface water divide, with surface flow draining to the northwest and to the southeast. A surface water drainage feature is located to the northeast of the landfill. This feature drains to the northwest to a perennial unnamed stream. Surface water sample location SW-1 is located in this unnamed stream (north of the landfill) and is upstream from the confluence with the surface water drainage feature. Surface water sample location SW-2 is also located in this unnamed stream, downstream from SW-1 and west of the landfill. The unnamed stream drains to the west to the Catawba River. A second surface water drainage feature is located to the southwest of the landfill, draining to the northwest into the unnamed stream.

As described in the Sampling and Analysis Plan[2] (SAP), the monitoring system at the landfill consists of the following:

Monitoring Wells:	MW-5	MW-5A
	MW-6	MW-6A
	MW-7	MW-7A
	MW-8	MW-8A
	MW-9	MW-9A
	MW-10A	
Surface Water Sample Locations	SW-1	SW-2
Leachate Sample Locations:	Leachate Pond	

[1] In response to the North Carolina Division of Public Health, Radiation Protection Section, November 17, 2006 letter to Duke Energy, LLC, Duke Energy offered to indicate the McGuire Nuclear Station Landfill #2 as “(Synthetically Lined)” in reports.

[2] Groundwater Monitoring Program Sampling and Analysis Plan, McGuire Nuclear Station, Landfill #2 (Synthetically Lined), Permit No. 6004-INDUS, March 28, 2014.

The leachate sample is collected from the outfall of the leachate pipe which conveys leachate from the landfill to the leachate collection basin. The locations of the monitoring wells, the surface water sample locations, and the leachate collection basin are shown on Figure 2.

With the exception of well MW-10A, the wells are installed as well pairs with one shallow well and one deeper well adjacent to one another. The well with the “A” designation is the deeper well in each well pair. Well pair MW-9 and MW-9A are installed adjacent to and downgradient from the leachate collection basin. The remaining wells are installed adjacent to the landfill. Well construction information is provided in Table 1.

According to the SAP, monitoring wells MW-5 and MW-5A are the upgradient wells and are considered the background wells for the site. Surface water sample location SW-1 is considered the upgradient or background surface water sample location.

Section 2 - Methods

2.1 Sampling and Analysis Methods

Sample collection and documentation of sampling activities was performed by Duke Energy personnel (Duke Energy Carolinas Field Certification #5193) in accordance with the North Carolina Solid Waste Management Guidelines. Copies of the field sampling forms are included in Appendix A. The parameters and constituents sampled were selected by Duke Energy and the NCDENR Division of Solid Waste and were analyzed by TestAmerica Laboratories, Inc. (North Carolina Laboratory Certification #358) and the Duke Energy Analytical Laboratory (North Carolina Laboratory Certification #248). The laboratory report and chain-of-custody forms are included in Appendix B.

The groundwater, surface water, and leachate samples were analyzed for the following constituents:

- Barium, chromium, and silver using Environmental Protection Agency (EPA) Method 200.7
- Arsenic, cadmium, lead, and selenium using EPA Method 200.8
- Mercury using EPA Method 245.1
- Chloride and sulfate using EPA Method 300.0
- Volatile organic compounds (VOCs) using Solid Waste (SW)846 Method 8260B
- Total petroleum hydrocarbons (TPH) diesel range organics (DRO) using SW846 Method 8015C Modified

In addition, the following analyses were performed in accordance with the requirements of the Radioactive Materials License No. 060-0379-7 issued by the North Carolina Department of Health and Human Services Radiation Protection Section:

- Gross alpha radioactivity using EPA Method 900
- Gross beta radioactivity using EPA Method 900
- Tritium using EPA Method 906.0 Modified
- Gamma radioactivity for select isotopes

2.2 Statement of Work

HDR completed the following tasks:

- Received field sampling information provided by Duke Energy (performed by Duke Energy personnel) for monitoring wells MW-5A, MW-6, MW-6A, MW-7, MW-7A, MW-8,

MW-8A, MW-9, MW-9A, and MW-10A. A water level reading was obtained in MW-5; however, a sample was not collected due to insufficient water volume in the well. Data were also received for surface water sample locations SW-1 and SW-2 as well as for the leachate pond sample. The samples were collected on June 9, 2015, and HDR received the data on July 20, 2015.

- Reviewed the laboratory analytical results for the samples noted above. The Electronic Data Deliverable (EDD), provided by Duke Energy, was adapted to conform to the format requirements of the NCDENR EDD template. HDR added an italicized J data qualifier (*J*) to indicate a concentration that equals or is greater than the laboratory's method reporting limit (MRL), but less than the Solid Waste Section Limit[3] (SWSL), and retained the laboratory-supplied qualifier J to indicate values that equal or are greater than the laboratory's method detection limit (MDL) but are less than the MRL. A copy of the original EDD is retained in HDR's files.

- Developed a generalized groundwater surface contour map using map data and groundwater elevation data supplied by Duke Energy.

- Prepared and submitted this Semiannual Groundwater Monitoring Report to Duke Energy.

[3] The Solid Waste Section Limit (SWSL) is defined by NCDENR as the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy. The SWSL is the concentration below which reported results must be qualified as estimated. NCDENR Division of Waste Management Memorandum dated February 23, 2007.

Section 3 - Results

3.1 Site Groundwater Flow

Generalized groundwater surface contours and groundwater flow direction arrows for the site are shown on Figure 3. These contours were developed using groundwater elevations measured at the shallow wells on the date of sampling. Calculated groundwater flow velocities are presented in Table 2.

Groundwater flow in the area of the landfill is generally from the southeast end of the landfill toward the northwest and the unnamed stream described in Section 1. Groundwater flow on the east side of the landfill is towards the northeast toward wells MW-6, MW-6A, MW-10A, and the surface water drainage feature located northeast of the wells.

3.2 Analytical Results

A summary of the field data is presented in Table 3.

The groundwater sampling field and analytical results are summarized in Table 4. The analysis results for the constituents are compared to the groundwater standards found in Title 15A NCAC 02L .0202 (g) (2L Standards). Concentrations with values that attain or exceed the 2L Standards are noted on Table 4 by bold font. A summary of the analytical results that attain or exceed the 2L Standards and a preliminary analysis of the cause and significance of the exceedances are presented in Table 5.

Surface water sample locations SW-1 and SW-2 are located on an unnamed stream. The unnamed stream is a tributary of the Catawba River, which is classified by the NCDENR Division of Water Quality as Class WS-IV surface water at the confluence with the unnamed stream. As a result, the field and analytical results from these locations are compared to Title 15A, NCAC, Subchapter 2B Standards (2B Standards) for Class WS-IV water. The field and analytical results of surface water sampling are summarized in Table 6.

The MDL was greater than the respective 2L Standard for the following constituents:

- 1,2,3-Trichloropropane
- 1,2-Dibromo-3-chloropropane (DBCP)
- 1,2-Dibromoethane (EDB)
- Vinyl chloride

The MDL was greater than the respective 2B Standard for the following constituents:

- Silver

The MDLs for the listed constituents were all below their corresponding SWSLs as required by the February 23, 2007, NCDENR memo. These constituents were not detected above the MDL in the analyzed samples and are not considered to exceed their respective 2L or 2B Standards.

The field and analytical results for leachate sampling are summarized in Table 7.

Selected samples were diluted as is normal laboratory practice to bring samples within the calibrated range of the analysis. Specifics regarding the samples that were diluted, including the dilution amount, are reported in the EDD.

The results of the radiological analyses are presented in Table 8. A copy of this report has been submitted to the North Carolina Department of Health and Human Services Radiation Protection Section for reference. HDR did not evaluate this data.

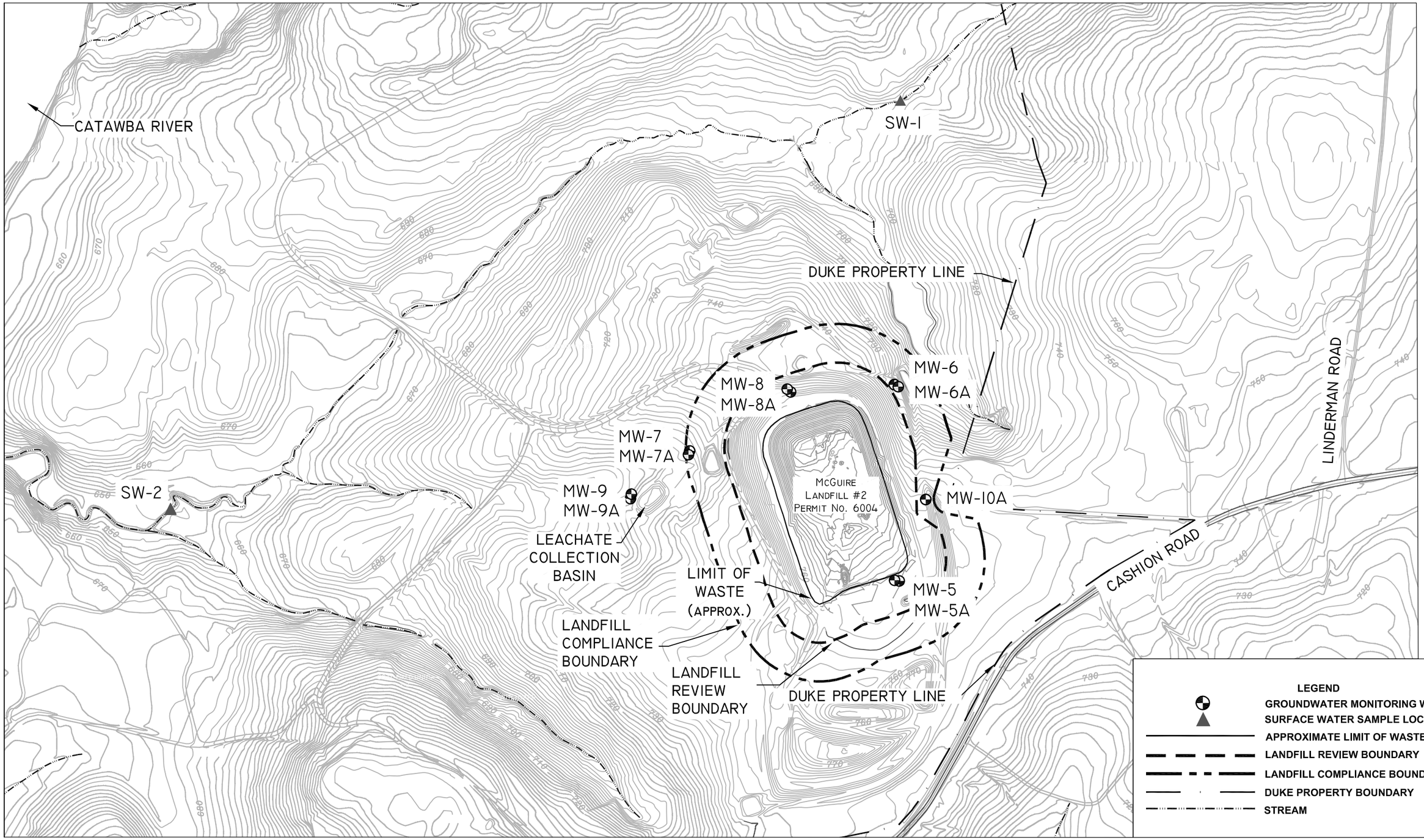
Figures

License Number: F-0116
440 South Church Street Charlotte NC 28202

SITE LOCATION MAP
MCGUIRE NUCLEAR STATION
LANDFILL #2 (SYNTHETICALLY LINED)
PERMIT NO. 6004

DATE
SEPTEMBER 2015

FIGURE
1



1. BASE MAP AND STREAM DATA PROVIDED BY DUKE ENERGY CAROLINAS, LLC.

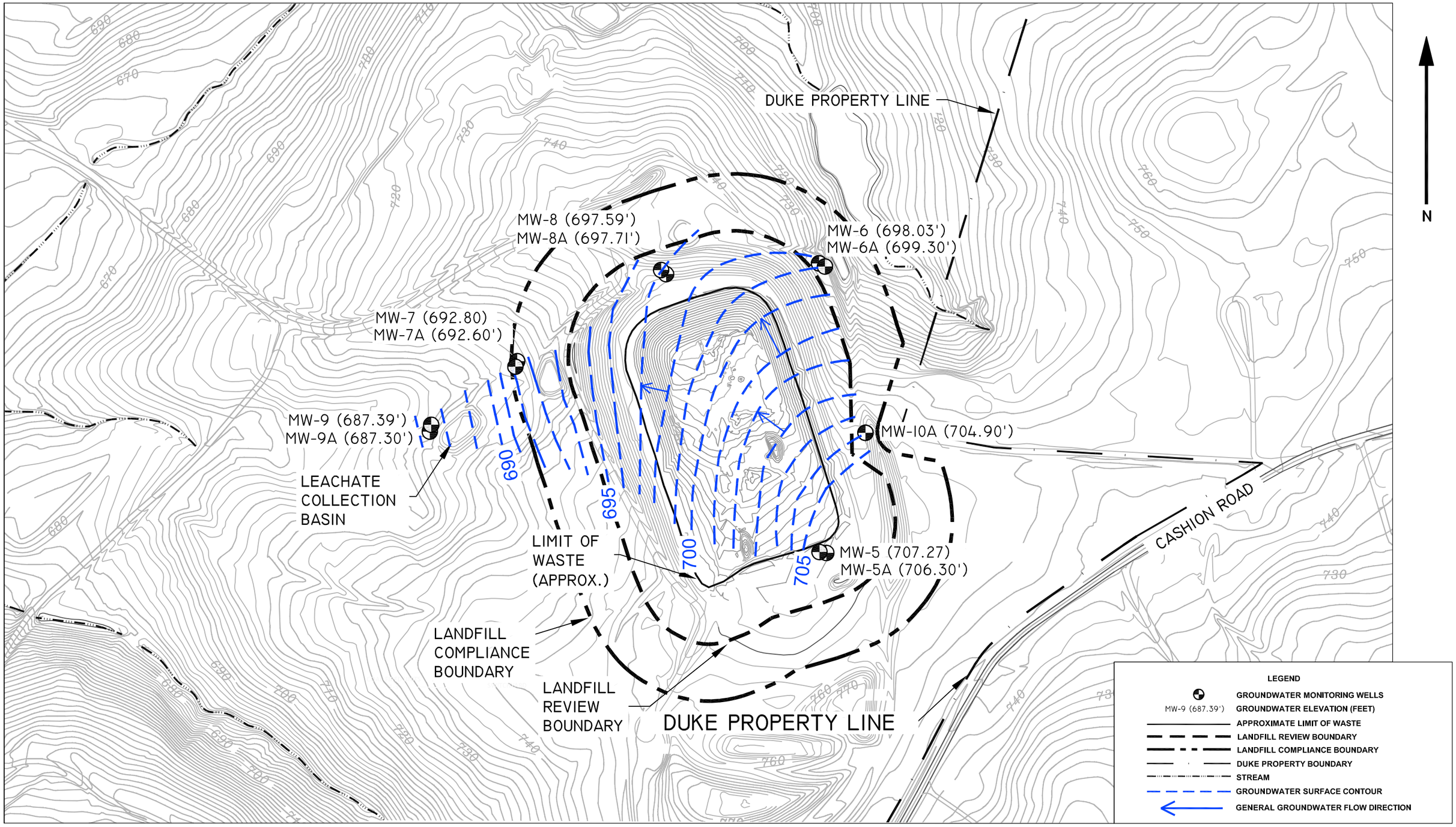
SCALE (FEET)
150' 0 150' 300'
1" = 300'

License Number F-0116
440 South Church Street Charlotte, NC 28202

SAMPLE LOCATIONS
MCGUIRE NUCLEAR STATION
LANDFILL #2 (SYNTHETICALLY LINED)
PERMIT NO. 6004

DATE
SEPTEMBER 2015

FIGURE
2



NOTES:
1. GROUNDWATER CONTOURS DRAWN FROM SHALLOW WELLS ONLY.
2. GROUNDWATER ELEVATIONS MEASURED ON JUNE 9, 2015.

BASE MAP AND STREAM DATAPROVIDED BY DUKE ENERGY CAROLINAS, LLC.

SCALE (FEET)
100' 0 100' 200'
1" = 200'

License Number: F-0116
440 South Church Street Charlotte, NC 28202

GENERALIZED GROUNDWATER SURFACE CONTOURS JUNE 2015
MCGUIRE NUCLEAR STATION
LANDFILL #2 (SYNTHETICALLY LINED)
PERMIT NO. 6004

DATE
SEPTEMBER 2015

FIGURE
3

Tables

Table 1–Well Construction Information
Duke Energy Carolinas, LLC/McGuire Nuclear Station
Landfill #2 (Synthetically Lined) - Permit No. 6004

Well ID	Well Installation Date	Coordinates		TOC Elevation (ft.)	Ground Surface Elevation (ft.)	Well Stick-up Height Above Ground Surface (ft.)	Groundwater Elevation (ft.)	Depth to Water below TOC (ft.)	Total Well Depth below TOC (ft.)	Depth to Top of Screen from TOC (ft.)	Screened Interval below TOC (ft.)	Geology of Screened Interval	Well Diameter (in.)	Casing Type
		Latitude	Longitude											
MW-5	1/31/2001	35.4151782	-80.9450007	768.31	766.42	1.89	707.27	61.04	63.90	53.90	53.90 - 63.90	Not Reported	2	PVC
MW-5A	1/31/2001	35.4151829	-80.9450512	768.42	766.45	1.97	706.30	62.12	96.00	86.00	86.00 - 96.00	Not Reported	2	PVC
MW-6	1/31/2001	35.4169062	-80.9450522	728.45	726.79	1.66	698.03	30.42	37.20	27.20	27.20 - 37.20	Saprolite	2	PVC
MW-6A	1/31/2001	35.4169245	-80.9450963	728.98	727.54	1.44	699.30	29.68	47.90	37.90	37.90 - 47.90	Saprolite	2	PVC
MW-7	1/31/2001	35.4162984	-80.9473070	725.86	723.72	2.14	692.80	33.06	37.30	27.30	27.30 - 37.30	Saprolite	2	PVC
MW-7A	1/31/2001	35.4162649	-80.9473196	724.66	722.74	1.92	692.60	32.06	59.40	49.40	49.40 - 59.40	Saprolite	2	PVC
MW-8	1/31/2001	35.4168657	-80.9462597	759.60	757.30	2.30	697.59	61.97	71.50	61.50	61.50 - 71.50	Saprolite	2	PVC
MW-8A	1/31/2001	35.4168413	-80.9462222	759.68	757.61	2.07	697.71	61.97	84.40	74.40	74.40 - 84.40	Saprolite	2	PVC
MW-9	1/31/2001	35.4159044	-80.9479320	711.87	710.27	1.60	687.39	24.48	30.80	20.80	20.80 - 30.80	Saprolite	2	PVC
MW-9A	1/31/2001	35.4158636	-80.9479411	712.13	710.30	1.83	687.30	24.83	47.80	37.80	37.80 - 47.80	Saprolite	2	PVC
MW-10A	1/16/2001	35.4160918	-80.9444821	755.78	753.78	2.00	704.90	50.88	59.23	44.23	44.23 - 59.23	Saprolite	2	PVC

Notes:

1. TOC indicates top of casing.
2. ft. indicates feet.
3. in. indicates inches nominal diameter.
4. PVC indicates polyvinyl chloride.
5. Horizontal datum assumed to be NAD83.
6. Elevations assumed to be based on NVGD 29 vertical datum.
7. Information provided by Duke Energy Carolinas, LLC.
8. Depth to water gauged on June 9, 2015.
9. N/A indicates not applicable. There was insufficient water in MW-7 to obtain a depth to water reading.
10. At the time of installation, monitoring wells MW-5, MW-5A, MW-6, MW-6A, MW-7, MW-7A, MW-8, MW-8A, MW-9, and MW-9A were identified as MW-1, MW-1A, MW-2, MW-2A, MW-3, MW-3A, MW-4, MW-4A, MW-5, and MW-5A, respectively.
11. Information provided by Duke Energy on July 20, 2015

Table 2–Groundwater Flow Velocities
Duke Energy Carolinas LLC/McGuire Nuclear Station
Landfill #2 (Synthetically Lined) - Permit No. 6004

Well ID	Upgradient Groundwater Contour Elevation (ft)	Downgradient Groundwater Contour Elevation (ft)	Linear Distance Between Contours through Well (ft)	Hydraulic Gradient (ft/ft)	Hydraulic Conductivity (ft/day)	Effective Porosity (%/100)	Groundwater Velocity (ft/day)
MW-5	707	705	36	0.063	0.411	0.259	0.100
MW-6	699	698	27	0.038	0.411	0.259	0.060
MW-7	693	692	41	0.025	0.411	0.259	0.039
MW-8	697	696	57	0.018	0.411	0.259	0.028
MW-9	688	687	62	0.016	0.411	0.259	0.025
MW-10A	704	703	44	0.023	0.411	0.259	0.036

Notes:

1. Linear distance measured through monitoring wells is approximately perpendicular to groundwater contours.
2. At monitoring well locations where downgradient contours are not present, the groundwater elevation at the monitoring well is used as the downgradient groundwater elevation.
3. At monitoring well locations where upgradient contours are not present, the groundwater elevation at the monitoring well is used as the upgradient groundwater elevation.
4. Monitoring wells are not listed where insufficient information is available to calculate velocity.
5. Hydraulic gradients and groundwater velocities are approximate.
6. Hydraulic conductivity presented for the alluvium/soil/saprolite hydrostratigraphic layer is the geometric mean of the conductivity data in the HDR Conductivity Database (unpublished data from Piedmont Carolina sites with foliated/layered bedrock).
7. Effective porosity presented for the alluvium/soil/saprolite hydrostratigraphic layer is the mean value estimated from grain size data using Fetter/Bear Diagrams.
8. The hydrostratigraphic layer information is not available for monitoring MW-5. This well is assumed to be screened in the alluvium/soil/saprolite layer.
9. Hydraulic gradients and groundwater velocities based on groundwater depths measured on June 9, 2015.

Table 3–Field Data Parameters
Duke Energy Carolinas, LLC/McGuire Nuclear Station
Landfill #2 (Synthetically Lined) - Permit No. 6004

DATE	SAMPLE ID	WELL DEPTH (feet)	DEPTH TO WATER (feet)	WATER ELEV. (feet)	APPEARANCE	ODOR	PURGE METHOD	PUMP RATE (mL/min)	WELL VOLUME (gal)	EVAC VOLUME (gal)	EVAC (yes/no)	TEMP (deg C)	SPECIFIC CONDUCTANCE (µ℧/cm)	pH (SU)	TURBIDITY (NTU)	ORP (mV-NHE)	DO (mg/L)
6/9/2015	MW-5	63.90	61.04	707.27	Normal	None	CP	N/A	0.47	0.00	NS	NS	NS	NS	NS	NS	NS
6/9/2015	MW-5A	96.00	62.12	706.30	Normal	None	CP	N/A	5.53	17.25	NO	16.49	54	6.4	1.2	426	8.35
6/9/2015	MW-6	37.20	30.42	698.03	Normal	None	CP	N/A	1.11	5.00	NO	16.39	109	5.9	1.2	407	6.68
6/9/2015	MW-6A	47.90	29.68	699.30	Normal	None	CP	N/A	2.97	9.00	NO	16.24	55	5.6	0.4	435	7.92
6/9/2015	MW-7	37.30	33.06	692.80	Normal	None	EOP	N/A	0.69	0.34	N/A	17.93	48	5.9	1.0	384	8.81
6/9/2015	MW-7A	59.40	32.06	692.60	Normal	None	CP	N/A	4.46	13.50	NO	16.61	118	6.5	1.0	368	6.63
6/9/2015	MW-8	71.50	62.01	697.59	Normal	None	EOP	N/A	1.55	0.54	N/A	16.15	127	6.4	20.7	N/A	N/A
6/9/2015	MW-8A	84.40	61.97	697.71	Normal	None	CP	N/A	3.66	11.25	NO	16.05	104	6.7	1.9	365	7.85
6/9/2015	MW-9	30.80	24.48	687.39	Normal	None	CP	N/A	1.03	3.75	NO	17.56	60	5.4	0.4	405	3.70
6/9/2015	MW-9A	47.80	24.83	687.30	Normal	None	CP	N/A	3.75	11.25	NO	17.59	105	6.3	0.3	362	4.65
6/9/2015	MW-10A	59.23	50.88	704.90	Normal	None	CP	N/A	1.36	6.00	NO	16.78	24	5.6	1.1	429	7.71
6/9/2015	SW-1	N/A	N/A	N/A	Normal	None	N/A	N/A	N/A	N/A	N/A	20.70	107	7.2	39.8	205	7.30
6/9/2015	SW-2	N/A	N/A	N/A	Normal	None	N/A	N/A	N/A	N/A	N/A	20.40	99	7.0	35.0	256	7.66
6/9/2015	LEACHATE POND	N/A	N/A	N/A	Normal	None	N/A	N/A	N/A	N/A	N/A	20.79	908	6.8	19.0	N/A	N/A

Notes:

1. Purge Methods; LF=Low Flow, CP=Conventional Purge (3-5 well volumes), NP=No Purge (HydraSleeve), EOP=Equipment Only Purge. Pump rate applicable to LF purging only.
2. Field sampling performed by Duke Energy Carolinas, LLC personnel.
3. EVAC indicates whether the water level in the well was drawn down to the level of the pump during purging.
4. There was insufficient water in MW-5 to collect a groundwater sample.
5. µ℧/cm indicates micromhos per centimeter.
6. SU indicates Standard Units.
7. NTU indicates Nephelometric Turbidity Units.
8. mV-NHE indicates millivolts-Normal Hydrogen Electrode.
9. mL/min indicates milliliters per minute.
10. mg/L indicates milligrams per liter.
11. N/A indicates not applicable.
12. NS indicates no sample.
13. Information provided by Duke Energy on July 20, 2015.

Table 4–Groundwater Field and Analytical Results
Duke Energy Carolinas, LLC/McGuire Nuclear Station
Landfill #2 (Synthetically Lined) - Permit No. 6004

Sample Date: June 9, 2015

Field Sampling performed by Duke Energy Carolinas, LLC

Laboratory Certificate Codes:
Duke Energy Carolinas Field #5193
Duke Energy Analytical Laboratory #248
TestAmerica Laboratories, Inc. #358

Parameter	SWS ID	Units	Certificate Code	Monitoring Wells						MDL	SWSL	15A NCAC 2L Standard	Federal MCL
				6004-MW-5	6004-MW-5A	6004-MW-6	6004-MW-6A	6004-MW-7	6004-MW-7A				
Field pH	320	SU	5193	NS	**6.4**	**5.9**	**5.6**	**5.9**	**6.5**	-	NE	6.5-8.5	6.5-8.5*
Specific Conductance	323	µŮ/cm	5193	NS	54	109	55	48	118	-	NE	NE	NE
Temperature	325	°C	5193	NS	16.49	16.39	16.24	17.93	16.61	-	NE	NE	NE
Top Casing	328	feet	-	768.31	768.42	728.45	728.98	725.86	724.66	-	NE	NE	NE
Depth to Water	318	feet	-	61.04	62.12	30.42	29.68	33.06	32.06	-	NE	NE	NE
Water Elevation	427	feet	-	707.27	706.30	698.03	699.30	692.80	692.60	-	NE	NE	NE
Well Depth	411	feet	-	63.90	96.00	37.20	47.90	37.30	59.40	-	NE	NE	NE
Arsenic	14	µg/L	248	NS	0.262 J	0.078 U	0.078 U	0.078 U	0.116 J	0.078	10	10	10
Barium	15	µg/L	248	NS	26.3 J'	54.9 J'	50.4 J'	31.1 J'	4.8 J	0.1	100	700	2,000
Cadmium	34	µg/L	248	NS	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101	1	2	5
Chloride	455	µg/L	248	NS	1,230	10,100	5,220	1,650	1,320	22	NE	250,000	250,000*
Chromium	51	µg/L	248	NS	0.613 J	1.44 J	0.5 U	0.5 U	0.5 U	0.5	10	10	100
Lead	131	µg/L	248	NS	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065	10	15	15
Mercury	132	µg/L	248	NS	0.023 J	0.016 J	0.024 J	0.016 J	0.021 J	0.006	0.2	1	2
Selenium	183	µg/L	248	NS	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092	10	20	50
Silver	184	µg/L	248	NS	0.7 U	0.749 J	0.7 U	0.7 U	0.7 U	0.7	10	20	100*
Sulfate	315	µg/L	248	NS	1,630 J'	322 J'	18 U	18 U	320 J'	18	250,000	250,000	250,000*
TPH DRO	NE	mg/L	358	NS	50 U	50 U	50 U	209	50 U	50	NE	NE	NE
EPA 8260B (VOCs)	SEE NOTE 16												

Notes:

1. Concentrations presented in micrograms per liter (µg/L) and milligrams per liter (mg/L).
2. SWS ID is the Solid Waste Section Identification Number.
3. MDL is the laboratory method detection limit. The MDL values presented are for samples not diluted by the laboratory during analysis.
4. SWSL is the Solid Waste Section Limit. NCDENR defines the SWSL as the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
5. 15A NCAC 2L Standard refers to Class GA Standards as found in 15A NCAC 02L .0202 Groundwater Quality Standards, last amended on April 1, 2013.
6. MCL is the Federal Maximum Contaminant Level as found in 40 CFR, Subpart G, §141.62.
7. * Concentration listed is a secondary maximum contaminant level (SMCL). SMCLs are established by EPA in the National Secondary Drinking Water Regulations as found in 40 CFR §143.3.
8. NE indicates not established. NA indicates not analyzed. NS indicates no sample was collected. Blank cells indicate that there is no information relevant to the respective row.
9. Grayed values indicate values that equal or are greater than the SWSL.
10. Bold values indicate values that attain or exceed the 15A NCAC 2L Standard.
11. Qualifiers in non-italicized text are laboratory data qualifiers or "flags". "U" is used to identify results not detected at concentrations which equal the laboratory's MDL.
    "J" is used to identify estimated concentrations which equal or are greater than the MDL but are less than the laboratory's method reporting limit (MRL).
    An italicized J'-flag is a data qualifier, added by HDR to indicate concentrations which equal or are greater than the laboratory's MRL but are less than the SWSL.
12. TPH DRO indicates Total Petroleum Hydrocarbons Diesel Range Organics.
13. SU indicates Standard Units.
14. µŮ/cm indicates micromhos per centimeter.
15. According to the Constituent Look-up webpage on the NCDENR Division of Waste Management webpage, there is no SWSL or 2L Standard for choride associated with CAS number 16887-00-6, which is the CAS reported by the laboratory for the analyses completed. Therefore, the SWSL and 2L Standard listed are for the chloride with CAS number SW301 as specified on the Constituent Look-up webpage (last updated June 13, 2011).
16. No EPA Method 8260B volatile organic compounds (VOCs) were measured at concentrations which equal or are greater than their MDL.
17. Information provided by Duke Energy on July 20, 2015.

Table 4–Groundwater Field and Analytical Results
Duke Energy Carolinas, LLC/McGuire Nuclear Station
Landfill #2 (Synthetically Lined) - Permit No. 6004

Sample Date: June 9, 2015

Laboratory Certificate Codes:
Duke Energy Carolinas Field #5193
Duke Energy Analytical Laboratory #248
TestAmerica Laboratories, Inc. #358

Field Sampling performed by Duke Energy, LLC

Parameter	SWS ID	Units	Certificate Code	Monitoring Wells					Trip Blank	Field Blank	MDL	SWSL	15A NCAC 2L Standard	Federal MCL
				6004-MW-8	6004-MW-8A	6004-MW-9	6004-MW-9A	6004-MW-10A						
Field pH	320	SU	5193	**6.4**	6.7	**5.4**	**6.3**	**5.6**	-	-	-	NE	6.5-8.5	6.5-8.5*
Specific Conductance	323	µŮ/cm	5193	127	104	60	105	24	-	-	-	NE	NE	NE
Temperature	325	°C	5193	16.15	16.05	17.56	17.59	16.78	-	-	-	NE	NE	NE
Top Casing	328	feet	-	759.60	759.68	711.87	712.13	755.78	-	-	-	NE	NE	NE
Depth to Water	318	feet	-	62.01	61.97	24.48	24.83	50.88	-	-	-	NE	NE	NE
Water Elevation	427	feet	-	697.59	697.71	687.39	687.30	704.90	-	-	-	NE	NE	NE
Well Depth	411	feet	-	71.50	84.40	30.80	47.80	59.23	-	-	-	NE	NE	NE
Arsenic	14	µg/L	248	0.102 J	0.078 U	0.078 U	0.078 U	0.078 U	-	0.078 U	0.078	10	10	10
Barium	15	µg/L	248	35.2 *J'*	26.4 *J'*	25.6 *J'*	9.27 *J'*	16.1 *J'*	-	0.1 U	0.1	100	700	2,000
Cadmium	34	µg/L	248	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	-	0.101 U	0.101	1	2	5
Chloride	455	µg/L	248	1,460	2,020	2,600	1,590	1,220	-	32.8 J	22	NE	250,000	250,000*
Chromium	51	µg/L	248	1.18 J	0.5 U	0.5 U	1.27 J	0.5 U	-	0.5 U	0.5	10	10	100
Lead	131	µg/L	248	0.413 J	0.065 U	0.065 U	0.065 U	0.065 U	-	0.065 U	0.065	10	15	15
Mercury	132	µg/L	248	0.021 J	0.017 J	0.02 J	0.011 J	0.012 J	-	0.014 J	0.006	0.2	1	2
Selenium	183	µg/L	248	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	-	0.092 U	0.092	10	20	50
Silver	184	µg/L	248	0.7 U	0.775 J	0.7 U	0.7 U	0.7 U	-	0.7 U	0.7	10	20	100*
Sulfate	315	µg/L	248	605 *J'*	968 *J'*	300 *J'*	189 *J'*	487 *J'*	-	18 U	18	250,000	250,000	250,000*
TPH DRO	NE	mg/L	358	50 U	50 U	121	50 U	50 U	-	50 U	50	NE	NE	NE
EPA 8260B (VOCs)	SEE NOTE 16													

Notes:

1. Concentrations presented in micrograms per liter (µg/L) and milligrams per liter (mg/L).
2. SWS ID is the Solid Waste Section Identification Number.
3. MDL is the laboratory method detection limit. The MDL values presented are for samples not diluted by the laboratory during analysis.
4. SWSL is the Solid Waste Section Limit. NCDENR defines the SWSL as the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
5. 15A NCAC 2L Standard refers to Class GA Standards as found in 15A NCAC 02L .0202 Groundwater Quality Standards, last amended on April 1, 2013.
6. MCL is the Federal Maximum Contaminant Level as found in 40 CFR, Subpart G, §141.62.
7. * Concentration listed is a secondary maximum contaminant level (SMCL). SMCLs are established by EPA in the National Secondary Drinking Water Regulations as found in 40 CFR §143.3.
8. NE indicates not established. NA indicates not analyzed. NS indicates no sample was collected. Blank cells indicate that there is no information relevant to the respective row.
9. Grayed values indicate values that equal or are greater than the SWSL.
10. Bold values indicate values that attain or exceed the 15A NCAC 2L Standard.
11. Qualifiers in non-italicized text are laboratory data qualifiers or "flags". "U" is used to identify results not detected at concentrations which equal the laboratory's MDL.
    "J" is used to identify estimated concentrations which equal or are greater than the MDL but are less than the laboratory's method reporting limit (MRL).
    An italicized *J'* -flag is a data qualifier, added by HDR to indicate concentrations which equal or are greater than the laboratory's MRL but are less than the SWSL.
12. TPH DRO indicates Total Petroleum Hydrocarbons Diesel Range Organics.
13. SU indicates Standard Units.
14. µŮ/cm indicates micromhos per centimeter.
15. According to the Constituent Look-up webpage on the NCDENR Division of Waste Management webpage, there is no SWSL or 2L Standard for choride associated with CAS number 16887-00-6, which is the CAS reported by the laboratory for the analyses completed. Therefore, the SWSL and 2L Standard listed are for the chloride with CAS number SW301 as specified on the Constituent Look-up webpage (last updated June 13, 2011).
16. No EPA Method 8260B volatile organic compounds (VOCs) were measured at concentrations which equal or are greater than their MDL.
17. Information provided by Duke Energy on July 20, 2015.

Table 5–Field and Analytical Results that Equal or Exceed 15A NCAC 2L Groundwater Quality Standards Duke Energy Carolinas, LLC/McGuire Nuclear Station Landfill #2 (Synthetically Lined) - Permit No. 6004

Sample Date: June 9, 2015						
Parameter	**Sample ID**	**Result**	**Units**	**15A NCAC 2L Standard**	**Historical Concentrations**	**Cause and Significance**
pH	MW-5A	6.4	SU	6.5 - 8.5	5.0 - 6.8	pH is consistent with historical readings at MW-5A. MW-5A is considered one of the background wells for the site.
	MW-6	5.9			5.6 - 6.3	pH is consistent with historical readings at MW-6.
	MW-6A	5.6			5.1 - 6.0	pH is consistent with historical readings at MW-6A.
	MW-7	5.9			5.2 - 7.1	pH is consistent with historical readings at MW-7.
	MW-7A	6.5			6.1 - 7.6	pH is consistent with historical readings at MW-7A.
	MW-8	6.4			6.0 - 7.0	pH is consistent with historical readings at MW-8.
	MW-9	5.4			4.8 - 6.2	pH is consistent with historical readings at MW-9.
	MW-9A	6.3			5.8 - 6.7	pH is consistent with historical readings at MW-9A.
	MW-10A	5.6			4.9 - 6.0	pH is consistent with historical readings at MW-10A.

Notes:

1. 15A NCAC 2L Standard refers to Class GA Standards as found in 15A NCAC 02L .0202 Groundwater Standards, last amended on April 1, 2013.
2. µg/L indicates micrograms per liter.
3. SU indicates Standard Units.
4. Historical concentrations based on data in Duke Energy Carolinas, LLC analytical results database.
5. Historical concentrations not measured at values which equal or are greater than the laboratory method reporting limit are presented as <MRL.
6. Information provided by Duke Energy on July 20, 2015.

Table 6–Surface Water Field and Analytical Results
Duke Energy Carolinas, LLC/McGuire Nuclear Station
Landfill #2 (Synthetically Lined) - Permit No. 6004

Sample Date: June 9, 2015

Laboratory Certificate Codes:
Duke Energy Carolinas Field #5193
Duke Energy Analytical Laboratory #248
TestAmerica Laboratories, Inc. #358

Field Sampling performed by Duke Energy Carolinas, LLC

Parameter	SWS ID	Units	Certificate Code	Surface Water Sampling Locations		MDL	SWSL	15A NCAC 2B Standard	Federal MCL
				6004-SW-1	6004-SW-2				
Field pH	320	SU	5193	7.2	7.0	-	NE	6.0-9.0	6.5-8.5**
Specific Conductance	323	µŭ/cm	5193	107	99	-	NE	NE	NE
Temperature	325	°C	5193	20.70	20.40	-	NE	NE	NE
Arsenic†	14	µg/L	248	0.36 J	0.284 J	0.078	10	10	10
Barium†	15	µg/L	248	35.2 J'	24.1 J'	0.1	100	NE	2,000
Cadmium†	34	µg/L	248	0.101 U	0.101 U	0.101	1	0.15*	5
Chloride	455	µg/L	248	2,490	3,050	22	NE	230,000	250,000**
Chromium†	51	µg/L	248	0.505 J	0.682 J	0.5	10	11***	100
Lead†	131	µg/L	248	0.302 J	0.325 J	0.065	10	0.54*	15
Mercury	132	µg/L	248	0.019 J	0.015 J	0.006	0.2	0.012	2
Selenium	183	µg/L	248	0.092 U	0.092 U	0.092	10	5	50
Silver†	184	µg/L	248	0.7 U	0.7 U	0.7	10	0.06	100*
Sulfate	315	µg/L	248	2,430 J'	3,280 J'	18	250,000	NE	250,000**
TPH DRO	NE	mg/L	358	204	96.6 J	50	NE	NE	NE
EPA 8260B (VOCs)	SEE NOTE 18								

Notes:

1. Concentrations presented in micrograms per liter (µg/L).
2. SWS ID is the Solid Waste Section Identification Number.
3. MDL is the laboratory method detection limit. The MDL values presented are the lowest MDLs values for the leachate samples. Samples with greater dillution factors will have MDLs greater than the values presented.
4. SWSL is the Solid Waste Section Limit. NCDENR defines the SWSL as the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
5. 15A NCAC 2B Standard is from "North Carolina Administrative Code, Title 15A: Deparment of Environment and Natural Resources, Subchapter 2B - Surface Water and Wetland Standards," (last amended on January 1, 2015) for Class C waters.
6. Standards for Class C waters assume the most stringent of Freshwater and Human Health standards.
7. The unnamed tributary to the Catawba River is classified as WS-IV waters. Regulation 15A NCAC 02B .0216 provides water quality standards for WS-IV waters. Class C water quality standards also apply to WS-IV waters.
   Class C water quality standards are provided in regulation 15A NCAC 02B .0211. For parameters and consituents where standards exist for both classes, the more stringent is listed as the 2B Standard.
   Reference 15A NCAC 2B .0200 Classifications and Water Quality Standards Applicable to Surface Waters and Wetlands of N.C. Amended Effective: May 1, 2007.
8. MCL is the Federal Maximum Contaminant Level as found in 40 CFR, Subpart G, §141.62.
9. Grayed values indicate values that equal or are greater than the SWSL.
10. Bold values indicate values that attain or exceed the 15A NCAC 2B Standard.
11. NE indicates not established. Blank cells indicate that there is no information relevant to the respective row.
12. Qualifiers in non-italicized text are laboratory data qualifiers or "flags". "U" is used to identify results not detected at concentrations which are greater than the laboratory's method detection limit (MDL).
    "J" is used to identify estimated concentrations which equal or are greater than the MDL but are less than the laboratory's method reporting limit (MRL).
    An italicized J' -flag is a data qualifier, added by HDR, to indicate concentrations which equal or are greater than the laboratory's MRL but are less than the SWSL.
13. According to the Constituent Look-up webpage on the NCDENR Division of Waste Management webpage, there is no SWSL for choride associated with CAS number 16887-00-6, which is the CAS reported by the laboratory for the analyses completed. Therefore, the SWSL and 2B Standard listed is for the chloride with CAS number SW301 as specified on the Constituent Look-up webpage (last updated June 13, 2011).
14. SU indicates Standard Units.
15. µŭ/cm indicates micromhos per centimeter.
16. Information provided by Duke Energy on July 20, 2015.
17. † indicates a parameter analyzed as total recoverable while the 2B standard is applicable to the dissolved fraction; Duke is adopting analytical methods to be consistent with 2B standards.
18. No EPA Method 8260B volatile organic compounds (VOCs) were measured at concentrations which equal or are greater than their MDL.
19. * Standard listed is hardness dependent; standard is displayed assuming a hardness of ≤ 25 mg/L.
20. ** Concentration listed is a secondary maximum contaminant level (SMCL). SMCLs are established by EPA in the National Secondary Drinking Water Regulations as found in 40 CFR §143.3.
21. *** Standard listed is most stringent of Cr(III) and Cr(VI).

Table 7–Leachate Sample Field and Analytical Results
Duke Energy Carolinas, LLC/McGuire Nuclear Station
Landfill #2 (Synthetically Lined) - Permit No. 6004

Sample Date: June 9, 2015

Laboratory Certificate Codes:
Duke Energy Carolinas Field #5193
Duke Energy Analytical Laboratory #248
TestAmerica Laboratories, Inc. #358

Field Sampling performed by Duke Energy, LLC

Parameter	SWS ID	Units	Certificate Code	6004-Leachate Pond	MDL	SWSL
Field pH	320	SU	5193	6.8	-	NE
Specific Conductance	323	µ℧/cm	5193	908	-	NE
Temperature	325	°C	5193	20.79	-	NE
Arsenic	14	µg/L	248	0.78 U	0.078	10
Barium	15	µg/L	248	62.8 *J'*	0.1	100
Cadmium	34	µg/L	248	1.01 U	0.101	1
Chloride	455	µg/L	248	42,200	22	NE
Chromium	51	µg/L	248	0.5 U	0.5	10
Lead	131	µg/L	248	0.65 U	0.065	10
Mercury	132	µg/L	248	0.006 U	0.006	0.2
Selenium	183	µg/L	248	0.92 U	0.092	10
Silver	184	µg/L	248	0.7 U	0.7	10
Sulfate	315	µg/L	248	86,200 *J'*	18	250,000
TPH DRO	NE	mg/L	358	11,600	50	NE
EPA 8260 (VOCs)	SEE NOTE 12					

Notes:

1. Concentrations presented in micrograms per liter (µg/L) and milligrams per liter (mg/L).
2. SWS ID is the Solid Waste Section Identification Number.
3. MDL is the laboratory method detection limit. The MDL values presented are for samples not diluted by the laboratory during analysis.
4. SWSL is the Solid Waste Section Limit. NCDENR defines the SWSL as the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
5. Grayed values indicate values that equal or are greater than the SWSL.
6. TPH DRO indicates Total Petroleum Hydrocarbons Diesel Range Organics.
7. NE indicates not established. Blank cells indicate that there is no information relevant to the respective row.
8. Qualifiers in non-italicized text are laboratory data qualifiers or "flags". "U" is used to identify results not detected at concentrations which equal the laboratory's MDL.
   "J" is used to identify estimated concentrations which equal or are greater than the MDL but are less than the laboratory's method reporting limit (MRL).
   An italicized *J'*-flag is a data qualifier, added by HDR to indicate concentrations which equal or are greater than the laboratory's MRL but are less than the SWSL.
9. According to the Constituent Look-up webpage on the NCDENR Division of Waste Management webpage, there is no SWSL for choride associated with CAS number 16887-00-6, which is the CAS reported by the laboratory for the analyses completed. Therefore, the SWSL listed is for the chloride with CAS number SW301 as specified on the Constituent Look-up webpage (last updated June 13, 2011).
10. SU indicates Standard Units.
11. µ℧/cm indicates micromhos per centimeter.
12. No EPA Method 8260 volatile organic compounds (VOCs) were measured at concentrations which equal or are greater than their MDL.
13. Information provided by Duke Energy on July 20, 2015.

Table 8–Radiological Analytical Results
Duke Energy Carolinas, LLC/McGuire Nuclear Station
Landfill # 2 (Synthetically Lined) - Permit No. 6004

Sample Date: June 9, 2015

Laboratory Certificate Codes:
Duke Energy Analytical Laboratory #248

Field Sampling Performed by Duke Energy Carolinas, LLC

Parameter	Units	Certificate Code	Monitoring Well Identification											Leachate Pond	SW-1	SW-2
			MW-5	MW-5A	MW-6	MW-6A	MW-7	MW-7A	MW-8	MW-8A	MW-9	MW-9A	MW-10A			
Gross Alpha	pCi/L	248		<0.086	<-0.16	<-0.19	<-0.047	<-0.42	<-0.01	<-0.48	<-0.33	<0.328	<-0.29	4.37	<-0.069	<0.0884
BaLa-140	pCi/L	248		<4.31	<3.78	<5.78	<4.92	<5.2	<5.1	<4.57	<3.78	<3.13	<6.19	<4.27	<4.57	<4.36
Be-7	pCi/L	248		<31.1	<34.9	<36	<32.3	<32	<36.5	<32.7	<27.8	<31.7	<37.5	<30	<24.4	<30.4
Gross Beta	pCi/L	248		1.24	0.794	1.69	<0.555	0.972	1.76	0.906	<0.372	0.944	<0.477	16.9	2.49	2.66
Co-58	pCi/L	248		<3.83	<3.34	<3.73	<3.7	<3.45	<4.59	<3.87	<4.29	<4.75	<3.7	<3.64	<2.93	<2.82
Co-60	pCi/L	248		<4.19	<2.39	<4.28	<4.58	<3.84	<5.08	<4.77	<3.5	<5.08	<5.89	<3.84	<4.07	<2.4
Cs-134	pCi/L	248		<4.36	<4.49	<4.24	<2.86	<3.93	<5.03	<3.91	<5.74	<4.62	<5.5	<3.43	<5.03	<4.24
Cs-137	pCi/L	248		<4.93	<3.79	<3.74	<3.72	<3.67	<4.44	<4.27	<3.13	<3.89	<4.86	<3.47	<3.21	<4.28
Fe-59	pCi/L	248		<5.43	<8.17	<7.73	<6.13	<4.67	<7.52	<6.41	<7.26	<8.02	<7.68	<6.04	<4.95	<6.16
H3GW (Tritium)	pCi/L	248		<-190	<-150	<-12	<-93	<-83	<-44	<-88	<~0	<24.4	<-110	1290	<70.8	<9.76
I-131	pCi/L	248		<4.47	<3.52	<4.21	<4.09	<4.22	<4.75	<5.11	<3.52	<3.95	<4.42	<4.03	<3.57	<4.04
K-40	pCi/L	248		<59.9	<67.2	<59.1	53.9	<55.4	<72	<77.6	<56.5	<72	<65.3	<55.4	<79.4	<56.8
Mn-54	pCi/L	248		<4.2	<3.58	<3.55	<3.91	<4.03	<4.45	<4.94	<4.48	<3.89	<4.09	<3.26	<3.46	<3.1
Nb-95	pCi/L	248		<3.35	<4	<3.96	<4.1	<3.87	<5.03	<4.44	<4.16	<3.94	<5.32	<4.87	<4.11	<2.97
Zn-65	pCi/L	248		<6.81	<6.95	<7.59	<8.62	<7.99	<7.87	<9.52	<4.26	<4.42	<10.4	<7.43	<6.46	<6.23
Zr-95	pCi/L	248		<7.29	<5.42	<6.5	<5.74	<6.98	<6.75	<8.29	<4.97	<7.09	<8.2	<6.36	<8.01	<5.36

Notes:

1. Concentrations presented in picocuries per liter (pCi/L).
2. NS indicates no sample was collected.
3. Information provided by Duke Energy on July 20, 2015.

A

Appendix A
Field Sampling Forms

FIELD SAMPLING CALIBRATION FORM

STUDY: McGUIRE NUCLEAR STATION - LANDFILL 2 GROUNDWATER MONITORING

DATE (s): June 9, 2015 | **SURFACE UNIT READER:** LDC

COLLECTORS: LDC, PSP | **SURFACE UNIT SERIAL #:** 3858

ANALYZER MODEL#: MS5 | **ANALYZER SERIAL #:** 66121

OTHER EQUIPMENT: TURBIDIMETER NO.3 - 3260-GW | **WEATHER CONDITIONS:** Clouds to sun, calm, 70 to 85 deg F.

PROCEDURE #: HYDROLAB 3210.5 **VALIDATED BY:** LDC 6/10/15

Calibration Date / Time		DATE:	9-Jun-15		TIME:	5:20	DATE:	9-Jun-15		TIME:	12:55
		CALIBRATION BP (mmHg)			740.1		CALIBRATION BP (mmHg)			739.6	
Parameter	**Calibation Standard**	**Instrument Value**		**Standard Value**	**Calibration Results**		**Instrument Value**		**Standard Value**	**Calibration Results**	
SPEC. COND. (uS/cm)	SS	0.0	—/—►	0.0	Instrument Zeroed		0.0	—/—►	0.0	Zero Pass	
	SS	230.7	——►	227	Calibration Accepted		220.5	—/—►	227	Calibration Pass	
	SS	73.6	—/—►	75	Calibration Accepted		72.7	—/—►	75	Calibration Pass	
Specifc conductance checkpoint (used if sampled well is outside of initial calibration range).											
SPEC. COND. CHECK (uS/cm)	SS		—/—►					—/—►			
pH (units)	B (7.00)	6.83	——►	7.02	Calibration Accepted		6.94	—/—►	7.02	Calibration Pass	
	B (4.00)	4.00	——►	4.00	Calibration Accepted		3.87	—/—►	4.00	Calibration Pass	
	B (10.00)	10.13	—/—►	10.06	Calibration Accepted		10.01	—/—►	10.06	Calibration Pass	
			Buffer Temp.	20.38				Buffer Temp.	20.44		
pH Check	B (7.00)		——►								
Time:			Buffer Temp.								
☑	SS (7.00)	305	——►	294	Calibration Accepted		295	—/—►	294	Calibration Pass	
	SS (4.00)	N/A	—/—►	469			N/A	—/—►	469		
			ORP Temp.	20.56				ORP Temp.	20.53		
☑ DO (mg/L)	W			8.50					8.50		
	W			8.50					8.50		
	AW	8.50	——►	8.50	Calibration Accepted		8.61	—/—►	8.50	Calibration Pass	
☑ TURB (ntu)	SS	52.4	—/—►	53.3	Calibration Accepted		53.9	—/—►	53.3	Calibration Accepted	
Temp Cert Device #											
TEMP (deg C)	NIST	N/A	—/—►	N/A	Adjustment Not Available		N/A	—/—►	N/A	Adjustment Not Available	

INSTRUMENT MAINTENANCE	DATE / TIME

Conductance Subsystem	***pH Subsystem***
☐ Cleaned Electrodes	☐ Cleaned Electrodes
☐ Tested - OK	☐ Replaced ref Electrode KCL
☐ See Notes	☐ Replaced Ref. Electrode Tip
	☐ Tested - OK ☐ See Notes
Oxidation Reduction Subsystem	***Temperature Subsystem***
☐ Cleaned Electrode	☐ Cleaned Electrode
☐ Tested - OK ☐ See Notes	☐ Tested - OK ☐ See Notes
Dissolved Oxygen Subsystem	
☐ Replaced Teflon Membrane	☐ Cleaned Electrode
☐ Replaced DO electrolyte	☐ See Notes

Field Barometric Pressure					
Beginning BP	740.1	(mmHg)	Ending BP	739.6	(mmHg)

KEY: B = Buffer; SS = Standard solution; W = Winkler; AW = Average Winkler; ——► = Adjusted To; —/—► = Not Adjusted To; N/A = Not Applicable

NOTES:

FIELD SAMPLING CALIBRATION FORM

STUDY:	**McGUIRE NUCLEAR STATION - LANDFILL 2 GROUNDWATER MONITORING**		
DATE (s):	**June 9, 2015**	**SURFACE UNIT READER:**	**PSP**
COLLECTORS:	**LDC, PSP**	**SURFACE UNIT SERIAL #:**	**S05042**
ANALYZER MODEL#:	**MS5**	**ANALYZER SERIAL #:**	**66120**
OTHER EQUIPMENT:	**TURBIDIMETER NO.1 - 3260-GW**	**WEATHER CONDITIONS:**	**Clouds to sun, calm, 70 to 85 deg F.**

PROCEDURE #: HYDROLAB 3210.5 **VALIDATED BY:** LDC 6/10/15

Calibration Date / Time		DATE:	9-Jun-15		TIME:	5:10	DATE:	9-Jun-15		TIME:	13:00
		CALIBRATION BP (mmHg)			740.1		CALIBRATION BP (mmHg)			739.6	
Parameter	**Calibation Standard**	**Instrument Value**		**Standard Value**	**Calibration Results**		**Instrument Value**		**Standard Value**	**Calibration Results**	
SPEC. COND. (uS/cm)	SS	0.0	—/—►	0.0	Instrument Zeroed		0.0	—/—►	0.0	Zero Pass	
	SS	232.7	——►	227	Calibration Accepted		221.6	—/—►	227	Calibration Pass	
	SS	72.3	—/—►	75	Calibration Accepted		71.5	—/—►	75	Calibration Pass	
Specifc conductance checkpoint (used if sampled well is outside of initial calibration range).											
SPEC. COND. CHECK (uS/cm)	SS		—/—►					—/—►			
pH (units)	B (7.00)	7.00	——►	7.02	Calibration Accepted		7.08	—/—►	7.02	Calibration Pass	
	B (4.00)	4.01	——►	4.00	Calibration Accepted		3.98	—/—►	4.00	Calibration Pass	
	B (10.00)	10.09	—/—►	10.06	Calibration Accepted		10.19	—/—►	10.06	Calibration Pass	
			Buffer Temp.	20.34				Buffer Temp.	20.43		
pH Check	B (7.00)		——►								
Time:			Buffer Temp.								
☑	SS (7.00)	291	——►	294	Calibration Accepted		287	—/—►	294	Calibration Pass	
	SS (4.00)	N/A	—/—►	469			N/A	—/—►	469		
			ORP Temp.	20.51				ORP Temp.	20.56		
☑ DO (mg/L)	W			8.50					8.50		
	W			8.50					8.50		
	AW	8.55	——►	8.50	Calibration Accepted		8.63	—/—►	8.50	Calibration Pass	
☑ TURB (ntu)	SS	53.3	—/—►	52.9	Calibration Accepted		53.0	—/—►	52.9	Calibration Accepted	
Temp Cert Device #											
TEMP (deg C)	NIST	N/A	—/—►	N/A	Adjustment Not Available		N/A	—/—►	N/A	Adjustment Not Available	

INSTRUMENT MAINTENANCE	**DATE / TIME**

Conductance Subsystem	***pH Subsystem***
☐ Cleaned Electrodes	☐ Cleaned Electrodes
☐ Tested - OK	☐ Replaced ref Electrode KCL
☐ See Notes	☐ Replaced Ref. Electrode Tip
	☐ Tested - OK ☐ See Notes
Oxidation Reduction Subsystem	***Temperature Subsystem***
☐ Cleaned Electrode	☐ Cleaned Electrode
☐ Tested - OK ☐ See Notes	☐ Tested - OK ☐ See Notes
Dissolved Oxygen Subsystem	
☐ Replaced Teflon Membrane	☐ Cleaned Electrode
☐ Replaced DO electrolyte	☐ See Notes

Field Barometric Pressure					
Beginning BP	740.1	(mmHg)	Ending BP	739.6	(mmHg)

KEY: B = Buffer; SS = Standard solution; W = Winkler; AW = Average Winkler; ——► = Adjusted To; —/—► = Not Adjusted To; N/A = Not Applicable

NOTES:

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR CONVENTIONAL SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	MW-5		

MONITORING WELL INFORMATION

WELL DIAMETER (in)	2	TOC ELEV (ft msl)	768.31	MIDDLE OF WETTED SCREEN (ft toc)			62.47
WELL DEPTH (ft TOC)	63.90	GS ELEV (ft msl)	766.42	PUMP INTAKE DEPTH (ft TOC)			62.90
SCREEN LENGTH (ft)	14.00	ELEV REF	NGVD 27	SCREEN INTERVAL (ft TOC)	49.90	TO	63.90

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	26055	SAMPLING EQUIPMENT	QED T1200	PURGE METHOD	
		TUBING DIAMETER (in)	1/2 OD	Conventional	

Insufficient Volume to Sample

PUMP CONTROLLER SETTINGS								
PRESSURE	38	(psi)	RECHARGE	10	(sec)	DISCHARGE	5	(sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	61.04	WATER COLUMN (ft)	2.86	*Well Volume = water column X conversion factor*	
WATER ELEVATION (ft msl)	707.27	WELL VOLUME (gal)	0.47	(Conversion factor dependent on well diameter and selected well volume units)	
DETECTED ODOR	None	CONVERSION FACTOR	0.1631		
APPEARANCE	Normal				

PURGE VOLUME 0.47 (gal)	WATER LEVEL AFTER PURGE * (ft)	COMPLETE EVACUATION (YES/NO)	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV-NHE)	☐ DISSOLVED OXYGEN (mg/L)	☐ (gal) WELL VOL (recalculates on current water level)
							N/A	N/A	

TOTAL PURGE VOLUME	* Optional measurement to recalculate well volume when purging results in substantial drawdown of water column	SAMPLE COLLECTED BY	DATE		TIME	CHLORINE (mg/l)
0.00		PSP	6/9/2015	@	0925	N/A

QC By:	LDC CHOLIS	Sample preservation verified to pH (units)	

WELL CONDITION			ADDITIONAL WELL CONDITION NOTES
PROTECTIVE CASING	Good Condition		
WELL PAD	Good Condition		
WELL CASING	Good Condition		
WELL TAG	Good Tag		

SAMPLING NOTES

There is not enough water present to do an equipment purge. Equipment purge minimum volume is 0.49 gallons, there is only 0.47 gallons avaliable to purge, available water will not fill baladder and tubing to discharge at surface, well will evacuate and has effectively no recharge.

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR CONVENTIONAL SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	MW-5A		

MONITORING WELL INFORMATION

WELL DIAMETER (in)	2	TOC ELEV (ft msl)	768.42	MIDDLE OF WETTED SCREEN (ft toc)			89.00
WELL DEPTH (ft TOC)	96.00	GS ELEV (ft msl)	766.45	PUMP INTAKE DEPTH (ft TOC)			95.00
SCREEN LENGTH (ft)	14.00	ELEV REF	NGVD 27	SCREEN INTERVAL (ft TOC)	82.00	TO	96.00

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	26055	SAMPLING EQUIPMENT	QED T1200				PURGE METHOD	
		TUBING DIAMETER (in)	1/2 OD				Conventional	
PUMP CONTROLLER SETTINGS								
PRESSURE	50	(psi)	RECHARGE	10	(sec)	DISCHARGE	10	(sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	62.12	WATER COLUMN (ft)	33.88	*Well Volume = water column X conversion factor* (Conversion factor dependent on well diameter and selected well volume units)	
WATER ELEVATION (ft msl)	706.30	WELL VOLUME (gal)	5.53		
DETECTED ODOR	None	CONVERSION FACTOR	0.1631		
APPEARANCE	Normal				

PURGE VOLUME 5.53 (gal)	WATER LEVEL AFTER PURGE * (ft)	COMPLETE EVACUATION (YES/NO)	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV-NHE)	☐ DISSOLVED OXYGEN (mg/L)	☐ (gal) WELL VOL (recalculates on current water level)
5.75		NO	16.47	53	6.41	0.9	413	8.23	
5.75		NO	16.46	54	6.43	1.0	421	8.39	
5.75		NO	16.49	54	6.43	1.2	426	8.35	

TOTAL PURGE VOLUME	* Optional measurement to recalculate well volume when purging results in substantial drawdown of water column	COLLECT SAMPLE - SAMPLE CRITERIA SATISFIED				CHLORINE (mg/l)
		SAMPLE COLLECTED BY	DATE		TIME	
17.25		PSP	6/9/2015	@	1010	0

QC By:	USC 6/10/15	Sample preservation verified to pH (units)	< 2.0

WELL CONDITION			ADDITIONAL WELL CONDITION NOTES
PROTECTIVE CASING	Good Condition		
WELL PAD	Good Condition		
WELL CASING	Good Condition		
WELL TAG	Good Tag		

SAMPLING NOTES

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR CONVENTIONAL SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	MW-6		

MONITORING WELL INFORMATION

WELL DIAMETER (in)	2	TOC ELEV (ft msl)	728.45	MIDDLE OF WETTED SCREEN (ft toc)			33.81
WELL DEPTH (ft TOC)	37.20	GS ELEV (ft msl)	726.79	PUMP INTAKE DEPTH (ft TOC)			36.20
SCREEN LENGTH (ft)	14.00	ELEV REF	NGVD 27	SCREEN INTERVAL (ft TOC)	23.20	TO	37.20

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	26055	SAMPLING EQUIPMENT	QED T1200				PURGE METHOD	
		TUBING DIAMETER (in)	1/2 OD				Conventional	
PUMP CONTROLLER SETTINGS								
PRESSURE	20	(psi)	RECHARGE	10	(sec)	DISCHARGE	10	(sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	30.42	WATER COLUMN (ft)	6.78	*Well Volume = water column X conversion factor*	
WATER ELEVATION (ft msl)	698.03	WELL VOLUME (gal)	1.11	(Conversion factor dependent on well diameter and selected well volume units)	
DETECTED ODOR	None	CONVERSION FACTOR	0.1631		
APPEARANCE	Normal				

PURGE VOLUME 1.11 (gal)	WATER LEVEL AFTER PURGE * (ft)	COMPLETE EVACUATION (YES/NO)	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV-NHE)	☐ DISSOLVED OXYGEN (mg/L)	☐ (gal) WELL VOL (recalculates on current water level)
1.25		NO	16.36	65	5.79	1.3	395	7.06	
1.25		NO	16.37	100	5.88	1.1	397	6.86	
1.25		NO	16.42	105	5.92	1.0	401	6.78	
1.25		NO	16.39	109	5.93	1.2	407	6.68	

TOTAL PURGE VOLUME	* Optional measurement to recalculate well volume when purging results in substantial drawdown of water column	COLLECT SAMPLE - SAMPLE CRITERIA SATISFIED			CHLORINE (mg/l)
		SAMPLE COLLECTED BY	DATE	TIME	
5.00		PSP	6/9/2015 @	0730	0

QC By:	LDC Chiolis	Sample preservation verified to pH (units)	< 2.0

WELL CONDITION			ADDITIONAL WELL CONDITION NOTES
PROTECTIVE CASING	Good Condition		
WELL PAD	Good Condition		
WELL CASING	Good Condition		
WELL TAG	Good Tag		

SAMPLING NOTES

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR CONVENTIONAL SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	MW-6A		

MONITORING WELL INFORMATION

WELL DIAMETER (in)	2	TOC ELEV (ft msl)	728.98	MIDDLE OF WETTED SCREEN (ft toc)			40.90
WELL DEPTH (ft TOC)	47.90	GS ELEV (ft msl)	727.54	PUMP INTAKE DEPTH (ft TOC)			46.90
SCREEN LENGTH (ft)	14.00	ELEV REF	NGVD 27	SCREEN INTERVAL (ft TOC)	33.90	TO	47.90

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	26055	SAMPLING EQUIPMENT	QED T1200	PURGE METHOD	
		TUBING DIAMETER (in)	1/2 OD	Conventional	

PUMP CONTROLLER SETTINGS								
PRESSURE	25	(psi)	RECHARGE	13	(sec)	DISCHARGE	7	(sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	29.68	WATER COLUMN (ft)	18.22	*Well Volume = water column X conversion factor* (Conversion factor dependent on well diameter and selected well volume units)	
WATER ELEVATION (ft msl)	699.30	WELL VOLUME (gal)	2.97		
DETECTED ODOR	None	CONVERSION FACTOR	0.1631		
APPEARANCE	Normal				

PURGE VOLUME 2.97 (gal)	WATER LEVEL AFTER PURGE * (ft)	COMPLETE EVACUATION (YES/NO)	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV-NHE)	☐ DISSOLVED OXYGEN (mg/L)	☐ (gal) WELL VOL (recalculates on current water level)
3.00		NO	16.27	56	5.51	1.2	410	7.91	
3.00		NO	16.26	54	5.52	0.7	420	7.91	
3.00		NO	16.24	55	5.55	0.4	435	7.92	

TOTAL PURGE VOLUME	* Optional measurement to recalculate well volume when purging results in substantial drawdown of water column	COLLECT SAMPLE - SAMPLE CRITERIA SATISFIED				CHLORINE (mg/l)
		SAMPLE COLLECTED BY	DATE		TIME	
9.00		PSP	6/9/2015	@	0735	0

QC By:	USC 6/10/15	Sample preservation verified to pH (units)	< 2.0

WELL CONDITION			ADDITIONAL WELL CONDITION NOTES
PROTECTIVE CASING	Good Condition		
WELL PAD	Good Condition		
WELL CASING	Good Condition		
WELL TAG	Good Tag		

SAMPLING NOTES

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR EQUIPMENT PURGE ONLY SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	MW-7		

MONITORING WELL INFORMATION

WELL DIAMETER (in)	2	TOC ELEV (ft msl)	725.86	MIDDLE OF WETTED SCREEN (ft toc)			35.18
WELL DEPTH (ft TOC)	37.30	GS ELEV (ft msl)	723.72	PUMP INTAKE DEPTH (ft TOC)			36.30
SCREEN LENGTH (ft)	14.00	ELEV REF	NGVD 27	SCREEN INTERVAL (ft TOC)	23.30	TO	37.30

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	28651	SAMPLING EQUIPMENT	QED T1200				PURGE METHOD	
		TUBING DIAMETER (in)	1/2 OD				Equip. Only Purge	
PUMP CONTROLLER SETTINGS								
PRESSURE	25	(psi)	RECHARGE	15	(sec)	DISCHARGE	5	(sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	33.06	WATER COLUMN (ft)	4.24	*Well Volume = water column X conversion factor* (Conversion factor dependent on well diameter and selected well volume units)
WATER ELEVATION (ft msl)	692.80	WELL VOLUME (gal)	0.69	
DETECTED ODOR	None	CONVERSION FACTOR	0.1631	
APPEARANCE	Normal			

INITIAL WATER LEVEL (ft)	FLOW RATE (ml/min)	FINAL WATER LEVEL (ft)	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV -NEH)	☐ DISSOLVED OXYGEN (mg/L)	☐
33.06	N/A	Below pump	17.93	48	5.89	1.0	384	8.81	N/A

Tubing Volume	788	(ml)	Removed 0.34 gal.			EQUIPMENT PURGE ONLY SAMPLE					CHLORINE (mg/l)
Pump (Bladder) Volume	495	(ml)				SAMPLE COLLECTED BY		DATE		TIME	
Total Purge Volume	1283	(ml)	=	0.34	(gal)	LDC		6/9/2015	@	0830	NA

QC By:	LDC 6/10/15	Sample preservation verified to pH (units)	< 2.0

WELL CONDITION			ADDITIONAL WELL CONDITION NOTES
PROTECTIVE CASING	Good Condition		
WELL PAD	Good Condition		
WELL CASING	Good Condition		
WELL TAG	Good Tag		

SAMPLING NOTES

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR CONVENTIONAL SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	MW-7A		

MONITORING WELL INFORMATION

WELL DIAMETER (in)	2	TOC ELEV (ft msl)	724.66	MIDDLE OF WETTED SCREEN (ft toc)			52.40
WELL DEPTH (ft TOC)	59.40	GS ELEV (ft msl)	722.74	PUMP INTAKE DEPTH (ft TOC)			58.40
SCREEN LENGTH (ft)	14.00	ELEV REF	NGVD 27	SCREEN INTERVAL (ft TOC)	45.40	TO	59.40

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	28651	SAMPLING EQUIPMENT	QED T1200	PURGE METHOD	
		TUBING DIAMETER (in)	1/2 OD	Conventional	

PUMP CONTROLLER SETTINGS								
PRESSURE	30	(psi)	RECHARGE	10	(sec)	DISCHARGE	10	(sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	32.06	WATER COLUMN (ft)	27.34	*Well Volume = water column X conversion factor*	
WATER ELEVATION (ft msl)	692.60	WELL VOLUME (gal)	4.46	(Conversion factor dependent on well diameter and selected well volume units)	
DETECTED ODOR	None	CONVERSION FACTOR	0.1631		
APPEARANCE	Normal				

PURGE VOLUME 4.46 (gal)	WATER LEVEL AFTER PURGE * (ft)	COMPLETE EVACUATION (YES/NO)	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV-NHE)	☐ DISSOLVED OXYGEN (mg/L)	☐ (gal) WELL VOL (recalculates on current water level)
4.50		NO	16.61	116	6.46	4.6	362	6.68	
4.50		NO	16.59	117	6.47	2.0	366	6.58	
4.50		NO	16.61	118	6.48	1.0	368	6.63	

TOTAL PURGE VOLUME	* Optional measurement to recalculate well volume when purging results in substantial drawdown of water column	COLLECT SAMPLE - SAMPLE CRITERIA SATISFIED				CHLORINE (mg/l)
		SAMPLE COLLECTED BY	DATE		TIME	
13.50		LDC	6/9/2015	@	0910	0

QC By:	VC 6/10/15	Sample preservation verified to pH (units)	< 2.0

WELL CONDITION			ADDITIONAL WELL CONDITION NOTES
PROTECTIVE CASING	Good Condition		
WELL PAD	Good Condition		
WELL CASING	Good Condition		
WELL TAG	Good Tag		

SAMPLING NOTES

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR EQUIPMENT PURGE ONLY SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	MW-8		

MONITORING WELL INFORMATION

WELL DIAMETER (in)	2	TOC ELEV (ft msl)	759.60	MIDDLE OF WETTED SCREEN (ft toc)			66.76
WELL DEPTH (ft TOC)	71.50	GS ELEV (ft msl)	757.30	PUMP INTAKE DEPTH (ft TOC)			70.50
SCREEN LENGTH (ft)	14.00	ELEV REF	NGVD 27	SCREEN INTERVAL (ft TOC)	57.50	TO	71.50

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	28651	SAMPLING EQUIPMENT	QED T1200	PURGE METHOD	
		TUBING DIAMETER (in)	1/2 OD	Equip. Only Purge	

See note below

PUMP CONTROLLER SETTINGS								
PRESSURE	35	(psi)	RECHARGE	10	(sec)	DISCHARGE	10	(sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	62.01	WATER COLUMN (ft)	9.49	*Well Volume = water column X conversion factor*	
WATER ELEVATION (ft msl)	697.59	WELL VOLUME (gal)	1.55	(Conversion factor dependent on well diameter and selected well volume units)	
DETECTED ODOR	None	CONVERSION FACTOR	0.1631		
APPEARANCE	Normal				

INITIAL WATER LEVEL (ft)	FLOW RATE (ml/min)	FINAL WATER LEVEL (ft)	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV-NHE)	☐ DISSOLVED OXYGEN (mg/L)	☐
62.01	N/A	Below pump	16.15	127	6.38	20.7	363	8.34	N/A

						EQUIPMENT PURGE ONLY SAMPLE				CHLORINE (mg/l)
Tubing Volume	1531	(ml)	Removed 1.0 gal.			SAMPLE COLLECTED BY	DATE		TIME	
Pump (Bladder) Volume	495	(ml)								
Total Purge Volume	2026	(ml)	=	0.54	(gal)	LDC	6/9/2015	@	0700	0

QC By:	USC 6/10/15

Sample preservation verified to pH (units)	< 2.0

WELL CONDITION			ADDITIONAL WELL CONDITION NOTES
PROTECTIVE CASING	Good Condition		
WELL PAD	Good Condition		
WELL CASING	Good Condition		
WELL TAG	Good Tag		

SAMPLING NOTES

Slow recharge well - remove 3500 mL to account for tubing and bladder volume - record field measurements and begin sampling.

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR CONVENTIONAL SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	MW-8A		

MONITORING WELL INFORMATION

WELL DIAMETER (in)	2	TOC ELEV (ft msl)	759.68	MIDDLE OF WETTED SCREEN (ft toc)			77.40
WELL DEPTH (ft TOC)	84.40	GS ELEV (ft msl)	757.61	PUMP INTAKE DEPTH (ft TOC)			83.40
SCREEN LENGTH (ft)	14.00	ELEV REF	NGVD 27	SCREEN INTERVAL (ft TOC)	70.40	TO	84.40

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	28651	SAMPLING EQUIPMENT	QED T1200	PURGE METHOD	
		TUBING DIAMETER (in)	1/2 OD	Conventional	

PUMP CONTROLLER SETTINGS								
PRESSURE	45	(psi)	RECHARGE	10	(sec)	DISCHARGE	10	(sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	61.97	WATER COLUMN (ft)	22.43	*Well Volume = water column X conversion factor*	
WATER ELEVATION (ft msl)	697.71	WELL VOLUME (gal)	3.66	(Conversion factor dependent on well diameter and selected well volume units)	
DETECTED ODOR	None	CONVERSION FACTOR	0.1631		
APPEARANCE	Normal				

PURGE VOLUME 3.66 (gal)	WATER LEVEL AFTER PURGE * (ft)	COMPLETE EVACUATION (YES/NO)	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV-NHE)	☐ DISSOLVED OXYGEN (mg/L)	☐ (gal) WELL VOL (recalculates on current water level)
3.75		NO	16.06	100	6.63	5.7	358	7.81	
3.75		NO	16.05	101	6.64	2.2	363	7.82	
3.75		NO	16.05	104	6.67	1.9	365	7.85	

TOTAL PURGE VOLUME	* Optional measurement to recalculate well volume when purging results in substantial drawdown of water column	COLLECT SAMPLE - SAMPLE CRITERIA SATISFIED				CHLORINE (mg/l)
		SAMPLE COLLECTED BY	DATE	@	TIME	
11.25		LDC	6/9/2015	@	0745	0

QC By:	VSL 6/10/15	Sample preservation verified to pH (units)	< 2.0

WELL CONDITION			ADDITIONAL WELL CONDITION NOTES
PROTECTIVE CASING	Good Condition		
WELL PAD	Good Condition		
WELL CASING	Good Condition		
WELL TAG	Good Tag		

SAMPLING NOTES

QC for DRO collected.

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR CONVENTIONAL SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	MW-9		

MONITORING WELL INFORMATION

WELL DIAMETER (in)	2	TOC ELEV (ft msl)	711.87	MIDDLE OF WETTED SCREEN (ft toc)			27.64
WELL DEPTH (ft TOC)	30.80	GS ELEV (ft msl)	710.27	PUMP INTAKE DEPTH (ft TOC)			29.80
SCREEN LENGTH (ft)	14.00	ELEV REF	NGVD 27	SCREEN INTERVAL (ft TOC)	16.80	TO	30.80

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	28651	SAMPLING EQUIPMENT	QED T1200	PURGE METHOD	
		TUBING DIAMETER (in)	1/2 OD	Conventional	

PUMP CONTROLLER SETTINGS								
PRESSURE	15	(psi)	RECHARGE	8	(sec)	DISCHARGE	7	(sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	24.48	WATER COLUMN (ft)	6.32	*Well Volume = water column X conversion factor* (Conversion factor dependent on well diameter and selected well volume units)	
WATER ELEVATION (ft msl)	687.39	WELL VOLUME (gal)	1.03		
DETECTED ODOR	None	CONVERSION FACTOR	0.1631		
APPEARANCE	Normal				

PURGE VOLUME 1.03 (gal)	WATER LEVEL AFTER PURGE * (ft)	COMPLETE EVACUATION (YES/NO)	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV-NHE)	☐ DISSOLVED OXYGEN (mg/L)	☐ (gal) WELL VOL (recalculates on current water level)
1.25		NO	17.48	57	5.44	0.7	405	4.75	
1.25		NO	17.43	59	5.46	0.4	407	4.19	
1.25		NO	17.56	60	5.43	0.4	405	3.70	

TOTAL PURGE VOLUME	* Optional measurement to recalculate well volume when purging results in substantial drawdown of water column	COLLECT SAMPLE - SAMPLE CRITERIA SATISFIED				CHLORINE (mg/l)
		SAMPLE COLLECTED BY	DATE		TIME	
3.75		LDC	6/9/2015	@	1005	0

QC By:	LDC 6/10/15	Sample preservation verified to pH (units)	< 2.0

WELL CONDITION			ADDITIONAL WELL CONDITION NOTES
PROTECTIVE CASING	Good Condition		
WELL PAD	Good Condition		
WELL CASING	Good Condition		
WELL TAG	Good Tag		

SAMPLING NOTES

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR CONVENTIONAL SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	MW-9A		

MONITORING WELL INFORMATION

WELL DIAMETER (in)	2	TOC ELEV (ft msl)	712.13	MIDDLE OF WETTED SCREEN (ft toc)			40.80
WELL DEPTH (ft TOC)	47.80	GS ELEV (ft msl)	710.30	PUMP INTAKE DEPTH (ft TOC)			46.80
SCREEN LENGTH (ft)	14.00	ELEV REF	NGVD 27	SCREEN INTERVAL (ft TOC)	33.80	TO	47.80

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	28651	SAMPLING EQUIPMENT	QED T1200	PURGE METHOD	
		TUBING DIAMETER (in)	1/2 OD	Conventional	

PUMP CONTROLLER SETTINGS								
PRESSURE	25	(psi)	RECHARGE	10	(sec)	DISCHARGE	10	(sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	24.83	WATER COLUMN (ft)	22.97	*Well Volume = water column X conversion factor*	
WATER ELEVATION (ft msl)	687.30	WELL VOLUME (gal)	3.75	(Conversion factor dependent on well diameter and selected well volume units)	
DETECTED ODOR	None	CONVERSION FACTOR	0.1631		
APPEARANCE	Normal				

PURGE VOLUME 3.75 (gal)	WATER LEVEL AFTER PURGE * (ft)	COMPLETE EVACUATION (YES/NO)	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV-NHE)	☐ DISSOLVED OXYGEN (mg/L)	☐ (gal) WELL VOL (recalculates on current water level)
3.75		NO	17.55	109	6.21	0.3	373	4.03	
3.75		NO	17.52	107	6.24	0.2	366	4.43	
3.75		NO	17.59	105	6.27	0.3	362	4.65	

TOTAL PURGE VOLUME	* Optional measurement to recalculate well volume when purging results in substantial drawdown of water column	COLLECT SAMPLE - SAMPLE CRITERIA SATISFIED				CHLORINE (mg/l)
		SAMPLE COLLECTED BY	DATE		TIME	
11.25		LDC	6/9/2015	@	1025	0

QC By:	USC 6/10/15	Sample preservation verified to pH (units)	< 2.0

WELL CONDITION

PROTECTIVE CASING	Good Condition	
WELL PAD	Good Condition	
WELL CASING	Good Condition	
WELL TAG	Good Tag	

ADDITIONAL WELL CONDITION NOTES

SAMPLING NOTES

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR CONVENTIONAL SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	MW-10A		

MONITORING WELL INFORMATION

WELL DIAMETER (in)	2	TOC ELEV (ft msl)	755.78	MIDDLE OF WETTED SCREEN (ft toc)			55.06
WELL DEPTH (ft TOC)	59.23	GS ELEV (ft msl)	753.87	PUMP INTAKE DEPTH (ft TOC)			58.23
SCREEN LENGTH (ft)	15.00	ELEV REF	NGVD 27	SCREEN INTERVAL (ft TOC)	44.23	TO	59.23

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	26055	SAMPLING EQUIPMENT	QED T1200			PURGE METHOD	
		TUBING DIAMETER (in)	1/2 OD			Conventional	

PUMP CONTROLLER SETTINGS								
PRESSURE	30	(psi)	RECHARGE	10	(sec)	DISCHARGE	10	(sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	50.88	WATER COLUMN (ft)	8.35	*Well Volume = water column X conversion factor*	
WATER ELEVATION (ft msl)	704.90	WELL VOLUME (gal)	1.36	(Conversion factor dependent on well diameter and selected well volume units)	
DETECTED ODOR	None	CONVERSION FACTOR	0.1631		
APPEARANCE	Normal				

PURGE VOLUME 1.36 (gal)	WATER LEVEL AFTER PURGE * (ft)	COMPLETE EVACUATION (YES/NO)	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV-NHE)	☐ DISSOLVED OXYGEN (mg/L)	☐ (gal) WELL VOL (recalculates on current water level)
1.50		NO	16.67	26	5.52	405.0	355	7.32	
1.50		NO	16.71	25	5.49	5.2	406	7.63	
1.50		NO	16.70	24	5.53	1.4	416	7.67	
1.50		NO	16.78	24	5.56	1.1	429	7.71	

TOTAL PURGE VOLUME	* Optional measurement to recalculate well volume when purging results in substantial drawdown of water column	COLLECT SAMPLE - SAMPLE CRITERIA SATISFIED				CHLORINE (mg/l)
		SAMPLE COLLECTED BY	DATE		TIME	
6.00		PSP	6/9/2015	@	0850	0

QC By:	LDC CLIOLIS	Sample preservation verified to pH (units)	< 2.0

WELL CONDITION			ADDITIONAL WELL CONDITION NOTES
PROTECTIVE CASING	Good Condition		
WELL PAD	Good Condition		
WELL CASING	Good Condition		
WELL TAG	Good Tag		

SAMPLING NOTES

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR NO PURGE SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	SW-1		

MONITORING WELL INFORMATION

WELL DIAMETER (in)		TOC ELEV (ft msl)	N/A	MIDDLE OF WETTED SCREEN (ft toc)			
WELL DEPTH (ft TOC)		GS ELEV (ft msl)		PUMP INTAKE DEPTH (ft TOC)			N/A
SCREEN LENGTH (ft)		ELEV REF		SCREEN INTERVAL (ft TOC)	0.00	TO	0.00

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	N/A	SAMPLING EQUIPMENT	PERISTALTIC PUMP		PURGE METHOD
		TUBING DIAMETER (in)	3/8 OD		No Purge

PUMP CONTROLLER SETTINGS								
PRESSURE	N/A	(psi)	RECHARGE	N/A	(sec)	DISCHARGE	N/A	(sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	N/A	WATER COLUMN (ft)		*Well Volume = water column X conversion factor* (Conversion factor dependent on well diameter and selected well volume units)	
WATER ELEVATION (ft msl)		WELL VOLUME (gal)			
DETECTED ODOR	None	CONVERSION FACTOR			
APPEARANCE	Normal				

HYDRASLEEVE LENGTH (inches)	DEPLOYED DEPTH (top) (ft TOC)	DATE DEPLOYED	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV-NHE)	☐ DISSOLVED OXYGEN (mg/L)	☐
N/A	N/A	N/A	20.70	107	7.15	39.8	205	7.30	N/A

Deployed Top Weight		Water Column In Screen Above Top Of Hydrasleeve					NO PURGE SAMPLE				CHLORINE (mg/l)
			(ft)	=		(in)	SAMPLE COLLECTED BY	DATE		TIME	
							PSP	6/9/2015	@	1050	0

QC By:	LDC CLIOLIS	Sample preservation verified to pH (units)	< 2.0

WELL CONDITION			ADDITIONAL WELL CONDITION NOTES
PROTECTIVE CASING			
WELL PAD			
WELL CASING			
WELL TAG			

SAMPLING NOTES

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR NO PURGE SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	SW-2		

MONITORING WELL INFORMATION

WELL DIAMETER (in)		TOC ELEV (ft msl)	N/A	MIDDLE OF WETTED SCREEN (ft toc)			
WELL DEPTH (ft TOC)		GS ELEV (ft msl)		PUMP INTAKE DEPTH (ft TOC)			N/A
SCREEN LENGTH (ft)		ELEV REF		SCREEN INTERVAL (ft TOC)	0.00	TO	0.00

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	N/A	SAMPLING EQUIPMENT	PERISTALTIC PUMP		PURGE METHOD
		TUBING DIAMETER (in)	3/8 OD		No Purge

PUMP CONTROLLER SETTINGS								
PRESSURE		(psi)	RECHARGE		(sec)	DISCHARGE		(sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	N/A	WATER COLUMN (ft)		*Well Volume = water column X conversion factor* (Conversion factor dependent on well diameter and selected well volume units)	
WATER ELEVATION (ft msl)		WELL VOLUME (gal)			
DETECTED ODOR	None	CONVERSION FACTOR			
APPEARANCE	Normal				

HYDRASLEEVE LENGTH (inches)	DEPLOYED DEPTH (top) (ft TOC)	DATE DEPLOYED	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV-NHE)	☐ DISSOLVED OXYGEN (mg/L)	☐
N/A	N/A	N/A	20.40	99	7.04	35.0	256	7.66	N/A

Deployed Top Weight		Water Column In Screen Above Top Of Hydrasleeve					NO PURGE SAMPLE				CHLORINE (mg/l)
			(ft)	=		(in)	SAMPLE COLLECTED BY	DATE		TIME	
							LDC	6/9/2015	@	1115	0

QC By:	LDC 6/10/15

Sample preservation verified to pH (units)	< 2.0

WELL CONDITION			ADDITIONAL WELL CONDITION NOTES
PROTECTIVE CASING			
WELL PAD			
WELL CASING			
WELL TAG			

SAMPLING NOTES

DUKE ENERGY

GROUNDWATER MONITORING DATA SHEET

FOR NO PURGE SAMPLING

PROCEDURE NO	3175.2

SITE NAME	McGUIRE NUCLEAR STATION	PERMIT #	60-04	SITE ID	N/A
PROJECT NAME	LANDFILL 2 GROUNDWATER MONITORING	FIELD CREW	LDC, PSP		
SAMPLING DATE(s)	☑ 9-Jun-2015 ☐ ☐ ☐	WELL/LOCATION NAME	LEACHATE POND		

MONITORING WELL INFORMATION

WELL DIAMETER (in)		TOC ELEV (ft msl)	N/A	MIDDLE OF WETTED SCREEN (ft toc)			
WELL DEPTH (ft TOC)		GS ELEV (ft msl)		PUMP INTAKE DEPTH (ft TOC)			N/A
SCREEN LENGTH (ft)		ELEV REF		SCREEN INTERVAL (ft TOC)	0.00	TO	0.00

EQUIPMENT INFORMATION

LEVEL METER SERIAL#	N/A	SAMPLING EQUIPMENT	GRAB	PURGE METHOD	
		TUBING DIAMETER (in)		No Purge	
Pipe discharge flow rate =	0.25 gal / min.	PUMP CONTROLLER SETTINGS			
		PRESSURE	(psi)	RECHARGE	(sec) DISCHARGE (sec)

SAMPLING INFORMATION

INITIAL DEPTH TO WATER (ft TOC)	N/A	WATER COLUMN (ft)		*Well Volume = water column X conversion factor*	
WATER ELEVATION (ft msl)		WELL VOLUME (gal)		(Conversion factor dependent on well diameter and selected well volume units)	
DETECTED ODOR	None	CONVERSION FACTOR			
APPEARANCE	Normal				

HYDRASLEEVE LENGTH (inches)	DEPLOYED DEPTH (top) (ft TOC)	DATE DEPLOYED	☑ TEMP (deg C)	☑ SPECIFIC COND. (umho/cm)	☑ pH (SU)	☑ TURBIDITY (NTU)	☐ ORP (mV-NHE)	☐ DISSOLVED OXYGEN (mg/L)	☐
N/A	N/A	N/A	20.79	908	6.80	19.0	N/A	N/A	N/A

Deployed Top Weight		Water Column In Screen Above Top Of Hydrasleeve					NO PURGE SAMPLE				CHLORINE (mg/l)
			(ft)	=		(in)	SAMPLE COLLECTED BY	DATE		TIME	
							LDC	6/9/2015	@	1045	0

QC By:		Sample preservation verified to pH (units)	< 2.0

WELL CONDITION			ADDITIONAL WELL CONDITION NOTES
PROTECTIVE CASING			
WELL PAD			
WELL CASING			
WELL TAG			

SAMPLING NOTES

NORTH CAROLINA GROUNDWATER SAMPLING SITE CHECKLIST

LOCATION / SITE McGUIRE NUCLEAR STATION - LANDFILL #2 GROUNDWATER MONITORING PERMIT # 60-04 **SAMPLE DATE** June 9, 2015
SITE CONTACT John Williamson, Bill Spencer **FIELD CREW** LDC, PSP
WEATHER Clouds to sun, calm, 70 to 85 deg F.
PAGE 1 OF 1

		MW-5	MW-5A	MW-6	MW-6A	MW-7	MW-7A	MW-8	MW-8A	MW-9	MW-9A	MW-10A	SW-1	SW-2		
ACCESS TO WELLS																
Access cleared into well		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES		
Access cleared around well		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES		
Tall grass or weeds - needs mowing																
Road washing out / muddy / needs grading																
Fallen tree blocking access																
WELL SECURITY																
Well found locked		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	N/A	N/A		
Well found unlocked																
WELL LOCK CONDITION																
Lock in good condition		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	N/A	N/A		
Lock rusted, difficult to open / needs replacing																
Replaced damaged lock																
WELL CASINGS																
Casing in good condition		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	N/A	N/A		
Damaged casing / still functional																
Damaged casing / repair required																
CONCRETE PADS																
Pad in good condition		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	N/A	N/A		
Minor cracks																
Major cracks / broken / repair required																
Undermined / washing out																
Fire ants around concrete pad																
WELL PROTECTIVE CASINGS																
Casing in good condition		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	N/A	N/A		
Damaged casing / still functional																
Damaged casing / repair required																
Broken hinge on protective lid																
Wasp nest inside protective casing																
Ants inside protective casing																
WELL CAPS																
Well cap in good conditon		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	N/A	N/A		
Damaged / needs replacement																
Replaced damaged well cap																
FLUSH MOUNT WELLS																
Vault in good condition		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Water inside vault																
Vault bolt holes broken or stripped																
Bolts stripped																
Vault lid cracked or broken																
WELL ID TAGS																
Well tag in good condition		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	N/A	N/A		
Well tag missing																
Well tag damaged / illegible																
Lacks required information - Driller Reg #																
Lacks required information - Completion date																
Lacks required information - Total well depth																
Lacks required information - Depth to screen																
Lacks required information - Non potable tag																

NOTE:

McGUIRE NUCLEAR STATION
LANDFILL 2 GROUNDWATER MONITORING
GROUNDWATER MONITORING FIELD DATA
PERMIT # 60-04

DATE	WELL NO.	WELL DEPTH (feet-toc)	DEPTH TO WATER (feet-toc)	WATER ELEV. (feet)	APPEARANCE	ODOR	Purge Method	AVG * PMP RATE (ml/min)	WELL VOL (gal)	EVAC VOL (gal)	EVAC (yes/no)	TEMP (deg C)	SPECIFIC CONDUCTANCE (umho/cm)	pH (units)	TURBIDITY (NTU)	ORP (mV-NHE)	DO (mg/l)
6/9/2015	MW-5	63.90	61.04	707.27	Normal	None	C	N/A	0.47	0.00	NS	NS	NS	NS	NS	NS	NS
6/9/2015	MW-5A	96.00	62.12	706.30	Normal	None	C	N/A	5.53	17.25	NO	16.49	54	6.4	1.2	426	8.35
6/9/2015	MW-6	37.20	30.42	698.03	Normal	None	C	N/A	1.11	5.00	NO	16.39	109	5.9	1.2	407	6.68
6/9/2015	MW-6A	47.90	29.68	699.30	Normal	None	C	N/A	2.97	9.00	NO	16.24	55	5.6	0.4	435	7.92
6/9/2015	MW-7	37.30	33.06	692.80	Normal	None	EOP	N/A	0.69	0.34	N/A	17.93	48	5.9	1.0	384	8.81
6/9/2015	MW-7A	59.40	32.06	692.60	Normal	None	C	N/A	4.46	13.50	NO	16.61	118	6.5	1.0	368	6.63
6/9/2015	MW-8	71.50	62.01	697.59	Normal	None	EOP	N/A	1.55	0.54	N/A	16.15	127	6.4	20.7	N/A	N/A
6/9/2015	MW-8A	84.40	61.97	697.71	Normal	None	C	N/A	3.66	11.25	NO	16.05	104	6.7	1.9	365	7.85
6/9/2015	MW-9	30.80	24.48	687.39	Normal	None	C	N/A	1.03	3.75	NO	17.56	60	5.4	0.4	405	3.70
6/9/2015	MW-9A	47.80	24.83	687.30	Normal	None	C	N/A	3.75	11.25	NO	17.59	105	6.3	0.3	362	4.65
6/9/2015	MW-10A	59.23	50.88	704.90	Normal	None	C	N/A	1.36	6.00	NO	16.78	24	5.6	1.1	429	7.71
6/9/2015	SW-1	N/A	N/A	N/A	Normal	None	NP	N/A	N/A	N/A	N/A	20.70	107	7.2	39.8	205	7.30
6/9/2015	SW-2	N/A	N/A	N/A	Normal	None	NP	N/A	N/A	N/A	N/A	20.40	99	7.0	35.0	256	7.66
6/9/2015	LEACHATE POND	N/A	N/A	N/A	Normal	None	NP	N/A	N/A	N/A	N/A	20.79	908	6.8	19.0	N/A	N/A

Purge Methods
LF = Low Flow
LF(M) = Low Flow (Mod.)
C = Connventional
NP = No Purge
EOP = Equip. Only Purge
LO = Level Only
NS = Not Sampled / Insufficient Volume
* = Applicable to LF & LF(M) Purging Only

B

Appendix B

Laboratory Report and Chain-of-Custody Forms

Analytical Laboratory

13339 Hagers Ferry Road
Huntersville, NC 28078-7929
McGuire Nuclear Complex - MG03A2
Phone: 980-875-5245 Fax: 980-875-4349

Order Summary Report

Order Number: **J15060049**

Project Name: MCGUIRE - GW LF2

Customer Name(s): TIM HUNSUCKER, C Campbell

Customer Address: 13225 Hagers Ferry Rd
Mail Code: MG01CH
Huntersville, NC 28078-8985

Lab Contact: Jason C Perkins Phone: 980-875-5348

Report Authorized By: (Signature) Jason C [illegible] **Date:** 9/2/2015

Program Comments:

Please contact the Program Manager (Jason C Perkins) with any questions regarding this report.

Data Flags & Calculations:

Any analytical tests or individual analytes within a test flagged with a Qualifier indicate a deviation from the method quality system or quality control requirement. The qualifier description is found at the end of the Certificate of Analysis (sample results) under the qualifiers heading. All results are reported on a dry weight basis unless otherwise noted. Subcontracted data included on the Duke Certificate of Analysis is to be used as information only. Certified vendor results can be found in the subcontracted lab final report. Duke Energy Analytical Laboratory subcontracts analyses to other vendor laboratories that have been qualified by Duke Energy to perform these analyses except where noted.

Data Package:

This data package includes analytical results that are applicable only to the samples described in this narrative. An estimation of the uncertainty of measurement for the results in the report is available upon request. This report shall not be reproduced, except in full, without the written consent of the Analytical Laboratory. Please contact the Analytical laboratory with any questions. The order of individual sections within this report is as follows:

Job Summary Report, Sample Identification, Technical Validation of Data Package, Analytical Laboratory Certificate of Analysis, Analytical Laboratory QC Reports, Sub-contracted Laboratory Results, Customer Specific Data Sheets, Reports & Documentation, Customer Database Entries, Test Case Narratives, Chain of Custody (COC)

Certification:

The Analytical Laboratory holds the following State Certifications : North Carolina (DENR) Certificate #248, South Carolina (DHEC) Laboratory ID # 99005. Contact the Analytical Laboratory for definitive information about the certification status of specific methods.

Sample ID's & Descriptions:

Sample ID	Plant/Station	Collection Date and Time	Collected By	Sample Description
2015016898	MCGUIRE	09-Jun-15 10:10 AM	PSP	MW-5A
2015016904	MCGUIRE	09-Jun-15 7:30 AM	PSP	MW-6
2015016905	MCGUIRE	09-Jun-15 7:35 AM	PSP	MW-6A
2015016906	MCGUIRE	09-Jun-15 8:30 AM	LDC	MW-7
2015016907	MCGUIRE	09-Jun-15 9:10 AM	LDC	MW-7A
2015016908	MCGUIRE	09-Jun-15 7:00 AM	LDC	MW-8
2015016909	MCGUIRE	09-Jun-15 7:45 AM	LDC	MW-8A
2015016910	MCGUIRE	09-Jun-15 10:05 AM	LDC	MW-9
2015016911	MCGUIRE	09-Jun-15 10:25 AM	LDC	MW-9A
2015016912	MCGUIRE	09-Jun-15 8:50 AM	PSP	MW-10A
2015016913	MCGUIRE	09-Jun-15 10:50 AM	PSP	SW-1
2015016914	MCGUIRE	09-Jun-15 11:15 AM	LDC	SW-2
2015016915	MCGUIRE	09-Jun-15 10:45 AM	LDC	LEACHATE POND
2015016917	MCGUIRE	09-Jun-15 11:45 AM	PSP	FIELD BLANK

14 Total Samples

Technical Validation Review

Checklist:

COC and .pdf report are in agreement with sample totals and analyses (compliance programs and procedures).	☑ Yes	☐ No
All Results are less than the laboratory reporting limits.	☑ Yes	☐ No
All laboratory QA/QC requirements are acceptable.	☑ Yes	☐ No

Report Sections Included:

- ☑ Job Summary Report
- ☑ Sample Identification
- ☑ Technical Validation of Data Package
- ☑ Analytical Laboratory Certificate of Analysis
- ☐ Analytical Laboratory QC Report
- ☑ Sub-contracted Laboratory Results
- ☐ Customer Specific Data Sheets, Reports, & Documentation
- ☐ Customer Database Entries
- ☑ Chain of Custody
- ☑ Electronic Data Deliverable (EDD) Sent Separately

Reviewed By: Rodney G Wike Date: 6/29/2015

Certificate of Laboratory Analysis

Order # J15060049

Site: MW-5A **Sample #: 2015016898**

Collection Date: 09-Jun-15 10:10 AM Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
ALKALINITY (FIXED END POINT 4.5)								
Alkalinity (mg/L CaCO3)	**25**	mg/L (CaCO3)		20	1	SM2320B	06/12/2015 09:33	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**1.2**	mg/L		0.1	1	EPA 300.0	06/15/2015 11:12	BGN9034
Sulfate	**1.6**	mg/L		0.1	1	EPA 300.0	06/15/2015 11:12	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 14:59	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**0.026**	mg/L		0.005	1	EPA 200.7	06/11/2015 13:55	MHH7131
Calcium (Ca)	**4.03**	mg/L		0.01	1	EPA 200.7	06/11/2015 13:55	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 13:55	MHH7131
Magnesium (Mg)	**1.81**	mg/L		0.005	1	EPA 200.7	06/11/2015 13:55	MHH7131
Potassium (K)	**0.909**	mg/L		0.1	1	EPA 200.7	06/11/2015 13:55	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 13:55	MHH7131
Sodium (Na)	**4.83**	mg/L		0.05	1	EPA 200.7	06/11/2015 13:55	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 15:49	JAHERMA
Cadmium (Cd)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 15:49	JAHERMA
Lead (Pb)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 15:49	JAHERMA
Selenium (Se)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 15:49	JAHERMA

Certificate of Laboratory Analysis

Order # J15060049

Site: MW-6 **Sample #: 2015016904**

Collection Date: 09-Jun-15 7:30 AM Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
ALKALINITY (FIXED END POINT 4.5)								
Alkalinity (mg/L CaCO3)	**41**	mg/L (CaCO3)		20	1	SM2320B	06/12/2015 09:33	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**10**	mg/L		0.2	2	EPA 300.0	06/15/2015 14:41	BGN9034
Sulfate	**0.32**	mg/L		0.1	1	EPA 300.0	06/15/2015 14:41	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 15:01	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**0.055**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:15	MHH7131
Calcium (Ca)	**11.0**	mg/L		0.01	1	EPA 200.7	06/11/2015 14:15	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:15	MHH7131
Magnesium (Mg)	**4.63**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:15	MHH7131
Potassium (K)	**0.531**	mg/L		0.1	1	EPA 200.7	06/11/2015 14:15	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:15	MHH7131
Sodium (Na)	**4.43**	mg/L		0.05	1	EPA 200.7	06/11/2015 14:15	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 15:28	JAHERMA
Cadmium (Cd)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 15:28	JAHERMA
Lead (Pb)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 15:28	JAHERMA
Selenium (Se)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 15:28	JAHERMA

Certificate of Laboratory Analysis

Order # J15060049

Site: MW-6A **Sample #: 2015016905**

Collection Date: 09-Jun-15 7:35 AM Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
LOW LEVEL ALKALINITY (FIXED END POINT)								
Alkalinity (mg/L CaCO3)	**10**	mg/L (CaCO3)		5	1	SM 2320B4d	06/12/2015 13:32	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**5.2**	mg/L		0.1	1	EPA 300.0	06/15/2015 12:24	BGN9034
Sulfate	**< 0.1**	mg/L		0.1	1	EPA 300.0	06/15/2015 12:24	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 15:04	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**0.050**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:19	MHH7131
Calcium (Ca)	**4.54**	mg/L		0.01	1	EPA 200.7	06/11/2015 14:19	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:19	MHH7131
Magnesium (Mg)	**1.46**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:19	MHH7131
Potassium (K)	**0.191**	mg/L		0.1	1	EPA 200.7	06/11/2015 14:19	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:19	MHH7131
Sodium (Na)	**3.60**	mg/L		0.05	1	EPA 200.7	06/11/2015 14:19	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 15:56	JAHERMA
Cadmium (Cd)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 15:56	JAHERMA
Lead (Pb)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 15:56	JAHERMA
Selenium (Se)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 15:56	JAHERMA

Certificate of Laboratory Analysis

Order # J15060049

Site: MW-7 **Sample #: 2015016906**

Collection Date: 09-Jun-15 8:30 AM Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
LOW LEVEL ALKALINITY (FIXED END POINT)								
Alkalinity (mg/L CaCO3)	**14**	mg/L (CaCO3)		5	1	SM 2320B4d	06/12/2015 13:32	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**1.7**	mg/L		0.1	1	EPA 300.0	06/15/2015 12:42	BGN9034
Sulfate	**< 0.1**	mg/L		0.1	1	EPA 300.0	06/15/2015 12:42	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 15:06	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**0.031**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:23	MHH7131
Calcium (Ca)	**2.75**	mg/L		0.01	1	EPA 200.7	06/11/2015 14:23	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:23	MHH7131
Magnesium (Mg)	**2.26**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:23	MHH7131
Potassium (K)	**0.215**	mg/L		0.1	1	EPA 200.7	06/11/2015 14:23	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:23	MHH7131
Sodium (Na)	**1.03**	mg/L		0.05	1	EPA 200.7	06/11/2015 14:23	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:03	JAHERMA
Cadmium (Cd)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:03	JAHERMA
Lead (Pb)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:03	JAHERMA
Selenium (Se)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:03	JAHERMA

Certificate of Laboratory Analysis

Order # J15060049

Site: MW-7A **Sample #: 2015016907**

Collection Date: 09-Jun-15 9:10 AM Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
ALKALINITY (FIXED END POINT 4.5)								
Alkalinity (mg/L CaCO3)	**60**	mg/L (CaCO3)		20	1	SM2320B	06/12/2015 09:33	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**1.3**	mg/L		0.1	1	EPA 300.0	06/15/2015 13:00	BGN9034
Sulfate	**0.32**	mg/L		0.1	1	EPA 300.0	06/15/2015 13:00	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 15:09	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:27	MHH7131
Calcium (Ca)	**14.7**	mg/L		0.01	1	EPA 200.7	06/11/2015 14:27	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:27	MHH7131
Magnesium (Mg)	**3.70**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:27	MHH7131
Potassium (K)	**0.443**	mg/L		0.1	1	EPA 200.7	06/11/2015 14:27	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:27	MHH7131
Sodium (Na)	**4.05**	mg/L		0.05	1	EPA 200.7	06/11/2015 14:27	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:10	JAHERMA
Cadmium (Cd)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:10	JAHERMA
Lead (Pb)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:10	JAHERMA
Selenium (Se)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:10	JAHERMA

Certificate of Laboratory Analysis

Order # J15060049

Site: MW-8 **Sample #: 2015016908**

Collection Date: 09-Jun-15 7:00 AM Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
ALKALINITY (FIXED END POINT 4.5)								
Alkalinity (mg/L CaCO3)	**65**	mg/L (CaCO3)		20	1	SM2320B	06/12/2015 09:33	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**1.5**	mg/L		0.1	1	EPA 300.0	06/15/2015 13:17	BGN9034
Sulfate	**0.60**	mg/L		0.1	1	EPA 300.0	06/15/2015 13:17	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 15:11	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**0.035**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:32	MHH7131
Calcium (Ca)	**16.8**	mg/L		0.01	1	EPA 200.7	06/11/2015 14:32	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:32	MHH7131
Magnesium (Mg)	**4.09**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:32	MHH7131
Potassium (K)	**1.19**	mg/L		0.1	1	EPA 200.7	06/11/2015 14:32	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:32	MHH7131
Sodium (Na)	**6.45**	mg/L		0.05	1	EPA 200.7	06/11/2015 14:32	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:17	JAHERMA
Cadmium (Cd)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:17	JAHERMA
Lead (Pb)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:17	JAHERMA
Selenium (Se)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:17	JAHERMA

Certificate of Laboratory Analysis

Order # J15060049

Site: MW-8A **Sample #: 2015016909**

Collection Date: 09-Jun-15 7:45 AM Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
ALKALINITY (FIXED END POINT 4.5)								
Alkalinity (mg/L CaCO3)	**48**	mg/L (CaCO3)		20	1	SM2320B	06/12/2015 09:33	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**2.0**	mg/L		0.1	1	EPA 300.0	06/15/2015 13:33	BGN9034
Sulfate	**0.97**	mg/L		0.1	1	EPA 300.0	06/15/2015 13:33	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 15:13	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**0.026**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:36	MHH7131
Calcium (Ca)	**10.5**	mg/L		0.01	1	EPA 200.7	06/11/2015 14:36	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:36	MHH7131
Magnesium (Mg)	**3.30**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:36	MHH7131
Potassium (K)	**1.15**	mg/L		0.1	1	EPA 200.7	06/11/2015 14:36	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:36	MHH7131
Sodium (Na)	**4.49**	mg/L		0.05	1	EPA 200.7	06/11/2015 14:36	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:24	JAHERMA
Cadmium (Cd)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:24	JAHERMA
Lead (Pb)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:24	JAHERMA
Selenium (Se)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:24	JAHERMA

Certificate of Laboratory Analysis

Order # J15060049

Site: MW-9 **Sample #: 2015016910**

Collection Date: 09-Jun-15 10:05 AM Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
ALKALINITY (FIXED END POINT 4.5)								
Alkalinity (mg/L CaCO3)	**22**	mg/L (CaCO3)		20	1	SM2320B	06/12/2015 09:33	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**2.6**	mg/L		0.1	1	EPA 300.0	06/15/2015 13:50	BGN9034
Sulfate	**0.30**	mg/L		0.1	1	EPA 300.0	06/15/2015 13:50	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 15:20	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**0.026**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:40	MHH7131
Calcium (Ca)	**4.55**	mg/L		0.01	1	EPA 200.7	06/11/2015 14:40	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:40	MHH7131
Magnesium (Mg)	**2.04**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:40	MHH7131
Potassium (K)	**0.429**	mg/L		0.1	1	EPA 200.7	06/11/2015 14:40	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:40	MHH7131
Sodium (Na)	**4.06**	mg/L		0.05	1	EPA 200.7	06/11/2015 14:40	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:31	JAHERMA
Cadmium (Cd)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:31	JAHERMA
Lead (Pb)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:31	JAHERMA
Selenium (Se)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:31	JAHERMA

Certificate of Laboratory Analysis

Order # J15060049

Site: MW-9A **Sample #: 2015016911**

Collection Date: 09-Jun-15 10:25 AM Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
ALKALINITY (FIXED END POINT 4.5)								
Alkalinity (mg/L CaCO3)	**52**	mg/L (CaCO3)		20	1	SM2320B	06/12/2015 09:33	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**1.6**	mg/L		0.1	1	EPA 300.0	06/15/2015 14:07	BGN9034
Sulfate	**0.19**	mg/L		0.1	1	EPA 300.0	06/15/2015 14:07	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 15:27	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**0.009**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:52	MHH7131
Calcium (Ca)	**10.2**	mg/L		0.01	1	EPA 200.7	06/11/2015 14:52	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:52	MHH7131
Magnesium (Mg)	**4.28**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:52	MHH7131
Potassium (K)	**0.459**	mg/L		0.1	1	EPA 200.7	06/11/2015 14:52	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:52	MHH7131
Sodium (Na)	**4.79**	mg/L		0.05	1	EPA 200.7	06/11/2015 14:52	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:38	JAHERMA
Cadmium (Cd)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:38	JAHERMA
Lead (Pb)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:38	JAHERMA
Selenium (Se)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:38	JAHERMA

Certificate of Laboratory Analysis

Order # J15060049

Site: MW-10A
Collection Date: 09-Jun-15 8:50 AM

Sample #: **2015016912**
Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
LOW LEVEL ALKALINITY (FIXED END POINT)								
Alkalinity (mg/L CaCO3)	**5.2**	mg/L (CaCO3)		5	1	SM 2320B4d	06/12/2015 13:32	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**1.2**	mg/L		0.1	1	EPA 300.0	06/15/2015 14:24	BGN9034
Sulfate	**0.49**	mg/L		0.1	1	EPA 300.0	06/15/2015 14:24	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 15:30	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**0.016**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:56	MHH7131
Calcium (Ca)	**1.19**	mg/L		0.01	1	EPA 200.7	06/11/2015 14:56	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:56	MHH7131
Magnesium (Mg)	**1.05**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:56	MHH7131
Potassium (K)	**0.563**	mg/L		0.1	1	EPA 200.7	06/11/2015 14:56	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 14:56	MHH7131
Sodium (Na)	**1.45**	mg/L		0.05	1	EPA 200.7	06/11/2015 14:56	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:45	JAHERMA
Cadmium (Cd)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:45	JAHERMA
Lead (Pb)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:45	JAHERMA
Selenium (Se)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 16:45	JAHERMA

Certificate of Laboratory Analysis

Order # J15060049

Site: SW-1 **Sample #: 2015016913**

Collection Date: 09-Jun-15 10:50 AM Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
ALKALINITY (FIXED END POINT 4.5)								
Alkalinity (mg/L CaCO3)	**46**	mg/L (CaCO3)		20	1	SM2320B	06/12/2015 09:33	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**2.5**	mg/L		0.1	1	EPA 300.0	06/15/2015 16:06	BGN9034
Sulfate	**2.4**	mg/L		0.1	1	EPA 300.0	06/15/2015 16:06	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 15:32	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**0.035**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:00	MHH7131
Calcium (Ca)	**10.1**	mg/L		0.01	1	EPA 200.7	06/11/2015 15:00	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:00	MHH7131
Magnesium (Mg)	**3.76**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:00	MHH7131
Potassium (K)	**1.88**	mg/L		0.1	1	EPA 200.7	06/11/2015 15:00	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:00	MHH7131
Sodium (Na)	**4.91**	mg/L		0.05	1	EPA 200.7	06/11/2015 15:00	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 17:20	JAHERMA
Cadmium (Cd)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 17:20	JAHERMA
Lead (Pb)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 17:20	JAHERMA
Selenium (Se)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 17:20	JAHERMA

Certificate of Laboratory Analysis

Order # J15060049

Site: SW-2 **Sample #: 2015016914**

Collection Date: 09-Jun-15 11:15 AM Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
ALKALINITY (FIXED END POINT 4.5)								
Alkalinity (mg/L CaCO3)	**39**	mg/L (CaCO3)		20	1	SM2320B	06/12/2015 09:33	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**3.1**	mg/L		0.1	1	EPA 300.0	06/15/2015 17:13	BGN9034
Sulfate	**3.3**	mg/L		0.1	1	EPA 300.0	06/15/2015 17:13	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 15:35	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**0.024**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:04	MHH7131
Calcium (Ca)	**9.23**	mg/L		0.01	1	EPA 200.7	06/11/2015 15:04	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:04	MHH7131
Magnesium (Mg)	**3.34**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:04	MHH7131
Potassium (K)	**2.58**	mg/L		0.1	1	EPA 200.7	06/11/2015 15:04	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:04	MHH7131
Sodium (Na)	**4.14**	mg/L		0.05	1	EPA 200.7	06/11/2015 15:04	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 17:27	JAHERMA
Cadmium (Cd)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 17:27	JAHERMA
Lead (Pb)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 17:27	JAHERMA
Selenium (Se)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 17:27	JAHERMA

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Order # J15060049

Site: LEACHATE POND **Sample #: 2015016915**

Collection Date: 09-Jun-15 10:45 AM Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
ALKALINITY (FIXED END POINT 4.5)								
Alkalinity (mg/L CaCO3)	**350**	mg/L (CaCO3)		20	1	SM2320B	06/12/2015 09:33	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**42**	mg/L		0.5	5	EPA 300.0	06/15/2015 17:30	BGN9034
Sulfate	**86**	mg/L		2	20	EPA 300.0	06/15/2015 17:30	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 15:37	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**0.063**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:12	MHH7131
Calcium (Ca)	**119**	mg/L		0.1	10	EPA 200.7	06/11/2015 15:12	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:12	MHH7131
Magnesium (Mg)	**21.4**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:12	MHH7131
Potassium (K)	**12.1**	mg/L		0.1	1	EPA 200.7	06/11/2015 15:12	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:12	MHH7131
Sodium (Na)	**45.6**	mg/L		0.05	1	EPA 200.7	06/11/2015 15:12	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 10**	ug/L		10	10	EPA 200.8	06/25/2015 17:34	JAHERMA
Cadmium (Cd)	**< 10**	ug/L		10	10	EPA 200.8	06/25/2015 17:34	JAHERMA
Lead (Pb)	**< 10**	ug/L		10	10	EPA 200.8	06/25/2015 17:34	JAHERMA
Selenium (Se)	**< 10**	ug/L		10	10	EPA 200.8	06/25/2015 17:34	JAHERMA

Certificate of Laboratory Analysis

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Order # J15060049

Site: FIELD BLANK **Sample #: 2015016917**

Collection Date: 09-Jun-15 11:45 AM Matrix: GW_RCRA

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
ALKALINITY (FIXED END POINT 4.5)								
Alkalinity (mg/L CaCO3)	**< 20**	mg/L (CaCO3)		20	1	SM2320B	06/12/2015 09:33	GHUTCHI
INORGANIC IONS BY IC								
Chloride	**< 0.1**	mg/L		0.1	1	EPA 300.0	06/15/2015 15:49	BGN9034
Sulfate	**< 0.1**	mg/L		0.1	1	EPA 300.0	06/15/2015 15:49	BGN9034
MERCURY (COLD VAPOR) IN WATER								
Mercury (Hg)	**< 0.05**	ug/L		0.05	1	EPA 245.1	06/12/2015 15:39	ACPAYNE
TOTAL RECOVERABLE METALS BY ICP								
Barium (Ba)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:08	MHH7131
Calcium (Ca)	**< 0.01**	mg/L		0.01	1	EPA 200.7	06/11/2015 15:08	MHH7131
Chromium (Cr)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:08	MHH7131
Magnesium (Mg)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:08	MHH7131
Potassium (K)	**< 0.1**	mg/L		0.1	1	EPA 200.7	06/11/2015 15:08	MHH7131
Silver (Ag)	**< 0.005**	mg/L		0.005	1	EPA 200.7	06/11/2015 15:08	MHH7131
Sodium (Na)	**< 0.05**	mg/L		0.05	1	EPA 200.7	06/11/2015 15:08	MHH7131
TOTAL RECOVERABLE METALS BY ICP-MS								
Arsenic (As)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 17:41	JAHERMA
Cadmium (Cd)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 17:41	JAHERMA
Lead (Pb)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 17:41	JAHERMA
Selenium (Se)	**< 1**	ug/L		1	1	EPA 200.8	06/25/2015 17:41	JAHERMA

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-80408-1
Client Project/Site: MNS Landfill #2 J15060049

For:
Duke Energy Corporation
13339 Hagers Ferry Road
Huntersville, North Carolina 28078

Attn: Lab Customer

Authorized for release by:
6/23/2015 1:36:42 PM

Shali Brown, Project Manager II
(615)301-5031
shali.brown@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Sample Summary

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-80408-1	TRIP BLANK	Water	06/09/15 05:50	06/11/15 08:30
490-80408-2	MW-5A	Water	06/09/15 10:10	06/11/15 08:30
490-80408-3	MW-6	Water	06/09/15 09:30	06/11/15 08:30
490-80408-4	MW-6A	Water	06/09/15 07:35	06/11/15 08:30
490-80408-5	MW-7	Water	06/09/15 08:30	06/11/15 08:30
490-80408-6	MW-7A	Water	06/09/15 09:10	06/11/15 08:30
490-80408-7	MW-8	Water	06/09/15 07:00	06/11/15 08:30
490-80408-8	MW-8A	Water	06/09/15 07:45	06/11/15 08:30
490-80408-9	MW-9	Water	06/09/15 10:05	06/11/15 08:30
490-80408-10	MW-9A	Water	06/09/15 10:25	06/11/15 08:30
490-80408-11	MW-10A	Water	06/09/15 08:50	06/11/15 08:30
490-80408-12	SW-1	Water	06/09/15 10:50	06/11/15 08:30
490-80408-13	SW-2	Water	06/09/15 11:15	06/11/15 08:30
490-80408-14	LEACHATE POND	Water	06/09/15 10:45	06/11/15 08:30
490-80408-15	FIELD BLANK	Water	06/09/15 11:45	06/11/15 08:30

Job ID: 490-80408-1

Laboratory: TestAmerica Nashville

Narrative

CASE NARRATIVE

Client: Duke Energy Corporation

Project: MNS Landfill #2 J15060049

Report Number: 490-80408-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Nashville attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 6/11/2015 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.1° C, 2.9° C and 5.1° C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples TRIP BLANK (490-80408-1), MW-5A (490-80408-2), MW-6 (490-80408-3), MW-6A (490-80408-4), MW-7 (490-80408-5), MW-7A (490-80408-6), MW-8 (490-80408-7), MW-8A (490-80408-8), MW-9 (490-80408-9), MW-9A (490-80408-10), MW-10A (490-80408-11), SW-1 (490-80408-12), SW-2 (490-80408-13), LEACHATE POND (490-80408-14) and FIELD BLANK (490-80408-15) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/19/2015 and 06/22/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DIESEL RANGE ORGANICS (DRO)

Samples MW-5A (490-80408-2), MW-6 (490-80408-3), MW-6A (490-80408-4), MW-7 (490-80408-5), MW-7A (490-80408-6), MW-8 (490-80408-7), MW-8A (490-80408-8), MW-9 (490-80408-9), MW-9A (490-80408-10), MW-10A (490-80408-11), SW-1 (490-80408-12), SW-2 (490-80408-13), LEACHATE POND (490-80408-14) and FIELD BLANK (490-80408-15) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015C - DRO. The samples were prepared on 06/13/2015 and analyzed on 06/15/2015

Job ID: 490-80408-1 (Continued)

Laboratory: TestAmerica Nashville (Continued)

and 06/16/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

o-Terphenyl (Surr) failed the surrogate recovery criteria high for SW-1 (490-80408-12). Evidence of matrix interference is not obvious. The lab did not receive enough volume for re-extraction and analysis.

Sample LEACHATE POND (490-80408-14)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: TRIP BLANK

Date Collected: 06/09/15 05:50
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 14:37	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 14:37	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 14:37	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 14:37	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 14:37	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 14:37	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 14:37	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 14:37	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 14:37	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 14:37	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 14:37	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 14:37	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 14:37	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 14:37	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 14:37	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 14:37	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 14:37	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 14:37	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 14:37	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 14:37	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 14:37	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 14:37	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 14:37	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 14:37	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 14:37	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 14:37	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 14:37	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 14:37	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 14:37	1
Methylene Chloride	ND		1.00	0.220	ug/L			06/19/15 14:37	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 14:37	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 14:37	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 14:37	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 14:37	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 14:37	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 14:37	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 14:37	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 14:37	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 14:37	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 14:37	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 14:37	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 14:37	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 14:37	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 14:37	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 14:37	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 14:37	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 14:37	1

Client Sample ID: TRIP BLANK

Date Collected: 06/09/15 05:50
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-1

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*06/19/15 14:37*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*06/19/15 14:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*06/19/15 14:37*	*1*
Toluene-d8 (Surr)	*111*		*70 - 130*		*06/19/15 14:37*	*1*

Client Sample ID: MW-5A

Date Collected: 06/09/15 10:10
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 15:29	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 15:29	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 15:29	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 15:29	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 15:29	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 15:29	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 15:29	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 15:29	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 15:29	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 15:29	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 15:29	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 15:29	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 15:29	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 15:29	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 15:29	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 15:29	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 15:29	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 15:29	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 15:29	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 15:29	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 15:29	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 15:29	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 15:29	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 15:29	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 15:29	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 15:29	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 15:29	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 15:29	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 15:29	1
Methylene Chloride	ND		1.00	0.220	ug/L			06/19/15 15:29	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 15:29	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 15:29	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 15:29	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 15:29	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 15:29	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 15:29	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 15:29	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 15:29	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 15:29	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 15:29	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 15:29	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 15:29	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 15:29	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 15:29	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 15:29	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 15:29	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 15:29	1

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Client Sample ID: MW-5A
Date Collected: 06/09/15 10:10
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-2
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130		06/19/15 15:29	1
Dibromofluoromethane (Surr)	101		70 - 130		06/19/15 15:29	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		06/19/15 15:29	1
Toluene-d8 (Surr)	112		70 - 130		06/19/15 15:29	1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		100	50.0	ug/L		06/13/15 14:49	06/15/15 21:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	75		50 - 150	06/13/15 14:49	06/15/15 21:29	1

Client Sample ID: MW-6

Date Collected: 06/09/15 09:30
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 15:56	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 15:56	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 15:56	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 15:56	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 15:56	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 15:56	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 15:56	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 15:56	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 15:56	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 15:56	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 15:56	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 15:56	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 15:56	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 15:56	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 15:56	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 15:56	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 15:56	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 15:56	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 15:56	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 15:56	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 15:56	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 15:56	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 15:56	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 15:56	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 15:56	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 15:56	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 15:56	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 15:56	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 15:56	1
Methylene Chloride	**0.557**	**J**	1.00	0.220	ug/L			06/19/15 15:56	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 15:56	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 15:56	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 15:56	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 15:56	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 15:56	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 15:56	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 15:56	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 15:56	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 15:56	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 15:56	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 15:56	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 15:56	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 15:56	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 15:56	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 15:56	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 15:56	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 15:56	1

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Client Sample ID: MW-6
Date Collected: 06/09/15 09:30
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-3
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*06/19/15 15:56*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*06/19/15 15:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*06/19/15 15:56*	*1*
Toluene-d8 (Surr)	*111*		*70 - 130*		*06/19/15 15:56*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		100	50.0	ug/L		06/13/15 14:49	06/15/15 21:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*84*		*50 - 150*	*06/13/15 14:49*	*06/15/15 21:46*	*1*

Client Sample ID: MW-6A
Date Collected: 06/09/15 07:35
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 16:22	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 16:22	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 16:22	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 16:22	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 16:22	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 16:22	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 16:22	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 16:22	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 16:22	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 16:22	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 16:22	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 16:22	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 16:22	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 16:22	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 16:22	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 16:22	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 16:22	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 16:22	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 16:22	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 16:22	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 16:22	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 16:22	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 16:22	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 16:22	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 16:22	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 16:22	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 16:22	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 16:22	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 16:22	1
Methylene Chloride	0.711	J	1.00	0.220	ug/L			06/19/15 16:22	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 16:22	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 16:22	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 16:22	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 16:22	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 16:22	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 16:22	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 16:22	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 16:22	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 16:22	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 16:22	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 16:22	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 16:22	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 16:22	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 16:22	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 16:22	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 16:22	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 16:22	1

Client Sample ID: MW-6A

Date Collected: 06/09/15 07:35
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-4

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*06/19/15 16:22*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*06/19/15 16:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*06/19/15 16:22*	*1*
Toluene-d8 (Surr)	*114*		*70 - 130*		*06/19/15 16:22*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		100	50.0	ug/L		06/13/15 14:49	06/15/15 22:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*77*		*50 - 150*	*06/13/15 14:49*	*06/15/15 22:02*	*1*

Client Sample ID: MW-7

Date Collected: 06/09/15 08:30
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-5

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 16:48	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 16:48	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 16:48	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 16:48	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 16:48	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 16:48	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 16:48	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 16:48	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 16:48	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 16:48	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 16:48	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 16:48	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 16:48	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 16:48	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 16:48	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 16:48	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 16:48	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 16:48	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 16:48	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 16:48	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 16:48	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 16:48	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 16:48	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 16:48	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 16:48	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 16:48	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 16:48	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 16:48	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 16:48	1
Methylene Chloride	**1.25**		1.00	0.220	ug/L			06/19/15 16:48	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 16:48	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 16:48	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 16:48	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 16:48	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 16:48	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 16:48	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 16:48	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 16:48	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 16:48	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 16:48	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 16:48	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 16:48	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 16:48	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 16:48	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 16:48	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 16:48	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 16:48	1

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Client Sample ID: MW-7
Date Collected: 06/09/15 08:30
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-5
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*06/19/15 16:48*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*06/19/15 16:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*06/19/15 16:48*	*1*
Toluene-d8 (Surr)	*113*		*70 - 130*		*06/19/15 16:48*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	209		100	50.0	ug/L		06/13/15 14:49	06/15/15 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*94*		*50 - 150*	*06/13/15 14:49*	*06/15/15 22:19*	*1*

Client Sample ID: MW-7A
Date Collected: 06/09/15 09:10
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 17:14	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 17:14	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 17:14	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 17:14	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 17:14	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 17:14	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 17:14	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 17:14	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 17:14	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 17:14	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 17:14	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 17:14	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 17:14	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 17:14	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 17:14	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 17:14	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 17:14	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 17:14	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 17:14	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 17:14	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 17:14	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 17:14	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 17:14	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 17:14	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 17:14	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 17:14	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 17:14	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 17:14	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 17:14	1
Methylene Chloride	**0.356**	**J**	1.00	0.220	ug/L			06/19/15 17:14	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 17:14	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 17:14	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 17:14	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 17:14	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 17:14	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 17:14	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 17:14	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 17:14	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 17:14	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 17:14	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 17:14	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 17:14	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 17:14	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 17:14	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 17:14	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 17:14	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 17:14	1

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Client Sample ID: MW-7A
Date Collected: 06/09/15 09:10
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-6
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*06/19/15 17:14*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*06/19/15 17:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/19/15 17:14*	*1*
Toluene-d8 (Surr)	*115*		*70 - 130*		*06/19/15 17:14*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		100	50.0	ug/L		06/13/15 14:49	06/15/15 22:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*82*		*50 - 150*	*06/13/15 14:49*	*06/15/15 22:35*	*1*

Client Sample ID: MW-8
Date Collected: 06/09/15 07:00
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 18:33	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 18:33	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 18:33	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 18:33	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 18:33	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 18:33	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 18:33	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 18:33	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 18:33	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 18:33	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 18:33	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 18:33	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 18:33	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 18:33	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 18:33	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 18:33	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 18:33	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 18:33	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 18:33	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 18:33	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 18:33	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 18:33	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 18:33	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 18:33	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 18:33	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 18:33	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 18:33	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 18:33	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 18:33	1
Methylene Chloride	ND		1.00	0.220	ug/L			06/19/15 18:33	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 18:33	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 18:33	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 18:33	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 18:33	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 18:33	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 18:33	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 18:33	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 18:33	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 18:33	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 18:33	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 18:33	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 18:33	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 18:33	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 18:33	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 18:33	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 18:33	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 18:33	1

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Client Sample ID: MW-8
Date Collected: 06/09/15 07:00
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-7
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*06/19/15 18:33*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*06/19/15 18:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*06/19/15 18:33*	*1*
Toluene-d8 (Surr)	*114*		*70 - 130*		*06/19/15 18:33*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		100	50.0	ug/L		06/13/15 14:49	06/15/15 22:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*78*		*50 - 150*	*06/13/15 14:49*	*06/15/15 22:52*	*1*

Client Sample ID: MW-8A
Date Collected: 06/09/15 07:45
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 18:59	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 18:59	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 18:59	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 18:59	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 18:59	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 18:59	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 18:59	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 18:59	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 18:59	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 18:59	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 18:59	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 18:59	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 18:59	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 18:59	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 18:59	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 18:59	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 18:59	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 18:59	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 18:59	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 18:59	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 18:59	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 18:59	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 18:59	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 18:59	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 18:59	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 18:59	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 18:59	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 18:59	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 18:59	1
Methylene Chloride	ND		1.00	0.220	ug/L			06/19/15 18:59	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 18:59	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 18:59	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 18:59	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 18:59	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 18:59	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 18:59	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 18:59	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 18:59	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 18:59	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 18:59	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 18:59	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 18:59	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 18:59	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 18:59	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 18:59	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 18:59	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 18:59	1

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Client Sample ID: MW-8A
Date Collected: 06/09/15 07:45
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-8
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*06/19/15 18:59*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*06/19/15 18:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*06/19/15 18:59*	*1*
Toluene-d8 (Surr)	*114*		*70 - 130*		*06/19/15 18:59*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		100	50.0	ug/L		06/13/15 14:49	06/15/15 23:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*71*		*50 - 150*	*06/13/15 14:49*	*06/15/15 23:09*	*1*

Client Sample ID: MW-9

Date Collected: 06/09/15 10:05
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-9

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 19:25	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 19:25	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 19:25	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 19:25	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 19:25	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 19:25	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 19:25	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 19:25	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 19:25	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 19:25	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 19:25	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 19:25	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 19:25	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 19:25	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 19:25	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 19:25	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 19:25	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 19:25	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 19:25	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 19:25	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 19:25	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 19:25	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 19:25	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 19:25	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 19:25	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 19:25	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 19:25	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 19:25	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 19:25	1
Methylene Chloride	ND		1.00	0.220	ug/L			06/19/15 19:25	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 19:25	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 19:25	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 19:25	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 19:25	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 19:25	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 19:25	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 19:25	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 19:25	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 19:25	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 19:25	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 19:25	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 19:25	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 19:25	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 19:25	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 19:25	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 19:25	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 19:25	1

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Client Sample ID: MW-9
Date Collected: 06/09/15 10:05
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-9
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130		06/19/15 19:25	1
Dibromofluoromethane (Surr)	101		70 - 130		06/19/15 19:25	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		06/19/15 19:25	1
Toluene-d8 (Surr)	115		70 - 130		06/19/15 19:25	1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	121		100	50.0	ug/L		06/13/15 14:49	06/16/15 08:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	89		50 - 150	06/13/15 14:49	06/16/15 08:01	1

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Client Sample ID: MW-9A
Date Collected: 06/09/15 10:25
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-10
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 19:51	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 19:51	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 19:51	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 19:51	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 19:51	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 19:51	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 19:51	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 19:51	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 19:51	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 19:51	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 19:51	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 19:51	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 19:51	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 19:51	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 19:51	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 19:51	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 19:51	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 19:51	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 19:51	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 19:51	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 19:51	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 19:51	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 19:51	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 19:51	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 19:51	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 19:51	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 19:51	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 19:51	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 19:51	1
Methylene Chloride	ND		1.00	0.220	ug/L			06/19/15 19:51	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 19:51	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 19:51	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 19:51	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 19:51	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 19:51	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 19:51	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 19:51	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 19:51	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 19:51	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 19:51	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 19:51	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 19:51	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 19:51	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 19:51	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 19:51	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 19:51	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 19:51	1

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Client Sample ID: MW-9A
Date Collected: 06/09/15 10:25
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-10
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*06/19/15 19:51*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*06/19/15 19:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*06/19/15 19:51*	*1*
Toluene-d8 (Surr)	*114*		*70 - 130*		*06/19/15 19:51*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		100	50.0	ug/L		06/13/15 14:49	06/16/15 09:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*85*		*50 - 150*	*06/13/15 14:49*	*06/16/15 09:58*	*1*

Client Sample ID: MW-10A

Date Collected: 06/09/15 08:50
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-11

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 20:17	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 20:17	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 20:17	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 20:17	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 20:17	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 20:17	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 20:17	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 20:17	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 20:17	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 20:17	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 20:17	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 20:17	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 20:17	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 20:17	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 20:17	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 20:17	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 20:17	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 20:17	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 20:17	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 20:17	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 20:17	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 20:17	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 20:17	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 20:17	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 20:17	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 20:17	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 20:17	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 20:17	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 20:17	1
Methylene Chloride	ND		1.00	0.220	ug/L			06/19/15 20:17	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 20:17	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 20:17	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 20:17	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 20:17	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 20:17	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 20:17	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 20:17	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 20:17	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 20:17	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 20:17	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 20:17	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 20:17	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 20:17	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 20:17	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 20:17	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 20:17	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 20:17	1

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Client Sample ID: MW-10A
Date Collected: 06/09/15 08:50
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-11
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*06/19/15 20:17*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*06/19/15 20:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*06/19/15 20:17*	*1*
Toluene-d8 (Surr)	*112*		*70 - 130*		*06/19/15 20:17*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		100	50.0	ug/L		06/13/15 14:49	06/16/15 10:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*80*		*50 - 150*	*06/13/15 14:49*	*06/16/15 10:15*	*1*

Client Sample ID: SW-1

Date Collected: 06/09/15 10:50
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-12

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 20:43	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 20:43	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 20:43	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 20:43	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 20:43	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 20:43	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 20:43	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 20:43	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 20:43	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 20:43	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 20:43	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 20:43	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 20:43	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 20:43	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 20:43	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 20:43	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 20:43	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 20:43	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 20:43	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 20:43	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 20:43	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 20:43	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 20:43	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 20:43	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 20:43	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 20:43	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 20:43	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 20:43	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 20:43	1
Methylene Chloride	**0.492**	**J**	1.00	0.220	ug/L			06/19/15 20:43	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 20:43	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 20:43	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 20:43	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 20:43	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 20:43	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 20:43	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 20:43	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 20:43	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 20:43	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 20:43	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 20:43	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 20:43	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 20:43	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 20:43	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 20:43	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 20:43	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 20:43	1

Client Sample ID: SW-1

Date Collected: 06/09/15 10:50
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-12

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*06/19/15 20:43*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*06/19/15 20:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/19/15 20:43*	*1*
Toluene-d8 (Surr)	*115*		*70 - 130*		*06/19/15 20:43*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	204		100	50.0	ug/L		06/13/15 14:49	06/16/15 10:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*266*	*X*	*50 - 150*	*06/13/15 14:49*	*06/16/15 10:31*	*1*

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Client Sample ID: SW-2
Date Collected: 06/09/15 11:15
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-13
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 21:09	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 21:09	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 21:09	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 21:09	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 21:09	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 21:09	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 21:09	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 21:09	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 21:09	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 21:09	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 21:09	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 21:09	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 21:09	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 21:09	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 21:09	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 21:09	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 21:09	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 21:09	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 21:09	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 21:09	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 21:09	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 21:09	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 21:09	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 21:09	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 21:09	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 21:09	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 21:09	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 21:09	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 21:09	1
Methylene Chloride	ND		1.00	0.220	ug/L			06/19/15 21:09	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 21:09	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 21:09	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 21:09	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 21:09	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 21:09	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 21:09	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 21:09	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 21:09	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 21:09	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 21:09	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 21:09	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 21:09	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 21:09	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 21:09	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 21:09	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 21:09	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 21:09	1

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Client Sample ID: SW-2
Date Collected: 06/09/15 11:15
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-13
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130		06/19/15 21:09	1
Dibromofluoromethane (Surr)	101		70 - 130		06/19/15 21:09	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		06/19/15 21:09	1
Toluene-d8 (Surr)	111		70 - 130		06/19/15 21:09	1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	96.6	J	100	50.0	ug/L		06/13/15 14:49	06/16/15 10:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	85		50 - 150	06/13/15 14:49	06/16/15 10:48	1

Client Sample ID: LEACHATE POND

Lab Sample ID: 490-80408-14

Date Collected: 06/09/15 10:45

Matrix: Water

Date Received: 06/11/15 08:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 21:35	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 21:35	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 21:35	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 21:35	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 21:35	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 21:35	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 21:35	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 21:35	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 21:35	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 21:35	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 21:35	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 21:35	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 21:35	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 21:35	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 21:35	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 21:35	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 21:35	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 21:35	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 21:35	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 21:35	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 21:35	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 21:35	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 21:35	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 21:35	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 21:35	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 21:35	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 21:35	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 21:35	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 21:35	1
Methylene Chloride	0.221	J	1.00	0.220	ug/L			06/19/15 21:35	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 21:35	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 21:35	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 21:35	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 21:35	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 21:35	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 21:35	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 21:35	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 21:35	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 21:35	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 21:35	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 21:35	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 21:35	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 21:35	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 21:35	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 21:35	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 21:35	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 21:35	1

Client Sample ID: LEACHATE POND

Lab Sample ID: 490-80408-14

Date Collected: 06/09/15 10:45

Matrix: Water

Date Received: 06/11/15 08:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*06/19/15 21:35*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*06/19/15 21:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*06/19/15 21:35*	*1*
Toluene-d8 (Surr)	*112*		*70 - 130*		*06/19/15 21:35*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	11600		500	250	ug/L		06/13/15 14:49	06/16/15 12:14	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	*84*		*50 - 150*	*06/13/15 14:49*	*06/16/15 12:14*	*5*

Client Sample ID: FIELD BLANK

Date Collected: 06/09/15 11:45
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-15

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 15:03	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 15:03	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 15:03	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 15:03	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 15:03	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 15:03	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 15:03	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 15:03	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 15:03	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 15:03	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 15:03	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 15:03	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 15:03	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 15:03	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 15:03	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 15:03	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 15:03	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 15:03	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 15:03	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 15:03	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 15:03	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 15:03	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 15:03	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 15:03	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 15:03	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 15:03	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 15:03	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 15:03	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 15:03	1
Methylene Chloride	**0.513**	**J**	1.00	0.220	ug/L			06/22/15 14:43	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 15:03	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 15:03	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 15:03	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 15:03	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 15:03	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 15:03	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 15:03	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 15:03	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 15:03	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 15:03	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 15:03	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 15:03	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 15:03	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 15:03	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 15:03	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 15:03	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 15:03	1

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Client Sample ID: FIELD BLANK
Date Collected: 06/09/15 11:45
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-15
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130		06/19/15 15:03	1
4-Bromofluorobenzene (Surr)	94		70 - 130		06/22/15 14:43	1
Dibromofluoromethane (Surr)	101		70 - 130		06/19/15 15:03	1
Dibromofluoromethane (Surr)	101		70 - 130		06/22/15 14:43	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		06/19/15 15:03	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		06/22/15 14:43	1
Toluene-d8 (Surr)	113		70 - 130		06/19/15 15:03	1
Toluene-d8 (Surr)	108		70 - 130		06/22/15 14:43	1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		100	50.0	ug/L		06/13/15 14:49	06/16/15 12:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	79		50 - 150	06/13/15 14:49	06/16/15 12:31	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-257634/7
Matrix: Water
Analysis Batch: 257634

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/19/15 14:12	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/19/15 14:12	1
Benzene	ND		1.00	0.200	ug/L			06/19/15 14:12	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/19/15 14:12	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/19/15 14:12	1
Bromoform	ND		1.00	0.290	ug/L			06/19/15 14:12	1
Bromomethane	ND		1.00	0.350	ug/L			06/19/15 14:12	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/19/15 14:12	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/19/15 14:12	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/19/15 14:12	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/19/15 14:12	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/19/15 14:12	1
Chloroethane	ND		1.00	0.360	ug/L			06/19/15 14:12	1
Chloroform	ND		1.00	0.230	ug/L			06/19/15 14:12	1
Chloromethane	ND		1.00	0.360	ug/L			06/19/15 14:12	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/19/15 14:12	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 14:12	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/19/15 14:12	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/19/15 14:12	1
Dibromomethane	ND		1.00	0.450	ug/L			06/19/15 14:12	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/19/15 14:12	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/19/15 14:12	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/19/15 14:12	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/19/15 14:12	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/19/15 14:12	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/19/15 14:12	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/19/15 14:12	1
2-Hexanone	ND		10.0	1.28	ug/L			06/19/15 14:12	1
Iodomethane	ND		10.0	1.50	ug/L			06/19/15 14:12	1
Methylene Chloride	ND		1.00	0.220	ug/L			06/19/15 14:12	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/19/15 14:12	1
Styrene	ND		1.00	0.280	ug/L			06/19/15 14:12	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/19/15 14:12	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/19/15 14:12	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/19/15 14:12	1
Toluene	ND		1.00	0.170	ug/L			06/19/15 14:12	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/19/15 14:12	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/19/15 14:12	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/19/15 14:12	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 14:12	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/19/15 14:12	1
Trichloroethene	ND		1.00	0.200	ug/L			06/19/15 14:12	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/19/15 14:12	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/19/15 14:12	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/19/15 14:12	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/19/15 14:12	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/19/15 14:12	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-257634/7
Matrix: Water
Analysis Batch: 257634

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130		06/19/15 14:12	1
Dibromofluoromethane (Surr)	101		70 - 130		06/19/15 14:12	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		06/19/15 14:12	1
Toluene-d8 (Surr)	111		70 - 130		06/19/15 14:12	1

Lab Sample ID: LCS 490-257634/3
Matrix: Water
Analysis Batch: 257634

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	250	205.8		ug/L		82	54 - 145
Acrylonitrile	500	438.7		ug/L		88	61 - 140
Benzene	50.0	50.15		ug/L		100	80 - 121
Bromochloromethane	50.0	52.53		ug/L		105	78 - 129
Bromodichloromethane	50.0	48.15		ug/L		96	75 - 129
Bromoform	50.0	47.35		ug/L		95	46 - 145
Bromomethane	50.0	45.19		ug/L		90	41 - 150
2-Butanone (MEK)	250	210.0		ug/L		84	62 - 133
Carbon disulfide	50.0	54.49		ug/L		109	77 - 126
Carbon tetrachloride	50.0	51.01		ug/L		102	64 - 147
Chlorobenzene	50.0	51.12		ug/L		102	80 - 120
Chlorodibromomethane	50.0	47.71		ug/L		95	69 - 133
Chloroethane	50.0	46.30		ug/L		93	72 - 120
Chloroform	50.0	49.06		ug/L		98	73 - 129
Chloromethane	50.0	41.78		ug/L		84	12 - 150
cis-1,2-Dichloroethene	50.0	48.65		ug/L		97	76 - 125
cis-1,3-Dichloropropene	50.0	51.84		ug/L		104	74 - 140
1,2-Dibromo-3-Chloropropane	50.0	41.86		ug/L		84	54 - 125
1,2-Dibromoethane (EDB)	50.0	47.55		ug/L		95	80 - 129
Dibromomethane	50.0	46.97		ug/L		94	71 - 125
1,2-Dichlorobenzene	50.0	51.13		ug/L		102	80 - 121
1,4-Dichlorobenzene	50.0	47.39		ug/L		95	80 - 120
1,1-Dichloroethane	50.0	49.14		ug/L		98	78 - 125
1,2-Dichloroethane	50.0	46.98		ug/L		94	77 - 121
1,1-Dichloroethene	50.0	50.36		ug/L		101	79 - 124
1,2-Dichloropropane	50.0	48.62		ug/L		97	75 - 120
Ethylbenzene	50.0	52.48		ug/L		105	80 - 130
2-Hexanone	250	192.1		ug/L		77	60 - 142
Iodomethane	50.0	46.36		ug/L		93	40 - 150
Methylene Chloride	50.0	50.00		ug/L		100	79 - 123
4-Methyl-2-pentanone (MIBK)	250	229.1		ug/L		92	60 - 137
Styrene	50.0	56.10		ug/L		112	80 - 127
1,1,1,2-Tetrachloroethane	50.0	51.48		ug/L		103	74 - 135
1,1,2,2-Tetrachloroethane	50.0	41.63		ug/L		83	69 - 131
Tetrachloroethene	50.0	50.49		ug/L		101	80 - 126
Toluene	50.0	51.84		ug/L		104	80 - 126
trans-1,4-Dichloro-2-butene	50.0	37.16		ug/L		74	41 - 147
trans-1,2-Dichloroethene	50.0	49.23		ug/L		98	79 - 126

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-257634/3
Matrix: Water
Analysis Batch: 257634

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	50.0	50.68		ug/L		101	63 - 134
1,1,1-Trichloroethane	50.0	50.71		ug/L		101	78 - 135
1,1,2-Trichloroethane	50.0	49.23		ug/L		98	80 - 124
Trichloroethene	50.0	52.69		ug/L		105	80 - 123
Trichlorofluoromethane	50.0	49.68		ug/L		99	65 - 124
1,2,3-Trichloropropane	50.0	44.46		ug/L		89	70 - 131
Vinyl acetate	100	93.73		ug/L		94	54 - 139
Vinyl chloride	50.0	44.87		ug/L		90	68 - 120
Xylenes, Total	100	107.4		ug/L		107	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*102*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*
Toluene-d8 (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 490-257634/4
Matrix: Water
Analysis Batch: 257634

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	250	207.8		ug/L		83	54 - 145	1	21
Acrylonitrile	500	437.5		ug/L		87	61 - 140	0	18
Benzene	50.0	48.84		ug/L		98	80 - 121	3	17
Bromochloromethane	50.0	52.43		ug/L		105	78 - 129	0	17
Bromodichloromethane	50.0	47.31		ug/L		95	75 - 129	2	18
Bromoform	50.0	48.12		ug/L		96	46 - 145	2	16
Bromomethane	50.0	45.33		ug/L		91	41 - 150	0	50
2-Butanone (MEK)	250	211.0		ug/L		84	62 - 133	0	19
Carbon disulfide	50.0	52.77		ug/L		106	77 - 126	3	21
Carbon tetrachloride	50.0	50.42		ug/L		101	64 - 147	1	19
Chlorobenzene	50.0	49.96		ug/L		100	80 - 120	2	14
Chlorodibromomethane	50.0	47.56		ug/L		95	69 - 133	0	15
Chloroethane	50.0	45.78		ug/L		92	72 - 120	1	20
Chloroform	50.0	48.56		ug/L		97	73 - 129	1	18
Chloromethane	50.0	41.17		ug/L		82	12 - 150	1	31
cis-1,2-Dichloroethene	50.0	48.34		ug/L		97	76 - 125	1	17
cis-1,3-Dichloropropene	50.0	50.84		ug/L		102	74 - 140	2	15
1,2-Dibromo-3-Chloropropane	50.0	41.87		ug/L		84	54 - 125	0	24
1,2-Dibromoethane (EDB)	50.0	47.19		ug/L		94	80 - 129	1	15
Dibromomethane	50.0	46.38		ug/L		93	71 - 125	1	16
1,2-Dichlorobenzene	50.0	50.72		ug/L		101	80 - 121	1	15
1,4-Dichlorobenzene	50.0	46.18		ug/L		92	80 - 120	3	15
1,1-Dichloroethane	50.0	48.67		ug/L		97	78 - 125	1	17
1,2-Dichloroethane	50.0	46.71		ug/L		93	77 - 121	1	17
1,1-Dichloroethene	50.0	48.43		ug/L		97	79 - 124	4	17
1,2-Dichloropropane	50.0	47.81		ug/L		96	75 - 120	2	17
Ethylbenzene	50.0	50.96		ug/L		102	80 - 130	3	15

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-257634/4
Matrix: Water
Analysis Batch: 257634

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Hexanone			250	188.6		ug/L		75	60 - 142	2	15
Iodomethane			50.0	46.31		ug/L		93	40 - 150	0	23
Methylene Chloride			50.0	49.30		ug/L		99	79 - 123	1	17
4-Methyl-2-pentanone (MIBK)			250	227.1		ug/L		91	60 - 137	1	17
Styrene			50.0	54.84		ug/L		110	80 - 127	2	24
1,1,1,2-Tetrachloroethane			50.0	50.45		ug/L		101	74 - 135	2	16
1,1,2,2-Tetrachloroethane			50.0	43.02		ug/L		86	69 - 131	3	20
Tetrachloroethene			50.0	49.29		ug/L		99	80 - 126	2	16
Toluene			50.0	50.87		ug/L		102	80 - 126	2	15
trans-1,4-Dichloro-2-butene			50.0	40.90		ug/L		82	41 - 147	10	26
trans-1,2-Dichloroethene			50.0	48.37		ug/L		97	79 - 126	2	16
trans-1,3-Dichloropropene			50.0	50.24		ug/L		100	63 - 134	1	14
1,1,1-Trichloroethane			50.0	49.73		ug/L		99	78 - 135	2	17
1,1,2-Trichloroethane			50.0	48.25		ug/L		97	80 - 124	2	15
Trichloroethene			50.0	51.49		ug/L		103	80 - 123	2	17
Trichlorofluoromethane			50.0	48.03		ug/L		96	65 - 124	3	18
1,2,3-Trichloropropane			50.0	44.45		ug/L		89	70 - 131	0	19
Vinyl acetate			100	94.45		ug/L		94	54 - 139	1	21
Vinyl chloride			50.0	44.11		ug/L		88	68 - 120	2	17
Xylenes, Total			100	104.3		ug/L		104	80 - 132	3	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*101*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*
Toluene-d8 (Surr)	*105*		*70 - 130*

Lab Sample ID: 490-80408-2 MS
Matrix: Water
Analysis Batch: 257634

Client Sample ID: MW-5A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		250	209.3		ug/L		84	45 - 141
Acrylonitrile	ND		500	437.3		ug/L		87	50 - 148
Benzene	ND		50.0	54.79		ug/L		110	75 - 133
Bromochloromethane	ND		50.0	55.31		ug/L		111	67 - 139
Bromodichloromethane	ND		50.0	49.99		ug/L		100	70 - 140
Bromoform	ND		50.0	45.77		ug/L		92	42 - 147
Bromomethane	ND		50.0	48.14		ug/L		96	16 - 163
2-Butanone (MEK)	ND		250	210.9		ug/L		84	50 - 138
Carbon disulfide	ND		50.0	61.50		ug/L		123	48 - 152
Carbon tetrachloride	ND		50.0	53.89		ug/L		108	62 - 164
Chlorobenzene	ND		50.0	54.55		ug/L		109	80 - 129
Chlorodibromomethane	ND		50.0	47.51		ug/L		95	66 - 140
Chloroethane	ND		50.0	50.95		ug/L		102	58 - 137
Chloroform	ND		50.0	52.09		ug/L		104	66 - 138
Chloromethane	ND		50.0	44.27		ug/L		89	10 - 169
cis-1,2-Dichloroethene	ND		50.0	51.98		ug/L		104	68 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 490-80408-2 MS
Matrix: Water
Analysis Batch: 257634

Client Sample ID: MW-5A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	ND		50.0	52.35		ug/L		105	71 - 141
1,2-Dibromo-3-Chloropropane	ND		50.0	36.06		ug/L		72	52 - 126
1,2-Dibromoethane (EDB)	ND		50.0	47.84		ug/L		96	75 - 137
Dibromomethane	ND		50.0	48.34		ug/L		97	58 - 140
1,2-Dichlorobenzene	ND		50.0	53.68		ug/L		107	79 - 128
1,4-Dichlorobenzene	ND		50.0	49.27		ug/L		99	78 - 126
1,1-Dichloroethane	ND		50.0	53.03		ug/L		106	71 - 139
1,2-Dichloroethane	ND		50.0	49.33		ug/L		99	64 - 136
1,1-Dichloroethene	ND		50.0	56.15		ug/L		112	70 - 142
1,2-Dichloropropane	ND		50.0	51.57		ug/L		103	67 - 131
Ethylbenzene	ND		50.0	56.99		ug/L		114	79 - 139
2-Hexanone	ND		250	185.9		ug/L		74	50 - 150
Iodomethane	ND		50.0	50.59		ug/L		101	34 - 191
Methylene Chloride	ND		50.0	53.67		ug/L		107	64 - 139
4-Methyl-2-pentanone (MIBK)	ND		250	226.3		ug/L		91	50 - 147
Styrene	ND		50.0	59.31		ug/L		119	61 - 148
1,1,1,2-Tetrachloroethane	ND		50.0	51.87		ug/L		104	73 - 141
1,1,2,2-Tetrachloroethane	ND		50.0	42.77		ug/L		86	56 - 143
Tetrachloroethene	ND		50.0	56.58		ug/L		113	72 - 145
Toluene	ND		50.0	56.83		ug/L		114	75 - 136
trans-1,4-Dichloro-2-butene	ND		50.0	35.51		ug/L		71	29 - 156
trans-1,2-Dichloroethene	ND		50.0	54.61		ug/L		109	66 - 143
trans-1,3-Dichloropropene	ND		50.0	49.78		ug/L		100	59 - 135
1,1,1-Trichloroethane	ND		50.0	54.25		ug/L		108	76 - 149
1,1,2-Trichloroethane	ND		50.0	50.92		ug/L		102	74 - 134
Trichloroethene	ND		50.0	57.66		ug/L		115	73 - 144
Trichlorofluoromethane	ND		50.0	54.78		ug/L		110	58 - 139
1,2,3-Trichloropropane	ND		50.0	44.30		ug/L		89	53 - 144
Vinyl acetate	ND		100	87.33		ug/L		87	37 - 154
Vinyl chloride	ND		50.0	48.59		ug/L		97	56 - 129
Xylenes, Total	ND		100	114.4		ug/L		114	74 - 141

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
Toluene-d8 (Surr)	*106*		*70 - 130*

Lab Sample ID: 490-80408-2 MSD
Matrix: Water
Analysis Batch: 257634

Client Sample ID: MW-5A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		250	210.7		ug/L		84	45 - 141	1	21
Acrylonitrile	ND		500	442.9		ug/L		89	50 - 148	1	18
Benzene	ND		50.0	55.62		ug/L		111	75 - 133	2	17
Bromochloromethane	ND		50.0	56.18		ug/L		112	67 - 139	2	17
Bromodichloromethane	ND		50.0	50.67		ug/L		101	70 - 140	1	18

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 490-80408-2 MSD
Matrix: Water
Analysis Batch: 257634

Client Sample ID: MW-5A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromoform	ND		50.0	45.30		ug/L		91	42 - 147	1	16
Bromomethane	ND		50.0	50.64	E	ug/L		101	16 - 163	5	50
2-Butanone (MEK)	ND		250	204.5		ug/L		82	50 - 138	3	19
Carbon disulfide	ND		50.0	66.11		ug/L		132	48 - 152	7	21
Carbon tetrachloride	ND		50.0	57.32		ug/L		115	62 - 164	6	19
Chlorobenzene	ND		50.0	54.71		ug/L		109	80 - 129	0	14
Chlorodibromomethane	ND		50.0	47.85		ug/L		96	66 - 140	1	15
Chloroethane	ND		50.0	52.80		ug/L		106	58 - 137	4	20
Chloroform	ND		50.0	53.34		ug/L		107	66 - 138	2	18
Chloromethane	ND		50.0	47.61		ug/L		95	10 - 169	7	31
cis-1,2-Dichloroethene	ND		50.0	54.05		ug/L		108	68 - 138	4	17
cis-1,3-Dichloropropene	ND		50.0	50.88		ug/L		102	71 - 141	3	15
1,2-Dibromo-3-Chloropropane	ND		50.0	37.92		ug/L		76	52 - 126	5	24
1,2-Dibromoethane (EDB)	ND		50.0	47.03		ug/L		94	75 - 137	2	15
Dibromomethane	ND		50.0	48.49		ug/L		97	58 - 140	0	16
1,2-Dichlorobenzene	ND		50.0	52.80		ug/L		106	79 - 128	2	15
1,4-Dichlorobenzene	ND		50.0	49.65		ug/L		99	78 - 126	1	15
1,1-Dichloroethane	ND		50.0	55.01		ug/L		110	71 - 139	4	17
1,2-Dichloroethane	ND		50.0	48.71		ug/L		97	64 - 136	1	17
1,1-Dichloroethene	ND		50.0	59.15		ug/L		118	70 - 142	5	17
1,2-Dichloropropane	ND		50.0	52.45		ug/L		105	67 - 131	2	17
Ethylbenzene	ND		50.0	57.22		ug/L		114	79 - 139	0	15
2-Hexanone	ND		250	177.9		ug/L		71	50 - 150	4	15
Iodomethane	ND		50.0	63.81		ug/L		128	34 - 191	23	23
Methylene Chloride	ND		50.0	55.45		ug/L		111	64 - 139	3	17
4-Methyl-2-pentanone (MIBK)	ND		250	214.1		ug/L		86	50 - 147	6	17
Styrene	ND		50.0	59.92		ug/L		120	61 - 148	1	24
1,1,1,2-Tetrachloroethane	ND		50.0	53.25		ug/L		106	73 - 141	3	16
1,1,2,2-Tetrachloroethane	ND		50.0	42.00		ug/L		84	56 - 143	2	20
Tetrachloroethene	ND		50.0	55.59		ug/L		111	72 - 145	2	16
Toluene	ND		50.0	55.07		ug/L		110	75 - 136	3	15
trans-1,4-Dichloro-2-butene	ND		50.0	34.86		ug/L		70	29 - 156	2	26
trans-1,2-Dichloroethene	ND		50.0	56.65		ug/L		113	66 - 143	4	16
trans-1,3-Dichloropropene	ND		50.0	47.73		ug/L		95	59 - 135	4	14
1,1,1-Trichloroethane	ND		50.0	56.55		ug/L		113	76 - 149	4	17
1,1,2-Trichloroethane	ND		50.0	48.60		ug/L		97	74 - 134	5	15
Trichloroethene	ND		50.0	59.00		ug/L		118	73 - 144	2	17
Trichlorofluoromethane	ND		50.0	57.68		ug/L		115	58 - 139	5	18
1,2,3-Trichloropropane	ND		50.0	43.66		ug/L		87	53 - 144	1	19
Vinyl acetate	ND		100	91.61		ug/L		92	37 - 154	5	21
Vinyl chloride	ND		50.0	51.79		ug/L		104	56 - 129	6	17
Xylenes, Total	ND		100	114.8		ug/L		115	74 - 141	0	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*101*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-258244/7
Matrix: Water
Analysis Batch: 258244

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0	2.66	ug/L			06/22/15 13:51	1
Acrylonitrile	ND		10.0	0.500	ug/L			06/22/15 13:51	1
Benzene	ND		1.00	0.200	ug/L			06/22/15 13:51	1
Bromochloromethane	ND		1.00	0.150	ug/L			06/22/15 13:51	1
Bromodichloromethane	ND		1.00	0.170	ug/L			06/22/15 13:51	1
Bromoform	ND		1.00	0.290	ug/L			06/22/15 13:51	1
Bromomethane	ND		1.00	0.350	ug/L			06/22/15 13:51	1
2-Butanone (MEK)	ND		50.0	2.64	ug/L			06/22/15 13:51	1
Carbon disulfide	ND		1.00	0.220	ug/L			06/22/15 13:51	1
Carbon tetrachloride	ND		1.00	0.180	ug/L			06/22/15 13:51	1
Chlorobenzene	ND		1.00	0.180	ug/L			06/22/15 13:51	1
Chlorodibromomethane	ND		1.00	0.250	ug/L			06/22/15 13:51	1
Chloroethane	ND		1.00	0.360	ug/L			06/22/15 13:51	1
Chloroform	ND		1.00	0.230	ug/L			06/22/15 13:51	1
Chloromethane	ND		1.00	0.360	ug/L			06/22/15 13:51	1
cis-1,2-Dichloroethene	ND		1.00	0.210	ug/L			06/22/15 13:51	1
cis-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/22/15 13:51	1
1,2-Dibromo-3-Chloropropane	ND		10.0	0.940	ug/L			06/22/15 13:51	1
1,2-Dibromoethane (EDB)	ND		1.00	0.210	ug/L			06/22/15 13:51	1
Dibromomethane	ND		1.00	0.450	ug/L			06/22/15 13:51	1
1,2-Dichlorobenzene	ND		1.00	0.190	ug/L			06/22/15 13:51	1
1,4-Dichlorobenzene	ND		1.00	0.170	ug/L			06/22/15 13:51	1
1,1-Dichloroethane	ND		1.00	0.240	ug/L			06/22/15 13:51	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/22/15 13:51	1
1,1-Dichloroethene	ND		1.00	0.250	ug/L			06/22/15 13:51	1
1,2-Dichloropropane	ND		1.00	0.250	ug/L			06/22/15 13:51	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/22/15 13:51	1
2-Hexanone	ND		10.0	1.28	ug/L			06/22/15 13:51	1
Iodomethane	ND		10.0	1.50	ug/L			06/22/15 13:51	1
Methylene Chloride	ND		1.00	0.220	ug/L			06/22/15 13:51	1
4-Methyl-2-pentanone (MIBK)	ND		10.0	0.810	ug/L			06/22/15 13:51	1
Styrene	ND		1.00	0.280	ug/L			06/22/15 13:51	1
1,1,1,2-Tetrachloroethane	ND		1.00	0.150	ug/L			06/22/15 13:51	1
1,1,2,2-Tetrachloroethane	ND		1.00	0.190	ug/L			06/22/15 13:51	1
Tetrachloroethene	ND		1.00	0.140	ug/L			06/22/15 13:51	1
Toluene	ND		1.00	0.170	ug/L			06/22/15 13:51	1
trans-1,4-Dichloro-2-butene	ND		5.00	0.460	ug/L			06/22/15 13:51	1
trans-1,2-Dichloroethene	ND		1.00	0.230	ug/L			06/22/15 13:51	1
trans-1,3-Dichloropropene	ND		1.00	0.170	ug/L			06/22/15 13:51	1
1,1,1-Trichloroethane	ND		1.00	0.190	ug/L			06/22/15 13:51	1
1,1,2-Trichloroethane	ND		1.00	0.190	ug/L			06/22/15 13:51	1
Trichloroethene	ND		1.00	0.200	ug/L			06/22/15 13:51	1
Trichlorofluoromethane	ND		1.00	0.210	ug/L			06/22/15 13:51	1
1,2,3-Trichloropropane	ND		1.00	0.230	ug/L			06/22/15 13:51	1
Vinyl acetate	ND		10.0	1.71	ug/L			06/22/15 13:51	1
Vinyl chloride	ND		1.00	0.180	ug/L			06/22/15 13:51	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/22/15 13:51	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-258244/7
Matrix: Water
Analysis Batch: 258244

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130		06/22/15 13:51	1
Dibromofluoromethane (Surr)	101		70 - 130		06/22/15 13:51	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		06/22/15 13:51	1
Toluene-d8 (Surr)	105		70 - 130		06/22/15 13:51	1

Lab Sample ID: LCS 490-258244/3
Matrix: Water
Analysis Batch: 258244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	250	217.2		ug/L		87	54 - 145
Acrylonitrile	500	426.6		ug/L		85	61 - 140
Benzene	50.0	46.00		ug/L		92	80 - 121
Bromochloromethane	50.0	48.77		ug/L		98	78 - 129
Bromodichloromethane	50.0	44.53		ug/L		89	75 - 129
Bromoform	50.0	48.50		ug/L		97	46 - 145
Bromomethane	50.0	45.02		ug/L		90	41 - 150
2-Butanone (MEK)	250	204.6		ug/L		82	62 - 133
Carbon disulfide	50.0	50.07		ug/L		100	77 - 126
Carbon tetrachloride	50.0	46.58		ug/L		93	64 - 147
Chlorobenzene	50.0	50.56		ug/L		101	80 - 120
Chlorodibromomethane	50.0	48.50		ug/L		97	69 - 133
Chloroethane	50.0	47.48		ug/L		95	72 - 120
Chloroform	50.0	45.58		ug/L		91	73 - 129
Chloromethane	50.0	48.85		ug/L		98	12 - 150
cis-1,2-Dichloroethene	50.0	45.37		ug/L		91	76 - 125
cis-1,3-Dichloropropene	50.0	47.53		ug/L		95	74 - 140
1,2-Dibromo-3-Chloropropane	50.0	44.53		ug/L		89	54 - 125
1,2-Dibromoethane (EDB)	50.0	47.33		ug/L		95	80 - 129
Dibromomethane	50.0	43.59		ug/L		87	71 - 125
1,2-Dichlorobenzene	50.0	51.60		ug/L		103	80 - 121
1,4-Dichlorobenzene	50.0	47.80		ug/L		96	80 - 120
1,1-Dichloroethane	50.0	46.29		ug/L		93	78 - 125
1,2-Dichloroethane	50.0	44.34		ug/L		89	77 - 121
1,1-Dichloroethene	50.0	46.41		ug/L		93	79 - 124
1,2-Dichloropropane	50.0	45.09		ug/L		90	75 - 120
Ethylbenzene	50.0	51.61		ug/L		103	80 - 130
2-Hexanone	250	194.7		ug/L		78	60 - 142
Iodomethane	50.0	50.95		ug/L		102	40 - 150
Methylene Chloride	50.0	47.42		ug/L		95	79 - 123
4-Methyl-2-pentanone (MIBK)	250	219.6		ug/L		88	60 - 137
Styrene	50.0	54.71		ug/L		109	80 - 127
1,1,1,2-Tetrachloroethane	50.0	50.50		ug/L		101	74 - 135
1,1,2,2-Tetrachloroethane	50.0	44.38		ug/L		89	69 - 131
Tetrachloroethene	50.0	46.93		ug/L		94	80 - 126
Toluene	50.0	47.14		ug/L		94	80 - 126
trans-1,4-Dichloro-2-butene	50.0	39.59		ug/L		79	41 - 147
trans-1,2-Dichloroethene	50.0	46.22		ug/L		92	79 - 126

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-258244/3
Matrix: Water
Analysis Batch: 258244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
trans-1,3-Dichloropropene			50.0	45.34		ug/L		91	63 - 134		
1,1,1-Trichloroethane			50.0	45.95		ug/L		92	78 - 135		
1,1,2-Trichloroethane			50.0	44.98		ug/L		90	80 - 124		
Trichloroethene			50.0	48.82		ug/L		98	80 - 123		
Trichlorofluoromethane			50.0	49.91		ug/L		100	65 - 124		
1,2,3-Trichloropropane			50.0	47.25		ug/L		95	70 - 131		
Vinyl acetate			100	88.24		ug/L		88	54 - 139		
Vinyl chloride			50.0	48.12		ug/L		96	68 - 120		
Xylenes, Total			100	104.4		ug/L		104	80 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 490-258244/4
Matrix: Water
Analysis Batch: 258244

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone			250	228.3		ug/L		91	54 - 145	5	21
Acrylonitrile			500	435.2		ug/L		87	61 - 140	2	18
Benzene			50.0	45.83		ug/L		92	80 - 121	0	17
Bromochloromethane			50.0	49.02		ug/L		98	78 - 129	1	17
Bromodichloromethane			50.0	44.44		ug/L		89	75 - 129	0	18
Bromoform			50.0	50.32		ug/L		101	46 - 145	4	16
Bromomethane			50.0	45.31		ug/L		91	41 - 150	1	50
2-Butanone (MEK)			250	216.4		ug/L		87	62 - 133	6	19
Carbon disulfide			50.0	49.49		ug/L		99	77 - 126	1	21
Carbon tetrachloride			50.0	46.13		ug/L		92	64 - 147	1	19
Chlorobenzene			50.0	50.76		ug/L		102	80 - 120	0	14
Chlorodibromomethane			50.0	48.63		ug/L		97	69 - 133	0	15
Chloroethane			50.0	47.30		ug/L		95	72 - 120	0	20
Chloroform			50.0	45.42		ug/L		91	73 - 129	0	18
Chloromethane			50.0	47.81		ug/L		96	12 - 150	2	31
cis-1,2-Dichloroethene			50.0	45.79		ug/L		92	76 - 125	1	17
cis-1,3-Dichloropropene			50.0	47.57		ug/L		95	74 - 140	0	15
1,2-Dibromo-3-Chloropropane			50.0	44.87		ug/L		90	54 - 125	1	24
1,2-Dibromoethane (EDB)			50.0	47.54		ug/L		95	80 - 129	0	15
Dibromomethane			50.0	44.48		ug/L		89	71 - 125	2	16
1,2-Dichlorobenzene			50.0	51.71		ug/L		103	80 - 121	0	15
1,4-Dichlorobenzene			50.0	48.02		ug/L		96	80 - 120	0	15
1,1-Dichloroethane			50.0	47.12		ug/L		94	78 - 125	2	17
1,2-Dichloroethane			50.0	44.41		ug/L		89	77 - 121	0	17
1,1-Dichloroethene			50.0	46.78		ug/L		94	79 - 124	1	17
1,2-Dichloropropane			50.0	45.04		ug/L		90	75 - 120	0	17
Ethylbenzene			50.0	51.61		ug/L		103	80 - 130	0	15

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-258244/4
Matrix: Water
Analysis Batch: 258244

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Hexanone			250	203.1		ug/L		81	60 - 142	4	15
Iodomethane			50.0	50.02		ug/L		100	40 - 150	2	23
Methylene Chloride			50.0	47.21		ug/L		94	79 - 123	0	17
4-Methyl-2-pentanone (MIBK)			250	228.2		ug/L		91	60 - 137	4	17
Styrene			50.0	55.03		ug/L		110	80 - 127	1	24
1,1,1,2-Tetrachloroethane			50.0	50.56		ug/L		101	74 - 135	0	16
1,1,2,2-Tetrachloroethane			50.0	45.35		ug/L		91	69 - 131	2	20
Tetrachloroethene			50.0	47.06		ug/L		94	80 - 126	0	16
Toluene			50.0	47.43		ug/L		95	80 - 126	1	15
trans-1,4-Dichloro-2-butene			50.0	39.42		ug/L		79	41 - 147	0	26
trans-1,2-Dichloroethene			50.0	46.23		ug/L		92	79 - 126	0	16
trans-1,3-Dichloropropene			50.0	46.72		ug/L		93	63 - 134	3	14
1,1,1-Trichloroethane			50.0	45.42		ug/L		91	78 - 135	1	17
1,1,2-Trichloroethane			50.0	45.92		ug/L		92	80 - 124	2	15
Trichloroethene			50.0	48.62		ug/L		97	80 - 123	0	17
Trichlorofluoromethane			50.0	49.61		ug/L		99	65 - 124	1	18
1,2,3-Trichloropropane			50.0	47.53		ug/L		95	70 - 131	1	19
Vinyl acetate			100	89.86		ug/L		90	54 - 139	2	21
Vinyl chloride			50.0	48.21		ug/L		96	68 - 120	0	17
Xylenes, Total			100	105.0		ug/L		105	80 - 132	1	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: 490-81076-B-1 MS
Matrix: Water
Analysis Batch: 258244

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		250	193.9		ug/L		78	45 - 141
Acrylonitrile	ND		500	416.0		ug/L		83	50 - 148
Benzene	ND		50.0	49.97		ug/L		100	75 - 133
Bromochloromethane	ND		50.0	52.52		ug/L		105	67 - 139
Bromodichloromethane	ND		50.0	46.21		ug/L		92	70 - 140
Bromoform	ND		50.0	48.97		ug/L		98	42 - 147
Bromomethane	ND		50.0	40.50		ug/L		81	16 - 163
2-Butanone (MEK)	ND		250	197.8		ug/L		79	50 - 138
Carbon disulfide	ND		50.0	57.08		ug/L		114	48 - 152
Carbon tetrachloride	ND		50.0	51.64		ug/L		103	62 - 164
Chlorobenzene	ND		50.0	54.16		ug/L		108	80 - 129
Chlorodibromomethane	ND		50.0	50.46		ug/L		101	66 - 140
Chloroethane	ND		50.0	51.00		ug/L		102	58 - 137
Chloroform	ND		50.0	47.80		ug/L		96	66 - 138
Chloromethane	ND		50.0	48.02		ug/L		96	10 - 169
cis-1,2-Dichloroethene	ND		50.0	47.96		ug/L		96	68 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 490-81076-B-1 MS
Matrix: Water
Analysis Batch: 258244

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	ND		50.0	49.65		ug/L		99	71 - 141
1,2-Dibromo-3-Chloropropane	ND		50.0	40.83		ug/L		82	52 - 126
1,2-Dibromoethane (EDB)	ND		50.0	47.46		ug/L		95	75 - 137
Dibromomethane	ND		50.0	45.30		ug/L		91	58 - 140
1,2-Dichlorobenzene	ND		50.0	54.19		ug/L		108	79 - 128
1,4-Dichlorobenzene	ND		50.0	50.29		ug/L		101	78 - 126
1,1-Dichloroethane	ND		50.0	49.15		ug/L		98	71 - 139
1,2-Dichloroethane	ND		50.0	45.58		ug/L		91	64 - 136
1,1-Dichloroethene	ND		50.0	52.90		ug/L		106	70 - 142
1,2-Dichloropropane	ND		50.0	48.14		ug/L		96	67 - 131
Ethylbenzene	ND		50.0	56.15		ug/L		112	79 - 139
2-Hexanone	ND		250	184.3		ug/L		74	50 - 150
Iodomethane	ND		50.0	47.05		ug/L		94	34 - 191
Methylene Chloride	ND		50.0	49.14		ug/L		98	64 - 139
4-Methyl-2-pentanone (MIBK)	ND		250	220.9		ug/L		88	50 - 147
Styrene	ND		50.0	57.98		ug/L		116	61 - 148
1,1,1,2-Tetrachloroethane	ND		50.0	53.93		ug/L		108	73 - 141
1,1,2,2-Tetrachloroethane	ND		50.0	44.32		ug/L		89	56 - 143
Tetrachloroethene	ND		50.0	54.18		ug/L		108	72 - 145
Toluene	ND		50.0	53.47		ug/L		107	75 - 136
trans-1,4-Dichloro-2-butene	ND		50.0	37.33		ug/L		75	29 - 156
trans-1,2-Dichloroethene	ND		50.0	50.15		ug/L		100	66 - 143
trans-1,3-Dichloropropene	ND		50.0	46.52		ug/L		93	59 - 135
1,1,1-Trichloroethane	ND		50.0	49.57		ug/L		99	76 - 149
1,1,2-Trichloroethane	ND		50.0	48.79		ug/L		98	74 - 134
Trichloroethene	ND		50.0	53.83		ug/L		108	73 - 144
Trichlorofluoromethane	ND		50.0	54.91		ug/L		110	58 - 139
1,2,3-Trichloropropane	ND		50.0	45.98		ug/L		92	53 - 144
Vinyl acetate	ND		100	87.39		ug/L		87	37 - 154
Vinyl chloride	ND		50.0	51.21		ug/L		102	56 - 129
Xylenes, Total	ND		100	112.3		ug/L		112	74 - 141

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: 490-81076-C-1 MSD
Matrix: Water
Analysis Batch: 258244

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		250	205.6		ug/L		82	45 - 141	6	21
Acrylonitrile	ND		500	414.3		ug/L		83	50 - 148	0	18
Benzene	ND		50.0	51.15		ug/L		102	75 - 133	2	17
Bromochloromethane	ND		50.0	52.30		ug/L		105	67 - 139	0	17
Bromodichloromethane	ND		50.0	46.82		ug/L		94	70 - 140	1	18

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 490-81076-C-1 MSD
Matrix: Water
Analysis Batch: 258244

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromoform	ND		50.0	50.01		ug/L		100	42 - 147	2	16
Bromomethane	ND		50.0	46.50		ug/L		93	16 - 163	14	50
2-Butanone (MEK)	ND		250	195.8		ug/L		78	50 - 138	1	19
Carbon disulfide	ND		50.0	56.92		ug/L		114	48 - 152	0	21
Carbon tetrachloride	ND		50.0	53.78		ug/L		108	62 - 164	4	19
Chlorobenzene	ND		50.0	54.91		ug/L		110	80 - 129	1	14
Chlorodibromomethane	ND		50.0	49.86		ug/L		100	66 - 140	1	15
Chloroethane	ND		50.0	52.19		ug/L		104	58 - 137	2	20
Chloroform	ND		50.0	48.23		ug/L		96	66 - 138	1	18
Chloromethane	ND		50.0	50.17		ug/L		100	10 - 169	4	31
cis-1,2-Dichloroethene	ND		50.0	49.39		ug/L		99	68 - 138	3	17
cis-1,3-Dichloropropene	ND		50.0	50.04		ug/L		100	71 - 141	1	15
1,2-Dibromo-3-Chloropropane	ND		50.0	42.99		ug/L		86	52 - 126	5	24
1,2-Dibromoethane (EDB)	ND		50.0	47.67		ug/L		95	75 - 137	0	15
Dibromomethane	ND		50.0	44.95		ug/L		90	58 - 140	1	16
1,2-Dichlorobenzene	ND		50.0	55.53		ug/L		111	79 - 128	2	15
1,4-Dichlorobenzene	ND		50.0	52.19		ug/L		104	78 - 126	4	15
1,1-Dichloroethane	ND		50.0	51.44		ug/L		103	71 - 139	5	17
1,2-Dichloroethane	ND		50.0	45.53		ug/L		91	64 - 136	0	17
1,1-Dichloroethene	ND		50.0	54.31		ug/L		109	70 - 142	3	17
1,2-Dichloropropane	ND		50.0	48.49		ug/L		97	67 - 131	1	17
Ethylbenzene	ND		50.0	56.76		ug/L		114	79 - 139	1	15
2-Hexanone	ND		250	182.4		ug/L		73	50 - 150	1	15
Iodomethane	ND		50.0	58.36		ug/L		117	34 - 191	21	23
Methylene Chloride	ND		50.0	50.31		ug/L		101	64 - 139	2	17
4-Methyl-2-pentanone (MIBK)	ND		250	216.1		ug/L		86	50 - 147	2	17
Styrene	ND		50.0	58.72		ug/L		117	61 - 148	1	24
1,1,1,2-Tetrachloroethane	ND		50.0	54.00		ug/L		108	73 - 141	0	16
1,1,2,2-Tetrachloroethane	ND		50.0	45.39		ug/L		91	56 - 143	2	20
Tetrachloroethene	ND		50.0	54.41		ug/L		109	72 - 145	0	16
Toluene	ND		50.0	53.51		ug/L		107	75 - 136	0	15
trans-1,4-Dichloro-2-butene	ND		50.0	36.58		ug/L		73	29 - 156	2	26
trans-1,2-Dichloroethene	ND		50.0	51.39		ug/L		103	66 - 143	2	16
trans-1,3-Dichloropropene	ND		50.0	47.08		ug/L		94	59 - 135	1	14
1,1,1-Trichloroethane	ND		50.0	51.25		ug/L		103	76 - 149	3	17
1,1,2-Trichloroethane	ND		50.0	47.85		ug/L		96	74 - 134	2	15
Trichloroethene	ND		50.0	55.31		ug/L		111	73 - 144	3	17
Trichlorofluoromethane	ND		50.0	56.68		ug/L		113	58 - 139	3	18
1,2,3-Trichloropropane	ND		50.0	46.72		ug/L		93	53 - 144	2	19
Vinyl acetate	ND		100	89.72		ug/L		90	37 - 154	3	21
Vinyl chloride	ND		50.0	53.90		ug/L		108	56 - 129	5	17
Xylenes, Total	ND		100	114.9		ug/L		115	74 - 141	2	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 490-256038/1-A
Matrix: Water
Analysis Batch: 256423

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 256038

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		100	50.0	ug/L		06/13/15 14:49	06/15/15 21:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*85*		*50 - 150*	*06/13/15 14:49*	*06/15/15 21:12*	*1*

Lab Sample ID: LCS 490-256038/2-A
Matrix: Water
Analysis Batch: 256423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 256038

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28			1000	919.3		ug/L		92	46 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl (Surr)	*96*		*50 - 150*

Lab Sample ID: 490-80408-8 MS
Matrix: Water
Analysis Batch: 256423

Client Sample ID: MW-8A
Prep Type: Total/NA
Prep Batch: 256038

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28	ND		1000	811.9		ug/L		81	10 - 138		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl (Surr)	*79*		*50 - 150*

Lab Sample ID: 490-80408-8 MSD
Matrix: Water
Analysis Batch: 256423

Client Sample ID: MW-8A
Prep Type: Total/NA
Prep Batch: 256038

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	ND		1000	654.8		ug/L		65	10 - 138	21	31

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl (Surr)	*74*		*50 - 150*

GC/MS VOA

Analysis Batch: 257634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-80408-1	TRIP BLANK	Total/NA	Water	8260B	
490-80408-2	MW-5A	Total/NA	Water	8260B	
490-80408-2 MS	MW-5A	Total/NA	Water	8260B	
490-80408-2 MSD	MW-5A	Total/NA	Water	8260B	
490-80408-3	MW-6	Total/NA	Water	8260B	
490-80408-4	MW-6A	Total/NA	Water	8260B	
490-80408-5	MW-7	Total/NA	Water	8260B	
490-80408-6	MW-7A	Total/NA	Water	8260B	
490-80408-7	MW-8	Total/NA	Water	8260B	
490-80408-8	MW-8A	Total/NA	Water	8260B	
490-80408-9	MW-9	Total/NA	Water	8260B	
490-80408-10	MW-9A	Total/NA	Water	8260B	
490-80408-11	MW-10A	Total/NA	Water	8260B	
490-80408-12	SW-1	Total/NA	Water	8260B	
490-80408-13	SW-2	Total/NA	Water	8260B	
490-80408-14	LEACHATE POND	Total/NA	Water	8260B	
490-80408-15	FIELD BLANK	Total/NA	Water	8260B	
LCS 490-257634/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-257634/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-257634/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 258244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-80408-15	FIELD BLANK	Total/NA	Water	8260B	
490-81076-B-1 MS	Matrix Spike	Total/NA	Water	8260B	
490-81076-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 490-258244/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-258244/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-258244/7	Method Blank	Total/NA	Water	8260B	

GC Semi VOA

Prep Batch: 256038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-80408-2	MW-5A	Total/NA	Water	3510C	
490-80408-3	MW-6	Total/NA	Water	3510C	
490-80408-4	MW-6A	Total/NA	Water	3510C	
490-80408-5	MW-7	Total/NA	Water	3510C	
490-80408-6	MW-7A	Total/NA	Water	3510C	
490-80408-7	MW-8	Total/NA	Water	3510C	
490-80408-8	MW-8A	Total/NA	Water	3510C	
490-80408-8 MS	MW-8A	Total/NA	Water	3510C	
490-80408-8 MSD	MW-8A	Total/NA	Water	3510C	
490-80408-9	MW-9	Total/NA	Water	3510C	
490-80408-10	MW-9A	Total/NA	Water	3510C	
490-80408-11	MW-10A	Total/NA	Water	3510C	
490-80408-12	SW-1	Total/NA	Water	3510C	
490-80408-13	SW-2	Total/NA	Water	3510C	
490-80408-14	LEACHATE POND	Total/NA	Water	3510C	
490-80408-15	FIELD BLANK	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 256038 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 490-256038/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 490-256038/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 256423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-80408-2	MW-5A	Total/NA	Water	8015C	256038
490-80408-3	MW-6	Total/NA	Water	8015C	256038
490-80408-4	MW-6A	Total/NA	Water	8015C	256038
490-80408-5	MW-7	Total/NA	Water	8015C	256038
490-80408-6	MW-7A	Total/NA	Water	8015C	256038
490-80408-7	MW-8	Total/NA	Water	8015C	256038
490-80408-8	MW-8A	Total/NA	Water	8015C	256038
490-80408-8 MS	MW-8A	Total/NA	Water	8015C	256038
490-80408-8 MSD	MW-8A	Total/NA	Water	8015C	256038
490-80408-9	MW-9	Total/NA	Water	8015C	256038
LCS 490-256038/2-A	Lab Control Sample	Total/NA	Water	8015C	256038
MB 490-256038/1-A	Method Blank	Total/NA	Water	8015C	256038

Analysis Batch: 256492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-80408-10	MW-9A	Total/NA	Water	8015C	256038
490-80408-11	MW-10A	Total/NA	Water	8015C	256038
490-80408-12	SW-1	Total/NA	Water	8015C	256038
490-80408-13	SW-2	Total/NA	Water	8015C	256038
490-80408-14	LEACHATE POND	Total/NA	Water	8015C	256038
490-80408-15	FIELD BLANK	Total/NA	Water	8015C	256038

Client Sample ID: TRIP BLANK
Date Collected: 06/09/15 05:50
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 14:37	KS	TAL NSH

Client Sample ID: MW-5A
Date Collected: 06/09/15 10:10
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 15:29	KS	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		1	256423	06/15/15 21:29	TRF	TAL NSH

Client Sample ID: MW-6
Date Collected: 06/09/15 09:30
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 15:56	KS	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		1	256423	06/15/15 21:46	TRF	TAL NSH

Client Sample ID: MW-6A
Date Collected: 06/09/15 07:35
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 16:22	KS	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		1	256423	06/15/15 22:02	TRF	TAL NSH

Client Sample ID: MW-7
Date Collected: 06/09/15 08:30
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 16:48	KS	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		1	256423	06/15/15 22:19	TRF	TAL NSH

Client Sample ID: MW-7A
Date Collected: 06/09/15 09:10
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 17:14	KS	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		1	256423	06/15/15 22:35	TRF	TAL NSH

Client Sample ID: MW-8
Date Collected: 06/09/15 07:00
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 18:33	KS	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		1	256423	06/15/15 22:52	TRF	TAL NSH

Client Sample ID: MW-8A
Date Collected: 06/09/15 07:45
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 18:59	KS	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		1	256423	06/15/15 23:09	TRF	TAL NSH

Client Sample ID: MW-9
Date Collected: 06/09/15 10:05
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 19:25	KS	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		1	256423	06/16/15 08:01	TRF	TAL NSH

Client Sample ID: MW-9A
Date Collected: 06/09/15 10:25
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 19:51	KS	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		1	256492	06/16/15 09:58	TRF	TAL NSH

Client Sample ID: MW-10A
Date Collected: 06/09/15 08:50
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 20:17	KS	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		1	256492	06/16/15 10:15	TRF	TAL NSH

Client Sample ID: SW-1
Date Collected: 06/09/15 10:50
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 20:43	KS	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		1	256492	06/16/15 10:31	TRF	TAL NSH

Client Sample ID: SW-2
Date Collected: 06/09/15 11:15
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 21:09	KS	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		1	256492	06/16/15 10:48	TRF	TAL NSH

Client Sample ID: LEACHATE POND
Date Collected: 06/09/15 10:45
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 21:35	KS	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		5	256492	06/16/15 12:14	TRF	TAL NSH

Client Sample ID: FIELD BLANK
Date Collected: 06/09/15 11:45
Date Received: 06/11/15 08:30

Lab Sample ID: 490-80408-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257634	06/19/15 15:03	KS	TAL NSH
Total/NA	Analysis	8260B		1	258244	06/22/15 14:43	EML	TAL NSH
Total/NA	Prep	3510C			256038	06/13/15 14:49	FXM	TAL NSH
Total/NA	Analysis	8015C		1	256492	06/16/15 12:31	TRF	TAL NSH

Laboratory References:
TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL NSH

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: Duke Energy Corporation
Project/Site: MNS Landfill #2 J15060049

TestAmerica Job ID: 490-80408-1

Laboratory: TestAmerica Nashville

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
North Carolina (WW/SW)	State Program	4	387	12-31-15

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Nashville, TN

COOLER RECEIPT FORM

490-80408 Chain of Custody

Cooler Received/Opened On 6/11/2015 @ 8:30

1. Tracking # 9247 (last 4 digits, FedEx)

Courier: Fed-ex IR Gun ID 17960358

2. Temperature of rep. sample or temp blank when opened: 0.1 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO (NA)

4. Were custody seals on outside of cooler? (YES)...NO...NA

If yes, how many and where: front

5. Were the seals intact, signed, and dated correctly? (YES)...NO...NA

6. Were custody papers inside cooler? YES...(NO)...NA

I certify that I opened the cooler and answered questions 1-6 (intial) DLA

7. Were custody seals on containers: YES (NO) and Intact YES...NO...(NA)

Were these signed and dated correctly? YES...NO...(NA)

8. Packing mat'l used? (Bubblewrap) Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)...NO...NA

12. Did all container labels and tags agree with custody papers? (YES)...NO...NA

13a. Were VOA vials received? YES...(NO)...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...(NA)

14. Was there a Trip Blank in this cooler? YES...NO...(NA) If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) MDM

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...(NA)

b. Did the bottle labels indicate that the correct preservatives were used (YES)...NO...NA

16. Was residual chlorine present? YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) MDM

17. Were custody papers properly filled out (ink, signed, etc)? (YES)...NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)...NO...NA

19. Were correct containers used for the analysis requested? (YES)...NO...NA

20. Was sufficient amount of sample sent in each container? (YES)...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) MDM

I certify that I attached a label with the unique LIMS number to each container (intial) MDM

21. Were there Non-Conformance issues at login? YES...(NO) Was a PIPE generated? YES...(NO)...#_____

BIS = Broken in shipment

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

Loc: 490
80408

COOLER RECEIPT FORM

Cooler Received/Opened On 6/11/2015 @ 0830

1. Tracking # 9258 (last 4 digits, FedEx)

Courier: Fed-ex IR Gun ID 17960357

2. Temperature of rep. sample or temp blank when opened: 5.1 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...(NA)

4. Were custody seals on outside of cooler? (YES)..NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? (YES)..NO...NA

6. Were custody papers inside cooler? (YES)..NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES (NO) and Intact YES...NO...(NA)

Were these signed and dated correctly? YES...NO...(NA)

8. Packing mat'l used? (Bubblewrap) Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)..NO...NA

12. Did all container labels and tags agree with custody papers? (YES)..NO...NA

13a. Were VOA vials received? (YES)..NO...NA

b. Was there any observable headspace present in any VOA vial? YES...(NO)...NA

14. Was there a Trip Blank in this cooler? (YES)..NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) mbm

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO...(NA)

b. Did the bottle labels indicate that the correct preservatives were used (YES)..NO...NA

16. Was residual chlorine present? YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) mbm

17. Were custody papers properly filled out (ink, signed, etc)? (YES)..NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)..NO...NA

19. Were correct containers used for the analysis requested? (YES)..NO...NA

20. Was sufficient amount of sample sent in each container? (YES)..NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) mbm

I certify that I attached a label with the unique LIMS number to each container (intial) mbm

21. Were there Non-Conformance issues at login? YES...(NO) Was a NCM generated? YES...(NO)...#_____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Loc: 490
80408
#1
A

Cooler Received/Opened On: 6/11/2015 @0830

1. Tracking # 9269 (last 4 digits, FedEx)

Courier: Fed-Ex IR Gun ID: 14740456

2. Temperature of rep. sample or temp blank when opened: 2.9 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO..(NA)

4. Were custody seals on outside of cooler? (YES)..NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? (YES)..NO...NA

6. Were custody papers inside cooler? (YES)..NO..NA

6-11-15 EF

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES (NO) and Intact YES...NO..(NA)

Were these signed and dated correctly? YES...NO..(NA)

8. Packing mat'l used? (Bubblewrap) Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)..NO...NA

12. Did all container labels and tags agree with custody papers? (YES)..NO...NA

13a. Were VOA vials received? YES..(NO)..NA

b. Was there any observable headspace present in any VOA vial? YES...NO..(NA)

14. Was there a Trip Blank in this cooler? YES...NO..(NA) If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) MDM

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..(NA)

b. Did the bottle labels indicate that the correct preservatives were used (YES)..NO...NA

16. Was residual chlorine present? YES...NO..(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) MDM

17. Were custody papers properly filled out (ink, signed, etc)? (YES)..NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)..NO...NA

19. Were correct containers used for the analysis requested? (YES)..NO...NA

20. Was sufficient amount of sample sent in each container? (YES)..NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) MDM

I certify that I attached a label with the unique LIMS number to each container (intial) MDM

21. Were there Non-Conformance issues at login? YES..(NO) Was a NCM generated? YES..(NO)..#_____

BIS = Broken in shipment

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

DUKE ENERGY

Duke Energy Analytical Laboratories
Mail Code MG03A2 (Building 7405)
13339 Hagers Ferry Rd
Huntersville, N. C. 28078
(980) 875-5245
Fax: (980) 875-5038

Analytical Laboratory Use Only

LIMS # J15060049 | MATRIX: GW-RCRA | Samples Originating From | NC √ SC

Logged By DM | Date & Time 6/9/15 1435 | Vendor TEST AMERICA | Cooler Temp (C) 2.1

SAMPLE PROGRAM: Ground Water √ | NPDES | Drinking Water | UST | RCRA Waste

PO # → 1115151

[19]Page 1 of 1
DISTRIBUTION
ORIGINAL to LAB,
COPY to CLIENT

Loc: 490
80408

6/23/2015

Customer must Complete

1)Project Name: MNS LANDFILL #2 PERMIT # 66-04 | 2)Phone No: 980-875-5257
3)Client: T. Hunsucker / Chuck Campbell | 4)Fax No:
5)Business Unit: 20036 | 6)Process: BLDFLGN | 7)Resp. To: MC00
8)Task ID: | 9)Activity ID: | 10)Mail Code: MG03A3

MR #

[15]Preserv.: 1=HCL 2=H_2SO_4 3=HNO_3 4=Ice 5=None

Volume: 40 mL | 500 mL | 500 mL | 500 mL | 1000 mL

Customer to complete all appropriate NON-SHADED areas.

[16]Analyses Required

LAB USE ONLY [11]Lab ID	[13]Sample Description or ID	[14]Collection Information Date	Time	Signature	[18]Grab	VOC's (EPA8260) (See Attached List)Tamerica	Metals Prep - TRM (ICP-EPA-200.7) Ag, Ba, Ca, Cr, K, Mg, Na (7), Hg (7470) (1), (IMS-EPA-200.8) As, Cd, Pb, Se (4)	ALK_LL_FIX, SO4, Cl (IC)	ALK_FIX 4.5, SO4, Cl (IC)	(8015 / 3520) TPH-DRO - Tamerica	CHLORINE (PPM)	Total # of containers
-1 2015016896	TRIP BLANK	6/9/15	0550	VJC	X	3					N/A	3
20150`16897	MW-5 NO SAMPLE	6/9/15		PSP	X	3	1	1		1		6
2 2015016898	MW-5A	6/9/15	1010	PSP	X	3	1	1		1	Ø	6
3 2015016904	MW-6	6/9/15	0730	PSP	X	3	1	1		1	Ø	6
4 2015016905	MW-6A	6/9/15	0735	PSP	X	3	1	1		1	Ø	6
5 2015016906	MW-7	6/9/15	0830	VJC	X	3	1	1		1	Ø	6
6 2015016907	MW-7A	6/9/15	0910	VJC	X	3	1		1	1	Ø	6
7 2015016908	MW-8	6/9/15	0700	VJC	X	3	1		1	1	Ø	6
8 2015016909	MW-8A	6/9/15	0745	VJC	X	3	1	1		1	Ø	6
9 2015016910	MW-9	6/9/15	1005	VJC	X	3	1	1		1	Ø	6
10 2015016911	MW-9A	6/9/15	1025	VJC	X	3	1	1		1	Ø	6
11 2015016912	MW-10A	6/9/15	0850	PSP	X	3	1	1		1	Ø	6
12 2015016913	SW-1	6/9/15	1050	PSP	X	3	1		1	1	Ø	6
13 2015016914	SW-2	6/9/15	1115	VJC	X	3	1		1	1	Ø	6
14 2015016915	LEACHATE POND	6/9/15	1045	VJC	X	3	1		1	1	Ø	6
8 2015016916	QC SAMPLE WELL # MW-8A	6/9/15	0745	VJC	X					1	Ø	1
15 201516917	FIELD BLANK	6/9/15	1145	PSP	X	3	1	1		1	N/A	6

PSP

Customer to complete appropriate columns to right

Customer to sign & date below

	Date/Time		Date/Time
21)Relinquished By	6/9/15 1315	Accepted By:	6/9/15 1315
21)Relinquished By	6/9/15	Accepted By:	Date/Time
21)Relinquished By	Date/Time	Accepted By:	Date/Time
23)Sealed/Locked By	6/10/15 734	Sealed/Lock Opened By: MLW 5K TAW	Date/Time 6-11-15 @ 0830

24)Comments:
Regulatory Agency - NCDENR/DWM -SW Section - State EDD Format Required / Permit # 60-04 Use indicated or comparible analytical methods
*** QC sample for TPH-DRO MS/MSD
MW-5 - NO SAMPLE Insufficient volume 5/29/16

Customer, important please indicate desired turnaround

[22]Requested Turnaround
14 Days 6/23/15
*7 Days
*48 Hr
*Other * Add.
Cost Will Apply

Page 60 of 61

Login Sample Receipt Checklist

Client: Duke Energy Corporation

Job Number: 490-80408-1

Login Number: 80408
List Number: 1
Creator: McBride, Mike

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.1/2.9/0.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

DUKE ENERGY

Duke Energy Analytical Laboratories
Mail Code MG03A2 (Building 7405)
13339 Hagers Ferry Rd
Huntersville, N. C. 28078
(980) 875-5245
Fax: (980) 875-5038

Analytical Laboratory Use Only

LIMS # J15060049 | MATRIX: GW-RCRA | Samples Originating From | NC_√_ SC__

Logged By DM | Date & Time 6/9/15 1435 | Cooler Temp (C) 2.1

SAMPLE PROGRAM: Ground Water _√_ NPDES ___ Drinking Water ___ UST ___ RCRA Waste ___

TEST AMERICA 1115151

[19]Page 1 of 1
DISTRIBUTION
ORIGINAL to LAB, COPY to CLIENT

Revised 12/5/2014

Customer must Complete

1)Project Name: MNS LANDFILL #2 PERMIT # 66-04 | 2)Phone No: 980-875-5257

3)Client: T. Hunsucker / Chuck Campbell | 4)Fax No:

5)Business Unit: 20036 | 6)Process: BLDFLGN | 7)Resp. To: MC00

8)Task ID: | 9)Activity ID: | 10)Mail Code: MG03A3

PO # | MR #

[15]Preserv.:1=HCL 2=H_2SO_4 3=HNO_3 4=Ice 5=None

Volume

Customer to complete all appropriate NON-SHADED areas.

Customer to complete appropriate columns to right

LAB USE ONLY [11]Lab ID	[13]Sample Description or ID	[14]Collection Information Date	Time	Signature	[16]Analyses Required TESTS	[18]Grab	VOC's (EPA8260) (See Attached List)Tamerica 1, 4	Metals Prep - TRM (ICP-EPA-200.7) Ag, Ba, Ca, Cr, K, Mg, Na (7), Hg (7470) (1), (IMS-EPA-200.8) As, Cd, Pb, Se (4) 3	ALK_LL_FIX, SO4, Cl (IC) 500 mL 4	ALK_FIX 4.5, SO4, Cl (IC) 500 mL 4	(8015 / 3520) TPH-DRO - Tamerica 1000 mL 4		CHLORINE (PPM)	[20]Total # of Containers
2015016896	TRIP BLANK	6/9/15	0550	VDC	1	X	3						N/A	3
20150`16897	MW-5 NO SAMPLE	6/9/15		PSP	7	X	3	1	1		1			6
2015016898	MW-5A	6/9/15	1010	PSP	7	X	3	1	1		1			6
2015016904	MW-6	6/9/15	0730	PSP	7	X	3	1	1		1			6
2015016905	MW-6A	6/9/15	0735	PSP	7	X	3	1	1		1			6
2015016906	MW-7	6/9/15	0830	VDC	7	X	3	1	1		1			6
2015016907	MW-7A	6/9/15	0910	VDC	7	X	3	1		1	1			6
2015016908	MW-8	6/9/15	0700	VDC	7	X	3	1		1	1			6
2015016909	MW-8A	6/9/15	0745	VDC	7	X	3	1	1		1			6
2015016910	MW-9	6/9/15	1005	VDC	7	X	3	1	1		1			6
2015016911	MW-9A	6/9/15	1025	VDC	7	X	3	1	1		1			6
2015016912	MW-10A	6/9/15	0850	PSP	7	X	3	1	1		1			6
2015016913	SW-1	6/9/15	1050	PSP	7	X	3	1		1	1			6
2015016914	SW-2	6/9/15	1115	VDC	7	X	3	1		1	1			6
2015016915	LEACHATE POND	6/9/15	1045	VDC	7	X	3	1		1	1			6
2015016916	QC SAMPLE WELL # MW-8A	6/9/15	0745	VDC	1	X					1			1
201516917	FIELD BLANK	6/9/15	1145	PSP	7	X	3	1	1		1		N/A VDC	6

PSP

Customer to sign & date below

	Date/Time	Accepted By:	Date/Time
21)Relinquished By	6/9/15 1315		6/9/15 1315
21)Relinquished By	6/9/15		
21)Relinquished By			
23)Seal/Locked By	6/9/15 734	Sealed/Lock Opened By	

24)Comments:
Regulatory Agency : NCDENR/DWM -SW Section - State EDD Format Required / Permit # 60-04 Use indicated or comparible analytical methods
*** QC sample for TPH-DRO MS/MSD
MW-5 - NO SAMPLE Insufficient volume

Customer, important please indicate desired turnaround

[22]Requested Turnaround
14 Days _√_
*7 Days 6/15/15
*48 Hr ___
*Other ___ Cost Will Apply
* Add.