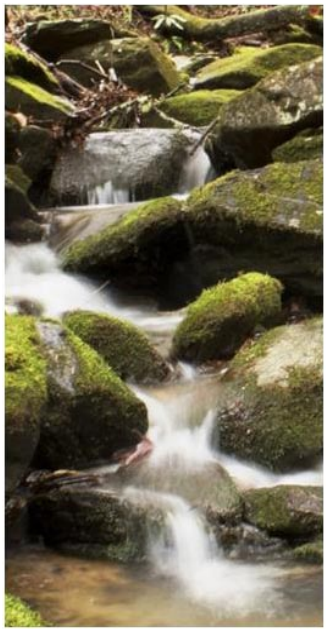

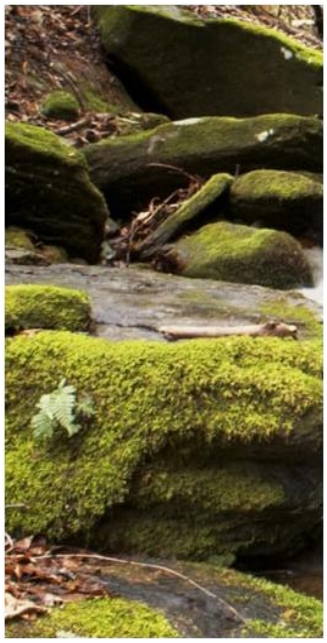

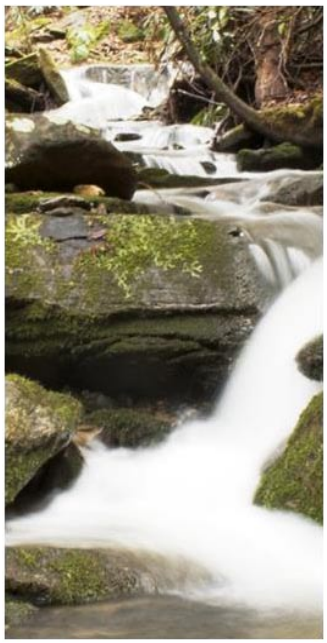

ALTAMONT ENVIRONMENTAL, INC.

ENGINEERING & HYDROGEOLOGY

December 2015
Water Quality Monitoring Report

Clay County Closed
Municipal Solid Waste Landfill

Clay County, North Carolina
Permit #22-01

March 25, 2016

Prepared for
Clay County, North Carolina
Project Number 2367.01

Prepared by
Altamont Environmental, Inc.
231 Haywood Street
Asheville, NC 28801
828.281.3350

December 2015
Water Quality Monitoring Report

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Municipal Solid Waste Landfill

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March 25, 2016

NORTH CAROLINA
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SEAL
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3-25-16
GEOLOGIST
CHARLES G. PIPPIN

Charles G. Pippin, P.G.
Project Geologist

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1.0 Introduction

The Clay County Solid Waste Department maintains a solid waste facility located at 1160 Hinton Center Road (State Road 1148) in Hayesville, Clay County, North Carolina (Figure 1). The facility accepts solid waste from Clay County, and includes the following permitted components:

- A closed municipal solid waste (MSW) Landfill (closed landfill; Permit 22-01)
- An active transfer station (Permit 22-02T)

According to the *Landfill Gas Monitoring Plan* prepared by McGill Associates dated November 2010, the landfill was officially closed per the letter to the North Carolina Department of Environment and Natural Resources (DENR), now known as the Department of Environmental Quality (DEQ), dated December 21, 1995. The permit for the landfill requires annual monitoring of groundwater and surface water quality. This report describes a groundwater and surface water quality sampling event conducted in December 2015.

This report is being submitted in accordance with monitoring requirements for closed landfills as stipulated in the DEQ Division of Waste Management (DWM) Permit No. 22-01 and its amendments dated April 19, 1990, issued to the Clay County Solid Waste Department, as well as requirements stipulated in the DEQ Solid Waste Management Rules Title 15A, Subchapter 13B, Section .1600, of the North Carolina Administrative Code (15A NCAC 13B.1600).

This report presents analytical results and provides an evaluation of groundwater and surface water quality for the closed landfill.

2.0 Methods

2.1 Groundwater and Surface Water Sampling

The groundwater monitoring network consists of an upgradient, background monitoring well (MW-1), and five downgradient monitoring wells (MW-2, MW-3, MW-4, MW-5, and MW-6). MW-1 is located in the northern portion of the landfill, north of a closed MSW disposal cell and Clay County's wood waste treatment and processing area. MW-2 is located in the southeast corner of the facility property on the north side of S.R. 1148, south of a closed MSW landfill cell. MW-3 and MW-4 are located along or near the southernmost property line of the landfill downgradient of a closed MSW landfill cell. MW-5 and MW-6 are located along the southwestern property line of the facility downgradient of a closed MSW landfill cell. A map depicting the location of the monitoring wells is included as Figure 2.

In October 2011, Samuel L. Sprinkle & Associates, P.A., a professional surveying firm certified in the state of North Carolina, surveyed the horizontal and vertical locations of the monitoring wells associated with the Clay County Landfill. The certified survey data were presented in a previous monitoring report (Altamont 2012).

Monitoring wells associated with the closed landfill (MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6) and surface water sample locations (UPSTREAM and DOWNSTREAM) were sampled by Environmental, Inc., of Sylva, North Carolina, on December 15, 2015. Approximate sample locations are depicted on Figure 2.

Prior to collecting groundwater samples from the monitoring wells, the static water level and total depth at each of the wells was measured and recorded. These data are presented in Table 1 and shown on Figure 3. Groundwater flow direction is interpreted to be generally to the southwest toward the Hiwassee River.

2.1.1 Groundwater Purging and Sampling Methods

Prior to sample collection at each monitoring well, field parameters consisting of temperature, pH, specific conductivity, and turbidity were measured and recorded. A field data sheet and certificate of analysis provided by Environmental, Inc. are presented in Appendix A. Groundwater monitoring wells were purged with a new disposable polyethylene bailer before samples were collected.

2.1.2 Surface Water Sampling Methods

Surface water samples UPSTREAM and DOWNSTREAM were collected at designated locations along a minor unnamed tributary and the Hiwassee River, respectively. These surface water bodies flow adjacent to the western and southern Site boundary in a south-to-north direction as shown on Figure 2. The surface water sample collected at the UPSTREAM location is assumed to represent surface water quality upstream of the closed landfill, while the surface water sample collected at the DOWNSTREAM location is assumed to represent surface water quality downstream of the closed landfill. One set of field parameters, including temperature and pH, was measured and recorded at each surface water sampling location prior to sample collection (Appendix A). Specific conductivity and turbidity were analyzed by Environmental Inc.'s certified, in-house laboratory.

2.2 Sample Handling, Documentation, and Analysis

Field parameters and additional observations pertaining to the closed landfill sampling locations are recorded on the certificate of analysis included in Appendix A. Following sample collection, groundwater and surface water samples were transported to Pace Analytical Services, Inc. (Pace), a laboratory certified in North Carolina, located in Asheville. Environmental, Inc. submitted the water samples collected from the monitoring wells and the surface water sampling locations to Pace for analysis as follows:

- Appendix I volatile organic compounds (VOCs) using US Environmental Protection Agency (EPA) Approved Method 8260B
- Appendix I metals using EPA Approved Methods 6010A and 7470A

An equipment blank and trip blank, provided by the laboratory, were placed in the sample coolers and analyzed for Appendix I VOCs and/or metals. Proper chain-of-custody documentation procedures were followed during collection and transport of each sample. The laboratory analytical reports and chain-of-custody documentation are included as Appendix B. Laboratory analyses performed on the samples are summarized in Table 2.

3.0 Analytical Results

The laboratory analytical results for groundwater, surface water, equipment blank, and trip blank samples collected at the closed landfill are provided in the laboratory reports of analysis issued by Pace (Appendix B). In addition, all the laboratory analytical results and measured field parameters are summarized in the Electronic Data Deliverable (EDD) format (Appendix C) specified by the DEQ DWM Solid Waste Section (SWS).

As stipulated by the SWS, non-detections were reported at their method detection limits (MDL), and all concentrations exceeding the laboratory-specific MDLs were reported and appropriately qualified (Tables 3, 4, and 5). The MDL is the minimum concentration of a substance that can be measured and reported by a laboratory with 99 percent confidence that the analyte concentration is greater than zero. The method reporting limit (MRL) is the minimum concentration of a target analyte that can be accurately determined by the referenced method. All detections were compared to analyte-specific Solid Waste Section Limits (SWSLs) established by the SWS. The SWSL is the lowest concentration, determined by the SWS, of an analyte in a sample that can be quantitatively determined with suitable precision and accuracy. A "J" qualifier is used by the laboratory for a parameter that is detected at an estimated concentration greater than the MDL but less than the laboratory's MRL. If the reported concentration is greater than the laboratory's MRL and less than the SWSL, the analytical result is qualified as estimated by Altamont per SWS requirements, and is flagged with a "*J*" qualifier (italicized J-flag). Detected concentrations of constituents below the applicable SWSLs are summarized in Table 3, but are not reported in the text of this report, unless they exceed their applicable North Carolina water quality standards.

Detected concentrations of analytes in groundwater samples were compared to current groundwater quality standards specified in 15A NCAC 2L.0202, which are referred to as 2L standards. Detected concentrations of analytes in groundwater with no established 2L standards were compared either to the interim maximum allowable concentrations (IMACs) for Class GA and GSA groundwater (in accordance with 15A NCAC 2L .0202 [c]) or Groundwater Protection Standards (GWPSs), pursuant to 15A NCAC 13B.1634. Detections of analytes in surface water samples were compared to 15A NCAC 2B surface-water quality standards (2B standards).

Table 3 presents the summary of laboratory analytical results for detected constituents only. Table 4 presents all analytical results that were above the applicable SWSLs. Table 5 presents only the concentrations of analytes detected in groundwater and/or surface water samples that exceeded their respective 2L standards (including IMACs, if applicable), GWPSs, or 2B standards.

In the EDD (Appendix C), the identification of a well ("WELL ID" on the table) consists of the name of the well prefaced by the un-hyphenated permit number for the facility. For example, the groundwater sample from monitoring well "MW-2" is identified in the EDD as 2201-MW2. However, in the tables and figures of this report, the identification of a well consists of the name of the well without the permit number associated with the facility.

3.1 Groundwater

Analytical results for groundwater samples collected from monitoring wells are discussed below and are summarized in Tables 3, 4, and 5 and in the EDD as Appendix C. The laboratory analytical reports are included in Appendix B.

3.1.1 Appendix I Metals (EPA Methods 6010 and 7470)

Eleven metals were detected in one or more of the groundwater samples collected from the monitoring wells at the landfill (Table 3). Eight of the detected metals (barium, cadmium, chromium, cobalt, copper, lead, mercury, and zinc) were found at concentrations above their respective SWSLs in one or more of the groundwater samples collected from the monitoring wells (Table 4). Thallium and zinc were detected in the

equipment blank sample at concentrations of 6.4 µg/L and 5.8J µg/L, respectively. In addition, four metals (cadmium, chromium, cobalt, and vanadium) had concentrations that exceeded either their respective 2L standard or IMAC standard (Table 5) in one or more of the groundwater samples collected from the monitoring wells. As noted on Table 5, with the exception of cadmium, detected metals could be naturally occurring, as the three metals that met or exceeded applicable 2L standards or IMACs also exceeded these standards in monitoring well MW-1, the background well.

3.1.2 Appendix I VOCs (EPA Method 8260)

Eight VOCs were detected in one or more of the groundwater samples collected from the monitoring wells (Table 3). Two of the detected VOCs (1,4-dichlorobenzene and methylene chloride) were found at concentrations above their SWSLs in one or more groundwater samples (Table 4). Methylene chloride was detected above its 2L groundwater standard in monitoring well MW-5. The laboratory reported methylene chloride detections with a "C9" qualifier, indicating that this constituent is a common laboratory contaminant (Table 5). Methylene chloride was detected at the highest concentration in the equipment blank. Toluene and trans-1,2-dichloroethene were also detected in the equipment blank, and methylene chloride was also detected in the trip blank (Table 3).

3.1.3 Field Parameters

The pH readings obtained from all six monitoring wells were outside the acceptable range of 6.5 to 8.5 Standard Units (SU) specified in 15A NCAC 02L .0202[c] (Tables 3 and 5). Although the results were outside the acceptable range, they generally appear to be consistent with the naturally occurring range of pH in the region. This conclusion is based on the pH reading from background monitoring well MW-1, which was recorded as 6.0 SU.

Turbidity values of the groundwater samples ranged from 4.6 nephelometric turbidity units (NTUs) to 151 NTUs (Table 3).

3.2 Surface Water

Analytical results for surface water samples collected from the Hiwassee River and its tributary are discussed below and are summarized in Table 3 and in the EDD of Appendix C. Laboratory analytical reports are included in Appendix B.

3.2.1 Appendix I Metals (EPA Methods 6010 and 7470)

Barium was detected in both surface water samples (Table 3) below its SWSL and 2B surface water standard.

3.2.2 Appendix I VOCs (EPA Method 8260)

Methylene chloride was detected in the UPSTREAM surface water sample at a concentration of 1.1 µg/L (Table 3), and was flagged with a C9 qualifier. Methylene chloride was detected at the highest concentration in the equipment blank and was also detected in the trip blank.

3.2.3 Field Parameters

Turbidity and pH readings were obtained on December 15, 2015 for the surface water samples. The pH readings measured in both samples were within the 2B standard range established at 6.0 SU to 9.0 SU. The turbidity for the DOWNSTREAM and UPSTREAM surface water samples was recorded at 1.4 NTU and 1.2 NTU, respectively. These turbidity measurements are well below the 2B surface water standard of 50 NTUs.

4.0 Summary and Discussion

The following discussion summarizes the results of the December 2015 water quality monitoring event.

4.1 Groundwater Quality

Analysis of data collected during the annual water quality monitoring event conducted on December 15, 2015 at the Clay County closed landfill indicates that eight metals were detected in the groundwater samples at concentrations above their respective SWSLs. The concentrations of four of these metals (cadmium, chromium, cobalt, and vanadium) exceeded their respective 2L standards or IMACs in one or more of the groundwater samples. This sampling event is the first time cadmium has exceeded 2L standards in any monitoring well on-Site, according to historical data. Chromium has been detected consistently in monitoring wells MW-01, MW-02, and MW-03 historically, with occasional exceedances of 2L standards in MW-01, the background well. Historical data shows consistent exceedances of cobalt in all monitoring wells, with the exception of monitoring well MW-02 which has had no detections of cobalt historically. Vanadium exceedances have been historically consistent in monitoring wells MW-01, MW-03, and MW-06.

The turbidity values measured from several of the monitoring well samples indicate that the samples contained solid particles from the surrounding formation in which the wells are screened. The highest turbidity recorded during this event was in monitoring well MW-01, at a reading of 151 NTUs. Naturally occurring metals tend to adsorb to the surfaces of these solid particles. The concentrations of metals detected in these groundwater samples may represent both the dissolved metals in the groundwater and the metals that were adsorbed to the solid particles, potentially resulting in false positive results and/or higher concentrations.

Two VOCs were detected at concentrations above their SWSL in one or more groundwater samples. 1,4-dichlorobenzene was detected above its SWSL in monitoring wells MW-4 and MW-5. Methylene chloride was detected above its SWSL in monitoring wells MW-2 and MW-5. One VOC (methylene chloride) was detected at concentrations above established groundwater quality standards in one well at the closed landfill (MW-5). Methylene chloride is a common laboratory contaminant and was also detected in the trip blank and equipment blank; therefore, the detections of methylene chloride are not considered to be representative of groundwater quality.

The pH readings obtained for the monitoring wells were outside the 2L standard acceptable pH range. However, as discussed in Section 3.1.3, the pH readings appear to be generally consistent with the naturally occurring range of pH in the region and correlate with background monitoring well MW-1.

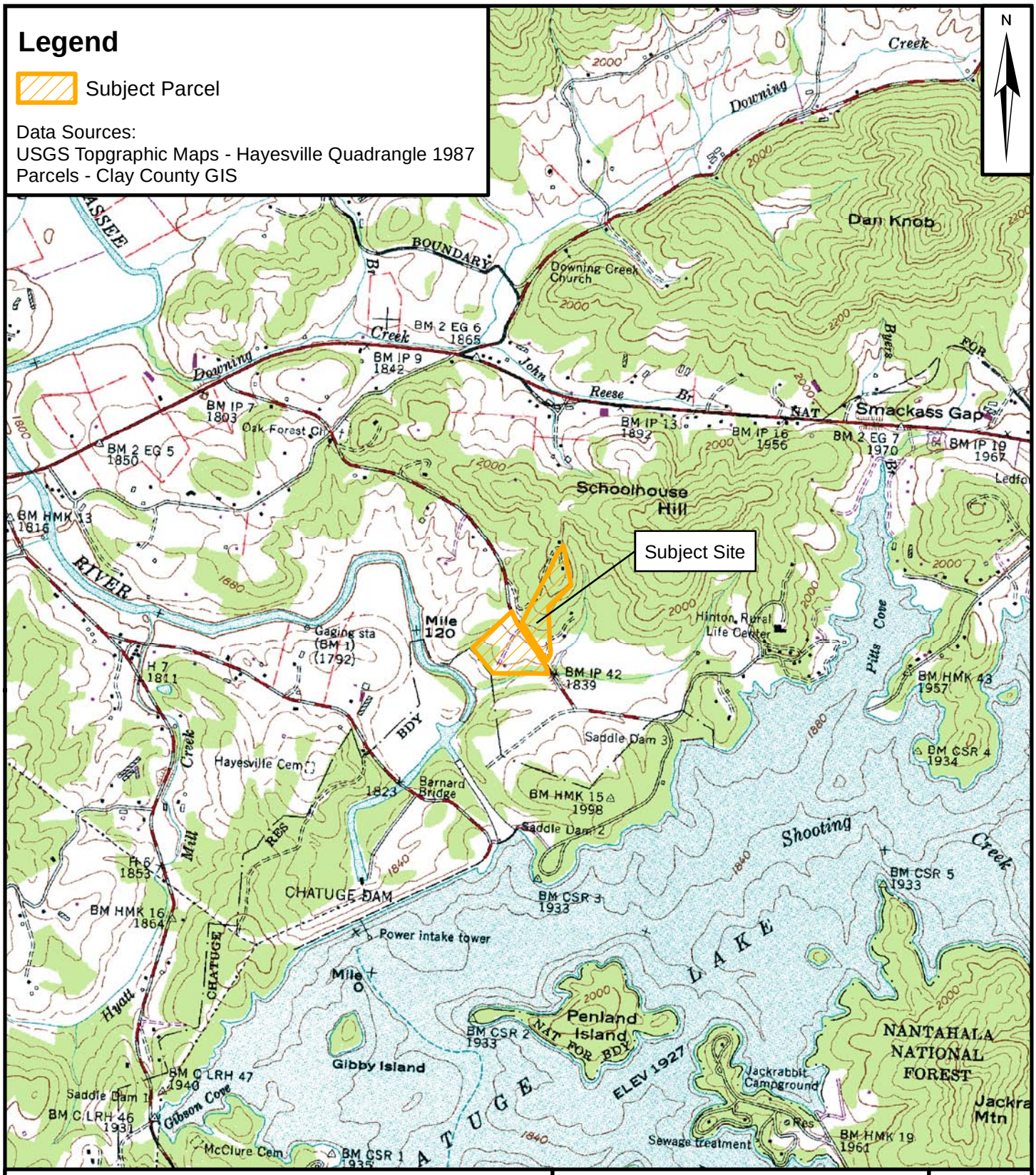
4.2 Surface Water Quality

No metals were detected above SWSLs or applicable surface water quality standards in the UPSTREAM or DOWNSTREAM samples. One VOC (methylene chloride, flagged with a C9 qualifier) was detected above its SWSL in the UPSTREAM surface water sample. As previously discussed in Section 4.1, this is believed to be due to laboratory contamination.

4.3 Future Activities

Environmental, Inc. will continue to collect groundwater and surface water samples on an annual basis at the Clay County Closed Municipal Solid Waste Landfill. Altamont will continue to report the analytical results. The next sampling event is scheduled for November 2016.

FIGURES



ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

DRAWN BY: ALEX LESUEUR
PROJECT MANAGER: BRIAN GANT
CLIENT: CLAY COUNTY
DATE: 01/12/2016

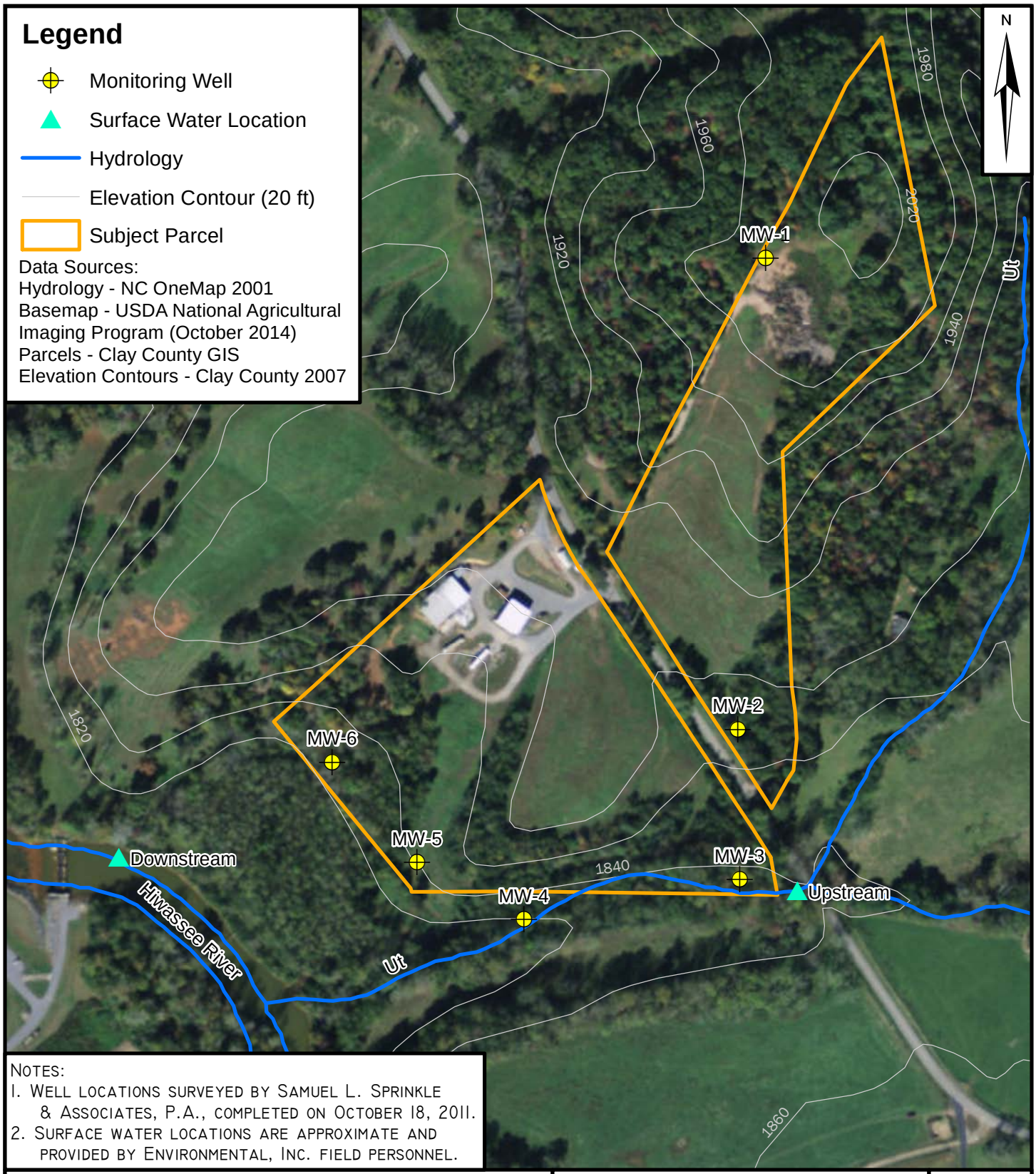
SCALE
FEET
0 1,000 2,000

SITE LOCATION MAP

CLAY COUNTY CLOSED MUNICIPAL
SOLID WASTE LANDFILL
PERMIT NUMBER 22-01
1160 HINTON CENTER ROAD
HAYESVILLE, NORTH CAROLINA

FIGURE
1

P:\ENVIRONMENTAL INC\CLAY COUNTY\FIGURES\2015\FIGURE 1.MXD



Notes:
1. Well locations surveyed by Samuel L. Sprinkle & Associates, P.A., completed on October 18, 2011.
2. Surface water locations are approximate and provided by Environmental, Inc. field personnel.

Altamont Environmental, Inc.
Engineering & Hydrogeology
231 Haywood Street, Asheville, NC 28801
tel.828.281.3350 fax.828.281.3351
www.altamontenvironmental.com

Site Layout Map

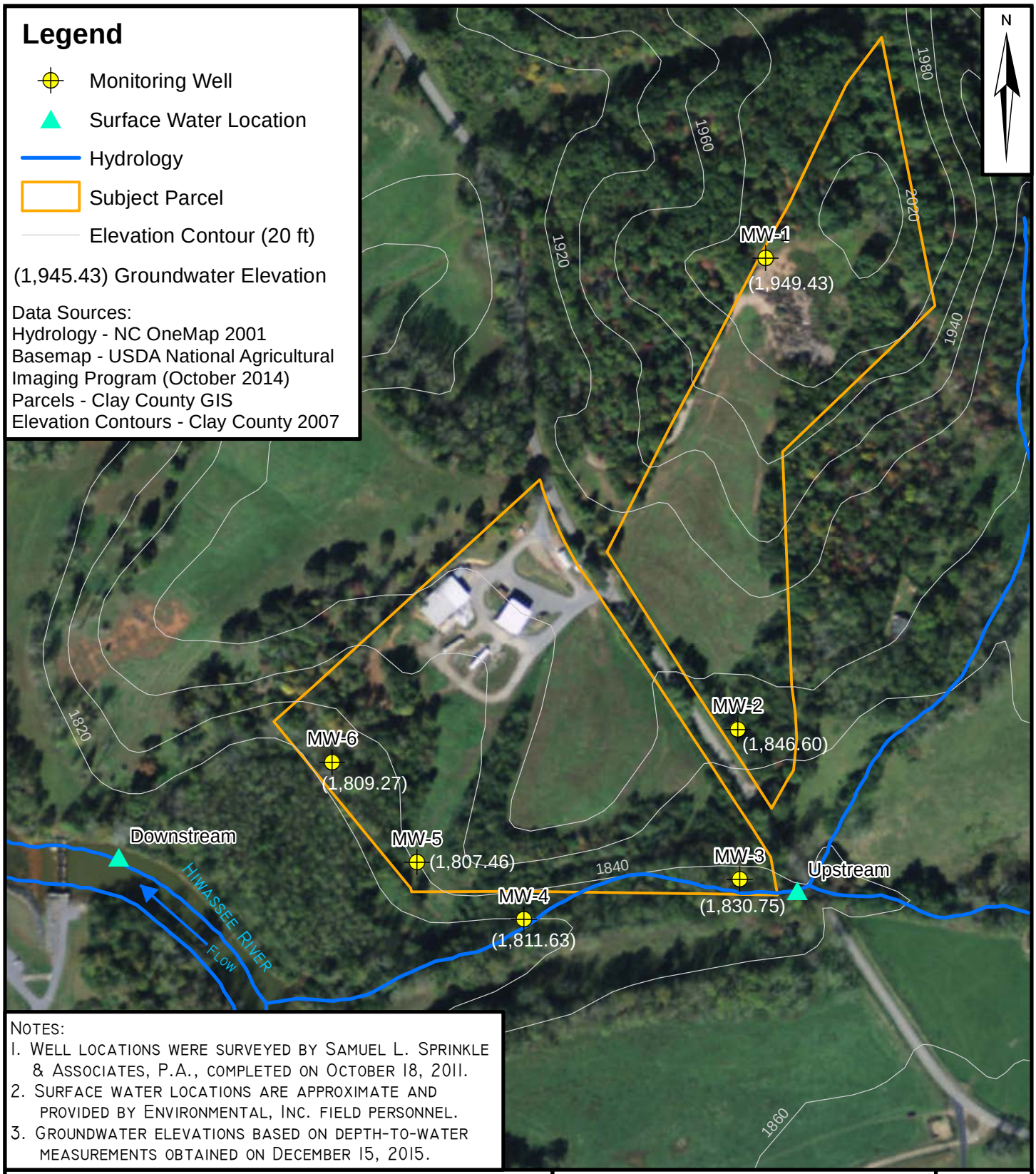
Clay County Closed Municipal Solid Waste Landfill
Permit Number 22-01
1160 Hinton Center Road
Hayesville, North Carolina

Figure 2

Drawn by: Alex LeSueur
Project Manager: Brian Gant
Client: Clay County
Date: 01/12/2016

Scale
0 150 300 Feet

P:\Environmental Inc\Clay County\Figures\2015\Figure 2.mxd



NOTES:
1. WELL LOCATIONS WERE SURVEYED BY SAMUEL L. SPRINKLE & ASSOCIATES, P.A., COMPLETED ON OCTOBER 18, 2011.
2. SURFACE WATER LOCATIONS ARE APPROXIMATE AND PROVIDED BY ENVIRONMENTAL, INC. FIELD PERSONNEL.
3. GROUNDWATER ELEVATIONS BASED ON DEPTH-TO-WATER MEASUREMENTS OBTAINED ON DECEMBER 15, 2015.

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAX.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

POSTED GROUNDWATER ELEVATION MAP

CLAY COUNTY CLOSED MUNICIPAL SOLID WASTE LANDFILL
PERMIT NUMBER 22-01
1160 HINTON CENTER ROAD
HAYESVILLE, NORTH CAROLINA

FIGURE 3

DRAWN BY: ALEX LESUEUR
PROJECT MANAGER: BRIAN GANT
CLIENT: CLAY COUNTY
DATE: 01/12/2016

SCALE
0 150 300 FEET

P:\ENVIRONMENTAL INC\CLAY COUNTY\FIGURES\2015\FIGURE 3.MXD

TABLES

Table 1
Summary of Groundwater Elevation Data
Clay County Municipal Solid Waste Landfill, Hayesville, Clay County, North Carolina

WELL ID	GROUND ELEVATION	TOP OF CASING (TOC) ELEVATION	DEPTH TO WATER	GROUNDWATER ELEVATION
			2015	
	(feet NAVD 1988)	(feet NAVD 1988)	(feet TOC)	(feet NAVD 1988)
MW-1	1992.05	1,993.10	43.67	1,949.43
MW-2	1868.94	1,869.77	23.17	1,846.60
MW-3	1835.67	1,837.75	7.00	1,830.75
MW-4	1819.19	1,821.30	9.67	1,811.63
MW-5	1840.53	1,841.63	34.17	1,807.46
MW-6	1825.64	1,826.52	17.25	1,809.27

Notes:
1. TOC = top of casing.
2. NAVD = North American Vertical Datum 1988.
3. All monitoring wells were surveyed on October 18, 2011 by Samuel L. Sprinkle & Associates, P.A..
4. Depth to water for all monitoring wells was measured on December 15, 2015.

Table 2
Summary of Laboratory Analyses Performed on Samples
Clay County Municipal Solid Waste Landfill, Hayesville, Clay County, North Carolina

Groundwater Samples			
Sample Name	Date Collected	Metals	VOCs
		EPA 6010 EPA 7470	EPA 8260
MW-1	12/15/2015	X	X
MW-2	12/15/2015	X	X
MW-3	12/15/2015	X	X
MW-4	12/15/2015	X	X
MW-6	12/15/2015	X	X
MW-6	12/15/2015	X	X
EQUIPMENT BLANK	12/15/2015	X	X
TRIP BLANK	12/15/2015		X
Surface Water Samples			
Sample Name	Date Collected	Metals	VOCs
		EPA 6010 EPA 7470	EPA 8260
UPSTREAM	12/15/2015	X	X
DOWNSTREAM	12/15/2015	X	X

Notes:
1. VOCs = volatile organic compounds.
2. VOCs and metals analysis include Appendix I constituents per 40 CFR Part 258.

Table 3
Summary of Detected Compounds
Clay County Municipal Solid Waste Landfill, Hayesville, Clay County, North Carolina

		Metals											
	Lab Certification	40											
	Lab Method	EPA 6010 and EPA 7470 (Mercury)											
	Parameter	Barium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Nickel	Silver	Thallium	Vanadium	Zinc
	CAS Number	7440-39-3	7440-43-9	7440-47-3	7440-48-4	7440-50-8	7439-92-1	7439-97-6	7440-02-0	7440-22-4	7440-28-0	7440-62-2	7440-66-6
	SWS ID	15	34	51	53	54	131	132	152	184	194	209	213
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample ID	Collect Date	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
MW-1	12/15/2015	**133**	0.50 U	**12.8**	**9.1 *J***	**15.7**	**12.3**	0.10 U	**7.2 *J***	2.5 U	5.0 U	**21.4 *J***	**23.0**
MW-2	12/15/2015	**101**	**3.4**	**6.3 *J***	2.5 U	**8.4 *J***	2.5 U	**0.17 J**	**2.6 J**	**8.5 *J***	5.0 U	**3.5 J**	**30.9**
MW-3	12/15/2015	**145**	0.50 U	**6.2 *J***	**7.9 *J***	**11.0**	**13.8**	0.10 U	2.5 U	2.5 U	5.0 U	**10.2 *J***	**44.5**
MW-4	12/15/2015	**231**	0.50 U	2.5 U	**11.5**	**6.2 *J***	2.5 U	**0.20**	2.5 U	2.5 U	5.0 U	**5.0 *J***	**19.5**
MW-5	12/15/2015	**110**	0.50 U	2.5 U	**18.9**	**7.8 *J***	2.5 U	**0.32**	2.5 U	2.5 U	5.0 U	**2.9 J**	**13.9**
MW-6	12/15/2015	**222**	0.50 U	2.5 U	**13.4**	2.5 U	2.5 U	0.10 U	**7.3 *J***	2.5 U	5.0 U	2.5 U	**11.4**
DOWNSTREAM	12/15/2015	**8.8 *J***	0.50 U	2.5 U	2.5 U	2.5 U	2.5 U	0.10 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
UPSTREAM	12/15/2015	**27.6 *J***	0.50 U	2.5 U	2.5 U	2.5 U	2.5 U	0.10 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
EQUIPMENT BLANK	12/15/2015	2.5 U	0.50 U	2.5 U	2.5 U	2.5 U	2.5 U	0.10 U	2.5 U	2.5 U	**6.4**	2.5 U	**5.8 J**
	MDL	2.5	0.50	2.5	2.5	2.5	2.5	0.10	2.5	2.5	5.0	2.5	5.0
	MRL	5.0	1.0	5.0	5.0	5.0	5.0	0.20	5.0	5.0	5.4	5.0	10.0
	SWSL	100	1	10	10	10	10	0.20	50	10	5.5	25	10
	2L	700	2	10	NE	1,000	15	1.0	100	20	NE	NE	1,000
	IMAC	NE	NE	NE	1	NE	NE	NE	NE	NE	0.2	0.3	NE
	2B	200,000	2	11	270	7	25	0.012	88	0.06	0.47	NE	50

		Appendix I VOCs										Field Parameters	
	Lab Certification	12										5090	37754
	Lab Method	EPA 8260										SM4500HB	SM 2130B
	Parameter	1,1-Dichloro-ethane	1,4-Dichloro-benzene	2-Hexanone	Benzene	Chloro-benzene	cis-1,2-Dichloro-ethene	Methylene Chloride	o-Xylene	Toluene	Trans-1,2-Dichloro-ethene	pH	Turbidity
	CAS Number	75-34-3	106-46-7	591-78-6	71-43-2	108-90-7	156-59-2	75-09-2	95-47-6	108-88-3	156-60-5	SW320	SW330
	SWS ID	75	71	124	16	39	78	140	408	196	79	320	330
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	SU	NTU
Sample ID	Collect Date	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
MW-1	12/15/2015	0.32 U	0.33 U	**27.9 *J***	0.25 U	0.23 U	0.19 U	0.97 U	0.23 U	0.26 U	0.49 U	**6.0**	**151**
MW-2	12/15/2015	**1.3 *J***	**0.63 J**	0.46 U	**0.74 J**	0.23 U	**1.3 *J***	**4.2 C9**	**0.58 J**	0.26 U	0.49 U	**5.7**	**10.3**
MW-3	12/15/2015	0.32 U	0.33 U	**20.4 *J***	0.25 U	0.23 U	0.19 U	0.97 U	0.23 U	0.26 U	0.49 U	**6.1**	**40.7**
MW-4	12/15/2015	**0.97 J**	**1.6**	0.46 U	0.25 U	**0.36 J**	**2.4 *J***	0.97 U	0.23 U	0.26 U	0.49 U	**5.7**	**4.6**
MW-5	12/15/2015	0.32 U	**1.2**	**2.6 J**	0.25 U	**0.78 J**	**3.3 *J***	**9.2**	0.23 U	0.26 U	0.49 U	**5.6**	**9.7**
MW-6	12/15/2015	0.32 U	**0.64 J**	0.46 U	0.25 U	0.23 U	**3.4 *J***	0.97 U	**0.26 J**	0.26 U	0.49 U	**6.1**	**9.8**
DOWNSTREAM	12/15/2015	0.32 U	0.33 U	0.46 U	0.25 U	0.23 U	0.19 U	0.97 U	0.23 U	0.26 U	0.49 U	**7.0**	**1.4**
UPSTREAM	12/15/2015	0.32 U	0.33 U	0.46 U	0.25 U	0.23 U	0.19 U	**1.1 C9**	0.23 U	0.26 U	0.49 U	**7.0**	**1.2**
EQUIPMENT BLANK	12/15/2015	0.32 U	0.33 U	0.46 U	0.25 U	0.23 U	0.19 U	**75.9**	0.23 U	**0.45 J**	**0.59 J**	NA	NA
TRIP BLANK	12/15/2015	0.32 U	0.33 U	0.46 U	0.25 U	0.23 U	0.19 U	**1.6 C9**	0.23 U	0.26 U	0.49 U	NA	NA
	MDL	0.32	0.33	0.46	0.25	0.23	0.19	0.97	0.23	0.26	0.49	NA	NA
	MRL	1.0	1.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	NA	NA
	SWSL	5	1	50	1	3	5	1	NE	1	5	NE	NE
	2L	6	6	NE	1	50	70	5	500	600	100	6.5-8.5	NE
	IMAC	NE	NE	40	NE	NE	NE	NE	NE	NE	NE	NE	NE
	2B	20,000	100	NE	51	140	4,900	590	800	11	10,000	6.0-9.0	50

Notes:

1. Only detected constituents are listed on this table. Please refer to Pace Laboratory Reports of Analysis (Appendix B) for further details.
2. "Lab Method" is the analytical method used to analyze the constituents.
3. "CAS Number" is a unique number assigned by the Chemical Abstracts Service (CAS) to all identified parameters.
4. "SWS ID" is the Solid Waste Section Identification Number.
5. "Units" are micrograms per liter (µg/L) for analytical results, Standard Units (SU) for pH, and nephelometric turbidity units (NTU) for turbidity.
6. "Collect Date" is the date on which the sample was collected in the field.
7. "Result" is analytical data reported by the laboratory or field data collected by Altamont.
8. "MDL" is the method detection limit, which is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.
9. "MRL" is the method reporting limit, which is the minimum concentration of a target analyte that can be accurately determined by the referenced method.
10. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
11. "U" is a laboratory data qualifier used for parameters not detected at concentrations above MDL.
12. "J" is a laboratory data qualifier used for parameters detected at estimated concentrations above MDL but below MRL and SWSL.
    An italicized "J" qualifier is assigned by Altamont to reflect a detected concentration that is greater than MRL and MDL but less than the SWSL.
13. "2L" and "IMAC" (Interim Maximum Allowable Concentration) are groundwater standards from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L - Groundwater Classifications and Standards," DENR (Last Amended on April 1, 2013).
14. "2B" indicates surface water standard per "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2B - Surface Water and Wetland Standards," (last amended on May 1, 2007) or standard obtained from National Criteria per EPA table (current as of May 15, 2013).
15. "NE" means Not Established. "NA" means Not Applicable.
16. **Bold** numbers indicate a detection. Grayed cells indicate result in exceedance of the 2L, IMAC, or 2B standard.
17. "C9" indicates the detected constituent is a common laboratory contaminant.
18. Due to the high concentration of methylene chloride in the equipment blank, along with the detection in the trip blank, the reported methylene chloride concentrations are not likely representative of groundwater quality.

Table 4
Solid Waste Section Limits Exceedances Notification
Clay County Municipal Solid Waste Landfill, Hayesville, Clay County, North Carolina

FACILITY PERMIT	WELL ID	CAS NUMBER	SWS ID	PARAMETER	RESULT	UNITS	METHOD	MDL	MRL	SWSL	COLLECT DATE
22-01	MW-1	7440-39-3	15	Barium	133	µg/L	EPA 6010	2.5	5.0	100	12/15/2015
22-01	MW-1	7440-47-3	51	Chromium	12.8	µg/L	EPA 6010	2.5	5.0	10	12/15/2015
22-01	MW-1	7440-50-8	54	Copper	15.7	µg/L	EPA 6010	2.5	5.0	10	12/15/2015
22-01	MW-1	7439-92-1	131	Lead	12.3	µg/L	EPA 6010	2.5	5.0	10	12/15/2015
22-01	MW-1	7440-66-6	213	Zinc	23.0	µg/L	EPA 6010	5.0	10.0	10	12/15/2015
22-01	MW-2	7440-39-3	15	Barium	101	µg/L	EPA 6010	2.5	5.0	100	12/15/2015
22-01	MW-2	7440-43-9	34	Cadmium	3.4	µg/L	EPA 6010	0.5	1.0	1	12/15/2015
22-01	MW-2	7440-66-6	213	Zinc	30.9	µg/L	EPA 6010	5.0	10.0	10	12/15/2015
22-01	MW-2	75-09-2	140	Methylene Chloride	4.2 C9	µg/L	EPA 8260	0.97	1.0	1	12/15/2015
22-01	MW-3	7440-39-3	15	Barium	145	µg/L	EPA 6010	2.5	5.0	100	12/15/2015
22-01	MW-3	7440-50-8	54	Copper	11.0	µg/L	EPA 6010	2.5	5.0	10	12/15/2015
22-01	MW-3	7439-92-1	131	Lead	13.8	µg/L	EPA 6010	2.5	5.0	10	12/15/2015
22-01	MW-3	7440-66-6	213	Zinc	44.5	µg/L	EPA 6010	5	10.0	10	12/15/2015
22-01	MW-4	7440-39-3	15	Barium	231	µg/L	EPA 6010	2.5	5.0	100	12/15/2015
22-01	MW-4	7440-48-4	53	Cobalt	11.5	µg/L	EPA 6010	2.5	5.0	10	12/15/2015
22-01	MW-4	7439-97-6	132	Mercury	0.20	µg/L	EPA 7470	0.10	0.2	0.2	12/15/2015
22-01	MW-4	7440-66-6	213	Zinc	19.5	µg/L	EPA 6010	5.0	10.0	10	12/15/2015
22-01	MW-4	106-46-7	71	1,4-Dichlorobenzene	1.6	µg/L	EPA 8260	0.33	1.0	1	12/15/2015
22-01	MW-5	7440-39-3	15	Barium	110	µg/L	EPA 6010	2.5	5.0	100	12/15/2015
22-01	MW-5	7440-48-4	53	Cobalt	18.9	µg/L	EPA 6010	2.5	5.0	10	12/15/2015
22-01	MW-5	7439-97-6	132	Mercury	0.32	µg/L	EPA 6010	0.10	0.20	0.2	12/15/2015
22-01	MW-5	7440-66-6	213	Zinc	13.9	µg/L	EPA 6010	5.0	10.0	10	12/15/2015
22-01	MW-5	106-46-7	71	1,4-Dichlorobenzene	1.2	µg/L	EPA 8260	0.33	1.0	1	12/15/2015
22-01	MW-5	75-09-2	140	Methylene Chloride	9.2	µg/L	EPA 8260	0.97	1.0	1	12/15/2015
22-01	MW-6	7440-39-3	15	Barium	222	µg/L	EPA 6010	2.5	5.0	100	12/15/2015
22-01	MW-6	7440-48-4	53	Cobalt	13.4	µg/L	EPA 6010	2.5	5.0	10	12/15/2015
22-01	MW-6	7440-66-6	213	Zinc	11.4	µg/L	EPA 6010	5.0	10.0	10	12/15/2015
22-01	UPSTREAM	75-09-2	140	Methylene Chloride	1.1 C9	µg/L	EPA 8260	0.97	1.0	1	12/15/2015
22-01	EQUIPMENT BLANK	7440-28-0	194	Thallium	6.4	µg/L	EPA 6010	5.0	5.4	5.5	12/15/2015
22-01	EQUIPMENT BLANK	75-09-2	140	Methylene Chloride	75.9	µg/L	EPA 8260	0.97	1.0	1	12/15/2015
22-01	TRIP BLANK	75-09-2	140	Methylene Chloride	1.6 C9	µg/L	EPA 8260	0.97	1.0	1	12/15/2015

Notes:

1. "CAS NUMBER" is a unique number assigned by the Chemical Abstracts Service (CAS) to all identified parameters.
2. "SWS ID" is the Solid Waste Section Identification Number.
3. "RESULT" is the analytical data reported by the laboratory.
4. "µg/L" indicates unit of micrograms per liter for analytical results.
5. "METHOD" is the analytical method used to analyze the constituents.
6. "MDL" is the method detection limit, which is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.
7. "MRL" is the method reporting limit, which is the minimum concentration of a target analyte that can be accurately determined by the referenced method.
8. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
9. "COLLECT DATE" is the date on which the sample was collected in the field.
10. **Bold** numbers indicate a result equal to or in exceedance of the 2L standard.
11. "C9" indicates the detected constituent is a common laboratory contaminant.
12. Due to the high concentration of methylene chloride in the equipment blank, along with the detection in the trip blank, the reported methylene chloride concentrations are not likely representative of groundwater quality.

Table 5
Water Quality Standards Exceedances Notification
Clay County Municipal Solid Waste Landfill, Hayesville, Clay County, North Carolina

FACILITY PERMIT	WELL ID	CAS NUMBER	SWS ID	PARAMETER	RESULT	UNITS	QUALIFIER	METHOD	MDL	MRL	SWSL	GROUNDWATER QUALITY STANDARD	COLLECT DATE	CAUSE AND SIGNIFICANCE
22-01	MW-1	7440-47-3	51	Chromium	12.8	µg/L		EPA 6010	2.5	5.0	10	10	12/15/2015	Possibly naturally occurring. Turbidity of sample is 151 NTU.
22-01	MW-1	7440-48-4	53	Cobalt	9.1	µg/L	J	EPA 6010	2.5	5.0	10	1	12/15/2015	
22-01	MW-1	7440-62-2	209	Vanadium	21.4	µg/L	J	EPA 6010	2.5	5.0	25	0.3	12/15/2015	
22-01	MW-1	SW320	320	pH	6.0	SU		SM4500HB	NE	NE	NE	6.5 - 8.5	12/15/2015	Consistent with historic readings.
22-01	MW-2	7440-43-9	34	Cadmium	3.4	µg/L		EPA 6010	0.5	1.0	1	2	12/15/2015	Anthropogenic
22-01	MW-2	7440-62-2	209	Vanadium	3.5	µg/L	J	EPA 6010	2.5	5.0	25	0.3	12/15/2015	Possibly naturally occurring.
22-01	MW-2	SW320	320	pH	5.7	SU		SM4500HB	NE	NE	NE	6.5 - 8.5	12/15/2015	Consistent with historic readings.
22-01	MW-3	7440-48-4	53	Cobalt	7.9	µg/L	J	EPA 6010	2.5	5.0	10	1	12/15/2015	Possibly naturally occurring.
22-01	MW-3	7440-62-2	209	Vanadium	10.2	µg/L	J	EPA 6010	2.5	5.0	25	0.3	12/15/2015	
22-01	MW-3	SW320	320	pH	6.1	SU		SM4500HB	NE	NE	NE	6.5 - 8.5	12/15/2015	Consistent with historic readings.
22-01	MW-4	7440-48-4	53	Cobalt	11.5	µg/L		EPA 6010	2.5	5.0	10	1	12/15/2015	Possibly naturally occurring.
22-01	MW-4	7440-62-2	209	Vanadium	5.0	µg/L	J	EPA 6010	2.5	5.0	25	0.3	12/15/2015	
22-01	MW-4	SW320	320	pH	5.7	SU		SM4500HB	NE	NE	NE	6.5 - 8.5	12/15/2015	Consistent with historic readings.
22-01	MW-5	7440-48-4	53	Cobalt	18.9	µg/L		EPA 6010	2.5	5.0	10	1	12/15/2015	Possibly naturally occurring.
22-01	MW-5	7440-62-2	209	Vanadium	2.9	µg/L	J	EPA 6010	2.5	5.0	25	0.3	12/15/2015	
22-01	MW-5	75-09-2	140	Methylene Chloride	9.2	µg/L		EPA 8260	0.97	1.0	1	5	12/15/2015	Possibly due to laboratory contamination
22-01	MW-5	SW320	320	pH	5.6	SU		SM4500HB	NE	NE	NE	6.5 - 8.5	12/15/2015	Consistent with historic readings.
22-01	MW-6	7440-48-4	53	Cobalt	13.4	µg/L		EPA 6010	2.5	5.0	10	1	12/15/2015	Possibly naturally occurring.
22-01	MW-6	SW320	320	pH	6.1	µg/L		SM4500HB	NE	NE	NE	6.5 - 8.5	12/15/2015	Consistent with historic readings.

Notes:

1. "CAS NUMBER" is a unique number assigned by the Chemical Abstracts Service (CAS) to all identified parameters.
2. "SWS ID" is the Solid Waste Section Identification Number.
3. "RESULT" is analytical data reported by the laboratory or field data collected by Environmental, Inc.
4. "UNITS" are micrograms per liter (µg/L) for analytical results and Standard Units (SU) for pH.
5. "QUALIFIER" is a data qualifier or "flag". A blank cell indicates that there is no qualifier associated with the reported result.
6. "METHOD" is the analytical method used to analyze the constituents.
7. "MDL" is the method detection limit, which is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.
8. "MRL" is the method reporting limit, which is the minimum concentration of a target analyte that can be accurately determined by the referenced method.
9. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
10. "GROUNDWATER QUALITY STANDARD" refers to the 2L standard or Interim Maximum Allowable Concentration (IMAC) for groundwater.
11. "COLLECT DATE" is the date on which the sample was collected in the field.
12. 2L standard and IMAC are from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L - Groundwater Classifications and Standards," DENR (Last Amended April 1, 2013).
13. Due to the high concentration of methylene chloride in the equipment blank, along with the detection in the trip blank, the reported methylene chloride concentrations are not likely representative of groundwater quality.

APPENDICES

APPENDIX A

Field Sheet and Certificate of Analysis

ENVIRONMENTAL Inc. Water & Wastewater Services Cullowhee, NC

P.O. Box 954 Cullowhee, NC 28723
2675 Skyland Drive Sylva, NC 28779
Phone (828) 586-5588 (800) 213-4035
FAX (828) 586-0800
E-mail environmentalinc@aol.com

Certificate of Analysis

Client Name: Clay County Landfill
Address: c/o 2675 Skyland Drive
Sylva, NC 28779

Collection Date: 12/15/2015
Date Received: 12/15/2015

RESULTS

Sample Identification: Upstream (grab)

Parameters	Result	MDL	Units	Date Analyzed	Method	Foot-notes
Temperature	13.0	-----	° C	12/15/2015	SM 2250 B	1
pH	7.0	-----	Std Units	12/15/2015	SM 4500 HB	1
Specific Conductance	31.5	1.0	µmhos	1/8/2016	SM 2510B	
Turbidity	1.2	1.0	NTU	12/16/2015	SM 2130B	

Sample Identification: Downstream (grab)

Parameters	Result	MDL	Units	Date Analyzed	Method	Foot-notes
Temperature	13.5	-----	° C	12/15/2015	SM 2250 B	1
pH	7.0	-----	Std Units	12/15/2015	SM 4500 HB	1
Specific Conductance	22.7	1.0	µmhos	1/8/2016	SM 2510B	
Turbidity	1.4	1.0	NTU	12/16/2015	SM 2130B	

Anthony Tirona, Laboratory Supervisor

3/2/16
Date

Report prepared: 3/2/2016 12:52 PM

Client Name: Clay County Landfill

Collection Date: 12/15/2015
Date Received: 12/15/2015

Sample Identification: MW#1 (grab)

Parameters	Result	MDL	Units	Date Analyzed	Method	Foot-notes
Temperature	16.7	-----	° C	12/15/2015	SM 2250 B	1
pH	6.0	-----	Std Units	12/15/2015	SM 4500 HB	1
Specific Conductance	39.6	1.0	µmhos	1/8/2016	SM 2510B	
Turbidity	151	1.0	NTU	12/16/2015	SM 2130B	

Sample Identification: MW#2 (grab)

Parameters	Result	MDL	Units	Date Analyzed	Method	Foot-notes
Temperature	13.5	-----	° C	12/15/2015	SM 2250 B	1
pH	5.7	-----	Std Units	12/15/2015	SM 4500 HB	1
Specific Conductance	61.7	1.0	µmhos	1/8/2016	SM 2510B	
Turbidity	10.3	1.0	NTU	12/16/2015	SM 2130B	

Sample Identification: MW#3 (grab)

Parameters	Result	MDL	Units	Date Analyzed	Method	Foot-notes
Temperature	14.3	-----	° C	12/15/2015	SM 2250 B	1
pH	6.1	-----	Std Units	12/15/2015	SM 4500 HB	1
Specific Conductance	77.5	1.0	µmhos	1/8/2016	SM 2510B	
Turbidity	40.7	1.0	NTU	12/16/2015	SM 2130B	

Client Name: Clay County Landfill

Collection Date: 12/15/2015
Date Received: 12/15/2015

Sample Identification: MW#4 (grab)

Parameters	Result	MDL	Units	Date Analyzed	Method	Foot-notes
Temperature	16.1	-----	° C	12/15/2015	SM 2250 B	1
pH	5.7	-----	Std Units	12/15/2015	SM 4500 HB	1*
Specific Conductance	270	1.0	µmhos	1/8/2016	SM 2510B	
Turbidity	4.6	1.0	NTU	12/16/2015	SM 2130B	

Sample Identification: MW#5 (grab)

Parameters	Result	MDL	Units	Date Analyzed	Method	Foot-notes
Temperature	14.9	-----	° C	12/15/2015	SM 2250 B	1
pH	5.6	-----	Std Units	12/15/2015	SM 4500 HB	1
Specific Conductance	176	1.0	µmhos	1/8/2016	SM 2510B	
Turbidity	9.7	1.0	NTU	12/16/2015	SM 2130B	

Sample Identification: MW#6 (grab)

Parameters	Result	MDL	Units	Date Analyzed	Method	Foot-notes
Temperature	16.0	-----	° C	12/15/2015	SM 2250 B	1
pH	6.1	-----	Std Units	12/15/2015	SM 4500 HB	1
Specific Conductance	180	1.0	µmhos	1/8/2016	SM 2510B	
Turbidity	9.8	1.0	NTU	12/16/2015	SM 2130B	

1. pH and temperature taken in the field on 12/15/15 at the time of collection.
* This report amends the report prepared on 1/20/2016. This report corrects the pH value from 5.6 to 5.7.

ENVIRONMENTAL Inc. Water & Wastewater Services Cullowhee, NC

P.O. Box 954 Cullowhee, NC 28723
2675 Skyland Drive Sylva, NC 28779
Phone (828) 586-5588 (800) 213-4035
FAX (828) 586-0800
E-mail environmentalinc@aol.com

Field Specifications

Client Name: Clay County Landfill
Address: PO Box 838
Hayseville, NC 28904

Field Certification #5090
Wastewater Laboratory Certification #57
Water Laboratory Certification #37754 & #37797

Field Table

Field Sheet **Collection Date:**

Wells	1	2	3	4	5	6	Upstream	Downstream
Time	09:39	10:14	10:41	11:50	11:25	12:20	11:02	12:40
Water Level	43' 8"	23' 2"	7'	9' 8"	34' 2"	17' 3"	NA	NA
Bottom of the well	65' 7"	37' 5"	15' 2"	22' 7"	51.5	42' 2"	NA	NA
Temp	16.7	13.5	14.3	16.1	14.9	16.0	13	13.5
pH	6.01	5.7	6.1	5.7	5.6	6.1	7.0	7.0
Pipe	2"	2"	2"	2"	2"	2"	NA	NA

Sampler

12-15-15
Date

APPENDIX B

Reports of Laboratory Analysis and Chain-of-Custody Documentation

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

January 12, 2016

Mr. Mark Teague
Environmental, Inc.
PO Box 954
Cullowhee, NC 28723

RE: Project: Clay Co. MW #1
Pace Project No.: 92280048

Dear Mr. Teague:
Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

A revised laboratory report is being submitted on January 12, 2016, to report MDLs, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
Project Manager

Enclosures

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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

CERTIFICATIONS

Project:	Clay Co. MW #1
Pace Project No.:	92280048

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

SAMPLE SUMMARY

Project: Clay Co. MW #1
Pace Project No.: 92280048

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92280048001	**MW #1**	Water	12/15/15 09:57	12/16/15 11:33

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Asheville, NC 28804
(828)254-7176

SAMPLE ANALYTE COUNT

Project: Clay Co. MW #1
Pace Project No.: 92280048

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92280048001	**MW #1**	EPA 6010	CDF, JMW	15	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	GAW	52	PASI-C

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ANALYTICAL RESULTS

Project: Clay Co. MW #1
Pace Project No.: 92280048

Sample: MW #1 **Lab ID: 92280048001** Collected: 12/15/15 09:57 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A								
Antimony	ND	ug/L	5.0	3.8	1	12/17/15 19:00	12/19/15 05:56	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	12/17/15 19:00	12/19/15 05:56	7440-38-2	
Barium	**133**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:56	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:56	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:56	7440-43-9	
Chromium	**12.8**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:56	7440-47-3	
Cobalt	**9.1**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:56	7440-48-4	
Copper	**15.7**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:56	7440-50-8	
Lead	**12.3**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:56	7439-92-1	
Nickel	**7.2**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:56	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:56	7782-49-2	
Silver	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:56	7440-22-4	
Thallium	ND	ug/L	5.4	5.0	1	12/17/15 19:00	12/22/15 18:09	7440-28-0	
Vanadium	**21.4**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:56	7440-62-2	
Zinc	**23.0**	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:56	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	12/19/15 18:30	12/21/15 12:28	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		12/29/15 14:18	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		12/29/15 14:18	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/29/15 14:18	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/29/15 14:18	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/29/15 14:18	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/29/15 14:18	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/29/15 14:18	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		12/29/15 14:18	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		12/29/15 14:18	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/29/15 14:18	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/29/15 14:18	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/29/15 14:18	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/29/15 14:18	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/29/15 14:18	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/29/15 14:18	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/29/15 14:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/29/15 14:18	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/29/15 14:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/29/15 14:18	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/29/15 14:18	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		12/29/15 14:18	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/29/15 14:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/29/15 14:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/29/15 14:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/29/15 14:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/29/15 14:18	156-60-5	

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ANALYTICAL RESULTS

Project: Clay Co. MW #1
Pace Project No.: 92280048

Sample: MW #1 **Lab ID: 92280048001** Collected: 12/15/15 09:57 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/29/15 14:18	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/29/15 14:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/29/15 14:18	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/29/15 14:18	100-41-4	
2-Hexanone	**27.9**	ug/L	5.0	0.46	1		12/29/15 14:18	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		12/29/15 14:18	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/29/15 14:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		12/29/15 14:18	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/29/15 14:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/29/15 14:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/29/15 14:18	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/29/15 14:18	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/29/15 14:18	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/29/15 14:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/29/15 14:18	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/29/15 14:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/29/15 14:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/29/15 14:18	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		12/29/15 14:18	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/29/15 14:18	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/29/15 14:18	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/29/15 14:18	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/29/15 14:18	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		12/29/15 14:18	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-130		1		12/29/15 14:18	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		12/29/15 14:18	2037-26-5	

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QUALITY CONTROL DATA

Project: Clay Co. MW #1
Pace Project No.: 92280048

QC Batch: MERP/8799 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Associated Lab Samples: 92280048001

METHOD BLANK: 1632840 | Matrix: Water
Associated Lab Samples: 92280048001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.10	12/21/15 11:41	

LABORATORY CONTROL SAMPLE: 1632841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.1	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1632842 1632844

Parameter	Units	92279477001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	1.9	92	75	75-125	20	25	

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QUALITY CONTROL DATA

Project: Clay Co. MW #1
Pace Project No.: 92280048

QC Batch: MPRP/20312
QC Batch Method: EPA 3010A
Associated Lab Samples: 92280048001

Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater

METHOD BLANK: 1631789
Matrix: Water
Associated Lab Samples: 92280048001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	3.8	12/19/15 05:13	
Arsenic	ug/L	ND	10.0	2.5	12/19/15 05:13	
Barium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Beryllium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Cadmium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Chromium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Cobalt	ug/L	ND	5.0	2.5	12/19/15 05:13	
Copper	ug/L	ND	5.0	2.5	12/19/15 05:13	
Lead	ug/L	ND	5.0	2.5	12/19/15 05:13	
Nickel	ug/L	ND	5.0	2.5	12/19/15 05:13	
Selenium	ug/L	ND	10.0	5.0	12/19/15 05:13	
Silver	ug/L	ND	5.0	2.5	12/19/15 05:13	
Thallium	ug/L	ND	5.4	5.0	12/22/15 17:35	
Vanadium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Zinc	ug/L	ND	10.0	5.0	12/19/15 05:13	

LABORATORY CONTROL SAMPLE: 1631790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	489	98	80-120	
Arsenic	ug/L	500	526	105	80-120	
Barium	ug/L	500	496	99	80-120	
Beryllium	ug/L	500	502	100	80-120	
Cadmium	ug/L	500	519	104	80-120	
Chromium	ug/L	500	529	106	80-120	
Cobalt	ug/L	500	530	106	80-120	
Copper	ug/L	500	515	103	80-120	
Lead	ug/L	500	524	105	80-120	
Nickel	ug/L	500	524	105	80-120	
Selenium	ug/L	500	520	104	80-120	
Silver	ug/L	250	233	93	80-120	
Thallium	ug/L	500	522	104	80-120	
Vanadium	ug/L	500	518	104	80-120	
Zinc	ug/L	500	554	111	80-120	

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QUALITY CONTROL DATA

Project: Clay Co. MW #1
Pace Project No.: 92280048

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1631791 1631792

Parameter	Units	92279775001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	495	483	99	97	75-125	2	25	
Arsenic	ug/L	ND	500	500	537	519	107	104	75-125	3	25	
Barium	ug/L	108	500	500	614	597	101	98	75-125	3	25	
Beryllium	ug/L	ND	500	500	515	499	103	100	75-125	3	25	
Cadmium	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Chromium	ug/L	ND	500	500	538	524	107	105	75-125	3	25	
Cobalt	ug/L	10.9	500	500	546	528	107	104	75-125	3	25	
Copper	ug/L	ND	500	500	524	508	105	101	75-125	3	25	
Lead	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Nickel	ug/L	6.7	500	500	534	517	105	102	75-125	3	25	
Selenium	ug/L	ND	500	500	520	508	104	101	75-125	2	25	
Silver	ug/L	ND	250	250	238	230	95	92	75-125	4	25	
Thallium	ug/L	ND	500	500	488	483	98	97	75-125	1	25	
Vanadium	ug/L	2.9J	500	500	534	517	106	103	75-125	3	25	
Zinc	ug/L	20.2	500	500	581	567	112	109	75-125	2	25	

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QUALITY CONTROL DATA

Project: Clay Co. MW #1
Pace Project No.: 92280048

QC Batch: MSV/34968
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92280048001

METHOD BLANK: 1638140
Matrix: Water
Associated Lab Samples: 92280048001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/29/15 06:11	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/29/15 06:11	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/29/15 06:11	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/29/15 06:11	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/29/15 06:11	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/29/15 06:11	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/29/15 06:11	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/29/15 06:11	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/29/15 06:11	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/29/15 06:11	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	12/29/15 06:11	
2-Hexanone	ug/L	ND	5.0	0.46	12/29/15 06:11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	12/29/15 06:11	
Acetone	ug/L	ND	25.0	10.0	12/29/15 06:11	
Acrylonitrile	ug/L	ND	10.0	1.9	12/29/15 06:11	
Benzene	ug/L	ND	1.0	0.25	12/29/15 06:11	
Bromochloromethane	ug/L	ND	1.0	0.17	12/29/15 06:11	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/29/15 06:11	
Bromoform	ug/L	ND	1.0	0.26	12/29/15 06:11	
Bromomethane	ug/L	ND	2.0	0.29	12/29/15 06:11	
Carbon disulfide	ug/L	ND	2.0	1.2	12/29/15 06:11	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/29/15 06:11	
Chlorobenzene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Chloroethane	ug/L	ND	1.0	0.54	12/29/15 06:11	
Chloroform	ug/L	ND	1.0	0.14	12/29/15 06:11	
Chloromethane	ug/L	ND	1.0	0.11	12/29/15 06:11	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/29/15 06:11	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	12/29/15 06:11	
Dibromochloromethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Dibromomethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Ethylbenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
Iodomethane	ug/L	ND	5.0	0.32	12/29/15 06:11	
m&p-Xylene	ug/L	ND	2.0	0.66	12/29/15 06:11	
Methylene Chloride	ug/L	ND	1.0	0.97	12/29/15 06:11	
o-Xylene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Styrene	ug/L	ND	1.0	0.26	12/29/15 06:11	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/29/15 06:11	
Toluene	ug/L	ND	1.0	0.26	12/29/15 06:11	

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QUALITY CONTROL DATA

Project: Clay Co. MW #1
Pace Project No.: 92280048

METHOD BLANK: 1638140 Matrix: Water
Associated Lab Samples: 92280048001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/29/15 06:11	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	12/29/15 06:11	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	1.0	12/29/15 06:11	
Trichloroethene	ug/L	ND	1.0	0.47	12/29/15 06:11	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/29/15 06:11	
Vinyl acetate	ug/L	ND	2.0	0.35	12/29/15 06:11	
Vinyl chloride	ug/L	ND	1.0	0.62	12/29/15 06:11	
Xylene (Total)	ug/L	ND	2.0	0.66	12/29/15 06:11	
1,2-Dichloroethane-d4 (S)	%	91	70-130		12/29/15 06:11	
4-Bromofluorobenzene (S)	%	102	70-130		12/29/15 06:11	
Toluene-d8 (S)	%	109	70-130		12/29/15 06:11	

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.6	101	80-125	
1,1,1-Trichloroethane	ug/L	50	48.0	96	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	50.6	101	79-124	
1,1,2-Trichloroethane	ug/L	50	50.9	102	85-125	
1,1-Dichloroethane	ug/L	50	45.2	90	73-126	
1,1-Dichloroethene	ug/L	50	43.6	87	66-135	
1,2,3-Trichloropropane	ug/L	50	51.2	102	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.8	96	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	53.4	107	83-124	
1,2-Dichlorobenzene	ug/L	50	49.1	98	80-133	
1,2-Dichloroethane	ug/L	50	45.6	91	67-128	
1,2-Dichloropropane	ug/L	50	46.8	94	75-132	
1,4-Dichlorobenzene	ug/L	50	49.2	98	78-130	
2-Butanone (MEK)	ug/L	100	113	113	61-144	
2-Hexanone	ug/L	100	108	108	68-143	
4-Methyl-2-pentanone (MIBK)	ug/L	100	107	107	72-135	
Acetone	ug/L	100	105	105	48-146	
Acrylonitrile	ug/L	250	255	102	40-160	
Benzene	ug/L	50	49.0	98	80-125	
Bromochloromethane	ug/L	50	53.7	107	71-125	
Bromodichloromethane	ug/L	50	48.1	96	78-124	
Bromoform	ug/L	50	43.7	87	71-128	
Bromomethane	ug/L	50	40.4	81	40-160	
Carbon disulfide	ug/L	50	41.0	82	50-160	
Carbon tetrachloride	ug/L	50	49.1	98	69-131	
Chlorobenzene	ug/L	50	49.9	100	81-122	
Chloroethane	ug/L	50	33.9	68	39-148	
Chloroform	ug/L	50	47.6	95	73-127	
Chloromethane	ug/L	50	53.7	107	44-146	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Clay Co. MW #1
Pace Project No.: 92280048

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	44.9	90	74-124	
cis-1,3-Dichloropropene	ug/L	50	50.8	102	72-132	
Dibromochloromethane	ug/L	50	52.8	106	78-125	
Dibromomethane	ug/L	50	52.2	104	82-120	
Ethylbenzene	ug/L	50	46.5	93	79-121	
Iodomethane	ug/L	100	85.5	86	39-154	
m&p-Xylene	ug/L	100	91.9	92	81-124	
Methylene Chloride	ug/L	50	57.2	114	64-133	
o-Xylene	ug/L	50	44.9	90	79-131	
Styrene	ug/L	50	48.0	96	84-126	
Tetrachloroethene	ug/L	50	49.3	99	78-122	
Toluene	ug/L	50	45.0	90	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.8	96	71-127	
trans-1,3-Dichloropropene	ug/L	50	45.4	91	69-141	
trans-1,4-Dichloro-2-butene	ug/L	50	54.3	109	40-160	
Trichloroethene	ug/L	50	52.5	105	78-122	
Trichlorofluoromethane	ug/L	50	43.3	87	53-137	
Vinyl acetate	ug/L	100	99.6	100	40-160	
Vinyl chloride	ug/L	50	46.1	92	58-137	
Xylene (Total)	ug/L	150	137	91	81-126	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			94	70-130	

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QUALIFIERS

Project: Clay Co. MW #1
Pace Project No.: 92280048

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Clay Co. MW #1
Pace Project No.: 92280048

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92280048001	**MW #1**	EPA 3010A	MPRP/20312	EPA 6010	ICP/18330
92280048001	**MW #1**	EPA 7470	MERP/8799	EPA 7470	MERC/8455
92280048001	**MW #1**	EPA 8260	MSV/34968		

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Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: November 06, 2015 Page 1 of 2*
	Document No.: F-ASV-CS-003-rev.15	Issuing Authorities: Pace Asheville Quality Office

* Page 2 of 2 is for Internal Use Only

Client Name: Fauramental Inc

Courier (Circle): Fed Ex UPS USPS (Client) Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no **Seals intact:** ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun#5 - 155271998 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

IR Gun #4 SN:140290365 Other:_____

Temp Correction Factor: Add / Subtract 0.0 C

Corrected Cooler Temp.: 5.5 C **Biological Tissue is Frozen:** Yes No N/A

Date and Initials of person examining contents: RDB 12/16/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: AMB Date: 12-16-15

SRF Review: AMB Date: 12-17-15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Place label here

WO# : 92280048

92280048

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1962522

Section A Required Client Information:

Company: ENVIRONMENTAL INC
Address: PO BOX 934
CULLOWHEE, NC 28723
Email To:
Phone: (828) 586-5588 Fax: (828) 586-0800
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: CLAY CO
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 3126-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	APPX I METAL	APPX I VOC 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92250048
1	MW-1					12-15-15	9:59					✓							✓			001
2													✓							✓		001
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	12-15-15	14:05	[signature]	12/11/15	1405				
	[signature]	12/11/15	1133A	[signature]	12/11/15	1133	5.5	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

January 12, 2016

Mr. Mark Teague
Environmental, Inc.
PO Box 954
Cullowhee, NC 28723

RE: Project: CLAY CO MW#2
Pace Project No.: 92280045

Dear Mr. Teague:
Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

A revised laboratory report is being submitted on January 12, 2016, to report MDLs, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: CLAY CO MW#2
Pace Project No.: 92280045

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: CLAY CO MW#2
Pace Project No.: 92280045

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92280045001	**MW#2**	Water	12/15/15 10:31	12/16/15 11:35

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SAMPLE ANALYTE COUNT

Project: CLAY CO MW#2
Pace Project No.: 92280045

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92280045001	**MW#2**	EPA 6010	CDF, JMW	15	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	GAW	52	PASI-C

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ANALYTICAL RESULTS

Project: CLAY CO MW#2
Pace Project No.: 92280045

Sample: MW#2 **Lab ID: 92280045001** Collected: 12/15/15 10:31 Received: 12/16/15 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A								
Antimony	ND	ug/L	5.0	3.8	1	12/17/15 19:00	12/19/15 05:53	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	12/17/15 19:00	12/19/15 05:53	7440-38-2	
Barium	**101**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:53	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:53	7440-41-7	
Cadmium	**3.4**	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:53	7440-43-9	
Chromium	**6.3**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:53	7440-47-3	
Cobalt	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:53	7440-48-4	
Copper	**8.4**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:53	7440-50-8	
Lead	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:53	7439-92-1	
Nickel	**2.6J**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:53	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:53	7782-49-2	
Silver	**8.5**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:53	7440-22-4	
Thallium	ND	ug/L	5.4	5.0	1	12/17/15 19:00	12/22/15 18:06	7440-28-0	
Vanadium	**3.5J**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:53	7440-62-2	
Zinc	**30.9**	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:53	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.17J**	ug/L	0.20	0.10	1	12/19/15 18:30	12/21/15 12:25	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		12/29/15 14:01	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		12/29/15 14:01	107-13-1	
Benzene	**0.74J**	ug/L	1.0	0.25	1		12/29/15 14:01	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/29/15 14:01	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/29/15 14:01	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/29/15 14:01	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/29/15 14:01	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		12/29/15 14:01	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		12/29/15 14:01	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/29/15 14:01	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/29/15 14:01	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/29/15 14:01	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/29/15 14:01	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/29/15 14:01	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/29/15 14:01	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/29/15 14:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/29/15 14:01	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/29/15 14:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/29/15 14:01	95-50-1	
1,4-Dichlorobenzene	**0.63J**	ug/L	1.0	0.33	1		12/29/15 14:01	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		12/29/15 14:01	110-57-6	
1,1-Dichloroethane	**1.3**	ug/L	1.0	0.32	1		12/29/15 14:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/29/15 14:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/29/15 14:01	75-35-4	
cis-1,2-Dichloroethene	**1.3**	ug/L	1.0	0.19	1		12/29/15 14:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/29/15 14:01	156-60-5	

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ANALYTICAL RESULTS

Project: CLAY CO MW#2
Pace Project No.: 92280045

Sample: MW#2 **Lab ID: 92280045001** Collected: 12/15/15 10:31 Received: 12/16/15 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/29/15 14:01	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/29/15 14:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/29/15 14:01	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/29/15 14:01	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		12/29/15 14:01	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		12/29/15 14:01	74-88-4	
Methylene Chloride	**4.2**	ug/L	1.0	0.97	1		12/29/15 14:01	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		12/29/15 14:01	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/29/15 14:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/29/15 14:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/29/15 14:01	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/29/15 14:01	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/29/15 14:01	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/29/15 14:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/29/15 14:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/29/15 14:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/29/15 14:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/29/15 14:01	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		12/29/15 14:01	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/29/15 14:01	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/29/15 14:01	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/29/15 14:01	179601-23-1	
o-Xylene	**0.58J**	ug/L	1.0	0.23	1		12/29/15 14:01	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		12/29/15 14:01	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		12/29/15 14:01	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		12/29/15 14:01	2037-26-5	

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Asheville, NC 28804
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QUALITY CONTROL DATA

Project: CLAY CO MW#2
Pace Project No.: 92280045

QC Batch: MERP/8799 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Associated Lab Samples: 92280045001

METHOD BLANK: 1632840 | Matrix: Water
Associated Lab Samples: 92280045001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.10	12/21/15 11:41	

LABORATORY CONTROL SAMPLE: 1632841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.1	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1632842 1632844

Parameter	Units	92279477001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	1.9	92	75	75-125	20	25	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: CLAY CO MW#2
Pace Project No.: 92280045

QC Batch: MPRP/20312
QC Batch Method: EPA 3010A
Associated Lab Samples: 92280045001

Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater

METHOD BLANK: 1631789
Matrix: Water
Associated Lab Samples: 92280045001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	3.8	12/19/15 05:13	
Arsenic	ug/L	ND	10.0	2.5	12/19/15 05:13	
Barium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Beryllium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Cadmium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Chromium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Cobalt	ug/L	ND	5.0	2.5	12/19/15 05:13	
Copper	ug/L	ND	5.0	2.5	12/19/15 05:13	
Lead	ug/L	ND	5.0	2.5	12/19/15 05:13	
Nickel	ug/L	ND	5.0	2.5	12/19/15 05:13	
Selenium	ug/L	ND	10.0	5.0	12/19/15 05:13	
Silver	ug/L	ND	5.0	2.5	12/19/15 05:13	
Thallium	ug/L	ND	5.4	5.0	12/22/15 17:35	
Vanadium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Zinc	ug/L	ND	10.0	5.0	12/19/15 05:13	

LABORATORY CONTROL SAMPLE: 1631790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	489	98	80-120	
Arsenic	ug/L	500	526	105	80-120	
Barium	ug/L	500	496	99	80-120	
Beryllium	ug/L	500	502	100	80-120	
Cadmium	ug/L	500	519	104	80-120	
Chromium	ug/L	500	529	106	80-120	
Cobalt	ug/L	500	530	106	80-120	
Copper	ug/L	500	515	103	80-120	
Lead	ug/L	500	524	105	80-120	
Nickel	ug/L	500	524	105	80-120	
Selenium	ug/L	500	520	104	80-120	
Silver	ug/L	250	233	93	80-120	
Thallium	ug/L	500	522	104	80-120	
Vanadium	ug/L	500	518	104	80-120	
Zinc	ug/L	500	554	111	80-120	

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Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: CLAY CO MW#2
Pace Project No.: 92280045

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1631791 1631792

Parameter	Units	92279775001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	495	483	99	97	75-125	2	25	
Arsenic	ug/L	ND	500	500	537	519	107	104	75-125	3	25	
Barium	ug/L	108	500	500	614	597	101	98	75-125	3	25	
Beryllium	ug/L	ND	500	500	515	499	103	100	75-125	3	25	
Cadmium	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Chromium	ug/L	ND	500	500	538	524	107	105	75-125	3	25	
Cobalt	ug/L	10.9	500	500	546	528	107	104	75-125	3	25	
Copper	ug/L	ND	500	500	524	508	105	101	75-125	3	25	
Lead	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Nickel	ug/L	6.7	500	500	534	517	105	102	75-125	3	25	
Selenium	ug/L	ND	500	500	520	508	104	101	75-125	2	25	
Silver	ug/L	ND	250	250	238	230	95	92	75-125	4	25	
Thallium	ug/L	ND	500	500	488	483	98	97	75-125	1	25	
Vanadium	ug/L	2.9J	500	500	534	517	106	103	75-125	3	25	
Zinc	ug/L	20.2	500	500	581	567	112	109	75-125	2	25	

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Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: CLAY CO MW#2
Pace Project No.: 92280045

QC Batch: MSV/34968
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92280045001

METHOD BLANK: 1638140
Matrix: Water
Associated Lab Samples: 92280045001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/29/15 06:11	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/29/15 06:11	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/29/15 06:11	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/29/15 06:11	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/29/15 06:11	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/29/15 06:11	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/29/15 06:11	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/29/15 06:11	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/29/15 06:11	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/29/15 06:11	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	12/29/15 06:11	
2-Hexanone	ug/L	ND	5.0	0.46	12/29/15 06:11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	12/29/15 06:11	
Acetone	ug/L	ND	25.0	10.0	12/29/15 06:11	
Acrylonitrile	ug/L	ND	10.0	1.9	12/29/15 06:11	
Benzene	ug/L	ND	1.0	0.25	12/29/15 06:11	
Bromochloromethane	ug/L	ND	1.0	0.17	12/29/15 06:11	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/29/15 06:11	
Bromoform	ug/L	ND	1.0	0.26	12/29/15 06:11	
Bromomethane	ug/L	ND	2.0	0.29	12/29/15 06:11	
Carbon disulfide	ug/L	ND	2.0	1.2	12/29/15 06:11	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/29/15 06:11	
Chlorobenzene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Chloroethane	ug/L	ND	1.0	0.54	12/29/15 06:11	
Chloroform	ug/L	ND	1.0	0.14	12/29/15 06:11	
Chloromethane	ug/L	ND	1.0	0.11	12/29/15 06:11	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/29/15 06:11	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	12/29/15 06:11	
Dibromochloromethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Dibromomethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Ethylbenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
Iodomethane	ug/L	ND	5.0	0.32	12/29/15 06:11	
m&p-Xylene	ug/L	ND	2.0	0.66	12/29/15 06:11	
Methylene Chloride	ug/L	ND	1.0	0.97	12/29/15 06:11	
o-Xylene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Styrene	ug/L	ND	1.0	0.26	12/29/15 06:11	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/29/15 06:11	
Toluene	ug/L	ND	1.0	0.26	12/29/15 06:11	

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: CLAY CO MW#2
Pace Project No.: 92280045

METHOD BLANK: 1638140 Matrix: Water
Associated Lab Samples: 92280045001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/29/15 06:11	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	12/29/15 06:11	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	1.0	12/29/15 06:11	
Trichloroethene	ug/L	ND	1.0	0.47	12/29/15 06:11	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/29/15 06:11	
Vinyl acetate	ug/L	ND	2.0	0.35	12/29/15 06:11	
Vinyl chloride	ug/L	ND	1.0	0.62	12/29/15 06:11	
Xylene (Total)	ug/L	ND	2.0	0.66	12/29/15 06:11	
1,2-Dichloroethane-d4 (S)	%	91	70-130		12/29/15 06:11	
4-Bromofluorobenzene (S)	%	102	70-130		12/29/15 06:11	
Toluene-d8 (S)	%	109	70-130		12/29/15 06:11	

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.6	101	80-125	
1,1,1-Trichloroethane	ug/L	50	48.0	96	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	50.6	101	79-124	
1,1,2-Trichloroethane	ug/L	50	50.9	102	85-125	
1,1-Dichloroethane	ug/L	50	45.2	90	73-126	
1,1-Dichloroethene	ug/L	50	43.6	87	66-135	
1,2,3-Trichloropropane	ug/L	50	51.2	102	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.8	96	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	53.4	107	83-124	
1,2-Dichlorobenzene	ug/L	50	49.1	98	80-133	
1,2-Dichloroethane	ug/L	50	45.6	91	67-128	
1,2-Dichloropropane	ug/L	50	46.8	94	75-132	
1,4-Dichlorobenzene	ug/L	50	49.2	98	78-130	
2-Butanone (MEK)	ug/L	100	113	113	61-144	
2-Hexanone	ug/L	100	108	108	68-143	
4-Methyl-2-pentanone (MIBK)	ug/L	100	107	107	72-135	
Acetone	ug/L	100	105	105	48-146	
Acrylonitrile	ug/L	250	255	102	40-160	
Benzene	ug/L	50	49.0	98	80-125	
Bromochloromethane	ug/L	50	53.7	107	71-125	
Bromodichloromethane	ug/L	50	48.1	96	78-124	
Bromoform	ug/L	50	43.7	87	71-128	
Bromomethane	ug/L	50	40.4	81	40-160	
Carbon disulfide	ug/L	50	41.0	82	50-160	
Carbon tetrachloride	ug/L	50	49.1	98	69-131	
Chlorobenzene	ug/L	50	49.9	100	81-122	
Chloroethane	ug/L	50	33.9	68	39-148	
Chloroform	ug/L	50	47.6	95	73-127	
Chloromethane	ug/L	50	53.7	107	44-146	

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Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: CLAY CO MW#2
Pace Project No.: 92280045

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	44.9	90	74-124	
cis-1,3-Dichloropropene	ug/L	50	50.8	102	72-132	
Dibromochloromethane	ug/L	50	52.8	106	78-125	
Dibromomethane	ug/L	50	52.2	104	82-120	
Ethylbenzene	ug/L	50	46.5	93	79-121	
Iodomethane	ug/L	100	85.5	86	39-154	
m&p-Xylene	ug/L	100	91.9	92	81-124	
Methylene Chloride	ug/L	50	57.2	114	64-133	
o-Xylene	ug/L	50	44.9	90	79-131	
Styrene	ug/L	50	48.0	96	84-126	
Tetrachloroethene	ug/L	50	49.3	99	78-122	
Toluene	ug/L	50	45.0	90	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.8	96	71-127	
trans-1,3-Dichloropropene	ug/L	50	45.4	91	69-141	
trans-1,4-Dichloro-2-butene	ug/L	50	54.3	109	40-160	
Trichloroethene	ug/L	50	52.5	105	78-122	
Trichlorofluoromethane	ug/L	50	43.3	87	53-137	
Vinyl acetate	ug/L	100	99.6	100	40-160	
Vinyl chloride	ug/L	50	46.1	92	58-137	
Xylene (Total)	ug/L	150	137	91	81-126	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			94	70-130	

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Asheville, NC 28804
(828)254-7176

QUALIFIERS

Project: CLAY CO MW#2
Pace Project No.: 92280045

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

C9	Common Laboratory Contaminant.

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Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CLAY CO MW#2
Pace Project No.: 92280045

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92280045001	**MW#2**	EPA 3010A	MPRP/20312	EPA 6010	ICP/18330
92280045001	**MW#2**	EPA 7470	MERP/8799	EPA 7470	MERC/8455
92280045001	**MW#2**	EPA 8260	MSV/34968		

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Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: November 06, 2013 Page 1 of 2*
	Document No.: F-ASV-CS-003-rev.15	Issuing Authorities: Pace Asheville Quality Office

Client Name: Environmental Inc

* Page 2 of 2 is for Internal Use Only

Courier (Circle): Fed Ex UPS USPS (Client) Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun#5 - 155271998 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

IR Gun #4 SN:140290365 Other:_____

Temp Correction Factor: Add / Subtract 0.0 C

Corrected Cooler Temp.: 5.5 C **Biological Tissue is Frozen:** Yes No N/A

Date and Initials of person examining contents: RDB 12/16/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: AMB Date: 12-16-15

SRF Review: Date:

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO#: 92280045

92280045

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1962523

Section A Required Client Information:

Company: ENVIRONMENTAL FACE
Address: PO BOX 954
CHARLOTTE, NC 28723
Email To:
Phone: (828) 556-5558 Fax: (828) 556-0540
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: CLAY CO
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 3126-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): APPX I METAL	APPX I VOC 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW #2					12-15-15	10:31					✓						✓			001
2													✓						✓		001
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	12-15-15	14:05	[signature]	12/15/15	14:05				
	[signature]	12/16/15	1133A	[signature]	12/16/15	1133	5.5	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

January 12, 2016

Mr. Mark Teague
Environmental, Inc.
PO Box 954
Cullowhee, NC 28723

RE: Project: Clay Co MW #3
Pace Project No.: 92280033

Dear Mr. Teague:
Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

A revised laboratory report is being submitted on January 12, 2016, to report MDLs, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: Clay Co MW #3
Pace Project No.: 92280033

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: Clay Co MW #3
Pace Project No.: 92280033

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92280033001	**MW #3**	Water	12/15/15 10:41	12/16/15 11:33

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SAMPLE ANALYTE COUNT

Project: Clay Co MW #3
Pace Project No.: 92280033

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92280033001	**MW #3**	EPA 6010	CDF, JMW	15	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	GAW	52	PASI-C

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ANALYTICAL RESULTS

Project: Clay Co MW #3
Pace Project No.: 92280033

Sample: MW #3 **Lab ID: 92280033001** Collected: 12/15/15 10:41 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A								
Antimony	ND	ug/L	5.0	3.8	1	12/17/15 19:00	12/19/15 05:50	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	12/17/15 19:00	12/19/15 05:50	7440-38-2	
Barium	**145**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:50	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:50	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:50	7440-43-9	
Chromium	**6.2**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:50	7440-47-3	
Cobalt	**7.9**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:50	7440-48-4	
Copper	**11.0**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:50	7440-50-8	
Lead	**13.8**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:50	7439-92-1	
Nickel	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:50	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:50	7782-49-2	
Silver	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:50	7440-22-4	
Thallium	ND	ug/L	5.4	5.0	1	12/17/15 19:00	12/22/15 17:54	7440-28-0	
Vanadium	**10.2**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:50	7440-62-2	
Zinc	**44.5**	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:50	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	12/19/15 18:30	12/21/15 12:23	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		12/29/15 13:44	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		12/29/15 13:44	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/29/15 13:44	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/29/15 13:44	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/29/15 13:44	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/29/15 13:44	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/29/15 13:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		12/29/15 13:44	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		12/29/15 13:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/29/15 13:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/29/15 13:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/29/15 13:44	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/29/15 13:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/29/15 13:44	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/29/15 13:44	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/29/15 13:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/29/15 13:44	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/29/15 13:44	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/29/15 13:44	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/29/15 13:44	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		12/29/15 13:44	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/29/15 13:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/29/15 13:44	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/29/15 13:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/29/15 13:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/29/15 13:44	156-60-5	

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ANALYTICAL RESULTS

Project: Clay Co MW #3
Pace Project No.: 92280033

Sample: MW #3 **Lab ID: 92280033001** Collected: 12/15/15 10:41 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/29/15 13:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/29/15 13:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/29/15 13:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/29/15 13:44	100-41-4	
2-Hexanone	**20.4**	ug/L	5.0	0.46	1		12/29/15 13:44	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		12/29/15 13:44	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/29/15 13:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		12/29/15 13:44	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/29/15 13:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/29/15 13:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/29/15 13:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/29/15 13:44	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/29/15 13:44	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/29/15 13:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/29/15 13:44	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/29/15 13:44	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/29/15 13:44	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/29/15 13:44	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		12/29/15 13:44	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/29/15 13:44	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/29/15 13:44	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/29/15 13:44	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/29/15 13:44	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/29/15 13:44	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		12/29/15 13:44	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		12/29/15 13:44	2037-26-5	

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QUALITY CONTROL DATA

Project: Clay Co MW #3
Pace Project No.: 92280033

QC Batch: MERP/8799 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Associated Lab Samples: 92280033001

METHOD BLANK: 1632840 | Matrix: Water
Associated Lab Samples: 92280033001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.10	12/21/15 11:41	

LABORATORY CONTROL SAMPLE: 1632841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.1	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1632842 1632844

Parameter	Units	92279477001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	1.9	92	75	75-125	20	25	

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QUALITY CONTROL DATA

Project: Clay Co MW #3
Pace Project No.: 92280033

QC Batch: MPRP/20312
QC Batch Method: EPA 3010A
Associated Lab Samples: 92280033001

Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater

METHOD BLANK: 1631789
Matrix: Water
Associated Lab Samples: 92280033001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	3.8	12/19/15 05:13	
Arsenic	ug/L	ND	10.0	2.5	12/19/15 05:13	
Barium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Beryllium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Cadmium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Chromium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Cobalt	ug/L	ND	5.0	2.5	12/19/15 05:13	
Copper	ug/L	ND	5.0	2.5	12/19/15 05:13	
Lead	ug/L	ND	5.0	2.5	12/19/15 05:13	
Nickel	ug/L	ND	5.0	2.5	12/19/15 05:13	
Selenium	ug/L	ND	10.0	5.0	12/19/15 05:13	
Silver	ug/L	ND	5.0	2.5	12/19/15 05:13	
Thallium	ug/L	ND	5.4	5.0	12/22/15 17:35	
Vanadium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Zinc	ug/L	ND	10.0	5.0	12/19/15 05:13	

LABORATORY CONTROL SAMPLE: 1631790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	489	98	80-120	
Arsenic	ug/L	500	526	105	80-120	
Barium	ug/L	500	496	99	80-120	
Beryllium	ug/L	500	502	100	80-120	
Cadmium	ug/L	500	519	104	80-120	
Chromium	ug/L	500	529	106	80-120	
Cobalt	ug/L	500	530	106	80-120	
Copper	ug/L	500	515	103	80-120	
Lead	ug/L	500	524	105	80-120	
Nickel	ug/L	500	524	105	80-120	
Selenium	ug/L	500	520	104	80-120	
Silver	ug/L	250	233	93	80-120	
Thallium	ug/L	500	522	104	80-120	
Vanadium	ug/L	500	518	104	80-120	
Zinc	ug/L	500	554	111	80-120	

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QUALITY CONTROL DATA

Project: Clay Co MW #3
Pace Project No.: 92280033

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1631791 1631792

Parameter	Units	92279775001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	495	483	99	97	75-125	2	25	
Arsenic	ug/L	ND	500	500	537	519	107	104	75-125	3	25	
Barium	ug/L	108	500	500	614	597	101	98	75-125	3	25	
Beryllium	ug/L	ND	500	500	515	499	103	100	75-125	3	25	
Cadmium	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Chromium	ug/L	ND	500	500	538	524	107	105	75-125	3	25	
Cobalt	ug/L	10.9	500	500	546	528	107	104	75-125	3	25	
Copper	ug/L	ND	500	500	524	508	105	101	75-125	3	25	
Lead	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Nickel	ug/L	6.7	500	500	534	517	105	102	75-125	3	25	
Selenium	ug/L	ND	500	500	520	508	104	101	75-125	2	25	
Silver	ug/L	ND	250	250	238	230	95	92	75-125	4	25	
Thallium	ug/L	ND	500	500	488	483	98	97	75-125	1	25	
Vanadium	ug/L	2.9J	500	500	534	517	106	103	75-125	3	25	
Zinc	ug/L	20.2	500	500	581	567	112	109	75-125	2	25	

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QUALITY CONTROL DATA

Project: Clay Co MW #3
Pace Project No.: 92280033

QC Batch: MSV/34968
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92280033001

METHOD BLANK: 1638140
Matrix: Water
Associated Lab Samples: 92280033001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/29/15 06:11	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/29/15 06:11	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/29/15 06:11	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/29/15 06:11	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/29/15 06:11	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/29/15 06:11	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/29/15 06:11	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/29/15 06:11	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/29/15 06:11	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/29/15 06:11	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	12/29/15 06:11	
2-Hexanone	ug/L	ND	5.0	0.46	12/29/15 06:11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	12/29/15 06:11	
Acetone	ug/L	ND	25.0	10.0	12/29/15 06:11	
Acrylonitrile	ug/L	ND	10.0	1.9	12/29/15 06:11	
Benzene	ug/L	ND	1.0	0.25	12/29/15 06:11	
Bromochloromethane	ug/L	ND	1.0	0.17	12/29/15 06:11	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/29/15 06:11	
Bromoform	ug/L	ND	1.0	0.26	12/29/15 06:11	
Bromomethane	ug/L	ND	2.0	0.29	12/29/15 06:11	
Carbon disulfide	ug/L	ND	2.0	1.2	12/29/15 06:11	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/29/15 06:11	
Chlorobenzene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Chloroethane	ug/L	ND	1.0	0.54	12/29/15 06:11	
Chloroform	ug/L	ND	1.0	0.14	12/29/15 06:11	
Chloromethane	ug/L	ND	1.0	0.11	12/29/15 06:11	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/29/15 06:11	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	12/29/15 06:11	
Dibromochloromethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Dibromomethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Ethylbenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
Iodomethane	ug/L	ND	5.0	0.32	12/29/15 06:11	
m&p-Xylene	ug/L	ND	2.0	0.66	12/29/15 06:11	
Methylene Chloride	ug/L	ND	1.0	0.97	12/29/15 06:11	
o-Xylene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Styrene	ug/L	ND	1.0	0.26	12/29/15 06:11	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/29/15 06:11	
Toluene	ug/L	ND	1.0	0.26	12/29/15 06:11	

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QUALITY CONTROL DATA

Project: Clay Co MW #3
Pace Project No.: 92280033

METHOD BLANK: 1638140 Matrix: Water
Associated Lab Samples: 92280033001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/29/15 06:11	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	12/29/15 06:11	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	1.0	12/29/15 06:11	
Trichloroethene	ug/L	ND	1.0	0.47	12/29/15 06:11	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/29/15 06:11	
Vinyl acetate	ug/L	ND	2.0	0.35	12/29/15 06:11	
Vinyl chloride	ug/L	ND	1.0	0.62	12/29/15 06:11	
Xylene (Total)	ug/L	ND	2.0	0.66	12/29/15 06:11	
1,2-Dichloroethane-d4 (S)	%	91	70-130		12/29/15 06:11	
4-Bromofluorobenzene (S)	%	102	70-130		12/29/15 06:11	
Toluene-d8 (S)	%	109	70-130		12/29/15 06:11	

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.6	101	80-125	
1,1,1-Trichloroethane	ug/L	50	48.0	96	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	50.6	101	79-124	
1,1,2-Trichloroethane	ug/L	50	50.9	102	85-125	
1,1-Dichloroethane	ug/L	50	45.2	90	73-126	
1,1-Dichloroethene	ug/L	50	43.6	87	66-135	
1,2,3-Trichloropropane	ug/L	50	51.2	102	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.8	96	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	53.4	107	83-124	
1,2-Dichlorobenzene	ug/L	50	49.1	98	80-133	
1,2-Dichloroethane	ug/L	50	45.6	91	67-128	
1,2-Dichloropropane	ug/L	50	46.8	94	75-132	
1,4-Dichlorobenzene	ug/L	50	49.2	98	78-130	
2-Butanone (MEK)	ug/L	100	113	113	61-144	
2-Hexanone	ug/L	100	108	108	68-143	
4-Methyl-2-pentanone (MIBK)	ug/L	100	107	107	72-135	
Acetone	ug/L	100	105	105	48-146	
Acrylonitrile	ug/L	250	255	102	40-160	
Benzene	ug/L	50	49.0	98	80-125	
Bromochloromethane	ug/L	50	53.7	107	71-125	
Bromodichloromethane	ug/L	50	48.1	96	78-124	
Bromoform	ug/L	50	43.7	87	71-128	
Bromomethane	ug/L	50	40.4	81	40-160	
Carbon disulfide	ug/L	50	41.0	82	50-160	
Carbon tetrachloride	ug/L	50	49.1	98	69-131	
Chlorobenzene	ug/L	50	49.9	100	81-122	
Chloroethane	ug/L	50	33.9	68	39-148	
Chloroform	ug/L	50	47.6	95	73-127	
Chloromethane	ug/L	50	53.7	107	44-146	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Clay Co MW #3
Pace Project No.: 92280033

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	44.9	90	74-124	
cis-1,3-Dichloropropene	ug/L	50	50.8	102	72-132	
Dibromochloromethane	ug/L	50	52.8	106	78-125	
Dibromomethane	ug/L	50	52.2	104	82-120	
Ethylbenzene	ug/L	50	46.5	93	79-121	
Iodomethane	ug/L	100	85.5	86	39-154	
m&p-Xylene	ug/L	100	91.9	92	81-124	
Methylene Chloride	ug/L	50	57.2	114	64-133	
o-Xylene	ug/L	50	44.9	90	79-131	
Styrene	ug/L	50	48.0	96	84-126	
Tetrachloroethene	ug/L	50	49.3	99	78-122	
Toluene	ug/L	50	45.0	90	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.8	96	71-127	
trans-1,3-Dichloropropene	ug/L	50	45.4	91	69-141	
trans-1,4-Dichloro-2-butene	ug/L	50	54.3	109	40-160	
Trichloroethene	ug/L	50	52.5	105	78-122	
Trichlorofluoromethane	ug/L	50	43.3	87	53-137	
Vinyl acetate	ug/L	100	99.6	100	40-160	
Vinyl chloride	ug/L	50	46.1	92	58-137	
Xylene (Total)	ug/L	150	137	91	81-126	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			94	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: Clay Co MW #3
Pace Project No.: 92280033

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Clay Co MW #3
Pace Project No.: 92280033

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92280033001	**MW #3**	EPA 3010A	MPRP/20312	EPA 6010	ICP/18330
92280033001	**MW #3**	EPA 7470	MERP/8799	EPA 7470	MERC/8455
92280033001	**MW #3**	EPA 8260	MSV/34968		

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Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: November 06, 2015 Page 1 of 2*
	Document No.: F-ASV-CS-003-rev.15	Issuing Authorities: Pace Asheville Quality Office

Client Name: Fourmental Inc

* Page 2 of 2 is for Internal Use Only

Courier (Circle): Fed Ex UPS USPS (Client) Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no **Seals intact:** ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun#5 - 155271998 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

IR Gun #4 SN:140290365 Other:_____

Temp Correction Factor: Add / Subtract 0.0 C

Corrected Cooler Temp.: 5.5 C **Biological Tissue is Frozen:** Yes No N/A

Date and Initials of person examining contents: RDB 12/16/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: AMB Date: 12-16-15

SRF Review: AMB Date: 12-17-15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Place label here

WO# : 92280033

92280033

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1962524

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: ENVIRONMENTAL INC	Report To:	Attention:
Address: PO BOX 954	Copy To:	Company Name:
CULLOWHEE, NC 28723		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: (828) 586-5558 Fax: (828) 586-0520	Project Name: CLAY CO	Pace Project Manager:
Requested Due Date/TAT:	Project Number:	Pace Profile #: 3126-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): APPX I METALS	APPX I VOC 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92280033
1	MW #3					12-15-15	10:41					✓						✓			001
2													✓						✓		001
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	12-15-15	14:05	Anthony Clowe	12/15/15	1405				
	Anthony Clowe	12/16/15	11:33A	[signature]	12/16/15	11:33	SS	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

January 12, 2016

Mr. Mark Teague
Environmental, Inc.
PO Box 954
Cullowhee, NC 28723

RE: Project: Clay Co MW #4
Pace Project No.: 92280031

Dear Mr. Teague:
Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

A revised laboratory report is being submitted on January 12, 2016, to report MDLs, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project:	Clay Co MW #4
Pace Project No.:	92280031

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: Clay Co MW #4
Pace Project No.: 92280031

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92280031001	**MW #4**	Water	12/15/15 11:50	12/16/15 11:33

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SAMPLE ANALYTE COUNT

Project: Clay Co MW #4
Pace Project No.: 92280031

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92280031001	**MW #4**	EPA 6010	CDF, JMW	15	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	GAW	52	PASI-C

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ANALYTICAL RESULTS

Project: Clay Co MW #4
Pace Project No.: 92280031

Sample: MW #4 **Lab ID: 92280031001** Collected: 12/15/15 11:50 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A								
Antimony	ND	ug/L	5.0	3.8	1	12/17/15 19:00	12/19/15 05:47	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	12/17/15 19:00	12/19/15 05:47	7440-38-2	
Barium	**231**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:47	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:47	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:47	7440-43-9	
Chromium	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:47	7440-47-3	
Cobalt	**11.5**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:47	7440-48-4	
Copper	**6.2**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:47	7440-50-8	
Lead	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:47	7439-92-1	
Nickel	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:47	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:47	7782-49-2	
Silver	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:47	7440-22-4	
Thallium	ND	ug/L	5.4	5.0	1	12/17/15 19:00	12/22/15 17:51	7440-28-0	
Vanadium	**5.0**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:47	7440-62-2	
Zinc	**19.5**	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:47	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.20**	ug/L	0.20	0.10	1	12/19/15 18:30	12/21/15 12:20	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		12/29/15 13:27	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		12/29/15 13:27	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/29/15 13:27	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/29/15 13:27	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/29/15 13:27	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/29/15 13:27	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/29/15 13:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		12/29/15 13:27	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		12/29/15 13:27	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/29/15 13:27	56-23-5	
Chlorobenzene	**0.36J**	ug/L	1.0	0.23	1		12/29/15 13:27	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/29/15 13:27	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/29/15 13:27	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/29/15 13:27	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/29/15 13:27	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/29/15 13:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/29/15 13:27	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/29/15 13:27	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/29/15 13:27	95-50-1	
1,4-Dichlorobenzene	**1.6**	ug/L	1.0	0.33	1		12/29/15 13:27	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		12/29/15 13:27	110-57-6	
1,1-Dichloroethane	**0.97J**	ug/L	1.0	0.32	1		12/29/15 13:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/29/15 13:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/29/15 13:27	75-35-4	
cis-1,2-Dichloroethene	**2.4**	ug/L	1.0	0.19	1		12/29/15 13:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/29/15 13:27	156-60-5	

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ANALYTICAL RESULTS

Project: Clay Co MW #4
Pace Project No.: 92280031

Sample: MW #4 **Lab ID: 92280031001** Collected: 12/15/15 11:50 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/29/15 13:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/29/15 13:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/29/15 13:27	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/29/15 13:27	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		12/29/15 13:27	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		12/29/15 13:27	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/29/15 13:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		12/29/15 13:27	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/29/15 13:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/29/15 13:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/29/15 13:27	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/29/15 13:27	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/29/15 13:27	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/29/15 13:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/29/15 13:27	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/29/15 13:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/29/15 13:27	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/29/15 13:27	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		12/29/15 13:27	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/29/15 13:27	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/29/15 13:27	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/29/15 13:27	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/29/15 13:27	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		12/29/15 13:27	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		12/29/15 13:27	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		12/29/15 13:27	2037-26-5	

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(828)254-7176

QUALITY CONTROL DATA

Project: Clay Co MW #4
Pace Project No.: 92280031

QC Batch: MERP/8799 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Associated Lab Samples: 92280031001

METHOD BLANK: 1632840 | Matrix: Water
Associated Lab Samples: 92280031001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.10	12/21/15 11:41	

LABORATORY CONTROL SAMPLE: 1632841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.1	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1632842 1632844

Parameter	Units	92279477001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	1.9	92	75	75-125	20	25	

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QUALITY CONTROL DATA

Project: Clay Co MW #4
Pace Project No.: 92280031

QC Batch: MPRP/20312
QC Batch Method: EPA 3010A
Associated Lab Samples: 92280031001

Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater

METHOD BLANK: 1631789
Matrix: Water
Associated Lab Samples: 92280031001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	3.8	12/19/15 05:13	
Arsenic	ug/L	ND	10.0	2.5	12/19/15 05:13	
Barium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Beryllium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Cadmium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Chromium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Cobalt	ug/L	ND	5.0	2.5	12/19/15 05:13	
Copper	ug/L	ND	5.0	2.5	12/19/15 05:13	
Lead	ug/L	ND	5.0	2.5	12/19/15 05:13	
Nickel	ug/L	ND	5.0	2.5	12/19/15 05:13	
Selenium	ug/L	ND	10.0	5.0	12/19/15 05:13	
Silver	ug/L	ND	5.0	2.5	12/19/15 05:13	
Thallium	ug/L	ND	5.4	5.0	12/22/15 17:35	
Vanadium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Zinc	ug/L	ND	10.0	5.0	12/19/15 05:13	

LABORATORY CONTROL SAMPLE: 1631790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	489	98	80-120	
Arsenic	ug/L	500	526	105	80-120	
Barium	ug/L	500	496	99	80-120	
Beryllium	ug/L	500	502	100	80-120	
Cadmium	ug/L	500	519	104	80-120	
Chromium	ug/L	500	529	106	80-120	
Cobalt	ug/L	500	530	106	80-120	
Copper	ug/L	500	515	103	80-120	
Lead	ug/L	500	524	105	80-120	
Nickel	ug/L	500	524	105	80-120	
Selenium	ug/L	500	520	104	80-120	
Silver	ug/L	250	233	93	80-120	
Thallium	ug/L	500	522	104	80-120	
Vanadium	ug/L	500	518	104	80-120	
Zinc	ug/L	500	554	111	80-120	

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QUALITY CONTROL DATA

Project: Clay Co MW #4
Pace Project No.: 92280031

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1631791 1631792

Parameter	Units	92279775001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	495	483	99	97	75-125	2	25	
Arsenic	ug/L	ND	500	500	537	519	107	104	75-125	3	25	
Barium	ug/L	108	500	500	614	597	101	98	75-125	3	25	
Beryllium	ug/L	ND	500	500	515	499	103	100	75-125	3	25	
Cadmium	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Chromium	ug/L	ND	500	500	538	524	107	105	75-125	3	25	
Cobalt	ug/L	10.9	500	500	546	528	107	104	75-125	3	25	
Copper	ug/L	ND	500	500	524	508	105	101	75-125	3	25	
Lead	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Nickel	ug/L	6.7	500	500	534	517	105	102	75-125	3	25	
Selenium	ug/L	ND	500	500	520	508	104	101	75-125	2	25	
Silver	ug/L	ND	250	250	238	230	95	92	75-125	4	25	
Thallium	ug/L	ND	500	500	488	483	98	97	75-125	1	25	
Vanadium	ug/L	2.9J	500	500	534	517	106	103	75-125	3	25	
Zinc	ug/L	20.2	500	500	581	567	112	109	75-125	2	25	

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QUALITY CONTROL DATA

Project: Clay Co MW #4
Pace Project No.: 92280031

QC Batch: MSV/34968
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92280031001

METHOD BLANK: 1638140
Matrix: Water
Associated Lab Samples: 92280031001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/29/15 06:11	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/29/15 06:11	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/29/15 06:11	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/29/15 06:11	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/29/15 06:11	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/29/15 06:11	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/29/15 06:11	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/29/15 06:11	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/29/15 06:11	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/29/15 06:11	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	12/29/15 06:11	
2-Hexanone	ug/L	ND	5.0	0.46	12/29/15 06:11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	12/29/15 06:11	
Acetone	ug/L	ND	25.0	10.0	12/29/15 06:11	
Acrylonitrile	ug/L	ND	10.0	1.9	12/29/15 06:11	
Benzene	ug/L	ND	1.0	0.25	12/29/15 06:11	
Bromochloromethane	ug/L	ND	1.0	0.17	12/29/15 06:11	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/29/15 06:11	
Bromoform	ug/L	ND	1.0	0.26	12/29/15 06:11	
Bromomethane	ug/L	ND	2.0	0.29	12/29/15 06:11	
Carbon disulfide	ug/L	ND	2.0	1.2	12/29/15 06:11	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/29/15 06:11	
Chlorobenzene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Chloroethane	ug/L	ND	1.0	0.54	12/29/15 06:11	
Chloroform	ug/L	ND	1.0	0.14	12/29/15 06:11	
Chloromethane	ug/L	ND	1.0	0.11	12/29/15 06:11	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/29/15 06:11	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	12/29/15 06:11	
Dibromochloromethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Dibromomethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Ethylbenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
Iodomethane	ug/L	ND	5.0	0.32	12/29/15 06:11	
m&p-Xylene	ug/L	ND	2.0	0.66	12/29/15 06:11	
Methylene Chloride	ug/L	ND	1.0	0.97	12/29/15 06:11	
o-Xylene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Styrene	ug/L	ND	1.0	0.26	12/29/15 06:11	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/29/15 06:11	
Toluene	ug/L	ND	1.0	0.26	12/29/15 06:11	

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QUALITY CONTROL DATA

Project: Clay Co MW #4
Pace Project No.: 92280031

METHOD BLANK: 1638140 Matrix: Water
Associated Lab Samples: 92280031001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/29/15 06:11	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	12/29/15 06:11	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	1.0	12/29/15 06:11	
Trichloroethene	ug/L	ND	1.0	0.47	12/29/15 06:11	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/29/15 06:11	
Vinyl acetate	ug/L	ND	2.0	0.35	12/29/15 06:11	
Vinyl chloride	ug/L	ND	1.0	0.62	12/29/15 06:11	
Xylene (Total)	ug/L	ND	2.0	0.66	12/29/15 06:11	
1,2-Dichloroethane-d4 (S)	%	91	70-130		12/29/15 06:11	
4-Bromofluorobenzene (S)	%	102	70-130		12/29/15 06:11	
Toluene-d8 (S)	%	109	70-130		12/29/15 06:11	

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.6	101	80-125	
1,1,1-Trichloroethane	ug/L	50	48.0	96	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	50.6	101	79-124	
1,1,2-Trichloroethane	ug/L	50	50.9	102	85-125	
1,1-Dichloroethane	ug/L	50	45.2	90	73-126	
1,1-Dichloroethene	ug/L	50	43.6	87	66-135	
1,2,3-Trichloropropane	ug/L	50	51.2	102	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.8	96	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	53.4	107	83-124	
1,2-Dichlorobenzene	ug/L	50	49.1	98	80-133	
1,2-Dichloroethane	ug/L	50	45.6	91	67-128	
1,2-Dichloropropane	ug/L	50	46.8	94	75-132	
1,4-Dichlorobenzene	ug/L	50	49.2	98	78-130	
2-Butanone (MEK)	ug/L	100	113	113	61-144	
2-Hexanone	ug/L	100	108	108	68-143	
4-Methyl-2-pentanone (MIBK)	ug/L	100	107	107	72-135	
Acetone	ug/L	100	105	105	48-146	
Acrylonitrile	ug/L	250	255	102	40-160	
Benzene	ug/L	50	49.0	98	80-125	
Bromochloromethane	ug/L	50	53.7	107	71-125	
Bromodichloromethane	ug/L	50	48.1	96	78-124	
Bromoform	ug/L	50	43.7	87	71-128	
Bromomethane	ug/L	50	40.4	81	40-160	
Carbon disulfide	ug/L	50	41.0	82	50-160	
Carbon tetrachloride	ug/L	50	49.1	98	69-131	
Chlorobenzene	ug/L	50	49.9	100	81-122	
Chloroethane	ug/L	50	33.9	68	39-148	
Chloroform	ug/L	50	47.6	95	73-127	
Chloromethane	ug/L	50	53.7	107	44-146	

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QUALITY CONTROL DATA

Project: Clay Co MW #4
Pace Project No.: 92280031

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	44.9	90	74-124	
cis-1,3-Dichloropropene	ug/L	50	50.8	102	72-132	
Dibromochloromethane	ug/L	50	52.8	106	78-125	
Dibromomethane	ug/L	50	52.2	104	82-120	
Ethylbenzene	ug/L	50	46.5	93	79-121	
Iodomethane	ug/L	100	85.5	86	39-154	
m&p-Xylene	ug/L	100	91.9	92	81-124	
Methylene Chloride	ug/L	50	57.2	114	64-133	
o-Xylene	ug/L	50	44.9	90	79-131	
Styrene	ug/L	50	48.0	96	84-126	
Tetrachloroethene	ug/L	50	49.3	99	78-122	
Toluene	ug/L	50	45.0	90	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.8	96	71-127	
trans-1,3-Dichloropropene	ug/L	50	45.4	91	69-141	
trans-1,4-Dichloro-2-butene	ug/L	50	54.3	109	40-160	
Trichloroethene	ug/L	50	52.5	105	78-122	
Trichlorofluoromethane	ug/L	50	43.3	87	53-137	
Vinyl acetate	ug/L	100	99.6	100	40-160	
Vinyl chloride	ug/L	50	46.1	92	58-137	
Xylene (Total)	ug/L	150	137	91	81-126	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			94	70-130	

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QUALIFIERS

Project: Clay Co MW #4
Pace Project No.: 92280031

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Clay Co MW #4
Pace Project No.: 92280031

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92280031001	**MW #4**	EPA 3010A	MPRP/20312	EPA 6010	ICP/18330
92280031001	**MW #4**	EPA 7470	MERP/8799	EPA 7470	MERC/8455
92280031001	**MW #4**	EPA 8260	MSV/34968		

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Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: November 06, 2015 Page 1 of 2*
	Document No.: F-ASV-CS-003-rev.15	Issuing Authorities: Pace Asheville Quality Office

Client Name: Environmental Inc

* Page 2 of 2 is for Internal Use Only

Courier (Circle): Fed Ex UPS USPS (Client) Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun#5 - 155271998 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

IR Gun #4 SN:140290365 Other:_____

Temp Correction Factor: Add / Subtract 0.0 C

Corrected Cooler Temp.: 5.5 C **Biological Tissue is Frozen:** Yes No N/A

Date and Initials of person examining contents: RDB 12/16/15

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☐Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT				
All containers needing preservation have been checked.	☑Yes	☐No	☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes	☐No		
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	15.
Trip Blank Present:	☑Yes	☐No	☐N/A	16.
Trip Blank Custody Seals Present	☑Yes	☐No	☐N/A	
Pace Trip Blank Lot # (if purchased):_____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: AMB Date: 12/16/15

SRF Review: AMB Date: 12/17/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO#: 92280031

92280031

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1962525

Section A Required Client Information:

Company: ENVIRONMENTAL INC
Address: PO BOX 954
COLLOWHEE, NC 28723
Email To:
Phone: (828) 586-3558 Fax: (828) 586-0826
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: CLAY CO
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 3126-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): APPK I METALS	APPK I VOC 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92280031
1	MW #4					12-15-15	11:50					✓						✓			001
2													✓						✓		001
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	12-15-15	14:05	[signature]	12/15/15	1405				
	[signature]	12/16/15	1133A	[signature]	12/16/15	1133	5.5	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

January 12, 2016

Mr. Mark Teague
Environmental, Inc.
PO Box 954
Cullowhee, NC 28723

RE: Project: Clay Co MW-5
Pace Project No.: 92280027

Dear Mr. Teague:
Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

A revised laboratory report is being submitted on January 12, 2016, to report MDLs, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project:	Clay Co MW-5
Pace Project No.:	92280027

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: Clay Co MW-5
Pace Project No.: 92280027

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92280027001	**MW-5**	Water	12/15/15 11:25	12/16/15 11:33

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SAMPLE ANALYTE COUNT

Project: Clay Co MW-5
Pace Project No.: 92280027

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92280027001	**MW-5**	EPA 6010	CDF, JMW	15	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	GAW	52	PASI-C

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ANALYTICAL RESULTS

Project: Clay Co MW-5
Pace Project No.: 92280027

Sample: MW-5 **Lab ID: 92280027001** Collected: 12/15/15 11:25 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A								
Antimony	ND	ug/L	5.0	3.8	1	12/17/15 19:00	12/19/15 05:44	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	12/17/15 19:00	12/19/15 05:44	7440-38-2	
Barium	**110**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:44	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:44	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:44	7440-43-9	
Chromium	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:44	7440-47-3	
Cobalt	**18.9**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:44	7440-48-4	
Copper	**7.8**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:44	7440-50-8	
Lead	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:44	7439-92-1	
Nickel	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:44	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:44	7782-49-2	
Silver	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:44	7440-22-4	
Thallium	ND	ug/L	5.4	5.0	1	12/17/15 19:00	12/22/15 17:48	7440-28-0	
Vanadium	**2.9J**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:44	7440-62-2	
Zinc	**13.9**	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:44	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.32**	ug/L	0.20	0.10	1	12/19/15 18:30	12/21/15 12:18	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		12/29/15 13:10	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		12/29/15 13:10	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/29/15 13:10	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/29/15 13:10	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/29/15 13:10	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/29/15 13:10	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/29/15 13:10	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		12/29/15 13:10	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		12/29/15 13:10	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/29/15 13:10	56-23-5	
Chlorobenzene	**0.78J**	ug/L	1.0	0.23	1		12/29/15 13:10	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/29/15 13:10	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/29/15 13:10	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/29/15 13:10	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/29/15 13:10	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/29/15 13:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/29/15 13:10	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/29/15 13:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/29/15 13:10	95-50-1	
1,4-Dichlorobenzene	**1.2**	ug/L	1.0	0.33	1		12/29/15 13:10	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		12/29/15 13:10	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/29/15 13:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/29/15 13:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/29/15 13:10	75-35-4	
cis-1,2-Dichloroethene	**3.3**	ug/L	1.0	0.19	1		12/29/15 13:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/29/15 13:10	156-60-5	

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ANALYTICAL RESULTS

Project: Clay Co MW-5
Pace Project No.: 92280027

Sample: MW-5 **Lab ID: 92280027001** Collected: 12/15/15 11:25 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/29/15 13:10	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/29/15 13:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/29/15 13:10	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/29/15 13:10	100-41-4	
2-Hexanone	**2.6J**	ug/L	5.0	0.46	1		12/29/15 13:10	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		12/29/15 13:10	74-88-4	
Methylene Chloride	**9.2**	ug/L	1.0	0.97	1		12/29/15 13:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		12/29/15 13:10	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/29/15 13:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/29/15 13:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/29/15 13:10	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/29/15 13:10	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/29/15 13:10	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/29/15 13:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/29/15 13:10	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/29/15 13:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/29/15 13:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/29/15 13:10	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		12/29/15 13:10	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/29/15 13:10	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/29/15 13:10	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/29/15 13:10	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/29/15 13:10	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		12/29/15 13:10	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		12/29/15 13:10	17060-07-0	
Toluene-d8 (S)	112	%	70-130		1		12/29/15 13:10	2037-26-5	

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(828)254-7176

QUALITY CONTROL DATA

Project: Clay Co MW-5
Pace Project No.: 92280027

QC Batch: MERP/8799 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Associated Lab Samples: 92280027001

METHOD BLANK: 1632840 | Matrix: Water
Associated Lab Samples: 92280027001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.10	12/21/15 11:41	

LABORATORY CONTROL SAMPLE: 1632841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.1	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1632842 1632844

Parameter	Units	92279477001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	1.9	92	75	75-125	20	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Clay Co MW-5
Pace Project No.: 92280027

QC Batch: MPRP/20312
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92280027001

METHOD BLANK: 1631789
Matrix: Water
Associated Lab Samples: 92280027001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	3.8	12/19/15 05:13	
Arsenic	ug/L	ND	10.0	2.5	12/19/15 05:13	
Barium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Beryllium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Cadmium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Chromium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Cobalt	ug/L	ND	5.0	2.5	12/19/15 05:13	
Copper	ug/L	ND	5.0	2.5	12/19/15 05:13	
Lead	ug/L	ND	5.0	2.5	12/19/15 05:13	
Nickel	ug/L	ND	5.0	2.5	12/19/15 05:13	
Selenium	ug/L	ND	10.0	5.0	12/19/15 05:13	
Silver	ug/L	ND	5.0	2.5	12/19/15 05:13	
Thallium	ug/L	ND	5.4	5.0	12/22/15 17:35	
Vanadium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Zinc	ug/L	ND	10.0	5.0	12/19/15 05:13	

LABORATORY CONTROL SAMPLE: 1631790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	489	98	80-120	
Arsenic	ug/L	500	526	105	80-120	
Barium	ug/L	500	496	99	80-120	
Beryllium	ug/L	500	502	100	80-120	
Cadmium	ug/L	500	519	104	80-120	
Chromium	ug/L	500	529	106	80-120	
Cobalt	ug/L	500	530	106	80-120	
Copper	ug/L	500	515	103	80-120	
Lead	ug/L	500	524	105	80-120	
Nickel	ug/L	500	524	105	80-120	
Selenium	ug/L	500	520	104	80-120	
Silver	ug/L	250	233	93	80-120	
Thallium	ug/L	500	522	104	80-120	
Vanadium	ug/L	500	518	104	80-120	
Zinc	ug/L	500	554	111	80-120	

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QUALITY CONTROL DATA

Project: Clay Co MW-5
Pace Project No.: 92280027

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1631791 1631792

Parameter	Units	92279775001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	495	483	99	97	75-125	2	25	
Arsenic	ug/L	ND	500	500	537	519	107	104	75-125	3	25	
Barium	ug/L	108	500	500	614	597	101	98	75-125	3	25	
Beryllium	ug/L	ND	500	500	515	499	103	100	75-125	3	25	
Cadmium	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Chromium	ug/L	ND	500	500	538	524	107	105	75-125	3	25	
Cobalt	ug/L	10.9	500	500	546	528	107	104	75-125	3	25	
Copper	ug/L	ND	500	500	524	508	105	101	75-125	3	25	
Lead	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Nickel	ug/L	6.7	500	500	534	517	105	102	75-125	3	25	
Selenium	ug/L	ND	500	500	520	508	104	101	75-125	2	25	
Silver	ug/L	ND	250	250	238	230	95	92	75-125	4	25	
Thallium	ug/L	ND	500	500	488	483	98	97	75-125	1	25	
Vanadium	ug/L	2.9J	500	500	534	517	106	103	75-125	3	25	
Zinc	ug/L	20.2	500	500	581	567	112	109	75-125	2	25	

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QUALITY CONTROL DATA

Project: Clay Co MW-5
Pace Project No.: 92280027

QC Batch: MSV/34968
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92280027001

METHOD BLANK: 1638140
Matrix: Water
Associated Lab Samples: 92280027001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/29/15 06:11	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/29/15 06:11	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/29/15 06:11	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/29/15 06:11	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/29/15 06:11	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/29/15 06:11	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/29/15 06:11	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/29/15 06:11	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/29/15 06:11	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/29/15 06:11	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	12/29/15 06:11	
2-Hexanone	ug/L	ND	5.0	0.46	12/29/15 06:11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	12/29/15 06:11	
Acetone	ug/L	ND	25.0	10.0	12/29/15 06:11	
Acrylonitrile	ug/L	ND	10.0	1.9	12/29/15 06:11	
Benzene	ug/L	ND	1.0	0.25	12/29/15 06:11	
Bromochloromethane	ug/L	ND	1.0	0.17	12/29/15 06:11	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/29/15 06:11	
Bromoform	ug/L	ND	1.0	0.26	12/29/15 06:11	
Bromomethane	ug/L	ND	2.0	0.29	12/29/15 06:11	
Carbon disulfide	ug/L	ND	2.0	1.2	12/29/15 06:11	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/29/15 06:11	
Chlorobenzene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Chloroethane	ug/L	ND	1.0	0.54	12/29/15 06:11	
Chloroform	ug/L	ND	1.0	0.14	12/29/15 06:11	
Chloromethane	ug/L	ND	1.0	0.11	12/29/15 06:11	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/29/15 06:11	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	12/29/15 06:11	
Dibromochloromethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Dibromomethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Ethylbenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
Iodomethane	ug/L	ND	5.0	0.32	12/29/15 06:11	
m&p-Xylene	ug/L	ND	2.0	0.66	12/29/15 06:11	
Methylene Chloride	ug/L	ND	1.0	0.97	12/29/15 06:11	
o-Xylene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Styrene	ug/L	ND	1.0	0.26	12/29/15 06:11	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/29/15 06:11	
Toluene	ug/L	ND	1.0	0.26	12/29/15 06:11	

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REPORT OF LABORATORY ANALYSIS

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Clay Co MW-5
Pace Project No.: 92280027

METHOD BLANK: 1638140 Matrix: Water
Associated Lab Samples: 92280027001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/29/15 06:11	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	12/29/15 06:11	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	1.0	12/29/15 06:11	
Trichloroethene	ug/L	ND	1.0	0.47	12/29/15 06:11	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/29/15 06:11	
Vinyl acetate	ug/L	ND	2.0	0.35	12/29/15 06:11	
Vinyl chloride	ug/L	ND	1.0	0.62	12/29/15 06:11	
Xylene (Total)	ug/L	ND	2.0	0.66	12/29/15 06:11	
1,2-Dichloroethane-d4 (S)	%	91	70-130		12/29/15 06:11	
4-Bromofluorobenzene (S)	%	102	70-130		12/29/15 06:11	
Toluene-d8 (S)	%	109	70-130		12/29/15 06:11	

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.6	101	80-125	
1,1,1-Trichloroethane	ug/L	50	48.0	96	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	50.6	101	79-124	
1,1,2-Trichloroethane	ug/L	50	50.9	102	85-125	
1,1-Dichloroethane	ug/L	50	45.2	90	73-126	
1,1-Dichloroethene	ug/L	50	43.6	87	66-135	
1,2,3-Trichloropropane	ug/L	50	51.2	102	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.8	96	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	53.4	107	83-124	
1,2-Dichlorobenzene	ug/L	50	49.1	98	80-133	
1,2-Dichloroethane	ug/L	50	45.6	91	67-128	
1,2-Dichloropropane	ug/L	50	46.8	94	75-132	
1,4-Dichlorobenzene	ug/L	50	49.2	98	78-130	
2-Butanone (MEK)	ug/L	100	113	113	61-144	
2-Hexanone	ug/L	100	108	108	68-143	
4-Methyl-2-pentanone (MIBK)	ug/L	100	107	107	72-135	
Acetone	ug/L	100	105	105	48-146	
Acrylonitrile	ug/L	250	255	102	40-160	
Benzene	ug/L	50	49.0	98	80-125	
Bromochloromethane	ug/L	50	53.7	107	71-125	
Bromodichloromethane	ug/L	50	48.1	96	78-124	
Bromoform	ug/L	50	43.7	87	71-128	
Bromomethane	ug/L	50	40.4	81	40-160	
Carbon disulfide	ug/L	50	41.0	82	50-160	
Carbon tetrachloride	ug/L	50	49.1	98	69-131	
Chlorobenzene	ug/L	50	49.9	100	81-122	
Chloroethane	ug/L	50	33.9	68	39-148	
Chloroform	ug/L	50	47.6	95	73-127	
Chloromethane	ug/L	50	53.7	107	44-146	

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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Clay Co MW-5
Pace Project No.: 92280027

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	44.9	90	74-124	
cis-1,3-Dichloropropene	ug/L	50	50.8	102	72-132	
Dibromochloromethane	ug/L	50	52.8	106	78-125	
Dibromomethane	ug/L	50	52.2	104	82-120	
Ethylbenzene	ug/L	50	46.5	93	79-121	
Iodomethane	ug/L	100	85.5	86	39-154	
m&p-Xylene	ug/L	100	91.9	92	81-124	
Methylene Chloride	ug/L	50	57.2	114	64-133	
o-Xylene	ug/L	50	44.9	90	79-131	
Styrene	ug/L	50	48.0	96	84-126	
Tetrachloroethene	ug/L	50	49.3	99	78-122	
Toluene	ug/L	50	45.0	90	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.8	96	71-127	
trans-1,3-Dichloropropene	ug/L	50	45.4	91	69-141	
trans-1,4-Dichloro-2-butene	ug/L	50	54.3	109	40-160	
Trichloroethene	ug/L	50	52.5	105	78-122	
Trichlorofluoromethane	ug/L	50	43.3	87	53-137	
Vinyl acetate	ug/L	100	99.6	100	40-160	
Vinyl chloride	ug/L	50	46.1	92	58-137	
Xylene (Total)	ug/L	150	137	91	81-126	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			94	70-130	

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Asheville, NC 28804
(828)254-7176

QUALIFIERS

Project: Clay Co MW-5
Pace Project No.: 92280027

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Clay Co MW-5
Pace Project No.: 92280027

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92280027001	**MW-5**	EPA 3010A	MPRP/20312	EPA 6010	ICP/18330
92280027001	**MW-5**	EPA 7470	MERP/8799	EPA 7470	MERC/8455
92280027001	**MW-5**	EPA 8260	MSV/34968		

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Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: November 06, 2015 Page 1 of 2*
	Document No.: F-ASV-CS-003-rev.15	Issuing Authorities: Pace Asheville Quality Office

Client Name: Environmental Inc

* Page 2 of 2 is for Internal Use Only

Courier (Circle): Fed Ex UPS USPS (Client) Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun#5 - 155271998 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

IR Gun #4 SN:140290365 Other:_____

Temp Correction Factor: Add / Subtract 0.0 C

Corrected Cooler Temp.: 5.5 C **Biological Tissue is Frozen:** Yes No N/A

Date and Initials of person examining contents: RDB 12/16/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: AMB Date: 12-16-15

SRF Review: AMB Date: 12-17-15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Place label here

WO# : 92280027

92280027

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1962526

Section A Required Client Information:

Company: ENVIRONMENTAL INC
Address: PO BOX 954
COLLOCHEE, NC 28723
Email To:
Phone: (828) 586-5558 Fax: (828) 586-0850
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: CLAY CO
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 3126-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): APPX (METALS	APPX (VOC 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92280027
1	MW-5					12-15-15	11:25					✓						✓			001
2													✓						✓		001
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	12-15-15	14:05	Nathaniel Cuevas	12/15/15	1405				
	Nathaniel Cuevas	12/15/15	1133A	[signature]	12/16/15	11:33	5.5	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

January 12, 2016

Mr. Mark Teague
Environmental, Inc.
PO Box 954
Cullowhee, NC 28723

RE: Project: Clay Co MW-6
Pace Project No.: 92280025

Dear Mr. Teague:
Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

A revised laboratory report is being submitted on January 12, 2016, to report MDLs, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
Project Manager

Enclosures

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Asheville, NC 28804
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CERTIFICATIONS

Project:	Clay Co MW-6
Pace Project No.:	92280025

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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Asheville, NC 28804
(828)254-7176

SAMPLE SUMMARY

Project: Clay Co MW-6
Pace Project No.: 92280025

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92280025001	**MW-6**	Water	12/15/15 12:20	12/16/15 11:33

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SAMPLE ANALYTE COUNT

Project: Clay Co MW-6
Pace Project No.: 92280025

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92280025001	**MW-6**	EPA 6010	CDF, JMW	15	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	GAW	52	PASI-C

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(828)254-7176

ANALYTICAL RESULTS

Project: Clay Co MW-6
Pace Project No.: 92280025

Sample: MW-6 **Lab ID: 92280025001** Collected: 12/15/15 12:20 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A								
Antimony	ND	ug/L	5.0	3.8	1	12/17/15 19:00	12/19/15 05:41	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	12/17/15 19:00	12/19/15 05:41	7440-38-2	
Barium	**222**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:41	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:41	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:41	7440-43-9	
Chromium	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:41	7440-47-3	
Cobalt	**13.4**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:41	7440-48-4	
Copper	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:41	7440-50-8	
Lead	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:41	7439-92-1	
Nickel	**7.3**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:41	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:41	7782-49-2	
Silver	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:41	7440-22-4	
Thallium	ND	ug/L	5.4	5.0	1	12/17/15 19:00	12/22/15 17:44	7440-28-0	
Vanadium	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:41	7440-62-2	
Zinc	**11.4**	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:41	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	12/19/15 18:30	12/21/15 12:16	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		12/29/15 12:53	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		12/29/15 12:53	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/29/15 12:53	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/29/15 12:53	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/29/15 12:53	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/29/15 12:53	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/29/15 12:53	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		12/29/15 12:53	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		12/29/15 12:53	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/29/15 12:53	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/29/15 12:53	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/29/15 12:53	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/29/15 12:53	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/29/15 12:53	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/29/15 12:53	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/29/15 12:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/29/15 12:53	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/29/15 12:53	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/29/15 12:53	95-50-1	
1,4-Dichlorobenzene	**0.64J**	ug/L	1.0	0.33	1		12/29/15 12:53	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		12/29/15 12:53	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/29/15 12:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/29/15 12:53	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/29/15 12:53	75-35-4	
cis-1,2-Dichloroethene	**3.4**	ug/L	1.0	0.19	1		12/29/15 12:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/29/15 12:53	156-60-5	

REPORT OF LABORATORY ANALYSIS

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(828)254-7176

ANALYTICAL RESULTS

Project: Clay Co MW-6
Pace Project No.: 92280025

Sample: MW-6 **Lab ID: 92280025001** Collected: 12/15/15 12:20 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/29/15 12:53	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/29/15 12:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/29/15 12:53	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/29/15 12:53	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		12/29/15 12:53	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		12/29/15 12:53	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/29/15 12:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		12/29/15 12:53	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/29/15 12:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/29/15 12:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/29/15 12:53	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/29/15 12:53	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/29/15 12:53	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/29/15 12:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/29/15 12:53	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/29/15 12:53	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/29/15 12:53	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/29/15 12:53	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		12/29/15 12:53	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/29/15 12:53	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/29/15 12:53	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/29/15 12:53	179601-23-1	
o-Xylene	**0.26J**	ug/L	1.0	0.23	1		12/29/15 12:53	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		12/29/15 12:53	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		12/29/15 12:53	17060-07-0	
Toluene-d8 (S)	121	%	70-130		1		12/29/15 12:53	2037-26-5	

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QUALITY CONTROL DATA

Project: Clay Co MW-6
Pace Project No.: 92280025

QC Batch: MERP/8799 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Associated Lab Samples: 92280025001

METHOD BLANK: 1632840 | Matrix: Water
Associated Lab Samples: 92280025001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.10	12/21/15 11:41	

LABORATORY CONTROL SAMPLE: 1632841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.1	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1632842 1632844

Parameter	Units	92279477001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	1.9	92	75	75-125	20	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Clay Co MW-6
Pace Project No.: 92280025

QC Batch: MPRP/20312
QC Batch Method: EPA 3010A
Associated Lab Samples: 92280025001

Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater

METHOD BLANK: 1631789
Matrix: Water
Associated Lab Samples: 92280025001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	3.8	12/19/15 05:13	
Arsenic	ug/L	ND	10.0	2.5	12/19/15 05:13	
Barium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Beryllium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Cadmium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Chromium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Cobalt	ug/L	ND	5.0	2.5	12/19/15 05:13	
Copper	ug/L	ND	5.0	2.5	12/19/15 05:13	
Lead	ug/L	ND	5.0	2.5	12/19/15 05:13	
Nickel	ug/L	ND	5.0	2.5	12/19/15 05:13	
Selenium	ug/L	ND	10.0	5.0	12/19/15 05:13	
Silver	ug/L	ND	5.0	2.5	12/19/15 05:13	
Thallium	ug/L	ND	5.4	5.0	12/22/15 17:35	
Vanadium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Zinc	ug/L	ND	10.0	5.0	12/19/15 05:13	

LABORATORY CONTROL SAMPLE: 1631790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	489	98	80-120	
Arsenic	ug/L	500	526	105	80-120	
Barium	ug/L	500	496	99	80-120	
Beryllium	ug/L	500	502	100	80-120	
Cadmium	ug/L	500	519	104	80-120	
Chromium	ug/L	500	529	106	80-120	
Cobalt	ug/L	500	530	106	80-120	
Copper	ug/L	500	515	103	80-120	
Lead	ug/L	500	524	105	80-120	
Nickel	ug/L	500	524	105	80-120	
Selenium	ug/L	500	520	104	80-120	
Silver	ug/L	250	233	93	80-120	
Thallium	ug/L	500	522	104	80-120	
Vanadium	ug/L	500	518	104	80-120	
Zinc	ug/L	500	554	111	80-120	

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QUALITY CONTROL DATA

Project: Clay Co MW-6
Pace Project No.: 92280025

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1631791 1631792

Parameter	Units	92279775001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	495	483	99	97	75-125	2	25	
Arsenic	ug/L	ND	500	500	537	519	107	104	75-125	3	25	
Barium	ug/L	108	500	500	614	597	101	98	75-125	3	25	
Beryllium	ug/L	ND	500	500	515	499	103	100	75-125	3	25	
Cadmium	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Chromium	ug/L	ND	500	500	538	524	107	105	75-125	3	25	
Cobalt	ug/L	10.9	500	500	546	528	107	104	75-125	3	25	
Copper	ug/L	ND	500	500	524	508	105	101	75-125	3	25	
Lead	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Nickel	ug/L	6.7	500	500	534	517	105	102	75-125	3	25	
Selenium	ug/L	ND	500	500	520	508	104	101	75-125	2	25	
Silver	ug/L	ND	250	250	238	230	95	92	75-125	4	25	
Thallium	ug/L	ND	500	500	488	483	98	97	75-125	1	25	
Vanadium	ug/L	2.9J	500	500	534	517	106	103	75-125	3	25	
Zinc	ug/L	20.2	500	500	581	567	112	109	75-125	2	25	

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QUALITY CONTROL DATA

Project: Clay Co MW-6
Pace Project No.: 92280025

QC Batch: MSV/34968
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92280025001

METHOD BLANK: 1638140
Matrix: Water
Associated Lab Samples: 92280025001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/29/15 06:11	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/29/15 06:11	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/29/15 06:11	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/29/15 06:11	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/29/15 06:11	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/29/15 06:11	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/29/15 06:11	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/29/15 06:11	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/29/15 06:11	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/29/15 06:11	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	12/29/15 06:11	
2-Hexanone	ug/L	ND	5.0	0.46	12/29/15 06:11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	12/29/15 06:11	
Acetone	ug/L	ND	25.0	10.0	12/29/15 06:11	
Acrylonitrile	ug/L	ND	10.0	1.9	12/29/15 06:11	
Benzene	ug/L	ND	1.0	0.25	12/29/15 06:11	
Bromochloromethane	ug/L	ND	1.0	0.17	12/29/15 06:11	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/29/15 06:11	
Bromoform	ug/L	ND	1.0	0.26	12/29/15 06:11	
Bromomethane	ug/L	ND	2.0	0.29	12/29/15 06:11	
Carbon disulfide	ug/L	ND	2.0	1.2	12/29/15 06:11	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/29/15 06:11	
Chlorobenzene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Chloroethane	ug/L	ND	1.0	0.54	12/29/15 06:11	
Chloroform	ug/L	ND	1.0	0.14	12/29/15 06:11	
Chloromethane	ug/L	ND	1.0	0.11	12/29/15 06:11	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/29/15 06:11	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	12/29/15 06:11	
Dibromochloromethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Dibromomethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Ethylbenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
Iodomethane	ug/L	ND	5.0	0.32	12/29/15 06:11	
m&p-Xylene	ug/L	ND	2.0	0.66	12/29/15 06:11	
Methylene Chloride	ug/L	ND	1.0	0.97	12/29/15 06:11	
o-Xylene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Styrene	ug/L	ND	1.0	0.26	12/29/15 06:11	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/29/15 06:11	
Toluene	ug/L	ND	1.0	0.26	12/29/15 06:11	

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(828)254-7176

QUALITY CONTROL DATA

Project: Clay Co MW-6
Pace Project No.: 92280025

METHOD BLANK: 1638140 Matrix: Water
Associated Lab Samples: 92280025001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/29/15 06:11	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	12/29/15 06:11	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	1.0	12/29/15 06:11	
Trichloroethene	ug/L	ND	1.0	0.47	12/29/15 06:11	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/29/15 06:11	
Vinyl acetate	ug/L	ND	2.0	0.35	12/29/15 06:11	
Vinyl chloride	ug/L	ND	1.0	0.62	12/29/15 06:11	
Xylene (Total)	ug/L	ND	2.0	0.66	12/29/15 06:11	
1,2-Dichloroethane-d4 (S)	%	91	70-130		12/29/15 06:11	
4-Bromofluorobenzene (S)	%	102	70-130		12/29/15 06:11	
Toluene-d8 (S)	%	109	70-130		12/29/15 06:11	

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.6	101	80-125	
1,1,1-Trichloroethane	ug/L	50	48.0	96	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	50.6	101	79-124	
1,1,2-Trichloroethane	ug/L	50	50.9	102	85-125	
1,1-Dichloroethane	ug/L	50	45.2	90	73-126	
1,1-Dichloroethene	ug/L	50	43.6	87	66-135	
1,2,3-Trichloropropane	ug/L	50	51.2	102	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.8	96	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	53.4	107	83-124	
1,2-Dichlorobenzene	ug/L	50	49.1	98	80-133	
1,2-Dichloroethane	ug/L	50	45.6	91	67-128	
1,2-Dichloropropane	ug/L	50	46.8	94	75-132	
1,4-Dichlorobenzene	ug/L	50	49.2	98	78-130	
2-Butanone (MEK)	ug/L	100	113	113	61-144	
2-Hexanone	ug/L	100	108	108	68-143	
4-Methyl-2-pentanone (MIBK)	ug/L	100	107	107	72-135	
Acetone	ug/L	100	105	105	48-146	
Acrylonitrile	ug/L	250	255	102	40-160	
Benzene	ug/L	50	49.0	98	80-125	
Bromochloromethane	ug/L	50	53.7	107	71-125	
Bromodichloromethane	ug/L	50	48.1	96	78-124	
Bromoform	ug/L	50	43.7	87	71-128	
Bromomethane	ug/L	50	40.4	81	40-160	
Carbon disulfide	ug/L	50	41.0	82	50-160	
Carbon tetrachloride	ug/L	50	49.1	98	69-131	
Chlorobenzene	ug/L	50	49.9	100	81-122	
Chloroethane	ug/L	50	33.9	68	39-148	
Chloroform	ug/L	50	47.6	95	73-127	
Chloromethane	ug/L	50	53.7	107	44-146	

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QUALITY CONTROL DATA

Project: Clay Co MW-6
Pace Project No.: 92280025

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	44.9	90	74-124	
cis-1,3-Dichloropropene	ug/L	50	50.8	102	72-132	
Dibromochloromethane	ug/L	50	52.8	106	78-125	
Dibromomethane	ug/L	50	52.2	104	82-120	
Ethylbenzene	ug/L	50	46.5	93	79-121	
Iodomethane	ug/L	100	85.5	86	39-154	
m&p-Xylene	ug/L	100	91.9	92	81-124	
Methylene Chloride	ug/L	50	57.2	114	64-133	
o-Xylene	ug/L	50	44.9	90	79-131	
Styrene	ug/L	50	48.0	96	84-126	
Tetrachloroethene	ug/L	50	49.3	99	78-122	
Toluene	ug/L	50	45.0	90	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.8	96	71-127	
trans-1,3-Dichloropropene	ug/L	50	45.4	91	69-141	
trans-1,4-Dichloro-2-butene	ug/L	50	54.3	109	40-160	
Trichloroethene	ug/L	50	52.5	105	78-122	
Trichlorofluoromethane	ug/L	50	43.3	87	53-137	
Vinyl acetate	ug/L	100	99.6	100	40-160	
Vinyl chloride	ug/L	50	46.1	92	58-137	
Xylene (Total)	ug/L	150	137	91	81-126	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			94	70-130	

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QUALIFIERS

Project: Clay Co MW-6
Pace Project No.: 92280025

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Clay Co MW-6
Pace Project No.: 92280025

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92280025001	**MW-6**	EPA 3010A	MPRP/20312	EPA 6010	ICP/18330
92280025001	**MW-6**	EPA 7470	MERP/8799	EPA 7470	MERC/8455
92280025001	**MW-6**	EPA 8260	MSV/34968		

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Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: November 06, 2015 Page 1 of 2*
	Document No.: F-ASV-CS-003-rev.15	Issuing Authorities: Pace Asheville Quality Office

Client Name: Environmental Inc

* Page 2 of 2 is for Internal Use Only

Courier (Circle): Fed Ex UPS USPS (Client) Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no **Seals intact:** ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun#5 - 155271998 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

IR Gun #4 SN:140290365 Other:_____

Temp Correction Factor: Add / Subtract 0.0 C

Corrected Cooler Temp.: 5.5 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: RDB 12/16/15

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: AMB Date: 12-16-15

SRF Review: AMB Date: 12-17-15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Place label here

WO# : 92280025

92280025

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1962527

Section A Required Client Information:

Company: ENVIRONMENTAL INC
Address: PO BOX 954
CULLOWHEE, NC 28723
Email To:
Phone: (828) 586-5588 Fax: (828) 586-0500
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: CLAY CO
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 3126-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): APPX I METALS	APPX I VOC 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-6					12-15-15	12:20					✓						✓			001
2													✓						✓		001
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

92280025

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	12-15-15	14:05	[signature]	12/15	11:33	SS	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

January 12, 2016

Mr. Mark Teague
Environmental, Inc.
PO Box 954
Cullowhee, NC 28723

RE: Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

Dear Mr. Teague:
Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

A revised laboratory report is being submitted on January 12, 2016, to report MDLs, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92280050001	**UPSTREAM**	Water	12/15/15 11:02	12/16/15 11:33

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SAMPLE ANALYTE COUNT

Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92280050001	**UPSTREAM**	EPA 6010	CDF, JMW	15	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	GAW	52	PASI-C

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ANALYTICAL RESULTS

Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

Sample: UPSTREAM **Lab ID: 92280050001** Collected: 12/15/15 11:02 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A								
Antimony	ND	ug/L	5.0	3.8	1	12/17/15 19:00	12/19/15 06:12	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	12/17/15 19:00	12/19/15 06:12	7440-38-2	
Barium	**27.6**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:12	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 06:12	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 06:12	7440-43-9	
Chromium	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:12	7440-47-3	
Cobalt	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:12	7440-48-4	
Copper	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:12	7440-50-8	
Lead	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:12	7439-92-1	
Nickel	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:12	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 06:12	7782-49-2	
Silver	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:12	7440-22-4	
Thallium	ND	ug/L	5.4	5.0	1	12/17/15 19:00	12/22/15 18:15	7440-28-0	
Vanadium	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:12	7440-62-2	
Zinc	ND	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 06:12	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	12/19/15 18:30	12/21/15 12:32	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		12/29/15 14:52	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		12/29/15 14:52	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/29/15 14:52	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/29/15 14:52	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/29/15 14:52	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/29/15 14:52	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/29/15 14:52	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		12/29/15 14:52	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		12/29/15 14:52	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/29/15 14:52	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/29/15 14:52	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/29/15 14:52	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/29/15 14:52	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/29/15 14:52	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/29/15 14:52	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/29/15 14:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/29/15 14:52	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/29/15 14:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/29/15 14:52	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/29/15 14:52	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		12/29/15 14:52	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/29/15 14:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/29/15 14:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/29/15 14:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/29/15 14:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/29/15 14:52	156-60-5	

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ANALYTICAL RESULTS

Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

Sample: UPSTREAM **Lab ID: 92280050001** Collected: 12/15/15 11:02 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/29/15 14:52	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/29/15 14:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/29/15 14:52	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/29/15 14:52	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		12/29/15 14:52	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		12/29/15 14:52	74-88-4	
Methylene Chloride	**1.1**	ug/L	1.0	0.97	1		12/29/15 14:52	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		12/29/15 14:52	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/29/15 14:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/29/15 14:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/29/15 14:52	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/29/15 14:52	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/29/15 14:52	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/29/15 14:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/29/15 14:52	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/29/15 14:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/29/15 14:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/29/15 14:52	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		12/29/15 14:52	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/29/15 14:52	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/29/15 14:52	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/29/15 14:52	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/29/15 14:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		12/29/15 14:52	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		12/29/15 14:52	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		12/29/15 14:52	2037-26-5	

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Asheville, NC 28804
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QUALITY CONTROL DATA

Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

QC Batch: MERP/8799 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Associated Lab Samples: 92280050001

METHOD BLANK: 1632840 | Matrix: Water
Associated Lab Samples: 92280050001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.10	12/21/15 11:41	

LABORATORY CONTROL SAMPLE: 1632841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.1	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1632842 1632844

Parameter	Units	92279477001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	1.9	92	75	75-125	20	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

QC Batch: MPRP/20312
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92280050001

METHOD BLANK: 1631789
Matrix: Water
Associated Lab Samples: 92280050001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	3.8	12/19/15 05:13	
Arsenic	ug/L	ND	10.0	2.5	12/19/15 05:13	
Barium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Beryllium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Cadmium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Chromium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Cobalt	ug/L	ND	5.0	2.5	12/19/15 05:13	
Copper	ug/L	ND	5.0	2.5	12/19/15 05:13	
Lead	ug/L	ND	5.0	2.5	12/19/15 05:13	
Nickel	ug/L	ND	5.0	2.5	12/19/15 05:13	
Selenium	ug/L	ND	10.0	5.0	12/19/15 05:13	
Silver	ug/L	ND	5.0	2.5	12/19/15 05:13	
Thallium	ug/L	ND	5.4	5.0	12/22/15 17:35	
Vanadium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Zinc	ug/L	ND	10.0	5.0	12/19/15 05:13	

LABORATORY CONTROL SAMPLE: 1631790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	489	98	80-120	
Arsenic	ug/L	500	526	105	80-120	
Barium	ug/L	500	496	99	80-120	
Beryllium	ug/L	500	502	100	80-120	
Cadmium	ug/L	500	519	104	80-120	
Chromium	ug/L	500	529	106	80-120	
Cobalt	ug/L	500	530	106	80-120	
Copper	ug/L	500	515	103	80-120	
Lead	ug/L	500	524	105	80-120	
Nickel	ug/L	500	524	105	80-120	
Selenium	ug/L	500	520	104	80-120	
Silver	ug/L	250	233	93	80-120	
Thallium	ug/L	500	522	104	80-120	
Vanadium	ug/L	500	518	104	80-120	
Zinc	ug/L	500	554	111	80-120	

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QUALITY CONTROL DATA

Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1631791 1631792

Parameter	Units	92279775001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	495	483	99	97	75-125	2	25	
Arsenic	ug/L	ND	500	500	537	519	107	104	75-125	3	25	
Barium	ug/L	108	500	500	614	597	101	98	75-125	3	25	
Beryllium	ug/L	ND	500	500	515	499	103	100	75-125	3	25	
Cadmium	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Chromium	ug/L	ND	500	500	538	524	107	105	75-125	3	25	
Cobalt	ug/L	10.9	500	500	546	528	107	104	75-125	3	25	
Copper	ug/L	ND	500	500	524	508	105	101	75-125	3	25	
Lead	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Nickel	ug/L	6.7	500	500	534	517	105	102	75-125	3	25	
Selenium	ug/L	ND	500	500	520	508	104	101	75-125	2	25	
Silver	ug/L	ND	250	250	238	230	95	92	75-125	4	25	
Thallium	ug/L	ND	500	500	488	483	98	97	75-125	1	25	
Vanadium	ug/L	2.9J	500	500	534	517	106	103	75-125	3	25	
Zinc	ug/L	20.2	500	500	581	567	112	109	75-125	2	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

QC Batch: MSV/34968
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92280050001

METHOD BLANK: 1638140
Matrix: Water
Associated Lab Samples: 92280050001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/29/15 06:11	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/29/15 06:11	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/29/15 06:11	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/29/15 06:11	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/29/15 06:11	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/29/15 06:11	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/29/15 06:11	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/29/15 06:11	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/29/15 06:11	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/29/15 06:11	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	12/29/15 06:11	
2-Hexanone	ug/L	ND	5.0	0.46	12/29/15 06:11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	12/29/15 06:11	
Acetone	ug/L	ND	25.0	10.0	12/29/15 06:11	
Acrylonitrile	ug/L	ND	10.0	1.9	12/29/15 06:11	
Benzene	ug/L	ND	1.0	0.25	12/29/15 06:11	
Bromochloromethane	ug/L	ND	1.0	0.17	12/29/15 06:11	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/29/15 06:11	
Bromoform	ug/L	ND	1.0	0.26	12/29/15 06:11	
Bromomethane	ug/L	ND	2.0	0.29	12/29/15 06:11	
Carbon disulfide	ug/L	ND	2.0	1.2	12/29/15 06:11	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/29/15 06:11	
Chlorobenzene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Chloroethane	ug/L	ND	1.0	0.54	12/29/15 06:11	
Chloroform	ug/L	ND	1.0	0.14	12/29/15 06:11	
Chloromethane	ug/L	ND	1.0	0.11	12/29/15 06:11	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/29/15 06:11	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	12/29/15 06:11	
Dibromochloromethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Dibromomethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Ethylbenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
Iodomethane	ug/L	ND	5.0	0.32	12/29/15 06:11	
m&p-Xylene	ug/L	ND	2.0	0.66	12/29/15 06:11	
Methylene Chloride	ug/L	ND	1.0	0.97	12/29/15 06:11	
o-Xylene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Styrene	ug/L	ND	1.0	0.26	12/29/15 06:11	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/29/15 06:11	
Toluene	ug/L	ND	1.0	0.26	12/29/15 06:11	

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REPORT OF LABORATORY ANALYSIS

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

METHOD BLANK: 1638140 Matrix: Water
Associated Lab Samples: 92280050001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/29/15 06:11	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	12/29/15 06:11	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	1.0	12/29/15 06:11	
Trichloroethene	ug/L	ND	1.0	0.47	12/29/15 06:11	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/29/15 06:11	
Vinyl acetate	ug/L	ND	2.0	0.35	12/29/15 06:11	
Vinyl chloride	ug/L	ND	1.0	0.62	12/29/15 06:11	
Xylene (Total)	ug/L	ND	2.0	0.66	12/29/15 06:11	
1,2-Dichloroethane-d4 (S)	%	91	70-130		12/29/15 06:11	
4-Bromofluorobenzene (S)	%	102	70-130		12/29/15 06:11	
Toluene-d8 (S)	%	109	70-130		12/29/15 06:11	

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.6	101	80-125	
1,1,1-Trichloroethane	ug/L	50	48.0	96	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	50.6	101	79-124	
1,1,2-Trichloroethane	ug/L	50	50.9	102	85-125	
1,1-Dichloroethane	ug/L	50	45.2	90	73-126	
1,1-Dichloroethene	ug/L	50	43.6	87	66-135	
1,2,3-Trichloropropane	ug/L	50	51.2	102	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.8	96	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	53.4	107	83-124	
1,2-Dichlorobenzene	ug/L	50	49.1	98	80-133	
1,2-Dichloroethane	ug/L	50	45.6	91	67-128	
1,2-Dichloropropane	ug/L	50	46.8	94	75-132	
1,4-Dichlorobenzene	ug/L	50	49.2	98	78-130	
2-Butanone (MEK)	ug/L	100	113	113	61-144	
2-Hexanone	ug/L	100	108	108	68-143	
4-Methyl-2-pentanone (MIBK)	ug/L	100	107	107	72-135	
Acetone	ug/L	100	105	105	48-146	
Acrylonitrile	ug/L	250	255	102	40-160	
Benzene	ug/L	50	49.0	98	80-125	
Bromochloromethane	ug/L	50	53.7	107	71-125	
Bromodichloromethane	ug/L	50	48.1	96	78-124	
Bromoform	ug/L	50	43.7	87	71-128	
Bromomethane	ug/L	50	40.4	81	40-160	
Carbon disulfide	ug/L	50	41.0	82	50-160	
Carbon tetrachloride	ug/L	50	49.1	98	69-131	
Chlorobenzene	ug/L	50	49.9	100	81-122	
Chloroethane	ug/L	50	33.9	68	39-148	
Chloroform	ug/L	50	47.6	95	73-127	
Chloromethane	ug/L	50	53.7	107	44-146	

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	44.9	90	74-124	
cis-1,3-Dichloropropene	ug/L	50	50.8	102	72-132	
Dibromochloromethane	ug/L	50	52.8	106	78-125	
Dibromomethane	ug/L	50	52.2	104	82-120	
Ethylbenzene	ug/L	50	46.5	93	79-121	
Iodomethane	ug/L	100	85.5	86	39-154	
m&p-Xylene	ug/L	100	91.9	92	81-124	
Methylene Chloride	ug/L	50	57.2	114	64-133	
o-Xylene	ug/L	50	44.9	90	79-131	
Styrene	ug/L	50	48.0	96	84-126	
Tetrachloroethene	ug/L	50	49.3	99	78-122	
Toluene	ug/L	50	45.0	90	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.8	96	71-127	
trans-1,3-Dichloropropene	ug/L	50	45.4	91	69-141	
trans-1,4-Dichloro-2-butene	ug/L	50	54.3	109	40-160	
Trichloroethene	ug/L	50	52.5	105	78-122	
Trichlorofluoromethane	ug/L	50	43.3	87	53-137	
Vinyl acetate	ug/L	100	99.6	100	40-160	
Vinyl chloride	ug/L	50	46.1	92	58-137	
Xylene (Total)	ug/L	150	137	91	81-126	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			94	70-130	

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Asheville, NC 28804
(828)254-7176

QUALIFIERS

Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

C9	Common Laboratory Contaminant.

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(828)254-7176

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CLAY CO. UPSTREAM
Pace Project No.: 92280050

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92280050001	**UPSTREAM**	EPA 3010A	MPRP/20312	EPA 6010	ICP/18330
92280050001	**UPSTREAM**	EPA 7470	MERP/8799	EPA 7470	MERC/8455
92280050001	**UPSTREAM**	EPA 8260	MSV/34968		

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Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: November 06, 2015 Page 1 of 2*
	Document No.: F-ASV-CS-003-rev.15	Issuing Authorities: Pace Asheville Quality Office

Client Name: Fourmental Inc

* Page 2 of 2 is for Internal Use Only

Courier (Circle): Fed Ex UPS USPS (Client) Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun#5 - 155271998 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

IR Gun #4 SN:140290365 Other:_____

Temp Correction Factor: Add / Subtract 0.0 C

Corrected Cooler Temp.: 5.5 C **Biological Tissue is Frozen:** Yes No N/A

Date and Initials of person examining contents: RDB 12/16/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: AMB Date: 12-16-15

SRF Review: AMB Date: 12-17-15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO#: 92280050

92280050

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1962520

Section A Required Client Information:

Company: ENVIRONMENTAL INC
Address: PO BOX 954
COLLOCHET, NC 28723
Email To:
Phone: (828) 586-5588 Fax: (828) 586-0501
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: CLAY CO
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 3126-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): APPX I METALS	APPX I VOC 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92280050
1	UPSTREAM					12-15-15	11:62					✓						✓			001
2													✓						✓		001
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	12-15-15	14:05	[signature]	12/15/15	1405				
	[signature]	12/16/15	1133A	[signature]	12/16/15	11:33	5.5	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

January 12, 2016

Mr. Mark Teague
Environmental, Inc.
PO Box 954
Cullowhee, NC 28723

RE: Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

Dear Mr. Teague:
Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

A revised laboratory report is being submitted on January 12, 2016, to report MDLs, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
Project Manager

Enclosures

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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

CERTIFICATIONS

Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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Asheville, NC 28804
(828)254-7176

SAMPLE SUMMARY

Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92280049001	**DOWNSTREAM**	Water	12/15/15 12:40	12/16/15 11:33

REPORT OF LABORATORY ANALYSIS

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

SAMPLE ANALYTE COUNT

Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92280049001	**DOWNSTREAM**	EPA 6010	CDF, JMW	15	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	GAW	52	PASI-C

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Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

Sample: DOWNSTREAM **Lab ID: 92280049001** Collected: 12/15/15 12:40 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A								
Antimony	ND	ug/L	5.0	3.8	1	12/17/15 19:00	12/19/15 06:09	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	12/17/15 19:00	12/19/15 06:09	7440-38-2	
Barium	**8.8**	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:09	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 06:09	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 06:09	7440-43-9	
Chromium	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:09	7440-47-3	
Cobalt	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:09	7440-48-4	
Copper	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:09	7440-50-8	
Lead	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:09	7439-92-1	
Nickel	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:09	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 06:09	7782-49-2	
Silver	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:09	7440-22-4	
Thallium	ND	ug/L	5.4	5.0	1	12/17/15 19:00	12/22/15 18:12	7440-28-0	
Vanadium	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 06:09	7440-62-2	
Zinc	ND	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 06:09	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	12/19/15 18:30	12/21/15 12:30	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		12/29/15 14:35	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		12/29/15 14:35	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/29/15 14:35	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/29/15 14:35	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/29/15 14:35	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/29/15 14:35	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/29/15 14:35	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		12/29/15 14:35	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		12/29/15 14:35	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/29/15 14:35	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/29/15 14:35	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/29/15 14:35	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/29/15 14:35	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/29/15 14:35	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/29/15 14:35	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/29/15 14:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/29/15 14:35	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/29/15 14:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/29/15 14:35	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/29/15 14:35	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		12/29/15 14:35	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/29/15 14:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/29/15 14:35	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/29/15 14:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/29/15 14:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/29/15 14:35	156-60-5	

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ANALYTICAL RESULTS

Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

Sample: DOWNSTREAM **Lab ID: 92280049001** Collected: 12/15/15 12:40 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/29/15 14:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/29/15 14:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/29/15 14:35	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/29/15 14:35	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		12/29/15 14:35	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		12/29/15 14:35	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/29/15 14:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		12/29/15 14:35	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/29/15 14:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/29/15 14:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/29/15 14:35	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/29/15 14:35	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/29/15 14:35	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/29/15 14:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/29/15 14:35	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/29/15 14:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/29/15 14:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/29/15 14:35	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		12/29/15 14:35	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/29/15 14:35	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/29/15 14:35	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/29/15 14:35	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/29/15 14:35	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		12/29/15 14:35	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		12/29/15 14:35	17060-07-0	
Toluene-d8 (S)	116	%	70-130		1		12/29/15 14:35	2037-26-5	

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QUALITY CONTROL DATA

Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

QC Batch: MERP/8799 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Associated Lab Samples: 92280049001

METHOD BLANK: 1632840 | Matrix: Water
Associated Lab Samples: 92280049001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.10	12/21/15 11:41	

LABORATORY CONTROL SAMPLE: 1632841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.1	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1632842 1632844

Parameter	Units	92279477001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	1.9	92	75	75-125	20	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

QC Batch: MPRP/20312
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92280049001

METHOD BLANK: 1631789
Matrix: Water
Associated Lab Samples: 92280049001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	3.8	12/19/15 05:13	
Arsenic	ug/L	ND	10.0	2.5	12/19/15 05:13	
Barium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Beryllium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Cadmium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Chromium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Cobalt	ug/L	ND	5.0	2.5	12/19/15 05:13	
Copper	ug/L	ND	5.0	2.5	12/19/15 05:13	
Lead	ug/L	ND	5.0	2.5	12/19/15 05:13	
Nickel	ug/L	ND	5.0	2.5	12/19/15 05:13	
Selenium	ug/L	ND	10.0	5.0	12/19/15 05:13	
Silver	ug/L	ND	5.0	2.5	12/19/15 05:13	
Thallium	ug/L	ND	5.4	5.0	12/22/15 17:35	
Vanadium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Zinc	ug/L	ND	10.0	5.0	12/19/15 05:13	

LABORATORY CONTROL SAMPLE: 1631790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	489	98	80-120	
Arsenic	ug/L	500	526	105	80-120	
Barium	ug/L	500	496	99	80-120	
Beryllium	ug/L	500	502	100	80-120	
Cadmium	ug/L	500	519	104	80-120	
Chromium	ug/L	500	529	106	80-120	
Cobalt	ug/L	500	530	106	80-120	
Copper	ug/L	500	515	103	80-120	
Lead	ug/L	500	524	105	80-120	
Nickel	ug/L	500	524	105	80-120	
Selenium	ug/L	500	520	104	80-120	
Silver	ug/L	250	233	93	80-120	
Thallium	ug/L	500	522	104	80-120	
Vanadium	ug/L	500	518	104	80-120	
Zinc	ug/L	500	554	111	80-120	

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QUALITY CONTROL DATA

Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1631791 1631792

Parameter	Units	92279775001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	495	483	99	97	75-125	2	25	
Arsenic	ug/L	ND	500	500	537	519	107	104	75-125	3	25	
Barium	ug/L	108	500	500	614	597	101	98	75-125	3	25	
Beryllium	ug/L	ND	500	500	515	499	103	100	75-125	3	25	
Cadmium	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Chromium	ug/L	ND	500	500	538	524	107	105	75-125	3	25	
Cobalt	ug/L	10.9	500	500	546	528	107	104	75-125	3	25	
Copper	ug/L	ND	500	500	524	508	105	101	75-125	3	25	
Lead	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Nickel	ug/L	6.7	500	500	534	517	105	102	75-125	3	25	
Selenium	ug/L	ND	500	500	520	508	104	101	75-125	2	25	
Silver	ug/L	ND	250	250	238	230	95	92	75-125	4	25	
Thallium	ug/L	ND	500	500	488	483	98	97	75-125	1	25	
Vanadium	ug/L	2.9J	500	500	534	517	106	103	75-125	3	25	
Zinc	ug/L	20.2	500	500	581	567	112	109	75-125	2	25	

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QUALITY CONTROL DATA

Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

QC Batch: MSV/34968 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92280049001

METHOD BLANK: 1638140 | Matrix: Water
Associated Lab Samples: 92280049001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/29/15 06:11	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/29/15 06:11	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/29/15 06:11	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/29/15 06:11	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/29/15 06:11	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/29/15 06:11	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/29/15 06:11	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/29/15 06:11	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/29/15 06:11	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/29/15 06:11	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	12/29/15 06:11	
2-Hexanone	ug/L	ND	5.0	0.46	12/29/15 06:11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	12/29/15 06:11	
Acetone	ug/L	ND	25.0	10.0	12/29/15 06:11	
Acrylonitrile	ug/L	ND	10.0	1.9	12/29/15 06:11	
Benzene	ug/L	ND	1.0	0.25	12/29/15 06:11	
Bromochloromethane	ug/L	ND	1.0	0.17	12/29/15 06:11	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/29/15 06:11	
Bromoform	ug/L	ND	1.0	0.26	12/29/15 06:11	
Bromomethane	ug/L	ND	2.0	0.29	12/29/15 06:11	
Carbon disulfide	ug/L	ND	2.0	1.2	12/29/15 06:11	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/29/15 06:11	
Chlorobenzene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Chloroethane	ug/L	ND	1.0	0.54	12/29/15 06:11	
Chloroform	ug/L	ND	1.0	0.14	12/29/15 06:11	
Chloromethane	ug/L	ND	1.0	0.11	12/29/15 06:11	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/29/15 06:11	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	12/29/15 06:11	
Dibromochloromethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Dibromomethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Ethylbenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
Iodomethane	ug/L	ND	5.0	0.32	12/29/15 06:11	
m&p-Xylene	ug/L	ND	2.0	0.66	12/29/15 06:11	
Methylene Chloride	ug/L	ND	1.0	0.97	12/29/15 06:11	
o-Xylene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Styrene	ug/L	ND	1.0	0.26	12/29/15 06:11	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/29/15 06:11	
Toluene	ug/L	ND	1.0	0.26	12/29/15 06:11	

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QUALITY CONTROL DATA

Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

METHOD BLANK: 1638140 Matrix: Water
Associated Lab Samples: 92280049001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/29/15 06:11	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	12/29/15 06:11	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	1.0	12/29/15 06:11	
Trichloroethene	ug/L	ND	1.0	0.47	12/29/15 06:11	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/29/15 06:11	
Vinyl acetate	ug/L	ND	2.0	0.35	12/29/15 06:11	
Vinyl chloride	ug/L	ND	1.0	0.62	12/29/15 06:11	
Xylene (Total)	ug/L	ND	2.0	0.66	12/29/15 06:11	
1,2-Dichloroethane-d4 (S)	%	91	70-130		12/29/15 06:11	
4-Bromofluorobenzene (S)	%	102	70-130		12/29/15 06:11	
Toluene-d8 (S)	%	109	70-130		12/29/15 06:11	

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.6	101	80-125	
1,1,1-Trichloroethane	ug/L	50	48.0	96	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	50.6	101	79-124	
1,1,2-Trichloroethane	ug/L	50	50.9	102	85-125	
1,1-Dichloroethane	ug/L	50	45.2	90	73-126	
1,1-Dichloroethene	ug/L	50	43.6	87	66-135	
1,2,3-Trichloropropane	ug/L	50	51.2	102	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.8	96	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	53.4	107	83-124	
1,2-Dichlorobenzene	ug/L	50	49.1	98	80-133	
1,2-Dichloroethane	ug/L	50	45.6	91	67-128	
1,2-Dichloropropane	ug/L	50	46.8	94	75-132	
1,4-Dichlorobenzene	ug/L	50	49.2	98	78-130	
2-Butanone (MEK)	ug/L	100	113	113	61-144	
2-Hexanone	ug/L	100	108	108	68-143	
4-Methyl-2-pentanone (MIBK)	ug/L	100	107	107	72-135	
Acetone	ug/L	100	105	105	48-146	
Acrylonitrile	ug/L	250	255	102	40-160	
Benzene	ug/L	50	49.0	98	80-125	
Bromochloromethane	ug/L	50	53.7	107	71-125	
Bromodichloromethane	ug/L	50	48.1	96	78-124	
Bromoform	ug/L	50	43.7	87	71-128	
Bromomethane	ug/L	50	40.4	81	40-160	
Carbon disulfide	ug/L	50	41.0	82	50-160	
Carbon tetrachloride	ug/L	50	49.1	98	69-131	
Chlorobenzene	ug/L	50	49.9	100	81-122	
Chloroethane	ug/L	50	33.9	68	39-148	
Chloroform	ug/L	50	47.6	95	73-127	
Chloromethane	ug/L	50	53.7	107	44-146	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	44.9	90	74-124	
cis-1,3-Dichloropropene	ug/L	50	50.8	102	72-132	
Dibromochloromethane	ug/L	50	52.8	106	78-125	
Dibromomethane	ug/L	50	52.2	104	82-120	
Ethylbenzene	ug/L	50	46.5	93	79-121	
Iodomethane	ug/L	100	85.5	86	39-154	
m&p-Xylene	ug/L	100	91.9	92	81-124	
Methylene Chloride	ug/L	50	57.2	114	64-133	
o-Xylene	ug/L	50	44.9	90	79-131	
Styrene	ug/L	50	48.0	96	84-126	
Tetrachloroethene	ug/L	50	49.3	99	78-122	
Toluene	ug/L	50	45.0	90	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.8	96	71-127	
trans-1,3-Dichloropropene	ug/L	50	45.4	91	69-141	
trans-1,4-Dichloro-2-butene	ug/L	50	54.3	109	40-160	
Trichloroethene	ug/L	50	52.5	105	78-122	
Trichlorofluoromethane	ug/L	50	43.3	87	53-137	
Vinyl acetate	ug/L	100	99.6	100	40-160	
Vinyl chloride	ug/L	50	46.1	92	58-137	
Xylene (Total)	ug/L	150	137	91	81-126	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			94	70-130	

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QUALIFIERS

Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CLAY CO. DOWNSTREAM
Pace Project No.: 92280049

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92280049001	**DOWNSTREAM**	EPA 3010A	MPRP/20312	EPA 6010	ICP/18330
92280049001	**DOWNSTREAM**	EPA 7470	MERP/8799	EPA 7470	MERC/8455
92280049001	**DOWNSTREAM**	EPA 8260	MSV/34968		

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Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: November 06, 2015 Page 1 of 2*
	Document No.: F-ASV-CS-003-rev.15	Issuing Authorities: Pace Asheville Quality Office

Client Name: Environmental Inc

* Page 2 of 2 is for Internal Use Only

Courier (Circle): Fed Ex UPS USPS (Client) Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no **Seals intact:** ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun#5 - 155271998 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

IR Gun #4 SN:140290365 Other:_____

Temp Correction Factor: Add / Subtract 0.0 C

Corrected Cooler Temp.: 5.5 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: RDB 12/16/15

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: AMB **Date:** 12-16-15

SRF Review: AMB **Date:** 12-17-15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO# : 92280049

92280049

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1962521

Section A Required Client Information:

Company: ENVIRONMENTAL INC
Address: PO BOX 254
COLLOWHEE, NC 28723
Email To:
Phone: 828 586-5558 Fax: 828 586-0800
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: CLAY CO
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 3126-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): APPX I METALS	APPX I VOC 5260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92280049
1	DOWNSTREAM					12-15-15	12:40					✓						✓			001
2													✓						✓		001
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	12-15-15	14:05	Anthony Crane	12/15/15	1405				
	Anthony Crane	12/16/15	1133A	[signature]	12/16/15	1133	5.5	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

January 12, 2016

Mr. Mark Teague
Environmental, Inc.
PO Box 954
Cullowhee, NC 28723

RE: Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

Dear Mr. Teague:
Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

A revised laboratory report is being submitted on January 12, 2016, to report MDLs, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project:	Clay Co. Equipment Blank
Pace Project No.:	92280023

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92280023001	**EQUIPMENT BLANK**	Water	12/15/15 13:58	12/16/15 11:33
92280023002	**TRIP BLANK**	Water	12/15/15 13:58	12/16/15 11:33

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SAMPLE ANALYTE COUNT

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92280023001	**EQUIPMENT BLANK**	EPA 6010	CDF, JMW	15	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	GAW	52	PASI-C
92280023002	**TRIP BLANK**	EPA 8260	GAW	52	PASI-C

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ANALYTICAL RESULTS

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

Sample: EQUIPMENT BLANK **Lab ID: 92280023001** Collected: 12/15/15 13:58 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A								
Antimony	ND	ug/L	5.0	3.8	1	12/17/15 19:00	12/19/15 05:38	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	12/17/15 19:00	12/19/15 05:38	7440-38-2	
Barium	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:38	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:38	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/17/15 19:00	12/19/15 05:38	7440-43-9	
Chromium	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:38	7440-47-3	
Cobalt	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:38	7440-48-4	
Copper	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:38	7440-50-8	
Lead	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:38	7439-92-1	
Nickel	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:38	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:38	7782-49-2	
Silver	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:38	7440-22-4	
Thallium	**6.4**	ug/L	5.4	5.0	1	12/17/15 19:00	12/22/15 17:41	7440-28-0	
Vanadium	ND	ug/L	5.0	2.5	1	12/17/15 19:00	12/19/15 05:38	7440-62-2	
Zinc	**5.8J**	ug/L	10.0	5.0	1	12/17/15 19:00	12/19/15 05:38	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	12/19/15 18:30	12/21/15 12:13	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		12/29/15 08:56	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		12/29/15 08:56	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/29/15 08:56	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/29/15 08:56	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/29/15 08:56	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/29/15 08:56	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/29/15 08:56	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		12/29/15 08:56	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		12/29/15 08:56	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/29/15 08:56	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/29/15 08:56	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/29/15 08:56	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/29/15 08:56	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/29/15 08:56	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/29/15 08:56	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/29/15 08:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/29/15 08:56	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/29/15 08:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/29/15 08:56	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/29/15 08:56	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		12/29/15 08:56	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/29/15 08:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/29/15 08:56	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/29/15 08:56	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/29/15 08:56	156-59-2	
trans-1,2-Dichloroethene	**0.59J**	ug/L	1.0	0.49	1		12/29/15 08:56	156-60-5	

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ANALYTICAL RESULTS

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

Sample: EQUIPMENT BLANK **Lab ID: 92280023001** Collected: 12/15/15 13:58 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/29/15 08:56	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/29/15 08:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/29/15 08:56	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/29/15 08:56	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		12/29/15 08:56	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		12/29/15 08:56	74-88-4	
Methylene Chloride	**75.9**	ug/L	1.0	0.97	1		12/29/15 08:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		12/29/15 08:56	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/29/15 08:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/29/15 08:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/29/15 08:56	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/29/15 08:56	127-18-4	
Toluene	**0.45J**	ug/L	1.0	0.26	1		12/29/15 08:56	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/29/15 08:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/29/15 08:56	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/29/15 08:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/29/15 08:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/29/15 08:56	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		12/29/15 08:56	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/29/15 08:56	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/29/15 08:56	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/29/15 08:56	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/29/15 08:56	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	112	%	70-130		1		12/29/15 08:56	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		12/29/15 08:56	17060-07-0	
Toluene-d8 (S)	118	%	70-130		1		12/29/15 08:56	2037-26-5	

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

Sample: TRIP BLANK **Lab ID: 92280023002** Collected: 12/15/15 13:58 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		12/29/15 12:36	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		12/29/15 12:36	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/29/15 12:36	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/29/15 12:36	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/29/15 12:36	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/29/15 12:36	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/29/15 12:36	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		12/29/15 12:36	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		12/29/15 12:36	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/29/15 12:36	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/29/15 12:36	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/29/15 12:36	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/29/15 12:36	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/29/15 12:36	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/29/15 12:36	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/29/15 12:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/29/15 12:36	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/29/15 12:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/29/15 12:36	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/29/15 12:36	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		12/29/15 12:36	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/29/15 12:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/29/15 12:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/29/15 12:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/29/15 12:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/29/15 12:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/29/15 12:36	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/29/15 12:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/29/15 12:36	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/29/15 12:36	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		12/29/15 12:36	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		12/29/15 12:36	74-88-4	
Methylene Chloride	**1.6**	ug/L	1.0	0.97	1		12/29/15 12:36	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		12/29/15 12:36	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/29/15 12:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/29/15 12:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/29/15 12:36	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/29/15 12:36	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/29/15 12:36	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/29/15 12:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/29/15 12:36	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/29/15 12:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/29/15 12:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/29/15 12:36	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		12/29/15 12:36	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/29/15 12:36	75-01-4	

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ANALYTICAL RESULTS

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

Sample: TRIP BLANK **Lab ID: 92280023002** Collected: 12/15/15 13:58 Received: 12/16/15 11:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/29/15 12:36	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/29/15 12:36	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/29/15 12:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		12/29/15 12:36	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		12/29/15 12:36	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		12/29/15 12:36	2037-26-5	

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QUALITY CONTROL DATA

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

QC Batch: MERP/8799 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Associated Lab Samples: 92280023001

METHOD BLANK: 1632840 | Matrix: Water
Associated Lab Samples: 92280023001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.10	12/21/15 11:41	

LABORATORY CONTROL SAMPLE: 1632841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.1	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1632842 1632844

Parameter	Units	92279477001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	1.9	92	75	75-125	20	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

QC Batch: MPRP/20312
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92280023001

METHOD BLANK: 1631789
Matrix: Water
Associated Lab Samples: 92280023001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	3.8	12/19/15 05:13	
Arsenic	ug/L	ND	10.0	2.5	12/19/15 05:13	
Barium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Beryllium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Cadmium	ug/L	ND	1.0	0.50	12/19/15 05:13	
Chromium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Cobalt	ug/L	ND	5.0	2.5	12/19/15 05:13	
Copper	ug/L	ND	5.0	2.5	12/19/15 05:13	
Lead	ug/L	ND	5.0	2.5	12/19/15 05:13	
Nickel	ug/L	ND	5.0	2.5	12/19/15 05:13	
Selenium	ug/L	ND	10.0	5.0	12/19/15 05:13	
Silver	ug/L	ND	5.0	2.5	12/19/15 05:13	
Thallium	ug/L	ND	5.4	5.0	12/22/15 17:35	
Vanadium	ug/L	ND	5.0	2.5	12/19/15 05:13	
Zinc	ug/L	ND	10.0	5.0	12/19/15 05:13	

LABORATORY CONTROL SAMPLE: 1631790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	489	98	80-120	
Arsenic	ug/L	500	526	105	80-120	
Barium	ug/L	500	496	99	80-120	
Beryllium	ug/L	500	502	100	80-120	
Cadmium	ug/L	500	519	104	80-120	
Chromium	ug/L	500	529	106	80-120	
Cobalt	ug/L	500	530	106	80-120	
Copper	ug/L	500	515	103	80-120	
Lead	ug/L	500	524	105	80-120	
Nickel	ug/L	500	524	105	80-120	
Selenium	ug/L	500	520	104	80-120	
Silver	ug/L	250	233	93	80-120	
Thallium	ug/L	500	522	104	80-120	
Vanadium	ug/L	500	518	104	80-120	
Zinc	ug/L	500	554	111	80-120	

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QUALITY CONTROL DATA

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1631791 1631792

Parameter	Units	92279775001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	495	483	99	97	75-125	2	25	
Arsenic	ug/L	ND	500	500	537	519	107	104	75-125	3	25	
Barium	ug/L	108	500	500	614	597	101	98	75-125	3	25	
Beryllium	ug/L	ND	500	500	515	499	103	100	75-125	3	25	
Cadmium	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Chromium	ug/L	ND	500	500	538	524	107	105	75-125	3	25	
Cobalt	ug/L	10.9	500	500	546	528	107	104	75-125	3	25	
Copper	ug/L	ND	500	500	524	508	105	101	75-125	3	25	
Lead	ug/L	ND	500	500	526	510	105	102	75-125	3	25	
Nickel	ug/L	6.7	500	500	534	517	105	102	75-125	3	25	
Selenium	ug/L	ND	500	500	520	508	104	101	75-125	2	25	
Silver	ug/L	ND	250	250	238	230	95	92	75-125	4	25	
Thallium	ug/L	ND	500	500	488	483	98	97	75-125	1	25	
Vanadium	ug/L	2.9J	500	500	534	517	106	103	75-125	3	25	
Zinc	ug/L	20.2	500	500	581	567	112	109	75-125	2	25	

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QUALITY CONTROL DATA

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

QC Batch: MSV/34968 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92280023001, 92280023002

METHOD BLANK: 1638140 | Matrix: Water
Associated Lab Samples: 92280023001, 92280023002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/29/15 06:11	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/29/15 06:11	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/29/15 06:11	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/29/15 06:11	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/29/15 06:11	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/29/15 06:11	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/29/15 06:11	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/29/15 06:11	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/29/15 06:11	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/29/15 06:11	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/29/15 06:11	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	12/29/15 06:11	
2-Hexanone	ug/L	ND	5.0	0.46	12/29/15 06:11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	12/29/15 06:11	
Acetone	ug/L	ND	25.0	10.0	12/29/15 06:11	
Acrylonitrile	ug/L	ND	10.0	1.9	12/29/15 06:11	
Benzene	ug/L	ND	1.0	0.25	12/29/15 06:11	
Bromochloromethane	ug/L	ND	1.0	0.17	12/29/15 06:11	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/29/15 06:11	
Bromoform	ug/L	ND	1.0	0.26	12/29/15 06:11	
Bromomethane	ug/L	ND	2.0	0.29	12/29/15 06:11	
Carbon disulfide	ug/L	ND	2.0	1.2	12/29/15 06:11	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/29/15 06:11	
Chlorobenzene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Chloroethane	ug/L	ND	1.0	0.54	12/29/15 06:11	
Chloroform	ug/L	ND	1.0	0.14	12/29/15 06:11	
Chloromethane	ug/L	ND	1.0	0.11	12/29/15 06:11	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/29/15 06:11	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	12/29/15 06:11	
Dibromochloromethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Dibromomethane	ug/L	ND	1.0	0.21	12/29/15 06:11	
Ethylbenzene	ug/L	ND	1.0	0.30	12/29/15 06:11	
Iodomethane	ug/L	ND	5.0	0.32	12/29/15 06:11	
m&p-Xylene	ug/L	ND	2.0	0.66	12/29/15 06:11	
Methylene Chloride	ug/L	ND	1.0	0.97	12/29/15 06:11	
o-Xylene	ug/L	ND	1.0	0.23	12/29/15 06:11	
Styrene	ug/L	ND	1.0	0.26	12/29/15 06:11	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/29/15 06:11	
Toluene	ug/L	ND	1.0	0.26	12/29/15 06:11	

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QUALITY CONTROL DATA

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

METHOD BLANK: 1638140 Matrix: Water
Associated Lab Samples: 92280023001, 92280023002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/29/15 06:11	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	12/29/15 06:11	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	1.0	12/29/15 06:11	
Trichloroethene	ug/L	ND	1.0	0.47	12/29/15 06:11	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/29/15 06:11	
Vinyl acetate	ug/L	ND	2.0	0.35	12/29/15 06:11	
Vinyl chloride	ug/L	ND	1.0	0.62	12/29/15 06:11	
Xylene (Total)	ug/L	ND	2.0	0.66	12/29/15 06:11	
1,2-Dichloroethane-d4 (S)	%	91	70-130		12/29/15 06:11	
4-Bromofluorobenzene (S)	%	102	70-130		12/29/15 06:11	
Toluene-d8 (S)	%	109	70-130		12/29/15 06:11	

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.6	101	80-125	
1,1,1-Trichloroethane	ug/L	50	48.0	96	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	50.6	101	79-124	
1,1,2-Trichloroethane	ug/L	50	50.9	102	85-125	
1,1-Dichloroethane	ug/L	50	45.2	90	73-126	
1,1-Dichloroethene	ug/L	50	43.6	87	66-135	
1,2,3-Trichloropropane	ug/L	50	51.2	102	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.8	96	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	53.4	107	83-124	
1,2-Dichlorobenzene	ug/L	50	49.1	98	80-133	
1,2-Dichloroethane	ug/L	50	45.6	91	67-128	
1,2-Dichloropropane	ug/L	50	46.8	94	75-132	
1,4-Dichlorobenzene	ug/L	50	49.2	98	78-130	
2-Butanone (MEK)	ug/L	100	113	113	61-144	
2-Hexanone	ug/L	100	108	108	68-143	
4-Methyl-2-pentanone (MIBK)	ug/L	100	107	107	72-135	
Acetone	ug/L	100	105	105	48-146	
Acrylonitrile	ug/L	250	255	102	40-160	
Benzene	ug/L	50	49.0	98	80-125	
Bromochloromethane	ug/L	50	53.7	107	71-125	
Bromodichloromethane	ug/L	50	48.1	96	78-124	
Bromoform	ug/L	50	43.7	87	71-128	
Bromomethane	ug/L	50	40.4	81	40-160	
Carbon disulfide	ug/L	50	41.0	82	50-160	
Carbon tetrachloride	ug/L	50	49.1	98	69-131	
Chlorobenzene	ug/L	50	49.9	100	81-122	
Chloroethane	ug/L	50	33.9	68	39-148	
Chloroform	ug/L	50	47.6	95	73-127	
Chloromethane	ug/L	50	53.7	107	44-146	

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QUALITY CONTROL DATA

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

LABORATORY CONTROL SAMPLE: 1638141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	44.9	90	74-124	
cis-1,3-Dichloropropene	ug/L	50	50.8	102	72-132	
Dibromochloromethane	ug/L	50	52.8	106	78-125	
Dibromomethane	ug/L	50	52.2	104	82-120	
Ethylbenzene	ug/L	50	46.5	93	79-121	
Iodomethane	ug/L	100	85.5	86	39-154	
m&p-Xylene	ug/L	100	91.9	92	81-124	
Methylene Chloride	ug/L	50	57.2	114	64-133	
o-Xylene	ug/L	50	44.9	90	79-131	
Styrene	ug/L	50	48.0	96	84-126	
Tetrachloroethene	ug/L	50	49.3	99	78-122	
Toluene	ug/L	50	45.0	90	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.8	96	71-127	
trans-1,3-Dichloropropene	ug/L	50	45.4	91	69-141	
trans-1,4-Dichloro-2-butene	ug/L	50	54.3	109	40-160	
Trichloroethene	ug/L	50	52.5	105	78-122	
Trichlorofluoromethane	ug/L	50	43.3	87	53-137	
Vinyl acetate	ug/L	100	99.6	100	40-160	
Vinyl chloride	ug/L	50	46.1	92	58-137	
Xylene (Total)	ug/L	150	137	91	81-126	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			94	70-130	

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALIFIERS

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

C9	Common Laboratory Contaminant.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Clay Co. Equipment Blank
Pace Project No.: 92280023

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92280023001	**EQUIPMENT BLANK**	EPA 3010A	MPRP/20312	EPA 6010	ICP/18330
92280023001	**EQUIPMENT BLANK**	EPA 7470	MERP/8799	EPA 7470	MERC/8455
92280023001	**EQUIPMENT BLANK**	EPA 8260	MSV/34968		
92280023002	**TRIP BLANK**	EPA 8260	MSV/34968		

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Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: November 06, 2015 Page 1 of 2*
	Document No.: F-ASV-CS-003-rev.15	Issuing Authorities: Pace Asheville Quality Office

Client Name: Environmental Inc

* Page 2 of 2 is for Internal Use Only

Courier (Circle): Fed Ex UPS USPS (Client) Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun#5 - 155271998 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

IR Gun #4 SN:140290365 Other:_____

Temp Correction Factor: Add / Subtract 0.0 C

Corrected Cooler Temp.: 5.5 C **Biological Tissue is Frozen:** Yes No N/A

Date and Initials of person examining contents: RDB 12/16/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: AMB Date: 12-16-15

SRF Review: AMB Date: 12-17-15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO#: 92280023

92280023

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1962519

Section A Required Client Information:

Company: ENVIRONMENTAL INC
Address: PO BOX 954
COLLOMBIA, NC 28723
Email To:
Phone: (828) 550-5558 Fax: (828) 550-0500
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: CLAY CO
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 3126-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): APPX I METALS	Analysis Test (Y/N): APPX I VOC SVOC	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92280023
1	EQUIPMENT BLANK					12-15-15	13:58					✓						✓			001
2													✓						✓		001
3																					
4	TRIP BLANK												✓						✓		002
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	12-15-15	14:05	[signature]	12/15/15	1405				
	[signature]	12/16/15	1133A	[signature]	12/16/15	11:33	5.5	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

APPENDIX C

Environmental Monitoring Reporting Form and Electronic Submittal of Environmental Monitoring Data 2201Dec2015 (Electronic Submittal Only)

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):

Altamont Environmental, Inc.

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

Name: Brian Gant Phone: (828) 281-3350

E-mail: bgant@altamontenvironmental.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Clay County Closed Municipal Solid Waste Facility	1160 Hinton Center Road (S.R. 1148), Hayesville, North Carolina 28904	22-01	.1600	December 15, 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.

Charles G. Pippin, P.G. — Facility Representative Name (Print)

Project Geologist — Title

(828) 281-3350 — (Area Code) Telephone Number

Signature — Date: 3-25-16

Affix NC Licensed/Professional Geologist Seal

CHARLES G. PIPPIN — NORTH CAROLINA — LICENSED — GEOLOGIST — SEAL 1587 — 3-25-16

231 Haywood Street, Asheville, NC 28801

Facility Representative Address

C-2185

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

Revised 6/2009