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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):

Joyce Engineering, Inc.

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

Name: G. Van Ness Burbach, Ph.D., P.G.

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Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Butner Landfill	State Road 1004 Butner, NC	39-02	.1600	August 17, 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 Methane gas monitoring data
 Groundwater monitoring data from private water supply wells Corrective action data (specify) MNA Baseline Data
 Leachate monitoring data Other(specify) _____
 Surface water monitoring data

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.

G. VanNess Burbach, Ph.D., PG

Technical Consultant

(336) 323-0092

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

Affix NC Licensed/ Professional Geologist Seal

Signature

Date

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Facility Representative Address

C-0782

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

Revised 6/2009



PREPARED FOR:

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**BUTNER LANDFILL
PERMIT NO. 39-02**

**SECOND SEMIANNUAL
WATER QUALITY MONITORING REPORT
OF 2015**

DECEMBER 2015

PREPARED BY:



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**Second Semiannual Water Quality Monitoring Report of 2015
Butner Landfill, Permit No. 39-02
Granville County, North Carolina**

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Chart

Chart 1	Benzene Concentrations vs. Time
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Figure

Figure 1	Site Location Map
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Drawing

Drawing 1	Groundwater Potentiometric Surface Map (August 2015)
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Appendices

Appendix A	Field Data Logs
Appendix B	Laboratory Analytical Reports
Appendix C	Historical Constituents in Groundwater
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Second Semiannual Water Quality Monitoring Report of 2015 Butner Landfill, Permit No. 39-02

1.0 INTRODUCTION

1.1 Site Information

The Butner Landfill is a closed municipal solid waste (MSW) landfill, located off State Route 1004 near the town of Butner, in Granville County, North Carolina (Figure No. 1). The Butner facility started receiving waste prior to May 1973. Permit Number 39-02, was issued by the State of North Carolina on March 3, 1982. The facility stopped receiving waste in August 1998. A small recycling center and transfer station are operated by the County of Granville at the entrance of the closed landfill.

In accordance with North Carolina Solid Waste Management Regulations (NCSWMR), the Butner Landfill entered an Assessment Monitoring Program in December of 1997 as a result of detections of volatile organic compounds and pesticide above 15A-NCAC-2L (NC-2L) Groundwater Standards. An Assessment of Corrective Measures (ACM) was initiated in 2003, and then suspended by North Carolina Department of Environment and Natural Resources (DENR) [now the Department of Environmental Quality (NCDEQ)] since there had been no more NC-2L exceedances. The Nature and Extent Study (NES) and ACM recommenced in 2007 when apparent volatile organic compound (VOC) exceedances of the NC-2L Standards began to appear; however, they were again suspended when it was determined that the apparent exceedances were not statistically significant increases (SSIs) above background. An ACM was reinitiated after an exceedance of benzene in MW-2R in December 2012, and was submitted to DENR in May 2013. Approval of the ACM was granted in a letter from DENR dated June 27, 2013. A Corrective Action Plan (CAP) was submitted to DENR on May 23, 2014, and was approved by DENR on June 18, 2014.

1.2 Site Geology

The Butner Landfill lies within the Piedmont physiographic province. The topography of the area consists of rolling hills that support farmland and forest. The majority of the landfill area is underlain by Carolina Slate Belt felsic volcanic rocks, which have been metamorphosed into greenish grey foliated tuffs. The southeastern portion of the site is underlain by Triassic Sanford Formation (conglomerate, sandstone, and mudstone), which unconformably overlies the Carolina Slate Belt felsic volcanic rocks. There is no exposure of the Sanford Formation at the site; however, float material consisting of grey, coarse-grained sandstone with quartz pebbles was observed. Diabase dikes have also been observed in the vicinity of the site. Geologic descriptions were taken from GAI Consultants' *Groundwater and Surface Water Monitoring System* report (GAI, 1994).

1.3 Groundwater Monitoring History

- **April 1994** – Current Monitoring Well Network installed.
- **Dec. 1997** - The facility entered Assessment Monitoring.

- **June 2003** – NC-2L exceedances for heptachlor in MW-2R and MW-3R initiated an ACM.
- **Dec. 2004 & June 2005** – There were no NC-2L exceedances, so DENR agreed to put the ACM on hold pending future monitoring results. At first, DENR said the facility needed deed restrictions on adjoining property owned by the County, but this was apparently based on false information (the County did not own the property) so the requirement for deed restrictions was dropped.
- **Dec. 2006** – Benzene in MW-2R and 1,4-dichlorobenzene in MW-2R and MW-3R detected above NC-2L standards.
- **June 14, 2007** - Granville County and JOYCE met with DENR to discuss a strategy for performing a Nature and Extent Study (NES) and an ACM.
- **Nov. 2007** – Nature & Extent well NES-1 was installed downgradient of MW-2R & MW-3R.
- **Dec. 2007** – NES & MNA sampling event on selected wells.
- **Dec. 2008** – Organic results above the NC-2L standards were determined to not represent statistically significant exceedances, so corrective action and ACM were suspended with the concurrence of the DENR and in accordance with the NCSWMR.
- **Dec. 2012** – Benzene detections above the NC-2L in MW-2R initiated the ACM.
- **May 17, 2013** – ACM addressing the benzene detections above the NC 2L in MW-2R submitted to DENR.
- **June 27, 2013** – ACM approved by DENR.
- **September 3, 2013** – Public meeting and selection of remedy.
- **May 23, 2014** – CAP submitted to DENR.
- **June 18, 2014** – CAP approved by DENR.

1.4 Regulatory Status

Groundwater and surface water monitoring at the Butner Landfill is completed in accordance with North Carolina Solid Waste Management Regulations (NCSWMR) §.1634. The site is currently in a Corrective Action Monitoring Program. Groundwater samples are collected semiannually and analyzed in accordance with the approved Corrective Action Plan. Surface water samples are collected and sampled for Appendix I constituents during each sampling event.

2.0 FACILITY MONITORING PROGRAM

2.1 Groundwater Monitoring Program

Six active groundwater monitoring wells comprise the monitoring network at the Butner Landfill. The current compliance network consists of the following monitoring wells: MW-1R (facility background well), MW-2R, MW-3R, MW-4, MW-5, and MW-6. An additional well, NES-1, was installed as part of a Nature and Extent Study on November 14, 2007. The following table summarizes the monitoring network and required analytical parameters.

Groundwater Monitoring Network

Monitoring Well	Date Installed	Classification	Monitoring Program	TD (ft)	Lithology of Screened Interval	1 st SA Event Analyses	2 nd SA Event Analyses
MW-1R	4/21/94	Background	Assessment/CAMP	45.1	Saprolite	App. II, MNA	App. I + Det., MNA
MW-2R	4/12/94	Compliance/Performance	Assessment/CAMP	19.0	Saprolite	App. II, MNA	App. I + Det., MNA
MW-3R	4/14/94	Compliance/Performance	Assessment/CAMP	37.2	Bedrock	App. II, MNA	App. I + Det., MNA
MW-4	4/18/94	Compliance	Detection	31.5	Bedrock	App. I	App. I
MW-5	4/18/94	Compliance	Detection	23.4	Saprolite	App. I	App. I
MW-6	4/19/94	Compliance	Detection	31.7	Saprolite/Bedrock	App. I	App. I
NES-1	11/14/07	Nature & Extent	Sentinel	33.0	Saprolite/Bedrock	COCs, MNA	COCs, MNA

App. I = NCSWMR Appendix I list of constituents.

App. II = NCSWMR Appendix II list of constituents.

MNA = Monitoring Natural Attenuation parameters.

COCs = Constituents of Concern

App. I + Det. = App. I list plus detected App. II constituents.

CAMP = Corrective Action Monitoring Plan

Current Appendix II detected constituents: tin, gamma-BHC, heptachlor, 2,4-D, and endrin aldehyde.

Current COC: Benzene.

MNA Field Parameters: Temperature, pH, specific conductance, oxidation reduction potential, turbidity, dissolved oxygen, dissolved carbon dioxide, and ferrous iron.

MNA Laboratory Parameters: Dissolved hydrogen, volatile fatty acids, dissolved methane, ethane, ethane, alkalinity, sulfide, sulfate, nitrate, chloride, biological oxygen demand (BOD), chemical oxygen demand (COD), and total organic carbon (TOC).

2.2 Surface Water Monitoring Program

Two surface water samples have been collected semiannually since September 1994 at the Butner Landfill. The points SW-1 and SW-2 are located respectively upstream and downstream of the facility, along an unnamed tributary of Picture Creek. The surface water samples are analyzed for the NCSWMR Appendix I list of constituents during both semiannual events.

3.0 SECOND SEMIANNUAL SAMPLING EVENT OF 2015

3.1 Field Work

On August 17, 2015, Joyce Engineering, (JOYCE) personnel visited the Butner Landfill to purge and sample monitoring wells MW-1R, MW-2R, MW-3R, MW-4, MW-5, MW-6, and NES-1.

All monitoring wells were purged and sampled using new, disposable bailers. Measurements of temperature, pH, turbidity and specific conductivity were recorded in a field log. Prior to sampling, laboratory-supplied containers were prepared with the following information:

- Monitoring well number (completed by laboratory/field personnel),

- Date and time of sample collection (completed by laboratory/field personnel),
- Initials of sampling personnel (completed by laboratory/field personnel),
- Project name and number (completed by the laboratory/field personnel),
- Chemical preservative (completed by the laboratory/field personnel); and
- Requested chemical analysis (completed by the laboratory/field personnel).

Groundwater samples from each monitoring well were collected directly from the bailers into the provided laboratory containers, either immediately after purging or within 24 hours of the final purge volume. Immediately after collection, the samples were placed in a laboratory provided cooler and chilled on ice. Field Logs are provided in Appendix A.

Surface water points SW-1 and SW-2 were dry and were not sampled. Field Logs are included in Appendix A.

3.2 Laboratory Analysis and JOYCE Quality Control

Pace Analytical Services Inc. of Huntersville, North Carolina, analyzed the August 2015, groundwater and surface water samples under chain-of-custody control. The groundwater samples from MW-1R, MW-2R, and MW-3R were analyzed for the NC Appendix II list of constituents. The groundwater samples from MW-4, MW-5, and MW-6 were analyzed for the NC Appendix I list of constituents. The sample from sentinel well NES-1 was analyzed for Appendix I VOCs only. Samples from MW-1R, MW-2R, MW-3R, and NES-1 were also analyzed for MNA parameters. The surface water samples were analyzed for NC Appendix I constituents. The samples were received by the laboratory on August 18, 2015, in good condition, properly preserved, at proper temperatures, and within analysis hold times.

In addition to samples collected for compliance monitoring at the Butner Landfill, JOYCE personnel collected a Field Blank as part of the August 2015 sampling event. The Field Blank was analyzed for the NC Appendix II constituents. Also, a Trip Blank that was prepared by the laboratory accompanied the volatile sampling containers to and from the laboratory. The Trip Blank was analyzed for the Appendix II volatile organic compounds. The complete laboratory analytical reports are included in Appendix B.

Upon receipt of the laboratory data package, JOYCE personnel reviewed the following data for:

- General typographical errors;
- Correct analyses performed and within method specified hold times;
- Biased data results based on Matrix Spike, Matrix Spike Duplicate, and Laboratory Control Samples;
- Blank qualified data (B-flags);
- Detections above the 15A NCAC 21.0202 (NC 2L) Groundwater Standards or the NCDEQ Solid Waste Section (SWS) Groundwater Water Protection Standards (GWPS); and
- Detections that are above historical levels.

The complete laboratory analytical reports and the chains of custody from the August 2015 event are included in Appendix B. Historical analytical results for groundwater and surface water are presented in Appendices C and D, respectively.

4.0 ANALYTICAL RESULTS AND STATISTICAL ANALYSES

4.1 Analytical Results for Groundwater and Comparisons to Standards

4.1.1 Inorganic Analyses

The following inorganic constituents were detected at quantified concentrations above the NCDEQ-SWS reporting limits (SWSL's) in one or more wells during the August 2015 sampling event: antimony, barium, cobalt, copper, and nickel. Table 4 summarizes all of the quantified detections from the August 2015 event. These results are consistent with historical data.

Antimony in MW-2R and cobalt in MW-5 were detected above their respective GWPS; however, not above the calculated background concentration (see section 4.2). Since the antimony and cobalt detections were below the site specific calculated background values, there were no exceedances of the GPS as defined by 15A NCAC 13B.1634.g. Exceedances of groundwater standards from the August 2015 event are summarized in Table 5. The laboratory analytical reports and the chains of custody are included in Appendix B. Complete historical analytical results for inorganic constituents are included in Appendix C.

4.1.2 Organic Analyses

The following organic constituents were detected at quantified concentrations above the solid waste section report limits (SWSL's) in one or more wells during the August 2015 sampling event: benzene, chlorobenzene, 1,4-dichlorobenzene, and methylene chloride. Table 4 summarizes all of the quantified detections from the August 2015 event. These results are consistent with historical data.

Benzene was detected above the NC 2L standard and the GPS in MW-2R. Exceedances of groundwater standards from the August 2015 event are summarized in Table 5. The benzene exceedance in MW-2R has been addressed in the ACM, approved in June 2013, and the CAP, approved in June 2014. No other organic constituents were detected above their GPS during the August 2015 sampling event. The laboratory analytical reports and the chains of custody are included in Appendix B. Historical analytical results for organic constituents are presented in Appendix C.

4.2 Statistical Analyses

4.2.1 Statistical Methods

Monitoring well MW-1R is designated as the up-gradient background well for the facility. Data from MW-1R between September 1994 and August 2015 have been used to determine statistical background concentrations for constituents detected at the facility.

The background data were evaluated using the Shapiro-Wilk Test, Parametric Prediction Limits, Parametric Tolerance Intervals, Aitchison's Adjustment, Non-Parametric Prediction Limits, and Poisson Prediction Limits, as appropriate. Background data, tests for normality, outliers, Aitchison's adjustment, tolerance interval, or prediction limits are used, as appropriate based on the background data. The statistical test by which downgradient data are compared to facility background data is based upon the nature of the data and the number of data values that are less than the laboratory limit of detection. All statistical tests are evaluated at the 0.05 level of significance, 95% confidence level, and are conducted as one-tailed tests. The data set was evaluated to determine the appropriate procedure for calculation of the background value for each parameter.

4.2.2 Results of Statistical Analyses

Antimony and cobalt were the only inorganic constituents detected in exceedance of their NC 2L or GWPS during the August 2015 sampling event. The calculated background concentrations for antimony and cobalt are proposed as the Groundwater Protection Standards specific to the site per rule .1634(g.5) of the NCSWMR. Statistical analysis worksheets can be found in Appendix E. The results of the August 2015 statistical background calculations are summarized in the following table.

Constituent	Data Distribution	Statistical Method used to Establish Background	Background Concentration	GWPS	GPS	GPS Exceedances
Antimony	96% ND	Upper Poisson Prediction Limit	56	1	56	None
Cobalt	73% ND	Nonparametric Prediction Interval	130	1	130	None

GWPS = Solid Waste Section Groundwater Standard for constituents with no listed NC 2L.

GPS = Groundwater Protection Standard as defined in 15A NCAC .1634(g).

%ND = percentage of background data that is truncated (non-detect).

All concentrations are in µg/L (micrograms per liter).

4.3 Analytical Results for Surface Water and Comparisons to Standards

Surface water points SW-1 and SW-2 were dry and no samples were collected during the August 2015 sampling event.

5.0 HYDROGEOLOGICAL CONDITIONS

Groundwater in the saprolite feeds the fractures in the bedrock and discharges into creeks northeast of the landfill. Groundwater flow direction at deeper levels within the fractured bedrock is controlled by fracture orientation. A groundwater surface contour map, developed with static water level data obtained August 17, 2015, is presented as Drawing 1. The static water elevations depict groundwater flow to the southeast.

Depth to groundwater was measured in the compliance monitoring wells at the site prior to purging. The groundwater elevations were calculated relative to the surveyed measuring point (top of casing) for each monitoring well. The historical groundwater elevations are summarized in Table 4. The groundwater elevation contours shown on Drawing 1 are based on data from the August 2015 sampling event. Horizontal groundwater gradients along representative flow paths were estimated from the August 2015 groundwater contours shown on Drawing 1 and are summarized in Table 5. Horizontal gradients across the site ranged from 0.049 to 0.056 ft/ft, with an average of approximately 0.051 ft/ft. This is consistent with previous estimates.

Linear groundwater flow velocities were computed using the modified Darcy equation:

$$V = Ki/n_e$$

where V = average linear velocity (feet/year),
 K = hydraulic conductivity (feet/day),
 i = horizontal hydraulic gradient, and
 n_e = effective porosity.

The average of hydraulic conductivities ($K = 2.18 \times 10^{-05}$ cm/sec = 6.18×10^{-02} feet/day) from slug-tests conducted in 1994 (GAI, 1994) was used in these calculations. The average effective porosity ($n_e = 18\%$) based on 90% of reported total porosity for soils (GAI, 1994), and $n_e = 10\%$ for fractured bedrock were also used. Although the regolith and bedrock are hydraulically connected, the effective porosity generally decreases with depth into the underlying fractured bedrock. The modified Darcy equation makes the simplifying assumption of a homogeneous and isotropic aquifer. The calculated linear groundwater velocities range from approximately 6.1 to 7.0 feet/year, and the average estimated linear groundwater flow velocity under the facility was calculated at approximately 6.4 feet/year (see Table 3). Groundwater flow direction beneath the landfill is predominantly to the south and southeast.

Because of our conservative estimate of effective porosity, actual groundwater velocities may be significantly less than the calculated values. Also, the modified Darcy equation makes the simplifying assumptions of a homogeneous and isotropic aquifer, which may not be accurate for this site.

6.0 CORRECTIVE ACTION EVALUATION

6.1 Monitored Natural Attenuation Parameters

Wells MW-1R (background), MW-2R, MW-3R, and NES-1 were analyzed for the following MNA parameters during the August 2015 sampling event:

MNA Field Parameters: Temperature, pH, specific conductance, oxidation reduction potential, turbidity, dissolved oxygen, dissolved carbon dioxide, and ferrous iron.

MNA Laboratory Parameters: Dissolved hydrogen, volatile fatty acids, dissolved methane, ethane, ethane, alkalinity, sulfide, sulfate, nitrate, chloride, biological oxygen demand (BOD), chemical oxygen demand (COD), and total organic carbon (TOC).

The current and historical MNA parameter data are presented in Table 7, and the laboratory analytical report for the August 2015 sampling event is included in Appendix B. The August 2015 sampling event represents the fourth of four required baseline sampling events for the MNA remedy. The MNA data will be evaluated and reported in the first Corrective Action Evaluation Report (CAER) for the facility, which will be submitted concurrently with this report.

6.2 Phytoremediation

The second phytoremediation tree survey for the Butner Landfill was conducted in April 2015 and the results will be presented in the 2015 CAER. The CAP requires annual tree surveys, and the next survey is scheduled for spring 2016.

6.3 Evaluation of Plume Stability and Trends

Chart 1 presents a plot of the benzene concentrations versus time in all monitoring wells where it has been detected (MW-2R, MW-3R, and MW-4). There were no benzene detections prior to December 2006, possibly due to a higher quantitation limit and the fact that estimated detections below the quantitation limit were not reported prior to December 2006. From December 2006 to present, benzene in MW-2R has fluctuated between 1 µg/L and 2 µg/L with no clear trend. From December 2007 to present, benzene in MW-3R has fluctuated between 0.3 µg/L and 0.7 µg/L, and benzene in MW 4 has fluctuated between non-detect and 0.4 µg/L.

The benzene concentrations from the August 2015 sampling event were slightly higher in all three wells than the previous (March 2014) event; however, they are within the range of historical fluctuations. Since there have been no detections of benzene in either the surface water or sentinel well NES-1, there is no indication that the plume is migrating toward the property boundary. The plume appears to be stable. The benzene plume will be discussed in more detail in the 2015 CAER.

7.0 CONCLUSIONS

Antimony in MW-2R and cobalt in MW-5 were detected above their respective GWPS; however, they were not above the calculated background concentrations. The County of Granville requests that the background values for antimony and cobalt be considered the GPS at the Butner Landfill per rule .1634(g.5) of the NCSWMR; in which case there was no exceedances of the GPS for inorganic constituents from the August 2015 sampling event.

Benzene was detected above the NC-2L in MW-2R during the August 2015 sampling event. In response to the historical benzene exceedances in MW-2R, Granville County submitted an ACM on May 17, 2013, which was approved on June 27, 2013. A CAP was submitted on May 23, 2014 and approved on June 18, 2014. Review of MNA parameter data, plume stability, and benzene trends indicate that the selected remedies of natural attenuation and phytoremediation are adequately controlling the plume.

The groundwater flow regime is consistent with previous events and the groundwater monitoring network remains adequate to monitor the site. The next semiannual sampling event is scheduled for the first quarter of 2016.

8.0 REFERENCES

- GAI Consultants – NC, Inc. (GAI), 1994. *Ground and Surface Water Monitoring System, Granville County, Butner Landfill, NC Permit No. 39-02*. June, 1994.
- Joyce Engineering (JOYCE), 2013. *Assessment of Corrective Action, Butner Landfill, Granville County, Permit No. 39-02*. May 2013.
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- Newell, Charles J., Ph.D., P.E., R. Kevin McLeod, and James R. Gonzales, 1996. *BIOSCREEN Natural Attenuation Decision Support System User’s Manual, Version 1.3*. United States Environmental Protection Agency, Office of Research and Development, Washington DC. EPA/600/R-96/087. August 1996.
- Newell, Charles J., Ph.D., P.E., R. Kevin McLeod, and James R. Gonzales, 1997. *BIOSCREEN Natural Attenuation Decision Support System, Version 1.4 Revisions*. United States Environmental Protection Agency, Office of Research and Development, Washington DC. July 1997.
- North Carolina Department of Environment and Natural Resources (NC-DENR), 2011. *North Carolina Solid Waste Management Rules*. 15 NCAC 13B. Amended April 2011.
- NC-DENR, 2007. *North Carolina Solid Waste Section Guidelines for Corrective Action at Solid Waste Management Facilities*. March 2007.

9.0 ACRONYMS

ACM	Assessment of Corrective Measures (Report)
AOC	Area of Concern
C&D	Construction and Demolition Waste
CAP	Corrective Action Plan (Report)
CAER	Corrective Action Evaluation Report (Report)
COC	Constituent of Concern
DENR	See NCDENR
DL	Detection Limit (for laboratory data)
DO	Dissolved Oxygen
EPA	United States Environmental Protection Agency
GPS	Site-specific Groundwater Protection Standards per NCSWMR §1634.g-h
GWPS	Groundwater Protection Standards (established by DENR-SWS)

JOYCE	Joyce Engineering
LFG	Landfill Gas
MNA	Monitored Natural Attenuation
MSW	Municipal Solid Waste
NC-2B	North Carolina Surface Water Standards found in 15A NCAC 2B
NC-2L	North Carolina Groundwater Standards found in 15A NCAC 2L
NCAC	North Carolina Administrative Code
NCDENR	North Carolina Department of Environment and Natural Resources (now NCDEQ)
NCDEQ	North Carolina Department of Environmental Quality (formerly NCDENR)
NCSWMR	North Carolina Solid Waste Management Regulations (15A NCAC 13B.1600)
ND	Not Detected (for laboratory data)
NES	Nature and Extent Study (Report)
O&M	Operations and Maintenance
QL	Quantitation Limit (for laboratory data)
QRA	Quantitative Risk Assessment (Report)
RL	Reporting Limit (for laboratory data)
SWQS	Surface Water Quality Standards
SWS	Solid Waste Section (of NCDENR/NCDEQ)
SWSL	North Carolina Solid Waste Section Reporting Limits
VOC	Volatile Organic Compound
WQMP	Water Quality Monitoring Plan (Report)
WQMR	Water Quality Monitoring Report (Report)

TABLES

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TABLE 1: Monitoring Well Construction Data

WELL ID		¹ LOCATION		¹ Elevation (Ft-AMSL)								Other Information			
Permit #	Well ID	Lat.	Long.	Surface Elevation	Top of Casing	Top of Screen	Bottom of Screen	Total Depth	² WL-24	³ WL 8/17/2015	Depth to Bedrock	⁴ Geologic Unit	Construction Date	Driller's Reg. #	Comments
39-02	MW-1R	N36° 09' 55.49"	W78° 45' 37.80"	461.01	461.01	420.01	405.01	405.01	420.01	417.71	431.01	Fractured Bedrock	4/21/1994	446	background well replacement
39-02	MW-2R	N36° 09' 38.57"	W78° 45' 34.97"	326.60	328.94	322.75	307.75	307.75	324.00	328.65	313.60	Weathered Bedrock	4/12/1994	446	compliance well replacement
39-02	MW-3R	N36° 09' 38.58"	W78° 45' 34.85"	328.77	330.95	302.94	292.94	292.94	325.77	327.81	315.77	Fractured Bedrock	4/14/1994	446	compliance well replacement
39-02	MW-4	N36° 09' 38.93"	W78° 45' 30.15"	338.97	340.92	322.54	307.54	307.54	329.17	331.05	325.97	Fractured Bedrock	4/18/1994	446	compliance well
39-02	MW-5	N36° 09' 39.35"	W78° 45' 23.77"	341.88	344.00	333.36	318.36	318.36	329.08	327.73	324.88	Fractured Bedrock	4/18/1994	446	compliance well
39-02	MW-6	N36° 09' 47.00"	W78° 45' 25.47"	360.80	362.80	343.17	328.17	328.17	349.10	347.63	339.60	Fractured Bedrock	4/19/1994	446	compliance well
39-02	NES-1	N36° 09' 35.65"	W78° 45' 31.59"	326.22	328.72	311.22	296.22	296.22	304.22	308.80	300.22	Fractured Bedrock	11/14/2007	2675	sentinel well

Notes:

1. Locations & Elevations based on March 2013 survey. Ft-AMSL = Feet above mean sea level.
 2. WL-24 = Water Levels approx. 24 hours after well installation.
 3. WL = Water Levels measured on 8/17/2015.
 4. Geology where well bore ends, documented as fractured metavolcanic bedrock of Carolina slate belt.
- Typical Monitoring Well Construction, materials are 2 inch SCH40 PVC casing and screen with 0.010 inch slot, sand pack, bentonite seal, grout pad, & steel outer casing.
 Monitoring Well Summary data is from well construction records, GAI Consultants June 1994, & Joyce Engineering November 2007, and field observations.

TABLE 2: HISTORICAL GROUNDWATER ELEVATION DATA

Well ID:	Background	Downgradient					
	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1
Well TOC Elev.:	460.51	331.60	330.96	340.80	343.88	362.53	328.40
Well Depth:	56.00	18.85	35.83	31.43	23.52	32.63	32.80
21-Aug-99	418.68	329.13	328.06	330.50	330.83	352.10	NI
16-Nov-99	419.75	325.38	324.51	331.53	334.33	352.97	NI
10-May-00	424.53	329.60	328.83	334.15	334.49	355.72	NI
26-Oct-00	419.21	329.26	328.15	331.33	330.94	352.78	NI
18-Apr-01	418.76	329.42	328.63	333.57	334.36	354.22	NI
26-Oct-01	412.53	329.04	327.94	330.57	330.23	350.92	NI
13-Jun-02	413.70	328.38	327.41	330.21	330.29	351.04	NI
19-Nov-02	413.40	329.25	328.35	331.57	337.17	350.94	NI
27-Jun-03	423.61	329.57	328.93	334.24	333.99	355.21	NI
29-Dec-03	420.23	329.70	329.11	334.49	334.78	354.92	NI
30-Jun-04	418.81	329.38	328.48	332.26	331.39	353.10	NI
28-Dec-04	418.02	329.50	328.91	333.45	334.14	355.14	NI
29-Jun-05	418.81	329.10	329.26	331.62	330.90	352.76	NI
29-Dec-05	413.38	329.29	328.71	332.78	334.27	351.52	NI
27-Jun-06	414.75	329.17	328.40	332.18	333.56	353.43	NI
28-Dec-06	415.54	329.40	328.86	333.57	335.24	354.02	NI
12-Jul-07	438.64	328.69	327.97	331.31	330.52	352.30	NI
18-Dec-07	412.59	328.94	328.08	330.32	327.92	347.90	306.54
8-Jul-08	414.52	329.20	326.00	331.46	330.85	351.03	NM
17-Dec-08	412.79	329.39	328.84	333.15	335.03	350.82	NM
9-Jul-09	417.16	329.17	329.48	332.30	331.36	352.17	310.12
16-Dec-09	418.11	329.55	329.09	334.57	336.94	352.87	NM
24-Jun-10	422.42	329.41	328.77	333.65	333.15	353.62	NM
13-Dec-10	415.96	329.49	328.85	332.81	330.34	350.08	NM
20-Jun-11	416.00	328.95	328.18	336.77	331.38	351.83	NM
5-Dec-11	412.94	329.31	328.65	332.32	329.51	349.87	NM
11-Jun-12	414.56	329.10	328.35	332.52	331.33	351.75	312.50
12-Dec-12	412.83	329.19	328.36	331.67	330.35	349.48	NM
1-May-13	415.69	329.65	329.13	334.49	335.15	353.63	317.11
5-Aug-13	417.97	329.02	328.41	333.32	332.83	353.01	NM
24-Feb-14	415.81	329.68	329.17	334.48	331.63	351.78	316.15
11-Aug-14	416.23	329.38	328.48	332.04	329.08	350.08	310.93
10-Mar-15	417.09	329.87	329.45	335.07	336.42	353.13	317.55
17-Aug-15	417.71	328.65	327.81	331.05	327.73	347.63	308.80

Notes: TOC = Top of casing. Groundwater levels and well depth are measured from TOC
 NM = Water level not measured. Groundwater elevations in feet above mean sea level.
 NI = Well not yet installed.

TABLE 3: ESTIMATED HYDRAULIC GRADIENTS AND GROUNDWATER FLOW VELOCITIES

Based on Water Level Data obtained on: August 17, 2015							
GRADIENT CALCULATION SEGMENT	FLOW LINE LENGTH (feet)	FLOW DIRECTION	GROUND-WATER ELEVATION (feet)	HORIZ. GRADIENT, i (ft/ft)	HYDRAULIC CONDUCTIVITY, K (ft/day)	EFFECTIVE POROSITY n_e	LINEAR VELOCITY, V (ft/year)
i_1	1426	ESE	410 340	0.0491	6.18E-02	0.18	6.16
i_2	1633	SE	400 320	0.0490	6.18E-02	0.18	6.14
i_3	1612	SSE	410 320	0.0558	6.18E-02	0.18	7.00
			Average	0.0513		Average	6.43

Notes:

Hydraulic conductivity (K) value is the average of results from slug-tests conducted in 1994 (GAI, 1994).

Effective Porosity based on average of 90% of reported Total Porosity (GAI, 1995) for soils, or 10% (estimated) for fractured rock.

Linear flow velocity = Ki/n (modified Darcy equation).

TABLE 4: Quantified Detections of Groundwater Constituents (August 2015)

WELL ID	PARAMETER	RESULT	UNITS	METHOD	MDL	MRL	SWSL	NC2L/*GWPS	COLLECT DATE
3902-MW1R	Methylene Chloride	1.3	µg/L	EPA 8260	0.97	1	1	5	8/18/2015
3902-MW2R	1,4-Dichlorobenzene	1.5	µg/L	EPA 8260	0.33	1	1	6	8/18/2015
3902-MW2R	Antimony	6.2	µg/L	EPA 6010	3.8	6	6	1	8/18/2015
3902-MW2R	Barium	119	µg/L	EPA 6010	2.5	100	100	700	8/18/2015
3902-MW2R	Benzene	1.5	µg/L	EPA 8260	0.25	1	1	1	8/18/2015
3902-MW2R	Chlorobenzene	12.8	µg/L	EPA 8260	0.23	3	3	50	8/18/2015
3902-MW2R	Methylene Chloride	1.1	µg/L	EPA 8260	0.97	1	1	5	8/18/2015
3902-MW2R	Nickel	98.0	µg/L	EPA 6010	2.5	50	50	100	8/18/2015
3902-MW3R	1,4-Dichlorobenzene	1.1	µg/L	EPA 8260	0.33	1	1	6	8/18/2015
3902-MW3R	Chlorobenzene	17.6	µg/L	EPA 8260	0.23	3	3	50	8/18/2015
3902-MW3R	Methylene Chloride	1.6	µg/L	EPA 8260	0.97	1	1	5	8/18/2015
3902-MW4	Chlorobenzene	4.3	µg/L	EPA 8260	0.23	3	3	50	8/18/2015
3902-MW5	Cobalt	116	µg/L	EPA 6010	2.5	10	10	1	8/18/2015
3902-MW5	Copper	10.1	µg/L	EPA 6010	2.5	10	10	1000	8/18/2015

NOTES:

All Results in micograms per liter (µg/L)

MDL = Method Detection Limit

MRL = Method Reporting Limit

SWSL = NC Soild Waste Section Reporting Limit

NC2L = NC Groundwater Standard from 15A NCAC 2L.0202

GWPS = NC Solid Waste Section Groundwater Protection Standard (for constituents with no NC2L)

J = Estimated concentration below the MRL or SWSL

B = Blank-qualified detection (detected at similar concentrations in a field, trip, or method blank)

TABLE 5: Exceedances of Groundwater Standards (August 2015)

WELL ID	PARAMETER	RESULT	UNITS	METHOD	SWSL	NC2L/*GWPS	GPS	COLLECT DATE
3902-MW2R	Antimony	6.2	µg/L	EPA 6010	6	1	56	8/17/2015
	Benzene	1.5	µg/L	EPA 8260	1	1	1	8/17/2015
3902-MW5	Cobalt	116	µg/L	EPA 6010	10	1	130	8/18/2015

NOTES: All Results in micograms per liter (µg/L)
 SWSL = NC Solid Waste Section Reporting Limit
 NC2L = NC Groundwater Standard from 15A NCAC 2L.0202
 GWPS = NC Solid Waste Section Groundwater Protection Standard (for constituents with no NC2L)
 GPS = Groundwater Protection Standard as defined by 15A NCAC 13B.1634(g)
 GPS for antimony and cobalt are based on the statistical background for the facility.
 Bold = GPS Exceedance.

TABLE 6: Field Parameters (August 2015)

WELL ID	PARAMETER	RESULT	UNITS	COLLECT DATE
3902-MW1R	pH	5.12	s.u	8/18/2015
3902-MW1R	Temperature	16.4	°C	8/18/2015
3902-MW1R	Conductivity	134	µS/cm	8/18/2015
3902-MW1R	Turbidity	49.40	NTU	8/18/2015
3902-MW1R	Dissolved Carbon Dioxide	30.0	mg/L	8/18/2015
3902-MW1R	Dissolved Oxygen	4.95	mg/L	8/18/2015
3902-MW1R	Ferrous Iron	0.0	mg/L	8/18/2015
3902-MW1R	Oxidation Reduction Potential	134.7	mV	8/18/2015
3902-MW1R	Static Water Level	45.80	ft	8/18/2015
3902-MW1R	Well Depth	56.00	ft	8/18/2015
3902-MW2R	pH	6.68	s.u	8/18/2015
3902-MW2R	Temperature	17.8	°C	8/18/2015
3902-MW2R	Conductivity	1,630	µS/cm	8/18/2015
3902-MW2R	Turbidity	24	NTU	8/18/2015
3902-MW2R	Dissolved Carbon Dioxide	275	mg/L	8/18/2015
3902-MW2R	Dissolved Oxygen	5.75	mg/L	8/18/2015
3902-MW2R	Ferrous Iron	4.5	mg/L	8/18/2015
3902-MW2R	Oxidation Reduction Potential	-96.3	mV	8/18/2015
3902-MW2R	Static Water Level	2.95	ft	8/18/2015
3902-MW2R	Well Depth	18.85	ft	8/18/2015
3902-MW3R	pH	6.48	s.u	8/18/2015
3902-MW3R	Temperature	17.8	°C	8/18/2015
3902-MW3R	Conductivity	1,680	µS/cm	8/18/2015
3902-MW3R	Turbidity	10.2	NTU	8/18/2015
3902-MW3R	Dissolved Carbon Dioxide	125	mg/L	8/18/2015
3902-MW3R	Dissolved Oxygen	1.30	mg/L	8/18/2015
3902-MW3R	Ferrous Iron	1.0	mg/L	8/18/2015
3902-MW3R	Oxidation Reduction Potential	-68.8	mV	8/18/2015
3902-MW3R	Static Water Level	3.15	ft	8/18/2015
3902-MW3R	Well Depth	35.83	ft	8/18/2015
3902-MW4	pH	6.76	s.u	8/18/2015
3902-MW4	Temperature	17.3	°C	8/18/2015
3902-MW4	Conductivity	1,244	µS/cm	8/18/2015
3902-MW4	Turbidity	22.6	NTU	8/18/2015
3902-MW4	Oxidation Reduction Potential	-33.9	mV	8/18/2015
3902-MW4	Static Water Level	9.75	ft	8/18/2015
3902-MW4	Well Depth	31.43	ft	8/18/2015
3902-MW5	pH	7.03	s.u	8/18/2015
3902-MW5	Temperature	16.47	°C	8/18/2015
3902-MW5	Conductivity	617	µS/cm	8/18/2015
3902-MW5	Turbidity	57.3	NTU	8/18/2015
3902-MW5	Dissolved Oxygen	3.79	s.u	8/18/2015
3902-MW5	Oxidation Reduction Potential	-49.9	mV	8/18/2015
3902-MW5	Static Water Level	16.15	ft	8/18/2015
3902-MW5	Well Depth	23.52	ft	8/18/2015

TABLE 6: Field Parameters (August 2015)

WELL ID	PARAMETER	RESULT	UNITS	COLLECT DATE
3902-MW6	pH	6.78	s.u	8/18/2015
3902-MW6	Temperature	16.64	°C	8/18/2015
3902-MW6	Conductivity	534	µS/cm	8/18/2015
3902-MW6	Turbidity	21.6	NTU	8/18/2015
3902-MW6	Static Water Level	14.9	ft	8/18/2015
3902-MW6	Well Depth	32.63	ft	8/18/2015
3902-NES1	pH	4.94	s.u	8/18/2015
3902-NES1	Temperature	16.05	°C	8/18/2015
3902-NES1	Conductivity	83	µS/cm	8/18/2015
3902-NES1	Turbidity	76.0	NTU	8/18/2015
3902-NES1	Dissolved Carbon Dioxide	60	mg/L	8/18/2015
3902-NES1	Dissolved Oxygen	1.77	mg/L	8/18/2015
3902-NES1	Ferrous Iron	0.0	mg/L	8/18/2015
3902-NES1	Oxidation Reduction Potential	182.8	mV	8/18/2015
3902-NES1	Static Water Level	19.6	ft	8/18/2015
3902-NES1	Well Depth	36.1	ft	8/18/2015

Units: °C= degrees Centigrade
S.U.= Standard Units
µS/cm = micro-Seimens per centimeter
NTU = Nephelometric Turbidity Units
mV= milivolts
mg/L= miligrams per liter

TABLE 7: MONITORED NATURAL ATTENUATION PARAMETERS

Parameter	Date	Units	DL		Background		Downgradient				Sentinel
					MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1
Temperature (FP)	12/30/03	°C	-	-	15.4	11.1	11.2	12.5	13.6	14.2	-
	12/19/07	°C	-	-	12.3	12.5	13.1	14.4	14.9	14.4	13.3
	05/01/13	°C	-	-	15.7	13.7	15.1	14.4	14.2	14.2	12.5
	08/14/14	°C	-	-	17.8	18.0	19.2	19.4	16.8	17.2	16.0
	03/10/15	°C	-	-	17.3	16.0	15.9	13.8	13.3	13.7	16.1
	08/18/15	°C	-	-	16.4	17.8	17.8	17.3	16.5	16.6	16.1
pH (FP)	12/30/03	SU	-	-	7.31	6.54	6.81	6.90	7.24	7.29	-
	12/19/07	SU	-	-	6.89	6.90	7.07	6.87	7.39	6.67	7.64
	05/01/13	SU	-	-	7.32	6.37	6.61	6.42	6.92	7.13	6.10
	08/14/14	SU	-	-	5.84	6.36	6.96	6.79	7.00	6.48	5.59
	03/10/15	SU	-	-	6.11	6.37	6.56	6.30	6.25	6.55	5.68
	08/18/15	SU	-	-	5.12	6.68	6.48	6.76	7.03	6.78	4.94
Conductivity (FP)	12/19/07	µS/cm	-	-	96	1,964	1,591	1,245	-	-	510
	05/01/13	µS/cm	-	-	111	1,587	1,357	1,150	195	594	69.6
	08/14/14	µS/cm	-	-	231	1,897	1,534	1,413	522	565	172.6
	03/10/15	µS/cm	-	-	90	996	1,277	1,186	106	504	114
	08/18/15	µS/cm	-	-	134	1,630	1,680	1,244	617	534	83
Redox Potential ORP (FP)	12/30/03	mV	-	-	257.2	76.2	207.6	212.7	187.3	123.6	-
	12/19/07	mV	-	-	146	45.0	142	134	-	-	138
	05/01/13	mV	-	-	111.7	-26.7	55.2	120.5	-	-	227.1
	08/14/14	mV	-	-	115.8	-37.2	86.9	-	-	-	-
	03/10/15	mV	-	-	87.0	0.8	56.3	-	-	-	96.7
08/18/15	mV	-	-	134.7	-96.3	-68.8	-33.9	-49.9	-	182.8	
Dissolved Oxygen DO (FP)	12/30/03	mg/L	-	-	9.49	4.84	26.19	24.19	15.31	20.17	-
	12/19/07	mg/L	-	-	-	1.88	1.44	3.21	-	-	0.70
	05/01/13	mg/L	-	-	4.40	1.37	1.79	4.65	-	-	2.90
	08/14/14	mg/L	-	-	4.44	3.26	2.48	-	-	-	2.80
	03/10/15	mg/L	-	-	3.84	1.47	1.80	-	-	-	1.85
	08/18/15	mg/L	-	-	4.95	5.75	1.30	-	3.79	-	1.77
Dissolved CO ₂ (FP)	12/19/07	mg/L	-	-	25	365	175	295	-	-	60
	05/01/13	mg/L	-	-	30.0	245	125	225	-	-	45
	08/14/14	mg/L	-	-	60.0	390	185	-	-	-	75
	03/10/15	mg/L	-	-	50.0	110	75	-	-	-	50
	08/18/15	mg/L	-	-	30.0	275	125	-	-	-	60
Fe, Ferrous (+2) (FP)	12/30/03	mg/L	-	-	ND	1.5	ND	ND	0.22	ND	-
	12/19/07	mg/L	-	-	ND	7.2	ND	ND	-	-	0.2
	05/01/13	mg/L	-	-	0.0	1.0	0.0	0.0	-	-	0.0
	08/14/14	mg/L	-	-	0.0	2.5	0	-	-	-	0.0
	03/10/15	mg/L	-	-	0.0	5.3	0	-	-	-	0.0
	08/18/15	mg/L	-	-	0.0	4.5	1	-	-	-	0.0
Alkalinity (as CaCO ₃)	12/30/03	mg/L	9.00	10.0	37.0	800	690	640	68.0	350	-
	12/19/07	mg/L	-	5.00	39.0	763	726	619	-	-	190
	05/01/13	mg/L	1.00	5.00	43.4	757	660.0	645.0	-	-	10.4
	08/14/14	mg/L	1.00	5.00	41.1	784.0	661.0	-	-	-	14.5
	03/10/15	mg/L	1.00	5.00	38.0	744.0	653.0	-	-	-	8.8
	08/18/15	mg/L	1.00	5.00	37.8	772.0	664.0	-	-	-	10.3
Chloride	12/30/03	mg/L	0.200	1.00	3.50	280	170	82.0	13.0	44.0	-
	12/19/07	mg/L	-	5.00	ND	13.1	297	89.1	-	-	7.90
	05/01/13	mg/L	0.5	1.00	3.54	258	180	123	-	-	2.85
	08/14/14	mg/L	0.5	1.00	5.53	264	144	-	-	-	5.00
	03/10/15	mg/L	0.5	1.00	3.80	266	194	-	-	-	4.09
	08/18/15	mg/L	0.5	1.00	4.69	267	178	-	-	-	3.90

TABLE 7: MONITORED NATURAL ATTENUATION PARAMETERS

Parameter	Date	Units	DL RL		Background	Downgradient					Sentinel
					MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1
Dissolved Hydrogen	05/01/13	nM	0.074	0.60	0.400	0.630	0.610	0.500	-	-	0.470
	08/14/14	nM	0.13	0.60	1.4	1.6	5.4	-	-	-	1.4
	03/10/15	nM	0.13	0.60	1.2	1.4	1.4	1.0	-	-	1.4
	08/18/15	nM	0.13	0.60	1.7	2.2	1.7	-	-	-	1.5
Nitrate-N	12/30/03	mg/L	0.0200	0.0500	0.120	ND	ND	ND	ND	0.13	-
	12/19/07	mg/L	-	0.100	ND	ND	ND	ND	-	-	13.0
	05/01/13	mg/L	0.001	10.0	0.163	ND	ND	ND	-	-	3.58
	08/14/14	mg/L	0.001	10.0	0.115 J	ND	ND	-	-	-	2.02 J
	03/10/15	mg/L	0.001	10.0	0.252 J	ND	ND	-	-	-	2.56 J
	08/18/15	mg/L	0.001	10.0	.124 J	ND	ND	-	-	-	3.27 J
Sulfate	12/30/03	mg/L	0.0600	2.00	ND	ND	ND	2.60	9.60	9.00	-
	12/19/07	mg/L	-	5.00	ND	ND	ND	ND	-	-	36.8
	05/01/13	mg/L	1	250	ND	ND	ND	4.69	-	-	10.7
	08/14/14	mg/L	1	250	1.08 J	1.2 J	ND	-	-	-	5.84 J
	03/10/15	mg/L	1	250	1.52 J	1.13 J	1.52 J	-	-	-	7.04 J
	08/18/15	mg/L	1	250	1.56 J	1.31 J	2.49 J	-	-	-	524 J
Sulfide	08/14/14	mg/L	0.05	1.00	ND	ND	ND	-	-	-	ND
	03/10/15	mg/L	0.05	1.00	ND	ND	ND	-	-	-	ND
	08/18/15	mg/L	0.05	1.00	ND	ND	ND	-	-	-	1.0
Total Organic Carbon	12/19/07	mg/L	-	1.0 *	2.9	54.3	23.2	17.2	-	-	7.20
	05/01/13	mg/L	0.5	1.00	2.24	29.5	30.0	19.4	-	-	5.74
	08/14/14	mg/L	0.5	1.00	ND	229.00	25.5	-	-	-	8.39
	03/10/15	mg/L	0.5	1.00	.781J	34.8	9.5	-	-	-	1.88
	08/18/15	mg/L	0.5	1.00	0.917J	32.9	9.86	-	-	-	27.80
Biochemical Oxygen Demand BOD	08/14/14	mg/L	2.0	2.00	ND	83.4	2.49	-	-	-	-
	03/10/15	mg/L	2.0	2.00	2.55	10.6	ND	-	-	-	ND
	08/18/15	mg/L	2.0	2.00	2.22	11.8	2.0	-	-	-	2.00
Chemical Oxygen Demand COD	08/14/14	mg/L	12.5	25.0	ND	132.0	ND	-	-	-	50.00
	03/10/15	mg/L	12.5	25.00	15.0J	235.0	96.0	-	-	-	ND
	08/18/15	mg/L	12.5	25.00	25.00	110.0	756.0	-	-	-	25.00
Dissolved Ethane	12/30/03	mg/L	0.0002	0.0010	ND	ND	ND	ND	ND	ND	-
	12/19/07	mg/L	-	20.0	ND	ND	ND	ND	-	-	ND
	05/01/13	mg/L	0.0031	0.0062	ND	ND	ND	ND	-	-	ND
	08/14/14	mg/L	0.0031	0.0062	ND	ND	0.0036 J	-	-	-	ND
	03/10/15	mg/L	0.0031	0.0062	ND	ND	ND	-	-	-	ND
	08/18/15	mg/L	0.0031	0.0062	0.01	0.01	0.01	-	-	-	0.01
Dissolved Ethene	12/01/03	mg/L	0.0003	0.0010	ND	ND	ND	ND	ND	ND	-
	12/19/07	mg/L	-	20.0	ND	ND	ND	ND	-	-	ND
	05/01/13	mg/L	0.0031	0.0062	ND	ND	0.0017	ND	-	-	ND
	08/14/14	mg/L	0.0031	0.0062	ND	ND	ND	-	-	-	ND
	03/10/15	mg/L	0.0031	0.0062	ND	ND	ND	-	-	-	ND
	08/18/15	mg/L	0.0031	0.0062	0.01	0.01	0.01	-	-	-	0.01
Dissolved Methane	12/30/03	mg/L	0.0002	0.0010	ND	0.660	0.130	0.0099	0.0010	ND	-
	12/19/07	mg/L	-	10.0	ND	0.116	0.186	ND	-	-	ND
	05/01/13	mg/L	0.0033	0.0066	ND	0.0379	0.100	0.0337	-	-	ND
	08/14/14	mg/L	0.0033	0.0066	ND	1.2900	0.284	-	-	-	ND
	03/10/15	mg/L	0.0033	0.0066	0.0072	0.9960	0.158	-	-	-	ND
	08/18/15	mg/L	0.0033	0.0066	0.0027	2.16	0.316	-	-	-	0.0013

TABLE 7: MONITORED NATURAL ATTENUATION PARAMETERS

Parameter	Date	Units	DL		Background		Downgradient				Sentinel
					MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1
Pyruvic Acid	12/19/07	mg/L			2.50	ND	1.50	2.00	-	-	1.20
	05/01/13	mg/L	2	10	ND	ND	ND	ND	-	-	ND
	08/14/14	mg/L	0.77	10	ND	ND	ND	-	-	-	ND
	03/10/15	mg/L	0.77	10	0.41J	0.41J	0.41J	-	-	-	0.41J
	08/18/15	mg/L	0.77	10	ND	ND	ND	-	-	-	ND
Lactic Acid	12/19/07	mg/L			ND	5.40	11.9	3.10	-	-	ND
	05/01/13	mg/L	2.3	25	ND	ND	ND	ND	-	-	ND
	08/14/14	mg/L	2.5	25	4.2 J	ND	ND	-	-	-	ND
	03/10/15	mg/L	2.5	25	ND	ND	ND	-	-	-	ND
	08/18/15	mg/L	2.5	25	ND	ND	ND	-	-	-	ND
Acetic Acid	12/19/07	mg/L			ND	ND	ND	ND	-	-	ND
	05/01/13	mg/L	1.8	5	ND	ND	ND	ND	-	-	ND
	08/14/14	mg/L	0.81	5.0	ND	ND	ND	-	-	-	ND
	03/10/15	mg/L	0.81	5.0	ND	ND	ND	-	-	-	ND
	08/18/15	mg/L	0.81	5.0	ND	ND	0.97 J	-	-	-	ND
Propionic Acid	12/19/07	mg/L			ND	63.7	38.3	12.8	-	-	ND
	05/01/13	mg/L	1	5	ND	ND	ND	ND	-	-	ND
	08/14/14	mg/L	0.66	5.0	ND	ND	ND	-	-	-	ND
	03/10/15	mg/L	0.66	5.0	ND	ND	ND	-	-	-	ND
	08/18/15	mg/L	0.66	5.0	ND	ND	ND	-	-	-	ND
Butyric Acid	12/19/07	mg/L			ND	ND	ND	ND	-	-	ND
	05/01/13	mg/L	0.87	5	ND	ND	ND	ND	-	-	ND
	08/14/14	mg/L	0.70	5.0	ND	ND	ND	-	-	-	ND
	03/10/15	mg/L	0.70	5.0	ND	ND	ND	-	-	-	ND
	08/18/15	mg/L	0.70	5.0	ND	ND	ND	-	-	-	ND
Total Volatile Fatty Acids (sum of above 5 acids)	12/19/07	mg/L			2.50	69.10	51.70	17.90	-	-	1.20
	05/01/13	mg/L			ND	ND	ND	-	-	-	ND
	08/14/14	mg/L			4.2 J	ND	ND	-	-	-	ND
	03/10/15	mg/L			ND	ND	ND	-	-	-	ND
	08/18/15	mg/L			ND	ND	0.97 J	-	-	-	ND

NOTES:

DL = laboratory detection limit.

RL = laboratory reporting limit.

ND = not detected above detection limit.

J = estimated concentration between the DL and the RL.

- = not analyzed.

DL and QL for Alkalinity for Dec. 03 event was 1 and 2 respectively for wells MW-2R, -3R, and -4 due to different methods used by the laboratory.

* = RL for MW-1R - 1.0, MW-2R - 5.0, MW-3R - 5.0, MW-4 - 2.0, NES-1 - 5.0.

Methane in December 2007 was out of hold time for MW-2R, MW-3R, MW-4, and NES-1.

mg/L = milligrams per liter

mV = millivolt

SU = standard unit

nM = nano-Molar

°C = degrees Celcius

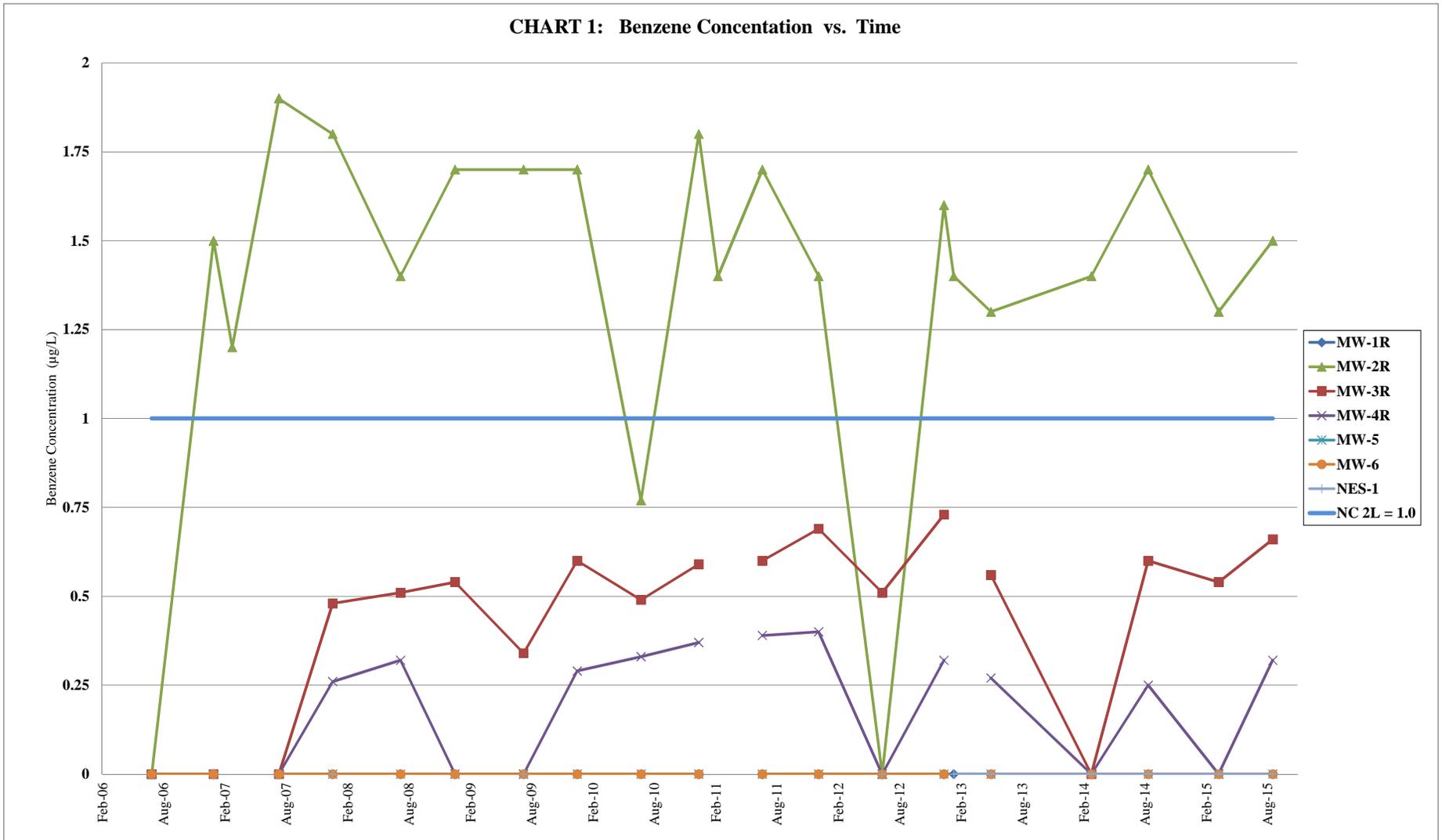
µS/cm = micro-Siemen per centimeter

ntu = nephelometric turbidity units

CHART

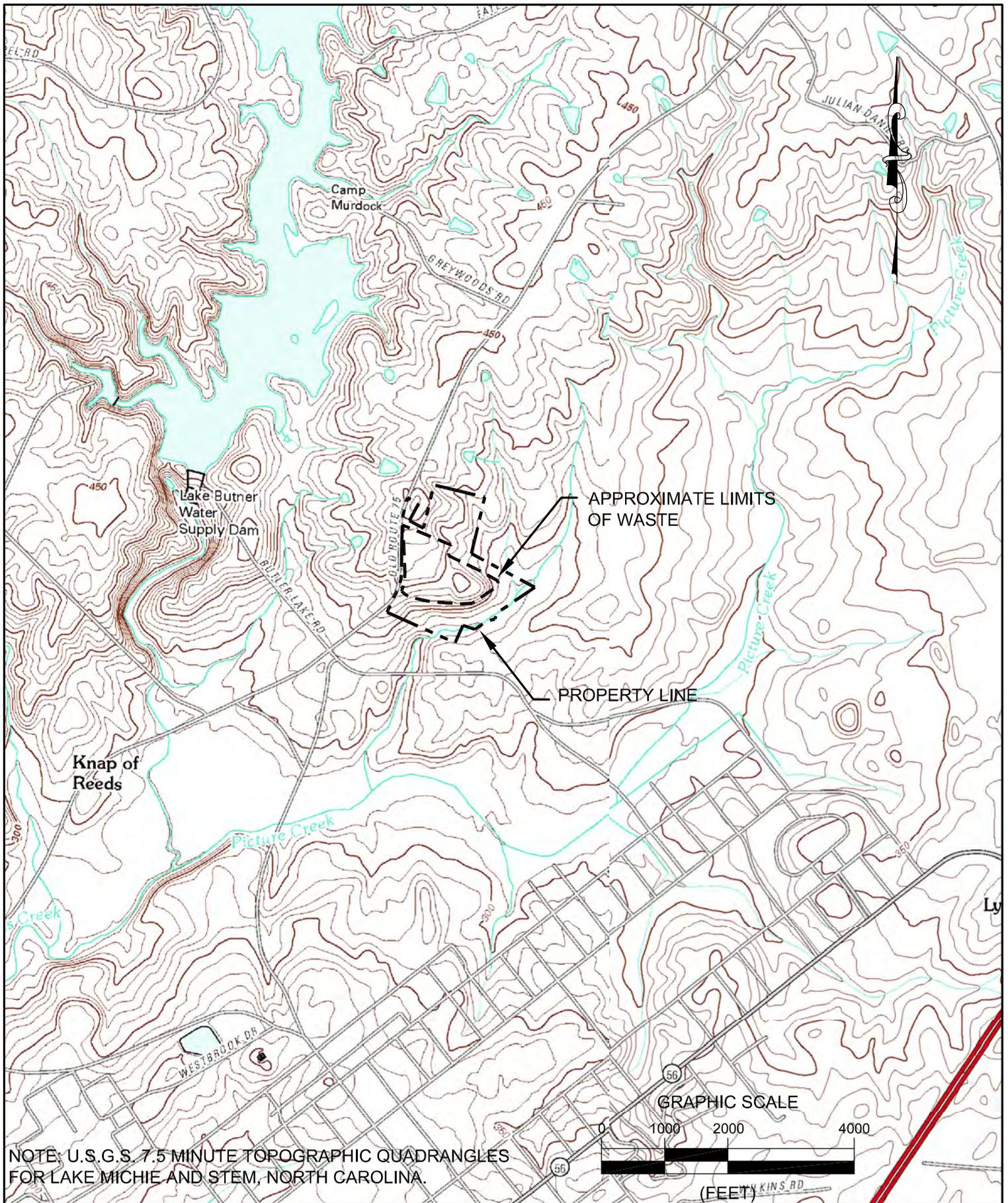
Chart 1 Benzene Concentrations vs. Time

CHART 1: Benzene Concentration vs. Time



FIGURE

Figure 1 Site Location Map



NOTE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLES FOR LAKE MICHIE AND STEM, NORTH CAROLINA.

BUTNER LANDFILL
GRANVILLE COUNTY, NORTH CAROLINA

SITE LOCATION MAP

JOYCE
ENGINEERING

2211 W. MEADOWVIEW ROAD
 GREENSBORO, NC 27407
 PHONE: (336) 323-0092

DESIGNED HRW
 DRAWN HRW
 CHECKED ACE
 APPROVED GVB
 DATE 11/04/14

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SCALE
 1" = 2000'

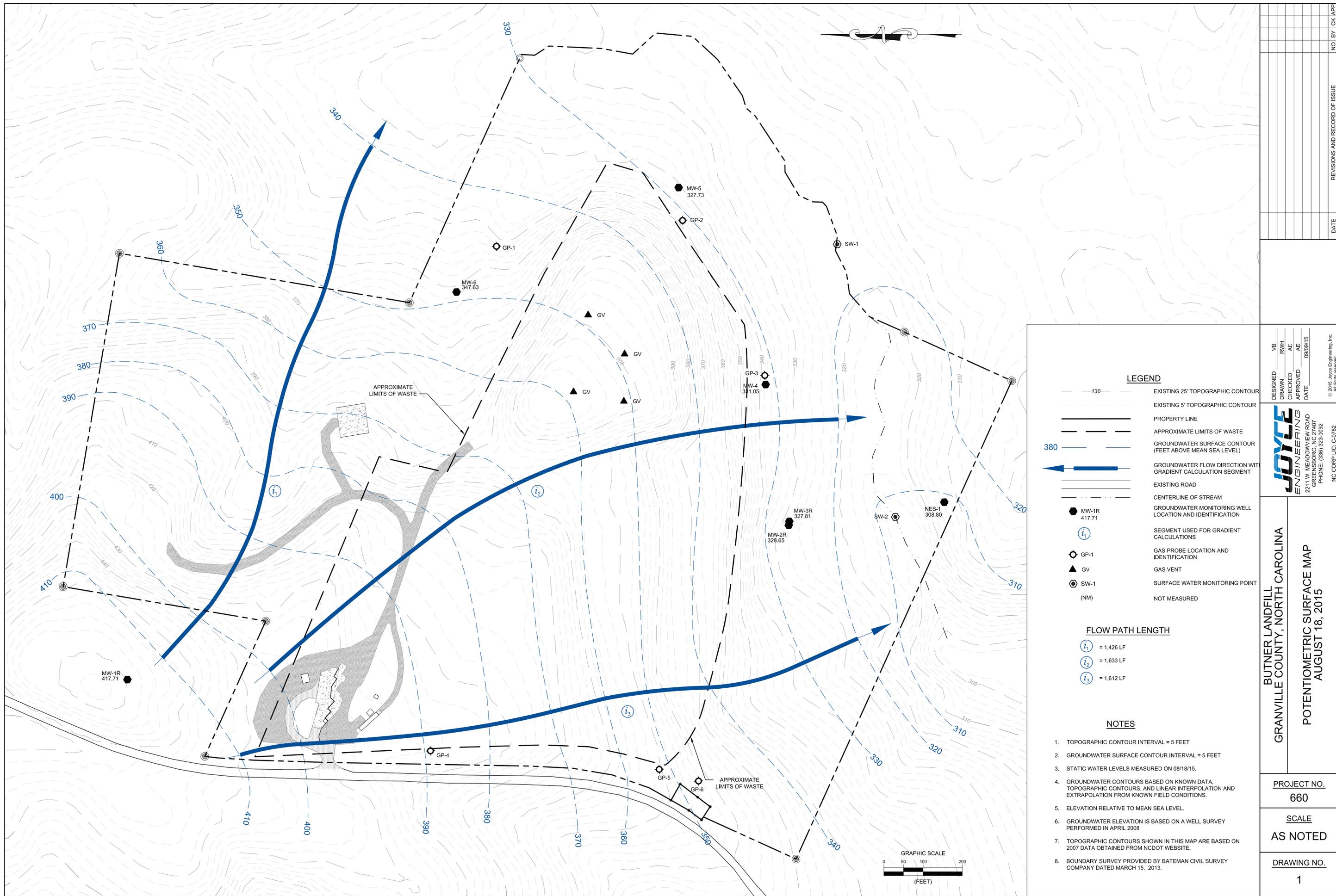
PROJECT NO.
 660

FIGURE NO.
 1

DRAWING

Drawing 1

Groundwater Potentiometric Surface Map



LEGEND

- 130 EXISTING 25' TOPOGRAPHIC CONTOUR
- EXISTING 5' TOPOGRAPHIC CONTOUR
- PROPERTY LINE
- APPROXIMATE LIMITS OF WASTE
- GROUNDWATER SURFACE CONTOUR (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER FLOW DIRECTION WITH GRADIENT CALCULATION SEGMENT
- EXISTING ROAD
- CENTERLINE OF STREAM
- GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION
- SEGMENT USED FOR GRADIENT CALCULATIONS
- GAS PROBE LOCATION AND IDENTIFICATION
- GAS VENT
- SURFACE WATER MONITORING POINT
- NOT MEASURED

FLOW PATH LENGTH

- = 1,426 LF
- = 1,633 LF
- = 1,612 LF

NOTES

1. TOPOGRAPHIC CONTOUR INTERVAL = 5 FEET
2. GROUNDWATER SURFACE CONTOUR INTERVAL = 5 FEET
3. STATIC WATER LEVELS MEASURED ON 08/18/15.
4. GROUNDWATER CONTOURS BASED ON KNOWN DATA, TOPOGRAPHIC CONTOURS, AND LINEAR INTERPOLATION AND EXTRAPOLATION FROM KNOWN FIELD CONDITIONS.
5. ELEVATION RELATIVE TO MEAN SEA LEVEL.
6. GROUNDWATER ELEVATION IS BASED ON A WELL SURVEY PERFORMED IN APRIL 2008
7. TOPOGRAPHIC CONTOURS SHOWN IN THIS MAP ARE BASED ON 2007 DATA OBTAINED FROM NCDOT WEBSITE.
8. BOUNDARY SURVEY PROVIDED BY BATEMAN CIVIL SURVEY COMPANY DATED MARCH 15, 2013.

DESIGNED	VB	NO	BY	CK	APP
DRAWN	RWH				
CHECKED	AE				
APPROVED	AE				
DATE	09/09/15				
REVISIONS AND RECORD OF ISSUE					
DATE					
NO					
BY					
CK					
APP					
<p>© 2015 Joyce Engineering, Inc. All rights reserved.</p> <p>JOYCE ENGINEERING 2211 W. MEADOWVIEW ROAD GREENSBORO, NC 27407 PHONE: (336) 323-0092 NC CORP. LIC: C-0782</p>					
<p>BUTNER LANDFILL GRANVILLE COUNTY, NORTH CAROLINA</p> <p>POTENTIOMETRIC SURFACE MAP AUGUST 18, 2015</p>					
PROJECT NO. 660					
SCALE AS NOTED					
DRAWING NO. 1					

APPENDICES

Appendix A	Field Data Logs
Appendix B	Laboratory Analytical Reports
Appendix C	Historical Constituents in Groundwater
Appendix D	Historical Constituents in Surface Water
Appendix E	Statistical Analyses Worksheets & Summary

Appendix A

Field Data Logs

DATE: 8/17/15



GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. **Project No./Task No.:** 00660.1601.12.04

Well ID: 3902-MW-1R **Sampler(s):** G. Eller / H. Seaton

Well Location: North of the entrance at the tree line under the tower

Well Diameter: 2 inches
 Initial Depth to Water (DTW): 45.80 feet
 Depth to Bottom (DTB): 56.00 feet
 Water Column Thickness (WCT): 10.2 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 1.7 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 5.1 gallons

Actual Amount Purged/Bailed: 3.1 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling: 45.70 feet

Gallons	Time	Temp. °C	DO Mg/L	Cond. µS	pH	ORP mv	Turb. ntu	Initials
0	0902	17.16	4.41	187	5.09	123.4	20.3	GE
1.7	0908	16.43	4.95	80	5.12	134.7	46.4	GE
Dry @ 3.1								
Before Sampling	1310	30.92	3.64	134	6.13	44.8	25.2	GE

Comments (weather conditions, odor, color, silt, etc.): The weather was cloudy with temperatures in the 80s on 8/17/15.

Fe2+: 0 mg/L, Dissolved CO2: 30 mg/L,

Signature: *G. Eller* **Date:** 8-17-15

QA/QC Sign Off: *H. Seaton* **Date:** 10/29/15

DATE: 8/18/15



GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. Project No./Task No.: 00660.1601.12.04

Well ID: 3902-MW-2R Sampler(s): G. Eller/ H. Seaton

Well Location: South side of fill, inside tree line and next to MW-3R

Well Diameter: 2 inches
Initial Depth to Water (DTW): 2.95 feet
Depth to Bottom (DTB): 18.85 feet
Water Column Thickness (WCT): 15.9 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 2.6 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 7.8 gallons

Actual Amount Purged/Bailed: 6.0 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling: 2.80 feet

Gallons	Time	Temp. °C	DO. Mg/L	Cond. µS	pH	ORP MV	Turb. ntu	Initials
0	1050	22.68	3.46	1694	6.59	-95.0	12.61	GE
2.6	1101	19.12	3.90	1737	6.64	-101.7	22.3	GE
5.2	1107	17.78	5.75	1630	6.68	-96.3	24.0	GE
Dry @ 6.0								
Before Sampling	1620	25.31	1.34	1865	6.31	-94.2	12.5	HS

Comments (weather conditions, odor, color, silt, etc.): The weather was partly cloudy with temperatures in the 80s on 8/17/15.

Fe2+: 4.5mg/L, Dissolved CO2: 275 mg/L,

Signature: *G. Eller* Date: 8-18-15

QA/QC Sign Off: *M. E. H.* Date: 10/29/15

DATE: 8/17/15



GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. Project No./Task No.: 00660.1601.12.04

Well ID: 3902-MW-3R Sampler(s): H. Seaton / G. Eller

Well Location: Next to MW-2R, inside tree line

Well Diameter: 2 inches
Initial Depth to Water (DTW): 3.15 feet
Depth to Bottom (DTB): 35.83 feet
Water Column Thickness (WCT): 32.68 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 5.3 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 15.9 gallons

Actual Amount Purged/Bailed: 7.5 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling: 3.16 feet

Gallons	Time	Temp. °C	DO mg/L	Cond. µS	pH	ORP	Turb. ntu	Initials
0	1050	20.59	1.38	1260	6.82	-86.0	8.43	HS
5.3	1105	17.79	1.30	1680	6.48	-68.8	10.2	HS
Dry @ 7.5								
Before Sampling	1710	24.20	1.10	1543	6.62	-46.8	6.50	HS

Comments (weather conditions, odor, color, silt, etc.): The weather was partly cloudy with temperatures in the 80s on 8/17/15.

Fe2+: 1.0 mg/L, Dissolved CO2: 125 mg/L,

Signature: [Signature] Date: 8-17-15

QA/QC Sign Off: [Signature] Date: 10/29/15

DATE: 8/17-18/15



GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. Project No./Task No.: 00660.1601.12.04

Well ID: 3902-MW-4 Sampler(s): H. Seaton / G. Eller

Well Location: south of fill, just inside tree line

Well Diameter: 2 inches
Initial Depth to Water (DTW): 9.75 feet
Depth to Bottom (DTB): 31.43 feet
Water Column Thickness (WCT): 21.68 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 3.5 gallons
For 4" Well: WCT X 0.653 = gallons

For THREE Well Volumes: WV X 3 = 10.5 gallons

Actual Amount Purged/Bailed: 4.5 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling: 10.20 feet

Gallons	Time	Temp. °C	DO Mg/L	Cond. µS	pH	ORP	Turb. ntu	Initials
0	1025	19.10	2.01	1234	6.73	-30.5	10.35	HS
3.5	10.29	17.25	4.46	1244	6.76	-33.9	22.6	HS
Dry @ 4.5								
	8/18/15							
Before Sampling	0805	19.75	56.2	1250	6.18	125.9	12.5	HS

Comments (weather conditions, odor, color, silt, etc.): The weather was cloudy with temperatures in the 80s on 8/17-18/15.

Signature: [Signature] Date: 8-18-15

QA/QC Sign Off: [Signature] Date: 10/24/15

DATE: 8/17-18/15



GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. Project No./Task No.: 00660.1601.12.04

Well ID: 3902-MW-5 Sampler(s): H. Seaton / G. Eller

Well Location: South side of old SED. pond, Basin in the woods

Well Diameter: 2 inches

Initial Depth to Water (DTW): 16.15 feet

Depth to Bottom (DTB): 23.52 feet

Water Column Thickness (WCT): 7.37 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 1.2 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 3.6 gallons

Actual Amount Purged/Bailed: 2.0 gallons

Purged with: disposable Bailer

Sampled with: disposable Bailer

Depth to Water before Sampling: 15.9 feet

Gallons	Time	Temp. °C	DO Mg/L	Cond. µS	pH	ORP	Turb. ntu	Initials
0	1007	17.32	2.21	674	7.16	-31.4	13.86	GE
1.2	1009	16.47	3.79	617	7.03	-49.9	57.3	GE
Dry @ 2.0								
	3/18/15							
Before Sampling	0816	17.66	35.6	685	7.46	67.9	20.1	GE

Comments (weather conditions, odor, color, silt, etc.): The weather was cloudy with temperatures in the 80s on 8/17-18/15.

Signature: *Heather Ellen* Date: 8-18-15

QA/QC Sign Off: *Ally E. D.* Date: 10/29/15

DATE: 8/17-18/15



GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. Project No./Task No.: 00660.1601.12.04

Well ID: 3902-MW-6 Sampler(s): H. Seaton / G. Eller

Well Location: other side of large mulch pile

Well Diameter: 2 inches
 Initial Depth to Water (DTW): 14.9 feet
 Depth to Bottom (DTB): 32.63 feet
 Water Column Thickness (WCT): 17.73 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 2.9 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 8.7 gallons

Actual Amount Purged/Bailed: 5.2 gallons

Purged with: disposable Bailer

Sampled with: disposable Bailer

Depth to Water before Sampling: 13.8 feet

Gallons	Time	Temp. °C	pH	Cond. µS	Turb. ntu	Initials
0	0937	18.35	6.7	534	16.50	HS
2.9	0946	16.64	6.78	534	21.6	HS
Dry @ 5.2						
	8/18/15					
Before Sampling	0845	19.49	6.98	543	20.1	HS

Comments (weather conditions, odor, color, silt, etc.): The weather was cloudy with temperatures in the 80s on 8/17-18/15.

Signature: [Signature] Date: 8-18-15

QA/QC Sign Off: [Signature] Date: 10/29/15

DATE: 8/17/15



GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. Project No./Task No.: 00660.1601.12.04

Well ID: 3902-NES-1 Sampler(s): H. Seaton / G. Eller

Well Location: South of landfill, access through Wildlife Area hunt camp

Well Diameter: 2 inches
Initial Depth to Water (DTW): 19.60 feet
Depth to Bottom (DTB): 36.10 feet
Water Column Thickness (WCT): 16.50 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 2.7 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 8.1 gallons

Actual Amount Purged/Bailed: 7.0 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling: 21.35 feet

Gallons	Time	Temp. °C	DO Mg/L	Cond. µs	ORP	pH	Turb. ntu	Initials
0	1538	18.82	1.66	79	131.6	5.20	7.1	HS
2.7	1543	16.58	1.66	86	169.0	4.94	45.0	HS
5.4	1547	16.05	1.77	83	182.8	4.94	76.0	HS
Dry @ 7.0								
Before Sampling	1825	20.96	3.89	122	154.9	5.39	25.0	HS

Comments (weather conditions, odor, color, silt, etc.): The weather was cloudy with temperatures in the 80s on 8/17/15.

Fe2+: 0 mg/L, Dissolved CO2: 60 mg/L,

Signature: [Signature] Date: 8-17-15

QA/QC Sign Off: [Signature] Date: 10/29/15

Appendix B

Laboratory Analytical Reports

September 03, 2015

Mr. Van Burbach
Joyce Engineering-NC
2211 West Meadowview Rd
Boone Bldg, Suite 101
Greensboro, NC 27407

RE: Project: BUTNER LANDFILL COMPLIANCE
Pace Project No.: 92263803

Dear Mr. Burbach:

Enclosed are the analytical results for sample(s) received by the laboratory on August 18, 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.

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

Sincerely,



Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Alex Everhart, Joyce Engineering-NC



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: BUTNER LANDFILL COMPLIANCE
Pace Project No.: 92263803

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236

Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Charlotte Certification IDs

9800 Kinsey 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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92263803001	3902-MW1R	Water	08/17/15 13:10	08/18/15 10:25
92263803002	3902-MW2R	Water	08/17/15 16:20	08/18/15 10:25
92263803003	3902-NES-1	Water	08/17/15 18:25	08/18/15 10:25

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SAMPLE ANALYTE COUNT

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92263803001	3902-MW1R	EPA 8081	SWB	5	PASI-C
		EPA 8151	LJM	2	PASI-O
		EPA 6010	SH1	16	PASI-A
		EPA 8260	GAW	50	PASI-C
92263803002	3902-MW2R	EPA 8081	SWB	5	PASI-C
		EPA 8151	LJM	2	PASI-O
		EPA 6010	SH1	16	PASI-A
		EPA 8260	GAW	50	PASI-C
92263803003	3902-NES-1	EPA 8260	GAW	4	PASI-C

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SUMMARY OF DETECTION

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92263803001	3902-MW1R					
EPA 6010	Barium	4.4J	ug/L	100	09/01/15 13:20	
EPA 6010	Vanadium	3.4J	ug/L	25.0	09/01/15 13:20	
EPA 6010	Zinc	7.4J	ug/L	10.0	09/01/15 13:20	
EPA 8260	Chloromethane	0.13J	ug/L	1.0	08/20/15 17:41	
EPA 8260	Methylene Chloride	1.3	ug/L	1.0	08/20/15 17:41	
92263803002	3902-MW2R					
EPA 6010	Antimony	6.2	ug/L	6.0	09/01/15 13:23	
EPA 6010	Arsenic	5.1J	ug/L	10.0	09/01/15 13:23	
EPA 6010	Barium	119	ug/L	100	09/01/15 13:23	
EPA 6010	Chromium	2.7J	ug/L	10.0	09/01/15 13:23	
EPA 6010	Cobalt	9.3J	ug/L	10.0	09/01/15 13:23	
EPA 6010	Nickel	98.0	ug/L	50.0	09/01/15 13:23	
EPA 6010	Tin	27.7J	ug/L	100	09/01/15 13:23	
EPA 6010	Vanadium	6.8J	ug/L	25.0	09/01/15 13:23	
EPA 8260	Benzene	1.5	ug/L	1.0	08/20/15 17:58	
EPA 8260	Chlorobenzene	12.8	ug/L	3.0	08/20/15 17:58	
EPA 8260	Chloroethane	1.2J	ug/L	10.0	08/20/15 17:58	
EPA 8260	Chloromethane	0.26J	ug/L	1.0	08/20/15 17:58	
EPA 8260	1,2-Dichlorobenzene	0.88J	ug/L	5.0	08/20/15 17:58	
EPA 8260	1,4-Dichlorobenzene	1.5	ug/L	1.0	08/20/15 17:58	
EPA 8260	Methylene Chloride	1.1	ug/L	1.0	08/20/15 17:58	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

Sample: 3902-MW1R Lab ID: 92263803001 Collected: 08/17/15 13:10 Received: 08/18/15 10:25 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 Organochlorine Pesticides Analytical Method: EPA 8081 Preparation Method: EPA 3510									
gamma-BHC (Lindane)	ND	ug/L	0.050	0.050	1	08/24/15 11:40	08/28/15 02:28	58-89-9	
Endrin aldehyde	ND	ug/L	0.10	0.050	1	08/24/15 11:40	08/28/15 02:28	7421-93-4	
Heptachlor	ND	ug/L	0.050	0.050	1	08/24/15 11:40	08/28/15 02:28	76-44-8	
Surrogates									
Tetrachloro-m-xylene (S)	83	%	20-130		1	08/24/15 11:40	08/28/15 02:28	877-09-8	
Decachlorobiphenyl (S)	29	%	20-130		1	08/24/15 11:40	08/28/15 02:28	2051-24-3	
8151 Chlorinated Herbicides Analytical Method: EPA 8151 Preparation Method: EPA 8151									
2,4-D	ND	ug/L	2.0	0.22	1	08/23/15 16:20	08/25/15 02:59	94-75-7	
Surrogates									
2,4-DCAA (S)	79	%	36-130		1	08/23/15 16:20	08/25/15 02:59	19719-28-9	
6010 ICP Groundwater Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Antimony	ND	ug/L	6.0	3.8	1	08/19/15 19:00	09/01/15 13:20	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:20	7440-38-2	
Barium	4.4J	ug/L	100	2.5	1	08/19/15 19:00	09/01/15 13:20	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	08/19/15 19:00	09/01/15 13:20	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/19/15 19:00	09/01/15 13:20	7440-43-9	
Chromium	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:20	7440-47-3	
Cobalt	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:20	7440-48-4	
Copper	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:20	7440-50-8	
Lead	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:20	7439-92-1	
Nickel	ND	ug/L	50.0	2.5	1	08/19/15 19:00	09/01/15 13:20	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	08/19/15 19:00	09/01/15 13:20	7782-49-2	
Silver	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:20	7440-22-4	
Thallium	ND	ug/L	5.5	5.0	1	08/19/15 19:00	09/01/15 13:20	7440-28-0	
Tin	ND	ug/L	100	2.5	1	08/19/15 19:00	09/01/15 13:20	7440-31-5	
Vanadium	3.4J	ug/L	25.0	2.5	1	08/19/15 19:00	09/01/15 13:20	7440-62-2	
Zinc	7.4J	ug/L	10.0	5.0	1	08/19/15 19:00	09/01/15 13:20	7440-66-6	
8260 MSV Low Level Landfill Analytical Method: EPA 8260									
Acetone	ND	ug/L	100	10.0	1		08/20/15 17:41	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/20/15 17:41	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/20/15 17:41	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/20/15 17:41	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/20/15 17:41	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/20/15 17:41	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/20/15 17:41	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/20/15 17:41	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/20/15 17:41	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/20/15 17:41	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/20/15 17:41	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/20/15 17:41	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/20/15 17:41	67-66-3	
Chloromethane	0.13J	ug/L	1.0	0.11	1		08/20/15 17:41	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.0	1		08/20/15 17:41	96-12-8	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

Sample: 3902-MW1R **Lab ID: 92263803001** Collected: 08/17/15 13:10 Received: 08/18/15 10:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV Low Level Landfill		Analytical Method: EPA 8260							
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/20/15 17:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/20/15 17:41	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/20/15 17:41	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/20/15 17:41	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/20/15 17:41	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/20/15 17:41	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/20/15 17:41	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		08/20/15 17:41	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/20/15 17:41	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/20/15 17:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/20/15 17:41	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/20/15 17:41	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/20/15 17:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/20/15 17:41	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/20/15 17:41	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/20/15 17:41	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/20/15 17:41	74-88-4	
Methylene Chloride	1.3	ug/L	1.0	0.97	1		08/20/15 17:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/20/15 17:41	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/20/15 17:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/20/15 17:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/20/15 17:41	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/20/15 17:41	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/20/15 17:41	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/20/15 17:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/20/15 17:41	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/20/15 17:41	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/20/15 17:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/20/15 17:41	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/20/15 17:41	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/20/15 17:41	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/20/15 17:41	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		08/20/15 17:41	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		08/20/15 17:41	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		08/20/15 17:41	2037-26-5	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

Sample: 3902-MW2R **Lab ID: 92263803002** Collected: 08/17/15 16:20 Received: 08/18/15 10:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8081 Organochlorine Pesticides Analytical Method: EPA 8081 Preparation Method: EPA 3510									
gamma-BHC (Lindane)	ND	ug/L	0.050	0.050	1	08/24/15 11:40	08/28/15 02:47	58-89-9	
Endrin aldehyde	ND	ug/L	0.10	0.050	1	08/24/15 11:40	08/28/15 02:47	7421-93-4	
Heptachlor	ND	ug/L	0.050	0.050	1	08/24/15 11:40	08/28/15 02:47	76-44-8	
Surrogates									
Tetrachloro-m-xylene (S)	61	%	20-130		1	08/24/15 11:40	08/28/15 02:47	877-09-8	
Decachlorobiphenyl (S)	80	%	20-130		1	08/24/15 11:40	08/28/15 02:47	2051-24-3	
8151 Chlorinated Herbicides Analytical Method: EPA 8151 Preparation Method: EPA 8151									
2,4-D	ND	ug/L	2.0	0.22	1	08/23/15 16:20	08/25/15 03:29	94-75-7	
Surrogates									
2,4-DCAA (S)	48	%	36-130		1	08/23/15 16:20	08/25/15 03:29	19719-28-9	
6010 ICP Groundwater Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Antimony	6.2	ug/L	6.0	3.8	1	08/19/15 19:00	09/01/15 13:23	7440-36-0	
Arsenic	5.1J	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:23	7440-38-2	
Barium	119	ug/L	100	2.5	1	08/19/15 19:00	09/01/15 13:23	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	08/19/15 19:00	09/01/15 13:23	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/19/15 19:00	09/01/15 13:23	7440-43-9	
Chromium	2.7J	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:23	7440-47-3	
Cobalt	9.3J	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:23	7440-48-4	
Copper	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:23	7440-50-8	
Lead	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:23	7439-92-1	
Nickel	98.0	ug/L	50.0	2.5	1	08/19/15 19:00	09/01/15 13:23	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	08/19/15 19:00	09/01/15 13:23	7782-49-2	
Silver	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:23	7440-22-4	
Thallium	ND	ug/L	5.5	5.0	1	08/19/15 19:00	09/01/15 13:23	7440-28-0	
Tin	27.7J	ug/L	100	2.5	1	08/19/15 19:00	09/01/15 13:23	7440-31-5	
Vanadium	6.8J	ug/L	25.0	2.5	1	08/19/15 19:00	09/01/15 13:23	7440-62-2	
Zinc	ND	ug/L	10.0	5.0	1	08/19/15 19:00	09/01/15 13:23	7440-66-6	
8260 MSV Low Level Landfill Analytical Method: EPA 8260									
Acetone	ND	ug/L	100	10.0	1		08/20/15 17:58	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/20/15 17:58	107-13-1	
Benzene	1.5	ug/L	1.0	0.25	1		08/20/15 17:58	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/20/15 17:58	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/20/15 17:58	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/20/15 17:58	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/20/15 17:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/20/15 17:58	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/20/15 17:58	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/20/15 17:58	56-23-5	
Chlorobenzene	12.8	ug/L	3.0	0.23	1		08/20/15 17:58	108-90-7	
Chloroethane	1.2J	ug/L	10.0	0.54	1		08/20/15 17:58	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/20/15 17:58	67-66-3	
Chloromethane	0.26J	ug/L	1.0	0.11	1		08/20/15 17:58	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.0	1		08/20/15 17:58	96-12-8	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE

Project No.: 92263803

Sample: 3902-MW2R Lab ID: 92263803002 Collected: 08/17/15 16:20 Received: 08/18/15 10:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV Low Level Landfill		Analytical Method: EPA 8260							
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/20/15 17:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/20/15 17:58	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/20/15 17:58	74-95-3	
1,2-Dichlorobenzene	0.88J	ug/L	5.0	0.30	1		08/20/15 17:58	95-50-1	
1,4-Dichlorobenzene	1.5	ug/L	1.0	0.33	1		08/20/15 17:58	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/20/15 17:58	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/20/15 17:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		08/20/15 17:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/20/15 17:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/20/15 17:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/20/15 17:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/20/15 17:58	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/20/15 17:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/20/15 17:58	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/20/15 17:58	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/20/15 17:58	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/20/15 17:58	74-88-4	
Methylene Chloride	1.1	ug/L	1.0	0.97	1		08/20/15 17:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/20/15 17:58	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/20/15 17:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/20/15 17:58	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/20/15 17:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/20/15 17:58	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/20/15 17:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/20/15 17:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/20/15 17:58	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/20/15 17:58	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/20/15 17:58	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/20/15 17:58	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/20/15 17:58	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/20/15 17:58	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/20/15 17:58	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		08/20/15 17:58	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		08/20/15 17:58	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		08/20/15 17:58	2037-26-5	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

Sample: 3902-NES-1		Lab ID: 92263803003		Collected: 08/17/15 18:25	Received: 08/18/15 10:25	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill		Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	0.25	1		08/19/15 15:21	71-43-2	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/19/15 15:21	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130		1		08/19/15 15:21	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		08/19/15 15:21	2037-26-5	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

QC Batch: MPRP/19281

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET NC Groundwater

Associated Lab Samples: 92263803001, 92263803002

METHOD BLANK: 1537575

Matrix: Water

Associated Lab Samples: 92263803001, 92263803002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	09/01/15 12:55	
Arsenic	ug/L	ND	10.0	09/01/15 12:55	
Barium	ug/L	ND	100	09/01/15 12:55	
Beryllium	ug/L	ND	1.0	09/01/15 12:55	
Cadmium	ug/L	ND	1.0	09/01/15 12:55	
Chromium	ug/L	ND	10.0	09/01/15 12:55	
Cobalt	ug/L	ND	10.0	09/01/15 12:55	
Copper	ug/L	ND	10.0	09/01/15 12:55	
Lead	ug/L	ND	10.0	09/01/15 12:55	
Nickel	ug/L	ND	50.0	09/01/15 12:55	
Selenium	ug/L	ND	10.0	09/01/15 12:55	
Silver	ug/L	ND	10.0	09/01/15 12:55	
Thallium	ug/L	ND	5.5	09/01/15 12:55	
Tin	ug/L	ND	100	09/01/15 12:55	
Vanadium	ug/L	ND	25.0	09/01/15 12:55	
Zinc	ug/L	ND	10.0	09/01/15 12:55	

LABORATORY CONTROL SAMPLE: 1537576

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	416	472	113	80-120	
Arsenic	ug/L	416	458	110	80-120	
Barium	ug/L	416	466	112	80-120	
Beryllium	ug/L	416	468	112	80-120	
Cadmium	ug/L	416	465	112	80-120	
Chromium	ug/L	416	474	114	80-120	
Cobalt	ug/L	416	469	113	80-120	
Copper	ug/L	416	476	114	80-120	
Lead	ug/L	416	467	112	80-120	
Nickel	ug/L	416	460	111	80-120	
Selenium	ug/L	416	454	109	80-120	
Silver	ug/L	208	229	110	80-120	
Thallium	ug/L	416	465	112	80-120	
Tin	ug/L	416	468	112	80-120	
Vanadium	ug/L	416	461	111	80-120	
Zinc	ug/L	416	453	109	80-120	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

Parameter	Units	92263797005		1537577		1537579		% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Antimony	ug/L	4.8J	416	416	492	479	117	114	75-125	3	25		
Arsenic	ug/L	ND	416	416	482	467	116	112	75-125	3	25		
Barium	ug/L	63.1J	416	416	532	519	113	109	75-125	3	25		
Beryllium	ug/L	ND	416	416	471	461	113	111	75-125	2	25		
Cadmium	ug/L	ND	416	416	477	466	114	112	75-125	2	25		
Chromium	ug/L	ND	416	416	465	457	111	109	75-125	2	25		
Cobalt	ug/L	ND	416	416	450	440	108	106	75-125	2	25		
Copper	ug/L	6.7J	416	416	494	481	117	114	75-125	3	25		
Lead	ug/L	ND	416	416	446	436	107	105	75-125	2	25		
Nickel	ug/L	28.0J	416	416	469	458	106	103	75-125	2	25		
Selenium	ug/L	ND	416	416	464	452	112	109	75-125	3	25		
Silver	ug/L	ND	208	208	234	229	112	110	75-125	2	25		
Thallium	ug/L	ND	416	416	437	431	105	103	75-125	1	25		
Tin	ug/L	7.5J	416	416	467	457	110	108	75-125	2	25		
Vanadium	ug/L	3.6J	416	416	465	456	111	109	75-125	2	25		
Zinc	ug/L	ND	416	416	435	427	104	102	75-125	2	25		

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

QC Batch:	MSV/33055	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV Low Level Landfill
Associated Lab Samples:	92263803003		

METHOD BLANK: 1536872 Matrix: Water

Associated Lab Samples: 92263803003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	08/19/15 13:21	
1,2-Dichloroethane-d4 (S)	%	102	70-130	08/19/15 13:21	
4-Bromofluorobenzene (S)	%	99	70-130	08/19/15 13:21	
Toluene-d8 (S)	%	102	70-130	08/19/15 13:21	

LABORATORY CONTROL SAMPLE: 1536873

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	56.0	112	80-125	
1,2-Dichloroethane-d4 (S)	%			103	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

QC Batch: MSV/33081

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV Low Level Landfill

Associated Lab Samples: 92263803001, 92263803002

METHOD BLANK: 1538227

Matrix: Water

Associated Lab Samples: 92263803001, 92263803002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	08/20/15 15:06	
1,1,1-Trichloroethane	ug/L	ND	1.0	08/20/15 15:06	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	08/20/15 15:06	
1,1,2-Trichloroethane	ug/L	ND	1.0	08/20/15 15:06	
1,1-Dichloroethane	ug/L	ND	5.0	08/20/15 15:06	
1,1-Dichloroethene	ug/L	ND	5.0	08/20/15 15:06	
1,2,3-Trichloropropane	ug/L	ND	1.0	08/20/15 15:06	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	08/20/15 15:06	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/20/15 15:06	
1,2-Dichlorobenzene	ug/L	ND	5.0	08/20/15 15:06	
1,2-Dichloroethane	ug/L	ND	1.0	08/20/15 15:06	
1,2-Dichloropropane	ug/L	ND	1.0	08/20/15 15:06	
1,4-Dichlorobenzene	ug/L	ND	1.0	08/20/15 15:06	
2-Butanone (MEK)	ug/L	ND	100	08/20/15 15:06	
2-Hexanone	ug/L	ND	50.0	08/20/15 15:06	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	08/20/15 15:06	
Acetone	ug/L	ND	100	08/20/15 15:06	
Acrylonitrile	ug/L	ND	200	08/20/15 15:06	
Benzene	ug/L	ND	1.0	08/20/15 15:06	
Bromochloromethane	ug/L	ND	3.0	08/20/15 15:06	
Bromodichloromethane	ug/L	ND	1.0	08/20/15 15:06	
Bromoform	ug/L	ND	3.0	08/20/15 15:06	
Bromomethane	ug/L	ND	10.0	08/20/15 15:06	
Carbon disulfide	ug/L	ND	100	08/20/15 15:06	
Carbon tetrachloride	ug/L	ND	1.0	08/20/15 15:06	
Chlorobenzene	ug/L	ND	3.0	08/20/15 15:06	
Chloroethane	ug/L	ND	10.0	08/20/15 15:06	
Chloroform	ug/L	ND	5.0	08/20/15 15:06	
Chloromethane	ug/L	ND	1.0	08/20/15 15:06	
cis-1,2-Dichloroethene	ug/L	ND	5.0	08/20/15 15:06	
cis-1,3-Dichloropropene	ug/L	ND	1.0	08/20/15 15:06	
Dibromochloromethane	ug/L	ND	3.0	08/20/15 15:06	
Dibromomethane	ug/L	ND	10.0	08/20/15 15:06	
Ethylbenzene	ug/L	ND	1.0	08/20/15 15:06	
Iodomethane	ug/L	ND	10.0	08/20/15 15:06	
Methylene Chloride	ug/L	ND	1.0	08/20/15 15:06	
Styrene	ug/L	ND	1.0	08/20/15 15:06	
Tetrachloroethene	ug/L	ND	1.0	08/20/15 15:06	
Toluene	ug/L	ND	1.0	08/20/15 15:06	
trans-1,2-Dichloroethene	ug/L	ND	5.0	08/20/15 15:06	
trans-1,3-Dichloropropene	ug/L	ND	1.0	08/20/15 15:06	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Project No.: 92263803

METHOD BLANK: 1538227

Matrix: Water

Associated Lab Samples: 92263803001, 92263803002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,4-Dichloro-2-butene	ug/L	ND	100	08/20/15 15:06	
Trichloroethene	ug/L	ND	1.0	08/20/15 15:06	
Trichlorofluoromethane	ug/L	ND	1.0	08/20/15 15:06	
Vinyl acetate	ug/L	ND	50.0	08/20/15 15:06	
Vinyl chloride	ug/L	ND	1.0	08/20/15 15:06	
Xylene (Total)	ug/L	ND	5.0	08/20/15 15:06	
1,2-Dichloroethane-d4 (S)	%	101	70-130	08/20/15 15:06	
4-Bromofluorobenzene (S)	%	100	70-130	08/20/15 15:06	
Toluene-d8 (S)	%	101	70-130	08/20/15 15:06	

LABORATORY CONTROL SAMPLE: 1538228

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	57.7	115	80-125	
1,1,1-Trichloroethane	ug/L	50	57.9	116	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	50.9	102	79-124	
1,1,2-Trichloroethane	ug/L	50	49.8	100	85-125	
1,1-Dichloroethane	ug/L	50	54.3	109	73-126	
1,1-Dichloroethene	ug/L	50	60.4	121	66-135	
1,2,3-Trichloropropane	ug/L	50	49.7	99	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.0	102	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	54.8	110	83-124	
1,2-Dichlorobenzene	ug/L	50	50.6	101	80-133	
1,2-Dichloroethane	ug/L	50	50.0	100	67-128	
1,2-Dichloropropane	ug/L	50	52.2	104	75-132	
1,4-Dichlorobenzene	ug/L	50	49.8	100	78-130	
2-Butanone (MEK)	ug/L	100	106	106	61-144	
2-Hexanone	ug/L	100	111	111	68-143	
4-Methyl-2-pentanone (MIBK)	ug/L	100	103	103	72-135	
Acetone	ug/L	100	101	101	48-146	
Acrylonitrile	ug/L	250	264	106	40-160	
Benzene	ug/L	50	54.7	109	80-125	
Bromochloromethane	ug/L	50	55.5	111	71-125	
Bromodichloromethane	ug/L	50	56.3	113	78-124	
Bromoform	ug/L	50	51.3	103	71-128	
Bromomethane	ug/L	50	57.3	115	40-160	
Carbon disulfide	ug/L	50	54.2J	108	50-160	
Carbon tetrachloride	ug/L	50	64.4	129	69-131	
Chlorobenzene	ug/L	50	50.5	101	81-122	
Chloroethane	ug/L	50	47.7	95	39-148	
Chloroform	ug/L	50	53.0	106	73-127	
Chloromethane	ug/L	50	61.9	124	44-146	
cis-1,2-Dichloroethene	ug/L	50	54.6	109	74-124	
cis-1,3-Dichloropropene	ug/L	50	56.5	113	72-132	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

LABORATORY CONTROL SAMPLE: 1538228

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromochloromethane	ug/L	50	61.0	122	78-125	
Dibromomethane	ug/L	50	53.4	107	82-120	
Ethylbenzene	ug/L	50	51.0	102	79-121	
Iodomethane	ug/L	100	121	121	39-154	
Methylene Chloride	ug/L	50	58.7	117	64-133	
Styrene	ug/L	50	53.9	108	84-126	
Tetrachloroethene	ug/L	50	51.3	103	78-122	
Toluene	ug/L	50	50.5	101	80-121	
trans-1,2-Dichloroethene	ug/L	50	55.6	111	71-127	
trans-1,3-Dichloropropene	ug/L	50	56.9	114	69-141	
trans-1,4-Dichloro-2-butene	ug/L	50	54.6J	109	40-160	
Trichloroethene	ug/L	50	51.1	102	78-122	
Trichlorofluoromethane	ug/L	50	54.4	109	53-137	
Vinyl acetate	ug/L	100	114	114	40-160	
Vinyl chloride	ug/L	50	54.7	109	58-137	
Xylene (Total)	ug/L	150	155	103	81-126	
1,2-Dichloroethane-d4 (S)	%			106	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1538230

Parameter	Units	92263765006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	33.0	165	70-130	M1
1,1,1-Trichloroethane	ug/L	ND	20	35.4	177	70-130	M1
1,1,2,2-Tetrachloroethane	ug/L	ND	20	28.3	141	70-130	M1
1,1,2-Trichloroethane	ug/L	ND	20	29.5	148	70-130	M1
1,1-Dichloroethane	ug/L	ND	20	32.4	162	70-130	M1
1,1-Dichloroethene	ug/L	ND	20	37.2	186	70-166	M1
1,2,3-Trichloropropane	ug/L	ND	20	28.8	144	70-130	M1
1,2-Dibromo-3-chloropropane	ug/L	ND	20	29.9	150	70-130	M1
1,2-Dibromoethane (EDB)	ug/L	ND	20	30.7	154	70-130	M1
1,2-Dichlorobenzene	ug/L	ND	20	29.6	148	70-130	M1
1,2-Dichloroethane	ug/L	ND	20	29.1	145	70-130	M1
1,2-Dichloropropane	ug/L	ND	20	31.0	155	70-130	M1
1,4-Dichlorobenzene	ug/L	ND	20	28.5	142	70-130	M1
2-Butanone (MEK)	ug/L	ND	40	70.1J	175	70-130	M1
2-Hexanone	ug/L	ND	40	64.5	161	70-130	M1
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	61.4J	153	70-130	M1
Acetone	ug/L	ND	40	61.1J	148	70-130	M1
Acrylonitrile	ug/L	ND	100	153J	153	70-130	M1
Benzene	ug/L	ND	20	32.3	161	70-148	M1
Bromochloromethane	ug/L	ND	20	32.8	164	70-130	M1
Bromodichloromethane	ug/L	ND	20	32.7	163	70-130	M1
Bromoform	ug/L	ND	20	28.9	145	70-130	M1

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

MATRIX SPIKE SAMPLE: 1538230

Parameter	Units	92263765006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/L	ND	20	17.5	87	70-130	
Carbon disulfide	ug/L	ND	20	33.2J	166	70-130	M1
Carbon tetrachloride	ug/L	ND	20	39.1	196	70-130	M1
Chlorobenzene	ug/L	ND	20	29.1	146	70-146	
Chloroethane	ug/L	ND	20	32.2	161	70-130	M1
Chloroform	ug/L	ND	20	32.1	161	70-130	M1
Chloromethane	ug/L	0.18J	20	29.0	144	70-130	M1
cis-1,2-Dichloroethene	ug/L	ND	20	32.6	163	70-130	M1
cis-1,3-Dichloropropene	ug/L	ND	20	31.3	156	70-130	M1
Dibromochloromethane	ug/L	ND	20	32.8	164	70-130	M1
Dibromomethane	ug/L	ND	20	30.8	154	70-130	M1
Ethylbenzene	ug/L	0.42J	20	30.1	148	70-130	M1
Iodomethane	ug/L	ND	40	55.6	139	70-130	M1
Methylene Chloride	ug/L	ND	20	30.7	150	70-130	M1
Styrene	ug/L	ND	20	30.3	151	70-130	M1
Tetrachloroethene	ug/L	ND	20	30.7	153	70-130	M1
Toluene	ug/L	ND	20	30.3	151	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	34.0	170	70-130	M1
trans-1,3-Dichloropropene	ug/L	ND	20	31.9	160	70-130	M1
trans-1,4-Dichloro-2-butene	ug/L	ND	20	29.5J	147	70-130	M1
Trichloroethene	ug/L	ND	20	32.2	161	69-151	M1
Trichlorofluoromethane	ug/L	ND	20	32.7	164	70-130	M1
Vinyl acetate	ug/L	ND	40	57.7	144	70-130	M1
Vinyl chloride	ug/L	ND	20	31.4	157	70-130	M1
1,2-Dichloroethane-d4 (S)	%				104	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1538229

Parameter	Units	92263765005 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

SAMPLE DUPLICATE: 1538229

Parameter	Units	92263765005 Result	Dup Result	RPD	Max RPD	Qualifiers
2-Hexanone	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	
Acrylonitrile	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon disulfide	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	0.19J	0.21J		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	0.39J	0.36J		30	
Iodomethane	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	1.1		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	105	107	1		
4-Bromofluorobenzene (S)	%	101	102	1		
Toluene-d8 (S)	%	101	102	2		

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

QC Batch: OEXT/37268

Analysis Method: EPA 8081

QC Batch Method: EPA 3510

Analysis Description: 8081A GCS Pesticides

Associated Lab Samples: 92263803001, 92263803002

METHOD BLANK: 1540067

Matrix: Water

Associated Lab Samples: 92263803001, 92263803002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Endrin aldehyde	ug/L	ND	0.10	08/26/15 01:13	
gamma-BHC (Lindane)	ug/L	ND	0.050	08/26/15 01:13	
Heptachlor	ug/L	ND	0.050	08/26/15 01:13	
Decachlorobiphenyl (S)	%	82	20-130	08/26/15 01:13	
Tetrachloro-m-xylene (S)	%	99	20-130	08/26/15 01:13	

LABORATORY CONTROL SAMPLE: 1540068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Endrin aldehyde	ug/L	.25	0.21	86	20-150	
gamma-BHC (Lindane)	ug/L	.25	0.23	94	20-150	
Heptachlor	ug/L	.25	0.21	84	20-150	
Decachlorobiphenyl (S)	%			81	20-130	
Tetrachloro-m-xylene (S)	%			96	20-130	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

QC Batch: OEXT/23964

Analysis Method: EPA 8151

QC Batch Method: EPA 8151

Analysis Description: 8151A GCS Herbicides

Associated Lab Samples: 92263803001, 92263803002

METHOD BLANK: 1308144

Matrix: Water

Associated Lab Samples: 92263803001, 92263803002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4-D	ug/L	ND	2.0	08/25/15 00:58	
2,4-DCAA (S)	%	99	36-130	08/25/15 00:58	

LABORATORY CONTROL SAMPLE & LCSD: 1308145

1310298

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
2,4-D	ug/L	6	5.1	6.6	86	111	42-134	25	40	
2,4-DCAA (S)	%				87	108	36-130			

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: BUTNER LANDFILL COMPLIANCE
Pace Project No.: 92263803

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

PASI-O Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92263803

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92263803001	3902-MW1R	EPA 3510	OEXT/37268	EPA 8081	GCSV/22382
92263803002	3902-MW2R	EPA 3510	OEXT/37268	EPA 8081	GCSV/22382
92263803001	3902-MW1R	EPA 8151	OEXT/23964	EPA 8151	GCSV/15571
92263803002	3902-MW2R	EPA 8151	OEXT/23964	EPA 8151	GCSV/15571
92263803001	3902-MW1R	EPA 3010	MPRP/19281	EPA 6010	ICP/17337
92263803002	3902-MW2R	EPA 3010	MPRP/19281	EPA 6010	ICP/17337
92263803001	3902-MW1R	EPA 8260	MSV/33081		
92263803002	3902-MW2R	EPA 8260	MSV/33081		
92263803003	3902-NES-1	EPA 8260	MSV/33055		

REPORT OF LABORATORY ANALYSIS

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Document Name: **Sample Condition Upon Receipt (SCUR)**
 Document No.: F-ASV-CS-003-rev.14

Document Revised: May 15, 2015
 Page 1 of 2*
 Issuing Authorities:
 Pace Asheville Quality Office

Client Name: Joyce

* 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#3 -130265963 Type of Ice: Wet Blue None Samples on Ice, cooling process has begun
 R Gun #4 SN:140290365 Other: _____

Temp Correction Factor: Add / Subtract 0 C

Corrected Cooler Temp.: 3.5 C Biological Tissue is Frozen: Yes No N/A
 Temp should be above freezing to 6°C

Date and Initials of person examining contents: 8/18/15 KP

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

Client Notification/ Resolution: _____ Field Data Required? Y / N
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

SCURF Review: [Signature] Date: 8/18/15
 SRF Review: [Signature] Date: 8/19/15

WO# : 92263803
 PM: KRG Due Date: 09/01/15
 CLIENT: 92-Joyce Eng

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)

August 31, 2015

Mr. Van Burbach
Joyce Engineering-NC
2211 West Meadowview Rd
Boone Bldg, Suite 101
Greensboro, NC 27407

RE: Project: BUTNER LANDFILL COMPLIANCE
Pace Project No.: 92264210

Dear Mr. Burbach:

Enclosed are the analytical results for sample(s) received by the laboratory on August 20, 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.

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

Sincerely,



Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Alex Everhart, Joyce Engineering-NC



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236

Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Charlotte Certification IDs

9800 Kinsey 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: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92264210001	3902-MW4	Water	08/18/15 08:05	08/20/15 10:30
92264210002	3902-MW5	Water	08/18/15 08:16	08/20/15 10:30
92264210003	3902-MW6	Water	08/18/15 08:45	08/20/15 10:30
92264210004	3902-FIELD BLANK	Water	08/18/15 08:42	08/20/15 10:30
92264210005	3902-TRIP BLANK	Water	08/17/15 06:15	08/20/15 10:30

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SAMPLE ANALYTE COUNT

Project: BUTNER LANDFILL COMPLIANCE
Pace Project No.: 92264210

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92264210001	3902-MW4	EPA 6010	JDA	15	PASI-A
		EPA 8260	NB	50	PASI-C
92264210002	3902-MW5	EPA 6010	JDA	15	PASI-A
		EPA 8260	NB	50	PASI-C
92264210003	3902-MW6	EPA 6010	JDA	15	PASI-A
		EPA 8260	NB	50	PASI-C
92264210004	3902-FIELD BLANK	EPA 8081	SWB	5	PASI-C
		EPA 8151	LJM	2	PASI-O
		EPA 6010	JDA	16	PASI-A
		EPA 8260	NB	50	PASI-C
		EPA 8260	NB	50	PASI-C
92264210005	3902-TRIP BLANK	EPA 8260	NB	50	PASI-C

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SUMMARY OF DETECTION

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92264210001	3902-MW4					
EPA 6010	Antimony	4.1J	ug/L	6.0	08/30/15 17:38	
EPA 6010	Copper	5.6J	ug/L	10.0	08/30/15 17:38	
EPA 6010	Nickel	11.9J	ug/L	50.0	08/30/15 17:38	
EPA 6010	Vanadium	19.6J	ug/L	25.0	08/30/15 17:38	
EPA 8260	Benzene	0.32J	ug/L	1.0	08/26/15 14:44	
EPA 8260	Chlorobenzene	4.3	ug/L	3.0	08/26/15 14:44	
EPA 8260	Chloroethane	3.7J	ug/L	10.0	08/26/15 14:44	
EPA 8260	1,1-Dichloroethane	0.49J	ug/L	5.0	08/26/15 14:44	
EPA 8260	1,2-Dichloroethane	0.29J	ug/L	1.0	08/26/15 14:44	
92264210002	3902-MW5					
EPA 6010	Barium	81.3J	ug/L	100	08/30/15 17:41	
EPA 6010	Cobalt	116	ug/L	10.0	08/30/15 17:41	
EPA 6010	Copper	10.1	ug/L	10.0	08/30/15 17:41	
EPA 6010	Nickel	26.2J	ug/L	50.0	08/30/15 17:41	
EPA 6010	Vanadium	2.8J	ug/L	25.0	08/30/15 17:41	
EPA 6010	Zinc	5.2J	ug/L	10.0	08/30/15 17:41	
EPA 8260	1,2-Dichloroethane	0.36J	ug/L	1.0	08/26/15 15:01	
92264210003	3902-MW6					
EPA 6010	Chromium	6.7J	ug/L	10.0	08/30/15 17:44	
EPA 6010	Nickel	5.4J	ug/L	50.0	08/30/15 17:44	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE
Pace Project No.: 92264210

Sample: 3902-MW4 **Lab ID: 92264210001** Collected: 08/18/15 08:05 Received: 08/20/15 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010 ICP Groundwater									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Antimony	4.1J	ug/L	6.0	3.8	1	08/21/15 16:30	08/30/15 17:38	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:38	7440-38-2	
Barium	ND	ug/L	100	2.5	1	08/21/15 16:30	08/30/15 17:38	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	08/21/15 16:30	08/30/15 17:38	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/21/15 16:30	08/30/15 17:38	7440-43-9	
Chromium	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:38	7440-47-3	
Cobalt	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:38	7440-48-4	
Copper	5.6J	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:38	7440-50-8	
Lead	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:38	7439-92-1	
Nickel	11.9J	ug/L	50.0	2.5	1	08/21/15 16:30	08/30/15 17:38	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	08/21/15 16:30	08/30/15 17:38	7782-49-2	
Silver	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:38	7440-22-4	
Thallium	ND	ug/L	5.5	5.0	1	08/21/15 16:30	08/30/15 17:38	7440-28-0	
Vanadium	19.6J	ug/L	25.0	2.5	1	08/21/15 16:30	08/30/15 17:38	7440-62-2	
Zinc	ND	ug/L	10.0	5.0	1	08/21/15 16:30	08/30/15 17:38	7440-66-6	
8260 MSV Low Level Landfill									
Analytical Method: EPA 8260									
Acetone	ND	ug/L	100	10.0	1		08/26/15 14:44	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/26/15 14:44	107-13-1	
Benzene	0.32J	ug/L	1.0	0.25	1		08/26/15 14:44	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/26/15 14:44	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/26/15 14:44	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/26/15 14:44	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/26/15 14:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/26/15 14:44	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/26/15 14:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/26/15 14:44	56-23-5	
Chlorobenzene	4.3	ug/L	3.0	0.23	1		08/26/15 14:44	108-90-7	
Chloroethane	3.7J	ug/L	10.0	0.54	1		08/26/15 14:44	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/26/15 14:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/26/15 14:44	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.0	1		08/26/15 14:44	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/26/15 14:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/26/15 14:44	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/26/15 14:44	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/26/15 14:44	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/26/15 14:44	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/26/15 14:44	110-57-6	
1,1-Dichloroethane	0.49J	ug/L	5.0	0.32	1		08/26/15 14:44	75-34-3	
1,2-Dichloroethane	0.29J	ug/L	1.0	0.24	1		08/26/15 14:44	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/26/15 14:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/26/15 14:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/26/15 14:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/26/15 14:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/26/15 14:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/26/15 14:44	10061-02-6	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

Sample: 3902-MW4 **Lab ID: 92264210001** Collected: 08/18/15 08:05 Received: 08/20/15 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV Low Level Landfill		Analytical Method: EPA 8260							
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/26/15 14:44	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/26/15 14:44	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/26/15 14:44	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/26/15 14:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/26/15 14:44	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/26/15 14:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/26/15 14:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/26/15 14:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/26/15 14:44	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/26/15 14:44	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/26/15 14:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/26/15 14:44	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/26/15 14:44	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/26/15 14:44	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/26/15 14:44	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/26/15 14:44	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/26/15 14:44	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/26/15 14:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		08/26/15 14:44	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		08/26/15 14:44	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		08/26/15 14:44	2037-26-5	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE

Sample Project No.: 92264210

Sample: 3902-MW5 **Lab ID: 92264210002** Collected: 08/18/15 08:16 Received: 08/20/15 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010 ICP Groundwater			Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Antimony	ND	ug/L	6.0	3.8	1	08/21/15 16:30	08/30/15 17:41	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:41	7440-38-2	
Barium	81.3J	ug/L	100	2.5	1	08/21/15 16:30	08/30/15 17:41	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	08/21/15 16:30	08/30/15 17:41	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/21/15 16:30	08/30/15 17:41	7440-43-9	
Chromium	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:41	7440-47-3	
Cobalt	116	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:41	7440-48-4	
Copper	10.1	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:41	7440-50-8	
Lead	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:41	7439-92-1	
Nickel	26.2J	ug/L	50.0	2.5	1	08/21/15 16:30	08/30/15 17:41	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	08/21/15 16:30	08/30/15 17:41	7782-49-2	
Silver	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:41	7440-22-4	
Thallium	ND	ug/L	5.5	5.0	1	08/21/15 16:30	08/30/15 17:41	7440-28-0	
Vanadium	2.8J	ug/L	25.0	2.5	1	08/21/15 16:30	08/30/15 17:41	7440-62-2	
Zinc	5.2J	ug/L	10.0	5.0	1	08/21/15 16:30	08/30/15 17:41	7440-66-6	
8260 MSV Low Level Landfill			Analytical Method: EPA 8260						
Acetone	ND	ug/L	100	10.0	1		08/26/15 15:01	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/26/15 15:01	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/26/15 15:01	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/26/15 15:01	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/26/15 15:01	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/26/15 15:01	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/26/15 15:01	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/26/15 15:01	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/26/15 15:01	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/26/15 15:01	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/26/15 15:01	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/26/15 15:01	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/26/15 15:01	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/26/15 15:01	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.0	1		08/26/15 15:01	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/26/15 15:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/26/15 15:01	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/26/15 15:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/26/15 15:01	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/26/15 15:01	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/26/15 15:01	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/26/15 15:01	75-34-3	
1,2-Dichloroethane	0.36J	ug/L	1.0	0.24	1		08/26/15 15:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/26/15 15:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/26/15 15:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/26/15 15:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/26/15 15:01	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/26/15 15:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/26/15 15:01	10061-02-6	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

Sample: 3902-MW5 **Lab ID: 92264210002** Collected: 08/18/15 08:16 Received: 08/20/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill		Analytical Method: EPA 8260							
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/26/15 15:01	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/26/15 15:01	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/26/15 15:01	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/26/15 15:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/26/15 15:01	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/26/15 15:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/26/15 15:01	630-20-6	
1,1,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/26/15 15:01	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/26/15 15:01	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/26/15 15:01	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/26/15 15:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/26/15 15:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/26/15 15:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/26/15 15:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/26/15 15:01	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/26/15 15:01	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/26/15 15:01	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/26/15 15:01	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		08/26/15 15:01	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		08/26/15 15:01	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		08/26/15 15:01	2037-26-5	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE

Sample Project No.: 92264210

Sample: 3902-MW6 **Lab ID: 92264210003** Collected: 08/18/15 08:45 Received: 08/20/15 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010 ICP Groundwater		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Antimony	ND	ug/L	6.0	3.8	1	08/21/15 16:30	08/30/15 17:44	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:44	7440-38-2	
Barium	ND	ug/L	100	2.5	1	08/21/15 16:30	08/30/15 17:44	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	08/21/15 16:30	08/30/15 17:44	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/21/15 16:30	08/30/15 17:44	7440-43-9	
Chromium	6.7J	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:44	7440-47-3	
Cobalt	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:44	7440-48-4	
Copper	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:44	7440-50-8	
Lead	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:44	7439-92-1	
Nickel	5.4J	ug/L	50.0	2.5	1	08/21/15 16:30	08/30/15 17:44	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	08/21/15 16:30	08/30/15 17:44	7782-49-2	
Silver	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:44	7440-22-4	
Thallium	ND	ug/L	5.5	5.0	1	08/21/15 16:30	08/30/15 17:44	7440-28-0	
Vanadium	ND	ug/L	25.0	2.5	1	08/21/15 16:30	08/30/15 17:44	7440-62-2	
Zinc	ND	ug/L	10.0	5.0	1	08/21/15 16:30	08/30/15 17:44	7440-66-6	
8260 MSV Low Level Landfill		Analytical Method: EPA 8260							
Acetone	ND	ug/L	100	10.0	1		08/26/15 15:18	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/26/15 15:18	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/26/15 15:18	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/26/15 15:18	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/26/15 15:18	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/26/15 15:18	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/26/15 15:18	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/26/15 15:18	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/26/15 15:18	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/26/15 15:18	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/26/15 15:18	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/26/15 15:18	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/26/15 15:18	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/26/15 15:18	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.0	1		08/26/15 15:18	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/26/15 15:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/26/15 15:18	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/26/15 15:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/26/15 15:18	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/26/15 15:18	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/26/15 15:18	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/26/15 15:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		08/26/15 15:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/26/15 15:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/26/15 15:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/26/15 15:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/26/15 15:18	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/26/15 15:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/26/15 15:18	10061-02-6	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

Sample: 3902-MW6 **Lab ID: 92264210003** Collected: 08/18/15 08:45 Received: 08/20/15 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV Low Level Landfill		Analytical Method: EPA 8260							
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/26/15 15:18	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/26/15 15:18	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/26/15 15:18	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/26/15 15:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/26/15 15:18	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/26/15 15:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/26/15 15:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/26/15 15:18	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/26/15 15:18	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/26/15 15:18	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/26/15 15:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/26/15 15:18	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/26/15 15:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/26/15 15:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/26/15 15:18	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/26/15 15:18	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/26/15 15:18	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/26/15 15:18	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		08/26/15 15:18	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130		1		08/26/15 15:18	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		08/26/15 15:18	2037-26-5	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

Sample: 3902-FIELD BLANK **Lab ID: 92264210004** Collected: 08/18/15 08:42 Received: 08/20/15 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8081 Organochlorine Pesticides Analytical Method: EPA 8081 Preparation Method: EPA 3510									
gamma-BHC (Lindane)	ND	ug/L	0.050	0.050	1	08/24/15 11:40	08/28/15 03:05	58-89-9	
Endrin aldehyde	ND	ug/L	0.10	0.050	1	08/24/15 11:40	08/28/15 03:05	7421-93-4	
Heptachlor	ND	ug/L	0.050	0.050	1	08/24/15 11:40	08/28/15 03:05	76-44-8	
Surrogates									
Tetrachloro-m-xylene (S)	89	%	20-130		1	08/24/15 11:40	08/28/15 03:05	877-09-8	
Decachlorobiphenyl (S)	58	%	20-130		1	08/24/15 11:40	08/28/15 03:05	2051-24-3	
8151 Chlorinated Herbicides Analytical Method: EPA 8151 Preparation Method: EPA 8151									
2,4-D	ND	ug/L	2.0	0.22	1	08/24/15 15:40	08/25/15 16:38	94-75-7	
Surrogates									
2,4-DCAA (S)	88	%	36-130		1	08/24/15 15:40	08/25/15 16:38	19719-28-9	
6010 ICP Groundwater Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Antimony	ND	ug/L	6.0	3.8	1	08/21/15 16:30	08/30/15 17:48	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:48	7440-38-2	
Barium	ND	ug/L	100	2.5	1	08/21/15 16:30	08/30/15 17:48	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	08/21/15 16:30	08/30/15 17:48	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/21/15 16:30	08/30/15 17:48	7440-43-9	
Chromium	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:48	7440-47-3	
Cobalt	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:48	7440-48-4	
Copper	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:48	7440-50-8	
Lead	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:48	7439-92-1	
Nickel	ND	ug/L	50.0	2.5	1	08/21/15 16:30	08/30/15 17:48	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	08/21/15 16:30	08/30/15 17:48	7782-49-2	
Silver	ND	ug/L	10.0	2.5	1	08/21/15 16:30	08/30/15 17:48	7440-22-4	
Thallium	ND	ug/L	5.5	5.0	1	08/21/15 16:30	08/30/15 17:48	7440-28-0	
Tin	ND	ug/L	100	2.5	1	08/21/15 16:30	08/30/15 17:48	7440-31-5	
Vanadium	ND	ug/L	25.0	2.5	1	08/21/15 16:30	08/30/15 17:48	7440-62-2	
Zinc	ND	ug/L	10.0	5.0	1	08/21/15 16:30	08/30/15 17:48	7440-66-6	
8260 MSV Low Level Landfill Analytical Method: EPA 8260									
Acetone	ND	ug/L	100	10.0	1		08/26/15 15:34	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/26/15 15:34	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/26/15 15:34	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/26/15 15:34	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/26/15 15:34	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/26/15 15:34	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/26/15 15:34	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/26/15 15:34	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/26/15 15:34	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/26/15 15:34	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/26/15 15:34	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/26/15 15:34	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/26/15 15:34	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/26/15 15:34	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.0	1		08/26/15 15:34	96-12-8	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE
Pace Project No.: 92264210

Sample: 3902-FIELD BLANK **Lab ID: 92264210004** Collected: 08/18/15 08:42 Received: 08/20/15 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV Low Level Landfill		Analytical Method: EPA 8260							
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/26/15 15:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/26/15 15:34	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/26/15 15:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/26/15 15:34	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/26/15 15:34	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/26/15 15:34	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/26/15 15:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		08/26/15 15:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/26/15 15:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/26/15 15:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/26/15 15:34	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/26/15 15:34	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/26/15 15:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/26/15 15:34	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/26/15 15:34	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/26/15 15:34	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/26/15 15:34	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/26/15 15:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/26/15 15:34	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/26/15 15:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/26/15 15:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/26/15 15:34	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/26/15 15:34	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/26/15 15:34	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/26/15 15:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/26/15 15:34	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/26/15 15:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/26/15 15:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/26/15 15:34	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/26/15 15:34	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/26/15 15:34	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/26/15 15:34	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		08/26/15 15:34	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		08/26/15 15:34	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		08/26/15 15:34	2037-26-5	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE

Project No.: 92264210

Sample: 3902-TRIP BLANK **Lab ID: 92264210005** Collected: 08/17/15 06:15 Received: 08/20/15 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV Low Level Landfill		Analytical Method: EPA 8260							
Acetone	ND	ug/L	100	10.0	1		08/26/15 15:51	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/26/15 15:51	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/26/15 15:51	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/26/15 15:51	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/26/15 15:51	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/26/15 15:51	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/26/15 15:51	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/26/15 15:51	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/26/15 15:51	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/26/15 15:51	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/26/15 15:51	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/26/15 15:51	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/26/15 15:51	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/26/15 15:51	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.0	1		08/26/15 15:51	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/26/15 15:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/26/15 15:51	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/26/15 15:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/26/15 15:51	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/26/15 15:51	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/26/15 15:51	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/26/15 15:51	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		08/26/15 15:51	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/26/15 15:51	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/26/15 15:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/26/15 15:51	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/26/15 15:51	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/26/15 15:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/26/15 15:51	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/26/15 15:51	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/26/15 15:51	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/26/15 15:51	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/26/15 15:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/26/15 15:51	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/26/15 15:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/26/15 15:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/26/15 15:51	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/26/15 15:51	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/26/15 15:51	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/26/15 15:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/26/15 15:51	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/26/15 15:51	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/26/15 15:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/26/15 15:51	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/26/15 15:51	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/26/15 15:51	75-01-4	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL COMPLIANCE
Pace Project No.: 92264210

Sample: 3902-TRIP BLANK Lab ID: 92264210005 Collected: 08/17/15 06:15 Received: 08/20/15 10:30 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	5.0	0.66	1		08/26/15 15:51	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		08/26/15 15:51	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		08/26/15 15:51	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		08/26/15 15:51	2037-26-5	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

QC Batch: MPRP/19312 Analysis Method: EPA 6010
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET NC Groundwater
 Associated Lab Samples: 92264210001, 92264210002, 92264210003, 92264210004

METHOD BLANK: 1538928 Matrix: Water
 Associated Lab Samples: 92264210001, 92264210002, 92264210003, 92264210004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	08/30/15 16:55	
Arsenic	ug/L	ND	10.0	08/30/15 16:55	
Barium	ug/L	ND	100	08/30/15 16:55	
Beryllium	ug/L	ND	1.0	08/30/15 16:55	
Cadmium	ug/L	ND	1.0	08/30/15 16:55	
Chromium	ug/L	ND	10.0	08/30/15 16:55	
Cobalt	ug/L	ND	10.0	08/30/15 16:55	
Copper	ug/L	ND	10.0	08/30/15 16:55	
Lead	ug/L	ND	10.0	08/30/15 16:55	
Nickel	ug/L	ND	50.0	08/30/15 16:55	
Selenium	ug/L	ND	10.0	08/30/15 16:55	
Silver	ug/L	ND	10.0	08/30/15 16:55	
Thallium	ug/L	ND	5.5	08/30/15 16:55	
Tin	ug/L	ND	100	08/30/15 16:55	
Vanadium	ug/L	ND	25.0	08/30/15 16:55	
Zinc	ug/L	ND	10.0	08/30/15 16:55	

LABORATORY CONTROL SAMPLE: 1538929

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	494	99	80-120	
Arsenic	ug/L	500	474	95	80-120	
Barium	ug/L	500	484	97	80-120	
Beryllium	ug/L	500	485	97	80-120	
Cadmium	ug/L	500	480	96	80-120	
Chromium	ug/L	500	477	95	80-120	
Cobalt	ug/L	500	486	97	80-120	
Copper	ug/L	500	488	98	80-120	
Lead	ug/L	500	480	96	80-120	
Nickel	ug/L	500	475	95	80-120	
Selenium	ug/L	500	472	94	80-120	
Silver	ug/L	250	239	96	80-120	
Thallium	ug/L	500	485	97	80-120	
Tin	ug/L	500	493	99	80-120	
Vanadium	ug/L	500	484	97	80-120	
Zinc	ug/L	500	475	95	80-120	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

Parameter	Units	92264209001		MS		MSD		MS		MSD		% Rec	Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec							
Antimony	ug/L	ND	500	500	484	474	96	94	75-125	2	25					
Arsenic	ug/L	ND	500	500	467	458	93	92	75-125	2	25					
Barium	ug/L	11.0J	500	500	477	473	93	92	75-125	1	25					
Beryllium	ug/L	ND	500	500	475	472	95	94	75-125	1	25					
Cadmium	ug/L	ND	500	500	467	458	93	92	75-125	2	25					
Chromium	ug/L	ND	500	500	466	461	93	92	75-125	1	25					
Cobalt	ug/L	ND	500	500	465	456	93	91	75-125	2	25					
Copper	ug/L	2.8J	500	500	476	473	95	94	75-125	1	25					
Lead	ug/L	ND	500	500	458	450	91	90	75-125	2	25					
Nickel	ug/L	ND	500	500	457	448	91	89	75-125	2	25					
Selenium	ug/L	ND	500	500	458	450	91	90	75-125	2	25					
Silver	ug/L	ND	250	250	232	230	92	92	75-125	1	25					
Thallium	ug/L	ND	500	500	466	455	93	91	75-125	2	25					
Tin	ug/L	ND	500	500	476	470	95	94	75-125	1	25					
Vanadium	ug/L	6.1J	500	500	480	475	95	94	75-125	1	25					
Zinc	ug/L	8.9J	500	500	463	457	91	90	75-125	1	25					

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

QC Batch: MSV/33115 Analysis Method: EPA 8260
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
 Associated Lab Samples: 92264210001, 92264210002, 92264210003, 92264210004, 92264210005

METHOD BLANK: 1540456 Matrix: Water
 Associated Lab Samples: 92264210001, 92264210002, 92264210003, 92264210004, 92264210005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	08/26/15 12:12	
1,1,1-Trichloroethane	ug/L	ND	1.0	08/26/15 12:12	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	08/26/15 12:12	
1,1,2-Trichloroethane	ug/L	ND	1.0	08/26/15 12:12	
1,1-Dichloroethane	ug/L	ND	5.0	08/26/15 12:12	
1,1-Dichloroethene	ug/L	ND	5.0	08/26/15 12:12	
1,2,3-Trichloropropane	ug/L	ND	1.0	08/26/15 12:12	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	08/26/15 12:12	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/26/15 12:12	
1,2-Dichlorobenzene	ug/L	ND	5.0	08/26/15 12:12	
1,2-Dichloroethane	ug/L	ND	1.0	08/26/15 12:12	
1,2-Dichloropropane	ug/L	ND	1.0	08/26/15 12:12	
1,4-Dichlorobenzene	ug/L	ND	1.0	08/26/15 12:12	
2-Butanone (MEK)	ug/L	ND	100	08/26/15 12:12	
2-Hexanone	ug/L	ND	50.0	08/26/15 12:12	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	08/26/15 12:12	
Acetone	ug/L	ND	100	08/26/15 12:12	
Acrylonitrile	ug/L	ND	200	08/26/15 12:12	
Benzene	ug/L	ND	1.0	08/26/15 12:12	
Bromochloromethane	ug/L	ND	3.0	08/26/15 12:12	
Bromodichloromethane	ug/L	ND	1.0	08/26/15 12:12	
Bromoform	ug/L	ND	3.0	08/26/15 12:12	
Bromomethane	ug/L	ND	10.0	08/26/15 12:12	
Carbon disulfide	ug/L	ND	100	08/26/15 12:12	
Carbon tetrachloride	ug/L	ND	1.0	08/26/15 12:12	
Chlorobenzene	ug/L	ND	3.0	08/26/15 12:12	
Chloroethane	ug/L	ND	10.0	08/26/15 12:12	
Chloroform	ug/L	ND	5.0	08/26/15 12:12	
Chloromethane	ug/L	ND	1.0	08/26/15 12:12	
cis-1,2-Dichloroethene	ug/L	ND	5.0	08/26/15 12:12	
cis-1,3-Dichloropropene	ug/L	ND	1.0	08/26/15 12:12	
Dibromochloromethane	ug/L	ND	3.0	08/26/15 12:12	
Dibromomethane	ug/L	ND	10.0	08/26/15 12:12	
Ethylbenzene	ug/L	ND	1.0	08/26/15 12:12	
Iodomethane	ug/L	ND	10.0	08/26/15 12:12	
Methylene Chloride	ug/L	ND	1.0	08/26/15 12:12	
Styrene	ug/L	ND	1.0	08/26/15 12:12	
Tetrachloroethene	ug/L	ND	1.0	08/26/15 12:12	
Toluene	ug/L	ND	1.0	08/26/15 12:12	
trans-1,2-Dichloroethene	ug/L	ND	5.0	08/26/15 12:12	
trans-1,3-Dichloropropene	ug/L	ND	1.0	08/26/15 12:12	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE
Pace Project No.: 92264210

METHOD BLANK: 1540456 Matrix: Water
Associated Lab Samples: 92264210001, 92264210002, 92264210003, 92264210004, 92264210005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,4-Dichloro-2-butene	ug/L	ND	100	08/26/15 12:12	
Trichloroethene	ug/L	ND	1.0	08/26/15 12:12	
Trichlorofluoromethane	ug/L	ND	1.0	08/26/15 12:12	
Vinyl acetate	ug/L	ND	50.0	08/26/15 12:12	
Vinyl chloride	ug/L	ND	1.0	08/26/15 12:12	
Xylene (Total)	ug/L	ND	5.0	08/26/15 12:12	
1,2-Dichloroethane-d4 (S)	%	103	70-130	08/26/15 12:12	
4-Bromofluorobenzene (S)	%	98	70-130	08/26/15 12:12	
Toluene-d8 (S)	%	100	70-130	08/26/15 12:12	

LABORATORY CONTROL SAMPLE: 1540457

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	46.3	93	80-125	
1,1,1-Trichloroethane	ug/L	50	53.9	108	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	47.7	95	79-124	
1,1,2-Trichloroethane	ug/L	50	47.6	95	85-125	
1,1-Dichloroethane	ug/L	50	51.3	103	73-126	
1,1-Dichloroethene	ug/L	50	57.3	115	66-135	
1,2,3-Trichloropropane	ug/L	50	47.6	95	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	52.7	105	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	51.5	103	83-124	
1,2-Dichlorobenzene	ug/L	50	51.5	103	80-133	
1,2-Dichloroethane	ug/L	50	45.9	92	67-128	
1,2-Dichloropropane	ug/L	50	47.9	96	75-132	
1,4-Dichlorobenzene	ug/L	50	51.3	103	78-130	
2-Butanone (MEK)	ug/L	100	88.0J	88	61-144	
2-Hexanone	ug/L	100	94.8	95	68-143	
4-Methyl-2-pentanone (MIBK)	ug/L	100	96.5J	97	72-135	
Acetone	ug/L	100	84.0J	84	48-146	
Acrylonitrile	ug/L	250	241	96	40-160	
Benzene	ug/L	50	52.2	104	80-125	
Bromochloromethane	ug/L	50	52.4	105	71-125	
Bromodichloromethane	ug/L	50	52.4	105	78-124	
Bromoform	ug/L	50	41.8	84	71-128	
Bromomethane	ug/L	50	47.6	95	40-160	
Carbon disulfide	ug/L	50	47.0J	94	50-160	
Carbon tetrachloride	ug/L	50	49.7	99	69-131	
Chlorobenzene	ug/L	50	49.1	98	81-122	
Chloroethane	ug/L	50	51.1	102	39-148	
Chloroform	ug/L	50	51.6	103	73-127	
Chloromethane	ug/L	50	48.9	98	44-146	
cis-1,2-Dichloroethene	ug/L	50	52.1	104	74-124	
cis-1,3-Dichloropropene	ug/L	50	50.2	100	72-132	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

LABORATORY CONTROL SAMPLE: 1540457

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromochloromethane	ug/L	50	45.3	91	78-125	
Dibromomethane	ug/L	50	48.7	97	82-120	
Ethylbenzene	ug/L	50	49.1	98	79-121	
Iodomethane	ug/L	100	90.3	90	39-154	
Methylene Chloride	ug/L	50	48.5	97	64-133	
Styrene	ug/L	50	52.0	104	84-126	
Tetrachloroethene	ug/L	50	49.2	98	78-122	
Toluene	ug/L	50	49.7	99	80-121	
trans-1,2-Dichloroethene	ug/L	50	54.3	109	71-127	
trans-1,3-Dichloropropene	ug/L	50	52.1	104	69-141	
trans-1,4-Dichloro-2-butene	ug/L	50	45.2J	90	40-160	
Trichloroethene	ug/L	50	48.9	98	78-122	
Trichlorofluoromethane	ug/L	50	45.6	91	53-137	
Vinyl acetate	ug/L	100	105	105	40-160	
Vinyl chloride	ug/L	50	48.2	96	58-137	
Xylene (Total)	ug/L	150	151	100	81-126	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1540459

Parameter	Units	92264282007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	22.4	112	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	26.0	130	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	23.2	116	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	23.2	116	70-130	
1,1-Dichloroethane	ug/L	ND	20	24.1	120	70-130	
1,1-Dichloroethene	ug/L	ND	20	28.7	144	70-166	
1,2,3-Trichloropropane	ug/L	ND	20	24.5	122	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	25.7	129	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	24.3	121	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	23.2	116	70-130	
1,2-Dichloroethane	ug/L	ND	20	23.1	114	70-130	
1,2-Dichloropropane	ug/L	ND	20	23.0	115	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	23.2	116	70-130	
2-Butanone (MEK)	ug/L	ND	40	52.0J	130	70-130	
2-Hexanone	ug/L	ND	40	58.5	146	70-130 M1	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	54.8J	137	70-130 M1	
Acetone	ug/L	ND	40	64.2J	142	70-130 M1	
Acrylonitrile	ug/L	ND	100	130J	130	70-130	
Benzene	ug/L	ND	20	24.0	120	70-148	
Bromochloromethane	ug/L	ND	20	24.7	124	70-130	
Bromodichloromethane	ug/L	ND	20	23.7	118	70-130	
Bromoform	ug/L	ND	20	19.8	99	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

MATRIX SPIKE SAMPLE: 1540459

Parameter	Units	92264282007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/L	ND	20	17.9	89	70-130	
Carbon disulfide	ug/L	ND	20	20.3J	102	70-130	
Carbon tetrachloride	ug/L	ND	20	24.6	123	70-130	
Chlorobenzene	ug/L	ND	20	23.5	118	70-146	
Chloroethane	ug/L	ND	20	22.8	114	70-130	
Chloroform	ug/L	ND	20	24.6	123	70-130	
Chloromethane	ug/L	ND	20	21.5	108	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	24.9	124	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	20.0	100	70-130	
Dibromochloromethane	ug/L	ND	20	21.3	106	70-130	
Dibromomethane	ug/L	ND	20	23.4	117	70-130	
Ethylbenzene	ug/L	ND	20	23.3	117	70-130	
Iodomethane	ug/L	ND	40	33.6	84	70-130	
Methylene Chloride	ug/L	ND	20	24.4	122	70-130	
Styrene	ug/L	ND	20	22.9	115	70-130	
Tetrachloroethene	ug/L	ND	20	23.0	115	70-130	
Toluene	ug/L	ND	20	23.6	118	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	25.9	129	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	20.9	104	70-130	
trans-1,4-Dichloro-2-butene	ug/L	ND	20	22.1J	111	70-130	
Trichloroethene	ug/L	ND	20	22.9	114	69-151	
Trichlorofluoromethane	ug/L	ND	20	24.1	120	70-130	
Vinyl acetate	ug/L	ND	40	27.9J	70	70-130	
Vinyl chloride	ug/L	ND	20	21.7	108	70-130	
1,2-Dichloroethane-d4 (S)	%				106	70-130	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				102	70-130	

SAMPLE DUPLICATE: 1540458

Parameter	Units	92264282006 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	0.54J	0.62J		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

SAMPLE DUPLICATE: 1540458

Parameter	Units	92264282006 Result	Dup Result	RPD	Max RPD	Qualifiers
2-Hexanone	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	
Acrylonitrile	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon disulfide	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	0.35J	0.34J		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Iodomethane	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	109	111	2		
4-Bromofluorobenzene (S)	%	98	99	0		
Toluene-d8 (S)	%	100	103	3		

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

QC Batch: OEXT/37268

Analysis Method: EPA 8081

QC Batch Method: EPA 3510

Analysis Description: 8081A GCS Pesticides

Associated Lab Samples: 92264210004

METHOD BLANK: 1540067

Matrix: Water

Associated Lab Samples: 92264210004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Endrin aldehyde	ug/L	ND	0.10	08/26/15 01:13	
gamma-BHC (Lindane)	ug/L	ND	0.050	08/26/15 01:13	
Heptachlor	ug/L	ND	0.050	08/26/15 01:13	
Decachlorobiphenyl (S)	%	82	20-130	08/26/15 01:13	
Tetrachloro-m-xylene (S)	%	99	20-130	08/26/15 01:13	

LABORATORY CONTROL SAMPLE: 1540068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Endrin aldehyde	ug/L	.25	0.21	86	20-150	
gamma-BHC (Lindane)	ug/L	.25	0.23	94	20-150	
Heptachlor	ug/L	.25	0.21	84	20-150	
Decachlorobiphenyl (S)	%			81	20-130	
Tetrachloro-m-xylene (S)	%			96	20-130	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

QC Batch: OEXT/23964

Analysis Method: EPA 8151

QC Batch Method: EPA 8151

Analysis Description: 8151A GCS Herbicides

Associated Lab Samples: 92264210004

METHOD BLANK: 1308144

Matrix: Water

Associated Lab Samples: 92264210004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4-D	ug/L	ND	2.0	08/25/15 00:58	
2,4-DCAA (S)	%	99	36-130	08/25/15 00:58	

LABORATORY CONTROL SAMPLE & LCSD: 1308145

1310298

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
2,4-D	ug/L	6	5.1	6.6	86	111	42-134	25	40	
2,4-DCAA (S)	%				87	108	36-130			

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: BUTNER LANDFILL COMPLIANCE
Pace Project No.: 92264210

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

PASI-O Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BUTNER LANDFILL COMPLIANCE

Pace Project No.: 92264210

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92264210004	3902-FIELD BLANK	EPA 3510	OEXT/37268	EPA 8081	GCSV/22382
92264210004	3902-FIELD BLANK	EPA 8151	OEXT/23964	EPA 8151	GCSV/15571
92264210001	3902-MW4	EPA 3010	MPRP/19312	EPA 6010	ICP/17361
92264210002	3902-MW5	EPA 3010	MPRP/19312	EPA 6010	ICP/17361
92264210003	3902-MW6	EPA 3010	MPRP/19312	EPA 6010	ICP/17361
92264210004	3902-FIELD BLANK	EPA 3010	MPRP/19312	EPA 6010	ICP/17361
92264210001	3902-MW4	EPA 8260	MSV/33115		
92264210002	3902-MW5	EPA 8260	MSV/33115		
92264210003	3902-MW6	EPA 8260	MSV/33115		
92264210004	3902-FIELD BLANK	EPA 8260	MSV/33115		
92264210005	3902-TRIP BLANK	EPA 8260	MSV/33115		

REPORT OF LABORATORY ANALYSIS

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Document Name: **Sample Condition Upon Receipt (SCUR)**

Document Revised: May 15, 2015
Page 1 of 2*

Document No.:
F-ASV-CS-003-rev.14

Issuing Authorities:
Pace Asheville Quality Office

Client Name: Joyce

* 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 #3 -130265963 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.: 3.1 C Biological Tissue is Frozen: Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: POB 8/20/15

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W5</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions <u>VOA, coliform, TOC, O&G, WI-DRO (water)</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: JJ Date: 8/20/15
SRF Review: JJ Date: 8/21/15

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#: 92264210



CHAIN-OF-CUSTODY / Analytical Request Document
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information: Section B Required Project Information: Section C Invoice Information:

Company: **Soyla Engineering** Report To: **ALYX EVINERT** Attention: **Amanda Freeman** Page: **1** of **1**
 Address: **221 W. Meadow View** Copy To: **Van Dierden, Gareth Elmer** Company Name: **Green Hill Co. Solidwtr** REGULATORY AGENCY: **004996**
 Email To: **R.A. Greenstead NC 27617** Purchase Order No.: **00** Address: **Box 709, Oxford NC 27665** NPDES GROUND WATER DRINKING WATER
 Project Name: **Green Hill Landfill Compliance** Reference: **00** Manager: **00** RCRA OTHER
 Requested Date Date/TAT: **8/19/15** Project Number: **00** Pace Profile #:

ITEM #	Section D Required Client Information	Matrix Codes MATRIX L CODE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
			COMPOSITE START	COMPOSITE END/GRAB			H ₂ SO ₄	HNO ₃	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Y				
1	MW-4					4											001	
2	MW-5					4											002	
3	MW-5					4											003	
4	Field Blank					10	X										004	
5	Trap Blank					2											005	
6																		
7																		
8																		
9																		
10																		
11																		
12																		

ADDITIONAL COMMENTS: **Relinquished by Soylo**

RELINQUISHED BY / AFFILIATION: **Soylo** DATE: **8/19/15** TIME: **1:55**

ACCEPTED BY / AFFILIATION: **Enthe Elmer** DATE: **8/20/15** TIME: **10:30**

Temp in °C: **3.1** Received on Ice (Y/N): **Y** Custody Sealed Cooler (Y/N): **N** Samples Intact (Y/N): **N**

ORIGINAL

Sampler Name and Signature: **Hayden Soylo**

Print Name of Sampler: **Hayden Soylo**

Signature of Sampler: **Hayden Soylo**

Date Signed (MM/DD/YY): **8/19/15**

Temp in °C: **3.1**

Received on Ice (Y/N): **Y**

Custody Sealed Cooler (Y/N): **N**

Samples Intact (Y/N): **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 invoice not paid within 30 days.

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

September 03, 2015

Mr. Van Burbach
Joyce Engineering-NC
2211 West Meadowview Rd
Boone Bldg, Suite 101
Greensboro, NC 27407

RE: Project: BUTNER LANDFILL DISSOLVD H/3R
Pace Project No.: 92263797

Dear Mr. Burbach:

Enclosed are the analytical results for sample(s) received by the laboratory on August 18, 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.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

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

Sincerely,



Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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September 03, 2015
Page 2

cc: Alex Everhart, Joyce Engineering-NC



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236

Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Charlotte Certification IDs

9800 Kinsey 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: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92263797001	3902-MW1R	Water	08/17/15 15:00	08/18/15 10:25
92263797002	3902-MW2R	Water	08/17/15 16:50	08/18/15 10:25
92263797003	3902-MW3R	Water	08/17/15 17:55	08/18/15 10:25
92263797004	3902-NES-1	Water	08/17/15 18:55	08/18/15 10:25
92263797005	3902-MW3R	Water	08/17/15 17:10	08/18/15 10:25

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92263797005	3902-MW3R	EPA 8081	SWB	5	PASI-C
		EPA 8151	LJM	2	PASI-O
		EPA 6010	SH1	16	PASI-A
		EPA 8260	GAW	50	PASI-C

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SUMMARY OF DETECTION

Project: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92263797005	3902-MW3R					
EPA 6010	Antimony	4.8J	ug/L	6.0	09/01/15 13:01	
EPA 6010	Barium	63.1J	ug/L	100	09/01/15 13:01	
EPA 6010	Copper	6.7J	ug/L	10.0	09/01/15 13:01	
EPA 6010	Nickel	28.0J	ug/L	50.0	09/01/15 13:01	
EPA 6010	Tin	7.5J	ug/L	100	09/01/15 13:01	
EPA 6010	Vanadium	3.6J	ug/L	25.0	09/01/15 13:01	
EPA 8260	Benzene	0.66J	ug/L	1.0	08/20/15 17:23	
EPA 8260	Chlorobenzene	17.6	ug/L	3.0	08/20/15 17:23	
EPA 8260	Chloroethane	2.0J	ug/L	10.0	08/20/15 17:23	
EPA 8260	Chloromethane	0.28J	ug/L	1.0	08/20/15 17:23	
EPA 8260	1,2-Dichlorobenzene	1.3J	ug/L	5.0	08/20/15 17:23	
EPA 8260	1,4-Dichlorobenzene	1.1	ug/L	1.0	08/20/15 17:23	
EPA 8260	1,2-Dichloroethane	0.33J	ug/L	1.0	08/20/15 17:23	
EPA 8260	Methylene Chloride	1.6	ug/L	1.0	08/20/15 17:23	C9

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

Sample: 3902-MW3R Lab ID: 92263797005 Collected: 08/17/15 17:10 Received: 08/18/15 10:25 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 Organochlorine Pesticides Analytical Method: EPA 8081 Preparation Method: EPA 3510									
gamma-BHC (Lindane)	ND	ug/L	0.050	0.050	1	08/24/15 11:40	08/28/15 02:10	58-89-9	
Endrin aldehyde	ND	ug/L	0.10	0.050	1	08/24/15 11:40	08/28/15 02:10	7421-93-4	
Heptachlor	ND	ug/L	0.050	0.050	1	08/24/15 11:40	08/28/15 02:10	76-44-8	
Surrogates									
Tetrachloro-m-xylene (S)	57	%	20-130		1	08/24/15 11:40	08/28/15 02:10	877-09-8	
Decachlorobiphenyl (S)	79	%	20-130		1	08/24/15 11:40	08/28/15 02:10	2051-24-3	
8151 Chlorinated Herbicides Analytical Method: EPA 8151 Preparation Method: EPA 8151									
2,4-D	ND	ug/L	2.0	0.22	1	08/23/15 16:20	08/25/15 02:29	94-75-7	
Surrogates									
2,4-DCAA (S)	77	%	36-130		1	08/23/15 16:20	08/25/15 02:29	19719-28-9	
6010 ICP Groundwater Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Antimony	4.8J	ug/L	6.0	3.8	1	08/19/15 19:00	09/01/15 13:01	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:01	7440-38-2	
Barium	63.1J	ug/L	100	2.5	1	08/19/15 19:00	09/01/15 13:01	7440-39-3	
Beryllium	ND	ug/L	1.0	0.50	1	08/19/15 19:00	09/01/15 13:01	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/19/15 19:00	09/01/15 13:01	7440-43-9	
Chromium	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:01	7440-47-3	
Cobalt	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:01	7440-48-4	
Copper	6.7J	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:01	7440-50-8	
Lead	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:01	7439-92-1	
Nickel	28.0J	ug/L	50.0	2.5	1	08/19/15 19:00	09/01/15 13:01	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	08/19/15 19:00	09/01/15 13:01	7782-49-2	
Silver	ND	ug/L	10.0	2.5	1	08/19/15 19:00	09/01/15 13:01	7440-22-4	
Thallium	ND	ug/L	5.5	5.0	1	08/19/15 19:00	09/01/15 13:01	7440-28-0	
Tin	7.5J	ug/L	100	2.5	1	08/19/15 19:00	09/01/15 13:01	7440-31-5	
Vanadium	3.6J	ug/L	25.0	2.5	1	08/19/15 19:00	09/01/15 13:01	7440-62-2	
Zinc	ND	ug/L	10.0	5.0	1	08/19/15 19:00	09/01/15 13:01	7440-66-6	
8260 MSV Low Level Landfill Analytical Method: EPA 8260									
Acetone	ND	ug/L	100	10.0	1		08/20/15 17:23	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/20/15 17:23	107-13-1	
Benzene	0.66J	ug/L	1.0	0.25	1		08/20/15 17:23	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/20/15 17:23	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/20/15 17:23	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/20/15 17:23	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/20/15 17:23	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/20/15 17:23	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/20/15 17:23	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/20/15 17:23	56-23-5	
Chlorobenzene	17.6	ug/L	3.0	0.23	1		08/20/15 17:23	108-90-7	
Chloroethane	2.0J	ug/L	10.0	0.54	1		08/20/15 17:23	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/20/15 17:23	67-66-3	
Chloromethane	0.28J	ug/L	1.0	0.11	1		08/20/15 17:23	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.0	1		08/20/15 17:23	96-12-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

Sample: 3902-MW3R **Lab ID: 92263797005** Collected: 08/17/15 17:10 Received: 08/18/15 10:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV Low Level Landfill									
Analytical Method: EPA 8260									
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/20/15 17:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/20/15 17:23	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/20/15 17:23	74-95-3	
1,2-Dichlorobenzene	1.3J	ug/L	5.0	0.30	1		08/20/15 17:23	95-50-1	
1,4-Dichlorobenzene	1.1	ug/L	1.0	0.33	1		08/20/15 17:23	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/20/15 17:23	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/20/15 17:23	75-34-3	
1,2-Dichloroethane	0.33J	ug/L	1.0	0.24	1		08/20/15 17:23	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/20/15 17:23	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/20/15 17:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/20/15 17:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/20/15 17:23	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/20/15 17:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/20/15 17:23	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/20/15 17:23	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/20/15 17:23	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/20/15 17:23	74-88-4	
Methylene Chloride	1.6	ug/L	1.0	0.97	1		08/20/15 17:23	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/20/15 17:23	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/20/15 17:23	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/20/15 17:23	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/20/15 17:23	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/20/15 17:23	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/20/15 17:23	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/20/15 17:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/20/15 17:23	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/20/15 17:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/20/15 17:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/20/15 17:23	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/20/15 17:23	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/20/15 17:23	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/20/15 17:23	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		08/20/15 17:23	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		08/20/15 17:23	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		08/20/15 17:23	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL DISSOLVD H/3R
Pace Project No.: 92263797

QC Batch: MPRP/19281 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92263797005

METHOD BLANK: 1537575 Matrix: Water
Associated Lab Samples: 92263797005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	09/01/15 12:55	
Arsenic	ug/L	ND	10.0	09/01/15 12:55	
Barium	ug/L	ND	100	09/01/15 12:55	
Beryllium	ug/L	ND	1.0	09/01/15 12:55	
Cadmium	ug/L	ND	1.0	09/01/15 12:55	
Chromium	ug/L	ND	10.0	09/01/15 12:55	
Cobalt	ug/L	ND	10.0	09/01/15 12:55	
Copper	ug/L	ND	10.0	09/01/15 12:55	
Lead	ug/L	ND	10.0	09/01/15 12:55	
Nickel	ug/L	ND	50.0	09/01/15 12:55	
Selenium	ug/L	ND	10.0	09/01/15 12:55	
Silver	ug/L	ND	10.0	09/01/15 12:55	
Thallium	ug/L	ND	5.5	09/01/15 12:55	
Tin	ug/L	ND	100	09/01/15 12:55	
Vanadium	ug/L	ND	25.0	09/01/15 12:55	
Zinc	ug/L	ND	10.0	09/01/15 12:55	

LABORATORY CONTROL SAMPLE: 1537576

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	416	472	113	80-120	
Arsenic	ug/L	416	458	110	80-120	
Barium	ug/L	416	466	112	80-120	
Beryllium	ug/L	416	468	112	80-120	
Cadmium	ug/L	416	465	112	80-120	
Chromium	ug/L	416	474	114	80-120	
Cobalt	ug/L	416	469	113	80-120	
Copper	ug/L	416	476	114	80-120	
Lead	ug/L	416	467	112	80-120	
Nickel	ug/L	416	460	111	80-120	
Selenium	ug/L	416	454	109	80-120	
Silver	ug/L	208	229	110	80-120	
Thallium	ug/L	416	465	112	80-120	
Tin	ug/L	416	468	112	80-120	
Vanadium	ug/L	416	461	111	80-120	
Zinc	ug/L	416	453	109	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

Parameter	Units	92263797005		1537577		1537579		% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Antimony	ug/L	4.8J	416	416	492	479	117	114	75-125	3	25		
Arsenic	ug/L	ND	416	416	482	467	116	112	75-125	3	25		
Barium	ug/L	63.1J	416	416	532	519	113	109	75-125	3	25		
Beryllium	ug/L	ND	416	416	471	461	113	111	75-125	2	25		
Cadmium	ug/L	ND	416	416	477	466	114	112	75-125	2	25		
Chromium	ug/L	ND	416	416	465	457	111	109	75-125	2	25		
Cobalt	ug/L	ND	416	416	450	440	108	106	75-125	2	25		
Copper	ug/L	6.7J	416	416	494	481	117	114	75-125	3	25		
Lead	ug/L	ND	416	416	446	436	107	105	75-125	2	25		
Nickel	ug/L	28.0J	416	416	469	458	106	103	75-125	2	25		
Selenium	ug/L	ND	416	416	464	452	112	109	75-125	3	25		
Silver	ug/L	ND	208	208	234	229	112	110	75-125	2	25		
Thallium	ug/L	ND	416	416	437	431	105	103	75-125	1	25		
Tin	ug/L	7.5J	416	416	467	457	110	108	75-125	2	25		
Vanadium	ug/L	3.6J	416	416	465	456	111	109	75-125	2	25		
Zinc	ug/L	ND	416	416	435	427	104	102	75-125	2	25		

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

QC Batch: MSV/33081

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV Low Level Landfill

Associated Lab Samples: 92263797005

METHOD BLANK: 1538227

Matrix: Water

Associated Lab Samples: 92263797005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	08/20/15 15:06	
1,1,1-Trichloroethane	ug/L	ND	1.0	08/20/15 15:06	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	08/20/15 15:06	
1,1,2-Trichloroethane	ug/L	ND	1.0	08/20/15 15:06	
1,1-Dichloroethane	ug/L	ND	5.0	08/20/15 15:06	
1,1-Dichloroethene	ug/L	ND	5.0	08/20/15 15:06	
1,2,3-Trichloropropane	ug/L	ND	1.0	08/20/15 15:06	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	08/20/15 15:06	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/20/15 15:06	
1,2-Dichlorobenzene	ug/L	ND	5.0	08/20/15 15:06	
1,2-Dichloroethane	ug/L	ND	1.0	08/20/15 15:06	
1,2-Dichloropropane	ug/L	ND	1.0	08/20/15 15:06	
1,4-Dichlorobenzene	ug/L	ND	1.0	08/20/15 15:06	
2-Butanone (MEK)	ug/L	ND	100	08/20/15 15:06	
2-Hexanone	ug/L	ND	50.0	08/20/15 15:06	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	08/20/15 15:06	
Acetone	ug/L	ND	100	08/20/15 15:06	
Acrylonitrile	ug/L	ND	200	08/20/15 15:06	
Benzene	ug/L	ND	1.0	08/20/15 15:06	
Bromochloromethane	ug/L	ND	3.0	08/20/15 15:06	
Bromodichloromethane	ug/L	ND	1.0	08/20/15 15:06	
Bromoform	ug/L	ND	3.0	08/20/15 15:06	
Bromomethane	ug/L	ND	10.0	08/20/15 15:06	
Carbon disulfide	ug/L	ND	100	08/20/15 15:06	
Carbon tetrachloride	ug/L	ND	1.0	08/20/15 15:06	
Chlorobenzene	ug/L	ND	3.0	08/20/15 15:06	
Chloroethane	ug/L	ND	10.0	08/20/15 15:06	
Chloroform	ug/L	ND	5.0	08/20/15 15:06	
Chloromethane	ug/L	ND	1.0	08/20/15 15:06	
cis-1,2-Dichloroethene	ug/L	ND	5.0	08/20/15 15:06	
cis-1,3-Dichloropropene	ug/L	ND	1.0	08/20/15 15:06	
Dibromochloromethane	ug/L	ND	3.0	08/20/15 15:06	
Dibromomethane	ug/L	ND	10.0	08/20/15 15:06	
Ethylbenzene	ug/L	ND	1.0	08/20/15 15:06	
Iodomethane	ug/L	ND	10.0	08/20/15 15:06	
Methylene Chloride	ug/L	ND	1.0	08/20/15 15:06	
Styrene	ug/L	ND	1.0	08/20/15 15:06	
Tetrachloroethene	ug/L	ND	1.0	08/20/15 15:06	
Toluene	ug/L	ND	1.0	08/20/15 15:06	
trans-1,2-Dichloroethene	ug/L	ND	5.0	08/20/15 15:06	
trans-1,3-Dichloropropene	ug/L	ND	1.0	08/20/15 15:06	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

METHOD BLANK: 1538227

Matrix: Water

Associated Lab Samples: 92263797005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,4-Dichloro-2-butene	ug/L	ND	100	08/20/15 15:06	
Trichloroethene	ug/L	ND	1.0	08/20/15 15:06	
Trichlorofluoromethane	ug/L	ND	1.0	08/20/15 15:06	
Vinyl acetate	ug/L	ND	50.0	08/20/15 15:06	
Vinyl chloride	ug/L	ND	1.0	08/20/15 15:06	
Xylene (Total)	ug/L	ND	5.0	08/20/15 15:06	
1,2-Dichloroethane-d4 (S)	%	101	70-130	08/20/15 15:06	
4-Bromofluorobenzene (S)	%	100	70-130	08/20/15 15:06	
Toluene-d8 (S)	%	101	70-130	08/20/15 15:06	

LABORATORY CONTROL SAMPLE: 1538228

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	57.7	115	80-125	
1,1,1-Trichloroethane	ug/L	50	57.9	116	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	50.9	102	79-124	
1,1,2-Trichloroethane	ug/L	50	49.8	100	85-125	
1,1-Dichloroethane	ug/L	50	54.3	109	73-126	
1,1-Dichloroethene	ug/L	50	60.4	121	66-135	
1,2,3-Trichloropropane	ug/L	50	49.7	99	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.0	102	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	54.8	110	83-124	
1,2-Dichlorobenzene	ug/L	50	50.6	101	80-133	
1,2-Dichloroethane	ug/L	50	50.0	100	67-128	
1,2-Dichloropropane	ug/L	50	52.2	104	75-132	
1,4-Dichlorobenzene	ug/L	50	49.8	100	78-130	
2-Butanone (MEK)	ug/L	100	106	106	61-144	
2-Hexanone	ug/L	100	111	111	68-143	
4-Methyl-2-pentanone (MIBK)	ug/L	100	103	103	72-135	
Acetone	ug/L	100	101	101	48-146	
Acrylonitrile	ug/L	250	264	106	40-160	
Benzene	ug/L	50	54.7	109	80-125	
Bromochloromethane	ug/L	50	55.5	111	71-125	
Bromodichloromethane	ug/L	50	56.3	113	78-124	
Bromoform	ug/L	50	51.3	103	71-128	
Bromomethane	ug/L	50	57.3	115	40-160	
Carbon disulfide	ug/L	50	54.2J	108	50-160	
Carbon tetrachloride	ug/L	50	64.4	129	69-131	
Chlorobenzene	ug/L	50	50.5	101	81-122	
Chloroethane	ug/L	50	47.7	95	39-148	
Chloroform	ug/L	50	53.0	106	73-127	
Chloromethane	ug/L	50	61.9	124	44-146	
cis-1,2-Dichloroethene	ug/L	50	54.6	109	74-124	
cis-1,3-Dichloropropene	ug/L	50	56.5	113	72-132	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

LABORATORY CONTROL SAMPLE: 1538228

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromochloromethane	ug/L	50	61.0	122	78-125	
Dibromomethane	ug/L	50	53.4	107	82-120	
Ethylbenzene	ug/L	50	51.0	102	79-121	
Iodomethane	ug/L	100	121	121	39-154	
Methylene Chloride	ug/L	50	58.7	117	64-133	
Styrene	ug/L	50	53.9	108	84-126	
Tetrachloroethene	ug/L	50	51.3	103	78-122	
Toluene	ug/L	50	50.5	101	80-121	
trans-1,2-Dichloroethene	ug/L	50	55.6	111	71-127	
trans-1,3-Dichloropropene	ug/L	50	56.9	114	69-141	
trans-1,4-Dichloro-2-butene	ug/L	50	54.6J	109	40-160	
Trichloroethene	ug/L	50	51.1	102	78-122	
Trichlorofluoromethane	ug/L	50	54.4	109	53-137	
Vinyl acetate	ug/L	100	114	114	40-160	
Vinyl chloride	ug/L	50	54.7	109	58-137	
Xylene (Total)	ug/L	150	155	103	81-126	
1,2-Dichloroethane-d4 (S)	%			106	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1538230

Parameter	Units	92263765006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	33.0	165	70-130	M1
1,1,1-Trichloroethane	ug/L	ND	20	35.4	177	70-130	M1
1,1,2,2-Tetrachloroethane	ug/L	ND	20	28.3	141	70-130	M1
1,1,2-Trichloroethane	ug/L	ND	20	29.5	148	70-130	M1
1,1-Dichloroethane	ug/L	ND	20	32.4	162	70-130	M1
1,1-Dichloroethene	ug/L	ND	20	37.2	186	70-166	M1
1,2,3-Trichloropropane	ug/L	ND	20	28.8	144	70-130	M1
1,2-Dibromo-3-chloropropane	ug/L	ND	20	29.9	150	70-130	M1
1,2-Dibromoethane (EDB)	ug/L	ND	20	30.7	154	70-130	M1
1,2-Dichlorobenzene	ug/L	ND	20	29.6	148	70-130	M1
1,2-Dichloroethane	ug/L	ND	20	29.1	145	70-130	M1
1,2-Dichloropropane	ug/L	ND	20	31.0	155	70-130	M1
1,4-Dichlorobenzene	ug/L	ND	20	28.5	142	70-130	M1
2-Butanone (MEK)	ug/L	ND	40	70.1J	175	70-130	M1
2-Hexanone	ug/L	ND	40	64.5	161	70-130	M1
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	61.4J	153	70-130	M1
Acetone	ug/L	ND	40	61.1J	148	70-130	M1
Acrylonitrile	ug/L	ND	100	153J	153	70-130	M1
Benzene	ug/L	ND	20	32.3	161	70-148	M1
Bromochloromethane	ug/L	ND	20	32.8	164	70-130	M1
Bromodichloromethane	ug/L	ND	20	32.7	163	70-130	M1
Bromoform	ug/L	ND	20	28.9	145	70-130	M1

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL DISSOLVD H/3R
Pace Project No.: 92263797

MATRIX SPIKE SAMPLE: 1538230		92263765006	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Bromomethane	ug/L	ND	20	17.5	87	70-130	
Carbon disulfide	ug/L	ND	20	33.2J	166	70-130	M1
Carbon tetrachloride	ug/L	ND	20	39.1	196	70-130	M1
Chlorobenzene	ug/L	ND	20	29.1	146	70-146	
Chloroethane	ug/L	ND	20	32.2	161	70-130	M1
Chloroform	ug/L	ND	20	32.1	161	70-130	M1
Chloromethane	ug/L	0.18J	20	29.0	144	70-130	M1
cis-1,2-Dichloroethene	ug/L	ND	20	32.6	163	70-130	M1
cis-1,3-Dichloropropene	ug/L	ND	20	31.3	156	70-130	M1
Dibromochloromethane	ug/L	ND	20	32.8	164	70-130	M1
Dibromomethane	ug/L	ND	20	30.8	154	70-130	M1
Ethylbenzene	ug/L	0.42J	20	30.1	148	70-130	M1
Iodomethane	ug/L	ND	40	55.6	139	70-130	M1
Methylene Chloride	ug/L	ND	20	30.7	150	70-130	M1
Styrene	ug/L	ND	20	30.3	151	70-130	M1
Tetrachloroethene	ug/L	ND	20	30.7	153	70-130	M1
Toluene	ug/L	ND	20	30.3	151	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	34.0	170	70-130	M1
trans-1,3-Dichloropropene	ug/L	ND	20	31.9	160	70-130	M1
trans-1,4-Dichloro-2-butene	ug/L	ND	20	29.5J	147	70-130	M1
Trichloroethene	ug/L	ND	20	32.2	161	69-151	M1
Trichlorofluoromethane	ug/L	ND	20	32.7	164	70-130	M1
Vinyl acetate	ug/L	ND	40	57.7	144	70-130	M1
Vinyl chloride	ug/L	ND	20	31.4	157	70-130	M1
1,2-Dichloroethane-d4 (S)	%				104	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1538229

Parameter	Units	92263765005 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

SAMPLE DUPLICATE: 1538229

Parameter	Units	92263765005 Result	Dup Result	RPD	Max RPD	Qualifiers
2-Hexanone	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	
Acrylonitrile	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon disulfide	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	0.19J	0.21J		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	0.39J	0.36J		30	
Iodomethane	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	1.1		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	105	107	1		
4-Bromofluorobenzene (S)	%	101	102	1		
Toluene-d8 (S)	%	101	102	2		

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

QC Batch: OEXT/37268

Analysis Method: EPA 8081

QC Batch Method: EPA 3510

Analysis Description: 8081A GCS Pesticides

Associated Lab Samples: 92263797005

METHOD BLANK: 1540067

Matrix: Water

Associated Lab Samples: 92263797005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Endrin aldehyde	ug/L	ND	0.10	08/26/15 01:13	
gamma-BHC (Lindane)	ug/L	ND	0.050	08/26/15 01:13	
Heptachlor	ug/L	ND	0.050	08/26/15 01:13	
Decachlorobiphenyl (S)	%	82	20-130	08/26/15 01:13	
Tetrachloro-m-xylene (S)	%	99	20-130	08/26/15 01:13	

LABORATORY CONTROL SAMPLE: 1540068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Endrin aldehyde	ug/L	.25	0.21	86	20-150	
gamma-BHC (Lindane)	ug/L	.25	0.23	94	20-150	
Heptachlor	ug/L	.25	0.21	84	20-150	
Decachlorobiphenyl (S)	%			81	20-130	
Tetrachloro-m-xylene (S)	%			96	20-130	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

QC Batch: OEXT/23964

Analysis Method: EPA 8151

QC Batch Method: EPA 8151

Analysis Description: 8151A GCS Herbicides

Associated Lab Samples: 92263797005

METHOD BLANK: 1308144

Matrix: Water

Associated Lab Samples: 92263797005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4-D	ug/L	ND	2.0	08/25/15 00:58	
2,4-DCAA (S)	%	99	36-130	08/25/15 00:58	

LABORATORY CONTROL SAMPLE & LCSD: 1308145

1310298

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
2,4-D	ug/L	6	5.1	6.6	86	111	42-134	25	40	
2,4-DCAA (S)	%				87	108	36-130			

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QUALIFIERS

Project: BUTNER LANDFILL DISSOLVD H/3R
Pace Project No.: 92263797

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

PASI-O Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

C9 Common Laboratory Contaminant.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BUTNER LANDFILL DISSOLVD H/3R

Pace Project No.: 92263797

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92263797005	3902-MW3R	EPA 3510	OEXT/37268	EPA 8081	GCSV/22382
92263797005	3902-MW3R	EPA 8151	OEXT/23964	EPA 8151	GCSV/15571
92263797005	3902-MW3R	EPA 3010	MPRP/19281	EPA 6010	ICP/17337
92263797005	3902-MW3R	EPA 8260	MSV/33081		

REPORT OF LABORATORY ANALYSIS

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Document Name: Sample Condition Upon Receipt (SCUR)

Document Revised: May 15, 2015 Page 1 of 2*

Document No.: F-ASV-CS-003-rev.14

Issuing Authorities: Pace Asheville Quality Office

Client Name: Joyce

* 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 #3 -130265963 Type of Ice: Wet Blue None Samples on Ice, cooling process has begun

Temp Correction Factor: Add / Subtract 0 C

Corrected Cooler Temp.: 2.1 C Biological Tissue Is Frozen: Yes No N/A Date and initials of person examining contents: 8/18/15 J.P.

Table with 16 rows of inspection criteria and checkboxes. Includes items like Chain of Custody Present, Sampler Name & Signature on COC, and Trip Blank Present.

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

CURF Review: Date: 8/18/15
SRF Review: Date: 8/18/15

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#: 92263797





Pace Analytical Energy Services, LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

August 25, 2015

Kevin Godwin
Pace Analytical Services, Inc.
9800 Kinney Avenue
Suite 100
Huntersville, NC 28078

RE: **92263797**

Pace Workorder: 16446

Dear Kevin Godwin:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, August 20, 2015. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Robbin Robl 08/25/2015
rrobl@microseeps.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 13

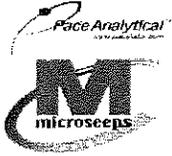
Report ID: 16446 - 696103

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 Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).



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Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 16446 92263797

Lab ID	Sample ID	Matrix	Date Collected	Date Received
164460001	3902-MW1R	Bubble Strip	8/17/2015 15:00	8/20/2015 11:00
164460002	3902-MW2R	Bubble Strip	8/17/2015 16:50	8/20/2015 11:00
164460003	3902-MW3R	Bubble Strip	8/17/2015 17:55	8/20/2015 11:00
164460004	3902-NES-1	Bubble Strip	8/17/2015 18:55	8/20/2015 11:00



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ANALYTICAL RESULTS

Workorder: 16446 92263797

Lab ID: **164460001** Date Received: 8/20/2015 11:00 Matrix: Bubble Strip
 Sample ID: **3902-MW1R** Date Collected: 8/17/2015 15:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - MICR								
Analysis Desc: AM20GAX			Analytical Method: AM20GAX					
Hydrogen	1.7	nM	0.60	0.13	1	8/22/2015 13:14	TD	n



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ANALYTICAL RESULTS

Workorder: 16446 92263797

Lab ID: **164460002** Date Received: 8/20/2015 11:00 Matrix: Bubble Strip
 Sample ID: **3902-MW2R** Date Collected: 8/17/2015 16:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - MICR								
Analysis Desc: AM20GAX			Analytical Method: AM20GAX					
Hydrogen	2.2	nM	0.60	0.13	1	8/22/2015 13:27	TD	n



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ANALYTICAL RESULTS

Workorder: 16446 92263797

Lab ID: **164460003** Date Received: 8/20/2015 11:00 Matrix: Bubble Strip
 Sample ID: **3902-MW3R** Date Collected: 8/17/2015 17:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - MICR								
Analysis Desc: AM20GAX			Analytical Method: AM20GAX					
Hydrogen	1.7	nM	0.60	0.13	1	8/22/2015 13:40	TD	n



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ANALYTICAL RESULTS

Workorder: 16446 92263797

Lab ID: **164460004** Date Received: 8/20/2015 11:00 Matrix: Bubble Strip
 Sample ID: **3902-NES-1** Date Collected: 8/17/2015 18:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - MICR								
Analysis Desc: AM20GAX			Analytical Method: AM20GAX					
Hydrogen	1.5	nM	0.60	0.13	1	8/22/2015 13:52	TD	n



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ANALYTICAL RESULTS QUALIFIERS

Workorder: 16446 92263797

DEFINITIONS/QUALIFIERS

- Disclaimer : The Pennsylvania Department of Environmental Protection (PADEP) has decided to no longer recognize analyses that do not produce data for primary compliance, for NELAP accreditation. The methods affected by this decision are AM20GAX, AM21G, SW846 7199 and AM4.02. The laboratory shall continue to administer the NELAP/TNI standard requirements in the performance of these methods.
- MDL Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
- PQL Practical Quantitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
- ND Not detected at or above reporting limit.
- DF Dilution Factor.
- S Surrogate.
- RPD Relative Percent Difference.
- % Rec Percent Recovery.
- U Indicates the compound was analyzed for, but not detected at or above the noted concentration.
- J Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
- n The laboratory does not hold NELAP/TNI accreditation for this method or analyte.



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QUALITY CONTROL DATA

Workorder: 16446 92263797

QC Batch: DISG/4795 Analysis Method: AM20GAX
 QC Batch Method: AM20GAX
 Associated Lab Samples: 164460001, 164460002, 164460003, 164460004

METHOD BLANK: 36815

Parameter	Units	Blank Result	Reporting Limit Qualifiers
RISK Hydrogen	nM	0.13U	0.13 n

LABORATORY CONTROL SAMPLE & LCSD: 36818 36821

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK Hydrogen	nM	24	24	24	97	97	80-120	0	20	n



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QUALITY CONTROL DATA QUALIFIERS

Workorder: 16446 92263797

QUALITY CONTROL PARAMETER QUALIFIERS

n The laboratory does not hold NELAP/TNI accreditation for this method or analyte.



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 16446 92263797

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
164460001	3902-MW1R			AM20GAX	DISG/4795
164460002	3902-MW2R			AM20GAX	DISG/4795
164460003	3902-MW3R			AM20GAX	DISG/4795
164460004	3902-NES-1			AM20GAX	DISG/4795



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Chain of Custody

16446



Workorder: 92263797 Workorder Name: BUTNER LANDFILL DISSOLVD H/3R Results Requested 9/1/2015

Report / Invoice To: Kevin Godwin
 Pace Analytical Charlotte
 9800 Kinney Ave. Suite 100
 Huntersville, NC 28078
 Phone (704)875-9092
 Email: kevin.godwin@pacelabs.com

Subcontract To: P.O. # 615021
 Micro Seeps

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers		Requested Analysis	LAB USE ONLY
					Unpreserved	Preserved		
1	3902-MW1R	8/17/2015 15:00	92263797001	Water	1			
2	3902-MW2R	8/17/2015 16:50	92263797002	Water	1			
3	3902-MW3R	8/17/2015 17:55	92263797003	Water	1			
4	3902-NES-1	8/17/2015 18:55	92263797004	Water	1			
5								

Handwritten: 1100

Transfers	Released By	Date/Time	Received By	Date/Time	Received on Ice	Y or N	Samples Intact	Y or N
1	<i>J. H. A.</i>	8/18/15 17:20	<i>J. H. A.</i>	8/20/15				
2								
3								

Cooler Temperature on Receipt: 42°C Custody Seal: Y or N Received on Ice: Y or N Samples Intact: Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

NON-CONFORMANCE FORM

PAES Work Order #: 16446

Date: 8.20.15 Time of Receipt: 11:00 Receiver: LY

Client: Pace-H

REASON FOR NON-CONFORMANCE:

Pace labels were placed on incorrect vials
for samples 1, 2 & 4 on COC. Went by
original labels.

<u>Pace label for</u>	<u>001</u>	<u>was on</u>	<u>sample</u>	<u>4</u>
<u>-</u>	<u>002</u>	<u>was on</u>	<u>-</u>	<u>1</u>
<u>-</u>	<u>004</u>	<u>was on</u>	<u>-</u>	<u>2</u>
<u>-</u>				

Both original label & Pace's label were on bubble
wrap on each vial. Applied to vials by Receiving.

ACTION TAKEN:

Client name: _____ Date: _____ Time: _____

OK to proceed

Customer Service Initials: RW

Date: 8-21-15

August 31, 2015

Mr. Van Burbach
Joyce Engineering-NC
2211 West Meadowview Rd
Boone Bldg, Suite 101
Greensboro, NC 27407

RE: Project: BUTNER LANDFILL MNA
Pace Project No.: 92263798

Dear Mr. Burbach:

Enclosed are the analytical results for sample(s) received by the laboratory on August 18, 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.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

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

Sincerely,



Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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August 31, 2015
Page 2

cc: Alex Everhart, Joyce Engineering-NC



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: BUTNER LANDFILL MNA
Pace Project No.: 92263798

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909

Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: BUTNER LANDFILL MNA

Pace Project No.: 92263798

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92263798001	3902-MW1R	Water	08/17/15 13:10	08/18/15 10:25
92263798002	3902-MW2R	Water	08/17/15 16:20	08/18/15 10:25
92263798003	3902-MW3R	Water	08/17/15 17:10	08/18/15 10:25
92263798004	3902-NES-1	Water	08/17/15 18:25	08/18/15 10:25

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: BUTNER LANDFILL MNA

Pace Project No.: 92263798

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92263798001	3902-MW1R	RSK 175	JRB	3	PASI-M
		SM 2320B	MLS	1	PASI-A
		SM 4500-S2D	SAM	1	PASI-A
		SM 5210B	EWS	1	PASI-A
		EPA 300.0	MDW	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	WRC	1	PASI-A
		SM 5220D	EWS	1	PASI-A
		SM 5310B	MDW	1	PASI-A
92263798002	3902-MW2R	RSK 175	JRB	3	PASI-M
		SM 2320B	MLS	1	PASI-A
		SM 4500-S2D	SAM	1	PASI-A
		SM 5210B	EWS	1	PASI-A
		EPA 300.0	MDW	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	WRC	1	PASI-A
		SM 5220D	EWS	1	PASI-A
		SM 5310B	MDW	1	PASI-A
92263798003	3902-MW3R	RSK 175	JRB	3	PASI-M
		SM 2320B	MLS	1	PASI-A
		SM 4500-S2D	SAM	1	PASI-A
		SM 5210B	EWS	1	PASI-A
		EPA 300.0	MDW	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	WRC	1	PASI-A
		SM 5220D	EWS	1	PASI-A
		SM 5310B	MDW	1	PASI-A
92263798004	3902-NES-1	RSK 175	JRB	3	PASI-M
		SM 2320B	MLS	1	PASI-A
		SM 4500-S2D	SAM	1	PASI-A
		SM 5210B	EWS	1	PASI-A
		EPA 300.0	MDW	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	WRC	1	PASI-A
		SM 5220D	EWS	1	PASI-A
		SM 5310B	MDW	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: BUTNER LANDFILL MNA
Pace Project No.: 92263798

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92263798001	3902-MW1R					
RSK 175	Methane	2.7J	ug/L	10.0	08/21/15 14:19	
SM 2320B	Alkalinity, Total as CaCO3	37800	ug/L	5000	08/19/15 16:50	
SM 5210B	BOD, 5 day	2220	ug/L	2000	08/24/15 10:50	
EPA 300.0	Sulfate	1560J	ug/L	250000	08/27/15 10:54	M6
EPA 353.2	Nitrogen, Nitrate	124J	ug/L	10000	08/19/15 10:21	
SM 4500-Cl-E	Chloride	4690	ug/L	1000	08/26/15 21:23	
SM 5310B	Total Organic Carbon	917J	ug/L	1000	08/28/15 11:05	
92263798002	3902-MW2R					
RSK 175	Methane	2160	ug/L	10.0	08/21/15 14:35	
SM 2320B	Alkalinity, Total as CaCO3	772000	ug/L	5000	08/19/15 17:00	
SM 5210B	BOD, 5 day	11800	ug/L	2000	08/24/15 10:50	
EPA 300.0	Sulfate	1310J	ug/L	250000	08/27/15 11:08	
SM 4500-Cl-E	Chloride	267000	ug/L	15000	08/26/15 21:24	
SM 5220D	Chemical Oxygen Demand	110000	ug/L	25000	08/19/15 14:05	
SM 5310B	Total Organic Carbon	32900	ug/L	20000	08/28/15 11:14	
92263798003	3902-MW3R					
RSK 175	Methane	316	ug/L	10.0	08/21/15 14:52	
SM 2320B	Alkalinity, Total as CaCO3	664000	ug/L	5000	08/19/15 17:27	
EPA 300.0	Sulfate	2490J	ug/L	250000	08/27/15 11:22	
SM 4500-Cl-E	Chloride	178000	ug/L	10000	08/26/15 21:24	
SM 5220D	Chemical Oxygen Demand	756000	ug/L	25000	08/19/15 14:05	
SM 5310B	Total Organic Carbon	9860	ug/L	5000	08/28/15 11:47	
92263798004	3902-NES-1					
RSK 175	Methane	1.3J	ug/L	10.0	08/21/15 15:00	
SM 2320B	Alkalinity, Total as CaCO3	10300	ug/L	5000	08/19/15 17:50	
EPA 300.0	Sulfate	524000J	ug/L	62500000	08/27/15 00:26	
EPA 353.2	Nitrogen, Nitrate	3270J	ug/L	10000	08/19/15 10:39	
SM 4500-Cl-E	Chloride	3900	ug/L	1000	08/26/15 21:25	
SM 5310B	Total Organic Carbon	27800	ug/L	2000	08/28/15 12:15	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL MNA

Pace Project No.: 92263798

Sample: 3902-MW1R		Lab ID: 92263798001		Collected: 08/17/15 13:10		Received: 08/18/15 10:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace									
Analytical Method: RSK 175									
Ethane	ND	ug/L	10.0	5.0	1		08/21/15 14:19	74-84-0	
Ethene	ND	ug/L	10.0	0.47	1		08/21/15 14:19	74-85-1	
Methane	2.7J	ug/L	10.0	0.63	1		08/21/15 14:19	74-82-8	
2320B Alkalinity									
Analytical Method: SM 2320B									
Alkalinity, Total as CaCO3	37800	ug/L	5000	1000	1		08/19/15 16:50		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D									
Sulfide	ND	ug/L	1000	100	1		08/18/15 17:00	18496-25-8	
5210B BOD, 5 day									
Analytical Method: SM 5210B									
BOD, 5 day	2220	ug/L	2000	2000	1	08/19/15 05:07	08/24/15 10:50		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0									
Sulfate	1560J	ug/L	250000	1000	1		08/27/15 10:54	14808-79-8	M6
353.2 Nitrogen, NO2/NO3 unpres									
Analytical Method: EPA 353.2									
Nitrogen, Nitrate	124J	ug/L	10000	10.0	1		08/19/15 10:21		
4500 Chloride									
Analytical Method: SM 4500-Cl-E									
Chloride	4690	ug/L	1000	500	1		08/26/15 21:23	16887-00-6	
5220D COD									
Analytical Method: SM 5220D									
Chemical Oxygen Demand	ND	ug/L	25000	12500	1		08/19/15 14:05		
5310B TOC									
Analytical Method: SM 5310B									
Total Organic Carbon	917J	ug/L	1000	500	1		08/28/15 11:05	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL MNA
Pace Project No.: 92263798

Sample: 3902-MW2R		Lab ID: 92263798002		Collected: 08/17/15 16:20	Received: 08/18/15 10:25	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
RSK 175 AIR Headspace		Analytical Method: RSK 175								
Ethane	ND	ug/L	10.0	5.0	1		08/21/15 14:35	74-84-0		
Ethene	ND	ug/L	10.0	0.47	1		08/21/15 14:35	74-85-1		
Methane	2160	ug/L	10.0	0.63	1		08/21/15 14:35	74-82-8		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	772000	ug/L	5000	1000	1		08/19/15 17:00			
4500S2D Sulfide Water		Analytical Method: SM 4500-S2D								
Sulfide	ND	ug/L	1000	100	1		08/18/15 17:00	18496-25-8		
5210B BOD, 5 day		Analytical Method: SM 5210B								
BOD, 5 day	11800	ug/L	2000	2000	1	08/19/15 05:07	08/24/15 10:50			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Sulfate	1310J	ug/L	250000	1000	1		08/27/15 11:08	14808-79-8		
353.2 Nitrogen, NO2/NO3 unpres		Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	ug/L	10000	10.0	1		08/19/15 10:37			
4500 Chloride		Analytical Method: SM 4500-Cl-E								
Chloride	267000	ug/L	15000	7500	15		08/26/15 21:24	16887-00-6		
5220D COD		Analytical Method: SM 5220D								
Chemical Oxygen Demand	110000	ug/L	25000	12500	1		08/19/15 14:05			
5310B TOC		Analytical Method: SM 5310B								
Total Organic Carbon	32900	ug/L	20000	10000	20		08/28/15 11:14	7440-44-0		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL MNA

Pace Project No.: 92263798

Sample: 3902-MW3R		Lab ID: 92263798003		Collected: 08/17/15 17:10		Received: 08/18/15 10:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace									
Analytical Method: RSK 175									
Ethane	ND	ug/L	10.0	5.0	1		08/21/15 14:52	74-84-0	
Ethene	ND	ug/L	10.0	0.47	1		08/21/15 14:52	74-85-1	
Methane	316	ug/L	10.0	0.63	1		08/21/15 14:52	74-82-8	
2320B Alkalinity									
Analytical Method: SM 2320B									
Alkalinity, Total as CaCO3	664000	ug/L	5000	1000	1		08/19/15 17:27		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D									
Sulfide	ND	ug/L	1000	100	1		08/18/15 17:00	18496-25-8	
5210B BOD, 5 day									
Analytical Method: SM 5210B									
BOD, 5 day	ND	ug/L	2000	2000	1	08/19/15 05:07	08/24/15 10:50		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0									
Sulfate	2490J	ug/L	250000	1000	1		08/27/15 11:22	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres									
Analytical Method: EPA 353.2									
Nitrogen, Nitrate	ND	ug/L	10000	10.0	1		08/19/15 10:38		
4500 Chloride									
Analytical Method: SM 4500-Cl-E									
Chloride	178000	ug/L	10000	5000	10		08/26/15 21:24	16887-00-6	
5220D COD									
Analytical Method: SM 5220D									
Chemical Oxygen Demand	756000	ug/L	25000	12500	1		08/19/15 14:05		
5310B TOC									
Analytical Method: SM 5310B									
Total Organic Carbon	9860	ug/L	5000	2500	5		08/28/15 11:47	7440-44-0	

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ANALYTICAL RESULTS

Project: BUTNER LANDFILL MNA

Pace Project No.: 92263798

Sample: 3902-NES-1		Lab ID: 92263798004		Collected: 08/17/15 18:25	Received: 08/18/15 10:25	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace		Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	5.0	1		08/21/15 15:00	74-84-0	
Ethene	ND	ug/L	10.0	0.47	1		08/21/15 15:00	74-85-1	
Methane	1.3J	ug/L	10.0	0.63	1		08/21/15 15:00	74-82-8	
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	10300	ug/L	5000	1000	1		08/19/15 17:50		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2D							
Sulfide	ND	ug/L	1000	100	1		08/18/15 17:00	18496-25-8	
5210B BOD, 5 day		Analytical Method: SM 5210B							
BOD, 5 day	ND	ug/L	2000	2000	1	08/19/15 05:07	08/24/15 10:50		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	524000J	ug/L	6250000 0	250000	250		08/27/15 00:26	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres		Analytical Method: EPA 353.2							
Nitrogen, Nitrate	3270J	ug/L	10000	10.0	1		08/19/15 10:39		
4500 Chloride		Analytical Method: SM 4500-Cl-E							
Chloride	3900	ug/L	1000	500	1		08/26/15 21:25	16887-00-6	
5220D COD		Analytical Method: SM 5220D							
Chemical Oxygen Demand	ND	ug/L	25000	12500	1		08/19/15 14:05		
5310B TOC		Analytical Method: SM 5310B							
Total Organic Carbon	27800	ug/L	2000	1000	2		08/28/15 12:15	7440-44-0	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL MNA
Pace Project No.: 92263798

QC Batch: AIR/23944 Analysis Method: RSK 175
QC Batch Method: RSK 175 Analysis Description: RSK 175 AIR HEADSPACE
Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

METHOD BLANK: 2057093 Matrix: Water
Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	ND	10.0	08/21/15 12:00	
Ethene	ug/L	1.8J	10.0	08/21/15 12:00	
Methane	ug/L	2.2J	10.0	08/21/15 12:00	

LABORATORY CONTROL SAMPLE & LCSD: 2057094

Parameter	Units	2057095								
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	114	115	118	101	103	85-115	2	20	
Ethene	ug/L	106	105	108	99	101	85-115	2	20	
Methane	ug/L	60.7	61.4	63.0	101	104	85-115	3	20	

SAMPLE DUPLICATE: 2057096

Parameter	Units	92263798001		RPD	Max RPD	Qualifiers
		Result	Dup Result			
Ethane	ug/L	ND	ND		20	
Ethene	ug/L	ND	ND		20	
Methane	ug/L	2.7J	3.3J		20	

SAMPLE DUPLICATE: 2057097

Parameter	Units	60200811002		RPD	Max RPD	Qualifiers
		Result	Dup Result			
Ethane	ug/L	ND	ND		20	
Ethene	ug/L	ND	ND		20	
Methane	ug/L	1.0J	0.82J		20	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL MNA
Pace Project No.: 92263798

QC Batch: WET/39553 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

METHOD BLANK: 1536944 Matrix: Water
Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	ug/L	ND	5000	08/19/15 12:52	

LABORATORY CONTROL SAMPLE: 1536945

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	ug/L	50000	50000	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1536946 1536947

Parameter	Units	92263817001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Alkalinity, Total as CaCO ₃	ug/L	53.0 mg/L	50000	50000	102000	101000	99	96	90-110	2	4		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1536948 1536949

Parameter	Units	92263848001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Alkalinity, Total as CaCO ₃	ug/L	286 mg/L	50000	50000	61200	61400	-449	-448	90-110	0	4	M1	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL MNA

Pace Project No.: 92263798

QC Batch: WET/39539

Analysis Method: SM 4500-S2D

QC Batch Method: SM 4500-S2D

Analysis Description: 4500S2D Sulfide Water

Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

METHOD BLANK: 1536200

Matrix: Water

Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	ug/L	ND	1000	08/18/15 17:00	

LABORATORY CONTROL SAMPLE: 1536201

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	ug/L	500	517J	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1536202 1536203

Parameter	Units	1536202		1536203		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92263798001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Sulfide	ug/L	ND	500	500	473J	473J	95	95	90-110	0	10

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL MNA
Pace Project No.: 92263798

QC Batch: WET/39543 Analysis Method: SM 5210B
QC Batch Method: SM 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

METHOD BLANK: 1536643 Matrix: Water
Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	ug/L	ND	2000	08/24/15 10:50	

LABORATORY CONTROL SAMPLE: 1536644

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	ug/L	198000	173000	87	84.6-115.4	

SAMPLE DUPLICATE: 1536645

Parameter	Units	92263881001 Result	Dup Result	RPD	Max RPD	Qualifiers
BOD, 5 day	ug/L	286 mg/L	262000	9	10	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL MNA

Pace Project No.: 92263798

QC Batch: WETA/24252

Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Analysis Description: 300.0 IC Anions

Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

METHOD BLANK: 1541561

Matrix: Water

Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	ug/L	ND	250000	08/26/15 19:14	

LABORATORY CONTROL SAMPLE: 1541562

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	20000	20000J	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1541563 1541564

Parameter	Units	92264348001		1541563		1541564		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.				
Sulfate	ug/L	55.6 mg/L	20000	20000	74100J	74800J	92	96	90-110	1	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1541565 1541566

Parameter	Units	92263798001		1541565		1541566		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.				
Sulfate	ug/L	1560J	20000	20000	123000J	119000J	608	587	90-110	10	M6

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL MNA

Pace Project No.: 92263798

QC Batch: WETA/24166

Analysis Method: EPA 353.2

QC Batch Method: EPA 353.2

Analysis Description: 353.2 Nitrate + Nitrite, Unpres.

Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

METHOD BLANK: 1536741

Matrix: Water

Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	ug/L	ND	10000	08/19/15 10:15	

LABORATORY CONTROL SAMPLE: 1536742

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	ug/L	2500	2500J	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1536743 1536744

Parameter	Units	MS		MSD		% Rec		% Rec Limits	RPD	Max RPD	Qual
		92263798001 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec				
Nitrogen, Nitrate	ug/L	124J	2500	2500	2650J	2620J	101	100	90-110	1	10

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL MNA

Pace Project No.: 92263798

QC Batch: WETA/24264 Analysis Method: SM 4500-Cl-E
 QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
 Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

METHOD BLANK: 1542020 Matrix: Water
 Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	ug/L	ND	1000	08/26/15 21:07	

LABORATORY CONTROL SAMPLE: 1542021

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	20000	20200	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1542022 1542023

Parameter	Units	92264419004 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Conc.	Spike Conc.	MSD Conc.						
Chloride	ug/L	87.2 mg/L	20000	20000	1040000	1040000	4750	4740	90-110	0	10	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1542024 1542025

Parameter	Units	92264645001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Conc.	Spike Conc.	MSD Conc.						
Chloride	ug/L	3.8 mg/L	20000	20000	23300	24000	97	101	90-110	3	10	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL MNA

Pace Project No.: 92263798

QC Batch: WETA/24163

Analysis Method: SM 5220D

QC Batch Method: SM 5220D

Analysis Description: 5220D COD

Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

METHOD BLANK: 1536687

Matrix: Water

Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	ug/L	ND	25000	08/19/15 14:05	

LABORATORY CONTROL SAMPLE: 1536688

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	ug/L	750000	756000	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1536689 1536690

Parameter	Units	92263743001		MS		MSD		% Rec		Max		Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Chemical Oxygen Demand	ug/L	57.0 mg/L	750000	750000	764000	758000	94	93	90-110	1	3	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1536691 1536692

Parameter	Units	92263940001		MS		MSD		% Rec		Max		Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Chemical Oxygen Demand	ug/L	2150 mg/L	1500000	1500000	2560000	2560000	28	28	90-110	0	3 M1	

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QUALITY CONTROL DATA

Project: BUTNER LANDFILL MNA

Pace Project No.: 92263798

QC Batch: WETA/24271

Analysis Method: SM 5310B

QC Batch Method: SM 5310B

Analysis Description: 5310B TOC

Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

METHOD BLANK: 1542550

Matrix: Water

Associated Lab Samples: 92263798001, 92263798002, 92263798003, 92263798004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	ug/L	ND	1000	08/27/15 20:03	

LABORATORY CONTROL SAMPLE: 1542551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	25000	24100	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1542552 1542553

Parameter	Units	92264645001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Total Organic Carbon	ug/L	2.4 mg/L	25000	25000	27600	27800	101	102	90-110	1	5		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1542554 1542555

Parameter	Units	92263798003		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Total Organic Carbon	ug/L	9860	25000	25000	34900	35400	100	102	90-110	2	5		

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QUALIFIERS

Project: BUTNER LANDFILL MNA

Pace Project No.: 92263798

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-M Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BUTNER LANDFILL MNA

Pace Project No.: 92263798

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92263798001	3902-MW1R	RSK 175	AIR/23944		
92263798002	3902-MW2R	RSK 175	AIR/23944		
92263798003	3902-MW3R	RSK 175	AIR/23944		
92263798004	3902-NES-1	RSK 175	AIR/23944		
92263798001	3902-MW1R	SM 2320B	WET/39553		
92263798002	3902-MW2R	SM 2320B	WET/39553		
92263798003	3902-MW3R	SM 2320B	WET/39553		
92263798004	3902-NES-1	SM 2320B	WET/39553		
92263798001	3902-MW1R	SM 4500-S2D	WET/39539		
92263798002	3902-MW2R	SM 4500-S2D	WET/39539		
92263798003	3902-MW3R	SM 4500-S2D	WET/39539		
92263798004	3902-NES-1	SM 4500-S2D	WET/39539		
92263798001	3902-MW1R	SM 5210B	WET/39543	SM 5210B	WET/39547
92263798002	3902-MW2R	SM 5210B	WET/39543	SM 5210B	WET/39547
92263798003	3902-MW3R	SM 5210B	WET/39543	SM 5210B	WET/39547
92263798004	3902-NES-1	SM 5210B	WET/39543	SM 5210B	WET/39547
92263798001	3902-MW1R	EPA 300.0	WETA/24252		
92263798002	3902-MW2R	EPA 300.0	WETA/24252		
92263798003	3902-MW3R	EPA 300.0	WETA/24252		
92263798004	3902-NES-1	EPA 300.0	WETA/24252		
92263798001	3902-MW1R	EPA 353.2	WETA/24166		
92263798002	3902-MW2R	EPA 353.2	WETA/24166		
92263798003	3902-MW3R	EPA 353.2	WETA/24166		
92263798004	3902-NES-1	EPA 353.2	WETA/24166		
92263798001	3902-MW1R	SM 4500-CI-E	WETA/24264		
92263798002	3902-MW2R	SM 4500-CI-E	WETA/24264		
92263798003	3902-MW3R	SM 4500-CI-E	WETA/24264		
92263798004	3902-NES-1	SM 4500-CI-E	WETA/24264		
92263798001	3902-MW1R	SM 5220D	WETA/24163		
92263798002	3902-MW2R	SM 5220D	WETA/24163		
92263798003	3902-MW3R	SM 5220D	WETA/24163		
92263798004	3902-NES-1	SM 5220D	WETA/24163		
92263798001	3902-MW1R	SM 5310B	WETA/24271		
92263798002	3902-MW2R	SM 5310B	WETA/24271		
92263798003	3902-MW3R	SM 5310B	WETA/24271		
92263798004	3902-NES-1	SM 5310B	WETA/24271		

REPORT OF LABORATORY ANALYSIS

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Document Name: **Sample Condition Upon Receipt (SCUR)**
 Document No.: F-ASV-CS-003-rev.14

Document Revised: May 15, 2015
 Page 1 of 2*
 Issuing Authorities:
 Pace Asheville Quality Office

Client Name: Jayco

* 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#3 -130265963 Type of Ice: Wet Blue None Samples on ice, cooling process has begun
 R Gun #4 SN:140290365 Other: _____
 Temp Correction Factor: Add / Subtract 0 C

Corrected Cooler Temp.: 2.0 C Biological Tissue is Frozen: Yes No N/A
 Temp should be above freezing to 6°C
 Comments: _____
 Date and initials of person examining contents: 8/17/15 RP

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>BOD, Nitrate</u>
Flush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	9. <u>one MWIR, a set of 20ml MEE vials is labeled as the VFA's.</u>
Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Receptions: <u>VOA</u> , coliform, TOC, O&G, W-DRO (water)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Samples checked for dechlorination:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ Field Data Required? Y / N
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

CURF Review: JZ Date: 8/18/15
 SRF Review: JZ Date: 8/18/15

WO#: 92263798



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)



Pace Analytical Energy Services, LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

August 25, 2015

Kevin Godwin
Pace Analytical Services, Inc.
9800 Kinney Avenue
Suite 100
Huntersville, NC 28078

RE: **92263798**

Pace Workorder: 16445

Dear Kevin Godwin:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, August 20, 2015. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Robbin Robl 08/25/2015
rrobl@microseeps.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 13

Report ID: 16445 - 696206

Page 1 of 11



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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).



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SAMPLE SUMMARY

Workorder: 16445 92263798

Lab ID	Sample ID	Matrix	Date Collected	Date Received
164450001	3902-MW1R	Water	8/17/2015 13:10	8/20/2015 11:00
164450002	3902-MW2R	Water	8/17/2015 16:20	8/20/2015 11:00
164450003	3902-MW3R	Water	8/17/2015 17:10	8/20/2015 11:00
164450004	3902-NES-1	Water	8/17/2015 18:25	8/20/2015 11:00



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ANALYTICAL RESULTS

Workorder: 16445 92263798

Lab ID: 164450001
 Sample ID: 3902-MW1R

Date Received: 8/20/2015 11:00 Matrix: Water
 Date Collected: 8/17/2015 13:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - MICR								
Analysis Desc: AM21G			Analytical Method: AM21G					
Acetic Acid	0.89U	mg/l	5.0	0.89	1	8/21/2015 14:38	BW	n
Propionic Acid	0.73U	mg/l	5.0	0.73	1	8/21/2015 14:38	BW	n
Pyruvic Acid	0.41U	mg/l	5.0	0.41	1	8/21/2015 14:38	BW	n
Butyric Acid	1.4U	mg/l	5.0	1.4	1	8/21/2015 14:38	BW	n
Lactic Acid	2.4U	mg/l	10	2.4	1	8/21/2015 14:38	BW	n



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ANALYTICAL RESULTS

Workorder: 16445 92263798

Lab ID: 164450002 Date Received: 8/20/2015 11:00 Matrix: Water
 Sample ID: 3902-MW2R Date Collected: 8/17/2015 16:20

Parameters	Results Units	PQL	MDL DF	Analyzed	By	Qualifiers
EDonors - MICR						
Analysis Desc: AM21G		Analytical Method: AM21G				
Acetic Acid	0.89U mg/l	5.0	0.89 1	8/21/2015 17:05	BW	n
Propionic Acid	0.73U mg/l	5.0	0.73 1	8/21/2015 17:05	BW	n
Pyruvic Acid	0.41U mg/l	5.0	0.41 1	8/21/2015 17:05	BW	n
Butyric Acid	1.4U mg/l	5.0	1.4 1	8/21/2015 17:05	BW	n
Lactic Acid	2.4U mg/l	10	2.4 1	8/21/2015 17:05	BW	n



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ANALYTICAL RESULTS

Workorder: 16445 92263798

Lab ID: **164450003**
 Sample ID: **3902-MW3R**

Date Received: 8/20/2015 11:00 Matrix: Water
 Date Collected: 8/17/2015 17:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - MICR								
Analysis Desc: AM21G			Analytical Method: AM21G					
Acetic Acid	0.97J	mg/l	5.0	0.89	1	8/21/2015 17:30	BW	n
Propionic Acid	0.73U	mg/l	5.0	0.73	1	8/21/2015 17:30	BW	n
Pyruvic Acid	0.41U	mg/l	5.0	0.41	1	8/21/2015 17:30	BW	n
Butyric Acid	1.4U	mg/l	5.0	1.4	1	8/21/2015 17:30	BW	n
Lactic Acid	2.4U	mg/l	10	2.4	1	8/21/2015 17:30	BW	n



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ANALYTICAL RESULTS

Workorder: 16445 92263798

Lab ID: **164450004**
 Sample ID: **3902-NES-1**

Date Received: 8/20/2015 11:00 Matrix: Water
 Date Collected: 8/17/2015 18:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - MICR								
Analysis Desc: AM21G			Analytical Method: AM21G					
Acetic Acid	0.89U	mg/l	5.0	0.89	1	8/21/2015 17:54	BW	n
Propionic Acid	0.73U	mg/l	5.0	0.73	1	8/21/2015 17:54	BW	n
Pyruvic Acid	0.41U	mg/l	5.0	0.41	1	8/21/2015 17:54	BW	n
Butyric Acid	1.4U	mg/l	5.0	1.4	1	8/21/2015 17:54	BW	n
Lactic Acid	2.4U	mg/l	10	2.4	1	8/21/2015 17:54	BW	n



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ANALYTICAL RESULTS QUALIFIERS

Workorder: 16445 92263798

DEFINITIONS/QUALIFIERS

- Disclaimer : The Pennsylvania Department of Environmental Protection (PADEP) has decided to no longer recognize analyses that do not produce data for primary compliance, for NELAP accreditation. The methods affected by this decision are AM20Gax, AM21G, SW846 7199 and AM4.02. The laboratory shall continue to administer the NELAP/TNI standard requirements in the performance of these methods.
- MDL Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
- PQL Practical Quantitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
- ND Not detected at or above reporting limit.
- DF Dilution Factor.
- S Surrogate.
- RPD Relative Percent Difference.
- % Rec Percent Recovery.
- U Indicates the compound was analyzed for, but not detected at or above the noted concentration.
- J Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
- n The laboratory does not hold NELAP/TNI accreditation for this method or analyte.



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QUALITY CONTROL DATA

Workorder: 16445 92263798

QC Batch: EDON/2616 Analysis Method: AM21G
 QC Batch Method: AM21G
 Associated Lab Samples: 164450001, 164450002, 164450003, 164450004

METHOD BLANK: 36797

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Acetic Acid	mg/l	0.89U	0.89	n
Propionic Acid	mg/l	0.73U	0.73	n
Pyruvic Acid	mg/l	0.41U	0.41	n
Butyric Acid	mg/l	1.4U	1.4	n
Lactic Acid	mg/l	2.4U	2.4	n

LABORATORY CONTROL SAMPLE: 36798

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Acetic Acid	mg/l	100	91	91	70-130	n
Propionic Acid	mg/l	100	86	86	70-130	n
Pyruvic Acid	mg/l	100	92	92	70-130	n
Butyric Acid	mg/l	100	83	83	70-130	n
Lactic Acid	mg/l	100	100	105	70-130	n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 36799 36800 Original: 164450001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	RPD	Qualifiers
EDonors											
Acetic Acid	mg/l	0.86	100	86	83	85	82	70-130	3.6	20	n
Propionic Acid	mg/l	0.24	100	79	76	79	76	70-130	3.9	20	n
Pyruvic Acid	mg/l	0.41	100	93	90	92	90	70-130	2.2	20	n
Butyric Acid	mg/l	0.19	100	75	72	75	72	70-130	4.1	20	n
Lactic Acid	mg/l	0	100	100	100	100	102	70-130	2	20	n



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QUALITY CONTROL DATA QUALIFIERS

Workorder: 16445 92263798

QUALITY CONTROL PARAMETER QUALIFIERS

- n The laboratory does not hold NELAP/TNI accreditation for this method or analyte.



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 16445 92263798

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
164450001	3902-MW1R			AM21G	EDON/2616
164450002	3902-MW2R			AM21G	EDON/2616
164450003	3902-MW3R			AM21G	EDON/2616
164450004	3902-NES-1			AM21G	EDON/2616



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Chain of Custody

164495



Workorder: 92263798 Workorder Name: BUTNER LANDFILL MNA Results Requested: 9/1/2015

Report / Invoice To: Kevin Godwin
 Pace Analytical Charlotte
 9800 Kincey Ave. Suite 100
 Huntersville, NC 28078
 Phone (704)875-9092
 Email: kevin.godwin@pacelabs.com

Subcontract To: P.O. KRG 15022
 Microseeps

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers		Requested Analysis	LAB USE ONLY
					Unpreserved	Preserved		
1	3902-MW1R	8/17/2015 13:10	92263798001	Water	Z			
2	3902-MW2R	8/17/2015 16:20	92263798002	Water	Z			
3	3902-MW3R	8/17/2015 17:10	92263798003	Water	Z			
4	3902-NES-1	8/17/2015 18:25	92263798004	Water	Z			
5								

Transfers	Released By	Date/Time	Received By	Date/Time	Received on Ice	Y or N	Samples Intact	Y or N
1	J. Godwin	8/17/2015 17:00	Kevin P. Hester	8/20/15				
2								
3								

Cooler Temperature on Receipt: 4.5 °C Custody Seal: Y Received on Ice: Y Samples Intact: Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
 This chain of custody is considered complete as is since this information is available in the owner laboratory.

Comments: * report in next wk with 11:00

Cooler Receipt Form

Client Name: Pace-H Project: 92263798 Lab Work Order: 16445

A. Shipping/Container Information (circle appropriate response)

Courier: FedEx UPS USPS Client Other: _____ Air bill Present: Yes No

Tracking Number: 77431941 8776

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other: _____

Type of Ice: Wet Blue None Ice Intact: Yes Melted

Cooler Temperature: 4.20C Radiation Screened: Yes No Chain of Custody Present: Yes No

Comments: _____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC		✓		
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used		✓		
Are containers properly preserved for the requested testing? (as labeled)			✓	
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments: _____

Cooler contents examined/received by: LY Date: 8.20.15

Project Manager Review: lw Date: 8-20-15

Appendix C

Historical Groundwater Analytical Data

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks		
INORGANICS														
Antimony	8-Sep-94		---	30	ND	ND	ND	ND	ND	ND	---	---		
	1-Dec-94		---	30	ND	ND	ND	ND	ND	ND	---	---		
	9-Feb-95		---	30	ND	ND	ND	ND	ND	ND	---	---		
	2-Mar-95		---	30	ND	ND	ND	ND	ND	ND	---	---		
	15-Nov-95		---	30	ND	ND	ND	ND	ND	ND	---	---		
	28-May-96		---	30	ND	ND	ND	ND	ND	ND	---	---		
	22-Nov-96		---	30	ND	ND	ND	ND	ND	ND	---	---		
	17-Jun-97		---	30	ND	ND	ND	ND	ND	ND	---	---		
	1-Dec-97		---	30	ND	ND	ND	ND	ND	ND	---	---		
	20-May-98		---	30	ND	ND	ND	ND	ND	ND	---	---		
	19-Nov-98		---	30	ND	ND	ND	ND	ND	ND	---	---		
	21-Jul-99		---	30	ND	ND	ND	ND	ND	ND	---	---		
	16-Nov-99		---	30	ND	ND	ND	ND	ND	ND	---	---		
	10-May-00		---	30	ND	80.0	38.0	32.0	33.0	31.0	---	---		
	26-Oct-00		---	30	30.0	ND	ND	ND	ND	ND	---	---		
	18-Apr-01		---	30	ND	ND	ND	ND	ND	ND	---	---		
	27-Oct-01		---	30	ND	ND	ND	ND	ND	ND	---	---		
	13-Jun-02		---	30	ND	ND	ND	ND	ND	ND	---	---		
	19-Nov-02		---	30	ND	ND	ND	ND	ND	ND	---	---		
	27-Jun-03		---	30	ND	ND	ND	ND	ND	ND	---	---		
	30-Dec-03		---	30	ND	ND	ND	ND	ND	ND	---	ND		
	30-Jun-04		---	30	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-04		---	30	ND	ND	ND	ND	ND	ND	---	ND		
	29-Jun-05		---	30	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-05		---	30	ND	ND	ND	ND	ND	ND	---	ND		
	28-Jun-06		---	30	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-06		---	6	ND	ND	ND	ND	ND	ND	---	ND		
	12-Jul-07		---	6	ND	ND	ND	ND	ND	ND	---	ND		
	19-Dec-07	GWPS = 1.4 µg/L (10/23/07)	---	6	ND	ND	ND	ND	ND	ND	ND	---	ND	
	8-Jul-08		---	6	ND	ND	ND	ND	ND	ND	---	ND		
	17-Dec-08		2.6	6.0	ND	ND	ND	ND	ND	ND	---	ND		
	9-Jul-09		2.6	6.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
	16-Dec-09		2.6	6.0	ND	ND	ND	ND	ND	ND	---	ND		
	24-Jun-10	NC 2B = NE (03/24/10) GWPS = 1 µg/L (8/1/10)	2.6	6.0	ND	ND	ND	2.9	J	ND	J	---	ND	
	13-Dec-10		2.6	6.0	ND	ND	3.0	J	ND	J	2.8	---	ND	
	20-Jun-11		5.0	6.0	ND	ND	ND	ND	ND	6.0	ND	---	ND	
	5-Dec-11		5.0	6.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
	11-Jun-12		5.0	6.0	ND	ND	ND	ND	ND	ND	ND	ND	---	ND
	12-Dec-12		5.0	6.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
	1-May-13		5.0	6.0	ND	ND	ND	ND	ND	ND	ND	ND	---	ND
5-Aug-13		5.0	6.0	ND	ND	ND	ND	ND	ND	ND	---	ND		
24-Feb-14		5.0	6.0	8.8	ND	ND	ND	ND	ND	ND	ND	---	ND	
12-Aug-14	EPA 6010	5.0	6.0	10.5	8.0	8.0	ND	ND	ND	ND	ND	---	ND	
10-Mar-15	EPA 6010	3.8	6.0	ND	7.1	6.5	3.9	J	ND	ND	---	ND		
18-Aug-15	EPA 6010	3.8	6.0	ND	6.2	4.8	J	4.1	J	ND	---	ND		
Arsenic	8-Sep-94		---	10	ND	ND	ND	ND	ND	ND	---	---		
	1-Dec-94		---	10	ND	ND	ND	ND	ND	ND	---	---		
	9-Feb-95		---	10	ND	ND	ND	ND	ND	ND	---	---		
	2-Mar-95		---	10	ND	ND	ND	ND	ND	ND	---	---		
	15-Nov-95		---	10	ND	ND	ND	ND	ND	ND	---	---		
	28-May-96		---	10	ND	ND	ND	ND	ND	ND	---	---		
	22-Nov-96		---	10	ND	ND	ND	ND	ND	ND	---	---		
	17-Jun-97		---	10	6.0	J	15.0	ND	ND	ND	---	---		
	1-Dec-97		---	10	ND	J	5.0	ND	ND	ND	---	---		
	20-May-98		---	10	ND	ND	ND	ND	ND	ND	---	---		
	19-Nov-98		---	10	ND	ND	ND	ND	ND	ND	---	---		
	21-Jul-99		---	10	ND	ND	ND	ND	ND	ND	---	---		
	16-Nov-99		---	10	ND	ND	ND	ND	ND	ND	---	---		
	10-May-00		---	10	ND	ND	ND	ND	ND	ND	---	---		
	26-Oct-00		---	10	ND	ND	ND	ND	ND	ND	---	---		
	18-Apr-01		---	10	ND	ND	ND	ND	ND	ND	---	---		
	27-Oct-01		---	10	ND	ND	ND	ND	ND	ND	---	---		
	13-Jun-02		---	10	ND	ND	ND	ND	ND	ND	---	---		
	19-Nov-02		---	10	ND	ND	ND	ND	ND	ND	---	---		
	27-Jun-03		---	10	ND	ND	ND	ND	ND	ND	---	---		
	30-Dec-03		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	30-Jun-04		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-04		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	29-Jun-05		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-05		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	28-Jun-06		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-06		---	10	2.0	J	ND	ND	ND	ND	---	ND		
	12-Jul-07		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	19-Dec-07	NC 2L = 50 µg/L (10/23/07)	---	10	ND	4.1	J	ND	ND	ND	ND	ND	---	ND
	8-Jul-08		---	10	ND	4.9	J	ND	ND	ND	ND	---	ND	
	17-Dec-08		2.7	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
	9-Jul-09		2.7	10.0	ND	13.5	10.9	5.6	J	ND	4.0	J	ND	
	16-Dec-09		2.7	10.0	ND	10.6	6.4	J	5.0	J	3.6	J	ND	
	24-Jun-10		2.7	10.0	ND	11.8	8.1	J	8.2	J	3.1	J	ND	
	12-Aug-10		2.7	10.0	---	---	7.2	J	---	---	---	---	ND	
	31-Aug-10	Resample > Resample >	2.7	10.0	---	15.4	---	---	---	---	---	---	ND	
	13-Dec-10		2.7	10.0	ND	4.9	J	2.7	J	5.4	J	---	ND	
	20-Jun-11		5.0	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
	5-Dec-11		5.0	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
	11-Jun-12		5.0	10.0	ND	5.4	J	ND	ND	ND	ND	ND	---	ND
12-Dec-12		5.0	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND		
1-May-13		5.0	10.0	ND	ND	ND	ND	ND	ND	ND	ND	---	ND	
5-Aug-13		5.0	10.0	ND	ND	5.6	J	ND	ND	ND	---	ND		
24-Feb-14		5.0	10.0	ND	6.4	J	ND	ND	ND	ND	---	ND		
12-Aug-14	EPA 6010	5.0	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND		
10-Mar-15	EPA 6010	2.5	10.0	4.1	J	5.4	J	ND	3.1	J	3.2	---	3.0	
18-Aug-15	EPA 6011	2.5	10.0	ND	J	5.1	J	ND	ND	ND	---	---	ND	

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks								
Barium	8-Sep-94		---	500	ND	270	ND	ND	830	860	---	---								
	1-Dec-94		---	500	ND	ND	ND	ND	ND	ND	---	---								
	9-Feb-95		---	500	ND	ND	ND	ND	510	ND	---	---								
	2-Mar-95		---	500	ND	ND	ND	ND	ND	ND	---	---								
	15-Nov-95		---	500	ND	ND	ND	ND	ND	ND	---	---								
	28-May-96		---	500	ND	ND	ND	ND	ND	ND	---	---								
	22-Nov-96		---	500	ND	82.0	30.0	ND	15.0	ND	---	---								
	17-Jun-97		---	500	200	320	37.0	17.0	210	31.0	---	---								
	1-Dec-97		---	500	61.0	180	43.0	46.0	220	33.0	---	---								
	20-May-98		---	500	30.0	150	45.0	13.0	180	22.0	---	---								
	19-Nov-98		---	500	48.0	120	42.0	ND	380	12.0	---	---								
	21-Jul-99		---	500	ND	ND	ND	ND	ND	ND	---	---								
	16-Nov-99		---	500	ND	ND	ND	ND	ND	ND	---	---								
	10-May-00		---	500	ND	ND	ND	ND	ND	ND	---	---								
	26-Oct-00		---	500	ND	ND	ND	ND	ND	ND	---	---								
	18-Apr-01		---	500	ND	ND	ND	ND	ND	ND	---	---								
	27-Oct-01		---	500	ND	ND	ND	ND	ND	ND	---	---								
	13-Jun-02		---	500	ND	ND	ND	ND	ND	ND	---	---								
	19-Nov-02		---	500	ND	ND	ND	ND	ND	ND	---	---								
	27-Jun-03		---	500	ND	ND	ND	ND	ND	ND	---	---								
	30-Dec-03		---	500	ND	ND	ND	ND	ND	ND	---	ND								
	30-Jun-04		---	500	ND	ND	ND	ND	ND	ND	---	ND								
	29-Dec-04		---	500	ND	ND	ND	ND	ND	ND	---	ND								
	29-Dec-04		---	500	ND	ND	ND	ND	ND	ND	---	ND								
	29-Jun-05		---	500	ND	ND	ND	ND	ND	ND	---	ND								
	29-Dec-05		---	500	ND	ND	ND	ND	ND	ND	---	ND								
	28-Jun-06		---	500	ND	ND	ND	ND	ND	ND	---	ND								
	29-Dec-06		---	100	5.2	J	120	64.9	1.5	J	64.1	1.8	J							
	12-Jul-07		---	100	2.5	J	129	65.7	1.1	J	77.0	1.3	J							
	19-Dec-07	NC 2L = 2,000 µg/L (10/23/07)	---	100	2.8	B	99.2	50.0	B	1.4	B	49.6	B	87.8	11.7	J				
	8-Jul-08		---	100	5.8	J	102	58.4	J	1.1	B	57.9	J	1.2	B	0.29	J			
	17-Dec-08		0.20	100	2.7	B	92.9	J	53.1	B	1.2	B	55.5	J	1.1	B	10.7	J		
	9-Jul-09		0.20	100	4.6	B	121	63.4	B	0.37	B	81.4	B	0.94	B	72.4	B	17.6	J	
	16-Dec-09		0.20	100	2.9	B	108	62.8	B	0.61	B	56.8	B	0.87	B	---	---	17.1	J	
	24-Jun-10	NC 2L = 700 µg/L (02/05/10)	0.20	100	2.5	B	115	B	61.1	B	1.6	B	93.5	B	1.4	B	---	---	27.3	J
	13-Dec-10		0.20	100	4.3	B	122	67.9	J	1.3	B	90.6	J	1.5	B	---	---	12.1	J	
	20-Jun-11		5.0	100	ND		108	70.7	J	ND		84.7	J	ND		---	---	ND		
	5-Dec-11		5.0	100	ND		118	73.0	J	ND		90.6	J	ND		---	---	ND		
	11-Jun-12		5.0	100	ND		138	65.2	J	ND		76.4	J	ND		61.3	J	---	---	
	12-Dec-12		5.0	100	ND		113	64.7	J	ND		73.6	J	ND		---	---	ND		
	1-May-13		5.0	100	ND		118	69.1	J	ND		84.2	J	ND		81.2	J	---	---	
5-Aug-13		5.0	100	ND		111	65.1	J	ND		95.6	J	ND		---	---	ND			
24-Feb-14		5.0	100	ND		93.8	J	44.8	J	ND	139		ND		---	---	ND			
12-Aug-14	EPA 6010	5.0	100	ND		125	66.4	J	ND		121		ND		---	---	ND			
10-Mar-15	EPA 6010	2.5	100	3.0	J	109	61.8	J	ND		116		ND		---	---	ND			
18-Aug-15	EPA 6010	2.5	100	4.4	J	119	63.1	J	ND		81.3	J	ND		---	---	ND			
Beryllium	8-Sep-94		---	2	ND	ND	ND	ND	ND	ND	---	---								
	1-Dec-94		---	2	ND	ND	ND	ND	4.0	ND	---	---								
	9-Feb-95		---	2	ND	ND	ND	ND	ND	ND	---	---								
	2-Mar-95		---	2	ND	ND	ND	ND	2.0	ND	---	---								
	15-Nov-95		---	2	ND	ND	ND	ND	ND	ND	---	---								
	28-May-96		---	2	ND	ND	ND	ND	6.0	ND	---	---								
	22-Nov-96		---	2	ND	ND	ND	ND	3.0	ND	---	---								
	17-Jun-97		---	2	2.0	3.0	ND	ND	1.0	ND	---	---								
	1-Dec-97		---	2	ND	ND	ND	ND	ND	ND	---	---								
	20-May-98		---	2	ND	ND	ND	ND	ND	ND	---	---								
	19-Nov-98		---	2	ND	ND	ND	ND	2.0	ND	---	---								
	21-Jul-99		---	2	ND	ND	ND	ND	ND	ND	---	---								
	16-Nov-99		---	2	ND	ND	ND	ND	ND	ND	---	---								
	10-May-00		---	2	ND	ND	ND	ND	ND	ND	---	---								
	26-Oct-00		---	2	ND	ND	ND	ND	ND	ND	---	---								
	18-Apr-01		---	2	ND	12.0	ND	ND	ND	ND	---	---								
	27-Oct-01		---	2	ND	ND	ND	ND	ND	ND	---	---								
	13-Jun-02		---	2	ND	ND	ND	ND	ND	ND	---	---								
	19-Nov-02		---	2	ND	ND	ND	ND	ND	ND	---	---								
	27-Jun-03		---	2	ND	ND	ND	ND	ND	ND	---	---								
	30-Dec-03		---	2	ND	ND	ND	ND	ND	ND	---	ND								
	30-Jun-04		---	2	ND	ND	ND	ND	ND	ND	---	ND								
	29-Dec-04		---	2	ND	ND	ND	ND	ND	ND	---	ND								
	29-Dec-04		---	2	ND	ND	ND	ND	ND	ND	---	ND								
	29-Jun-05		---	2	ND	ND	ND	ND	ND	ND	---	ND								
	29-Dec-05		---	2	ND	ND	ND	ND	ND	ND	---	ND								
	28-Jun-06		---	2	ND	ND	ND	ND	ND	ND	---	ND								
	29-Dec-06		---	1	ND	ND	ND	ND	ND	ND	---	ND								
	12-Jul-07		---	1	ND	ND	ND	ND	ND	ND	---	ND								
	19-Dec-07		---	1	ND	ND	ND	ND	ND	ND	---	ND								
8-Jul-08		---	1	ND	ND	ND	ND	ND	ND	---	ND									
17-Dec-08		0.10	1.0	ND	ND	ND	ND	ND	0.14	J	ND	---	---	ND						
9-Jul-09		0.10	1.0	ND	0.18	J	0.22	J	0.17	J	ND	---	0.23	J	ND					
16-Dec-09		0.10	1.0	ND	0.15	J	0.17	J	0.15	J	0.25	J	---	---	ND					
24-Jun-10		0.10	1.0	ND	ND	J	0.27	J	0.16	J	ND	---	---	ND						
13-Dec-10		0.10	1.0	ND	ND	ND	ND	ND	ND	---	---	---	---	ND						
20-Jun-11		1.0	1.0	ND	ND	ND	ND	ND	ND	---	---	---	---	ND						
5-Dec-11		1.0	1.0	ND	ND	ND	ND	ND	ND	---	---	---	---	ND						
11-Jun-12		1.0	1.0	ND	ND	ND	ND	ND	ND	---	---	---	---	ND						
12-Dec-12		1.0	1.0	ND	ND	ND	ND	ND	ND	---	---	---	---	ND						
1-May-13		1.0	1.0	ND	ND	ND	ND	ND	ND	---	---	---	---	ND						
5-Aug-13		1.0	1.0	ND	ND	ND	ND	ND	ND	---	---	---	---	ND						
24-Feb-14		1.0	1.0	ND	ND	ND	ND	ND	ND	---	---	---	---	ND						
12-Aug-14	EPA 6010	1.0	1.0	ND	ND	ND	ND	ND	ND	---	---	---	---	ND						
10-Mar-15	EPA 6010	0.5	1.0	ND	ND	ND	ND	ND	ND	---	---	---	---	ND						
18-Aug-15	EPA 6010	0.5	1.0	ND	ND	ND	ND	ND	ND	---	---	---	---	ND						

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks	
Cadmium	8-Sep-94		---	1	ND	ND	ND	ND	ND	4.0	---	---	
	1-Dec-94		---	1	ND	ND	ND	ND	ND	ND	---	---	
	9-Feb-95		---	1	ND	ND	ND	ND	ND	ND	---	---	
	2-Mar-95		---	1	ND	ND	ND	ND	ND	ND	---	---	
	15-Nov-95		---	1	ND	ND	ND	ND	ND	ND	---	---	
	28-May-96		---	1	ND	ND	ND	ND	ND	ND	---	---	
	22-Nov-96		---	1	ND	ND	ND	ND	ND	ND	---	---	
	17-Jun-97		---	1	ND	3.0	1.0	ND	ND	ND	---	---	
	1-Dec-97		---	1	ND	2.0	ND	ND	ND	ND	---	---	
	20-May-98		---	1	ND	ND	ND	ND	ND	ND	---	---	
	19-Nov-98		---	1	ND	ND	ND	ND	ND	ND	---	---	
	21-Jul-99		---	1	ND	ND	ND	ND	ND	ND	---	---	
	16-Nov-99		---	1	ND	3.0	3.0	ND	2.0	ND	---	---	
	10-May-00		---	1	5.0	ND	ND	ND	ND	ND	---	---	
	26-Oct-00		---	1	ND	2.0	ND	ND	ND	ND	---	---	
	18-Apr-01		---	1	ND	11.0	ND	ND	ND	ND	---	---	
	27-Oct-01		---	1	ND	ND	ND	ND	ND	ND	---	---	
	13-Jun-02		---	1	ND	2.0	ND	ND	ND	ND	---	---	
	19-Nov-02		---	1	2.0	2.0	ND	ND	2.0	ND	---	---	
	27-Jun-03		---	1	ND	ND	ND	ND	ND	ND	---	---	
	30-Dec-03		---	1	ND	1.0	ND	ND	ND	ND	---	ND	
	30-Jun-04		---	1	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-04		---	1	ND	ND	ND	ND	ND	ND	---	ND	
	29-Jun-05		---	1	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-05		---	1	ND	ND	ND	ND	ND	ND	---	ND	
	28-Jun-06		---	1	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-06		---	1	ND	ND	ND	ND	ND	ND	---	ND	
	12-Jul-07		---	1	ND	ND	ND	ND	ND	ND	---	ND	
	19-Dec-07	NC 2L = 1.75 µg/L (10/23/07)	---	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8-Jul-08		---	1	ND	ND	ND	ND	ND	ND	ND	---	ND
	17-Dec-08		0.50	1.0	ND	ND	ND	ND	ND	ND	ND	---	ND
	9-Jul-09		0.50	1.0	ND	1.4	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09		0.50	1.0	ND	ND	ND	ND	ND	ND	ND	---	ND
	24-Jun-10	NC 2L = 2 µg/L (02/05/10)	0.50	1.0	ND	ND	ND	ND	ND	ND	ND	---	ND
	13-Dec-10		0.50	1.0	ND	ND	ND	ND	ND	ND	ND	---	ND
	20-Jun-11		1.0	1.0	ND	ND	ND	ND	ND	ND	ND	---	ND
	5-Dec-11		1.0	1.0	ND	ND	ND	ND	ND	ND	ND	---	ND
	11-Jun-12		1.0	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12		1.0	1.0	ND	ND	ND	ND	ND	ND	ND	---	ND
	1-May-13		1.0	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
5-Aug-13		1.0	1.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
24-Feb-14		1.0	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	
12-Aug-14	EPA 6010	1.0	1.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
10-Mar-15	EPA 6010	0.5	1.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
18-Aug-15	EPA 6010	0.5	1.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
Chromium	8-Sep-94		---	10	8.0	44.0	ND	6.0	48.0	80.0	---	---	
	1-Dec-94		---	10	14.0	ND	ND	ND	18.0	ND	---	---	
	9-Feb-95		---	10	14.0	ND	ND	10.0	ND	ND	---	---	
	2-Mar-95		---	10	ND	ND	ND	ND	ND	ND	---	---	
	15-Nov-95		---	10	13.0	13.0	ND	ND	ND	ND	---	---	
	28-May-96		---	10	33.0	ND	ND	ND	ND	ND	---	---	
	22-Nov-96		---	10	3.0	ND	ND	ND	ND	3.0	---	---	
	17-Jun-97		---	10	57.0	43.0	ND	3.0	2.0	6.0	---	---	
	1-Dec-97		---	10	29.0	ND	ND	ND	ND	ND	---	---	
	20-May-98		---	10	10.0	3.0	ND	ND	12.0	ND	---	---	
	19-Nov-98		---	10	17.0	3.0	ND	ND	5.0	ND	---	---	
	21-Jul-99		---	10	ND	ND	ND	ND	ND	ND	---	---	
	16-Nov-99		---	10	ND	ND	ND	ND	ND	ND	---	---	
	10-May-00		---	10	ND	ND	ND	ND	ND	ND	---	---	
	26-Oct-00		---	10	ND	ND	ND	ND	ND	ND	---	---	
	18-Apr-01		---	10	ND	12.0	ND	ND	ND	ND	---	---	
	27-Oct-01		---	10	ND	ND	ND	ND	ND	ND	---	---	
	13-Jun-02		---	10	ND	ND	ND	ND	ND	ND	---	---	
	19-Nov-02		---	10	ND	ND	ND	ND	ND	ND	---	---	
	27-Jun-03		---	10	ND	ND	ND	ND	ND	ND	---	---	
	30-Dec-03		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	30-Jun-04		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-04		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	29-Jun-05		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-05		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	28-Jun-06		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-06		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	12-Jul-07		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	19-Dec-07	NC 2L = 50 µg/L (10/23/07)	---	10	ND	2.0	B	ND	ND	ND	1.1	B	1.4
	8-Jul-08		---	10	ND	0.54	J	0.58	J	ND	ND	---	ND
	17-Dec-08		0.40	10.0	0.73	J	1.8	J	0.96	J	0.96	J	0.70
	9-Jul-09		0.40	10.0	1.2	J	2.4	J	1.1	J	0.68	J	0.53
	16-Dec-09		0.40	10.0	1.3	J	ND	ND	ND	J	0.95	J	ND
	24-Jun-10		0.40	10.0	1.1	B	3.5	B	2.8	B	2.4	B	1.4
	13-Dec-10		0.40	10.0	2.5	J	1.3	J	1.8	J	0.69	J	1.2
	20-Jun-11		5.0	10.0	ND	J	ND	ND	ND	J	ND	J	ND
	5-Dec-11		5.0	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND
	11-Jun-12		5.0	10.0	ND	8.6	J	ND	ND	ND	ND	ND	ND
	12-Dec-12		5.0	10.0	ND	5.2	J	ND	ND	ND	ND	---	ND
	1-May-13		5.0	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND
5-Aug-13		5.0	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
24-Feb-14		5.0	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
12-Aug-14	EPA 6010	5.0	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
10-Mar-15	EPA 6010	2.5	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND	
18-Aug-15	EPA 6010	2.5	10.0	ND	2.7	J	ND	ND	ND	6.7	J	ND	

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks						
Cobalt	8-Sep-94		---	10	ND	ND	ND	ND	ND	ND	---	---						
	1-Dec-94		---	10	11.0	ND	13.0	16.0	22.0	ND	---	---						
	9-Feb-95		---	10	20.0	14.0	ND	48.0	39.0	ND	---	---						
	2-Mar-95		---	10	16.0	21.0	ND	29.0	121.0	ND	---	---						
	15-Nov-95		---	10	20.0	21.0	ND	ND	27.0	ND	---	---						
	28-May-96		---	10	30.0	16.0	ND	ND	122	ND	---	---						
	22-Nov-96		---	10	6.0	13.0	ND	4.7	93.0	ND	---	---						
	17-Jun-97		---	10	130	38.0	ND	6.0	45.0	3.0	---	---						
	1-Dec-97		---	10	32.0	21.0	ND	12.0	36.0	4.0	---	---						
	20-May-98		---	10	15.0	16.0	2.0	9.0	100	3.0	---	---						
	19-Nov-98		---	10	21.0	16.0	2.0	7.0	180	3.0	---	---						
	21-Jul-99		---	10	ND	16.0	ND	ND	100	ND	---	---						
	16-Nov-99		---	10	ND	15.0	ND	ND	38.0	ND	---	---						
	10-May-00		---	10	ND	17.0	ND	ND	61.0	ND	---	---						
	26-Oct-00		---	10	ND	15.0	ND	ND	ND	ND	---	---						
	18-Apr-01		---	10	ND	27.0	ND	ND	74.0	ND	---	---						
	27-Oct-01		---	10	ND	12.0	ND	ND	47.0	ND	---	---						
	13-Jun-02		---	10	ND	14.0	ND	ND	25.1	ND	---	---						
	19-Nov-02		---	10	ND	10.0	ND	ND	57.0	ND	---	---						
	27-Jun-03		---	10	ND	15.0	ND	ND	75.0	ND	---	---						
	30-Dec-03		---	10	ND	17.0	ND	ND	52.0	ND	---	ND						
	30-Jun-04		---	10	ND	16.0	ND	ND	31.0	ND	---	ND						
	29-Dec-04		---	10	ND	11.0	ND	ND	46.0	ND	---	ND						
	29-Jun-05		---	10	ND	11.0	ND	ND	43.0	ND	---	ND						
	29-Dec-05		---	10	ND	12.0	ND	ND	30.0	ND	---	ND						
	28-Jun-06		---	10	ND	ND	ND	ND	72.5	ND	---	ND						
	29-Dec-06		---	10	ND	11.4	ND	ND	37.5	ND	---	ND						
	12-Jul-07		---	10	ND	11.8	ND	2.7	58.4	ND	---	ND						
	19-Dec-07	GWPS = 70 µg/L (10/23/07)		---	10	2.5	B	ND	2.0	B	103	2.6	B	8.0	B	1.8	J	
	8-Jul-08			---	10	10.3	B	12.1	B	2.0	B	9.0	B	4.8	B	6.2	J	
	17-Dec-08			0.60	10.0	2.1	B	11.8	B	2.3	B	3.6	B	43.7	B	1.6	2.5	J
	9-Jul-09			0.60	10.0	ND		6.2	J	ND		100		ND		2.2	J	ND
	16-Dec-09			0.60	10.0	ND		4.7	J	ND		6.6	J	ND		---	---	ND
	24-Jun-10			0.60	10.0	ND		16.3		ND		25.0		ND		---	---	ND
	13-Dec-10	GWPS = 1 µg/L (2/05/10)		0.60	10.0	2.5	B	15.5		ND		{129}		{ND}		---	1.6 {1.0 J}	J
	20-Jun-11			5.0	10.0	ND		14.2		ND		81.8		ND		---	---	ND
	5-Dec-11			5.0	10.0	ND		12.7		ND		146		ND		---	---	ND
	25-Jan-12	Resample >		5.0	10.0	---		---		---		47.5		---		---	---	ND
	11-Jun-12			5.0	10.0	ND		14.2		ND		101		ND		---	---	ND
	12-Dec-12			5.0	10.0	ND		11.3		ND		113		ND		---	---	ND
	1-May-13			5.0	10.0	ND		24.3		ND		34.0		ND		---	---	ND
5-Aug-13			5.0	10.0	ND		24.7		ND		50.9		ND		---	---	ND	
24-Feb-14			5.0	10.0	ND		18.4		ND		9.6	J	ND	ND	---	---	ND	
12-Aug-14		EPA 6010	5.0	10.0	ND		9.4	J	ND		46.3		ND	---	---	---	ND	
10-Mar-15		EPA 6010	2.5	10.0	ND		8.7	J	ND		39.2		ND	---	---	---	ND	
18-Aug-15		EPA 6010	2.5	10.0	ND		9.3	J	ND		116		ND	---	---	---	ND	
Copper	8-Sep-94		---	200	ND	ND	ND	ND	ND	660	---	---						
	1-Dec-94		---	200	ND	ND	ND	ND	ND	ND	---	---						
	9-Feb-95		---	200	ND	ND	ND	ND	ND	ND	---	---						
	2-Mar-95		---	200	ND	ND	ND	ND	ND	ND	---	---						
	15-Nov-95		---	200	ND	ND	ND	ND	ND	ND	---	---						
	28-May-96		---	200	ND	ND	ND	ND	ND	ND	---	---						
	22-Nov-96		---	200	ND	ND	32.0	13.0	100	ND	---	---						
	17-Jun-97		---	200	34.0	350	13.0	37.0	28.0	77.0	---	---						
	1-Dec-97		---	200	19.0	72.0	14.0	88.0	15.0	34.0	---	---						
	20-May-98		---	200	12.0	48.0	380	41.0	53.0	28.0	---	---						
	19-Nov-98		---	200	10.0	ND	410	28.0	53.0	14.0	---	---						
	21-Jul-99		---	200	ND	ND	ND	ND	ND	ND	---	---						
	16-Nov-99		---	200	ND	ND	ND	ND	ND	ND	---	---						
	10-May-00		---	200	ND	ND	ND	ND	ND	ND	---	---						
	26-Oct-00		---	200	ND	ND	ND	ND	ND	ND	---	---						
	18-Apr-01		---	200	ND	ND	ND	ND	ND	ND	---	---						
	27-Oct-01		---	200	ND	ND	ND	ND	ND	ND	---	---						
	13-Jun-02		---	200	ND	ND	ND	ND	ND	ND	---	---						
	19-Nov-02		---	200	ND	ND	ND	ND	ND	ND	---	---						
	27-Jun-03		---	200	ND	ND	ND	ND	ND	ND	---	---						
	30-Dec-03		---	200	ND	ND	ND	ND	ND	ND	---	ND						
	30-Jun-04		---	200	ND	ND	ND	ND	ND	ND	---	ND						
	29-Dec-04		---	200	ND	ND	ND	ND	ND	ND	---	ND						
	29-Jun-05		---	200	ND	ND	ND	ND	ND	ND	---	ND						
	29-Dec-05		---	200	ND	ND	ND	ND	ND	ND	---	ND						
	28-Jun-06		---	200	ND	ND	ND	ND	ND	ND	---	ND						
	29-Dec-06		---	10	ND	ND	11.3	5.50	J	10.4	1.90	B	---	---	0.60	J		
	12-Jul-07		---	10	ND	ND	13.4	7.90		2.6	J		---	---	ND			
	19-Dec-07		---	10	2.0	B	ND	8.6	B	3.8	B	7.0	B	5.8	B	9.8		
	8-Jul-08		---	10	0.64	J	ND	12.1		3.7	J	8.5	J	---		ND		
	17-Dec-08		0.30	10.0	0.80	J	13.6	10.2	J	3.9	J	11.9	J	0.37	J	---	---	ND
	9-Jul-09		0.30	10.0	ND		ND	6.3	J	ND	J	5.7	J	8.8	J	---	---	ND
	16-Dec-09		0.30	10.0	ND		ND	9.2	J	1.6	J	5.7	J	---		ND		
	24-Jun-10		0.30	10.0	ND		ND	10		1.2	J	5.1	J	---		ND		
	13-Dec-10		0.30	10.0	1.1	B	ND	13.6	J	5.8	J	5.6	J	0.59	B	---	0.49	J
	20-Jun-11		5.0	10.0	ND		ND	15.3		8.1	J	8.7	J	---		ND		
	5-Dec-11		5.0	10.0	ND		ND	16.9		10.0	J	7.6	J	---		ND		
	11-Jun-12		5.0	10.0	ND		10.7	12.2		6.3	J	7.4	J	ND		ND		
	12-Dec-12		5.0	10.0	ND		ND	11.6		8.5	J	10.4		ND		---	---	ND
	1-May-13		5.0	10.0	ND		ND	13.6		5.8	J	9.6	J	ND		ND		
	5-Aug-13		5.0	10.0	ND		ND	14.3		ND		10.2		ND		---	---	ND
24-Feb-14		5.0	10.0	ND		ND	12.2		ND	J	5.1	J	ND	ND	---	---	ND	
12-Aug-14		EPA 6010	5.0	10.0	ND		ND		10.5		ND		ND		---	---	ND	
10-Mar-15		EPA 6010	2.5	10.0	ND		ND	J	8.7		15.5		ND		---	---	ND	
18-Aug-15		EPA 6010	2.5	10.0	ND		ND	J	6.7	J	5.6	J	10.1		---	---	ND	

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks	
Lead	8-Sep-94		---	10	ND	13.0	ND	ND	30.0	36.0	---	---	
	1-Dec-94		---	10	ND	11.0	ND	ND	36.0	ND	---	---	
	9-Feb-95		---	10	ND	ND	ND	10.0	37.0	ND	---	---	
	2-Mar-95		---	10	ND	ND	ND	ND	44.0	ND	---	---	
	15-Nov-95		---	10	ND	ND	ND	ND	ND	ND	---	---	
	28-May-96		---	10	ND	ND	ND	ND	42.0	ND	---	---	
	22-Nov-96		---	10	ND	ND	ND	ND	13.0	ND	---	---	
	17-Jun-97		---	10	20.0	29.0	ND	ND	13.0	ND	---	---	
	1-Dec-97		---	10	8.0	14.0	ND	5.0	14.0	ND	---	---	
	20-May-98		---	10	ND	6.0	ND	6.0	21.0	ND	---	---	
	19-Nov-98		---	10	5.0	ND	ND	ND	58.0	ND	---	---	
	21-Jul-99		---	10	ND	12.0	14.0	ND	ND	ND	---	---	
	16-Nov-99		---	10	ND	ND	ND	ND	ND	ND	---	---	
	10-May-00		---	10	ND	ND	ND	ND	ND	ND	---	---	
	26-Oct-00		---	10	ND	ND	ND	ND	ND	ND	---	---	
	18-Apr-01		---	10	ND	ND	ND	ND	ND	ND	---	---	
	27-Oct-01		---	10	ND	ND	ND	ND	ND	ND	---	---	
	13-Jun-02		---	10	11.0	ND	ND	ND	ND	ND	---	---	
	19-Nov-02		---	10	ND	ND	ND	ND	12.0	ND	---	---	
	27-Jun-03		---	10	ND	ND	ND	ND	ND	ND	---	---	
	30-Dec-03		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	30-Jun-04		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-04		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	29-Jun-05		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-05		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	28-Jun-06		---	10	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-06		---	10	ND	ND	ND	ND	ND	ND	2.1	---	ND
	12-Jul-07		---	10	ND	ND	ND	ND	ND	ND	ND	---	ND
	19-Dec-07		---	10	ND	ND	ND	ND	ND	ND	ND	ND	---
	8-Jul-08		---	10	ND	ND	ND	ND	ND	ND	ND	---	ND
	17-Dec-08		---	10	ND	ND	ND	ND	ND	ND	ND	---	ND
	9-Jul-09		---	10	10.0	ND	ND	ND	ND	ND	ND	ND	---
	16-Dec-09		---	10	10.0	ND	ND	ND	ND	ND	ND	---	ND
	24-Jun-10		---	10	10.0	ND	ND	ND	ND	ND	ND	---	ND
	13-Dec-10		---	10	10.0	ND	ND	ND	ND	ND	ND	---	ND
	20-Jun-11		---	10	10.0	ND	ND	ND	ND	ND	ND	---	ND
	5-Dec-11		---	10	10.0	ND	ND	ND	ND	ND	ND	---	ND
	11-Jun-12		---	10	10.0	ND	ND	ND	ND	ND	ND	ND	---
	12-Dec-12		---	10	10.0	ND	ND	ND	ND	ND	ND	---	ND
	1-May-13		---	10	10.0	ND	ND	ND	ND	ND	ND	ND	---
5-Aug-13		---	10	10.0	ND	ND	ND	ND	ND	ND	---	ND	
24-Feb-14		---	10	10.0	ND	ND	ND	ND	ND	ND	ND	---	
12-Aug-14	EPA 6010	---	10	10.0	ND	ND	ND	ND	ND	ND	---	ND	
10-Mar-15	EPA 6010	---	10	10.0	ND	ND	ND	ND	ND	ND	---	ND	
18-Aug-15	EPA 6010	---	10	10.0	ND	ND	ND	ND	ND	ND	---	ND	
Mercury	1-Dec-97		---	0.5	ND	ND	ND	ND	ND	ND	---	---	
	19-Nov-98		---	0.5	ND	ND	ND	ND	ND	ND	---	---	
	16-Nov-99		---	0.5	ND	0.59	0.65	0.65	0.76	ND	---	---	
	10-May-00		---	0.5	---	ND	ND	ND	ND	---	---	---	
	26-Oct-00		---	0.5	---	ND	ND	ND	ND	---	---	---	
	18-Apr-01		---	0.5	---	ND	ND	ND	ND	---	---	---	
	13-Jun-02		---	0.5	---	ND	ND	ND	ND	---	---	---	
	27-Jun-03		---	0.5	---	ND	ND	ND	ND	---	---	---	
	30-Dec-03		---	0.5	---	---	---	---	---	---	---	---	
	30-Jun-04		---	0.5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-04		---	---	---	---	---	---	---	---	---	---	
	29-Jun-05		---	0.5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-05		---	---	---	---	---	---	---	---	---	---	
	28-Jun-06		---	2	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-06		---	---	---	---	---	---	---	---	---	---	
	12-Jul-07		---	0.2	ND	ND	ND	ND	ND	ND	---	ND	
	19-Dec-07		---	---	---	---	---	---	---	---	ND	---	
	8-Jul-08		---	0.2	ND	ND	ND	ND	ND	ND	---	ND	
	17-Dec-08		---	---	---	---	---	---	---	---	---	---	
	9-Jul-09		0.070	0.2	ND	ND	ND	ND	ND	ND	---	ND	
	16-Dec-09		---	---	---	---	---	---	---	---	---	---	
	24-Jun-10		0.070	0.20	ND	ND	ND	ND	ND	ND	0.098	---	ND
	13-Dec-10		---	---	---	---	---	---	---	---	---	---	---
	20-Jun-11		0.10	0.20	ND	ND	ND	ND	ND	ND	---	---	ND
	5-Dec-11		---	---	---	---	---	---	---	---	---	---	---
	11-Jun-12		0.10	0.20	ND	ND	ND	ND	ND	ND	ND	---	ND
	12-Dec-12		---	---	---	---	---	---	---	---	---	---	---
1-May-13		0.10	0.20	ND	ND	ND	ND	ND	ND	---	---	ND	
5-Aug-13		---	---	---	---	---	---	---	---	---	---	---	
24-Feb-14		0.10	0.20	ND	ND	ND	ND	ND	ND	ND	ND	---	
12-Aug-14		---	---	---	---	---	---	---	---	---	---	---	
10-Mar-15	EPA 7470	0.10	0.20	ND	ND	ND	---	---	---	---	---	ND	

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks		
Nickel NC 2L = 100 µg/L (10/23/07)	8-Sep-94		---	50	ND	ND	ND	ND	ND	ND	---	---		
	1-Dec-94		---	50	ND	ND	ND	ND	ND	ND	---	---		
	9-Feb-95		---	50	ND	72	ND	ND	ND	ND	---	---		
	2-Mar-95		---	50	ND	100	ND	ND	ND	ND	---	---		
	15-Nov-95		---	50	ND	61.0	ND	ND	ND	ND	---	---		
	28-May-96		---	50	ND	85.0	ND	ND	ND	ND	---	---		
	22-Nov-96		---	50	ND	72.0	ND	ND	ND	ND	---	---		
	17-Jun-97		---	50	75	98.0	ND	ND	ND	ND	---	---		
	1-Dec-97		---	50	ND	89.0	ND	ND	ND	ND	---	---		
	20-May-98		---	50	ND	91.0	ND	ND	ND	ND	---	---		
	19-Nov-98		---	50	ND	83.0	ND	ND	ND	ND	---	---		
	21-Jul-99		---	50	ND	109	ND	ND	ND	ND	---	---		
	16-Nov-99		---	50	ND	122	ND	ND	ND	ND	---	---		
	10-May-00		---	50	ND	104	ND	ND	ND	ND	---	---		
	26-Oct-00		---	50	ND	93.0	ND	ND	ND	ND	---	---		
	18-Apr-01		---	50	ND	107	ND	ND	ND	ND	---	---		
	27-Oct-01		---	50	ND	92.0	ND	ND	ND	ND	---	---		
	13-Jun-02		---	50	ND	98.0	ND	ND	ND	ND	---	---		
	19-Nov-02		---	50	ND	74.0	ND	ND	ND	ND	---	---		
	27-Jun-03		---	50	ND	85.0	ND	ND	ND	ND	---	---		
	30-Dec-03		---	50	ND	100	ND	ND	ND	ND	---	ND		
	30-Jun-04		---	50	ND	120 (81.0)	ND	ND	ND	ND	---	ND		
	29-Dec-04		---	50	ND	100	ND	ND	ND	ND	---	ND		
	29-Jun-05		---	50	ND	150 (92.0)	ND	ND	ND	ND	---	ND		
	29-Dec-05		---	50	ND	96.0	ND	ND	ND	ND	---	ND		
	28-Jun-06		---	50	ND	88.7	ND	ND	ND	ND	---	ND		
	29-Dec-06		---	50	ND	94.7	30.1	14.2	8.9	J	ND	---	ND	
	12-Jul-07		---	50	ND	99.0	30.6	J	13.9	J	13.7	J	ND	
	19-Dec-07		---	50	ND	83.4	23.7	11.0	18.3	J	11.4	11.4	ND	
	8-Jul-08		---	50	ND	76.0	28.1	J	11.5	J	27.0	J	ND	
	17-Dec-08		1.7	50.0	ND	75.5	27.8	J	12.2	J	11.0	B	ND	
	9-Jul-09		1.7	50.0	2.2	J	93.5	29.4	J	11.7	J	23.2	J	ND
	16-Dec-09		1.7	50.0	ND	J	81.2	28.2	J	11.8	B	2.6	B	ND
	24-Jun-10		1.7	50.0	ND	J	76.3	19.7	J	9.0	J	7.0	J	4.5
	13-Dec-10		1.7	50.0	ND	J	83.0	23.5	J	6.8	B	20.7	J	ND
	20-Jun-11		5.0	50.0	ND	J	78.8	30.1	J	11.2	J	15.3	J	ND
	5-Dec-11		5.0	50.0	ND	J	89.1	32.8	J	11.7	J	24.3	J	ND
	11-Jun-12		5.0	50.0	ND	J	91.8	28.9	J	10.0	J	17.3	J	ND
	12-Dec-12		5.0	50.0	ND	J	91.8	29.2	J	9.3	J	21.1	J	ND
	1-May-13		5.0	50.0	ND	J	89.6	31.9	J	10.4	J	5.7	J	ND
5-Aug-13		5.0	50.0	ND	J	87.9	28.1	J	9.0	J	8.4	J	ND	
24-Feb-14		5.0	50.0	ND	J	83.1	16.7	J	10.4	J	ND	J	ND	
12-Aug-14	EPA 6010	5.0	50.0	ND	J	97.9	29	J	12.9	J	13.2	J	ND	
10-Mar-15	EPA 6010	2.5	50.0	ND	J	91.9	32.9	J	12.3	J	8.2	J	ND	
18-Aug-15	EPA 6010	2.5	50.0	ND	J	98.0	28.0	J	11.9	J	26.2	J	5.4	
Selenium NC 2L = 50 µg/L (10/23/07) NC 2L = 20 µg/L (02/05/10)	8-Sep-94		---	20	ND	ND	ND	ND	ND	ND	---	---		
	1-Dec-94		---	20	ND	ND	ND	ND	ND	ND	---	---		
	9-Feb-95		---	20	ND	ND	ND	ND	ND	ND	---	---		
	2-Mar-95		---	20	ND	ND	ND	ND	ND	ND	---	---		
	15-Nov-95		---	20	ND	ND	ND	ND	ND	ND	---	---		
	28-May-96		---	20	ND	ND	ND	ND	ND	ND	---	---		
	22-Nov-96		---	20	ND	ND	ND	ND	ND	ND	---	---		
	17-Jun-97		---	20	ND	ND	ND	ND	ND	ND	---	---		
	1-Dec-97		---	20	ND	ND	ND	ND	ND	ND	---	---		
	20-May-98		---	20	ND	ND	ND	ND	ND	ND	---	---		
	19-Nov-98		---	20	ND	ND	ND	ND	ND	ND	---	---		
	21-Jul-99		---	20	ND	ND	ND	ND	36.0	ND	---	---		
	16-Nov-99		---	20	ND	ND	ND	ND	ND	ND	---	---		
	10-May-00		---	20	ND	ND	ND	ND	ND	ND	---	---		
	26-Oct-00		---	20	ND	ND	ND	ND	ND	ND	---	---		
	18-Apr-01		---	20	ND	ND	ND	ND	ND	ND	---	---		
	27-Oct-01		---	20	ND	ND	ND	ND	ND	ND	---	---		
	13-Jun-02		---	20	ND	ND	ND	ND	ND	ND	---	---		
	19-Nov-02		---	20	ND	ND	ND	ND	ND	ND	---	---		
	27-Jun-03		---	20	ND	ND	ND	ND	ND	ND	---	---		
	30-Dec-03		---	20	ND	ND	ND	ND	ND	ND	---	ND		
	30-Jun-04		---	20	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-04		---	20	ND	ND	ND	ND	ND	ND	---	ND		
	29-Jun-05		---	20	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-05		---	20	ND	ND	ND	ND	ND	ND	---	ND		
	28-Jun-06		---	20	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-06		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	12-Jul-07		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	19-Dec-07		---	10	ND	11.5	ND	ND	ND	ND	---	ND		
	8-Jul-08		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	17-Dec-08		3.8	10	4.8	B	5.1	B	4.8	B	J	ND	4.9	
	9-Jul-09		3.8	10	ND	ND	ND	4.2	J	ND	ND	ND	ND	
	16-Dec-09		3.8	10	ND	ND	ND	ND	J	5.1	J	ND	ND	
	24-Jun-10		3.8	10	ND	ND	ND	ND	ND	ND	ND	---	ND	
	13-Dec-10		3.8	10	ND	ND	ND	ND	ND	ND	ND	---	ND	
	20-Jun-11		10.0	10	ND	ND	ND	ND	ND	ND	ND	---	ND	
	5-Dec-11		10.0	10	ND	ND	ND	ND	ND	ND	ND	---	ND	
	11-Jun-12		10.0	10	ND	ND	ND	ND	ND	ND	ND	---	ND	
	12-Dec-12		10.0	10	ND	ND	ND	ND	ND	ND	ND	---	ND	
	1-May-13		10.0	10	ND	ND	ND	ND	ND	ND	ND	---	ND	
5-Aug-13		10.0	10	ND	ND	ND	ND	ND	ND	ND	---	ND		
24-Feb-14		10.0	10	ND	ND	ND	ND	ND	ND	ND	---	ND		
12-Aug-14	EPA 6010	10.0	10	ND	ND	ND	ND	ND	ND	ND	---	ND		
10-Mar-15	EPA 6010	5.0	10	ND	ND	ND	ND	ND	ND	ND	---	ND		
18-Aug-15	EPA 6010	5.0	10	ND	ND	ND	ND	ND	ND	ND	---	ND		

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks		
Silver	8-Sep-94		---	10	ND	ND	ND	ND	ND	ND	---	---		
	1-Dec-94		---	10	ND	ND	ND	ND	ND	ND	---	---		
	9-Feb-95		---	10	ND	ND	ND	ND	ND	ND	---	---		
	2-Mar-95		---	10	ND	ND	ND	ND	ND	ND	---	---		
	15-Nov-95		---	10	ND	ND	ND	ND	ND	ND	---	---		
	28-May-96		---	10	ND	ND	ND	ND	ND	ND	---	---		
	22-Nov-96		---	10	ND	ND	ND	ND	ND	ND	---	---		
	17-Jun-97		---	10	ND	ND	ND	ND	ND	ND	---	---		
	1-Dec-97		---	10	ND	8.0	ND	ND	ND	3	---	---		
	20-May-98		---	10	ND	ND	ND	ND	ND	ND	---	---		
	19-Nov-98		---	10	ND	ND	ND	ND	ND	ND	---	---		
	21-Jul-99		---	10	ND	ND	ND	ND	ND	ND	---	---		
	16-Nov-99		---	10	ND	ND	ND	ND	ND	ND	---	---		
	10-May-00		---	10	ND	ND	ND	ND	ND	ND	---	---		
	26-Oct-00		---	10	ND	ND	ND	ND	ND	ND	---	---		
	18-Apr-01		---	10	ND	15.0	ND	ND	ND	ND	---	---		
	27-Oct-01		---	10	ND	ND	ND	ND	ND	ND	---	---		
	13-Jun-02		---	10	ND	ND	ND	ND	ND	ND	---	---		
	19-Nov-02		---	10	ND	ND	ND	ND	ND	ND	---	---		
	27-Jun-03		---	10	ND	ND	ND	ND	ND	ND	---	---		
	30-Dec-03		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	30-Jun-04		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-04		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	29-Jun-05		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-05		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	28-Jun-06		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-06		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	12-Jul-07		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	19-Dec-07	NC 2L = 17.5 µg/L (10/23/07)		---	10	ND	0.57	J	0.60	J	0.55	J	ND	
	8-Jul-08			---	10	ND	2.7	J	2.3	J	1.1	J	0.22	
	17-Dec-08			0.10	10.0	0.13	J	1.8	J	1.4	J	0.85	J	0.12
	9-Jul-09			0.10	10.0	ND	J	0.84	J	0.63	J	0.45	J	0.11
	16-Dec-09			0.10	10.0	0.12	J	2.0	J	1.6	J	1.0	J	0.12
	24-Jun-10	NC 2L = 20 µg/L (02/05/10)		0.10	10.0	ND	J	0.38	J	0.33	J	0.35	J	ND
	13-Dec-10			0.10	10.0	0.15	B	1.3	J	0.99	J	0.45	B	{ND}
	20-Jun-11			5.0	10.0	ND		ND	ND	ND	ND	ND	ND	{ND}
	5-Dec-11			5.0	10.0	ND		ND	ND	ND	ND	ND	ND	ND
	11-Jun-12			5.0	10.0	ND		ND	ND	ND	ND	ND	ND	ND
	12-Dec-12			5.0	10.0	ND		ND	ND	ND	ND	ND	ND	ND
	1-May-13			5.0	10.0	ND		ND	ND	ND	ND	ND	ND	ND
5-Aug-13			5.0	10.0	ND		ND	ND	ND	ND	ND	ND	ND	
24-Feb-14			5.0	10.0	ND		ND	ND	ND	ND	ND	ND	ND	
12-Aug-14	EPA 6010		5.0	10.0	ND		ND	ND	ND	ND	ND	ND	ND	
10-Mar-15	EPA 6010		2.5	10.0	ND		ND	ND	ND	ND	ND	ND	ND	
18-Aug-15	EPA 6010		2.5	10.0	ND		ND	ND	ND	ND	ND	ND	ND	
Thallium	8-Sep-94		---	10	ND	ND	ND	ND	ND	ND	---	---		
	1-Dec-94		---	10	ND	ND	ND	ND	ND	ND	---	---		
	9-Feb-95		---	10	ND	ND	ND	ND	ND	ND	---	---		
	2-Mar-95		---	10	ND	ND	ND	ND	ND	ND	---	---		
	15-Nov-95		---	10	ND	ND	ND	ND	ND	ND	---	---		
	28-May-96		---	10	ND	ND	ND	ND	ND	ND	---	---		
	22-Nov-96		---	10	ND	ND	ND	ND	ND	ND	---	---		
	17-Jun-97		---	10	ND	3.0	ND	ND	ND	ND	---	---		
	1-Dec-97		---	10	ND	ND	ND	ND	ND	ND	---	---		
	20-May-98		---	10	ND	ND	ND	ND	ND	ND	---	---		
	19-Nov-98		---	10	ND	ND	ND	ND	ND	ND	---	---		
	21-Jul-99		---	10	ND	ND	ND	ND	ND	ND	---	---		
	16-Nov-99		---	10	ND	ND	ND	ND	ND	ND	---	---		
	10-May-00		---	10	ND	ND	ND	ND	ND	ND	---	---		
	26-Oct-00		---	10	ND	ND	ND	ND	ND	ND	---	---		
	18-Apr-01		---	10	ND	ND	ND	ND	ND	ND	---	---		
	27-Oct-01		---	10	ND	ND	ND	ND	ND	ND	---	---		
	13-Jun-02		---	10	ND	ND	ND	ND	ND	ND	---	---		
	19-Nov-02		---	10	ND	ND	ND	ND	ND	ND	---	---		
	27-Jun-03		---	10	ND	ND	ND	ND	ND	ND	---	---		
	30-Dec-03		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	30-Jun-04		---	10	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-04		---	10	ND	10 J (ND)	ND	ND	ND	ND	---	ND		
	29-Jun-05		---	10	ND	22.0 (30.0)	13.0 (24.0)	ND	ND	ND	---	ND		
	29-Dec-05		---	10	ND	23.0	20.0	ND	ND	ND	---	ND		
	28-Jun-06		---	10	ND	25.7	12.6	ND	ND	ND	---	ND		
	29-Dec-06		---	6	ND	ND	ND	ND	ND	ND	---	ND		
	12-Jul-07		---	5.5	ND	ND	ND	ND	ND	ND	---	ND		
	19-Dec-07	GWPS = 0.28 µg/L (10/23/07)		---	5.5	ND	4.0	J	ND	ND	ND	ND	ND	
	8-Jul-08			---	5.5	ND	ND	J	ND	ND	ND	ND	ND	
	17-Dec-08			3.0	5.5	ND	3.2	J	3.2	J	ND	ND	ND	
	9-Jul-09			3.0	5.5	ND	ND	J	4.1	J	ND	ND	ND	
	16-Dec-09			3.0	5.5	ND	ND	J	ND	J	ND	ND	ND	
	24-Jun-10			3.0	5.5	ND	ND	J	5.2	J	ND	ND	ND	
	13-Dec-10	GWPS = 0.2 µg/L (10/1/10)		3.0	5.5	ND	7.7	J	3.1	J	ND	ND	ND	
	20-Jun-11			5.4	5.5	ND	ND	J	ND	J	ND	ND	ND	
	5-Dec-11			5.4	5.5	ND	ND	J	ND	J	ND	ND	ND	
	11-Jun-12			5.4	5.5	ND	ND	J	ND	J	ND	ND	ND	
	12-Dec-12			5.4	5.5	ND	ND	J	ND	J	ND	ND	ND	
	1-May-13			5.4	5.5	ND	ND	J	ND	J	ND	ND	ND	
5-Aug-13			5.4	5.5	ND	ND	J	ND	J	ND	ND	ND		
24-Feb-14			5.4	5.5	ND	ND	J	ND	J	ND	ND	ND		
12-Aug-14	EPA 6010		5.4	5.5	ND	ND	J	ND	J	ND	ND	ND		
10-Mar-15	EPA 6010		5.0	5.5	ND	ND	J	ND	J	ND	ND	ND		
18-Aug-15	EPA 6010		5.0	5.5	ND	ND	J	ND	J	ND	ND	ND		

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks		
Tin	1-Dec-97		---	100	ND	ND	ND	ND	ND	ND	---	---		
	19-Nov-98		---	100	ND	ND	ND	ND	ND	ND	---	---		
	16-Nov-99		---	100	ND	ND	ND	ND	ND	ND	---	---		
	26-Oct-00		---	100	---	ND	ND	ND	ND	---	---	---		
	18-Apr-01		---	100	---	ND	ND	ND	ND	---	---	---		
	27-Oct-01		---	100	---	---	---	---	---	---	---	---		
	13-Jun-02		---	100	ND	ND	ND	ND	ND	ND	---	---		
	19-Nov-02		---	100	---	---	---	---	---	---	---	---		
	27-Jun-03		---	100	ND	149	127	ND	ND	ND	---	---		
	30-Dec-03		---	100	ND	ND	ND	ND	ND	ND	---	ND		
	30-Jun-04		---	100	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-04		---	100	ND	ND	ND	ND	ND	ND	---	ND		
	29-Jun-05		---	100	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-05		---	100	ND	ND	ND	ND	ND	ND	---	ND		
	28-Jun-06		---	100	ND	ND	ND	ND	ND	ND	---	ND		
	29-Dec-06		---	100	ND	41.1	14.4	3.2	J	ND	---	ND		
	12-Jul-07		---	100	ND	35.2	13.9	5.2	J	ND	---	ND		
	19-Dec-07	NC 2L = NE µg/L (10/23/07)		---	100	ND	33.6	7.4	ND	ND	---	ND		
	8-Jul-08		---	100	4.4	J	28.6	15.1	J	5.4	J	3.6	J	
	17-Dec-08		---	1.8	100	ND	22.5	9.2	J	ND	---	---	ND	
	9-Jul-09		---	1.8	100	ND	21.4	8.6	J	ND	---	---	ND	
	16-Dec-09		---	1.8	100	ND	26.3	10.7	J	ND	---	---	ND	
	24-Jun-10	GWPS = 2100 µg/L (02/05/10)		---	100	ND	23.4	10.7	J	3.2	J	2.2	J	
	13-Dec-10		---	1.8	100	ND	30.3	12.1	J	5.8	J	ND	---	
	20-Jun-11		---	5.0	100	ND	26.8	13.8	J	ND	---	---	ND	
	5-Dec-11		---	5.0	100	ND	25.8	13.9	J	ND	---	---	ND	
	11-Jun-12		---	5.0	100	ND	22.2	9.0	J	ND	---	ND	---	
	12-Dec-12		---	5.0	100	ND	30.0	13.2	J	ND	---	---	ND	
	1-May-13		---	5.0	100	ND	25.8	12.2	J	ND	---	---	ND	
	5-Aug-13		---	5.0	100	ND	22.7	12.5	J	ND	---	---	ND	
	24-Feb-14		---	5.0	100	ND	26.7	11.7	J	9.8	J	ND	---	
	12-Aug-14	EPA 6010	---	5.0	100	ND	30.7	8.2	J	ND	---	ND	---	
	10-Mar-15	EPA 6010	---	2.5	100	ND	28.7	11.1	J	ND	---	---	ND	
18-Aug-15	EPA 6010	---	2.5	100	ND	27.7	7.5	J	ND	---	---	ND		
Vanadium	8-Sep-94		---	40	ND	ND	ND	ND	ND	130	---	---		
	1-Dec-94		---	40	63.0	ND	ND	45.0	ND	ND	---	---		
	9-Feb-95		---	40	ND	ND	ND	ND	ND	ND	---	---		
	2-Mar-95		---	40	41.0	ND	ND	45.0	ND	ND	---	---		
	15-Nov-95		---	40	ND	ND	ND	ND	ND	ND	---	---		
	28-May-96		---	40	83.0	ND	ND	ND	ND	ND	---	---		
	22-Nov-96		---	40	7.0	17	ND	21.0	ND	ND	---	---		
	17-Jun-97		---	40	450	560	ND	19.0	ND	ND	---	---		
	1-Dec-97		---	40	62.0	88.0	ND	41.0	ND	10.0	---	---		
	20-May-98		---	40	25.0	15.0	ND	10.0	5.0	ND	---	---		
	19-Nov-98		---	40	33.0	29.0	5.0	16.0	9.0	5.0	---	---		
	21-Jul-99		---	40	ND	ND	ND	ND	ND	ND	---	---		
	16-Nov-99		---	40	ND	ND	ND	ND	ND	ND	---	---		
	10-May-00		---	40	ND	ND	ND	ND	ND	ND	---	---		
	26-Oct-00		---	40	ND	ND	ND	ND	ND	ND	---	---		
	18-Apr-01		---	40	ND	ND	ND	ND	ND	ND	---	---		
	27-Oct-01		---	40	ND	ND	ND	ND	ND	ND	---	---		
	13-Jun-02		---	40	ND	ND	ND	ND	ND	ND	---	---		
	19-Nov-02		---	40	ND	ND	ND	ND	ND	ND	---	---		
	27-Jun-03		---	40	ND	ND	ND	ND	ND	ND	---	---		
	30-Dec-03		---	40	ND	ND	ND	ND	ND	ND	---	---		
	30-Jun-04		---	40	ND	ND	ND	ND	ND	ND	---	---		
	29-Dec-04		---	40	ND	ND	ND	ND	ND	ND	---	---		
	29-Jun-05		---	40	ND	ND	ND	ND	ND	ND	---	---		
	29-Dec-05		---	40	ND	ND	ND	ND	ND	ND	---	---		
	28-Jun-06		---	40	ND	ND	ND	ND	ND	ND	---	---		
	29-Dec-06		---	25	2.7	J	ND	14.5	ND	1.0	J	---	---	
	12-Jul-07		---	25	ND	ND	ND	19.4	J	ND	---	---		
	19-Dec-07	GWPS = 3.5 µg/L (10/23/07)	---	25	2.2	B	2.2	B	15.7	J	3.0	B	4.0	J
	8-Jul-08		---	25	2.6	J	2.4	J	14.6	J	1.4	J	---	0.20
	17-Dec-08		0.20	25.0	1.9	B	2.3	B	13.9	J	2.5	B	1.2	B
	9-Jul-09		0.20	25.0	3.9	B	9.7	J	2.5	B	18.4	J	2.9	B
	16-Dec-09		0.20	25.0	2.0	B	4.4	J	1.3	B	14.0	J	2.2	B
24-Jun-10		0.20	25.0	1.8	J	4.4	J	1.5	J	13.3	J	2.2	J	
13-Dec-10	GWPS = 0.3 µg/L (10/1/10)	0.20	25.0	3.2	J	3.6	J	0.35	B	16.6	J	1.8	B	
20-Jun-11		5.0	25.0	ND	ND	ND	ND	14.5	J	ND	---	---	---	
5-Dec-11		5.0	25.0	ND	ND	ND	ND	13.5	J	ND	---	---	---	
11-Jun-12		5.0	25.0	ND	18.0	J	ND	12.3	J	ND	---	---	---	
12-Dec-12		5.0	25.0	ND	ND	ND	ND	13.6	J	ND	---	---	---	
1-May-13		5.0	25.0	ND	ND	ND	ND	6.3	J	ND	---	---	---	
5-Aug-13		5.0	25.0	ND	ND	ND	ND	10.2	J	ND	---	---	---	
24-Feb-14		5.0	25.0	ND	ND	ND	ND	12.9	J	ND	---	---	---	
12-Aug-14	EPA 6010	5.0	25.0	ND	ND	ND	ND	18.6	J	ND	---	---	---	
10-Mar-15	EPA 6010	2.5	25.0	3.1	J	11.6	J	6.2	J	13.4	J	---	---	
18-Aug-15	EPA 6010	2.5	25.0	3.4	J	6.8	J	3.6	J	19.6	J	---	---	

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks							
ORGANICS																			
Acetone	27-Oct-01		---	100	244	B	109	B	ND	130	B	128	B	476	B	---	479		
	13-Jun-02		---	100	ND		ND		ND	ND		ND		ND		---	---		
	13-Jun-02		---	100	ND		ND		ND	ND		ND		ND		---	---		
	19-Nov-02		---	100	ND		ND		ND	ND		ND		ND		---	---		
	27-Jun-03		---	100	ND		ND		ND	ND		ND		ND		---	---		
	30-Dec-03		---	100	ND		ND		ND	ND		ND		ND		---	ND		
	30-Jun-04		---	100	ND		ND		ND	ND		ND		ND		---	ND		
	29-Dec-04		---	100	ND		ND		ND	ND		ND		ND		---	ND		
	29-Jun-05		---	100	ND		ND		ND	ND		ND		ND		---	ND		
	29-Dec-05		---	100	ND		ND		ND	ND		ND		ND		---	ND		
	28-Jun-06		---	100	ND		ND		ND	ND		ND		ND		---	ND		
	29-Dec-06		---	100	ND		ND		ND	ND		ND		ND		---	ND		
	12-Jul-07		---	100	ND		ND		ND	ND		ND		ND		---	ND		
	19-Dec-07		---	100	ND		ND		ND	ND		ND		ND		ND	4.5	J	
	8-Jul-08		---	100	ND		ND		ND	ND		ND		ND		---	ND		
	17-Dec-08		20.0	100	ND		ND		ND	ND		ND		ND		---	ND		
	9-Jul-09		20.0	100	ND		ND		ND	ND		ND		ND		ND	ND		
	16-Dec-09		2.2	100	ND		ND		ND	ND		ND		ND		---	2.8	J	
	24-Jun-10		2.2	100	ND		18.5	B	6.5	B	2.2	B	2.4	B	2.4	B	---	7.7	J
	13-Dec-10		2.2	100	ND		ND		ND	ND		ND		ND		---	ND		
	20-Jun-11		2.2	100	ND		ND		ND	ND		ND		ND		---	3.9	J	
	5-Dec-11		2.2	100	ND		2.3	B	ND	ND		ND		ND		---	8.8	J	
	11-Jun-12		2.2	100	ND		3.5	B	ND	ND		ND		ND		ND	4.7	J	
	12-Dec-12		10.0	100	ND		ND		ND	ND		ND		ND		---	ND		
	1-May-13		10.0	100	ND		ND		ND	ND		ND		ND		ND	14.6	J	
	5-Aug-13		10.0	100	ND		ND		ND	ND		ND		ND		---	ND		
	24-Feb-14		10.0	100	ND		ND		ND	ND		ND		ND		ND	25.7	J	
	12-Aug-14	*	EPA 8260	10.0	100	ND	ND		ND	ND		ND		ND		ND	22.0	J	
	10-Mar-15		EPA 8260	10.0	100	ND	ND		ND	ND		ND		ND		ND	ND	ND	
	18-Aug-15		EPA 8260	10.0	100	ND	ND		ND	ND		ND		ND		ND	ND	ND	
Benzene	8-Sep-94		---	5	ND		ND		ND		ND		ND		---	---			
	1-Dec-94		---	5	ND		ND		ND		ND		ND		---	---			
	9-Feb-95		---	5	ND		ND		ND		ND		ND		---	---			
	2-Mar-95		---	5	ND		ND		ND		ND		ND		---	---			
	15-Nov-95		---	5	ND		ND		ND		ND		ND		---	---			
	28-May-96		---	5	ND		ND		ND		ND		ND		---	---			
	22-Nov-96		---	5	ND		ND		ND		ND		ND		---	---			
	17-Jun-97		---	5	ND		ND		ND		ND		ND		---	---			
	1-Dec-97		---	5	ND		ND		ND		ND		ND		---	---			
	20-May-98		---	5	ND		ND		ND		ND		ND		---	---			
	19-Nov-98		---	5	ND		ND		ND		ND		ND		---	---			
	21-Jul-99		---	5	ND		ND		ND		ND		ND		---	---			
	16-Nov-99		---	5	ND		ND		ND		ND		ND		---	---			
	10-May-00		---	5	ND		ND		ND		ND		ND		---	---			
	26-Oct-00		---	5	ND		ND		ND		ND		ND		---	---			
	18-Apr-01		---	5	ND		ND		ND		ND		ND		---	---			
	27-Oct-01		---	5	ND		ND		ND		ND		ND		---	---			
	13-Jun-02		---	5	ND		ND		ND		ND		ND		---	---			
	19-Nov-02		---	5	ND		ND		ND		ND		ND		---	---			
	27-Jun-03		---	5	ND		ND		ND		ND		ND		---	---			
	30-Dec-03		---	5	ND		ND		ND		ND		ND		---	ND			
	30-Jun-04		---	5	ND		ND		ND		ND		ND		---	ND			
	29-Dec-04		---	5	ND		ND		ND		ND		ND		---	ND			
	29-Jun-05		---	5	ND		ND		ND		ND		ND		---	ND			
	29-Dec-05		---	5	ND		ND		ND		ND		ND		---	ND			
	28-Jun-06		---	5	ND		ND		ND		ND		ND		---	ND			
	29-Dec-06		---	3	ND		1.5		ND		ND		ND		---	ND			
	23-Feb-07		---	3	---		1.2		---		---		---		---	ND			
	12-Jul-07		---	1	ND		1.9		ND		ND		ND		---	ND			
	19-Dec-07		---	1	ND		1.8	0.48	J	0.26	J	ND		ND		ND			
8-Jul-08		---	1	ND		1.4	0.51	J	0.32	J	ND		ND		ND				
17-Dec-08		0.25	1.0	ND		1.7	0.54	J	ND		ND		ND		ND				
9-Jul-09		0.25	1.0	ND		1.7	0.34	J	ND		ND		ND		ND				
16-Dec-09		0.25	1.0	ND		1.7	0.60	J	0.29	J	ND		ND		ND				
24-Jun-10		0.25	1.0	ND		0.77	J	0.49	J	0.33	J	ND		---	ND				
13-Dec-10		0.25	1.0	ND		1.8	0.59	J	0.37	J	ND		ND		ND				
8-Feb-11	Resample >	0.25	1.0	---		1.4	---	---	---	---	---	---	---	---	ND				
20-Jun-11		0.25	1.0	ND		1.7	0.60	J	0.39	J	ND		ND		ND				
5-Dec-11		0.25	1.0	ND		1.4	0.69	J	0.40	J	ND		ND		ND				
11-Jun-12		0.25	1.0	ND		ND	0.51	J	ND		ND		ND		ND				
12-Dec-12		0.25	1.0	ND		1.6	0.73	J	0.32	J	ND		ND		ND				
10-Jan-13	Resample >	0.25	1.0	ND		1.4	---	---	---	---	---	---	---	---	ND				
1-May-13		0.25	1.0	ND		1.3	0.56	J	0.27	J	ND		ND		ND				
5-Aug-13		0.25	1.0	ND		1.6	0.64	J	0.44	J	ND		ND		ND				
24-Feb-14		0.25	1.0	ND		1.4	ND		ND		ND		ND		ND				
12-Aug-14	*	EPA 8260	0.25	1.0	ND	1.7	0.61	J	0.25	J	ND		ND		ND				
10-Mar-15		EPA 8260	0.25	1.0	ND	1.3	0.54	J	ND		ND		ND		ND				
18-Aug-15		EPA 8260	0.25	1.0	ND	1.5	0.66	J	0.32	J	ND		ND		ND				

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks
Chlorobenzene NC 2L = 50 µg/L (10/23/07)	8-Sep-94		---	5	ND	10.0	7.0	ND	ND	ND	---	---
	1-Dec-94		---	5	ND	ND	7.0	ND	ND	ND	---	---
	9-Feb-95		---	5	ND	13.0	8.0	6.0	ND	ND	---	---
	2-Mar-95		---	5	ND	12.0	9.0	ND	ND	ND	---	---
	15-Nov-95		---	5	ND	14.0	8.0	9.0	ND	ND	---	---
	28-May-96		---	5	ND	15.0	9.0	10.0	ND	ND	---	---
	22-Nov-96		---	5	ND	15.0	ND	11.0	ND	ND	---	---
	17-Jun-97		---	5	ND	19.0	11.0	14.0	ND	ND	---	---
	1-Dec-97		---	5	ND	17.0	9.0	14.0	ND	ND	---	---
	20-May-98		---	5	ND	20.0	8.6	12.0	ND	ND	---	---
	19-Nov-98		---	5	ND	17.2	9.2	10.0	ND	ND	---	---
	21-Jul-99		---	5	ND	14.0	10.0	11.0	ND	ND	---	---
	16-Nov-99		---	5	ND	16.0	10.0	8.0	ND	ND	---	---
	10-May-00		---	5	ND	17.0	11.0	10.0	ND	ND	---	---
	26-Oct-00		---	5	ND	16.0	12.0	9.0	ND	ND	---	---
	18-Apr-01		---	5	ND	16.0	13.0	6.0	ND	ND	---	---
	27-Oct-01		---	0.5	ND	17.0	12.0	9.0	ND	ND	---	---
	13-Jun-02		---	0.5	ND	16.0	11.0	8.0	ND	ND	---	---
	19-Nov-02		---	0.5	ND	18.0	15.0	9.0	ND	ND	---	---
	27-Jun-03		---	0.5	ND	17.7	13.3	7.4	ND	ND	---	ND
	30-Dec-03		---	5	ND	20.0	15.0	6.1	ND	ND	---	ND
	30-Jun-04		---	5	ND	18.0	15.0	9.9	ND	ND	---	ND
	29-Dec-04		---	5	ND	19.0	16.0	9.4	ND	ND	---	ND
	29-Jun-05		---	5	ND	15.0	13.0	8.0	ND	ND	---	ND
	29-Dec-05		---	5	ND	18.0	16.0	5.0	ND	ND	---	ND
	28-Jun-06		---	5	ND	16.5	10.8	7.8	ND	ND	---	ND
	29-Dec-06		---	3	ND	17.0	17.0	4.2	ND	ND	---	ND
	12-Jul-07		---	3	ND	17.0	16.0	ND	ND	ND	---	ND
	19-Dec-07		---	3	ND	17.3	16.9	4.7	ND	ND	ND	ND
	8-Jul-08		---	3	ND	17.2	17.4	6.5	ND	ND	ND	ND
	17-Dec-08		0.23	3.0	ND	15.9	15.6	2.6	J	ND	ND	ND
	9-Jul-09		0.23	3.0	ND	16.1	17.2	6.1	ND	ND	ND	ND
	16-Dec-09		0.23	3.0	ND	15.5	17.7	4.8	ND	ND	---	ND
	24-Jun-10		0.23	3.0	ND	8.3	15.7	6.3	ND	ND	---	ND
	13-Dec-10		0.23	3.0	ND	17.7	18.2	6.4	ND	ND	---	0.28
	20-Jun-11		0.23	3.0	ND	16.3	17.2	6.7	ND	ND	---	ND
	5-Dec-11		0.23	3.0	ND	14.2	17.0	5.8	ND	ND	---	ND
	11-Jun-12		0.23	3.0	ND	12	14.8	4.4	ND	ND	ND	ND
	12-Dec-12		0.23	3.0	ND	15.8	17.9	4.5	ND	ND	---	ND
	1-May-13		0.23	3.0	ND	14.0	16.6	3.0	J	ND	ND	ND
5-Aug-13		0.23	3.0	ND	14.4	15.9	4.6	ND	ND	ND	ND	
24-Feb-14		0.23	3.0	ND	16.3	2.5	1.4	J	ND	ND	ND	
12-Aug-14	*	EPA 8260	0.23	3.0	ND	15.6	18.3	3.6	ND	ND	ND	
10-Mar-15		EPA 8260	0.23	3.0	ND	16.0	17.0	2.1	J	ND	ND	
18-Aug-15		EPA 8260	0.23	3.0	ND	12.8	17.6	4.3	ND	ND	---	
Chloroethane NC 2L = 2,800 µg/L (10/23/07) NC 2L = 3,000 µg/L (02/05/10)	1-Dec-97		---	10	ND	5.0	2.0	2.0	ND	ND	---	---
	20-May-98		---	10	ND	ND	ND	ND	ND	ND	---	---
	19-Nov-98		---	10	ND	ND	ND	ND	ND	ND	---	---
	21-Jul-99		---	10	ND	ND	ND	ND	ND	ND	---	---
	16-Nov-99		---	10	ND	ND	ND	ND	ND	ND	---	---
	10-May-00		---	10	ND	ND	ND	ND	ND	ND	---	---
	26-Oct-00		---	10	ND	ND	ND	ND	ND	ND	---	---
	18-Apr-01		---	10	ND	ND	ND	ND	ND	ND	---	---
	27-Oct-01		---	10	ND	ND	ND	ND	ND	ND	---	---
	13-Jun-02		---	10	ND	ND	ND	ND	ND	ND	---	---
	19-Nov-02		---	10	ND	ND	ND	ND	ND	ND	---	---
	27-Jun-03		---	10	ND	ND	ND	ND	ND	ND	---	---
	30-Dec-03		---	10	ND	ND	ND	ND	ND	ND	---	ND
	30-Jun-04		---	10	ND	ND	ND	ND	ND	ND	---	ND
	29-Dec-04		---	10	ND	ND	ND	ND	ND	ND	---	ND
	29-Jun-05		---	10	ND	ND	ND	ND	ND	ND	---	ND
	29-Dec-05		---	10	ND	ND	ND	ND	ND	ND	---	ND
	28-Jun-06		---	10	ND	ND	ND	ND	ND	ND	---	ND
	29-Dec-06		---	10	ND	2.2	1.9	ND	ND	ND	---	ND
	12-Jul-07		---	10	ND	ND	ND	ND	ND	ND	---	ND
	19-Dec-07		---	10	ND	1.9	1.9	1.5	ND	ND	ND	ND
	8-Jul-08		---	10	ND	2.2	J	1.8	J	ND	ND	---
	17-Dec-08		0.54	10.0	ND	1.6	J	ND	ND	ND	ND	---
	9-Jul-09		0.54	10.0	ND	ND	J	3.8	J	ND	ND	ND
	16-Dec-09		0.54	10.0	ND	ND	J	2.0	J	ND	ND	---
	24-Jun-10		0.54	10.0	ND	ND	J	2.0	J	ND	ND	---
	13-Dec-10		0.54	10.0	ND	1.8	J	2.0	J	ND	ND	---
	20-Jun-11		0.54	10.0	ND	1.2	J	2.2	J	ND	ND	---
	5-Dec-11		0.54	10.0	ND	1.3	J	2.0	J	ND	ND	---
	11-Jun-12		0.54	10.0	ND	ND	J	ND	J	ND	ND	ND
12-Dec-12		0.54	10.0	ND	ND	J	ND	J	ND	ND	---	
1-May-13		0.54	10.0	ND	ND	J	1.9	J	ND	ND	ND	
5-Aug-13		0.54	10.0	ND	ND	J	2.0	J	ND	ND	---	
24-Feb-14		0.54	10.0	ND	1.1	J	0.82	J	ND	ND	ND	
12-Aug-14	*	EPA 8260	0.54	10.0	ND	J	1.50	J	1.1	J	ND	
10-Mar-15		EPA 8260	0.54	10.0	ND	J	1.80	J	0.81	J	ND	
18-Aug-15		EPA 8260	0.54	10.0	ND	J	2.0	J	3.7	J	ND	
Chloromethane NC 2L = 2.6 µg/L (10/23/07) NC 2L = 3 µg/L (02/05/10)	9-Jul-09		0.11	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09		0.11	1.0	ND	ND	ND	ND	ND	ND	---	ND
	24-Jun-10		0.11	1.0	ND	ND	ND	ND	ND	0.11	J	ND
	13-Dec-10		0.11	1.0	ND	ND	ND	ND	ND	ND	---	ND
	20-Jun-11		0.11	1.0	ND	ND	ND	ND	ND	ND	---	ND
	5-Dec-11		0.11	1.0	ND	ND	ND	ND	ND	ND	---	ND
	11-Jun-12		0.11	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12		0.11	1.0	ND	ND	ND	ND	ND	ND	---	ND
	1-May-13		0.11	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	5-Aug-13		0.11	1.0	ND	ND	ND	ND	ND	ND	---	ND
24-Feb-14		0.11	1.0	ND	ND	ND	ND	ND	ND	ND	0.25	
12-Aug-14		0.11	1.0	ND	ND	ND	ND	ND	ND	ND	ND	
10-Mar-15		0.11	1.0	ND	ND	ND	ND	ND	ND	ND	ND	
18-Aug-15		0.11	1.0	ND	ND	ND	ND	ND	ND	---	ND	

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks	
1,2-Dichlorobenzene NC 2L = 24 µg/L (10/23/07) NC 2L = 20 µg/L (02/05/10)	1-Dec-97		---	5	ND	3.0	2.0	1.0	ND	ND	---	---	
	20-May-98		---	5	ND	ND	ND	ND	ND	ND	---	---	
	19-Nov-98		---	5	ND	2.4	2.3	ND	ND	ND	---	---	
	21-Jul-99		---	5	ND	ND	ND	ND	ND	ND	---	---	
	16-Nov-99		---	5	ND	ND	ND	ND	ND	ND	---	---	
	10-May-00		---	5	ND	ND	ND	ND	ND	ND	---	---	
	26-Oct-00		---	5	ND	ND	ND	ND	ND	ND	---	---	
	18-Apr-01		---	5	ND	ND	ND	ND	ND	ND	---	---	
	27-Oct-01		---	5	ND	ND	ND	ND	ND	ND	---	---	
	13-Jun-02		---	5	ND	ND	ND	ND	ND	ND	---	---	
	19-Nov-02		---	5	ND	ND	ND	ND	ND	ND	---	---	
	27-Jun-03		---	5	ND	ND	ND	ND	ND	ND	---	---	
	30-Dec-03		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	30-Jun-04		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-04		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Jun-05		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-05		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	28-Jun-06		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-06		---	5	ND	1.5	2.3	ND	ND	ND	---	ND	
	12-Jul-07		---	5	ND	1.4	J	1.7	J	0.31	J	ND	ND
	19-Dec-07		---	5	ND	1.6		2.0		0.37	J	ND	ND
	8-Jul-08		---	5	ND	1.6	J	2.0	J	0.39	J	ND	ND
	17-Dec-08		0.30	5.0	ND	1.4	J	1.9	J	ND		ND	ND
	9-Jul-09		0.30	5.0	ND	1.6	J	2.0	J	0.36	J	ND	ND
	16-Dec-09		0.30	5.0	ND	1.6	J	2.0	J	0.33	J	ND	ND
	24-Jun-10		0.30	5.0	ND	0.96	J	1.7	J	0.31	J	ND	ND
	13-Dec-10		0.30	5.0	ND	1.9	J	1.9	J	0.43	J	ND	ND
	20-Jun-11		0.30	5.0	ND	1.5	J	1.7	J	0.37	J	ND	ND
	5-Dec-11		0.30	5.0	ND	1.3	J	1.6	J	ND		ND	ND
	11-Jun-12		0.30	5.0	ND	1.0	J	1.5	J	ND		ND	ND
	12-Dec-12		0.30	5.0	ND	1.3	J	1.7	J	ND		ND	ND
	1-May-13		0.30	5.0	ND	1.2	J	1.6	J	ND		ND	ND
	5-Aug-13		0.30	5.0	ND	1.2	J	1.6	J	0.30	J	ND	ND
	24-Feb-14		0.30	5.0	ND	1.4	J	0.64	J	ND		ND	ND
	* 12-Aug-14	EPA 8260	0.30	5.0	ND	1.2	J	1.5	J	ND		ND	ND
10-Mar-15	EPA 8260	0.30	5.0	ND	1.1	J	1.1	J	ND		ND	ND	
18-Aug-15	EPA 8260	0.30	5.0	ND	0.88	J	1.3	J	ND		ND	ND	
1,4-Dichlorobenzene	8-Sep-94		---	5	ND	ND	5.0	ND	ND	ND	---	---	
	1-Dec-94		---	5	ND	ND	5.0	ND	ND	ND	---	---	
	9-Feb-95		---	5	ND	8.0	6.0	ND	ND	ND	---	---	
	2-Mar-95		---	5	ND	7.0	6.0	ND	ND	ND	---	---	
	15-Nov-95		---	5	ND	7.0	6.0	ND	ND	ND	---	---	
	28-May-96		---	5	ND	ND	ND	ND	ND	ND	---	---	
	22-Nov-96		---	5	ND	ND	ND	ND	ND	ND	---	---	
	17-Jun-97		---	5	ND	7.6	6.2	ND	ND	ND	---	---	
	1-Dec-97		---	5	ND	6.0	5.0	4.0	ND	ND	---	---	
	20-May-98		---	5	ND	7.6	ND	ND	ND	ND	---	---	
	19-Nov-98		---	5	ND	3.7	2.8	ND	ND	ND	---	---	
	21-Jul-99		---	5	ND	ND	ND	ND	ND	ND	---	---	
	16-Nov-99		---	5	ND	ND	ND	ND	ND	ND	---	---	
	10-May-00		---	5	ND	ND	ND	ND	ND	ND	---	---	
	26-Oct-00		---	5	ND	5.0	6.0	ND	ND	ND	---	---	
	18-Apr-01		---	5	ND	ND	5.0	6.0	ND	ND	---	---	
	27-Oct-01		---	5	ND	ND	ND	ND	ND	ND	---	---	
	13-Jun-02		---	5	ND	ND	ND	ND	ND	ND	---	---	
	19-Nov-02		---	5	ND	ND	ND	ND	ND	ND	---	---	
	27-Jun-03		---	5	ND	ND	ND	ND	ND	ND	---	---	
	30-Dec-03		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	30-Jun-04		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-04		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Jun-05		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-05		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	28-Jun-06		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-06		---	3	ND	3.0	3.3	ND	ND	ND	---	ND	
	23-Feb-07	Resample >	---	3	---	3.2	3.3	---	---	---	---	ND	ND
	12-Jul-07		---	1	ND	3.3	2.9		0.31	J	ND	ND	ND
	19-Dec-07		---	1	ND	3.0	2.7	ND	ND	ND	ND	ND	ND
	8-Jul-08		---	1	ND	3.0	2.4	ND	ND	ND	ND	ND	ND
	17-Dec-08		0.33	1.0	ND	2.9	2.5	ND	ND	ND	ND	ND	ND
	9-Jul-09		0.33	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09		0.33	1.0	ND	2.8	2.2	ND	ND	ND	ND	ND	ND
	24-Jun-10		0.33	1.0	ND	1.6	ND	ND	ND	ND	ND	ND	ND
13-Dec-10		0.33	1.0	ND	3.1	1.9	ND	ND	ND	ND	---	ND	
20-Jun-11		0.33	1.0	ND	2.7	1.6	ND	ND	ND	ND	---	ND	
5-Dec-11		0.33	1.0	ND	2.2	1.4	ND	ND	ND	ND	---	ND	
11-Jun-12		0.33	1.0	ND	1.8	1.4	ND	ND	ND	ND	ND	ND	
12-Dec-12		0.33	1.0	ND	2.4	1.3	ND	ND	ND	ND	ND	ND	
1-May-13		0.33	1.0	ND	2.1	1.2	ND	ND	ND	ND	ND	ND	
5-Aug-13		0.33	1.0	ND	2.0	1.3	ND	ND	ND	ND	---	ND	
24-Feb-14		0.33	1.0	ND	2.2	1.8	ND	ND	ND	ND	ND	ND	
* 12-Aug-14	EPA 8260	0.33	1.0	ND	2.4	1.3	ND	ND	ND	ND	ND	ND	
10-Mar-15	EPA 8260	0.33	1.0	ND	2.2	1.1	ND	ND	ND	ND	ND	ND	
18-Aug-15	EPA 8260	0.33	1.0	ND	1.5	1.1	ND	ND	ND	ND	---	ND	
Trans-1,4-Dichloro-2-Butene	20-May-98		---	100	ND	ND	5.1	ND	ND	ND	---	---	
	19-Nov-98		---	100	ND	ND	ND	ND	ND	ND	---	---	
	21-Jul-99		---	100	ND	ND	ND	ND	ND	ND	---	---	
	16-Nov-99		---	100	ND	ND	ND	ND	ND	ND	---	---	
	10-May-00		---	100	ND	ND	ND	ND	ND	ND	---	---	
	26-Oct-00		---	100	ND	ND	ND	ND	ND	ND	---	---	
	18-Apr-01		---	100	ND	ND	ND	ND	ND	ND	---	---	
	27-Oct-01		---	100	ND	ND	ND	ND	ND	ND	---	---	
	19-Nov-02		---	100	ND	ND	ND	ND	ND	ND	---	---	
	27-Jun-03		---	100	ND	ND	ND	ND	ND	ND	---	---	
	30-Dec-03		---	100	ND	ND	ND	ND	ND	ND	---	ND	
	30-Jun-04		---	100	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-04		---	100	ND	ND	ND	ND	ND	ND	---	ND	
	29-Jun-05		---	100	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-05		---	100	ND	ND	ND	ND	ND	ND	---	ND	
	28-Jun-06		---	100	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-06		---	100	ND	ND	ND	ND	ND	ND	---	ND	
	12-Jul-07		---	100	ND	ND	ND	ND	ND	ND	---	ND	
	19-Dec-07		---	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8-Jul-08		---	100	ND	ND	ND	ND	ND	ND	ND	---	ND
	17-Dec-08		1.0	100	ND	ND	ND	ND	ND	ND	ND	---	ND
	9-Jul-09		1.0	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09		1.0	100	ND	ND	ND	ND	ND	ND	ND	---	ND
	24-Jun-10		1.0	100	ND	ND	ND	ND	ND	ND	ND	---	ND
	13-Dec-10		1.0	100	ND	ND	ND	ND	ND	ND	ND	---	ND
	20-Jun-11		1.0	100	ND	ND	ND	ND	ND	ND	ND	---	ND
	5-Dec-11		1.0	100	ND	ND	ND	ND	ND	ND	ND	---	ND
11-Jun-12		1.0	100	ND	ND	ND	ND	ND	ND	ND	---	ND	
12-Dec-12		1.0	100	ND	ND	ND	ND	ND	ND	ND	---	ND	
1-May-13		1.0	100	ND	ND	ND	ND	ND	ND	ND	---	ND	
5-Aug-13		1.0	100	ND	ND	ND	ND	ND	ND	ND	---	ND	
24-Feb-14		1.0	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	
* 12-Aug-14	EPA 8260	1.0	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	
10-Mar-15	EPA 8260	1.0	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	
18-Aug-15	EPA 8260	1.0	100	ND	ND	ND	ND	ND	ND	ND	---	ND	

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks	
1,1-Dichloroethane NC 2L = 70 µg/L (10/23/07) NC 2L = 6 µg/L (02/05/10)	1-Dec-97		---	5	ND	ND	1.0	ND	ND	ND	---	---	
	20-May-98		---	5	ND	ND	ND	ND	ND	ND	---	---	
	19-Nov-98		---	5	ND	ND	ND	ND	ND	ND	---	---	
	21-Jul-99		---	5	ND	ND	ND	ND	ND	ND	---	---	
	16-Nov-99		---	5	ND	ND	ND	ND	ND	ND	---	---	
	10-May-00		---	5	ND	ND	ND	ND	ND	ND	---	---	
	26-Oct-00		---	5	ND	ND	ND	ND	ND	ND	---	---	
	18-Apr-01		---	5	ND	ND	ND	ND	ND	ND	---	---	
	27-Oct-01		---	5	ND	ND	ND	ND	ND	ND	---	---	
	13-Jun-02		---	5	ND	ND	ND	ND	ND	ND	---	---	
	19-Nov-02		---	5	ND	ND	ND	ND	ND	ND	---	---	
	27-Jun-03		---	5	ND	ND	ND	ND	ND	ND	---	---	
	30-Dec-03		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	30-Jun-04		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-04		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Jun-05		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-05		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	28-Jun-06		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-06		---	5	ND	ND	ND	ND	ND	ND	---	ND	
	12-Jul-07		---	5	ND	ND	0.36	J	0.52	J	ND	---	ND
	19-Dec-07		---	5	ND	ND	ND		0.57	J	ND	ND	ND
	8-Jul-08		---	5	ND	ND	ND		0.60	J	ND	---	ND
	17-Dec-08		0.32	5.0	ND	ND	ND		0.51	J	ND	---	ND
	9-Jul-09		0.32	5.0	ND	ND	ND		0.84	J	ND	ND	ND
	16-Dec-09		0.32	5.0	ND	ND	ND		0.73	J	ND	---	ND
	24-Jun-10		0.32	5.0	ND	ND	ND		0.53	J	ND	---	ND
	13-Dec-10		0.32	5.0	ND	ND	ND		0.60	J	ND	---	ND
	20-Jun-11		0.32	5.0	ND	ND	ND		0.63	J	ND	---	ND
	5-Dec-11		0.32	5.0	ND	ND	ND		0.67	J	ND	---	ND
	11-Jun-12		0.32	5.0	ND	ND	ND		ND		ND	ND	ND
	12-Dec-12		0.32	5.0	ND	ND	ND		0.61	J	ND	---	ND
	1-May-13		0.32	5.0	ND	ND	ND		0.62	J	ND	ND	ND
	8-May-13		0.32	5.0	ND	ND	ND		0.53	J	ND	---	ND
24-Feb-14		0.32	5.0	ND	ND	ND		0.50	J	ND	ND	ND	
* 12-Aug-14	EPA 8260	0.32	5.0	ND	ND	ND		0.47	J	ND	ND	ND	
10-Mar-15	EPA 8260	0.32	5.0	ND	ND	ND		0.50	J	ND	ND	ND	
18-Aug-15	EPA 8260	0.32	5.0	ND	ND	ND		0.49	J	ND	---	ND	
1,2-Dichloroethane NC 2L = 0.38 µg/L (10/23/07) NC 2L = 0.4 µg/L (02/05/10)	17-Dec-08		0.12	1.0	ND	ND	0.15	J	ND	ND	---	ND	
	9-Jul-09		0.12	1.0	ND	ND	ND		ND	ND	ND	0.19	
	16-Dec-09		0.12	1.0	ND	ND	0.14	J	ND	ND	---	ND	
	24-Jun-10		0.12	1.0	ND	ND	ND		ND	ND	---	ND	
	13-Dec-10		0.12	1.0	ND	ND	ND		ND	ND	---	ND	
	20-Jun-11		0.12	1.0	ND	ND	ND		ND	ND	---	ND	
	5-Dec-11		0.12	1.0	ND	ND	ND		0.18	J	---	ND	
	11-Jun-12		0.12	1.0	ND	ND	ND		ND		ND	ND	
	12-Dec-12		0.12	1.0	ND	ND	ND		-0.20	J	---	0.20 (ND)	
	1-May-13		0.12	1.0	ND	ND	ND		ND		ND	ND	
	5-Aug-13		0.12	1.0	ND	ND	ND		ND		ND	ND	
	24-Feb-14		0.12	1.0	ND	ND	ND		ND		ND	ND	
	* 12-Aug-14	EPA 8260	0.12	1.0	ND	ND	ND		ND		ND	ND	
	10-Mar-15	EPA 8260	0.12	1.0	ND	ND	ND		ND		ND	ND	
18-Aug-15	EPA 8260	0.24	1.0	ND	ND	0.33	J	0.29	J	0.36	J	---	
Ethylbenzene NC 2L = 550 µg/L (10/23/07) NC 2L = 600 µg/L (02/05/10)	17-Dec-08		0.30	1.0	ND	0.31	J	ND	ND	ND	---	ND	
	9-Jul-09		0.30	1.0	ND	ND	ND		ND	ND	ND	ND	
	16-Dec-09		0.30	1.0	ND	ND	ND		ND	ND	---	ND	
	24-Jun-10		0.30	1.0	ND	ND	ND		ND	ND	---	ND	
	13-Dec-10		0.30	1.0	ND	ND	ND		ND	ND	---	ND	
	20-Jun-11		0.30	1.0	ND	ND	ND		ND	ND	---	ND	
	5-Dec-11		0.30	1.0	ND	ND	ND		ND	ND	---	ND	
	11-Jun-12		0.30	1.0	ND	ND	ND		ND	ND	ND	ND	
	12-Dec-12		0.30	1.0	ND	ND	ND		ND	ND	---	ND	
	1-May-13		0.30	1.0	ND	ND	ND		ND	ND	ND	ND	
	5-Aug-13		0.30	1.0	ND	ND	ND		ND	ND	---	ND	
	24-Feb-14		0.30	1.0	ND	ND	ND		ND	ND	ND	ND	
	* 12-Aug-14	EPA 8260	0.30	1.0	ND	ND	ND		ND	ND	ND	ND	
	10-Mar-15	EPA 8260	0.30	1.0	ND	ND	ND		ND	ND	ND	ND	
18-Aug-15	EPA 8260	0.30	1.0	ND	ND	ND		ND	ND	---	ND		
Isobutanol NC 2L = NE µg/L (02/05/10)	24-Jun-10		35.0	100	ND	59.0	J	ND	ND	ND	---	ND	
	13-Dec-10		---	---	---	---		---	---	---	---	---	
	20-Jun-11		35.0	100	ND	39.5	J	ND	ND	ND	---	ND	
	5-Dec-11		---	---	---	---		---	---	---	---	---	
	11-Jun-12		35.0	100.0	ND	ND	ND		ND	ND	ND	ND	
	12-Dec-12		---	---	---	---		---	---	---	---	---	
	1-May-13		35.0	100	ND	ND	ND		ND	ND	---	ND	
	5-Aug-13		---	---	---	---		---	---	---	---	---	
	24-Feb-14		35.0	100	ND	ND	ND		ND	ND	---	ND	
	* 12-Aug-14	EPA 8260	35.0	100	ND	ND	ND		ND	ND	---	ND	
10-Mar-15	EPA 8260	35.0	100	ND	ND	ND		---	---	---	ND		
Methylene Chloride NC 2L = 4.3 µg/L (10/23/07) NC 2L = 5 µg/L (02/05/10) Resample >	9-Jul-09		0.97	2.0	ND	ND	ND	ND	ND	ND	ND	9.6	
	16-Dec-09		0.97	2.0	ND	ND	ND	ND	ND	ND	---	ND	
	24-Jun-10		0.97	1.0	ND	19.0	ND	ND	ND	ND	---	ND	
	12-Aug-10		0.97	1.0	---	---	---	---	---	---	---	---	
	13-Dec-10		0.97	1.0	ND	ND	ND	ND	ND	ND	---	ND	
	20-Jun-11		0.97	1.0	ND	ND	ND	ND	ND	ND	---	ND	
	5-Dec-11		0.97	1.0	ND	ND	ND	ND	ND	ND	---	ND	
	11-Jun-12		0.97	1.0	ND	ND	ND	ND	ND	ND	ND	ND	
	12-Dec-12		0.97	1.0	ND	ND	ND	ND	ND	ND	---	ND	
	1-May-13		0.97	1.0	ND	ND	ND	ND	ND	ND	ND	ND	
	5-Aug-13		0.97	1.0	ND	ND	ND	ND	ND	ND	---	ND	
	24-Feb-14		0.97	1.0	1.0	ND	ND	ND	ND	ND	ND	ND	
	* 12-Aug-14	EPA 8260	0.97	1.0	ND	ND	ND	ND	ND	ND	ND	ND	
	10-Mar-15	EPA 8260	0.97	1.0	ND	ND	ND	ND	ND	ND	ND	ND	
18-Aug-15	EPA 8260	0.97	1.0	1.3	1.1	1.6		ND	ND	ND	ND		
Naphthalene NC 2L = 21 µg/L (10/23/07) NC 2L = 6 µg/L (02/05/10)	8-Jul-08		---	10	ND	3.8	J	ND	ND	ND	---	ND	
	17-Dec-08		---	---	---	---		---	---	---	---	---	
	9-Jul-09		0.24	10.0	ND	2.4	J	ND	ND	ND	---	ND	
	16-Dec-09		---	---	---	---		---	---	---	---	---	
	24-Jun-10		0.24	10.0	ND	7.4	J	ND	ND	ND	---	ND	
	13-Dec-10		---	---	---	---		---	---	---	---	---	
	20-Jun-11		0.24	10.0	ND	4.6	J	ND	ND	ND	---	0.39	
	5-Dec-11		---	---	---	---		---	---	---	---	---	
	11-Jun-12		0.2	10.0	ND	4.6	J	ND	ND	ND	ND	ND	
	12-Dec-12		---	---	---	---		---	---	---	---	---	
	1-May-13		0.24	10.0	ND	5.1	J	ND	ND	ND	---	ND	
	5-Aug-13		---	---	---	---		---	---	---	---	---	
	24-Feb-14		0.24	10.0	ND	5.8	J	ND	ND	ND	---	ND	
	* 12-Aug-14	EPA 8260	---	---	---	---		---	---	---	---	---	
10-Mar-15	EPA 8260	0.2	10	ND	5.4	J	ND	---	---	---	ND		

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks	
<i>Dibenz(a,h)anthracene</i> NC 2L = 0.005 µg/L (2/5/10)	20-Jun-11	EPA 8270	0.55	10.0	ND	ND	ND	ND	ND	1.5	---	ND	
	5-Dec-11		---	---	---	---	---	---	---	---	---	---	
	11-Jun-12		0.55	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
	12-Dec-12		---	---	---	---	---	---	---	---	---	---	---
	1-May-13		0.55	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
	5-Aug-13		---	---	---	---	---	---	---	---	---	---	---
	24-Feb-14		0.55	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
	12-Aug-14		---	---	---	---	---	---	---	---	---	---	---
10-Mar-15	0.5	10.0	ND	ND	ND	---	---	---	---	---	---	ND	
<i>Fluorene</i> NC 2L = 300 µg/L (2/5/10) Resample >	24-Jun-10	EPA 8270	3.8	12.2	ND	4.3	ND	ND	ND	ND	---	ND	
	12-Aug-10		3.1	10.0	---	ND	---	---	---	---	---	---	ND
	13-Dec-10		---	---	---	---	---	---	---	---	---	---	---
	20-Jun-11		0.2	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
	5-Dec-11		---	---	---	---	---	---	---	---	---	---	---
	11-Jun-12		0.21	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
	12-Dec-12		---	---	---	---	---	---	---	---	---	---	---
	1-May-13		0.21	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
	5-Aug-13		---	---	---	---	---	---	---	---	---	---	---
	24-Feb-14		0.21	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
12-Aug-14	---	---	---	---	---	---	---	---	---	---	---		
10-Mar-15	1.0	10.0	ND	ND	ND	---	---	---	---	---	---	ND	
<i>Indeno(1,2,3-cd)pyrene</i> NC 2L = 0.05 µg/L (2/5/10)	20-Jun-11	EPA 8270	0.29	10.0	ND	ND	ND	ND	ND	1.3	---	ND	
	5-Dec-11		---	---	---	---	---	---	---	---	---	---	
	11-Jun-12		0.29	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
	12-Dec-12		---	---	---	---	---	---	---	---	---	---	---
	1-May-13		0.29	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
	5-Aug-13		---	---	---	---	---	---	---	---	---	---	---
	24-Feb-14		0.29	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
	12-Aug-14		---	---	---	---	---	---	---	---	---	---	---
10-Mar-15	0.5	10.0	ND	ND	ND	---	---	---	---	---	---	ND	
<i>2-Methylnaphthalene</i> NC 2L = 30 µg/L (02/05/10) Resample>	24-Jun-10	EPA 8270	5.1	12.2	ND	38.9	ND	ND	ND	ND	---	ND	
	12-Aug-10		4.2	10	---	ND	---	---	---	---	---	---	ND
	13-Dec-10		---	---	---	---	---	---	---	---	---	---	---
	20-Jun-11		0.3	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
	5-Dec-11		---	---	---	---	---	---	---	---	---	---	---
	11-Jun-12		0.28	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
	12-Dec-12		---	---	---	---	---	---	---	---	---	---	---
	1-May-13		0.28	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
	5-Aug-13		---	---	---	---	---	---	---	---	---	---	---
	24-Feb-14		0.28	10.0	ND	ND	ND	ND	ND	ND	---	---	ND
12-Aug-14	---	---	---	---	---	---	---	---	---	---	---		
10-Mar-15	1.0	10.0	ND	ND	ND	---	---	---	---	---	---	ND	
<i>Phorate</i> NC 2L = 1.4 µg/L (10/23/07) NC 2L = 1 µg/L (02/05/10)	18-Apr-01	EPA 8270	---	10	---	3.2	ND	ND	ND	---	---	---	
	27-Oct-01		---	5	ND	8.1	ND	ND	ND	ND	---	---	
	27-Oct-01		---	0.5	---	8.1	1.3	ND	ND	ND	---	---	---
	13-Jun-02		---	5	ND	ND	ND	ND	ND	ND	---	---	---
	13-Jun-02		---	0.5	---	ND	ND	ND	ND	ND	---	---	---
	19-Nov-02		---	5	ND	ND	ND	ND	ND	ND	---	---	---
	27-Jun-03		---	5	ND	ND	ND	ND	ND	ND	---	---	ND
	30-Jun-04		---	10	ND	ND	ND	ND	ND	ND	---	---	ND
	29-Jun-05		---	10	ND	ND	ND	ND	ND	ND	---	---	ND
	29-Dec-05		---	---	---	---	---	---	---	---	---	---	---
	28-Jun-06		---	10	ND	ND	ND	ND	ND	ND	---	---	ND
	29-Dec-06		---	---	---	---	---	---	---	---	---	---	---
	12-Jul-07		---	10	ND	ND	ND	ND	ND	ND	---	---	ND
	19-Dec-07		---	---	---	---	---	---	---	---	---	ND	---
	8-Jul-08		---	10	ND	ND	ND	ND	ND	ND	---	---	ND
	17-Dec-08		---	---	---	---	---	---	---	---	---	---	---
	9-Jul-09		6.6	22.2	ND	ND	ND	ND	ND	ND	ND	---	ND
	16-Dec-09		---	---	---	---	---	---	---	---	---	---	---
	24-Jun-10		6.5	24.1	ND	ND	ND	ND	ND	ND	ND	---	ND
	13-Dec-10		---	---	---	---	---	---	---	---	---	---	---
	20-Jun-11		5.4	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND
	5-Dec-11		---	---	---	---	---	---	---	---	---	---	---
	11-Jun-12		5.4	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND
12-Dec-12	---	---	---	---	---	---	---	---	---	---	---		
1-May-13	5.4	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND		
5-Aug-13	---	---	---	---	---	---	---	---	---	---	---		
24-Feb-14	5.4	10.0	ND	ND	ND	ND	ND	ND	ND	---	ND		
12-Aug-14	---	---	---	---	---	---	---	---	---	---	---		
10-Mar-15	0.8	10.0	ND	ND	ND	ND	---	---	---	---	---	ND	
<i>Beta-BHC</i> NC 2L = 0.019 µg/L (10/23/07) Resample >	11-Jun-12	EPA 8081	0.050	0.050	ND	ND	0.16	ND	ND	ND	---	ND	
	19-Jul-12		0.050	0.050	---	---	ND	---	---	---	---	---	
	12-Dec-12		---	---	---	---	---	---	---	---	---	---	
	1-May-13		0.050	0.050	ND	ND	ND	ND	ND	ND	---	---	ND
	5-Aug-13		---	---	---	---	---	---	---	---	---	---	---
	24-Feb-14		0.050	0.050	ND	0.052	ND	ND	ND	ND	---	---	ND
	15-Apr-14		0.050	0.050	---	ND	---	---	---	---	---	---	ND
12-Aug-14	---	---	---	---	---	---	---	---	---	---	---		
10-Mar-15	0.1	0.1	ND	ND	ND	---	---	---	---	---	---	ND	
<i>Delta-BHC</i> NC 2L = 0.019 µg/L (10/23/07)	11-Jun-12	EPA 8081	0.050	0.050	ND	ND	0.090	ND	ND	ND	---	ND	
	19-Jul-12		0.050	0.050	---	---	ND	---	---	---	---	---	
	12-Dec-12		---	---	---	---	---	---	---	---	---	---	
	1-May-13		0.050	0.050	ND	ND	ND	ND	ND	ND	---	---	ND
	5-Aug-13		---	---	---	---	---	---	---	---	---	---	---
	24-Feb-14		0.050	0.050	ND	ND	ND	ND	ND	ND	---	---	ND
	12-Aug-14		---	---	---	---	---	---	---	---	---	---	---
10-Mar-15	0.1	0.1	ND	ND	ND	---	---	---	---	---	---	ND	

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks	
<i>gamma-BHC (Lindane)</i> NC 2L = 0.2 µg/L (10/23/07) NC 2L = 0.03 µg/L (02/05/10) <i>Resample ></i> <i>Resample ></i>	27-Jun-03		---	1.05	ND	0.085	ND	ND	ND	ND	---	ND	
	30-Dec-03		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	30-Jun-04		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-04		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	29-Jun-05		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-05		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	28-Jun-06		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-06		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	12-Jul-07		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	19-Dec-07		---	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
	8-Jul-08		---	0.50	ND	ND	ND	ND	ND	ND	---	ND	
	17-Dec-08		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	9-Jul-09		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	16-Dec-09		0.01	0.1	ND	ND	ND	ND	ND	ND	---	ND	
	24-Jun-10		0.00021	0.010	ND	ND	0.052	ND	ND	ND	---	ND	
	12-Aug-10		0.00020	0.010	---	---	ND	---	---	---	---	ND	
	13-Dec-10		0.00020	0.050	ND	ND	0.013	ND	ND	ND	---	ND	
	20-Jun-11		0.00020	0.050	ND	ND	0.066	ND	ND	ND	---	ND	
	28-Jul-11		0.00020	0.010	---	---	ND	---	---	---	---	ND	
	5-Dec-11		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	11-Jun-12		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	12-Dec-12		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	1-May-13		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	5-Aug-13		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	24-Feb-14		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	12-Aug-14		0.050	0.050	ND	ND	ND	---	---	---	---	ND	
	10-Mar-15	EPA 8081	0.050	0.050	ND	ND	ND	---	---	---	---	ND	
	18-Aug-15	EPA 8081	0.050	0.050	ND	ND	ND	---	---	---	---	ND	
<i>Heptachlor</i> NC 2L = 0.0078 µg/L (10/23/07) NC 2L = 0.008 µg/L (02/05/10) <i>Resample ></i>	27-Jun-03		---	1.05	ND	0.03	0.17	ND	ND	ND	---	ND	
	30-Dec-03		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	30-Jun-04		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-04		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	29-Jun-05		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-05		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	28-Jun-06		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	29-Dec-06		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	12-Jul-07		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	19-Dec-07		---	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
	8-Jul-08		---	0.05	ND	ND	ND	ND	ND	ND	---	ND	
	17-Dec-08		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	9-Jul-09		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	16-Dec-09		0.02	0.1	ND	ND	ND	ND	ND	ND	---	ND	
	24-Jun-10		0.0015	0.010	ND	ND	ND	ND	ND	ND	---	ND	
	13-Dec-10		0.0500	0.0015	ND	ND	ND	ND	ND	ND	---	ND	
	20-Jun-11		0.050	0.0015	ND	ND	ND	ND	ND	ND	---	ND	
	5-Dec-11		0.050	0.056	ND	0.062	ND	ND	ND	ND	---	ND	
	25-Jan-12		0.050	0.0500	---	ND	---	---	---	---	---	ND	
	11-Jun-12		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	12-Dec-12		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	1-May-13		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	5-Aug-13		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	24-Feb-14		0.050	0.050	ND	ND	ND	ND	ND	ND	---	ND	
	12-Aug-14		0.050	0.050	ND	ND	ND	---	---	---	---	ND	
	10-Mar-15	EPA 8081	0.050	0.050	ND	ND	ND	---	---	---	---	ND	
	18-Aug-15	EPA 8081	0.050	0.050	ND	ND	ND	---	---	---	---	ND	
	<i>2,4-D</i> NC 2L = 70 µg/L (10/23/07)	27-Jun-03		---	3	---	5.9	ND	ND	ND	---	---	---
30-Dec-03			---	2	ND	ND	ND	ND	ND	ND	---	ND	
30-Jun-04			---	2	ND	ND	ND	ND	ND	ND	---	ND	
29-Dec-04			---	2	ND	ND	ND	ND	ND	ND	---	ND	
29-Jun-05			---	2	ND	ND	ND	ND	ND	ND	---	ND	
29-Dec-05			---	2	ND	ND	ND	ND	ND	ND	---	ND	
28-Jun-06			---	2	ND	ND	ND	ND	ND	ND	---	ND	
29-Dec-06			---	2	ND	ND	ND	ND	ND	ND	---	ND	
12-Jul-07			---	2	ND	ND	ND	ND	ND	ND	---	ND	
19-Dec-07			---	2	ND	ND	ND	ND	ND	ND	ND	ND	
8-Apr-08			---	2	ND	ND	ND	ND	ND	ND	---	ND	
17-Dec-08			---	2.0	ND	ND	ND	ND	ND	ND	---	ND	
9-Jul-09			---	2.0	ND	ND	ND	ND	ND	ND	---	ND	
16-Dec-09			0.11	5.0	ND	ND	ND	ND	ND	ND	---	ND	
24-Jun-10			0.23	2.1	ND	ND	ND	ND	ND	ND	---	ND	
10-Dec-10			0.22	2.0	ND	ND	ND	ND	ND	ND	---	ND	
20-Jun-11			0.22	2.0	ND	ND	ND	ND	ND	ND	---	ND	
5-Dec-11			0.22	2.0	ND	ND	ND	ND	ND	ND	---	ND	
11-Jun-12			0.22	2.0	ND	ND	ND	ND	ND	ND	---	ND	
12-Dec-12			0.22	2.0	ND	ND	ND	ND	ND	ND	---	ND	
1-May-13			0.22	2.0	ND	ND	ND	ND	ND	ND	---	ND	
5-Aug-13			0.22	2.0	ND	ND	ND	ND	ND	ND	---	ND	
24-Feb-14			0.22	2.0	ND	ND	ND	ND	ND	ND	---	ND	
12-Aug-14		EPA 8151	0.22	2.0	ND	ND	ND	---	---	---	---	ND	
10-Mar-15		EPA 8151	0.24	2.1	ND	ND	ND	---	---	---	---	ND	
18-Aug-15		EPA 8151	0.24	2.1	ND	ND	ND	---	---	---	---	ND	
<i>4,4'-DDD</i> NC 2L = 0.1 µg/L (2/5/10) <i>Resample></i>		11-Jun-12		0.05	0.05	ND	ND	0.13	ND	ND	ND	---	ND
		19-Jul-12		0.05	0.10	---	---	---	---	---	---	---	---
	12-Dec-12		---	---	---	---	---	---	---	---	---	---	
	1-May-13		0.050	0.10	ND	ND	ND	ND	ND	ND	---	ND	
	5-Aug-13		---	---	---	---	---	---	---	---	---	---	
	24-Feb-14		0.050	0.10	ND	ND	ND	ND	ND	ND	---	ND	
	12-Aug-14		---	---	---	---	---	---	---	---	---	---	
10-Mar-15	EPA 8081	0.1	0.1	ND	ND	ND	---	---	---	---	ND		

TABLE 1: HISTORICAL CONSTITUENTS IN GROUNDWATER

Analyte	Sample Date	Method	DL	RL	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Blanks
<i>4,4'-DDT</i> NC 2L = 0.1 µg/L (2/5/10) <i>Resample></i>	11-Jun-12		0.05	0.05	ND	ND	0.10	ND	ND	ND	---	ND
	19-Jul-12		0.05	0.10	---	---	0.063	J	---	---	---	---
	12-Dec-12		---	---	---	---	---	---	---	---	---	---
	1-May-13		0.050	0.10	ND	ND	ND	ND	ND	ND	---	ND
	5-Aug-13		---	---	---	---	---	---	---	---	---	---
	24-Feb-14		0.050	0.10	ND	ND	ND	ND	ND	ND	---	ND
	12-Aug-14		---	---	---	---	---	---	---	---	---	---
	10-Mar-15	EPA 8081	0.1	0.1	ND	ND	ND	---	---	---	---	ND
Dinoseb	10-Mar-15	EPA 8151	0.1	1.1	ND	ND	0.11	J	---	---	---	ND
<i>Endrin aldehyde</i> NC 2L = 2 (2/5/10)	11-Jun-12		0.050	0.050	ND	ND	0.14	ND	ND	ND	---	---
	12-Dec-12		0.050	0.10	ND	ND	ND	ND	ND	ND	---	---
	1-May-13		0.050	0.10	ND	ND	ND	ND	ND	ND	---	ND
	5-Aug-13		0.050	0.10	ND	ND	ND	ND	ND	ND	---	ND
	24-Feb-14		0.050	0.10	ND	ND	ND	ND	ND	ND	---	ND
	12-Aug-14	EPA 8081	0.050	0.10	ND	ND	ND	---	---	---	---	ND
	10-Mar-15	EPA 8081	0.050	0.10	ND	ND	ND	---	---	---	---	ND
	18-Aug-15	EPA 8081	0.050	0.10	ND	ND	ND	---	---	---	---	ND

Notes:
 All concentrations are in micrograms per liter (µg/L).
 RL = Reporting Limit (SWSL for December 2006 - present).
 DL = Laboratory detection limit.
 J = Estimated value between the DL and the RL.
 B = Blank-qualified data; result is expected to be biased high based on concentrations in the blanks.
 ND = Not detected above laboratory reporting limit.
 NC 2L = North Carolina Groundwater Standards from 15A NCAC 2L.0202.
 GWPS = Groundwater Protection Standards established by the DENR Solid Waste Section (SWS).
 When the NC 2L has not been established, the GWPS will be used.
Bold values for groundwater are above the NC 2L Standards or GWPS.
 --- = Well was not monitored and/or not reported.

Appendix D

Historical Surface Water Analytical Data

TABLE 2: HISTORICAL CONSTITUENTS IN SURFACE WATER

Analytes	Sample Date	Method	DL	RL	SW-1	SW-2	Blanks	
INORGANICS								
Arsenic NC 2B = 10 µg/L (03/28/08)	06/24/10		2.7	10.00	4.30 J	2.90 J	ND	
	12/13/10		2.7	10.0	ND	ND	ND	
	06/20/11		5.0	10.0	ND	ND	ND	
	12/05/11		5.0	10.0	ND	ND	ND	
	06/11/12		5.0	10.0	ND	ND	ND	
	12/12/12		5.0	10.0	ND	ND	ND	
	05/01/13		5.0	10.0	ND	ND	ND	
	08/05/13		5.0	10.0	ND	ND	ND	
	02/24/14		5.0	10.0	ND	ND	ND	
	08/12/14	EPA 6010	5.0	10.0	---	ND	ND	
	03/10/15	EPA 6010	2.5	10.0	ND	ND	3.0 J	
	08/18/15		---	---	Dry	Dry	---	
Barium NC 2B = 1,000 µg/L (03/28/08)	11/22/96		---	500	37.0	37.0	---	
	06/17/97		---	500	37.0	62.0	---	
	12/01/97		---	500	53.0	45.0	---	
	05/20/98		---	500	24.0	69.0	---	
	11/19/98		---	500	ND	100.0	---	
	07/21/99		---	500	ND	ND	---	
	11/16/99		---	500	ND	ND	---	
	05/10/00		---	500	ND	ND	---	
	10/26/00		---	500	ND	ND	---	
	04/18/01		---	500	ND	ND	---	
	10/27/01		---	500	ND	ND	---	
	06/13/02		---	500	---	---	---	
	11/19/02		---	500	ND	ND	---	
	06/27/03		---	500	ND	ND	---	
	12/30/03		---	500	ND	ND	ND	
	06/30/04		---	500	ND	ND	ND	
	12/29/04		---	500	ND	ND	ND	
	12/29/04		---	500	ND	ND	ND	
	06/29/05		---	500	ND	ND	ND	
	12/29/05		---	500	ND	ND	ND	
	06/28/06		---	500	ND	ND	ND	
	12/29/06		---	100	37.5	40.6	0.20 J	
	07/12/07		---	100	33.3	J	---	ND
	12/19/07		---	100	52.6	B	149.0	11.7
	07/08/08		---	100	33.8	J	161.0	0.3 J
	12/17/08		0.2	100	30.2	B	33.5	10.7 J
	07/09/09		0.2	100	36.8	B	78.4	17.6 J
	12/16/09		0.2	100	31.2	B	36.2	17.1 J
	06/24/10		0.2	100	34.5	B	71.3	27.3 J
	12/13/10		0.2	100	36.1	B	91.0	12.1 J
	06/20/11		5.0	100	40.3	J	93.0	ND
	12/05/11		5.0	100	32.9	J	59.0	ND
	06/11/12		5.0	100	40.0	J	95.6	ND
12/12/12		5.0	100	45.0	J	97.8	ND	
05/01/13		5.0	100	32.7	J	43.1	ND	
08/05/13		5.0	100	49.9	J	79.8	ND	
02/24/14		5.0	100	29.0	J	30.4	ND	
08/12/14	EPA 6010	5.0	100	---		121	ND	
03/10/15	EPA 6010	2.5	100	29.0	J	32.1	ND	
08/18/15		---	---	Dry		Dry	---	

TABLE 2: HISTORICAL CONSTITUENTS IN SURFACE WATER

Analytes	Sample Date	Method	DL	RL	SW-1	SW-2	Blanks	
Beryllium NC 2B = 6.5 µg/L (02/05/10)	07/08/08		---	1.0	0.32 J	ND	ND	
	12/17/08		0.1	1.0	ND	ND	ND	
	07/09/09		0.1	1.0	ND	ND	ND	
	12/16/09		0.1	1.0	0.12 J	ND	ND	
	06/24/10		0.1	1.0	ND	ND	ND	
	12/13/10		0.1	1.0	ND	ND	ND	
	06/20/11		1.0	1.0	ND	ND	ND	
	12/05/11		1.0	1.0	ND	ND	ND	
	06/11/12		1.0	1.0	ND	ND	ND	
	12/12/12		1.0	1.0	ND	ND	ND	
	05/01/13		1.0	1.0	ND	ND	ND	
	08/05/13		1.0	1.0	ND	ND	ND	
	02/24/14		1.0	1.0	ND	ND	ND	
	08/12/14	EPA 6010	1.0	1.0	---	ND	ND	
	03/10/15	EPA 6010	0.5	1.0	ND	ND	ND	
	08/18/15		---	---	Dry	Dry	---	
Chromium NC 2B = 50 µg/L (03/28/08)	06/17/97		---	10.0	ND	3.00	---	
	12/01/97		---	10.0	ND	ND	---	
	05/20/98		---	10.0	ND	ND	---	
	11/19/98		---	10.0	ND	ND	---	
	07/21/99		---	10.0	ND	ND	---	
	11/16/99		---	10.0	ND	ND	---	
	05/10/00		---	10.0	ND	ND	---	
	10/26/00		---	10.0	ND	ND	---	
	04/18/01		---	10.0	ND	ND	---	
	10/27/01		---	10.0	ND	ND	---	
	06/13/02		---	10.0	---	---	---	
	11/19/02		---	10.0	ND	ND	---	
	06/27/03		---	10.0	ND	ND	---	
	12/30/03		---	10.0	ND	ND	ND	
	06/30/04		---	10.0	ND	ND	ND	
	12/29/04		---	10.0	ND	ND	ND	
	06/29/05		---	10.0	ND	ND	ND	
	12/29/05		---	10.0	ND	ND	ND	
	06/28/06		---	10.0	ND	ND	ND	
	12/29/06		---	10.0	ND	ND	ND	
	07/12/07		---	10.0	ND	---	ND	
	12/19/07		---	10.0	10.0	2.20 B	2.60 B	1.40 J
	07/08/08		---	10.0	10.0	2.50 J	2.20 J	ND
	12/17/08		0.4	10.0	10.0	1.40 J	2.60 J	ND
	07/09/09		0.4	10.0	10.0	2.6 J	1.2 J	ND
	12/16/09		0.4	10.0	10.0	4.1 J	3.4 J	ND
	06/24/10		0.4	10.0	10.0	3.3 B	7.3 J	0.71 J
	12/13/10		0.4	10.0	10.0	1.4 J	1.5 J	ND
	06/20/11		5.0	10.0	10.0	ND	ND	ND
	12/05/11		5.0	10.0	10.0	ND	ND	ND
	06/11/12		5.0	10.0	10.0	ND	7.2 J	ND
	12/12/12		5.0	10.0	10.0	ND	8.2 J	ND
	05/01/13		5.0	10.0	10.0	5.7 J	ND	ND
	08/05/13		5.0	10.0	10.0	ND	ND	ND
	02/24/14		5.0	10.0	10.0	ND	ND	ND
08/12/14	EPA 6010	5.0	10.0	10.0	---	ND	ND	
03/10/15	EPA 6010	2.5	10.0	10.0	4.4 J	3.6 J	ND	
08/18/15		---	---	---	Dry	Dry	---	

TABLE 2: HISTORICAL CONSTITUENTS IN SURFACE WATER

Analytes	Sample Date	Method	DL	RL	SW-1	SW-2	Blanks		
Cobalt	05/20/98		---	10	2.0	2.0	---		
	11/19/98		---	10	ND	3.0	---		
	07/21/99		---	10	ND	ND	---		
	11/16/99		---	10	ND	ND	---		
	05/10/00		---	10	ND	ND	---		
	10/26/00		---	10	ND	ND	---		
	04/18/01		---	10	ND	ND	---		
	10/27/01		---	10.0	ND	22.0	---		
	06/13/02		---	10.0	---	---	---		
	11/19/02		---	10.0	ND	ND	---		
	06/27/03		---	10.0	ND	10.0	---		
	12/30/03		---	10.0	ND	ND	ND		
	06/30/04		---	10.0	ND	ND	ND		
	12/29/04		---	10.0	ND	ND	ND		
	06/29/05		---	10.0	ND	ND	ND		
	12/29/05		---	10.0	ND	ND	ND		
	06/28/06		---	10.0	ND	ND	ND		
	12/29/06		---	10.0	ND	ND	ND		
	07/12/07		---	10.0	ND	---	ND		
	12/19/07		---	10.0	4.2	B 1.20	B 1.8	J	
	07/08/08		---	10.0	4.80	B 10.5	B 6.20	J	
	12/17/08		0.6	10.0	1.70	B 1.1	B 2.50	J	
	07/09/09		0.6	10.0	ND	ND	ND		
	12/16/09		0.6	10.0	ND	1.0	J ND		
	NC 2B = NE µg/L (03/24/10)	06/24/10		0.6	10.0	ND	ND	ND	
		12/13/10		0.6	10.0	{4.4}	B {ND}	1.6 {1.0 J}	J
		06/20/11		5.0	10.0	ND	ND	ND	
		12/05/11		5.0	10.0	ND	ND	ND	
	Resample >	01/25/12		5.0	10.0	---	---	ND	
		06/11/12		5.0	10.0	ND	5.10	J ND	
		12/12/12		5.0	10.0	ND	ND	ND	
		05/01/13		5.0	10.0	ND	ND	ND	
		08/05/13		5.0	10.0	ND	ND	ND	
	02/24/14		5.0	10.0	ND	ND	ND		
	08/12/14	EPA 6010	5.0	10.0	---	ND	ND		
	03/10/15	EPA 6010	2.5	10.0	ND	ND	ND		
	08/18/15		---	---	Dry	Dry	---		
Copper	12/29/06		---	10.0	1.3	B 1.10	B 0.60	J	
	07/12/07		---	10.0	ND	---	ND		
	12/19/07		---	10.0	5.3	B ND	9.8		
	NC 2B = 7 µg/L (03/28/08)	07/08/08		---	10.0	1.7	J 4.20	J ND	
		12/17/08		0.3	10.0	1.40	J 1.50	J ND	
		07/09/09		0.3	10.0	ND	ND	ND	
		12/16/09		0.3	10.0	1.90	J 2.00	J ND	
		06/24/10		0.3	10.0	ND	3.10	J ND	
		12/13/10		0.3	10.0	0.31	B ND	0.49	J
		06/20/11		5.0	10.0	ND	ND	ND	
		12/05/11		5.0	10.0	ND	ND	ND	
		06/11/12		5.0	10.0	ND	5.50	J ND	
		12/12/12		5.0	10.0	ND	ND	ND	
		05/01/13		5.0	10.0	ND	ND	ND	
		08/05/13		5.0	10.0	ND	ND	ND	
		02/24/14		5.0	10.0	ND	ND	ND	
		08/12/14	EPA 6010	5.0	10.0	---	ND	ND	
		03/10/15	EPA 6010	2.5	10.0	ND	ND	ND	
	08/18/15		---	---	Dry	Dry	---		

TABLE 2: HISTORICAL CONSTITUENTS IN SURFACE WATER

Analytes	Sample Date	Method	DL	RL	SW-1	SW-2	Blanks			
Lead NC 2B = 25 µg/L (03/28/08)	05/20/98		---	10.0	ND	8.00	---			
	11/19/98		---	10.0	ND	ND	---			
	07/21/99		---	10.0	ND	10.0	---			
	11/16/99		---	10.0	ND	ND	---			
	05/10/00		---	10.0	ND	ND	---			
	10/26/00		---	10.0	ND	ND	---			
	04/18/01		---	10.0	ND	ND	---			
	10/27/01		---	10.0	ND	ND	---			
	06/13/02		---	10.0	---	---	---			
	11/19/02		---	10.0	ND	ND	---			
	06/27/03		---	10.0	ND	ND	---			
	12/30/03		---	10.0	ND	ND	ND			
	06/30/04		---	10.0	ND	ND	ND			
	12/29/04		---	10.0	ND	ND	ND			
	06/29/05		---	10.0	ND	ND	ND			
	12/29/05		---	10.0	ND	ND	ND			
	06/28/06		---	10.0	ND	ND	ND			
	12/29/06		---	10.0	ND	ND	ND			
	07/12/07		---	10.0	ND	---	ND			
	12/19/07		---	10.0	ND	ND	ND			
	07/08/08		---	10.0	ND	ND	ND			
	12/17/08			4.0	10.0	ND	ND	ND		
	07/09/09			4.0	10.0	ND	ND	ND		
	12/16/09			4.0	10.0	ND	ND	ND		
	06/24/10			4.0	10.0	ND	ND	ND		
	12/13/10			4.0	10.0	ND	ND	ND		
	06/20/11			5.0	10.0	ND	ND	ND		
	12/05/11			5.0	10.0	ND	ND	ND		
	06/11/12			5.0	10.0	ND	ND	ND		
	12/12/12			5.0	10.0	ND	ND	ND		
	05/01/13			5.0	10.0	ND	ND	ND		
	08/05/13			5.0	10.0	ND	ND	ND		
	02/24/14			5.0	10.0	ND	ND	ND		
08/12/14		EPA 6010	5.0	10.0	---	ND	ND			
03/10/15		EPA 6010	2.5	10.0	ND	ND	ND			
08/18/15			---	---	Dry	Dry	---			
Nickel NC 2B = 25 µg/L (03/28/08)	12/29/04		---	50.0	ND	50.0 (ND)	ND			
	06/29/05		---	50.0	ND	ND	ND			
	12/29/05		---	50.0	ND	ND	ND			
	06/28/06		---	50.0	ND	ND	ND			
	12/29/06		---	50.0	ND	2.9	J	ND		
	07/12/07		---	50.0	3.8	J	---	ND		
	12/19/07		---	50.0	6.0		31.5	ND		
	07/08/08		---	50.0	3.2	J	29.8	J	ND	
	12/17/08		1.7	50.0	2.4	B	4.0	B	2.4	J
	07/09/09		1.7	50.0	4.1	J	12.3	J	ND	
	12/16/09		1.7	50.0	3.8	B	4.4	B	3.0	J
	06/24/10		1.7	50.0	ND		2.0	J	ND	
	12/13/10		1.7	50.0	ND		14.2	J	2.7	J
	06/20/11		5.0	50.0	ND		7.8	J	ND	
	12/05/11		5.0	50.0	ND		5.3	J	ND	
	06/11/12		5.0	50.0	ND		11.0	J	ND	
	12/12/12		5.0	50.0	ND		13.8	J	ND	
	05/01/13		5.0	50.0	ND		ND		ND	
	08/05/13		5.0	50.0	ND		5.6	J	ND	
	02/24/14			5.0	50.0	ND	ND		ND	
08/12/14		EPA 6010	5.0	50.0	---	20.3	J	ND		
03/10/15		EPA 6010	2.5	50.0	3.0	J	3.8	J	ND	
08/18/15			---	---	Dry	Dry		---		

TABLE 2: HISTORICAL CONSTITUENTS IN SURFACE WATER

Analytes	Sample Date	Method	DL	RL	SW-1	SW-2	Blanks
Silver NC 2B = 0.06 µg/L (03/28/08)	07/12/07		---	10.0	2.20 J	---	ND
	12/19/07		---	10.0	ND	0.34 J	ND
	07/08/08		---	10.0	0.35 B	1.00 J	0.12 J
	12/17/08		0.1	10.0	ND	ND	ND
	07/09/09		0.1	10.0	ND	0.10 J	ND
	12/16/09		0.1	10.0	ND	0.16 J	ND
	06/24/10		0.1	10.0	ND	0.26 J	ND
	12/13/10		0.1	10.0	{ND}	{0.28} B	0.21 {0.19 J} J
	06/20/11		5.0	10.0	ND	ND	ND
	12/05/11		5.0	10.0	ND	ND	ND
	06/11/12		5.0	10.0	ND	ND	ND
	12/12/12		5.0	10.0	ND	ND	ND
	05/01/13		5.0	10.0	ND	ND	ND
	08/05/13		5.0	10.0	ND	ND	ND
	02/24/14		5.0	10.0	ND	ND	ND
	08/12/14	EPA 6010	5.0	10.0	---	ND	ND
	03/10/15	EPA 6010	2.5	10.0	ND	ND	ND
	08/18/15		---	---	Dry	Dry	---
	Thallium NC 2B = NE (03/24/10)	12/29/04		---	10.0	ND	10.0 (ND)
06/29/05			---	10.0	ND	ND	ND
12/29/05			---	10.0	ND	ND	ND
06/28/06			---	10.0	ND	ND	ND
12/29/06			---	6.00	ND	ND	ND
07/12/07			---	5.5	ND	---	ND
12/19/07			---	5.5	3.60 J	ND	ND
07/08/08			---	5.5	3.40 J	ND	ND
12/17/08			3.0	5.5	ND	ND	ND
07/09/09			3.0	5.5	ND	ND	ND
12/16/09			3.0	5.5	ND	ND	ND
06/24/10			3.0	5.5	ND	ND	ND
12/13/10			3.0	5.5	3.80 J	ND	ND
06/20/11			5.4	5.5	ND	ND	ND
12/05/11			5.4	5.5	ND	ND	ND
06/11/12			5.4	5.5	ND	ND	ND
12/12/12			5.4	5.5	ND	ND	ND
05/01/13			5.4	5.5	ND	ND	ND
08/05/13			5.4	5.5	ND	ND	ND
02/24/14		5.4	5.5	ND	ND	ND	
08/12/14	EPA 6010	5.4	5.5	---	ND	ND	
03/10/15	EPA 6010	5.0	5.5	ND	ND	ND	
08/18/15		---	---	Dry	Dry	---	
Vanadium NC 2B = NE µg/L (03/28/08)	12/29/06		---	25.0	1.60 J	2.00 J	ND
	07/12/07		---	25.0	4.60 J	---	ND
	12/19/07		---	25.0	3.30 J	1.40 B	0.62 J
	07/08/08		---	25.0	5.20 J	2.30 J	0.20 J
	12/17/08		0.2	25.0	1.80 B	2.70 B	0.76 J
	07/09/09		0.2	25.0	5.00 B	3.40 B	1.30 J
	12/16/09		0.2	25.0	3.60 J	3.50 J	0.53 J
	06/24/10		0.2	25.0	5.80 J	2.60 J	ND
	12/13/10		0.2	25.0	1.60 B	0.67 B	0.36 J
	06/20/11		5.0	25.0	ND	ND	ND
	12/05/11		5.0	25.0	ND	ND	ND
	06/11/12		5.0	25.0	ND	11.50 J	ND
	12/12/12		5.0	25.0	ND	ND	ND
	05/01/13		5.0	25.0	ND	ND	ND
	08/05/13		5.0	25.0	ND	ND	ND
	02/24/14		5.0	25.0	ND	ND	ND
	08/12/14	EPA 6010	5.0	25.0	---	ND	ND
	03/10/15	EPA 6010	2.5	25.0	3.9 J	4.7 J	ND
	08/18/15		---	---	Dry	Dry	---

TABLE 2: HISTORICAL CONSTITUENTS IN SURFACE WATER

Analytes	Sample Date	Method	DL	RL	SW-1	SW-2	Blanks				
Zinc	11/22/96		---	50.0	11.0	ND	---				
	06/17/97		---	50.0	ND	ND	---				
	12/01/97		---	50.0	20.0	ND	---				
	05/20/98		---	50.0	20.0	28.0	---				
	11/19/98		---	50.0	ND	ND	---				
	07/21/99		---	50.0	ND	ND	---				
	11/16/99		---	50.0	ND	ND	---				
	05/10/00		---	50.0	ND	ND	---				
	10/26/00		---	50.0	ND	ND	---				
	04/18/01		---	50.0	ND	ND	---				
	10/27/01		---	50.0	ND	ND	---				
	06/13/02		---	50.0	---	---	---				
	11/19/02		---	50.0	ND	ND	---				
	06/27/03		---	50.0	ND	ND	---				
	12/30/03		---	50.0	ND	ND	ND				
	06/30/04		---	50.0	ND	ND	ND				
	12/29/04		---	50.0	ND	ND	ND				
	06/29/05		---	50.0	ND	ND	ND				
	12/29/05		---	50.0	ND	ND	ND				
	06/28/06		---	50.0	ND	ND	ND				
	12/29/06		---	50.0	ND	ND	ND				
	07/12/07		---	10.0	ND	---	ND				
	12/19/07		---	10.0	24.6	B	ND	102			
	NC 2B = 50 µg/L (03/28/08)	07/08/08		---	10.0	ND	ND	1.20	J		
		12/17/08		0.4	10.0	ND	0.89	B	0.49	J	
		07/09/09		0.4	10.0	ND	4.90	B	1.60	J	
		12/16/09		0.4	10.0	2.60	B	2.60	B	7.70	J
		06/24/10		0.4	10.0	ND	14.9		ND		
		12/13/10		0.4	10.0	ND	9.80	B	6.70	J	
		06/20/11		10.0	10.0	ND	ND		ND		
		12/05/11		10.0	10.0	ND	ND		12.4		
		06/11/12		10.0	10.0	ND	ND		ND		
		12/12/12		10.0	10.0	ND	ND		ND		
		05/01/13		10.0	10.0	ND	16.80		ND		
		08/05/13		10.0	10.0	ND	ND		ND		
	02/24/14		10.0	10.0	ND	ND		ND			
	08/12/14	EPA 6010	10.0	10.0	---	ND		ND			
	03/10/15	EPA 6010	5.0	10.0	7.7	B	7.8	B	5.6	J	
	08/18/15		---	---	Dry		Dry				
ORGANICS											
Acetone	10/27/01		---	100	168.0	B	337.0	B	479.0		
	06/13/02		---	100	---		---		---		
	06/13/02		---	100	---		---		---		
	11/19/02		---	100	ND		ND		---		
	06/27/03		---	100	ND		ND		---		
	12/30/03		---	100	ND		ND		ND		
	06/30/04		---	100	ND		ND		ND		
	12/29/04		---	100	ND		ND		ND		
	06/29/05		---	100	ND		ND		ND		
	12/29/05		---	100	ND		ND		ND		
	06/28/06		---	100	ND		ND		ND		
	12/29/06		---	100	ND		ND		ND		
	07/12/07		---	100	ND		---		ND		
	12/19/07		---	100	12.70	B	ND		4.50	J	
	NC 2B = 2,000 µg/L (03/28/08)	07/08/08		---	100	ND		ND		ND	
		12/17/08		20	100	ND		ND		ND	
		07/09/09		20	100	ND		ND		ND	
	NC 2B = NE (03/24/10)	12/16/09		2.2	100	ND		ND		2.80	J
		06/24/10		2.2	100	2.80	B	ND		7.70	J
		12/13/10		2.2	100	ND		3.00	J	ND	
		06/20/11		2.2	100	ND		3.80	B	3.90	J
		12/05/11		2.2	100	ND		7.20	B	8.80	J
		06/11/12		2.2	100	ND		5.50	B	4.70	J
		12/12/12		10.0	100	ND		ND		ND	
		05/01/13		10.0	100	ND		ND		14.6	J
		08/05/13		10.0	100	ND		ND		ND	
		02/24/14		10.0	100	ND		ND		25.7	J
	08/12/14	EPA 8260	10.0	100	---		ND		22.0	J	
	03/10/15	EPA 8260	10.0	100	ND		ND		ND		
	08/18/15		---	---	Dry		Dry		---		

TABLE 2: HISTORICAL CONSTITUENTS IN SURFACE WATER

Analytes	Sample Date	Method	DL	RL	SW-1	SW-2	Blanks	
Chlorobenzene NC 2B = 130 µg/L (03/28/08)	06/27/03		---	5.0	ND	7.20	ND	
	12/30/03		---	5.0	ND	ND	ND	
	06/30/04		---	5.0	ND	ND	ND	
	12/29/04		---	5.0	ND	ND	ND	
	06/29/05		---	5.0	ND	ND	ND	
	12/29/05		---	5.0	ND	ND	ND	
	06/28/06		---	5.0	ND	ND	ND	
	12/29/06		---	3.0	ND	ND	ND	
	07/12/07		---	3.0	ND	---	ND	
	12/19/07		---	3.0	ND	ND	ND	
	07/08/08		---	3.0	ND	ND	ND	
	12/17/08			0.23	3.0	ND	ND	ND
	07/09/09			0.23	3.0	ND	ND	ND
	12/16/09			0.23	3.0	ND	ND	ND
	06/24/10			0.23	3.0	ND	ND	ND
	12/13/10			0.23	3.0	ND	ND	0.28 J
	06/20/11			0.23	3.0	ND	ND	ND
	12/05/11			0.23	3.0	ND	ND	ND
	06/11/12			0.23	3.0	ND	ND	ND
	12/12/12			0.23	3.0	ND	ND	ND
	05/01/13			0.23	3.0	ND	ND	ND
	08/05/13			0.23	3.0	ND	ND	ND
	02/24/14			0.23	3.0	ND	ND	ND
08/12/14		EPA 8260	0.23	3.0	---	ND	ND	
03/10/15		EPA 8260	0.23	3.0	ND	ND	ND	
08/18/15			---	---	Dry	Dry	---	
Chloromethane NC 2B = NE (03/24/10)	07/09/09		0.11	1.0	ND	0.19 J	ND	
	12/16/09		0.11	1.0	ND	ND	ND	
	06/24/10		0.11	1.0	ND	ND	ND	
	12/13/10		0.11	1.0	ND	ND	ND	
	06/20/11		0.11	1.0	ND	ND	ND	
	12/05/11		0.11	1.0	ND	ND	ND	
	06/11/12		0.11	1.0	ND	ND	ND	
	12/12/12		0.11	1.0	ND	ND	ND	
	05/01/13		0.11	1.0	ND	ND	ND	
	08/05/13		0.11	1.0	ND	ND	ND	
	02/24/14		0.11	1.0	ND	ND	0.25 J	
	08/12/14		EPA 8260	0.11	1.0	---	ND	ND
	03/10/15		EPA 8260	0.11	1.0	ND	ND	ND
08/18/15			---	---	Dry	Dry	---	

Notes:

All concentrations are in micrograms per liter (µg/L).
 RL = Reporting Limit (SWSL for December 2006 - present).
 DL = Laboratory detection limit.
 J = Estimated value between the DL and the RL.
 B = Blank-qualified data; result is expected to be biased high based on concentrations in the blanks.
 ND = Not detected above laboratory reporting limit.
 NS = Not sampled.
 NR = Not Reported.
 Dry = Surface water point considered to be dry.
 NC 2B = North Carolina Surface Water Standards from 15A NCAC 2B.
 NE = Not established.
 Shaded values for surface water are above the NC 2B.
 Surface waters are classified as fresh-water aquatic life.
****SW- 1 and SW-2 were both dry and unable to be sampled on the 8/18/2015 sampling event.****

Appendix E

Statistical Analysis Worksheets & Summary

JOYCE Project: **Granville County - Butner Landfill**
 Project No: **660.1501.12**
 Date: **August 2015**

Analyte:	Antimony		Quantitation		Sorted	
Sample No.	Sample Date	Location	Concentration (µg/L)	Notes	Limit (µg/L)	Concentration
1	8-Sep-94	MW-1R	ND		30	8.8
2	1-Dec-94	MW-1R	ND		30	30.0
3	9-Feb-95	MW-1R	ND		30	
4	2-Mar-95	MW-1R	ND		30	
5	15-Nov-95	MW-1R	ND		30	
6	28-May-96	MW-1R	ND		30	
7	22-Nov-96	MW-1R	ND		30	
8	17-Jun-97	MW-1R	ND		30	
9	1-Dec-97	MW-1R	ND		30	
10	20-May-98	MW-1R	ND		30	
11	19-Nov-98	MW-1R	ND		30	
12	21-Jul-99	MW-1R	ND		30	
13	16-Nov-99	MW-1R	ND		30	
14	10-May-00	MW-1R	ND		30	
15	26-Oct-00	MW-1R	30.0		30	
16	18-Apr-01	MW-1R	ND		30	
17	27-Oct-01	MW-1R	ND		30	
18	13-Jun-02	MW-1R	ND		30	
19	19-Nov-02	MW-1R	ND		30	
20	27-Jun-03	MW-1R	ND		30	
21	30-Dec-03	MW-1R	ND		30	
22	30-Jun-04	MW-1R	ND		30	
23	29-Dec-04	MW-1R	ND		30	
24	29-Jun-05	MW-1R	ND		30	
25	29-Dec-05	MW-1R	ND		30	
26	28-Jun-06	MW-1R	ND		30	
27	29-Dec-06	MW-1R	ND		6	
28	12-Jul-07	MW-1R	ND		6	
29	19-Dec-07	MW-1R	ND		6	
30	8-Jul-08	MW-1R	ND		6	
31	17-Dec-08	MW-1R	ND		6.0	
32	9-Jul-09	MW-1R	ND		6.0	
33	16-Dec-09	MW-1R	ND		6.0	
34	24-Jun-10	MW-1R	ND		6.0	
35	13-Dec-10	MW-1R	ND		6.0	
36	20-Jun-11	MW-1R	ND		6.0	
37	5-Dec-11	MW-1R	ND		6.0	
38	11-Jun-12	MW-1R	ND		6.0	
39	12-Dec-12	MW-1R	ND		6.0	
40	1-May-13	MW-1R	ND		6.0	
41	5-Aug-13	MW-1R	ND		6.0	
42	24-Feb-14	MW-1R	8.8		6.0	
43	12-Aug-14	MW-1R	ND		6.0	
44	10-Mar-15	MW-1R	ND		6.0	
45	17-Aug-15	MW-1R	ND		6.0	

Number of Data: 45
 Number of Truncated Data: 43
 Percentage of Truncated Data: 96%

Upper Poisson Prediction Limit: 56 µg/L

All concentrations in micrograms per liter (µg/L).
 ND - Not Detected (Truncated)

JOYCE Project: **Granville County - Butner Landfill**
 Project No: **660.1501.12**

Date: **August 2015**

Upper Poisson Prediction Limit

Analyte: **Antimony**

Background Data

Sample No.	Sample Date	Location	Concentration (µg/l)	Quantitation Limit (µg/l)	Half Quantitation Limit	Discrete Poisson Count
1	Sep-94	MW-1R	ND	30	15	150
2	Dec-94	MW-1R	ND	30	15	150
3	Feb-95	MW-1R	ND	30	15	150
4	Mar-95	MW-1R	ND	30	15	150
5	Nov-95	MW-1R	ND	30	15	150
6	May-96	MW-1R	ND	30	15	150
7	Nov-96	MW-1R	ND	30	15	150
8	Jun-97	MW-1R	ND	30	15	150
9	Dec-97	MW-1R	ND	30	15	150
10	May-98	MW-1R	ND	30	15	150
11	Nov-98	MW-1R	ND	30	15	150
12	Jul-99	MW-1R	ND	30	15	150
13	Nov-99	MW-1R	ND	30	15	150
14	May-00	MW-1R	ND	30	15	150
15	Oct-00	MW-1R	30	30	30	300
16	Apr-01	MW-1R	ND	30	15	150
17	Oct-01	MW-1R	ND	30	15	150
18	Jun-02	MW-1R	ND	30	15	150
19	Nov-02	MW-1R	ND	30	15	150
20	Jun-03	MW-1R	ND	30	15	150
21	Dec-03	MW-1R	ND	30	15	150
22	Jun-04	MW-1R	ND	30	15	150
23	Dec-04	MW-1R	ND	30	15	150
24	Jun-05	MW-1R	ND	30	15	150
25	Dec-05	MW-1R	ND	30	15	150
26	Jun-06	MW-1R	ND	30	15	150
27	Dec-06	MW-1R	ND	6	3	30
28	Jul-07	MW-1R	ND	6	3	30
29	Dec-07	MW-1R	ND	6	3	30
30	Jul-08	MW-1R	ND	6	3	30
31	Dec-08	MW-1R	ND	6	3	30
32	Jul-09	MW-1R	ND	6	3	30
33	Dec-09	MW-1R	ND	6	3	30
34	Jun-10	MW-1R	ND	6	3	30
35	Dec-10	MW-1R	ND	6	3	30
36	Jun-11	MW-1R	ND	6	3	30
37	Dec-11	MW-1R	ND	6	3	30
38	Jun-12	MW-1R	ND	6	3	30
39	Dec-12	MW-1R	ND	6	3	30
40	May-13	MW-1R	ND	6	3	30
41	Aug-13	MW-1R	ND	6	3	30
42	Feb-14	MW-1R	8.8	6	8.8	88
43	Aug-14	MW-1R	ND	6	3	30
44	Mar-15	MW-1R	ND	6	3	30
45	Aug-15	MW-1R	ND	6	3	30

Poisson Discrete Distribution Adjustment Factor: 10

Note: All sample concentrations are micrograms per liter

Using the background data, the upper Poisson Prediction Limit, y^* , is determined by:

$$y^* = c y + [(t^2) c / 2] + t c [y (1 + (1/c)) + ((t^2) / 4)]^{0.5}$$

where:

- c = k / n
- y = Poisson count
- t = $t(n-1, 0.95)$, Student's t-distribution
- n-1 = degrees of freedom (number of samples - 1)
- k = number of downgradient samples per event
- .95 = confidence interval
- n = number of background samples

For:

- c = 0.111
- y = 4678
- t = 1.679
- k = 5
- n = 45

y^* = 560.28
Adjusted y^* = 56.03 µg/L

JOYCE Project: **Granville County - Butner Landfill**
 Project No: 660.1501.12
 Date: 17-Aug-15

Analyte: **Cobalt**

Sample No.	Sample Date	Location	Concentration	Sorted
1	Sep-94	MW-1R	ND	130
2	Dec-94	MW-1R	11	108
3	Feb-95	MW-1R	20	32.0
4	Mar-95	MW-1R	16	30.0
5	Nov-95	MW-1R	20	21.0
6	May-96	MW-1R	30	20.0
7	Nov-96	MW-1R	6	20.0
8	Jun-97	MW-1R	130	16.0
9	Dec-97	MW-1R	32	15.0
10	May-98	MW-1R	15	11.0
11	Nov-98	MW-1R	21	6.0
12	Jul-99	MW-1R	ND	
13	Nov-99	MW-1R	ND	
14	May-00	MW-1R	ND	
15	Oct-00	MW-1R	ND	
16	Apr-01	MW-1R	ND	
17	Oct-01	MW-1R	ND	
18	Jun-02	MW-1R	ND	
19	Nov-02	MW-1R	ND	
20	Jun-03	MW-1R	ND	
21	Dec-03	MW-1R	ND	
22	Jun-04	MW-1R	ND	
23	Dec-04	MW-1R	ND	
24	Jun-05	MW-1R	ND	
25	Dec-05	MW-1R	ND	
26	28-Jun-06	MW-1R	ND	
27	29-Dec-06	MW-1R	ND	
28	12-Jul-07	MW-1R	ND	
29	19-Dec-07	MW-1R	2.5	B
30	08-Jul-08	MW-1R	10.3	B
31	17-Dec-08	MW-1R	2.1	B
32	09-Jul-09	MW-1R	ND	
33	16-Dec-09	MW-1R	ND	
34	24-Jun-10	MW-1R	ND	
35	13-Dec-10	MW-1R	2.5	B
36	20-Jun-11	MW-1R	108	
37	05-Dec-11	MW-1R	ND	
38	11-Jun-12	MW-1R	ND	
39	12-Dec-12	MW-1R	ND	
40	01-May-13	MW-1R	ND	
41	08-May-13	MW-1R	ND	
42	24-Feb-14	MW-1R	ND	
43	12-Aug-14	MW-1R	ND	
44	10-Mar-15	MW-1R	ND	
45	17-Aug-15	MW-1R	ND	

Number of Samples: 41
 Number of truncated data (ND): 30
 Percent Truncated: 73%

Non-parametric Prediction Limit: 130 µg/L

Notes:
 All concentrations in micrograms per liter (µg/L).
 J = Estimated value below RL (included in statistical calculations).
 B = Blank-qualified data (excluded from statistical calculations).
 ND = Not Detected (Truncated).

APPENDIX E: Results of Statistical Analyses (August 2015)

Analyte	Data Distribution	Statistical Method used to Establish Background	Background (µg/L)	NC 2L or GWPS (µg/L)	Point(s) Above Background	Point(s) above NC 2L or GWPS
Antimony	96% Truncated	Upper Poisson Prediction Limit	56	1	None	MW-2R
Cobalt	73% Truncated	Non-parametric Prediction Limit	130	1	None	MW-5

Notes:

NC 2L = Groundwater Protection Standard from 15A NCAC 2L.0202.

GWPS = Groundwater Protection Standard (Soild Waste Section) for constituents with no NC 2L Standard.